Revised Flood Risk Assessment Addendum

Job Name: Lotmead Farm, Swindon

Job No: 22006

Note No: 22006-HYD-P0-XX-RP-C-0006

Date: 01/03/2023

Prepared By: J Candy

Subject: Revised Addendum to Flood Risk Assessment

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1. Introduction

This document has been prepared by Hydrock on behalf of Countryside Sovereign Swindon LLP (CSS) as a Revised Addendum to the Flood Risk Assessment (FRA) dated March 2019 (ref. 27970/4003/001) produced by Stantec, and approved as part of outline planning permission (ref. S/OUT/19/0582/PEEG) for up to 2,500 homes and supporting infrastructure at Lotmead in the New Eastern Villages, Swindon. This document replaces in full the FRA Addendum prepared by Stantec in August 2019 (ref. 27970/4003/TN001), herein referred to as the "replaced FRA Addendum".

This Revised Addendum has been prepared following discussions with Swindon Borough Council and is in accordance with national and local flood risk policy.

The purpose of this Revised Addendum is to ensure consistency with other documents approved as part of the outline permission (including Parameter Plans and the Illustrative Masterplan) and ensure that residential delivery under the outline planning permission can be sustainably optimised.

2. Background

Details relating to the proposed surface water drainage system were included in Section 7 of the FRA, with Sections 7.4 to 7.7 providing specific detail on future design parameters and criteria.

This was then expanded on in the replaced FRA Addendum. As it explained, its content was produced to address queries raised by the Lead Local Flood Authority and the Environment Agency during the outline application. This included an Updated Surface Water Drainage Strategy (ref. 27970-4005-001 Rev B), which superseded the one included in the FRA. Agreement with Swindon Borough Council and the statutory consultees was reached, subject to a series of conditions attached to the outline planning permission, relating to drainage, including conditions 41, 42, 43 and 46; all of which reference the replaced FRA Addendum.

Following the granting of the outline permission, further discussions between the applicants and Swindon Borough Council have taken place during 2022 and 2023 with regard to drainage, and it has been agreed that elements of the replaced FRA Addendum are not in the best interests of ensuring that residential capacity can be sustainably optimised under the outline permission whilst remaining consistent with all other aspects of the permission. Specifically, these elements related to principles for future detailed surface water and drainage design, which are based on guidance rather than national or local policy. Further information relating to this can be found in the statement that accompanies this Revised Addendum.

To confirm, the changes proposed within this Revised Addendum do not affect any other documents approved as part of the outline permission (such as the Illustrative Masterplan, or the Green Infrastructure Parameters Plan, approved under conditions 4 and 5).

3. Drainage

In terms of future drainage design, the design principles set out below focus on establishing the key parameters and criteria for future surface water drainage design.

The content of this document supersedes any principles relating to drainage within the Design and Access Statement (DAS)

Surface Water and SuDS Design

- SuDS are to be provided in accordance with CIRIA C753 and to be located outside of post-development 1 in 100 plus 70% climate change floodplain extents.
- Source control SuDS features will be included (attenuation basins, swales, rain gardens and existing ditches), subject to not compromising residential capacity or requiring site levels to be raised excessively. The location of features will be determined through information to be approved via Condition 46.
- Under drained swales providing conveyance and attenuation storage will be utilised alongside strategic roads. In addition, piped sewers will be required to convey surface water runoff to tertiary basins or ponds (defined and understood to be end of line attenuation). The tertiary basins will be located on the edge of the catchments upstream of the designated outfall location. They will provide water treatment and attenuation so that flows are restricted to greenfield runoff rates prior to discharge into the receiving watercourse.
- The proposed drainage strategy will be tested with surcharged outfalls to confirm the adequate operation and performance of the system in the event of the receiving watercourse being in flood.
- All existing watercourses have been surveyed and will be retained post-development for surface water conveyance.
- The main central ditch identified in the Flood Risk Assessment is within the post development fluvial flood extent and consequently will be used for conveyance only.
- All strategic SuDS attenuation features will be designed with a minimum freeboard of 300mm to allow for any residual risk related to blockage or an extreme rainfall event (in excess of the 1 in 100 plus 40% climate change event).

Rainfall catchment areas have been determined and for each catchment a limiting discharge rate (mean annual greenfield rate) of 4.67 l/s/ha will be applied for all events up to and including the 1 in 100 plus climate change event. Each rainfall catchment will comprise a minimum of two SuDS components to attenuate and improve water quality prior to discharging into one of the adjacent watercourses.

The following assumptions have been used in the surface water management strategy design:

- No infiltration potential at site.
- Limiting discharge rate of 4.67 l/s/ha (mean annual greenfield rate) for all events up to and including 1 in 100 plus 40% climate change event.
- Design undertaken in accordance with best practice and National Planning Policy Framework (NPPF).
- Additional ecological and biodiversity benefits to be provided within SuDS such as planting, reed beds, or varying permanent water depths, where this does not compromise drainage function and is feasible.
- Exact detail of onsite drainage to be confirmed through information to be submitted pursuant to condition, however, indicative locations of safeguarded land for tertiary basins is shown on the Illustrative Masterplan.
- At the detailed design stage, inline non-return valves shall be fitted to all outfall points subject to flooding. Ground water monitoring will be undertaken and attenuation basins will be designed to take account of ground water levels.

Management and Maintenance

- Adoption and maintenance is to be undertaken in line with the long term management plan set out in the March 2019 FRA.
- Long term management of SuDS components is essential to ensure they continue to function to their design standard. As such, a management and maintenance plan pursuant to condition 48 will need to be developed in order to ensure the systems continue to function effectively.

Indicative Catchments

It is expected that the intermediate discharge rates will vary as detailed designs are prepared at a later stage to suit evolving designs for SuDS features however, the overall discharge rate will still be limited to 4.67 l/s/ha, and is anticipated to be distributed across a number of catchment areas across the site through the indicative allowable discharge rates as per Table 1 below.

Catchment	Area (Ha)	Indicative Allowable Discharge Rate (Qbar = 4.67l/s/ha)
A	9.3	43.4 l/s
B (B1, B2)	4.9	22.8 l/s
C (C1, C3, C4)	16.8	78.5 l/s
D1	5.0	23.4 l/s
D2	13.0	60.7 l/s
E1	1.6	7.5 l/s
E2	4.0	18.7 l/s
F1	4.9	22.9 l/s
F2	5.1	23.8 l/s
G1	6.1	28.5 l/s
G2	1.7	7.9 l/s
G3	1.5	7.0 l/s
H	10.7	50.0 l/s

Table 1 Anticipated Surface Water catchments and greenfield discharge rates

Production of strategic and detailed surface water management schemes are controlled via conditions 46 and 47 of the outline planning permission.

4.Environment Agency objection(s)

The Environment Agency (EA) previously objected to the proposed development, in a letter dated 5th August 2019 (Ref. WA/2019/126527/01-L01). Their letter outlines two main points, reproduced below for reference:

1) **Address climate change**
   We have reviewed the Climate Change Technical Report. We have responded to flood risk

modelling under a separate cover. Please note there are a number of issues which are highlighted in red and amber which need to be addressed.

