



**NOTES:**  
 It is assumed that any cut material can be reused on site as an engineered fill material. It is likely that material from site will need to be conditioned in terms of their moisture content to ensure they can be adequately compacted within proposed earthworks.  
 Topsoil strip is as advised by the geotechnical investigation report. (hydrock ref: WPF-HYD-XX-XX-RP-G-1001-P1.4-S2), this suggests topsoil thickness ranging from 0.15m to 0.4m so an average of 0.3m has been assumed.  
 A CBR value of 2.5% has been used for spine road design purposes as advised in the geotechnical investigation report (wpl-hyd-xx-xx-rp-g-1001-p1.4-s2).

**CUT Depth Bands**

- Band 1 -0,00 - -0,20
- Band 2 -0,20 - -0,40
- Band 3 -0,40 - -0,60
- Band 4 -0,60 - -0,80
- Band 5 -0,80 - -1,00
- Band 6 -1,00 - -1,20
- Band 7 -1,20 - -1,40
- Band 8 -1,40 - -1,60
- Band 9 -1,60 - -1,80
- Band 10 -1,80 -

**FILL Depth Bands**

- Band 1 0,00 - 0,20
- Band 2 0,20 - 0,40
- Band 3 0,40 - 0,60
- Band 4 0,60 - 0,80
- Band 5 0,80 - 1,00
- Band 6 1,00 - 1,20
- Band 7 1,20 - 1,40
- Band 8 1,40 - 1,60
- Band 9 1,60 - 1,80
- Band 10 1,80 -

Rev	Date	Description	By	Ckd
P15	19/10/20	Updated reference to LEAP area to Southern Gateway Landscape Mound	SM	BS
P14	14/09/20	Updated swale and basin isopachytes	SM	BS
P13	10/04/20	Added isopachytes to allotment area	SM	BS
P12	27/02/20	Adjusted Sports pitch A area and removed storage area 1b	SM	BS
P11	17/10/19	Updated LEAP area and volumes	SM	BS
P10	09/10/19	Removed swale 4a amended topsoil strip volume	SM	BS
P9	30/09/19	Split storage area 1 & removed swale 4A	SM	BS
P8	20/09/19	Cut/fill removed from parcels R1 & R4	SM	BS
P7	14/08/19	Extents of Leap and Sports Pitch A updated	SM	BS
P6	01/07/19	Updated LEAP area and southern link rd connections	SM	BS
P5	19/02/19	Adjusted extent of Sports Pitch A earthworks	SM	BS
P4	07/02/19	Parcel R2, R4 & Swales updated	SM	BS
P3	07/08/18	Isopachytes updated	SM	BS
P2	16/04/18	Updated Masterplan Layout to revision Y.	SM	BS
P1	16/08/17	First Issue.	SM	BS

**1. Topsoil**

Volumes of 0.3m topsoil strip from each parcel, basins and swales, including volumes of topsoil reuse (assuming 0.2m reuse thickness except where indicated)

Parcel	Area (m <sup>2</sup> )	Topsoil Strip Volume (m <sup>3</sup> )	200mm Topsoil Reuse Volumes
Parcel R1	28500		
Parcel R2	29000		
Parcel R3	34300		
Parcel R4	41600		
Parcel R5	40076		
Parcel R6	46800		
Parcel R7	20000		
Local Centre	8000	2400	
Secondary Sch	18300		
Primary Sch	30300		4545
Sports Pitch A	12386		2477
Sports Pitch B	11237	3371	2247
South Gate Landscape Mound	17053		3410
Storage Area A	4641		781
Basin 1	13556	4067	2711
Basin 2	2850	855	570
Highway	17590	5277	
Swales	27913	8373	5421
Allotment	9014		2181
<b>Total</b>	<b>408707m<sup>2</sup></b>	<b>24343m<sup>3</sup></b>	<b>24343m<sup>3</sup></b>

**2. Sources and volumes of fill material**

Volumes of suitable fill material after 0.3m topsoil strip

Source	Area (m <sup>2</sup> )	Cut Volume (m <sup>3</sup> )
Swale 1A	1590	2848
Swale 1B	14961	5277
Swale 2A	2890	4240
Swale 2B	2441	2330
Swale 2C	5225	8124
Basin 1	13556	16943
Basin 2	2850	3291
Highway	17590	13888
Drainage Arisings		1083
<b>Total</b>	<b>67605m<sup>2</sup></b>	<b>58023m<sup>3</sup></b>
<b>Total including Marlstone</b>		<b>66018m<sup>3</sup></b>

**3. Cut & Fill Volumes**

Where reusable fill is generated the following areas have been adjusted to reduce the volume of site won material

Total reusable fill material available taken from table 2 = 66018m<sup>3</sup>

Area	Area (m <sup>2</sup> )	Fill Volume required (m <sup>3</sup> )
Sports Pitch A	12368	9108 (4125 Marlstone Rock)
Sports Pitch B	13595	2938
South Gate Landscape Mound	11941	51286 (3870 Marlstone Rock)
Storage Area 1a	2262	2688
<b>Total</b>	<b>109216m<sup>2</sup></b>	<b>66018m<sup>3</sup></b>

An allowance for a 0.2m topsoil layer has been allowed for in the above volumes  
 Total volume of fill material taken from Table 2 = 66018m<sup>3</sup>

66018 - 66018 = 0m<sup>3</sup>

**4. Marlstone Rock Volumes**

Volumes of contaminated material removed through swale excavation and topsoil strip

Area	Volume (m <sup>3</sup> )
Swale 1B	5619
Swale 2B	1542
Southern Foul Drainage Network	834
<b>Total Volume</b>	<b>7995m<sup>3</sup></b>
Volume stored in Sports Pitch A	4125
Volume Stored in Leap	3870
<b>Total</b>	<b>7995m<sup>3</sup></b>

This contaminated fill has been placed within the Leap and Sports Pitch A with a minimum of 600mm cover.

**5. Cut & Fill Volumes Summary**

Total Volume of Topsoil Strip	24343m <sup>3</sup>
Topsoil Reuse Volume	24343m <sup>3</sup>
Topsoil Volume Remaining	0m <sup>3</sup>
Site won Fill Material	66018m <sup>3</sup>
Fill Material Reused	66018m <sup>3</sup>
Contaminated Fill Material	7995m <sup>3</sup>
Fill Material Remaining	0m <sup>3</sup>

**Hydrock**

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Client: **L & Q ESTATES**

Project: **WYKHAM PARK FARM**

Hydrock Project No: **C-04841**

**PRELIMINARY CUT & FILL ANALYSIS**

Status: **SO** Purpose of Issue: **INFORMATION**

Drawn:	Checked:	Scale @ A1:	Drawn Date:	First Issue:
SM	BS	As Shown	16/08/2017	16/08/2017

Drawing No. **WPF-HYD-XX-XX-DR-C-2400** Revision **P15**

Notes: All dimensions are to be checked on site before the commencement of works. Any discrepancies are to be reported to the Architect & Engineer for verification. Figured dimensions only are to be taken from this drawing. This drawing is to be read in conjunction with all relevant Engineers' and Service Engineers' drawings and specifications. This drawing is copyright.