
17 October 2018

Land East of
Chipping Lane,
Longridge – Phase
2/3

Bat Survey Report

Report Number: 11319_R09a_LRD_MM

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Tyler Grange

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- 2001/P04c – Habitat Features Plan (wider site)
- 11319/P06 – Tree Retention and Removal Plan
- 11319/P09 – Bat Activity Survey Results

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Section 1: Introduction

- 1.1 Tyler Grange (TG) have been commissioned to prepare a bat survey report for Phases 2 and 3 or a residential development at land to the immediate north of the settlement of Longridge (hereafter referred to as the 'site'). The site is centred on Ordnance Survey (OS) grid reference SD 60476 37946 and extends to a total area of 10.56 hectares (see **Appendix 1**).
- 1.2 An Ecological Assessment (TG Report 2001/R08b) was originally prepared by TG in March 2015 to accompany the outline planning application (Reference 3/2014/0764). The original ecological assessment found no evidence of bats roosting in any trees scheduled for removal or within the adjacent cricket pavilion. A bat activity survey also completed in 2014 recorded small numbers of common species commuting and foraging around the boundaries of the wider site.
- 1.3 An updated bat survey was requested by the planning officer and is required as part of the outline permission under Condition 19 which states that,

"The reserved matters application(s) shall be accompanied by repeat surveys of the trees identified for removal and existing cricket pavilion to confirm the continued absence of roosting bats. If the surveys demonstrate that bats have colonised, the surveys shall include appropriate mitigation and/or compensation proposals. The development shall thereafter be carried out in complete accordance with the approved surveys(s)."
- 1.4 The site boundary of Phases 2 and 3 of the development does not include the cricket pavilion and therefore this building is not considered further within this report.



Section 2: Methodology

Previous Results

- 2.1. A preliminary Roost Assessment (PRA) and follow-up climbing inspection of trees affected by the development was undertaken in 2014/2015 to accompany the outline application. These surveys followed standard methodologies set out in the Bat Mitigation Guidelines (Mitchell-Jones, 2004), the Bat Workers Manual (Mitchell-Jones and McLeish, 2004) and Bat Surveys - Good Practice Guidelines (Hundt, 2012). No evidence of roosting bats was recorded.
- 2.2. The bat activity survey completed in 2014 recorded low numbers of five common and widespread species using the site. Activity was focussed around ponds 1 and 2 (both outside the Phase 2 and 3 site boundary) and through the hedgerow network, particularly Hedgerow 3 (which runs along the northern boundary of Phase 2 and 3), see **Habitat Features Plan 2001/P04c**.

Desk Study

- 2.3. Lancashire Environmental Records Network (LERN) was contacted in July 2018 for updated records of bats occurring within 2km of the site during the last 20 years.
- 2.4. The following records were returned by LERN:
 - Common pipistrelle *Pipistrellus pipistrellus* – 36 records, the closest being a maternity roost 440m south (2005);
 - Soprano pipistrelle *P. pygmaeus*: three records, the closest being 1.7km south (2011); and
 - Two unidentified bat recorded 1.7 km south (2011).

Survey Methods

Preliminary Roost Assessment

- 2.5. A ground-based PRA of trees which will be impacted by the development layout (see **Tree Retention and Removal Plan 11319/P06**) was undertaken by Laura Dennis GCIEEM on 3rd September 2018.
- 2.6. This involved a ground-based inspection to identify potential roost features (PRFs) such as cracks or crevices, lifted bark, split limbs, and woodpecker holes were identified and recorded, in accordance with criteria described in Collins (2016). The inspection was aided using binoculars, and a high-powered torch.

Bat Activity Survey - Transect

- 2.7. To determine the bat species present and general activity across the Phase 2 and 3 site boundary, three dusk activity transect surveys were undertaken spring/summer 2018 during suitable weather conditions. The surveys were undertaken by a pair of surveyors using a combination of direct visual observation and echolocation detection techniques to identify bat activity on the site. In accordance with the BCT guidelines, the surveys started at sunset and continued for approximately two hours. Details relating to the activity surveys is provided in **Table 2.1**.

