Template Recycling & Waste Management Strategy

For new build flats in London

LONDON ENVIRONMENT:
THE LONDON ENVIRONMENT DIRECTORS' NETWORK

London Waste & Recycling Board

January 2015

LWARB developed a partnership with LEDNET to commission this report.

The London Waste and Recycling Board (LWARB) was established by the GLA Act 2007 to promote and encourage the production of less waste, an increase in the proportion of waste that is re-used or recycled and the use of methods of collection, treatment and disposal of waste which are more beneficial to the environment in London. LWARB has a fund made up of money from central Government (DEFRA) to achieve these objectives.

Find out more at www.lwarb.gov.uk

The London Environment Directors' Network (LEDNET) is the membership association for London's Environment Directors, with representation from the GLA and London Councils. It provides a forum for Environment Directors to share learning and best practice and develop thinking on emerging policy. A London Environment Director acts as chair and deputy chair on a rotating basis.

Find out more at www.londoncouncils.gov.uk/londonfacts/londonlocalgovernment/a-z/j-l.htm#.VHhJesnravI

Written by: SOENECS Ltd developed a partnership with BPP Consulting LLP to deliver this report.

SOcial, ENvironmental & EConomics Solutions (SOENECS) Ltd provide strategic advice and consultancy to the public and private sectors. SOENECS specialise in the fields of waste management, resource management, circular economy, procurement, renewable deployment, carbon management and partnership delivery. Find out more at www.soenecs.co.uk

BPP Consulting LLP is an alliance of waste and environmental planning practitioners. BPP support the public sector and private sectors in planning for waste management by filling gaps in skills and capacity by providing critical friend support, staff mentoring and expert interventions. Find out more www.bppconsulting.co.uk

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Guidance on completion

Growth in London's population will result in an estimated one million additional households by 2036[1], with a large proportion of these to be accommodated in new-build medium to high-density flatted developments. The additional waste resulting from these developments is estimated to be in the region of 750,000 tonnes per annum. The London Waste and Recycling Board (LWARB), working in partnership with the London Environment Directors' Network (LEDNET) identified the need for planning guidance and advice for local authorities and developers to assist in the effective planning and design of suitable storage and collection systems for waste and recyclates in new build flatted properties.

The objective of the advice was to provide good practice guidance, legislative guidance and planning policies for the storage and collection of waste and recyclates (including organics) from new build flatted properties. The final outcomes have regard to the European Commission's proposal to introduce 70% re-use and recycling targets for municipal waste by 2030 and are flexible to allow integration of new waste management solutions to achieve future targets and legislative requirements. There have been three documents published:

- Document 1: Template planning policy for adoption by London boroughs
- Document 2: Template waste management strategy for use by developers at pre-application planning stage
- Document 3: Case studies – UK and international examples of recycling and wastes management practice in high rise buildings

These three documents have been written as stand-alone items for adoption and sharing by the waste and resources management, planning and development communities.

Writing your own recycling & waste strategy

The aim of this recycling & waste strategy template is to allow developers to demonstrate to local planning and waste management authorities that they have considered how the design and operation of waste and recycling collection services will enable the occupiers and managing agents of new developments to assist local authority waste teams with the sustainable management of recycling and waste arising through the lifetime of the development. This template is designed to enable developers to explain what operations have been considered to maximise recycling in the operational lifetime of the development and give specific reference to best practice and associated legislation.

[1] Para 1.15B, Draft Further Alterations to the London Plan, January 2014

It is recommended that the strategy is completed for developments of over 10 residential units, although, the use of this template may be beneficial for smaller projects. The strategy is written as a template for developers to complete prior to submitting a planning application for new flatted developments. It is in sections that are separated by headings in the text form, with guidance for completion notes in *italics*. In the example text words or spaces in [brackets] are there to show sections or figures that need entering and will be relevant to your waste strategy.

As the template is written in a structure for you to submit to planning authorities it is recommended that is read through fully before it is completed.

The template is written in such a way to explain what you as a developer should consider for new flatted developments. However, it is recommended that early engagement with the local authority team responsible for waste and recycling management is conducted at the earliest opportunity. In addition, should the development be a multi-partner consortium, it is recommended that early engagement of the managing agent is undertaken to ensure the development meets their capabilities and requirements.

1. Strategy Overview

Development:	[Insert name of development]
Name and address of specific site:	[Insert specific site name and address]
Project Director:	[Insert lead responsible person]
Subject Matter Expert:	[Insert (if appropriate) the lead for waste management activities]

2. Summary of development

This is a summary of the detailed strategy you have created for the proposed development. It is good practice to use this to also show that alternative options were considered. This should be filled in by the developer/architect for submission at planning application. Depending on the size of the development, more detail can be included following this stage.