2) **Provide enough detail on the proposed new bridges in the floodplain**
The proposal is for the new bridges to be modelled at a later date. We require additional information such as the proposed dimensions of these structures with sufficient detail to demonstrate that there is no effect below the 1 in 100 plus appropriate climate change level. We note that there are two options: 1. Open Span or 2. Culverts. We are opposed to culverting of watercourses because of the adverse ecological, flood risk, geomorphological, human safety and aesthetic impacts

The EA's letter also asked for further clarification on the proposed new modelled flood outlines, proposed development areas and the line of the Wilts & Berks Canal. The Green Infrastructure Parameter Plan (Drawing No. PL1461.1-PLA-00-XX-DR-U-0005-S4) in **Appendix A** was annotated to show the modelled flood outlines in relation to proposed development areas and line of the Canal.

The Outline approval further secures these elements under Condition 60 (Canal Route) and 41 (Environment Agency – Compliance with Flood Risk assessment).

Flood risk modelling note

The EA model review of the simulation of the latest climate change allowances raised a few detailed technical questions and comments. These were addressed in a technical note prepared by Stantec (Previously Peter Brett Associates) (Note No: TN201901) in **Appendix B**.
Overall, it is shown that none of the comments raised would have a significant influence on the current model or impact on the results

The Flood risk modelling is subsequently protected by Condition 40 (Environment Agency – Floodplain Restoration) and 41 (Environment Agency – Compliance with Flood Risk Assessment).

Bridges

The level of detail provided within the FRA (2019) is consistent with that of the FRA (2015) that accompanied the previous application, which was accepted by the EA. Further detail of recommendations is presented within this Addendum to address the EA's request.

Access bridges over Main Rivers will be designed in accordance with best practice and the latest EA guidance. Access bridges will also be designed in accordance with Swindon Borough Councils New Eastern Villages Island Bridge Vision Supplementary Planning Document (June 2017), which provides guidance on the design expectations for all bridges located within the NEV.

Any bridge crossing will cross Main River channels in a clear single span. Construction methods and the effect on the watercourse will be considered at the detailed design stage. However, outline design principles considered sufficient at this stage of planning are outlined below.

Each bridge crossing over Main Rivers will be designed so there is no net loss of floodplain storage and therefore no increase in flood risk to internal or external receptors. Bridge soffits will be raised a minimum of 600mm above the modelled 1 in 100 year plus climate change flood event. Flood relief culverts will be constructed, if required, to maintain flood conveyance flows.

We will liaise with the EA Ecology team in order to provide for mammal passage as required, at the detailed design stage.

Proposed works in, over, under or near a Main River or a flood defence require a 'Flood Risk Activity Permit' (FRAP) application to be made to the EA (this replaces the previous 'Flood Defence consent' (FDC) procedure). This is required to demonstrate any new development does not have a detrimental

impact on flood risk, either through impacting the integrity of the existing defence or through preventing maintenance access to the defence.

The proposed new access bridges crossing the River Cole will require FRAPs. Separate consent from SBC, as LLFA, is required for new crossings or development that may impact on minor and ordinary watercourses within and adjacent to the site.
Condition 42 (Environment Agency – River Crossing Details) secures the above requirements, and further details of proposed bridge crossings will be included in FRAPs as well as part of any relevant Reserved Matter Application.
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Canal

SBC's Local Plan seeks the re-instatement of the Wilts & Berks Canal and identifies an indicative alignment which crosses the southern and eastern edge of the Masterplan Site, as described in the Design and Access Statement.

The proposed route for the Wilts & Berks Canal, as set out on SBC's Local Policies Map will be safeguard and protected from development, in line with Policy EN11: Heritage Transport. A significant corridor width for the Canal has been allowed to ensure that this application does not constrain the Wilts &Berks Canal proposals as and when they come forward

The proposals will not prejudice the future alignment of the Canal and, indeed, the proposed floodplain reinstatement within the eastern part of the site will help support its delivery, as described in the Design and Access Statement. The proposed line of the canal is shown in **Appendix C** on the updated Illustrative Masterplan, Drawing No. PL1461.1-PLA-00-XX-DR-U-0002-S4.

Furthermore the canal route is now secured under condition 60 (Canal Route) of the outline approval.

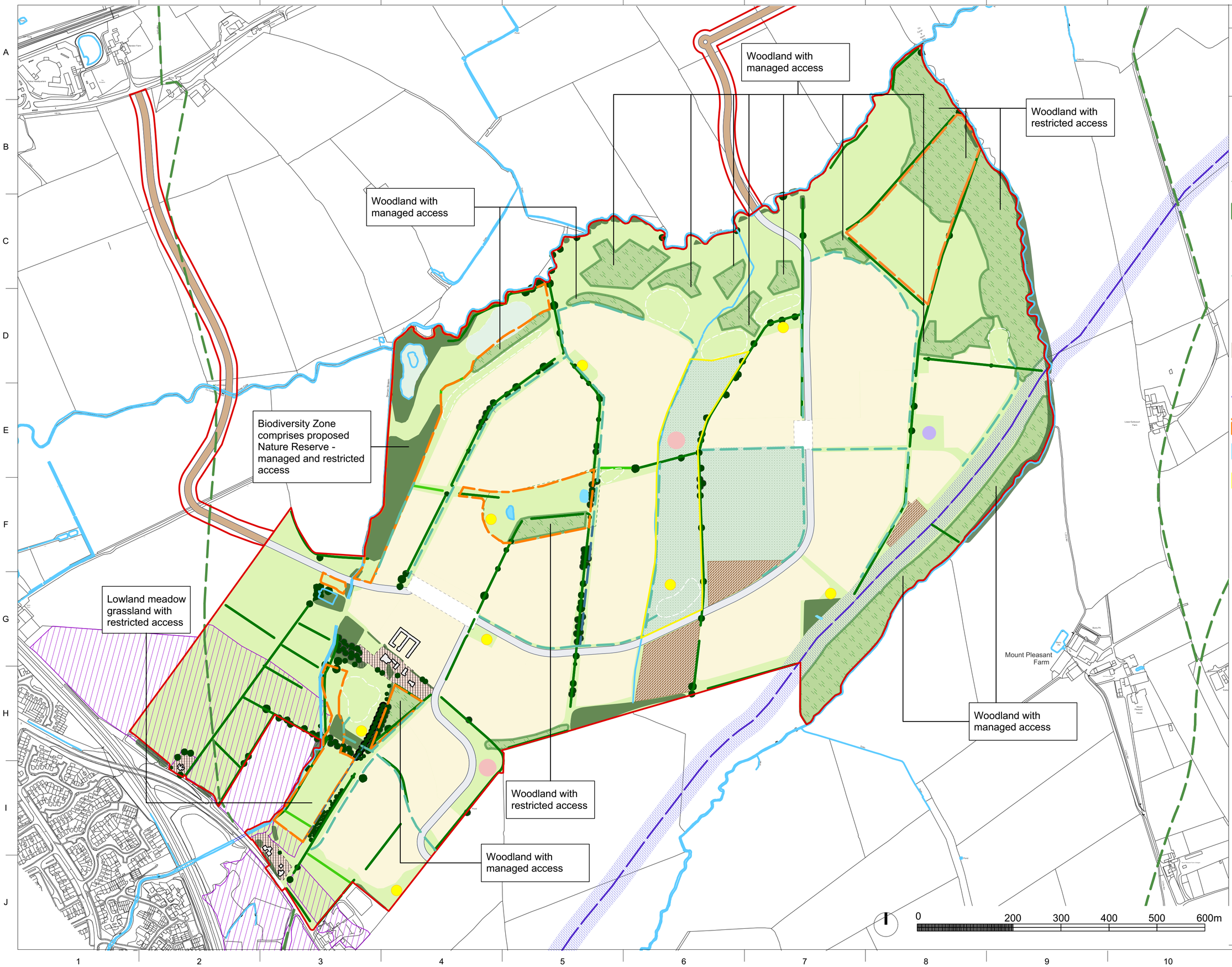
No surface water outfalls will drain into the Canal

5. Conclusion

This revised Addendum to the FRA regularises drainage requirements within the outline permission to ensure consistency with other documents approved as part of the outline permission (including Parameter Plans and the Illustrative Masterplan) and ensure that residential delivery can be sustainably optimised.

