

# ARUP

Newcombe House and Kensington Church Street Technical Report Summary - Arup

July 2018

## Newcombe House and Kensington Church Street

Addenda to Planning Submission

July 2018

Contents

1.0	Introduction	1
2.0	Drainage Strategy Report2.1Foul Drainage2.2Storm Drainage2.3Conclusion	2
3.0	Flood Risk Statement	Э
4.0	Ecology4.1Survey Results4.2Conclusions	4
5.0	Construction Traffic Management Plan (CTMP)5.1Schedule Comment5.2Logistics Consideration	5
6.0	Basement Construction Method Statement (BCMS)	6

**APPENDIX A:** Thames Water Correspondence **APPENDIX B: CTMP Programmes** 

## **1.0 Introduction**

This document sets out the impacts of the proposed amendments as addenda in relation to each of the specialist reports as prepared by Arup, and should be read in conjunction with the statements and/or assessments dated September 2017 and submitted with the planning application reference PP/17/05782 (the "September 2017 Application").

The purpose of this document is to assess the proposed changes with respect to the following statements and/or assessments submitted with the September 2017 Application:

- Drainage Strategy Report;
- Flood Risk Statement;
- Initial Ecological Appraisal and Bat Survey Report;
- Construction Traffic Management Plan (CTMP)
- Basement Construction Method Statements (BCMS).

(the "September 2017 Reports").

These addenda have been prepared in support of amendments made to planning application PP/17/05782 (GLA ref: 3109a) for the mixed-use redevelopment of the Newcombe House Site in the Royal Borough of Kensington and Chelsea.

The proposed amendments do not alter the description of development, which remains as follows:

'Demolition of the existing buildings and redevelopment to provide office, residential, and retail uses, and a flexible surgery/office use, across six buildings (ranging from ground plus two storeys to ground plus 17 storeys), together with landscaping to provide a new public square, ancillary parking and associated works.'

(the "Proposed Development").

The proposed amendments to the application can be summarised as:

- an increase in the number of homes (to a total of 55) and alterations to the housing mix;
- an increase in the proportion of affordable homes (to 35% by hab room and 41.8% by unit);
- an increase in the office floorspace of c. 414 sqm GEA (to a total of c. 5,306 sqm);
- the addition of one storey to Kensington Church Street Building 1 in C3 residential use (from four to five storeys);
- the addition of two storeys to West Perimeter Building 3 in B1 office use (from five to seven storeys);
- alterations to the layouts of Kensington Church Street Buildings 1 and 2, and West Perimeter Buildings 1 and 3, with associated changes to the facades;

- minor alterations to the facade of the Corner Building on levels 4, 5 and 6; and
- minor alterations to the services strategy for West Perimeter Building 2

(the "Proposed Amendments")

Further details of the Proposed Amendments are set out within the Design and Access Statement Addendum and Planning Statement Addendum. A review of the Structural Engineering implications of the proposed amendments is included within the Design and Access Statement Addendum.

The purpose of this addendum is to assess the impact of the Proposed Amendments in relation to the findings presented within the September 2017 Reports and, if necessary, provide an update to such findings.

This addendum supplements the September 2017 Reports. It does not unnecessarily repeat information previously provided within the September 2017 Reports where it remains relevant, unless it assists the commentary within the report.

### 2.0 Drainage Strategy Report

The Drainage Strategy Report, dated September 2017, set out the proposals for the handling of both foul and storm water flows from the site into the local drainage system.

The Drainage Strategy Report has been reviewed with regard to the Proposed Amendments to the application, and the anticipated impacts are discussed in turn below.

#### 2.1 Foul Drainage

The Proposed Amendments result in an increased number of habitable rooms within the Proposed Development and hence the expected foul flows from the site would be expected to increase from the September 2017 application.

An updated assessment of foul flows from the site currently being discharged was undertaken. The review of the flows from the existing development took into account a detailed review of the existing Newcombe House and the associated retail, restaurant and residential accommodation on Kensington Church Street. This review demonstrated an estimated existing peak foul flow discharge of 11.7 l/s.

An updated assessment of the predicted foul flows from the site was undertaken, using the updated accommodation schedule for the Proposed Amendments and taking into consideration the current layout and revised areas of retail/office space and additional residential apartments. This assessment resulted in an increase of the estimated peak flows over those associated with the September 2017 Application to 10.8 l/s.

It can be seen that the anticipated foul flows associated with the Proposed Development, as amended by the Proposed Amendments, are still less than the estimated existing foul flows discharging from the site.

We have sent the updated flows to Thames Water for its review and have received confirmation that the revised flow remains acceptable. Refer to Appendix A for correspondence showing Thames Water's acceptance of the proposed flows.

#### 2.2 Storm Drainage

The Proposed Amendments to the September 2017 application do not affect the built area of the development, or the ground level landscaping proposals. As such, the overall quantity of storm water to be collected within and discharged from the site is unaffected.

We have undertaken a review of the storm drainage proposals summarised in the September 2017 Drainage Strategy Report. The proposals for discharge of storm water flows remain as the September 2017 Application, in that they are discharged to the Thames Water sewers adjacent to the site.

The proposed development will have two basement levels and with the proximity of the tube lines, the use of soakaways would not be appropriate. Space is limited on the site so the use of ponds and open water features are not possible. Therefore, the project is aiming to meet step 4 of the London Plan Policy and attenuate rainwater by storing in tanks or sealed water features for gradual release to the adjacent Thames Water sewers.

The proposals comprise of flows from the Perimeter Buildings and courtyard discharging via attenuation tanks suspended within the basement B-1 level (at a restricted flow rate of 46 l/s for 100-year event). Storm water flows from the Corner Building and WPB3 green roof will be attenuated within the roof build up and then will be discharged to the sewer via a separate connection (at a restricted flow rate of approx. 1.5 l/s).

The combined discharge from the two outfalls is 48 l/s which is equivalent to approximately 73% of the existing 2-year storm event and 47% of the existing 100-year storm event. The attenuation volume within the basement includes a 40% climate change allowance for the 100-year storm event. Therefore, the Proposed Development as amended by the Proposed Amendments will provide a significant reduction from the existing flows. Subject to detailed design of the above ground collection system and the storm drainage network, this reduction in flows and percentage attenuation could be further improved.

The use of green roofs and tree pits within the project will result in a reduction in the overall volume of surface water discharge.