In this section you should describe the development, including:

- *number of residential units;*
- *size of residential unit;*
- *how the preferred waste & recycling operational solution was chosen;*
- *type of operational solution chosen; and*
- *how design has responded to engagement with local authority waste team and will this be maintained*

An example of a summary statement is given below:

Recycling & waste management in operation summary

[*Company name/developer*] propose to construct a development which manages the waste and recycling in the manner set out in Appendix [*reference the completed recycling and waste strategy and insert it as an appendix*]:

This outline operational waste strategy provides information on the amount of waste expected to be produced by the proposed [*name of development*] development located at [*specific address*]. The development will comprise [*residential accommodation, (delete as appropriate: business accommodation, leisure uses, retail, bars and restaurants*)]. The scheme proposes up to [*total number of dwellings*] residential units and its location is shown in Figure [*insert a site plan*].

Once the development is fully occupied and operational, it is estimated, in section [*refer to section in this report*] that [*insert the calculated amount of waste produced*] tonnes ([*insert volume of waste*] m^3) of waste per year can be expected to be produced. This has been calculated as a worst case scenario, assuming that the residential units are fully occupied throughout the year. In order to manage this waste effectively and sustainably, and meet the high recycling aspirations of the development, all opportunities within [*development name*] will facilitate the separation at source of recyclables.

[*type of solution*] will be located in easy to reach areas, and will contain sufficient space to allow the separate storage of [*delete as appropriate food waste, dry recyclables (including paper, glass, metal, plastic and card) and residual waste*]. (Include if relevant) [*Similar practices will be employed within the commercial land uses.*]

Following discussion and agreement with [*Local authority officer name*] of [*local authority and relevant team*], recycling and waste will be [*collected (describe method of collection) or treated on site (describe method of management)*]. This will deliver waste to a [*either offsite or onsite location*], located in [*give location and name of end destinations*] and be treated through [*describe types of processing e.g. on site in-vessel composting, baling, compacting, CHP etc*].

When all these arrangements are implemented, a recycling rate of up to [*insert recycling rate percentage of development*] % will be achieved for the residential units, meeting the [insert *local authority and plan referring to e.g.: local plan/London Plan/local waste strategy [add in policy – targets*] of [*insert recycling rate percentage* %].

The summary spreadsheet in Figure [*insert a figure if deemed useful*] shows how [*developer/managing agent name]* wishes to manage waste and recycling for the operational lifetime of the [*name of development]* development. Figure [*insert figure on next page if deemed useful*] identifies the [*insert how many stages of management you anticipate*] stages of recycling and waste management development and will be applied to each category of materials [*insert relevant materials e.g. wet, dry and residual*].

3. Mapping the stages of recycling and waste management

The following diagram outlines the five stages you should consider for how waste and recycling will be managed in your development. You can include this diagram in your summary with relevant sections to show the stages you feel are relevant to your development