To confirm the above, the content of this Revised Addendum (in comparison to the replaced Addendum) does not change any other documents within the outline permission, or the drainage conditions attached to it, other than to update the reference associated to this document.

APPENDIX A – ***Green Infrastructure Parameter Plan (Drawing No. PL1461.1-PLA-00-XX-DR-U-0005-S4)***



NOTE:

1. Do not scale from this drawing. Always work to noted dimensions.
2. All dimensions are in millimetres unless otherwise stated.
3. All setting out, levels and dimensions to be agreed on site.
4. The dimensions of all materials must be checked on site before being laid out.
5. This drawing must be read with the relevant specification clauses and detail drawings.
6. Order of construction and setting out to be agreed on site.

KEY

- Green Space - 62.29 ha
  includes: retained green spaces and habitats, new biodiversity zones, open space and general recreation and play areas, grassland, structural planting and SUDS
- Existing Vegetation
  includes: woodland, hedgerows and trees
- Proposed Woodland - 17.14 ha
  includes: woodland, hedgerows and trees
- Sports Hub - 9.74 ha
  includes: playing pitches (7.4 ha) and additional formal sports facilities (0.4 ha)
- Proposed Secondary Drainage Feature
- Land Safeguarded for Tertiary Drainage Feature
- Recreational Lakes
- Allotments - 2.59 ha
- Scheduled Monument
- Safeguarded Canal Alignment
  includes 50m buffer zone and canal to be delived by third party
- Biodiversity Zones - 15.4 ha
- Existing Waterbodies
  includes streams, ponds and drainage ditches
- Central Parkland Corridor
- Vehicular route to be delivered by third parties
- Existing Plot
  to be retained
- Pedestrian Priority Zone

Safeguarded Play Space

- Neighbourhood Equipped Area for Play (NEAP) - indicative location
- Neighbourhood/ Locally Equipped Area for Play (NLEAP) - indicative location
- Locally Equipped Area for Play (LEAP) - indicative location

Overall Green Infrastructure Quantum - **91.76 ha**

Issue	Date	Status	Drawn	Apprvd.
P04	09.02.20	Planning	CJ	LF
P03	08.11.19	Planning	CJ	AR
P02	28.03.19	Planning	CJ	AR
P01	28.03.19	Planning	CJ	AR

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Client	Ainscough Strategic Land
Project	PL1461.1 East Swindon Lotmead Villages
Drg Title	Parameter Plan Green Infrastructure

Created on	Created by	Approved by
28.03.19	CJ	AR

Scale	Size	Status
1:5000	A2	Planning

Drg No.	Suitability	Revision
PL1461.1-PLA-00-XX-DR-U-0005	S4	P04

APPENDIX B – *PBA Response to EA Model Review (TN201901)*

Appendix D Response to EA model review ref 2018s0387 (TN201901)

TECHNICAL NOTE

Job Name: Lotmead Villages, Swindon

Job No: 27970/4008

Note No: TN201901

Date: 14/08/19

Prepared By: S Bari

Subject: **Response to EA model review ref 2018s0387**

1. Introduction

1.1. PBA has previously submitted hydraulic modelling pertaining to the proposed development of the Lotmead Villages site, to the east of Swindon, Wiltshire. The hydraulic modelling for the site has previously been reviewed and approved by the EA. This model was subsequently updated to address the updated climate change allowances and the EA has undertaken a review of these additional scenarios following the submission of the updated climate change modelling.

1.2. The EA response to the modelling was provided on the 5th of August 2019 and raised a number of additional queries regarding the modelling.

1.3. This technical note details PBA's further investigations and responses to the comments raised.

1.4. We have copied the relevant comments from the review into this letter along with our responses.

1.5. The EA comments were defined as either red, amber or green comments based their potential significance on the outcomes of the modelling.

1.6. The EA definition of the comments is as follows;

Red – omission that could make the findings subject to challenge and which requires correction/further work.

Amber – non-standard method or method not following guidance but unlikely to have impacted on results

Green – suggestion for improved / good practice but which is unlikely to change the project outcomes.

2. EA Comment on 1d Boundary Condition

2.1. The first comment from the review was highlighted as a 'Red' comment;

DOCUMENT ISSUE RECORD

Technical Note No	Rev	Date	Prepared	Checked	Reviewed (Discipline Lead)	Approved (Project Director)
27970/4008/TN201901	-	14/08/19	S Bari	T Hughes	A Hensler	A Hensler

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'Coincidently whilst checking the HQ was sufficient for the +70% CC flows it has been noted it has been applied incorrectly. Flow should be in the first column of the curve and stage in the second. See output from the 1d_bc check file. As such, the stage at the downstream node of the model is set at the bed level of cross section.'

2.2. The reviewer's comments are correct. This error was present in the original EA hydraulic modelling and unfortunately, was not identified during our update. Our modelling did not look to alter the downstream boundary conditions from the original calibrated EA model so we were not alerted to this discrepancy at the time.

2.3. As the downstream boundary condition in the model is set to the bed level of the channel rather than using the HQ rating curve, this would lead to a local drawdown in the modelled flood level at the downstream of the model.

2.4. However, having reviewed the model, the 1d downstream boundary condition has only a negligible impact on the modelled water levels at the site for the following reasons.

- The downstream boundary is located over 1 km downstream of the site – it is unlikely that any drawdown effect would extend this far upstream.

- The boundary is located behind two significant flow control structures across the floodplain – the A420 road and the railway line. These would act as a downstream control and prevent any artificial drawdown of flood levels at the downstream boundary extending further upstream to the site.

2.5. **Figure 1.** below indicates that location of the site and the downstream boundary and shows the downstream boundary is over 1 km away from the site.