#### 2.3 Conclusion

The impact of the Proposed Amendments to the September 2017 Application have been reviewed in the context of the September 2017 Drainage Strategy Report. The impacts are as follows:

• In the case of foul drainage, although the Proposed Amendments lead to an increase in the predicted foul flows, this can still be shown to be less than those from the present development. We have written to Thames Water and they have confirmed acceptability – refer to **Appendix A** for correspondence. • In the case of storm drainage, the proposed changes have no impact on the overall amount of storm water to be dealt with on site. As such the proposed attenuation of storm water flows, which remain as the September 2017 Application, provide an improvement on the present situation.

• The space for surface water attenuation within the Proposed Development is restricted, however, the Drainage Strategy complies with DEFRA non- statutory technical standards and London Policy 5.11 & 5.13 as far as is practicable in terms of providing green roofs, attenuating flows and reducing the surface water run-off volume from the existing flows from the site.

## **3.0 Flood Risk Statement**

The Proposed Amendments would not result in proposed changes to the ground level landscaping or massing of the buildings which would be considered significant in relation to flooding.

The Flood Risk Statement dated September 2017 has been reviewed in light of the proposed changes to the development and we have concluded that there are no updates required to this document.

In addition, a review of emerging RBKC policy has been undertaken, and no issues requiring updates to the Flood Risk Statement were identified.

#### 4.0 Ecology

This section provides the results of an update to the 2015 bat surveys and the 2017 ecological appraisal of the site, both of which are contained within the "Newcombe House and Kensington Church Street Initial Ecological Appraisal and Bat Survey Report", issued September 2017. The following provides a summary of the results of a bat dusk emergence and dawn re-entry survey and ecological appraisal completed in May 2018.

#### 4.1 Survey Results

#### 4.1.1 Bat Surveys

Bat surveys were completed on site in the summer of 2015 and included two emergence and one re-entry survey. No bat roosts were recorded and therefore the site was assessed as having low to moderate potential to support roosting bats in the 2015 ecological appraisal. An ecological survey completed in July 2017 confirmed the conclusions of the 2015 report.

In order to validate the 2015 and 2017 conclusions (in terms of current value to roosting bats) given the lapse of time between the survey and the determination of the planning application, further survey data was gathered in May 2018 in accordance with good practice guidelines.<sup>1</sup>

One dawn re-entry survey and one dusk emergence survey were completed on site, with surveys separated by over two weeks. The results of these surveys are in Table 1 and 2.

#### Table 1 Dawn Re-entry Survey

Date and time of survey	Surveyors	Weather conditions	Results
10 May 2018	Tanith Cook (licenced bat	Warm, 13°C, light rain	No bat activity recorded or re-
Start 03:45	ecologist)	throughout survey. Heavy	entry of bats into potential
Finish 05:03	Hanna Grimsdale	rain at end of survey.	roosting features.
Sunrise: 05:16			
	Rob Selwyn		

<sup>1</sup> Collins, J. (ed.) (2016) Bat Surveys for Professional Ecologists: Good Practice

The dawn re-entry survey was completed in sub-optimal conditions of persistent light rain showers. The survey finished 13 minutes early when the rain became too heavy for there to be any expectation of bat activity and or re-entry of bats into potential roosts. At this point, at 05:03, it was daylight, which further reduces the likelihood of bat activity. It was considered that if bats were using a potential feature on the building as a roost, they would have returned to roost by 05:03.

During the majority of the survey, the rain was sufficiently light to not rule out bats commuting and or returning to roost. Therefore, although the survey was completed in sub-optimal conditions, the dawn re-entry survey is considered to be a reliable indication of bat activity.

#### Table 2 Dusk Emergence Survey

Date and time of survey	Surveyors	Weather conditions	Results
30 May 2018	Tom Gray (licenced bat	Warm, 22°C, very light	No bat activity recorded or
Start 20:24	ecologist)	occasional breeze.	emergence of bats from
Finish 22:25	Hanna Grimsdale		potential roosting
Sunset 21:06			features.
	Rob Selwyn		

The survey was completed in optimal conditions, and ended approximately 11 minutes early due to health and safety concerns associated with antisocial behaviour on site. As there had been no bats recorded during the anticipated emergence time for the species that may be encountered in the area (e.g. pipistrelle species (Pipistrellus sp.)) or up until that point during the survey, and given the low value of the site for commuting/foraging bats, the results are considered to be reliable.

#### 4.1.2 Site Ecological Value

Before and after the bat survey visits, the lead ecological consultants assessed the site against the 2015 and 2017 ecological appraisals to determine whether or not the ecological value of the site had changed significantly since the previous visits.

During the surveys, it was noted that the cracks in the brickwork of the rear of the buildings along Kensington Church Street were no longer apparent, and that the night-time external lighting underneath Newcombe House had increased since previous nighttime assessments of the site. The lighting is now at such a level that bats are likely to be deterred from passing beneath the building, making it unsuitable for bats. Therefore, the potential for roosting bats on site low according to current good practice guidelines.

Overall, the site is assessed as having low ecological value, as there are no permanent areas of vegetation on site, or any feature thought to represent significant value to protected species. The roofs of the buildings, and some areas beneath Newcombe House, may be of limited use to nesting birds such as pigeons and gulls. The client or contractor has confirmed that compliance is being monitored against all relevant UK, EU and international standards relating to the ecology of the site.

#### 4.2 Conclusions

The site is considered to have low ecological value, due to the absence of either temporary or permanent features that are likely to be of value to protected species, meaning there is potential to provide a net gain in biodiversity as a result of the development. Works to enhance and attract biodiversity proposed within the application should be secured by condition.

No bats were recorded returning or emerging from the buildings and no bat activity was recorded on site during the surveys in May 2018. However, in the unlikely scenario of bats being found during work on-site, activities should cease immediately and the advice of a suitably experienced ecological consultant should be sought.

If works on-site do not commence within two years, a further site walkover may be required to assess whether or not the value of the site, to support roosting bats and/or other protected species, has changed since the completion of this 2018 appraisal.

#### 5.0 Construction Traffic Management Plan (CTMP)

A review of the previously submitted Construction Traffic Management Plan (CTMP) has been undertaken to assess any consequential amendments necessary as a result of the Proposed Amendments. This section forms an addendum to the CTMP dated September 2017 and summarises the implications of the Proposed Amendments.

The key material changes, with regard to the CTMP, are:

- Addition of 1 floor to the KCS1 building; and
- Addition of 2 floors to the WPB2 Building.