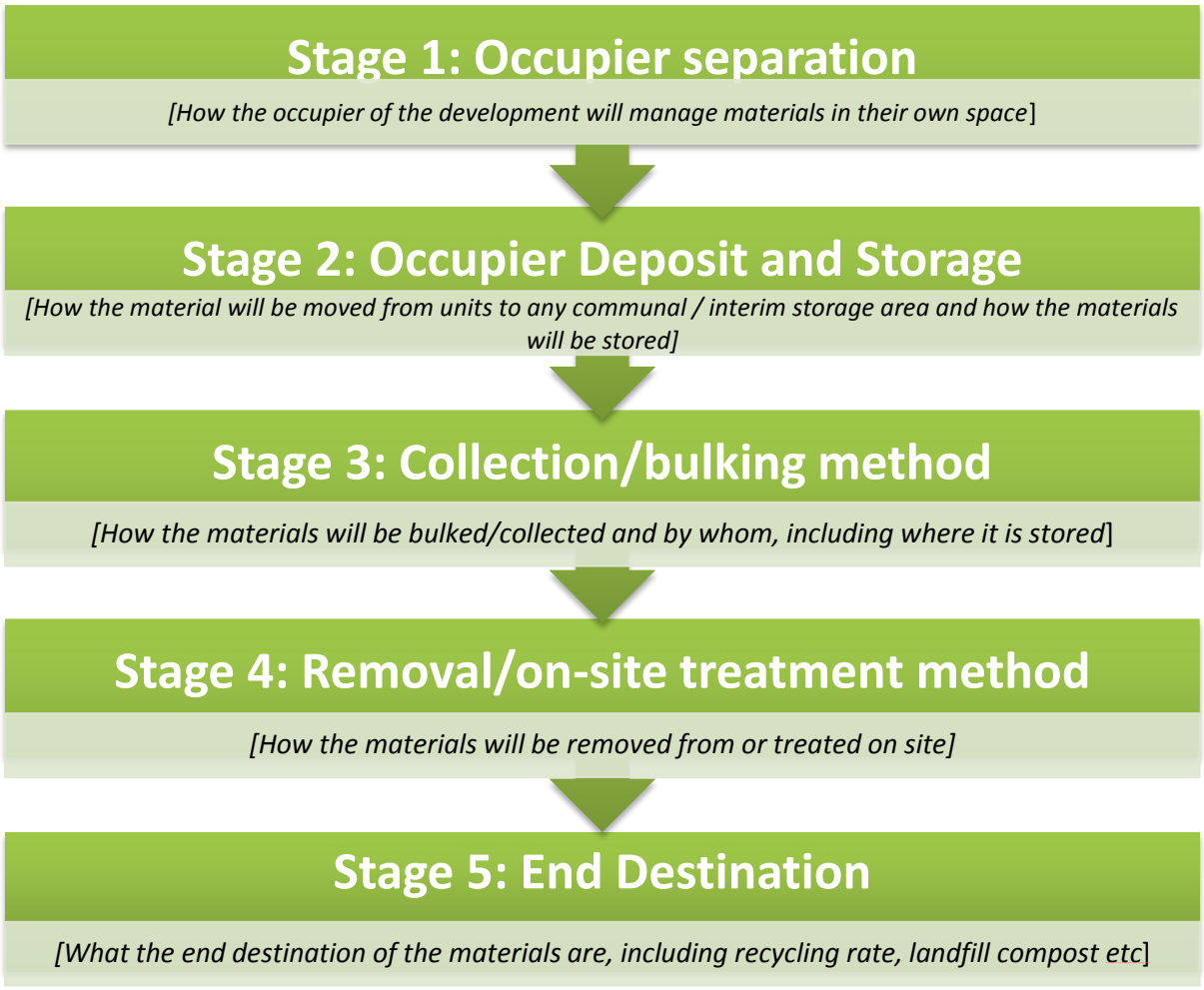


Figure [*insert relevant figure number*]: The [*insert number of stages you intend using*] stages of operational management of materials

4. Detailed strategy description

The following sections should be completed to demonstrate how the strategy was developed – setting out all the considerations. The detail should follow the stages shown in the figure above, but some of these stages may be removed if not relevant e.g. for a small development you may not need both stage 2 & 3 if the occupier is to take materials directly to a storage area for collection. You will need to complete this for each of the material streams you intend to be collected e.g. organics (food & garden), recyclate (paper, card, glass and metals etc.) and residual (for landfill or EFW)

Each of the following sections can be used to construct an overarching waste strategy that reflects the number of stages to be employed by the developer. The following sections are designed to allow you to complete each of the stages you intend to use in your development in detail. Once all relevant section are complete, they can be joined together to form a single recycling and waste management operational phase strategy for your proposed development.

4.1. Materials targeted

Prior to completing the five stages of the strategy you will need to identify which material stream is being targeted. The following table highlights many of the options available. Please complete the right hand section of the table:

Sub sections of management stage	*Description of management process*
Material stream	*Describe the material stream, this may be recyclates (the materials for recycling would be identified in the box below), organics (garden and food waste), bulky (waste that won't fit in the usual bin) and residual (everything else to be thrown away)*
Detailed materials	*Detail the individual material included in the material stream you inserted above, for example:*
	• *recyclate may be paper & card, plastics, metals and glass*
	• *organics might be food and garden waste*
	• *bulky may mattresses, old furniture, old electrical items*
	• *residual may be nappies, cat litter, soiled packaging*

When completing the template, you may end up with a table that reflects two or three streams of material. If that is the case, the template should have extra columns for each material. The following is an example of this:

Stage of management	Sub sections of management stage	Example for a floor by floor 3 stream vacuum system with a separate bulky waste solution			
Waste & Recycling Materials	Material stream	*recyclates*	*organics*	*residual*	*bulky waste*
	Detailed materials	*paper, card, plastic, glass, metals*	*cooked and uncooked food waste and green waste*	*nappies, litter, ceramics, dust and fines etc.*	*large cardboard, furniture, WEEE etc.*

4.2. Stage 1: Occupier separation

For this stage you should set out how the occupier of the development will manage materials in their own space. This will include types of storage e.g. bins in kitchen, volume of waste/recycling generated per annum. To encourage occupants to recycle waste, internal storage areas should ideally be designed into each unit of a new development. This will enable occupants to segregate their waste into refuse and recyclables (including food waste), and store it temporarily, until it can be transferred to external bins.

Consideration needs to be given to providing sufficient space in the kitchen or another convenient location within each unit for the storage of recyclables and residual waste.