Table 2.1: Bat activity transect survey meta data.

Visit	Date	Sunset	Survey Time	Weather Conditions
1	27.06.2018	21:46	21:46 – 23:46	22°C, dry, light breeze, 5% cloud cover
2	02.08.2018	21:07	21:07 – 23:07	21°C, dry, light breeze, 50% cloud cover



3	11.09.2018	19:37	19:37 – 21:37	14°C, dry but rain earlier, moderate breeze, 100% cloud cover
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- 2.8. The transect route is illustrated on **Bat Activity Survey Results Plan 11319/P09** presented at the end of this report and followed all field boundaries and potential features suitable for commuting/foraging bats. The boundaries at the far east of the site were not covered by the transect route – these two fields are due to remain in their current use as agricultural pasture and will not be impacted by the development layout.
- 2.9. Anabat Express and Batbox Duet detectors were used throughout each survey; the Duet was used for active monitoring and Anabat Express for recording in zero crossing format. AnalookW software was used to confirm the identification of bat calls recorded in the field.

Bat Activity Surveys – Static

- 2.10. Additional activity data was obtained from the deployment of a single static bat detector on three occasions for a minimum of five consecutive nights. The location of each detector is highlighted in **Plan 11319/P09**. The detector was programmed to begin recording 30 minutes before sunset and continue until 30 minutes after sunrise. The deployment period and weather conditions experienced during the deployment period are provided in **Table 2.2**.

Table 2.2: Bat activity static detector deployment meta data.

Visit	Start Date	End Date	Weather Conditions
1	27.06.2018	01.07.2018	12 - 22°C, dry, light - gentle breeze
2	03.08.2018	07.08.2018	10 - 21°C, dry, calm – moderate breeze
3	03.09.2018	07.09.2018	10 - 16°C, dry, calm – moderate breeze

Survey Limitations

- 2.11. The whole of the site was accessed during the survey and no significant limitations were encountered.

Quality Control

- 2.12. All ecologists at Tyler Grange LLP abide by CIEEMs Code of Professional Conduct.



Section 3: Survey Results and Assessment

Results

Preliminary Roost Assessment

- 3.1 The proposed layout for Phases 2 and 3 will result in the loss of the following trees (see **Plan 11319/P06**):
- Section of G7 (ash *Fraxinus excelsior*);
 - Four sections of G12 (hedgerow);
 - Section of G13 (hedgerow);
 - T20 (alder *Alnus glutinosa*); and
 - T32 (oak *Quercus robur*).
- 3.2 These trees and hedgerows were found to have negligible potential to support roosting bats. As such, no mitigation is required in respect of roosting bats prior to removal of these trees.
- 3.3 No other trees are scheduled for removal based on the proposed planning layout (see **Appendix 1**).

Bat Activity Survey - Transect

- 3.4 The species recorded during the bat activity transects survey is summarised in Table 3.1. The distribution of records within the site is shown on **Plan 11319/P09**.

Table 3.1: Bat species and number of passes recorded during each activity transect survey.

Visit	Date	Common Pipistrelle	Noctule
1	27.06.2018	26	0
2	02.08.2018	26	1
3	11.09.2018	32	1

- 3.5 A low level of bat activity was recorded during the activity transect surveys. Most of the bats recorded were common pipistrelles and geographic distribution was quite evenly distributed across the site. A single noctule *Nyctalus noctule* was recorded during visit 2 and visit 3, to the western and south-eastern boundaries.

Bat Activity Survey – Static

- 3.6 The species recorded by the static bat detector during each deployment period is summarised in **Table 3.2**.
- 3.7 The location of each static detector is shown on **Plan 11319/P09** which included:

Table 3.2: Bat species and number of passes per night during each static detector deployment.