#### 5.1 Schedule Comment

Due to the minor nature (in construction terms) of the changes to majority of buildings it is considered that there will be only minor change to the construction schedule. Typically the modifications proposed are expected to entail the following construction impacts:

- Alteration of position of walls etc.;
- Rationalisation of grid (column rationalisation / transfer beams etc.);
- Extension of a predesigned facility (lift shaft etc.);
- Basic MEP alterations; and
- Replacement of material finishes.

The key change to the schedule will be within the 2 storey extension of WPB3. This will extend the critical path of this build in excess of 4-5 weeks, which would create a material alteration to the high level construction sequence of the connected Corner Building.

The critical path for this building runs through:

- Ground Works;
- Foundations;
- Sub structure;
- Structure (core and slabs);
- Façade; and
- Fit Out.

As a consequence of the requirement to extend the structural core in WPB3, the construction period will extend by circa 8 weeks from 28 weeks to 36 weeks. This accounts for the installation of:

- 2no. core floor to floor height;
- Installation of 2no. extra slabs; and
- Additional associated columns.

This in turn delays the completion of the facades and water proofing (which extends to accommodate the increased facade works from 16 weeks to 24 weeks to account for working at height and circa 1 face per week of installation. This time allowance is considered reasonable as the overall rate of construction will potentially be limited by other construction needs, crane availability and ambient weather conditions.

The overall construction programme elongates by approximately 4 months when compared to the construction programme outlined within the September 2017 Application. The overall construction programme is estimated to be 45 months.

Copies of the updated level 1, 2 and 3 programmes are included as **Appendix B**.

#### 5.2 Logistics Considerations

The logistics strategy for the construction phase are un-altered, however with the extension of the schedule there will be additional vehicle movements. In summary:

- The basement and substructure works are unaffected by the Proposed Amendments. The bulk excavation phase represents the busiest time for vehicle movements. Vehicles will be handled within the site for this phase.
- The updated vehicle movement estimate shows a total net increase of 55 vehicle movements associated with the Proposed Amendments. These 55 additional movements, which will be a range of vehicle types, will occur from month 20 onwards and will be split over several months. In the context of the overall number of vehicle movements estimated, this addition can be considered negligible.
- The additional movements will occur after the basement and substructure construction is complete. As such, the additional movements will not increase the peak predicted movements per week. During the later phases two loading and unloading points will be in operation, spreading the impact of the operations.

6.0 Basement Construction Method Statement (BCMS)

There are no changes proposed to the basement or foundation strategy for the Proposed Development as a result of the Proposed Amendments.

Therefore, there is no requirement for any addendum to the BCMS submitted with the September 2017 Application.

**APPENDIX A** 

**Thames Water Correspondence** 

From: DEVELOPER.SERVICES@THAMESWATER.CO.U [mailto:DEVELOPER.SERVICES@THAMESWATER.CO.UK] Sent: 08 June 2018 9:56 AM To: Katie Amos <katie.amos@arup.com> Subject: RE: RE: RE: IRef:1013170154 RE: Notting Hill Gate Ref: 547245

Hi Katie,

Many thanks for your email below.

Please submit this information as part of your planning application. If Thames Water is consulted on this, we would want to be provided with evidence why the amount of storage provided as attentuation tanks in the basement cannot be increased to limit the flows beyond that stated.

Regards

Jonathan Shildrick BSc

Developer Services – Development Engineer Helpdesk: 0800 009 3921

Clearwater Court, Vastern Road, Reading, RG1 8DB

Find us online at developers.thameswater.co.uk

**Original Text** 

From: Katie Amos <<u>katie.amos@arup.com</u>> To: DEVELOPER.SERVICES@THAMESWATER.CO.U <DEVELOPER.SERVICES@THAMESWATER.CO.UK> CC: **Sent:** 06.06.18 12:20:23 Subject: RE: RE: IRef:1013170154 RE: Notting Hill Gate Ref: 547245

#### Hi Jonathan,

Thanks for your email. We have demonstrated previously that there is no alternative for the disposal of the surface water – we cannot discharge to ground as there is no space on the site but more importantly the London tube lines run beneath the plot, there is no river nearby and the proposed development has a 2 storey basement.

Therefore the proposals for discharge of storm water flows remain as the September 2017 submission, in that they are discharged to the Thames Water sewers adjacent to the site. The proposals comprise of flows from the Perimeter Buildings and courtyard discharging via attenuation tanks suspended within the basement B-1 level (at a restricted flow rate of 46 l/s). Storm water flows from the Corner Building and WPB3 green roof will be attenuated within the roof build up and then will be discharged to the sewer via a separate connection (at a restricted flow rate of approx. 1.5 l/s).

1

The two outfalls combined discharge is 48 l/s which is equivalent to approximately 73% of the existing 2year storm event and 47% of the existing 100-year storm event. This includes an allowance for climate change within the storage. Therefore, we are providing a significant reduction from the existing flows.

Kind regards

Katie Amos Senior Engineer | Infrastruture West MEng (Hons) CEng MICE

Arup 4 Pierhead Street, Capital Waterside, Cardiff CF10 4QP United Kingdom dd +44 29 2026 6520 f +44 29 2047 2277 www.arup.com

From: DEVELOPER.SERVICES@THAMESWATER.CO.U [mailto:DEVELOPER.SERVICES@THAMESWATER.CO.UK] Sent: 01 June 2018 8:46 AM To: Katie Amos <katie.amos@arup.com> Subject: RE: RE: IRef:1013170154 RE: Notting Hill Gate Ref: 547245

Dear Katie,

Thanks for your email below.

In relation to the slight increase in the proposed foul water flows from that last reviewed, we would still have no objections to these proposals.

Could you please confirm the surface water dispsoal strategy again? There has recently been a change in our standard comments regarding surface water in that it must be shown (and backed up by written confirmation from the Lead Local FLood Authority) that all alternative methods of surface water disposal rather than connecting to a public sewer, have been fully investigated and ruled out.

If a connection to a public sewer is the only available option then it must be shown that the surface water run-off is being restricted as much as possible with the aim of achieving Greenfield run-off rates. If Thames Water is consulted as part of the re-submission to planning then this is what our planning team would want to see.