Location for separation	*identify where the occupier will separate the materials, e.g. the kitchen or hallway*
Collection Channel	*identify how the occupier will separate the materials, this may be a three compartments under the sink (sometimes known as a trio-bin) that is built into the kitchen units or stand-alone bins in hallway cupboard - consider access requirements for elderly/disabled occupiers. Consideration should be given to frequency of emptying bins by occupants. Using the calculation below you should be able to plan the size of bins to allow appropriate containment space to allow for regular emptying (you should consider that occupants would not normally wish to empty their bins daily).*
Estimated volume per unit per week	*calculate the estimated volume of material generated per dwelling, per annum (and then divide by 52), per stream; this will be necessary to understand how much space will be required in the room for separation, but also for the other four stages of this strategy. There is guidance available from WRAP on considering volume and weight calculations: Material bulk densities*
Estimated weight per unit (kg) per week	*calculate the estimated weight of material generated per dwelling, per stream; this will be necessary to understand space requirements but also to plan for space for storage of material prior to collection. There is guidance available from WRAP on considering volume and weight calculations: Material bulk densities*
Number of units with this system	*list how many units will be using this system; again this will be necessary to understand space requirements but also to plan for space for storage of material prior to collection. It will also mean if you have two different methods of occupier separation this can be identified*

Insert more detail, figures, plans and/or calculations in this section to complement the description text in the table above.

4.3. Stage 2: Occupier storage

For this stage you should complete how the occupier will move the material from their own space to a communal collection area and how the materials will be deposited and stored. For example this may be depositing bags in chutes, bin stores and/or recycling rooms. Including details of storage areas – taking account of potential amenity Impacts e.g. ventilation, lighting, appearance.

Occupier materials deposit description	*identify the name of system used by the occupier to deposit materials outside of their unit. For example options could include (but not be exclusive to):* • *a dedicated waste, recycling or bulky room or floor where residents take materials to a specific point,* • *floor by floor vacuum system or a* • *system of underground bins outside of the building*
Occupier materials deposit location	*identify the location of system used by the occupier to deposit materials outside of their unit. E.g. every floor, every other floor, the 2nd lower ground floor or outside bins*
User method of containment for deposit	*identify the containment method to be used by the occupier to deposit materials outside of their unit, this may be different coloured bags, biodegradable bags for food etc.*
Receptacle for user to deposit material	*identify the receptacle to be used by the occupier to deposit materials outside of their unit, this could be standard wheelie bins in a room, bulk bins or even individual access hatches for a vacuum system*
Access	*identify the method of access to be used by the occupier to deposit materials outside of their unit. This may be a key fob, RFID reader, card or just an open wheelie bin*
Method of separation	*define a high level summary of how the occupier will deposit materials outside of their unit .e.g. a green 240ltr wheeled bin for wet waste, a green hatch for wet waste or a black 1100ltr wheeled bin for residual*
Compliance with BS 5906: 2005 Waste Management in Buildings Code of Practice	*demonstrate how the proposed system achieves the minimum standards, please be familiar with latest code of practice*

Insert more detail, figures, plans and/or calculations in this section to complement the description text in the table above.

4.4. Stage 3: Collection/bulking method

You should only complete this stage if you intend to have secondary bulking storage area; this would be most appropriate for large developments, for example, this could involve site staff rounding up smaller bins from satellite rooms to empty into larger bulking containers in a main bin store. For this stage you should complete how the materials will be bulked/collected within the development and who will take responsibility for this, including where waste is to be stored and how you developed the options and chose the final solution.

Responsible party	*identify the responsible party to bulk materials in the development, this may be (for example) a dedicated full time waste management caretaker, vacuum systems manager or maintenance person with responsibility for keeping an eye on the area*
Collection frequency	*identify the frequency of collection to be used by the responsible party to bulk materials in the development, this may be daily by a caretaker from a recycling room, instantly through the vacuum system or communal or bulk bins*
Method of bulking materials	*identify the method to be used by the responsible party to bulk materials in the development, e.g. the caretaker uses a slave 240ltr bin to transport recycling to a lower ground floor storage area or wet material in bio bags are offloaded from the vacuum destination point*
Storage area	*Identify the storage area for bulked items, this may be whole floor, large storage room or external bin system. It is paramount to consider and discuss with the local authority the logistics and practicalities of storage, especially:* • *method of movement (manual pulling, diesel/electric tug etc.),* • *space required for the bins at that point,* • *security considerations,* • *local environmental impacts (visual appeal, fly-tipping etc.)* • *time considerations for movement,* • *storage/maintenance of associated equipment and* • *overall costs of the operation*
Compliance with BS 5906: 2005 Waste Management in Buildings Code of Practice	*demonstrate how the proposed system achieves the minimum standards, please be familiar with latest code of practice*

Insert more detail, figures, plans and/or calculations in this section to complement the description text in the table above.

4.5. Stage 4: Removal/on-site treatment method

For this stage you should complete how the materials will be removed from or treated on site and how you decided on that course of action.