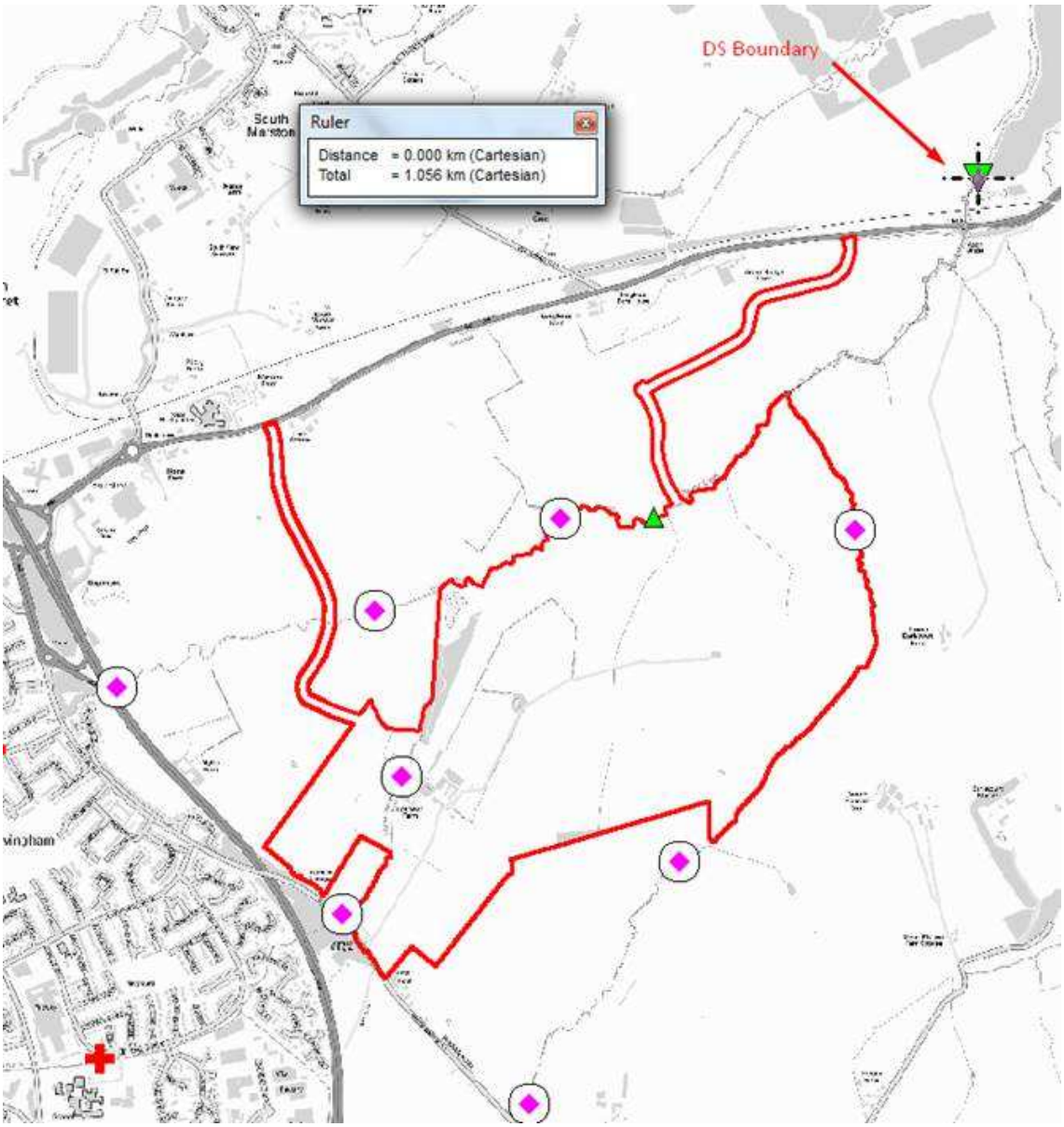


Figure 1) Downstream boundary location

2.6. **Figure 2.** shows an extract of the modelled flood extents at the downstream boundary with significant backing up at the road and railway lines.

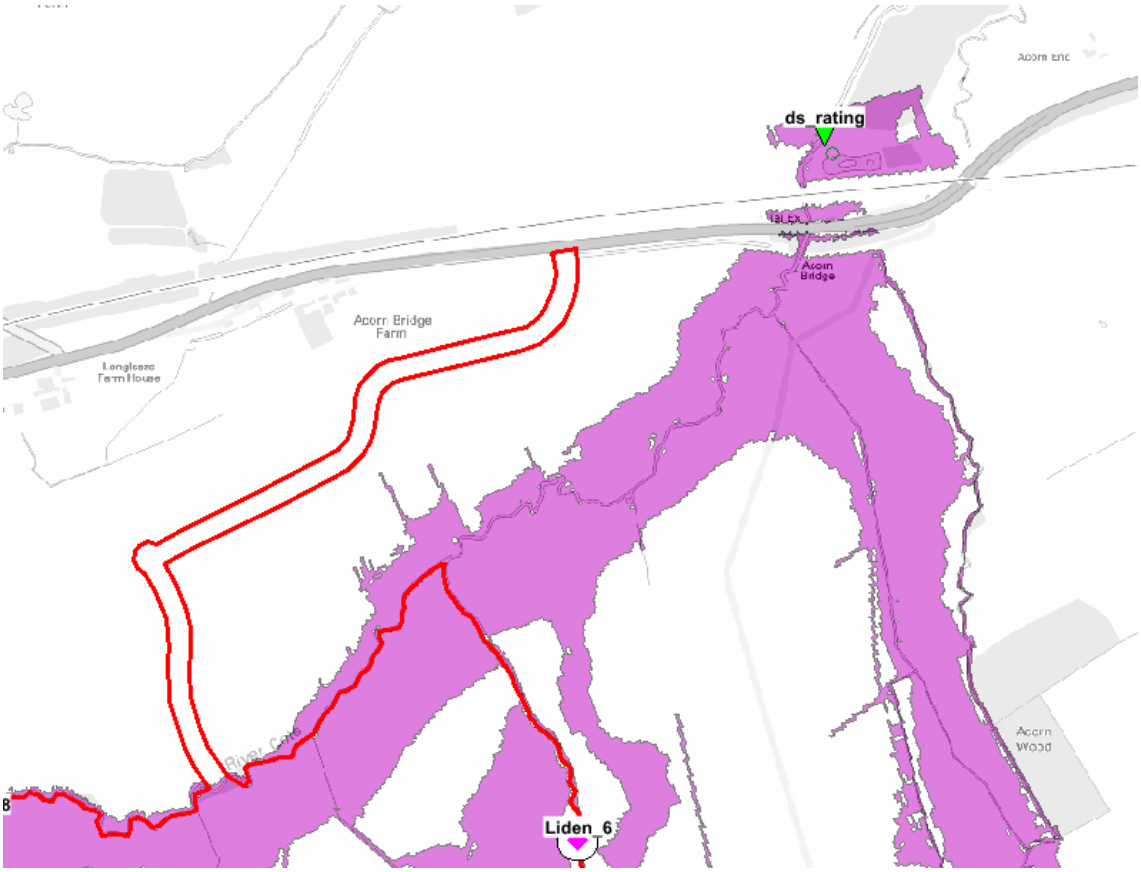


Figure 2) flood extents at downstream boundary showing backing up at road and railway

2.7. **Figure 3.** shows the maximum stage within the downstream reach for the 1:1000 annual probability event for the EA and PBA models.