Regards

Jonathan Shildrick BSc

Developer Services – Development Engineer Helpdesk: 0800 009 3921

Clearwater Court, Vastern Road, Reading, RG1 8DB

Find us online at developers.thameswater.co.uk

2

#### **Original Text**

From: Katie Amos <katie.amos@arup.com> To: DEVELOPER.SERVICES@THAMESWATER.CO.U < DEVELOPER.SERVICES@THAMESWATER.CO.UK> CC: Sent: 29.05.18 11:38:51

Subject: RE: IRef:1013170154 RE: Notting Hill Gate Ref: 547245

#### Dear Sir/Madam.

I refer to a proposed development at Notting Hill Gate which my colleague, John Smith last consulted with yourselves in July 2017, for a re-submission of planning application, see below e-mail and letter attached. The project is to be re-submitted for planning. The areas of retail, office and residential have been reviewed for this latest revision. The building form, footprint and engineering elements have not changed.

We have reviewed the existing flows from the site as we have updated information from the previous submission. Please see attached the revised existing flows and the updated proposed flows. The surface water flows will remain the same as previously proposed, however foul flows will increase slightly to 10.81/s but are still below the existing foul flows of 11.7 l/s.

We received confirmation in February 2013, August 2015 and July 2017 that the proposed flows could be accommodated within the existing public sewerage network. On the basis that surface water flows remain as previously proposed, and that proposed foul flows are still below existing, can you confirm this remains acceptable.

Kind regards

Katie Amos Senior Engineer MEng (Hons) CEng MICE

#### Arup

4 Pierhead Street, Capital Waterside, Cardiff CF10 4QP United Kingdom **dd** +44 29 2026 6520 **f** +44 29 2047 2277 www.arup.com

#### From: John Smith

Sent: 26 July 2017 10:39 AM To: 'DEVELOPER.SERVICES@THAMESWATER.CO.UK' <DEVELOPER.SERVICES@THAMESWATER.CO.UK> Subject: RE: RE: IRef:1013170154 RE: Notting Hill Gate Ref: 547245

Hi Jonathan.

Thanks for the response, I confirm that we are updating and re-submitting the drainage strategy report as part of the new planning application.

Regards,

John

From: DEVELOPER.SERVICES@THAMESWATER.CO.UK [mailto:DEVELOPER.SERVICES@THAMESWATER.CO.UK] Sent: 26 July 2017 09:47 To: John Smith Subject: RE: RE: IRef:1013170154 RE: Notting Hill Gate Ref: 547245

Dear Mr Smith,

As the proposed foul water flows have only increased slightly over that previously proposed and they are still lower than the foul flows that discharged from the existing site then we do not envisage any capacity concerns.

Please note however that our Development Planning team may ask for a full drainage strategy to be re-submitted as part of your re-submission to planning confirming the above and that the surface water flows are being dealt with in-line with the London Plan.

Regards

Jonathan Shildrick

**Development Engineer** 

**Thames Water Developer Services** 

0800 009 3921

**Original Text** 

john.smith@arup.com From: DEVELOPER.SERVICES@THAMESWATER.CO.UK To: CC: Sent: 17.07.17 12:19:09 Subject: RE: IRef:1013170154 RE: Notting Hill Gate Ref: 547245

Dear Sir/Madam,

I refer to a proposed development at Notting Hill Gate which my colleague, Katie Amos last consulted with yourselves in 2015, following an original consultation in 2013, see below e-mail and attached letter. Katie is currently on maternity leave, the project is now to be re-submitted for planning. The only change will be the mix of residential development, where more social housing is to be included following a planning inspectors report. This does not change the building form, footprint or engineering elements, the only change is that the population has increased slightly. The surface water flows will remain the same as previously proposed, however foul flows will increase very slightly from 7.94 l/s to 8.10 l/s. These flows are still below the existing foul flows of 8.29 l/s.

We received confirmation in February 2013 and in August 2015 that the proposed flows could be accommodated within the existing public sewerage network. On the basis that surface water flows remain as previously proposed, and that proposed foul flows are still below existing, can you confirm this remains acceptable.

#### Many Thanks,

John

John Smith Associate Director | Civil Engineer

#### Arup

4 Pierhead Street Capital Waterside Cardiff CF10 4QP United Kingdom d: +44 29 2026 6599 m: +44 78 1023 0705 www.arup.com

Connect with Arup on LinkedIn Follow <u>@ArupGroup</u>

From: DEVELOPER.SERVICES@THAMESWATER.CO.UK [mailto:DEVELOPER.SERVICES@THAMESWATER.CO.UK]

Sent: 21 August 2015 11:07 To: Katie Amos Subject: IRef:1013170154 RE: Notting Hill Gate Ref: 547245

Dear Ms Amos,

Thankyou for your email below.

If nothing has changed in regards to the proposed development i.e. it's size, anticpated foul and surface water flows and where these are to be connected, then I can confirm our previous comments regarding the development as stated on Matt Walsha's letter dated 15th February 2013 are still valid.

Regards

Jonathan Shildrick

**Development Engineer** 

Original Text

From: katie.amos@arup.com To: developer.services@thameswater.co.uk CC: Sent: 14.08.15 12:29:32 Subject: Notting Hill Gate Ref: 547245

Dear Sir/Madam,

I refer to previous discussions regarding the proposed residential led mixed use development at Notting Hill Gate (ref: 547245).

We received confirmation in February 2013 that the proposed flows could be accommodated within the existing public sewerage network. We assume this is still current, can you please confirm this?

Thanks.

Kind regards

Katie Amos Engineer

Arup 4 Pierhead Street, Capital Waterside, Cardiff CF10 4QP United Kingdom **dd** +44 29 2026 6520 **f** +44 29 2047 2277 www.arup.com

Electronic mail messages entering and leaving Arup business systems are scanned for acceptability of content and viruses

This email has been scanned by the Symantec Email Security.cloud service. For more information please visit http://www.symanteccloud.com

Did you know you can manage your account online? Pay a bill, set up a Direct Debit, change your details or even register a change of address at the click of a button, 24 hours a day. Please visit www.thameswater.co.uk.

Thames Water Limited (company number 2366623) and Thames Water Utilities Limited (company number 2366661) are companies registered in England and Wales each with their registered office at Clearwater Court, Vastern Road, Reading, Berkshire RG1 8DB. This email is confidential and intended solely for the use of the individual to whom it is addressed. Any views or opinions presented are solely those of the author and do not necessarily represent those of Thames Water Limited or its subsidiaries. If you are not the intended recipient of this email you may not copy, use, forward or disclose its contents to any other person; please notify our Computer Service Desk on +44 (0) 203 577 8888 and destroy and delete the message and any attachments from your system.

We provide the essential service that's at the heart of daily life.