Responsible party	*identify the responsible party to remove materials from site/treat onsite , this may be a local authority, third sector recycling group or private contractor*
Method of removing materials	*identify the method of removing materials from site/treating on site - describe how the stored bins will be moved up a ramp, or through a particular route or not relevant as all vacuumed*
Frequency of removal of materials	*identify the frequency of removing materials from site/treating on site, weekly, daily etc.*
Equipment used for removal	*identify the equipment needed to remove materials from site/treating on site, this is important as the collectors existing equipment should be capable of removing the material (particularly in the case of a refuse collection vehicle)*
Access requirements	*identify the access requirements for removing materials from site/treating on site, ensure that collectors have ease of access. Emphasis should be placed on turning circles, height clearance of vehicle, special vehicle access and parking*
Has the relevant local authority team responsible for recycling & waste collection team and managing agent been consulted?	*identify whether the local authority and if appropriate, managing agent, has been consulted and it meets their existing strategy. This is critical in ensuring the development meets the planning policies for the local authority*
Date of consultation	*identify when the local authority was consulted*
Responsible party comments	*allow responsible party to add comments on the proposal*

Insert more detail, figures, plans and/or calculations in this section to complement the description text in the table above.

4.6. Stage 5: End destination

For this stage you should identify and describe the method of decision making for the end destination of the materials are, including recycling rate, landfill compost etc.

Destination of material	*Define where the removed materials will end up. This may not always be possible, but adding information that dry recycling should be recycled at the local authority MRF may be achievable after speaking to the LA. Equally, some of the material may be treated on site.*
Material processed to waste hierarchy category	*define what category of the waste hierarchy will be implemented to manage these materials, please refer to planning policy guidance for the waste hierarchy*
End product	*define the end product following treatment for each of the materials in the stream*
Is destination in accordance with Waste Regulation 2011 (amended 2012)	*define whether, as a collector of waste, the method for separation, collection, removal and treatment is in accordance with the Waste Regulation 2011 & 2012 or appropriate legislation. The regulations state that all collectors of waste must separately collect paper, glass, metals and plastics. When preparing your strategy ensure you liaise with the local authority team responsible for waste management to ensure your solution is compliant with their schemes.*
Weight of materials sent to destination per annum (tonnes per annum)	*identify the total weight of materials in the stream sent to the end destination point per annum - this will be an estimate of how many materials are targeted, how much of the material will be separated by the occupier, how much is contaminated and how much is eventually collected*
Anticipated recycling rate (%)	*calculate the recycling rate as appropriate to the waste management strategy (this will be a calculation of estimated weight per unit (kg) per week of materials that are recycled, (dry , bulky and wet included) multiplied by number of units with this system multiplied by 52 weeks) for example if a new development has 100 units and on average 3gs of recycling (of which 2kg is paper, card, plastics, metals and glass, 1kg is food waste) is collected per week from a total of 5Kg of waste arising, then the recycling rate will be 60%*
Anticipated diversion from landfill rate (%)	*calculate the diversion from landfill rate as appropriate to the waste management strategy - this will be the total of all wastes diverted from landfill divided by total waste arising*

Insert more detail, figures, plans and/or calculations in this section to complement the description text in the table above.

5. Summary waste & recycling strategy

Once the sections appropriate to your development have been completed, you can aggregate them into a single table that summaries your strategy. The example below gives you an idea of what one could look like. You should complete one for each material stream (other examples are in appendices 1, 2, 3 & 4).