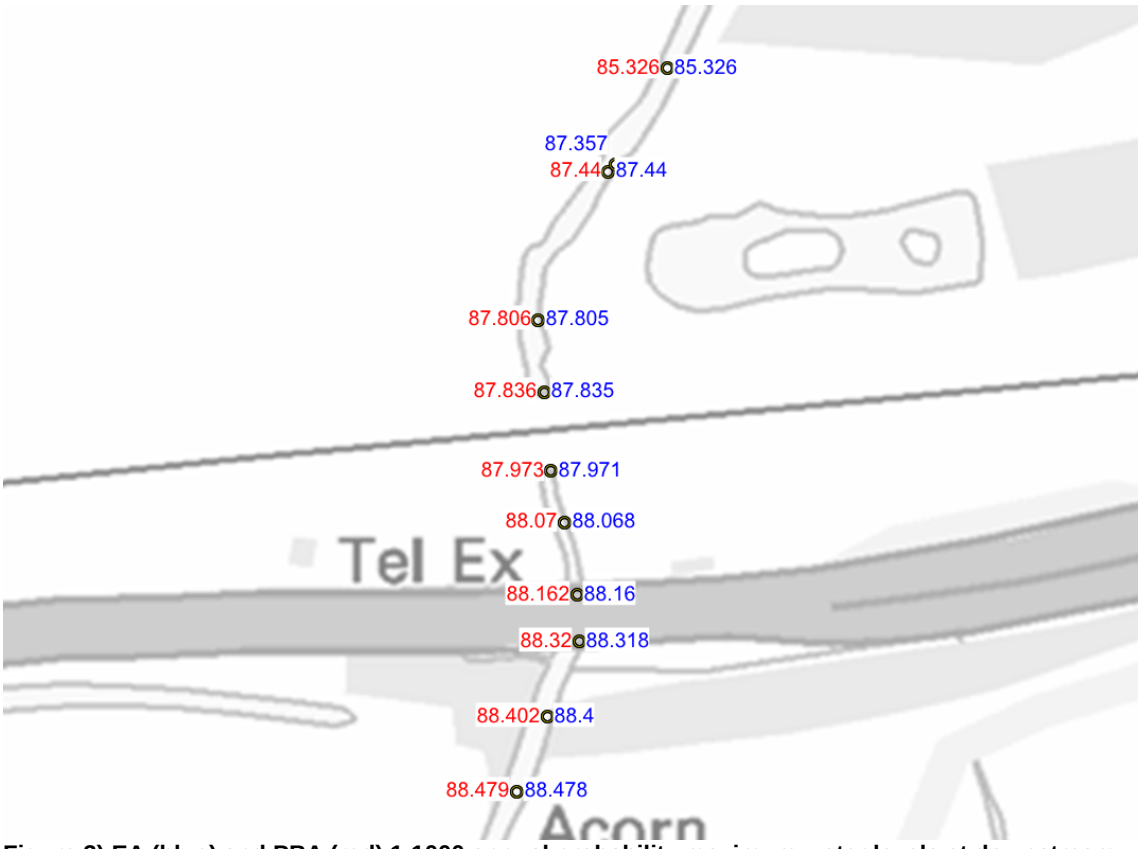


Figure 3) EA (blue) and PBA (red) 1:1000 annual probability maximum water levels at downstream

2.8. This shows a significant local drawdown in water levels at the very downstream due to error in the downstream 1d HQ boundary. However, this impact is present in both the EA calibrated model and PBA's model and the drawdown is localised at the very downstream channel sections. The water levels immediately upstream of the A420 road and the railway line are not significantly impacted.

2.9. As such, the actual impact of this error to the model is likely to be negligible given the location and greater impact of control structures.

3. EA Comment on omitted inflow boundaries

3.1. The following comments from the model review were Amber comments;

'It should be noted that in the bc_dbase an inflow named "ditchA" is present for both the 100-year + 35% climate change and 100-year +70% climate change events bc_dbases but isn't in the inflow CSV's. Additionally, "Input_G_Lta" is noted in the inflows CSV but not in the 1D QT boundaries. Should these flows be applied?'

3.2. PBA has reviewed this comment. The flow for DitchA was created during the model build stage to allow for a sweetening flow to be added to a dry drainage ditch, which was added to the model by PBA to capture a potential flow route. However, the ESTRY drainage ditch was ultimately stable enough with no flows such that a sweetening flow was not necessary.

3.3. The flow data for this channel was located in a different inflow csv (Swindon_112b_PBA.csv) but was set to 0 in any event **(Figure 4).**

	Name	Source	Column1_or_Time	Column2_or_Value_or_ID	TimeAdd
2	Cole_8	Swindon_112b.csv	Time_Col8	Flow_Col8	
3	Cole_7	Swindon_112b.csv	Time_Col7	Flow_Col7	
4	Cole_5a	Swindon_112b.csv	Time_Col5a	Flow_Col5a	
5	Stratton	Swindon_112b.csv	Time_Strat	Flow_Strat	
6	Dorcan_8	Swindon_112b.csv	Time_Dor8	Flow_Dor8	
7	Dorcan_7a	Swindon_112b.csv	Time_Dor7a	Flow_Dor7a	
8	Kestrel	Swindon_112b.csv	Time_Kes	Flow_Kes	
9	Liden_6	Swindon_112b.csv	Time_Lid6	Flow_Lid6	
10	Liden_5	Swindon_112b.csv	Time_Lid5	Flow_Lid5	
11	Liden_3a	Swindon_112b.csv	Time_Lid3a	Flow_Lid3a	
12	Lid_G	Swindon_112b.csv	Time_G_Lid	Flow_G_Lid	
13	Fox	Swindon_112b.csv	Time_Fox	Flow_Fox	
14	Lenta	Swindon_112b.csv	Time_Len	Flow_Len	
15	Input_G_Lta	Swindon_112b.csv	Time_G_Lta	Flow_G_Lta	
16	ds_rating	Swindon_038.csv	head_ds_rating	Flow_ds_rating	
17	ditchA	Swindon_112b_PBA.csv	Time_ditchA_PBA	ditchA_PBA	

	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT
1	Time_Lid6	Flow_Lid6		Time_Len	Flow_Len		Time_G_L	Flow_G_Lta		Time_ditchA_PBA	ditchA_PBA		
2	0	0.015528		0	0.272		0	0.068		0	0		
3	0.5	0.015528		0.5	0.272		0.5	0.068		50	0		
4	1	0.015839		1	0.28		1	0.07					
5	1.5	0.01677		1.5	0.296		1.5	0.074					
6	2	0.018323		2	0.336		2	0.084					
7	2.5	0.021118		2.5	0.4		2.5	0.1					
8	3	0.025466		3	0.504		3	0.126					
9	3.5	0.032609		3.5	0.664		3.5	0.166					
10	4	0.043168		4	0.912		4	0.228					

Figure 4) inflow data for DitchA

3.4. Input_G_Lta was included in the flow data .csv file from the EA model however it was not used in the their final model. **Figure 5.** shows the inflow labels from the EA model (1d_bc_swin_077), which does not include Input_G_Lta. Therefore the omission of this inflow is consistent with the existing EA model.