Location	Date	Common Pipistrelle	Soprano Pipistrelle	Pipistrelle social call	Noctule	Myotis sp.	Brown Long-eared	Un-IDed
1	27.06.2018	8	0	0	0	0	0	0
	28.06.2018	18	0	0	0	0	0	0
	29.06.2018	8	0	0	0	0	0	0
	30.06.2018	5	0	0	0	0	0	0
	01.06.2018	0	0	0	0	0	0	0



Location	Date	Common Pipistrelle	Soprano Pipistrelle	Pipistrelle social call	Noctule	Myotis sp.	Brown Long-eared	Un-IDed
2	02.08.2018	44	4	0	3	7	1	0
	03.08.2018	28	0	0	1	0	0	0
	04.08.2018	14	0	0	1	1	0	2
	05.08.2018	67	4	0	5	2	0	3
	06.08.2018	31	0	1	2	1	0	2
	07.08.2018	17	0	0	0	0	0	0
3	03.09.2018	9	0	0	2	0	0	0
	04.09.2018	57	2	0	5	2	0	2
	05.09.2018	27	0	0	0	0	1	1
	06.09.2018	29	0	0	0	1	0	0
	07.08.2018	24	0	0	0	0	0	1

- 3.8 At location 1, within a hedgerow running south-east to north-west through the centre of the site common pipistrelles were recorded in low numbers (max. 18 passes per night). No other species were recorded at this location during the static deployment.
- 3.9 At locations 2 and 3, within a hedgerow running south-west to north-east through the centre of the site, and at the western boundary of the site, a total of five species of bats were recorded including common and soprano pipistrelles, noctule, brown long-eared *Plecotus auratus* and *Myotis sp.* Common pipistrelle is still the dominant species recorded at both these locations (max. 67 and 57 passes per night at location 2 and location 3, respectively), but activity is low overall.
- 3.10 A small number of unidentified bat passes were also recorded at locations 2 and 3. These bat calls were unable to be identified definitively using AnalookW analysis software. As there is a very small number of such records it is not considered a limitation to making an accurate overall assessment of the results.

Assessment

- 3.11 Based on the current layout (see Plan 11319/P06) no mitigation is required in respect of roosting bats.
- 3.12 The result of the activity surveys undertaken in 2018 reflect those obtained during the previous survey to support the outline application of the wider site. No additional species were recorded and there was no significant change in distribution or abundance of bat activity. Activity was distributed evenly along linear features (such as hedgerows) throughout the site. As such, the recommendations made in the ecological assessment (TG Report 2001/R08b) are still valid with respect to foraging and commuting bats.



Section 4: Conclusion

- 4.1. No impacts to bats are expected as a result of the loss of trees scheduled for removal, therefore no specific mitigation is required in respect of roosting bats. However, should plans be revised resulting in loss of additional trees, an update PRA should be completed prior to felling.
- 4.2. A number of artificial bat roost boxes will be included in new buildings, which will provide additional roosting opportunities for bats using the site. Full details of the number and location of roost boxes will be provided in a separate report.
- 4.3. The results of the updated bat activity surveys recorded the same species composition and similar numbers of bats as the previous 2014 surveys. As such, the recommendations and requirements for mitigation detailed in the previous ecological assessment are still valid.
- 4.4. It is considered that the principles of the proposal are in conformity with legislation and policy.



References

Collins, J. (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn)*. The Bat Conservation Trust, London.

Hundt, L. (ed) (2012) *Bat Surveys Good Practice Guidelines – 2nd Edition*. The Bat Conservation Trust, London.

Mitchell-Jones, A.J. (2004) *Bat Mitigation Guidelines*. English Nature, Peterborough.

Mitchell-Jones, A.J. and McLeish, A.P. (2004) *Bat Workers Manual – 3rd Edition*. JNCC, Peterborough.