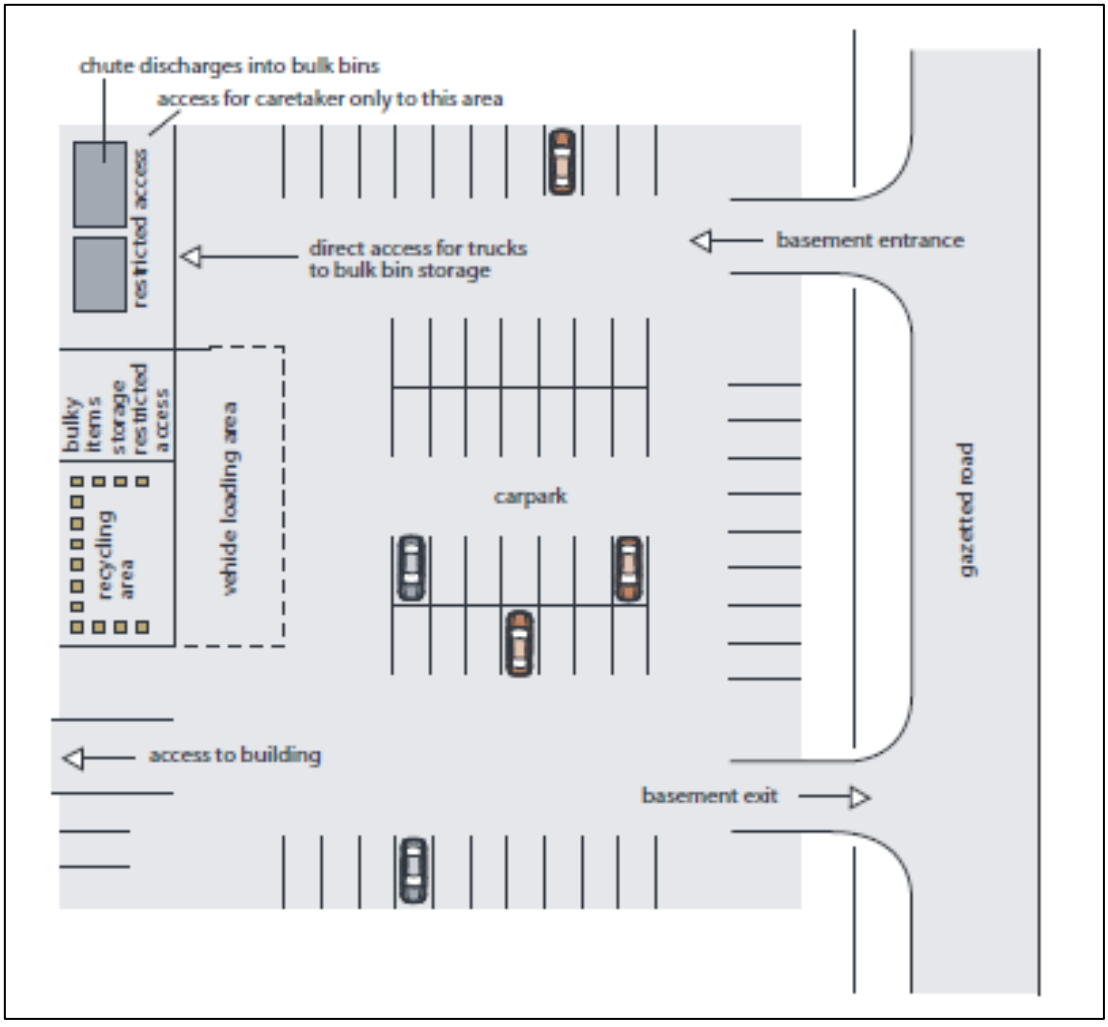
Stage of management	Sub sections of management stage (to be amended by architect/developer)	Recycling room scheme
1. Materials	Material stream	dry recyclate
	Detailed materials	paper, card, plastic, glass, metals
2. Occupier separation	location for separation	kitchen
	Collection Channel	trio bin under sink
	estimated volume per unit	0.3 m3
	estimated weight per unit (kg)	300
	number of units with this system	500
3.Occupier deposit and storage	deposition description	recycling room
	deposition location	every other floor
	user method of containment	sealed trio bin bag
	receptacle for user to deposit material	240 ltr wheeled bin
	access	unlocked room
	method of separation	occupier to deposit sealed bag into appropriate wheeled bin
	compliance with BS 5906: 2005 Waste Management in Buildings Code of Practice	recycling rooms situated no more than 30m from each unit
4. Collection method	collection frequency	daily
	responsible party	dedicated caretaker
	method of bulking materials	caretaker to transport 240ltr bins using internal lifts to storage room for empting into 1100 ltr bins
	compliance with BS 5906: 2005 Waste Management in Buildings Code of Practice	containers to be presented for collection no more than 10m from vehicle access point
5. Removal/on-site treatment method	responsible party	XX Local Authority
	method of removing materials	XX local authority to collect
	frequency of removal of materials	weekly
	equipment used for removal	XX tonne RCV with split back
	access requirements	X Metres wide by X meters deep by X metres high
	Has local authority been consulted?	yes
	date of consultation	01.01.2014
	responsible party comments	we are satisfied that this system of separation, collection and removal meets our requirements
6.End destination	destination of material	XX Material recycling facility
	material processed to waste hierarchy category	recycling
	end product	paper, card, plastic, glass, metals
	is destination WR11 & 12 standard?	yes
	Weight of materials to destination annum	150 (tonnes per annum)

	Anticipated recycling rate (%)	50%
	Anticipated diversion from landfill rate (%)	100%

6. Description of waste management collection process

It would be helpful for the planning and operational teams within the local authority to understand more on the collection materials from the proposed site. It would be beneficial to add in an annotated diagram, with a site plan. An example is given below from the New South Wales Better Practice Guide for Waste Management in Multi-Unit Dwellings)

This example demonstrates onsite collection bins from the basement of a high-rise building. Further examples, including vacuum systems are given in annex 6



[Figure X Site Plan]

[*Direct access is provided for the refuse collection vehicle to drive forwards up to the bulk bin storage area and make an overhead lift and empty the recycling or waste. The refuse collection vehicle would then proceed to drive through the car park and leave the basement, always moving in a forward direction.*

The recycling collection vehicle enters the basement and proceeds to directly in front of the recycling storage area. Sufficient space has been provided for the collection to be made without obstructing traffic flow through the car park. Recycling bins are wheeled from the storage area to a rear-loading collection vehicle. The vehicle leaves the basement car park in a forward direction. Similarly, bulky waste are moved from the bulky waste storage area to the waiting bulky waste collection vehicle at the time of collection.]