This email has been scanned by the Symantec Email Security.cloud service. For more information please visit http://www.symanteccloud.com

Did you know you can manage your account online? Pay a bill, set up a Direct Debit, change your details or even register a change of address at the click of a button, 24 hours a day. Please visit www.thameswater.co.uk.

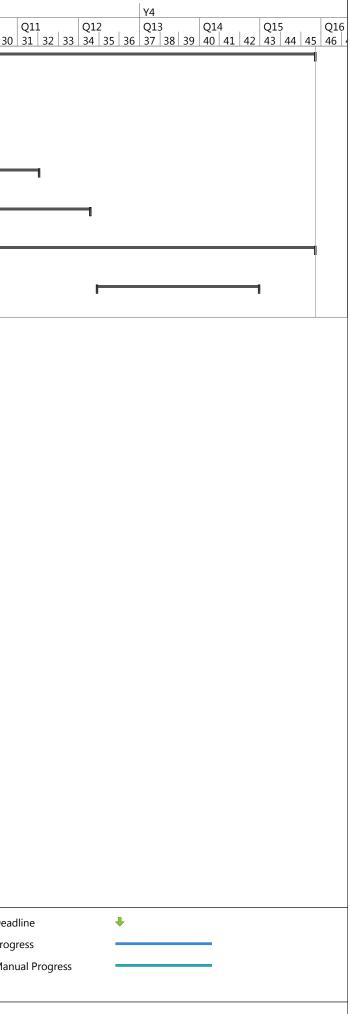
6

**APPENDIX B** 

**CTMP Programmes** 

ID	Task	Task Name	Duration		Y1				Y2				Y	(3	
	Mode			-1	Q1 1 2 3	Q2 4 5	Q3 6 7 8	Q4 9 10 11	Q5 12 13 14	Q6 15 16 17	Q7 18 19 20	Q8 21 22			Q10 7 28 29 30
1	->	Construction Programme	194.56 wks												
2	-5	Enabling Works, Soft Strip & Demolition	30 wks		(										
12		Sub-structure	55 wks	_			·				1				
32	÷	Superstructure	57 wks												
45	-5	Facades & Roofs	43 wks										F		
64	-5	MEP Services & Finishes	96.56 wks	_											
142	->	External Works	34.8 wks	-											

	Task		Project Summary	1	Manual Task		Start-only	C	Dea
Project: Newcombe House Rese	Split		Inactive Task		Duration-only		Finish-only	Э	Prog
Date: Wed 27/06/18	Milestone	<b>♦</b>	Inactive Milestone	$\diamond$	Manual Summary Rollup		External Tasks		Mar
	Summary	<b> </b>	Inactive Summary	0	Manual Summary	ii	External Milestone	$\diamond$	
					Page 1				
					3				



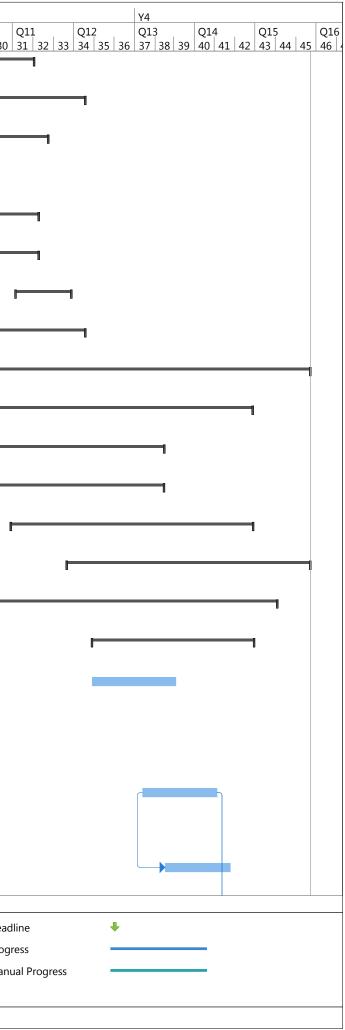
D	Task Mode	Task Name		Duration	Y1 Q1		Q	3 Q4	Y2 Q5	Q6	Q7 Q	Y3 8 Q9	Q10 26 27 28 29 30
1		Construction Pro	gramme	194.56 wks	-1 1	2 3 4	5 6 7	7 8 9 10	11 12 13 14	15 16 17	18 19 20 21 22	2 23 24 25 2	26 27 28 29 30
2		Enabling Work	s, Soft Strip & Demolition	30 wks	1			٦					
3		Site set up 8	k establishment, make safe / cap services	s 8 wks									
4		Erect footpa	th gantreis & demolition scaffolds	12 wks		J							
5			nc. make safe/decommision services & tifications, surveys & removal)	14 wks									
6		Plant remov	al & plantrooms clear	4 wks									
7		Tower cran	base construction & erect crane	5 wks									
8	-5	Demoltion (	KCH buildings)	10 wks									
9	-5	Demolition	to ground floor level (Tower)	18 wks		>							
10	->	Tower: exist	ing basement propping	3 wks									
11		Exisiting pile	e break down & removal	12 wks									
12	÷	Sub-structure		55 wks			r				-1		
13	-,	Countyard;	set out & pile probe / BO obstructions	6 wks									
14	-5	Perimeter p	iled wall (CFA) Approx: 310 lm	8 wks									
15	-,	Bearing pile	s - Tower	7 wks									
16			s - Other areas	7 wks									
17		Piled wall; P	ile break down & prep	7 wks			ſ						
18	-5	FR&C cappir	ng beam	10 wks									
19	-5	Excavate to	10 wks					Ч					
	1		Task	Project Summary	l l		Ma	inual Task			Start-only	С	Dead
Proie	t: Newco	mbe House Rese		nactive Task			Du	ration-only			Finish-only	С	Progr
-	Wed 27/0			nactive Milestone	$\diamond$			inual Summary	Rollup		External Tasks		Manu
Date:			-										

						Y4								
0	Q11 31	32	33	Q12 34	35 36	Q13	ຊຂ່ຊ	Q 40	14 )   41	42	Q15 43	44 L	15	Q16 46
	51	52	55	51	55   50	51	50   5			12	13		-	
ad	line	_		_	₽			_		_	_	_		_
ogr	ess													
anu	ial P	rogre	ess											
_														