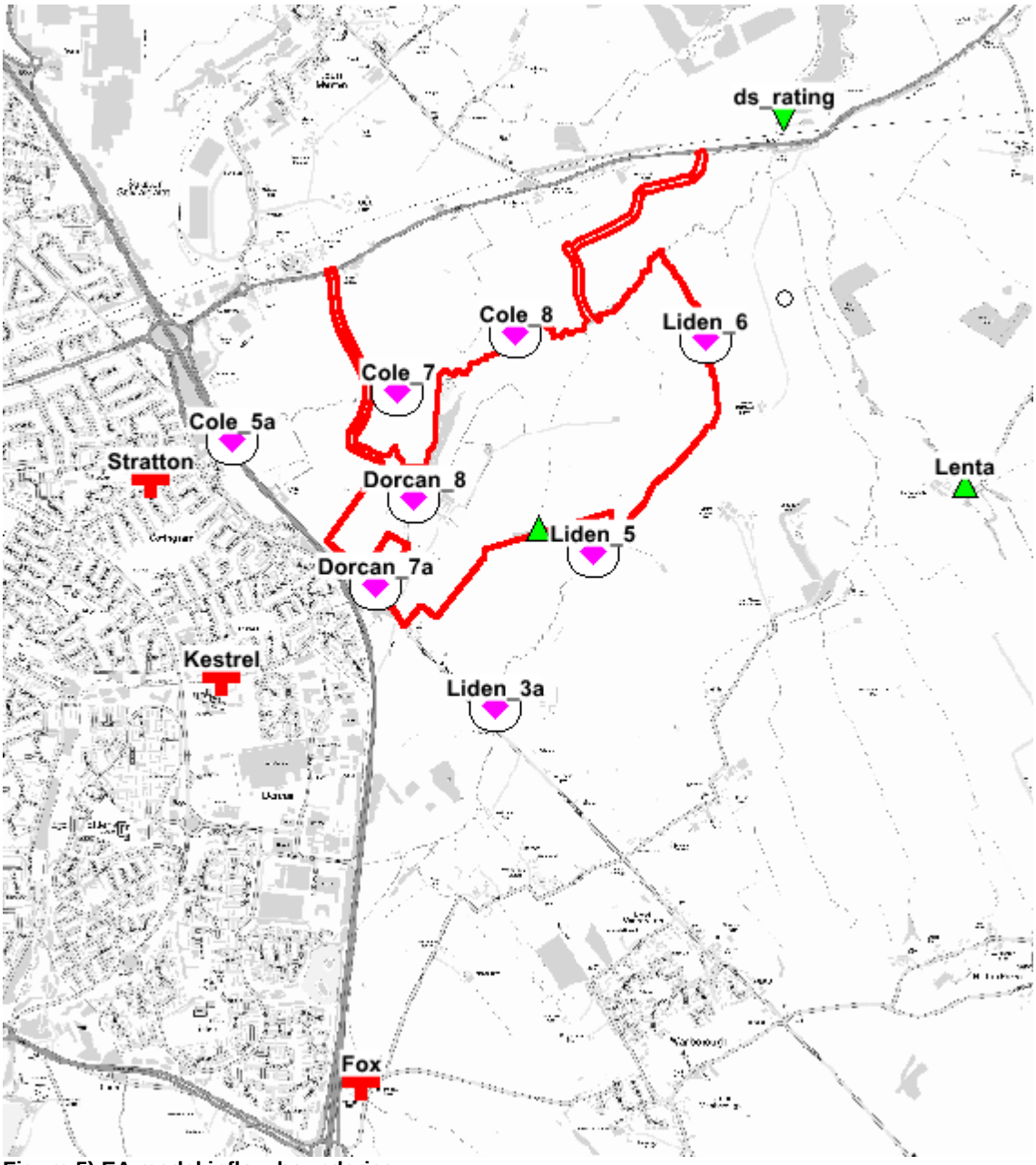


Figure 5) EA model inflow boundaries

3.5. As such the comments on the inflow boundaries do not need to be considered further.

4. EA Comment on TUFLOW version used

4.1. The next comment from the model review is also an Amber comment;

'The models appear to be run in TUFLOW version 2007-07-DB. This is significantly dated and therefore should be rerun in the latest version of the software to conform with best practice.'

4.2. The EA model was calibrated using an older version of TUFLOW – with different default parameters – using a newer version of the software would invalidate the calibration work done on the model. This approach is generally recommended for calibrated models.

5. EA Comments on TUFLOW Warning messages

5.1. The final comments from the model review were Green comments;

5.2. By definition these comments are not considered significant in terms of influencing the model results.

- *"WARNING - Unused 1d_ta line with attributes: ..\model\xs\Lenta_xs_076.csv"*
- *"WARNING - Unused 1d_ta line with attributes: ..\model\xs\Gully_Lid_W_007_PBA.csv"*
- *"WARNING 2079 - 3D breakline failed to modify any Zpts. Check elevations"*
- *"WARNING 2079 - 3D breakline failed to modify any Zpts. Check elevations"*

5.3. PBA has investigated the locations of these messages. **Figure 6.** shows the locations of these messages.

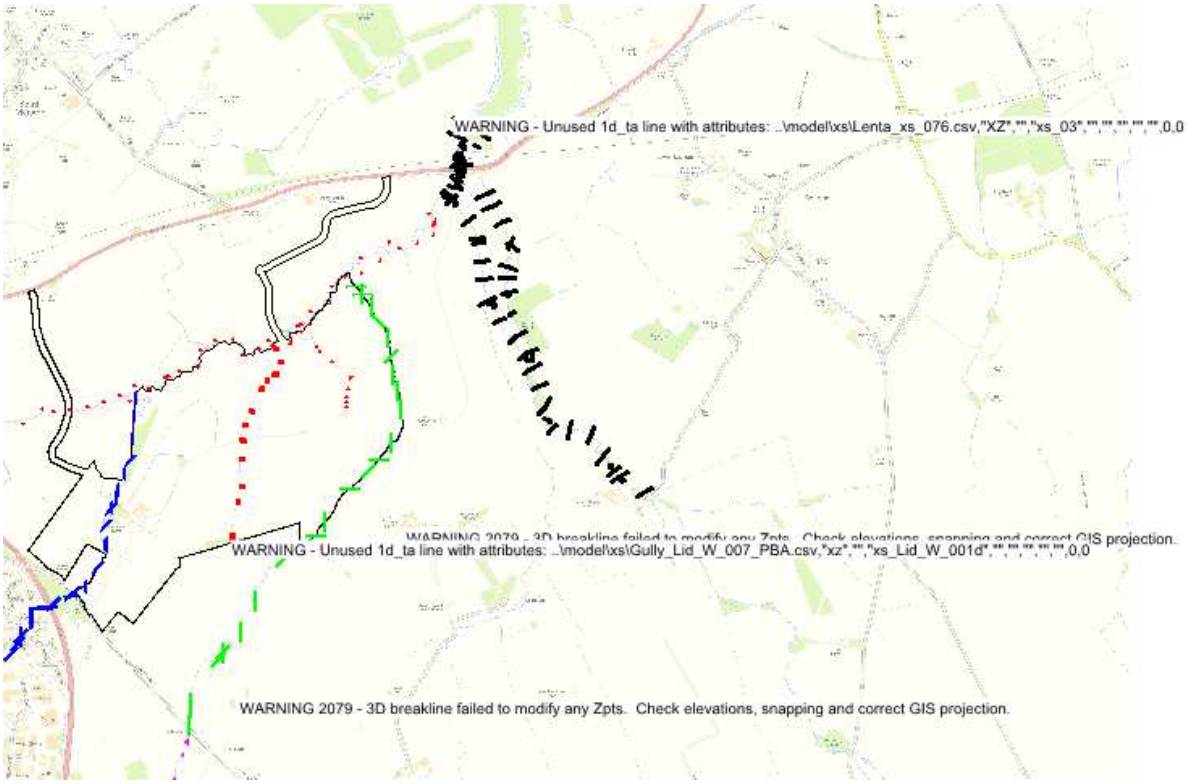


Figure 6) Location of messages

5.4. One of the unused 1d_ta lines was located at the upstream end of a minor drainage channel (**Figure 7**). This section helped define a short reach of channel, with another cross section profile located approximately 20 m downstream. The impact of this unused 1d_ta line is therefore considered to be minimal.