7. Recycling and waste strategy checklist

The following document is a simple checklist that allows you to be sure you have considered all aspects of the strategy. It also allows you to keep an audit and assign sections to different people in development team.

Stage of management	Sub section considered and included if necessary	lead for topic	date considered
Example	*yes*	*Mr A . N. Other*	*01.01.2000*
Waste & recycling materials			
1. Occupier separation			
2.Occupier Deposit and Storage			
3. Collection method			
4. Removal/on-site treatment method			
5. End destination			

8. Summary project plan

It will be necessary to insert the project plan and identify stages where local authority engagement may be necessary, but also to give all parties a better understanding of the development.

Resource	Role	Estimated Work Hours

9. Budget

For this stage you should identify how and where the budget for additionally e.g. vacuum systems will come from, this may include revolving capital funds or grants

[List all pertinent items.]
[Define all pertinent items.]

10. Metrics and expectations

For this stage you should identify the metrics and any expectation and assumptions you have used in preparing this strategy

[List all metrics and expectations.]
[Define all metrics and expectations.]

11. Approval

Title	Name	Date 1	Date 2
CEO		*[Date 1]*	*[Date 2]*
Product Manager		*[Date 1]*	*[Date 2]*
Project Manager		*[Date 1]*	*[Date 2]*
[Title]		*[Date 1]*	*[Date 2]*
[Title]		*[Date 1]*	*[Date 2]*

Appendix 1: Example of individual material stream strategies – recycling room dry recycling

Stage of management	Sub sections of management stage (to be amended by architect/developer)	Example for a recycling room scheme
1. Waste & recycling materials	Material stream	dry recyclate
	Detailed materials	paper, card, plastic, glass, metals
2. Occupier separation	location for separation	kitchen
	Collection Channel	trio bin under sink
	estimated volume per unit	0.3 m3
	estimated weight per unit (kg)	300
	number of units with this system	500
3.Occupier deposit and storage	deposition description	recycling room
	deposition location	every other floor
	user method of containment	sealed trio bin bag
	receptacle for user to deposit material	240 ltr wheeled bin
	access	unlocked room
	method of separation	occupier to deposit sealed bag into appropriate wheeled bin
	compliance with BS 5906: 2005 Waste Management in Buildings Code of Practice	recycling rooms situated no more than 30m from each unit
4. Collection method	collection frequency	daily
	responsible party	dedicated caretaker
	method of bulking materials	caretaker to transport 240ltr bins using internal lifts to storage room for empting into 1100 ltr bins
	compliance with BS 5906: 2005 Waste Management in Buildings Code of Practice	containers to be presented for collection no more than 10m from vehicle access point
5. Removal/on-site treatment method	responsible party	XX Local Authority
	method of removing materials	XX local authority to collect
	frequency of removal of materials	weekly
	equipment used for removal	XX tonne RCV with split back
	access requirements	X Metres wide by X meters deep by X metres high
	Has local authority waste operational team been consulted	yes
	date of consultation	01.01.2014
	responsible party comments	we are satisfied that this system of separation, collection and removal meets our requirements
6.End destination	destination of material	XX Material recycling facility
	material processed to waste hierarchy category	recycling
	end product	paper, card, plastic, glass, metals
	is destination in accordance with WR11 & 12 High Quality standard	yes
	Weigh of materials sent to destination per annum (tonnes per annum)	150
	Anticipated recycling rate (%)	50%
	Anticipated diversion from landfill rate (%)	100%

Appendix 2: Example of individual material stream strategies – Vacuum system, wet waste

Stage of management	Sub sections of management stage (to be amended by architect/developer)	Example for a recycling room scheme
1. Waste & recycling materials	Material stream	wet recyclate
	Detailed materials	cooked and uncooked food waste and green waste
2. Occupier separation	location for separation	kitchen
	Collection Channel	trio bin under sink
	estimated volume per unit	0.3 m3
	estimated weight per unit (kg)	300
	number of units with this system	500
3.Occupier deposit and storage	deposition description	floor by floor vacuum system
	deposition location	every floor
	user method of containment	sealed compostable paper trio bin bag
	receptacle for user to deposit material	vacuum doorway
	access	key fob access
	method of separation	occupier to deposit sealed bag into appropriate vacuum doorway
	compliance with BS 5906: 2005 Waste Management in Buildings Code of Practice	vacuum doorway / hatch situated in central lobby area no more than 30m from each unit
4. Collection method	collection frequency	instant
	responsible party	vacuum manager
	method of bulking materials	vacuum manger to transfer contents of storage chamber to in vessel composting facility using hand pulled waggons
	compliance with BS 5906: 2005 Waste Management in Buildings Code of Practice	electric assisted pedestrian controlled vehicle to be utilised
5. Removal/on-site treatment method	responsible party	vacuum manager
	method of removing materials	wet waste diverted to on site [In-vessel composting facility]
	frequency of removal of materials	daily
	equipment used for removal	diversion equipment
	access requirements	none except for service vehicles
	Has local authority waste operational team been consulted	yes
	date of consultation	01.01.2014
	responsible party comments	this system means that as a LA we do not need to collect waste
6.End destination	destination of material	XX dedicated resource centre
	material processed to waste hierarchy category	recycling
	end product	compost
	is destination in accordance with WR11 & 12 High Quality standard	yes
	Weigh of materials sent to destination per annum (tonnes per annum)	250
	Anticipated recycling rate (%)	83%
	Anticipated diversion from landfill rate (%)	100%