21       •         22       •         23       •         24       •         25       •         26       •         28       •         30       •         31       •	Cross site propping Excavate to formation level -2 slab lvl Excavate to formation u/side -3 slab lvl Bearing pile break down & prep Underslab drainage & services / FR&C pilecaps FR&C B-3 slab (localised to centre of site)	10 wks10 wks2 wks10 wks10 wks3 wks	Q1 Q2 Q3 Q3 Q4 Q5 Q5 Q6 Q7 Q8 Q9 Q10 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29
22       ••         23       ••         24       ••         25       ••         26       ••         27       ••         28       ••         30       ••         31       ••	Excavate to formation u/side -3 slab lvl Bearing pile break down & prep Underslab drainage & services / FR&C pilecaps	2 wks 10 wks 15 wks	
23	Bearing pile break down & prep Underslab drainage & services / FR&C pilecaps	10 wks 15 wks	
24       30       31       30 <td< td=""><td>Underslab drainage &amp; services / FR&amp;C pilecaps</td><td>15 wks</td><td></td></td<>	Underslab drainage & services / FR&C pilecaps	15 wks	
25       •••         26       •••         27       •••         28       •••         300       •••         31       •••			
26     30       31	FR&C B-3 slab (localised to centre of site)	3 wks	
27     30       31			
28	FR&C cols / walls B-3 to B-2	3 wks	
29     30       31	FR&C B-2 slab	14 wks	
30     -5       31     -5	FR&C cols / walls B-2 to B-1	14 wks	
31 5	FR&C B-1 slab	14 wks	
	FR&C cols / walls B-1 to Grd	14 wks	
32 <b>- 3</b> Su	FR&C Grd floor slab	14 wks	
	iperstructure	57 wks	
33 🔩	Central Form	40 wks	1
35 📑	East Form	30 wks	1
37 📑	NHG Building	15 wks	
39 📑	KCS Building 1	17 wks	
41 📑	KCS Building 2	16 wks	
Project: Newcombe Date: Wed 27/06/18		Project Summary Inactive Task Inactive Milestone	Manual Task     Start-only     E     E       Duration-only     Finish-only     Image: Start-only     Image: Start-only       Manual Summary Rollup     External Tasks     Image: Start-only
2410. 1104 27/00/10		Inactive Summary	Manual Summary External Milestone

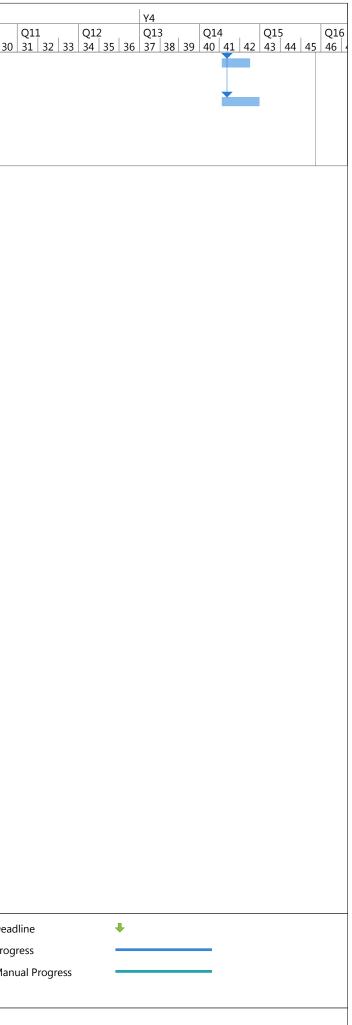
							Y4									
	Q1:	L		Q12	2		Υ4 Q13	3		Q14	Ļ		Q15	5		Q16
30	31	32	33	34	35	36	37	38	39	Q14 40	41	42	43	44	45	Q16 46
		_														
		1														
I																
ead	line				1	ŀ										
ogr	ess				-					_						
	ial P	rogi	ess													
		-														

)	Task Mode	Task Name			Duration	Y1 Q1 Q2 -1 1 2 3 4 5 6	Q3 Q4	Y2 Q5 Q6	Q7 Q8	Y3 Q9	Q10
43	-,	West Perim	eter Buildings		36 wks	<u>-1 1 2 3 4 5 6</u>	7 8 9 10 11 12	13   14   15   16   17	<u>'   18   19   20   21   22   2</u>	23 24 25 26	27 28 29
45	-,	Facades & Roo	ofs		43 wks						
46		Central For	m		28 wks					F	
19		East Form			22 wks						
52		NHG Buildi	ng		15 wks						-
55		KCS Buildin	g 1		12 wks						I
58		KCS Buildin	g 2		12 wks						
51		West Perim	eter Buildings		24 wks						г
64	->	MEP Services	& Finishes		96.56 wks						
65		Central For	m		84 wks						
78		East Form			65 wks						
90		NHG Buildin	ng		41.9 wks						F
03	-5	KCS Buildin	g 1		52.16 wks						
16		KCS Buildin	g 2		52.56 wks						
29		West Perim	eter Buildings		62.4 wks						
42		External Work	ſS		34.8 wks						
L43	÷		s, drainage, ducts, plin rk, aco bases etc.	ths, set covers, 1	st 18 wks						
.44		Build up / ir	nsulation & waterproo	fing]	16 wks						
.45	-	Hard landsc	aping		14 wks						
			Task		Project Summary		Manual Task		Start-only	E	
		mbe House Rese	Split		Inactive Task		Duration-only		Finish-only	C	
ate:	Wed 27/	06/18	Milestone	•	Inactive Milestone		Manual Summary Rollup		External Tasks		
			Summary		Inactive Summary	[]	Manual Summary	II	External Milestone	$\diamond$	



ID	Task Mode         Task Name         Duration         Y1           -1         1         2         3         4	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $
146		<u></u>
147	Finals (Street furniture, marking, signage etc)       8 wks	

	Task		Project Summary	1	Manual Task		Start-only	C	Dea
Project: Newcombe House Rese	Split		Inactive Task		Duration-only		Finish-only	Э	Pro
Date: Wed 27/06/18	Milestone	•	Inactive Milestone	$\diamond$	Manual Summary Rollup		External Tasks		Mai
	Summary	<b>—</b>	Inactive Summary	0	Manual Summary	I1	External Milestone	$\diamond$	
					Page 4				