5.5. The second unused 1d_ta line was at the downstream of the model and was inherited from the base EA model. The downstream of the model does not have a significant influence on the flooding further upstream (**Figure 3**) so this unused 1d_ta line is also considered to be insignificant.

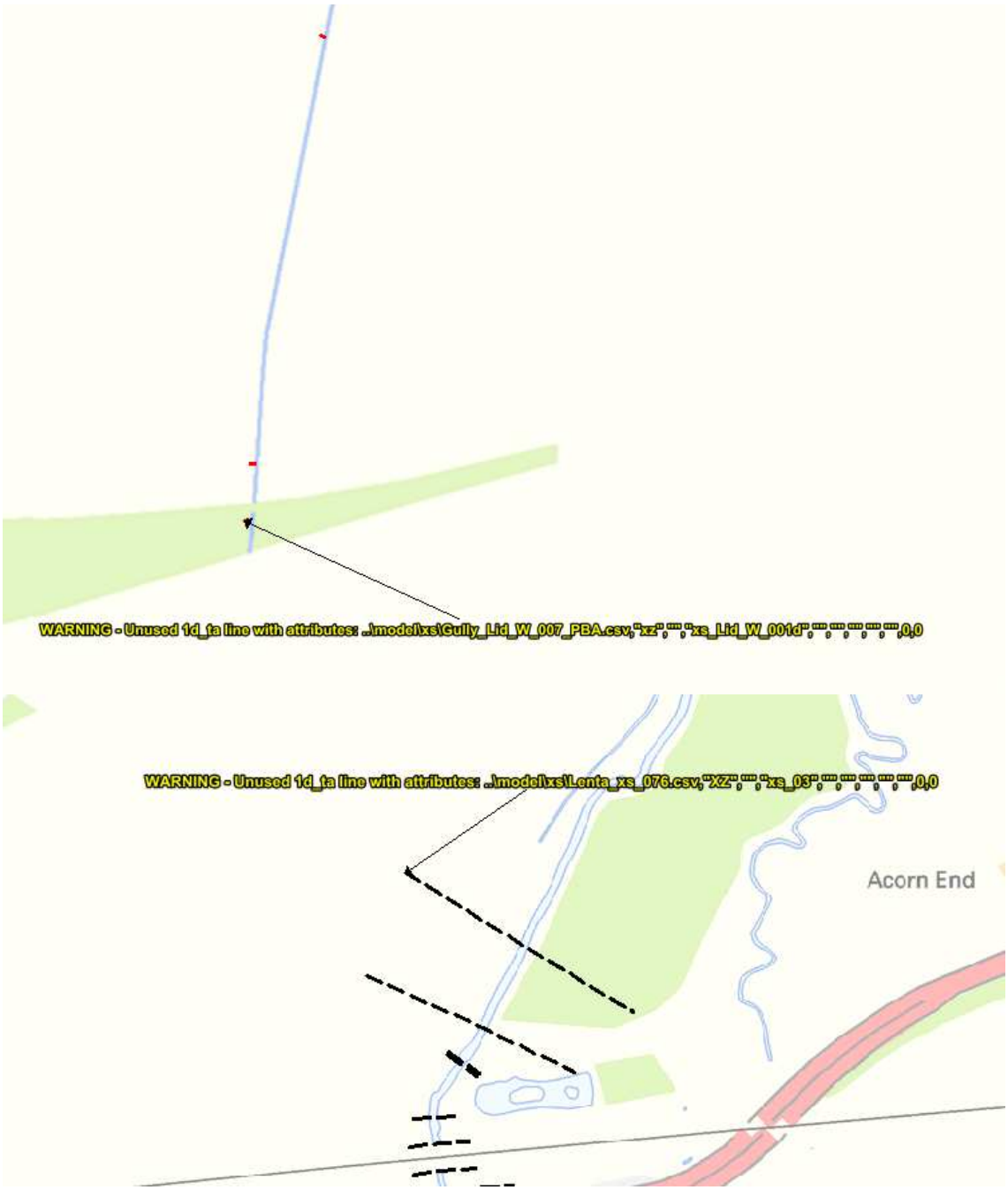


Figure 7) location of 1d_ta messages showing nearby sections (red and black dashed lines)

5.6. The 3d breakline messages indicated some features are not modifying any zpts. This is usually a consequence of using the Max or Min commands to raise or lower existing ground levels. They are usually only ignored where the underlying DTM is set above or below the Max/Min ground level. In this instance the messages indicated individual nodes along zlines which were being used as gullies so any discrepancy would be localised (**Figure 8**), as such it is considered that these messages can be ignored.

Figure 8) location of zpt messages

6. EA Comment on Model dVol and Mass Balance Oscillations

6.1. This comment was raised as a green comment;

'DVol for both runs has a sensible profile but notable oscillations. The reviewer has looked at the results in the 1D domain in the vicinity of the site and from a random inspection there does not appear to be any significant oscillations in either flow or stage within the vicinity of the proposed development. Potentially, this is an issue with another part of the model. Without model results from the original model the reviewer cannot determine if this is something caused by the climate change inflows or the original model.'

6.2. This comment is not considered significant, the reviewer indicates that this is likely to be a legacy issue within the EA model and does not influence the model at the site. **Figure 9.** shows the EA dVol and cumulative ME for the 1000 year results, which indicates similar profiles and oscillations as PBA's models.