Appendix 1: Planning Layout (Ref 459-PL04 rev 02)



WARNING TO HOUSE PURCHASERS
Property Misdescriptions Act 1991
 Buyers are warned that this is a working drawing and is not intended to be relied on as a definitive statement of the details of any particular property or development, any of the specific matters mentioned by any other clause in the above contract. The contents of this drawing may be subject to change of plan, site and dimensions and conditions can occur during the progress of the works without notice of the drawing. Consequently the buyer, from contract and otherwise, of the final construction may differ from those shown here. In the context of this drawing, a contract, part of any contract, or warranty.

SCHEDULE OF ACCOMMODATION

Ref	Barratt Type	House Type	Soft	No	Total Sqft	
AFFORDABLE TYPES						
STANDARD						
KEN	Kenley	2 Bedroom affordable mews	624	21	13104	
BRN	Brandon	3 Bedroom affordable mews	706	20	14120	
ELDERLEY						
BED	Bedale	2 Bed LTH Bungalow	594	7	4158	
BEL	Belmont	2 Bed LTH House	731	7	5117	
AFFORDABLE TOTAL						
					55	36499
PRIVATE SALE TYPES						
ELDERLEY						
BED	Bedale	2 Bed LTH Bungalow	594	7	4158	
BEL	Belmont	2 Bed LTH House	731	7	5117	
STANDARD						
MAI	Maldstone	3 Bed semi-detached house	830	26	21580	
MOR	Moresley	3 Bed dual aspect semi-detached house	854	18	15372	
KING	Kingville	3 bed townhouse	1072	14	15008	
LUT	Lutterworth	3 bed detached house	1001	5	5005	
ALD	Alderney	4 bed dual aspect detached house	1225	19	23275	
DER	Derwent	3 bed detached house	920	9	8280	
WIN	Windermere	4 bed detached house	1073	22	23606	
THD	Thornton	4 bed detached house	1202	4	12020	
HAY	Hayton	4 bed detached house	1267	3	12670	
PRIVATE SALE TOTAL						
					129	123870
Total number of units and square footage					184	160369
Gross Site Area in Acres					26.11	
Total Undevelopable area in acres					14.15	
Net Site Area in Acres					11.96	
Density (units per acre)					15	
Density (units per hectare)					38	
Square foot / Acre					13,409	

DRAWING KEY

- (AF) AFFORDABLE DWELLINGS
- (EL) DWELLING FOR THE ELDERLY
- ⊕ PROPOSED TRIM TRAIL ITEM
- TREE/ HEDGE TO BE REMOVED
- TREE/ HEDGE TO BE RETAINED
- ▨ BLOCK PAVORS (RED)
- PROPOSED INDICATIVE TREE PLANTING
- 1800mm TIMBER GATE