Task Mode	Task Name		Duration	Y1 Y2 Y3 Y4
				Q1       Q2       Q3       Q4       Q5       Q6       Q7       Q8       Q9       Q10       Q11       Q12       Q13       Q14       Q15         -1       1       2       3       4       5       6       7       8       9       10       11       12       13       14       15       16       17       18       19       20       21       22       23       24       25       26       27       28       29       30       31       32       33       34       35       36       37       38       39       40       41       42       43       44       45
1 _	Construction Pro	-	194.56 wks	
2 –	-	ks, Soft Strip & Demolition	30 wks	
3 🚄		& establishment, make safe / cap servi		
		ath gantreis & demolition scaffolds	12 wks	
5 🔩	Soft Strip (i	nc. make safe/decommision services &	k 14 wks	
	asbestos no	otifications, surveys & removal)		
6 🛋	Plant remo	val & plantrooms clear	4 wks	
7 📑	Tower cran	base construction & erect crane	5 wks	
3 📑		(KCH buildings)	10 wks	
9 5		to ground floor level (Tower)	18 wks	
LO 📑		ting basement propping	3 wks	
		e break down & removal	12 wks	
2 -	Sub-structure		55 wks	
.3 🗾		set out & pile probe / BO obstructions	6 wks	
4 📑	Perimeter p	oiled wall (CFA) Approx: 310 lm	8 wks	
15 🛋	Bearing pile	es - Tower	7 wks	
L6 🗾		es - Other areas	7 wks	
7 🔩		Pile break down & prep	7 wks	
.8 🔩	FR&C cappi		10 wks	
9		1 st prop level	10 wks	
20	Cross site p		10 wks	
		formation level -2 slab lvl	10 wks	
2 🔩	Excavate to	formation u/side -3 slab lvl	2 wks	
23 🔩	Bearing pile	e break down & prep	10 wks	
24 🗾	Underslab o	drainage & services / FR&C pilecaps	15 wks	
25 🔫	FR&C B-3 sl	ab (localised to centre of site)	3 wks	
26 🚄	FR&C cols /	walls B-3 to B-2	3 wks	
27 🔩	FR&C B-2 sl		14 wks	
		walls B-2 to B-1	14 wks	
-	FR&C B-1 s		14 wks	
0		walls B-1 to Grd	14 wks	
31 🔩	FR&C Grd f		14 wks	
2 🔩	Superstructur		57 wks	
3 🚽	Central For		40 wks	
34 🛋	FR&C RC	superstructure Grd-16th	40 wks	
35 🔩	East Form		30 wks	
6 록	FR&C su	perstructure Grd-12th	30 wks	
37 🔩	NHG Buildi		15 wks	
38 🚄		perstructure Grd-3rd	15 wks	
9	KCS Buildin		17 wks	
0		berstructure Grd-3rd	17 wks	
1 5	KCS Buildin	-	16 wks	
2 📑	FR&C SU	perstructure Grd-3rd	16 wks	
• . • .		Task	Project Summary	Manual Task     Start-only     Deadline       Duration-only     Finish-only     Progress
	ombe House Rese			
te: Wed 27	/06/18	Milestone $\blacklozenge$	Inactive Milestone	Manual Summary Rollup External Tasks Manual Progress
		Summary	Inactive Summary	Manual Summary External Milestone

D	Task Mode	Task Name	Duration
43		West Perimeter Buildings	36 wks
44	-,	FR&C superstructure Grd-6th	36 wks
45		Facades & Roofs	43 wks
46	-,	Central Form	28 wks
47	-,	Cladding Grd -16th	28 wks
48		Roof waterproofing & Finishes	8 wks
49	-,	East Form	22 wks
50	-,	Cladding Grd -12th	22 wks
51	-,	Roof waterproofing & Finishes	8 wks
52		NHG Building	15 wks
53		Cladding Grd -3rd	15 wks
54		Roof waterproofing & Finishes	12 wks
55	-	KCS Building 1	12 wks
56	-,	Cladding Grd -3rd	12 wks
57	-,	Roof waterproofing & Finishes	7 wks
58	-,	KCS Building 2	12 wks
59	-,	Cladding Grd -3rd	12 wks
60		Roof waterproofing & Finishes	9 wks
61		West Perimeter Buildings	24 wks
62	-,	Cladding Grd -6th	22 wks
63		Roof waterproofing & Finishes	12 wks
64	-,	MEP Services & Finishes	96.56 wks
65	-,	Central Form	84 wks
66	-,	MEP Services - 1st fix	38 wks
67	-,	Internal Walls	34 wks
68	-5	Vertical services - Pipework, ductwork, 1st fix electrical	20 wks
69	-5	Basement & Ground floor plant & plantroom installation	19 wks
70		Internal fit out	42 wks
71	-5	Vertical services - Test & Lag pipe / duct, electrical bus bars & taps off	
72		Core Fit out & finishes	40 wks
73	-,	Lifts installation	24 wks
74	-5	Roof plant & plantroom installation	20 wks
75		MEP services - 2nd fix	38 wks
76	<b>-</b> 3	Finals / FF&E	14 wks
77		MEP services Test & Commission	12 wks
78		East Form	65 wks
79		Internal Walls	28 wks
80	<b>-</b> 3	MEP Services - 1st fix	28 wks
81	-5	Vertical services - Pipework, ductwork, 1st fix electrical	12 wks
82		Internal fit out	30 wks
83		Vertical services - Test & Lag pipe / duct, electrical	10 wks
		bus bars & taps off	
84		Lifts installation	20 wks
		Task	Project Summary
Proio	Act: Nowco		nactive Task
-	: Wed 27/0		nactive Milestone
ale.			

