Proposed Residential Development
Land off Radwinter Road
Saffron Walden
Essex

Design stage site waste management plan

Cedar Barn, White Lodge,
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jpp consulting
Civil & Structural Engineers

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Date	December 2013

Report Originators

Prepared by

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Director

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Contents

1.0 Introduction

1.1 The Client has legal duty to prepare, update and implement a Site Waste Management Plan (SWMP) is set out in the Site Waste Management Plans Regulations 2008 (SI 2008 no.314) which came into effect on 6 April 2008. In accordance with these Regulations any client intending to carry out a construction project on one site with an estimated cost greater than £300,000 must, before work begins, prepare a SWMP with a more detailed plan being required for projects with an estimated cost greater than £500,000.

1.2 JPP Consulting has been appointed by Manor Oak Homes to prepare the design stage SWMP. The Principle Contractor, upon appointment, shall then be responsible for maintaining and updating the SWMP in accordance with the statutory regulations.

1.3 SWMPs apply to all aspects of construction work including preparatory work such as demolition and excavation. They are required for civil engineering and engineering projects as well as projects involving the maintenance, alteration and decoration of existing structures. The installation, maintenance or removal of all related services such as electrical, gas, water, sewage and telecommunications are also subject to this requirement. Routine maintenance operations such as gully cleaning or grass cutting, as opposed to maintenance of a structure, do not fall within this scope. A full description of the range of activities to which this measure applies is provided in the SWMP Regulations.

1.4 The SWMP outlined below has been developed as design stage SWMP. It identifies the following:

- Who will be responsible for resource management
- What types of waste are likely to be generated and predicted volumes.
- What likely targets can be achieved for the reduction of waste with respect to the reduction, reuse, recovery, recycling and disposal.

1.5 The proposed mixed development comprises up to 230 dwellings, a retirement village comprising 102 beds and up to 1800m^2 gross floor area of B1 Office. The proposed development is shown on the plan enclosed in Appendix A.

1.6 Site Location Plan

1.6.1 Figure 1.6.1 presented below shows the location of the site.

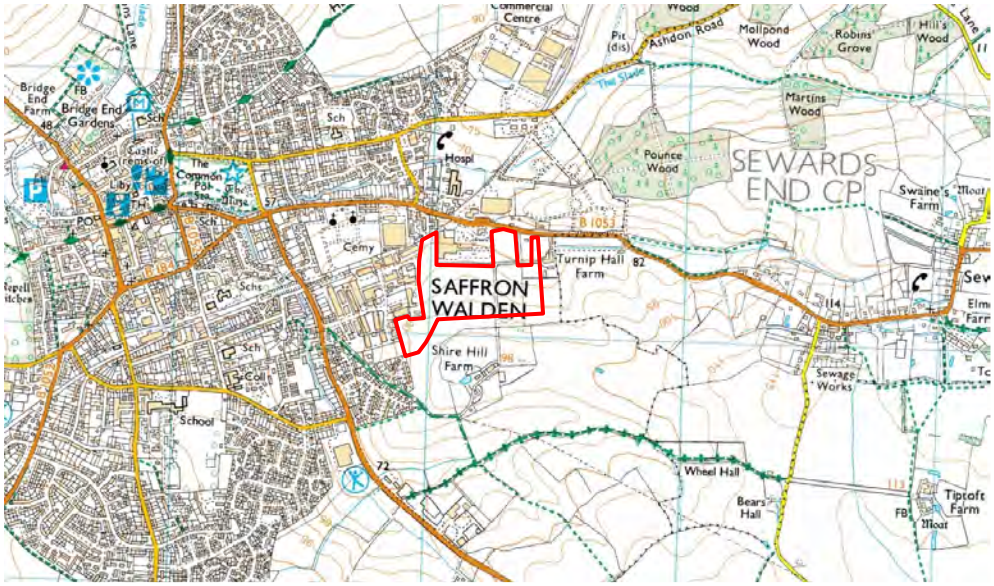

Figure 1.6.1, Site location plan. Approximate site boundary outlined in red.