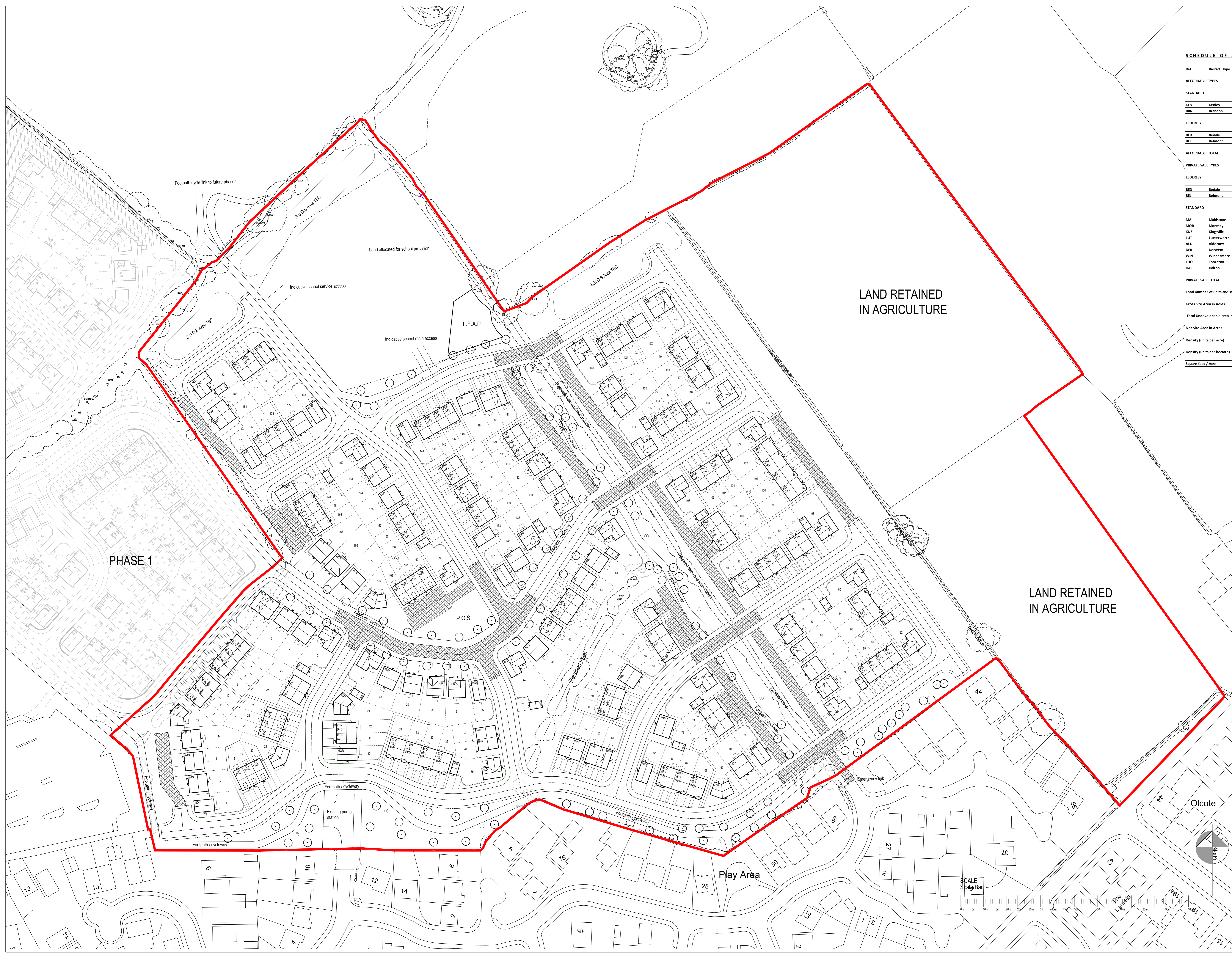
Rev	Description	Date	Drawn	Check
02	Tree adjacent to emergency exit shown as removed	15-10-18	AA	
01	Siteplan amended	12-10-18	AA	

BARRATT HOMES MANCHESTER
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 City Park
 Manchester
 M16 9HQ
 Tel: 0161 872 9161
 Fax: 0161 855 2828

CHIPPING LANE LONGDRIDGE

PHASE 2 / 3
 PLANNING LAYOUT

Design By	Date	Scale	Drawing Number	Rev
AA	15-10-18	Scale @ A1	459-PL04	02
Drawn By	AA	Scale @ A1	459-PL04	02