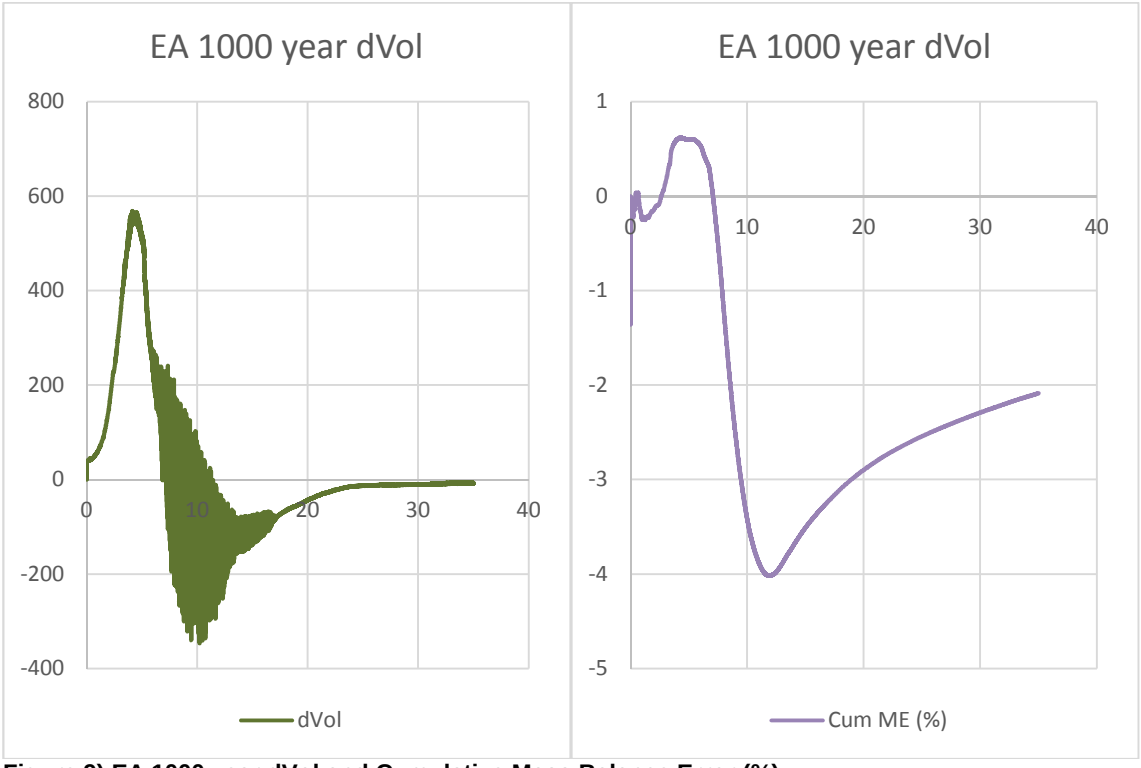


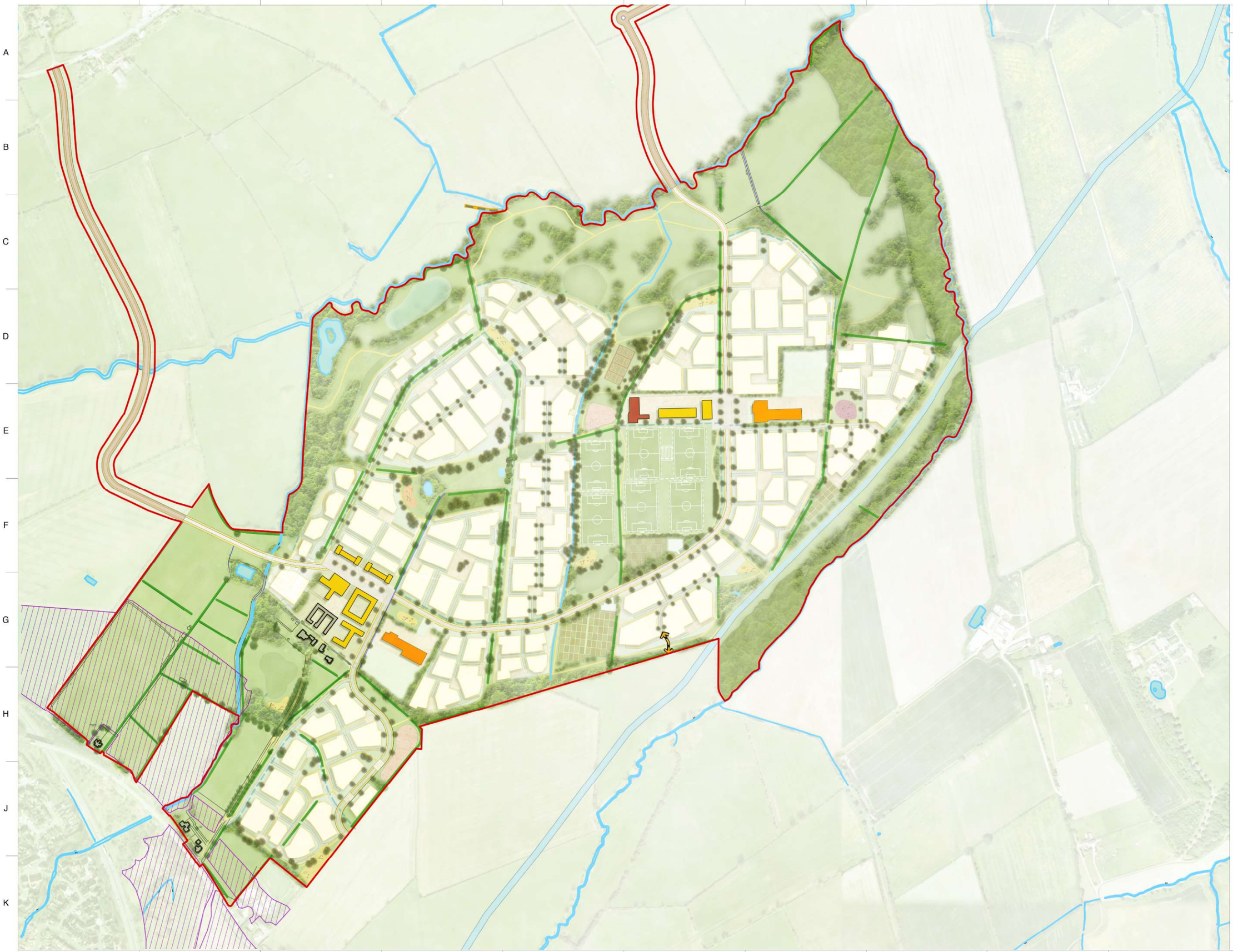
Figure 9) EA 1000 year dVol and Cumulative Mass Balance Error (%)

6.3. The oscillations in dVol and the cumulative Mass Balance Error (%) in the PBA modelling have been inherited from the EA model, consequently, it is considered that this comment does not need to be addressed further.

7. Conclusion

7.1. In conclusion, the comments raised in the review have been investigated by PBA. It is considered that none of the comments raised would have a significant influence on the current model or impact on the results.

APPENDIX C – *Illustrative Masterplan (Drawing No.PL1461.1-PLA-00-XX-DR-U-0002-S4 P02)*



NOTE:

1. Do not scale from this drawing. Always work to noted dimensions.
2. All dimensions are in millimetres unless otherwise stated.
3. All setting out, levels and dimensions to be agreed on site.
4. The dimensions of all materials must be checked on site before being laid out.
5. This drawing must be read with the relevant specification clauses and detail drawings.
6. Order of construction and setting out to be agreed on site.

KEY

- Site Boundary
- Buildings to be Retained
- Residential Development
- Primary School
- Local Centre
- Sports Pavilion
- Community Allotments
- Play Space (LEAP)
- Play Space (NEAP)
- Play (combined NEAP / LEAP)
- Play (LEAP with ecological enhancements in buffer zone)
- Sports Pitches
- Outdoor Sports Facilities
- Pedestrian/Cycle Links
- Existing Trees/Hedgerows Retained
- Proposed Trees
- Indicative Planting
- Road Infrastructure
- Land safeguarded for Tertiary Drainage Feature
- Canal Alignment (to be delivered by third party
- Scheduled Ancient Monument (SAM)
- Secondary Drainage Feature
- Existing Watercourse
- Proposed Woodland Total Area = 17.14 Ha
- Bridges to Great Stall East (to ensure aspirations of the NEV Bridge Vision SPD and Nev Masterplan can be met)
- Road Link to Redlands (to ensure aspirations of the NEV Bridge Vision SPD and NEV Masterplan can be realised)
- Recreational Lake (to ensure aspirations of GI SPD can be met)
- Vehicular Route to be delivered by third parties

Issue	Date	Status	Drawn	Apprvd.
S4	06.08.19	Planning	CJ	LF
S4	17.07.19	Planning	EO	LF
S4	12.07.19	Planning	EO	LF
S4	28.03.19	Planning	JTO	AR

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Client Ainscough Strategic Land

Project PL1461.1 Lotmead Villages East Swindon

Drg Title Illustrative Masterplan

Created on	Created by	Approved by
17.01.19	LF	AR

Scale	Size	Status
1:5000	A2	Planning

Drg No. PL1461.1-PLA-00-XX-DR-U-0002-S4

Issue P02