2.0 Project Information

2.1 Project Name:

Land off Radwinter Road
Saffron Walden, Essex

2.2 Project Location:

Land off Radwinter Road
Saffron Walden
Essex

2.3 Client (Developer):

Manor Oak Homes
William Main
White Lodge Farm
Walgrave
Northampton
NN6 9PY
T: 01604 781 457

2.4 Principal Contractor:

To be appointed

2.5 Architect:

McBains Cooper
Beechwood
Grove Park
Waltham Road
Maidenhead
Berkshire
SL6 3LW
T: 01628 854300

2.7 Engineer:

JPP Consulting
Cedar Barn
White Lodge
Walgrave
Northampton
NN6 9PY
T: 01604 781811

2.8 Project Details

2.8.1	**Classification:**	Mixed – Residential + Commercial
2.8.2	**Project use class:**	Houses, Care Home, B1 Offices
2.8.3	**Client Type:**	Developer
2.8.4	**Project Type:**	New build
2.8.5	**Project start date:**	2015
2.8.6	**Construction Type**	Mixed
2.8.7	**Code for Sustainable Homes:**	Current version – Nov 2010

2.9 Estimated Project Costs (ex. VAT)

2.9.1 In excess of £500,000

2.10 Floor Areas (m^2):

2.10.1 230 Dwellings – 26,466m^2 or 200 Dwellings – 23,014m^2
2.10.2 B1 Office – 1,800m^2
2.10.3 Care Home – 5,000m^2
2.10.4 Possible School – 2000m^2

2.11 Site Area (Ha):

2.11.1 13.4 ha

2.12 Site Description:

2.12.1 Greenfield previously undeveloped site

2.13 Other requirements

None.

2.14 Where the SWMP is to be kept:

On site and readily available to all interested parties.

3.0 Responsibilities

3.1 SWMP Initial draft:

The Engineer
Martin Andrews
JPP Consulting

3.2 Final Version:

The Principal Contractor

3.3 SWMP Implementation:

The Developer
William Main
Manor Oak Homes

3.4 Waste Champion:

The Principal Contractor

3.5 Person in charge of the project:

The Developer
Manor Oak Homes

3.6 Declaration:

We agree that the 'Client' and the 'Principal contractor' shall take all reasonable steps to ensure waste duty of care is complied with, material are handled efficiently and waste is managed appropriately, all in accordance with the statutory regulations in force at that time.

Name and signature: William Main

On behalf of: Manor Oak Homes

Date:

Name and signature: Martin Andrews
MEng (Hons)

On behalf of: JPP Consulting

Date: 10th December 2013

4.0 Waste minimisation

4.1 Table 4.1 below outlines decisions made before drafting the plan on the nature of the project, design, construction methods and materials to plan waste minimisation.

Type	Waste Minimisation decision taken	By whom	Intended results
Reduction in excavated material off site	To carry out a cut and fill analysis of the development	Engineer	Designing proposed levels to reduce excavated material likely to be removed from site.
Carry out a detailed ground investigation	To accurately identify the ground conditions of the site	Geo-environmental engineer	To accurately identify contamination and to develop an appropriate remediation strategy.
	Carry out CBR testing	Geo-environmental engineer	To minimise pavement thickness.
	To accurately identify the ground conditions of the site	Geo-environmental engineer	To accurately design foundations.
Carry out a tree survey	To reduce foundation excavations	Arborioculturalist	To accurately design foundations.
	Off site manufacture of joinery items	Contractor	Reduce timber wastage and off cuts.
	Reuse wall insulation off cuts in roof insulation	Contractor	Re-use insulation to reduce off site disposal.

Table 4.1

5.0 Forecast

5.1 The table below estimates the types and amounts of waste expected to be generated on this project. The information was calculated with reference to BRE Waste Benchmark Data. The anticipated waste that will be generated from the proposed development is shown in table 5.1 below.

Waste Forecast

Use Class	Floor Area	BRE average m3/100m2	Waste Arising m3
Dwellings	26,466	18.1	4790.3
Dwellings	23,014	18.1	4165.5
B1 Offices	1,800	19.8	356.4
Care Home	5,000	18.1	905
School	2000	20.7	414
Total			**Varies dependent on option**

Table 5.1

6.0 Waste management options

6.1 Waste reduction targets shall be set and agreed prior to the commencement of works on site. Disposal of waste shall be measured against the key target performance indicators, current at the time of developing the construction phase SWMP. Waste reduction targets shall be expressed as shown in table 6.1 below:

Waste reduction targets					
Waste Type	**Reduce (%)**	**Reuse (%)**	**Recover (%)**	**Recycle (%)**	**Dispose (%)**
Bricks					
Tiles and Ceramics					
Concrete					
Inert					
Insulation					
Metals					
Packaging					
Gypsum					
Binders					
Plastics					
Timber					
Floor coverings (soft)					
Electrical and electronic equipment					
Furniture					
Canteen/office/adhoc					
Liquids					
Oils					
Asphalt and tar					
Hazardous					
Other					
Mixed					
Total					

Table 6.1

6.2 As a guide the waste reduction targets outlined above in table 6.1 shall be as follows:

Waste reused	= 22%
Waste recycled	= 14%
Waste recovered	= 35%
Waste disposed	= 29%

The percentage reduction targets will depend on many factors including the project type and construction methods to be employed, purchasing rules etc. The above target percentages are the average waste diversion from landfill figures, and % management routes for all projects completed on SMARTWaste.

7.0 Implementation

The Principal Contractor shall be responsible for implementing the SWMP to include the following. The lists are not exhaustive and more information may be required to satisfy other requirements, for example, WAS 2 of the Code for Sustainable Homes.

7.2 Duty of Care

It is a mandatory requirement to include Duty of Care in the SWMP. Both the Client and Principal Contractor shall take reasonable steps to ensure waste and materials are handled correctly. The following shall be recorded

- Waste Management Contractor name and address.
- Waste Carrier licence number, date of issue and expiry date.
- Waste management licence number, date of issue and expiry date.
- Waste transfer notes storage location.

7.3 Waste Records

It is mandatory to record and identify the following:

- Who the person removing the waste from the site is.
- the type of waste.
- where the waste has been taken to and if the site has a waste management licence or exemption.
- Waste carrier licence number.
- Evidence e.g. waste transfer note.

7.4 Waste Log

It is mandatory to record at least every six months the type and quantities of waste produced and the quantities of waste and what has happened to the waste. The definitions used in Section 6 shall be used to define the waste, recorded as volumes or by weight. The type of waste shall be recorded as follows:

- Re-use on site
- Re-use off site
- Recycling on site
- Recycling off site
- Recovery on site
- Recovery off site
- Sent to landfill
- Other disposal

7.5 Training

Everyone on site shall receive the appropriate training that shall include a training log detailing the training given and how it will be delivered and to who. An up to date copy shall be kept on site and made available on request.

7.6 Review

The SWMP shall be reviewed and checked regularly with record being kept to demonstrate this and record the outcomes and any recommendations from these outcomes. The SWMP shall be reviewed at not less than every six months.

Appendix A

Illustrative Masterplan

McBains Cooper Consulting Ltd drawing no. 57183-SK06 B

And

Illustrative Masterplan

McBains Cooper Consulting Ltd drawing no. 57183-SK07 A

manor oak HOMES
building for the future environment

LAND AT:
RADWINTER ROAD,
SAFFRON WALDEN

ILLUSTRATIVE MASTERPLAN

APPROX 1: 2500 @A3 /1:1250 @A1

McBAINS COOPER

McBainsCooper Consulting Ltd
December 20 2013
57183-SK06 B

0 25 50 75 100 125m

ATTENUATION
ATTENUATION
GREEN
GREEN
GREEN
AVENUE
RADWINTER ROAD
RETIREMENT VILLAGE
FOOT/CYCLE LINK
OPEN SPACE PROVISION
BALANCE OF DRAFT ALLOCATION
TESCO
ATTENUATION
ATTENUATION
BI
BI
PUBLIC OPEN SPACE
KIER HOMES APPLICATION

manor oak HOMES
building for the future environment

LAND AT:
RADWINTER ROAD,
SAFFRON WALDEN

ILLUSTRATIVE MASTERPLAN

SCHOOL OPTION

APPROX 1: 2500 @A3 /1:1250 @A1

McBAINS COOPER

McBainsCooper Consulting Ltd
December 20 2013
57183-SK07 A

0 25 50 75 100 125m

ATTENUATION
ATTENUATION
GREEN
GREEN
RADWINTER ROAD
RETIREMENT VILLAGE
FOOT/CYCLE LINK
AVENUE
OPEN SPACE PROVISION
BALANCE OF DRAFT ALLOCATION
GREEN
TESCO
ATTENUATION
BI
BI
ATTENUATION
0.9HA EXPANSION
1.2 HA PRIMARY SCHOOL SITE
KIER HOMES APPLICATION