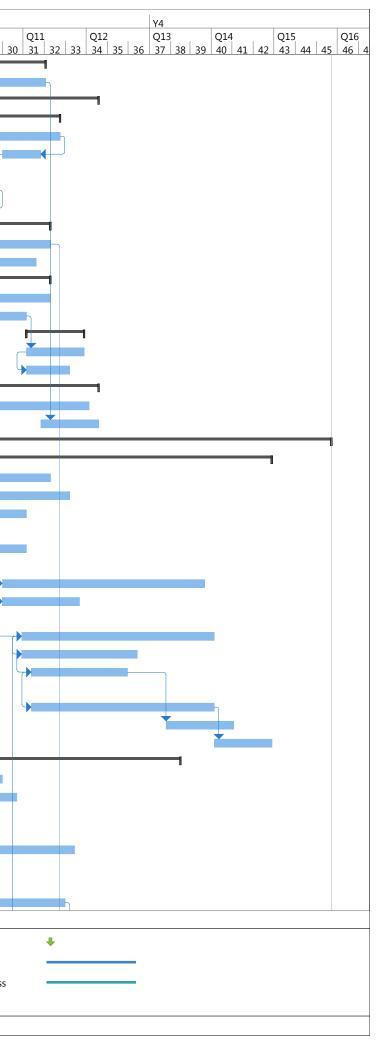
Summary

Inactive Summary

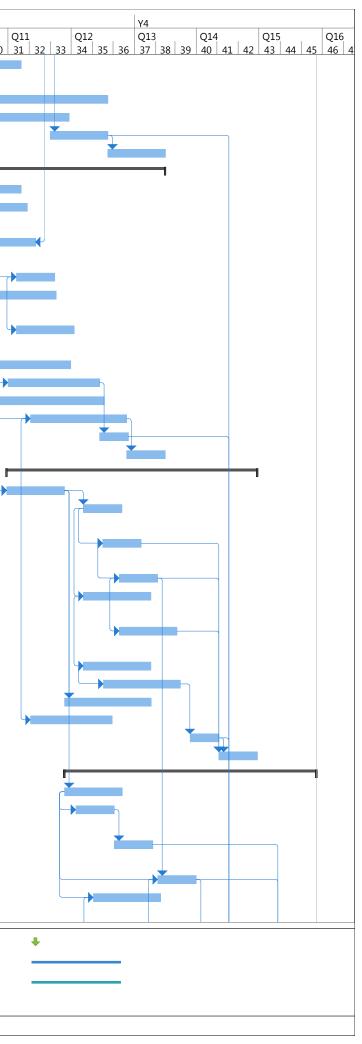
Page	2
5	

Manual Summary

External Milestone



D	Task Mode	Task Name	Duration	Y1 Q1 Q -1 1 2 3 4	2	Q3 Q2 6 7 8 9 10	4	Y2 Q5	Q6	Q7	Q8 21 22 23 24	Y3 Q9	Q10
85		Roof plant & plantroom installation	14 wks		1 5		0   11	12   13   14	15   16   17	18 19 20	21 22 23 24	1 25 26 2	28
86	-,	Core Fit out & finishes	32 wks										
87		MEP services - 2nd fix	28 wks										+
	-,	Finals / FF&E	12 wks	_									
89		MEP services Test & Commission	12 wks	_									
90		NHG Building	41.9 wks										
91		Internal Walls	12 wks										
92		Vertical services - Pipework, ductwork, 1st fix electrical	8 wks										<u> </u>
93	-5	Vertical services - Test & Lag pipe / duct, electrical bus bars & taps off	8 wks										
94	-,	Lifts installation	8 wks	-									
95		Basement & Ground floor plant & plantroom installation	14 wks										
96	-9	Roof plant & plantroom installation	12 wks										
97	-,	MEP Services - 1st fix	17 wks										
98	-,	Core Fit out & finishes	19 wks										
99	-,	Internal fit out	22 wks										
	-,	MEP services - 2nd fix	20 wks										
101	-,	Finals / FF&E	6 wks										
102	-,	MEP services Test & Commission	8 wks										
103	-,	KCS Building 1	52.16 wks										
	-,	Internal Walls	12 wks										
	-	Vertical services - Pipework, ductwork, 1st fix electrical	8 wks										
106		Vertical services - Test & Lag pipe / duct, electrical bus bars & taps off	8 wks										
107	-,	Lifts installation	8 wks										
		Basement & Ground floor plant & plantroom installation	14 wks										
109		Roof plant & plantroom installation	12 wks										
110		MEP Services - 1st fix	14 wks										
111		Core Fit out & finishes	16 wks										
112	-	Internal fit out	18 wks										
113	-	MEP services - 2nd fix	17 wks										
114		Finals / FF&E	6 wks										
115		MEP services Test & Commission	8 wks										
116	-	KCS Building 2	52.56 wks										
117		Internal Walls	12 wks	_									
118		Vertical services - Pipework, ductwork, 1st fix electrical	8 wks										
119		Vertical services - Test & Lag pipe / duct, electrical bus bars & taps off											
120	-	Lifts installation	8 wks	_									
121	->	Basement & Ground floor plant & plantroom installation	14 wks										
			roject Summary	0		Manual Task			Start-o		C		adline
			nactive Task			Duration-only			Finish-	-	3		gress
Date:	Wed 27/	06/18 Milestone	nactive Milestone	$\diamond$		Manual Summary Rol	llup 💼		Externa	l Tasks		Mai	nual Pro
		Summary I	nactive Summary	0		Manual Summary			Externa	l Milestone	$\diamond$		
							Page						



	Task Mode	Task Name	Duration	Y1         Y2         Y3           Q1         Q2         Q3         Q4         Q5         Q6         Q7         Q8         Q9         Q10
2	->	Roof plant & plantroom installation	12 wks	-1 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28
3		MEP Services - 1st fix	14 wks	
		Core Fit out & finishes	16 wks	
		Internal fit out	18 wks	
26		MEP services - 2nd fix	17 wks	
	-,	Finals / FF&E	6 wks	
	-,	MEP services Test & Commission	8 wks	
		West Perimeter Buildings	62.4 wks	
	-,	Internal Walls	32 wks	
		MEP Services - 1st fix	26 wks	
		Vertical services - Pipework, ductwork, 1st fix electrical	14 wks	
33	->	Vertical services - Test & Lag pipe / duct, electrical bus bars & taps off	14 wks	
34		Lifts installation	16 wks	
35	-5	Basement & Ground floor plant & plantroom installation	14 wks	
36		Roof plant & plantroom installation	14 wks	
37		Core Fit out & finishes	27 wks	
38		Internal fit out	30 wks	
39		MEP services - 2nd fix	29 wks	
10		Finals / FF&E	11 wks	
1		MEP services Test & Commission	13 wks	
42		External Works	34.8 wks	
43	-5	BWIC: Bases, drainage, ducts, plinths, set covers, 1st fix metalwork, aco bases etc.	18 wks	
.44	->	Build up / insulation & waterproofing]	16 wks	
.45	-5	Hard landscaping	14 wks	
.46		Soft landscaping	6 wks	
147		Finals (Street furniture, marking, signage etc)	8 wks	

	Task		Project Summary	1	Manual Task		Start-only	C	Deadline
Project: Newcombe House Rese	Split		Inactive Task		Duration-only		Finish-only	Э	Progress
Date: Wed 27/06/18	Milestone	<b>♦</b>	Inactive Milestone	$\diamond$	Manual Summary Rollup		External Tasks		Manual Progress
	Summary	<b>—</b>	Inactive Summary	0	Manual Summary	·1	External Milestone	$\diamond$	
					П	200 1			