Appendix 3: Example of individual material stream strategies – Bulk waste storage for residual (black bag) waste

Stage of management	Sub sections of management stage (to be amended by architect/developer)	Example for a recycling room scheme
1. Waste & recycling Materials	Material stream	residual
	Detailed materials	nappies, litter, ceramics, dust and fines etc.
2. Occupier separation	location for separation	kitchen
	Collection Channel	trio bin under sink
	estimated volume per unit	0.15 m3
	estimated weight per unit (kg)	150
	number of units with this system	500
3.Occupier deposit and Storage	deposition description	waste & recycling room
	deposition location	ground floor
	user method of containment	sealed trio bin bag
	receptacle for user to deposit material	underground bin portal
	access	colour separated bin
	method of separation	occupier to deposit sealed bag into appropriate wheeled bin
	compliance with BS 5906: 2005 Waste Management in Buildings Code of Practice	ground floor waste & recycling room situated no more than 30m from each unit via lift
4. Collection method	collection frequency	weekly
	responsible party	dedicated caretaker
	method of bulking materials	caretaker to transport 1100 bins to dedicated removal point [xx location] by [ramp/lift]
	compliance with BS 5906: 2005 Waste Management in Buildings Code of Practice	containers to be presented for collection no more than 10m from vehicle access point
5. Removal/on-site treatment method	responsible party	XX local authority
	method of removing materials	XX local authority to collect
	frequency of removal of materials	every week
	equipment used for removal	XX tonne dedicated HI AB
	access requirements	X Metres wide by X meters deep by X metres high
	Has local authority waste operational team been consulted	yes
	date of consultation	01.01.2014
	responsible party comments	we are satisfied that this system of separation, collection and removal meets our requirements
6.End destination	destination of material	XX EFW or landfill
	material processed to waste hierarchy category	recovery
	end product	energy
	is destination in accordance with WR11 & 12 High Quality standard	no
	Weigh of materials sent to destination per annum (tonnes per annum)	150
	Anticipated recycling rate (%)	0%
	Anticipated diversion from landfill rate (%)	50%

Appendix 4: Example of individual material stream strategies – Third sector management of bulky wastes

Stage of management	Sub sections of management stage (to be amended by architect/developer)	Example for a recycling room scheme
1. Waste & Recycling Materials	Material stream	bulky waste
	Detailed materials	large cardboard, furniture, WEEE etc.
2. Occupier separation	location for separation	bulky waste room [Floor x]
	Collection Channel	1100 euro bins and shelving
	estimated volume per unit	0.5 m3
	estimated weight per unit (kg)	250
	number of units with this system	500
3.Occupier Deposit and Storage	deposition description	bulky waste room
	deposition location	ground floor
	user method of containment	loose
	receptacle for user to deposit material	1100 euro bins and shelving
	access	lift to unlocked room
	method of separation	occupier to deposit sealed bag into appropriate container
	compliance with BS 5906: 2005 Waste Management in Buildings Code of Practice	ground floor waste & recycling room situated no more than 30m from each unit via lift
4. Collection method	collection frequency	ad hoc
	responsible party	volunteer re-use occupier
	method of bulking materials	volunteer re-use occupier to unlock storage room for direct access by 3rd party charity
	compliance with BS 5906: 2005 Waste Management in Buildings Code of Practice	access to reuse room to be no more than 10m from vehicle access point
5. Removal/on-site treatment method	responsible party	XX 3rd sector group
	method of removing materials	XX 3rd sector to remove
	frequency of removal of materials	monthly
	equipment used for removal	Luton Van
	access requirements	X Metres wide by X meters deep by X metres high
	Has local authority waste operational team been consulted	yes
	date of consultation	01.01.2014
	responsible party comments	we are satisfied that this system of separation, collection and removal meets our requirements
6.End destination	destination of material	charity shops or landfill
	material processed to waste hierarchy category	Re-use
	end product	Re-use
	is destination in accordance with WR11 & 12 High Quality standard	yes
	Weigh of materials sent to destination per annum (tonnes per annum)	125
	Anticipated recycling rate (%)	100%
	Anticipated diversion from landfill rate (%)	100%

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