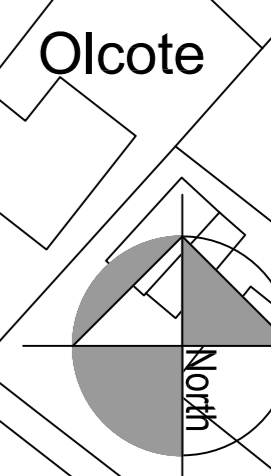
LAND RETAINED
 IN AGRICULTURE

LAND RETAINED
 IN AGRICULTURE

PHASE 1

Play Area

SCALE
 Scale Bar



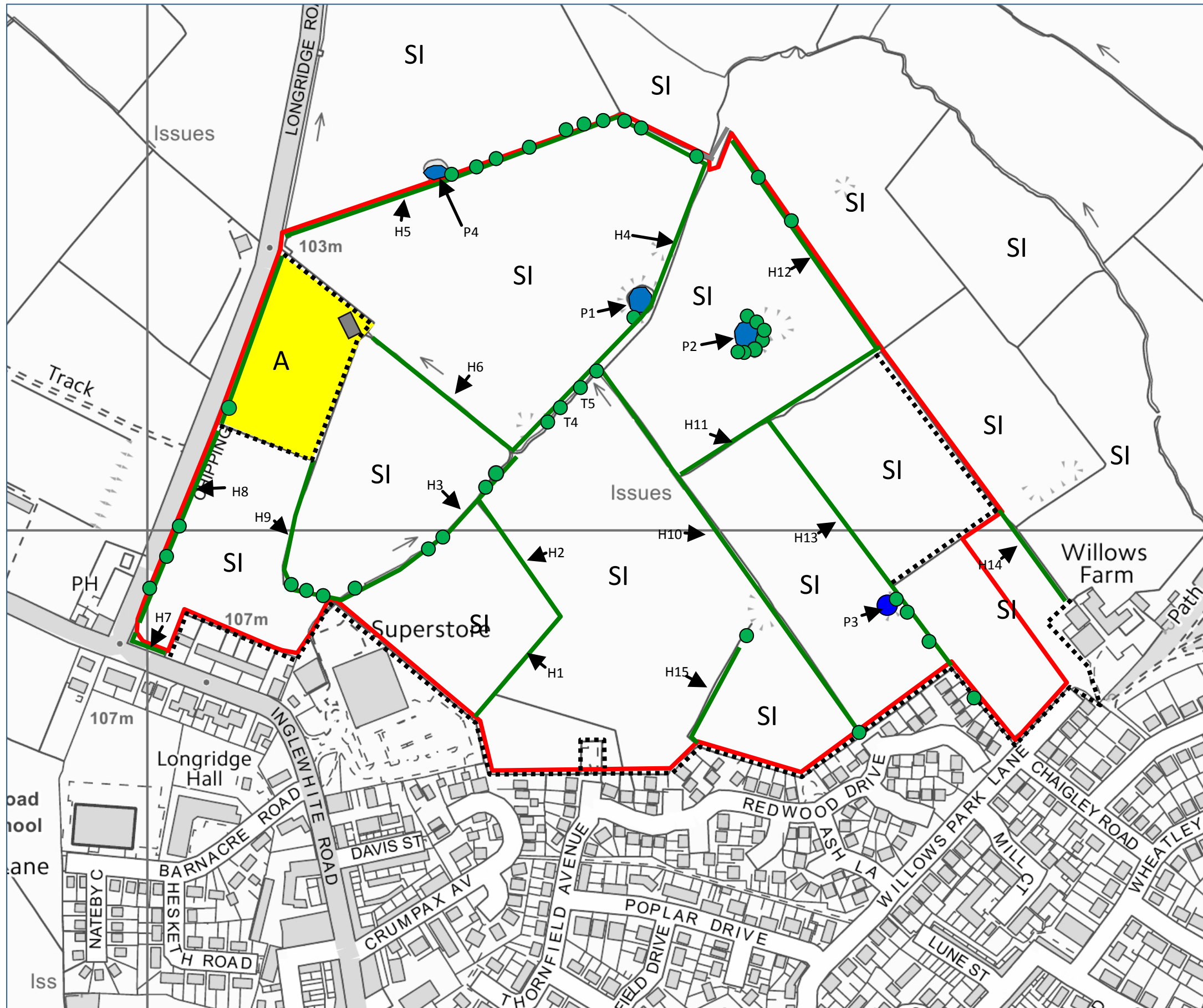
Plans












2001/P04c – Habitat Features Plan (wider site)

11319/P06 – Tree Retention and Removals Plan

11319/P09 – Bat Activity Survey Results

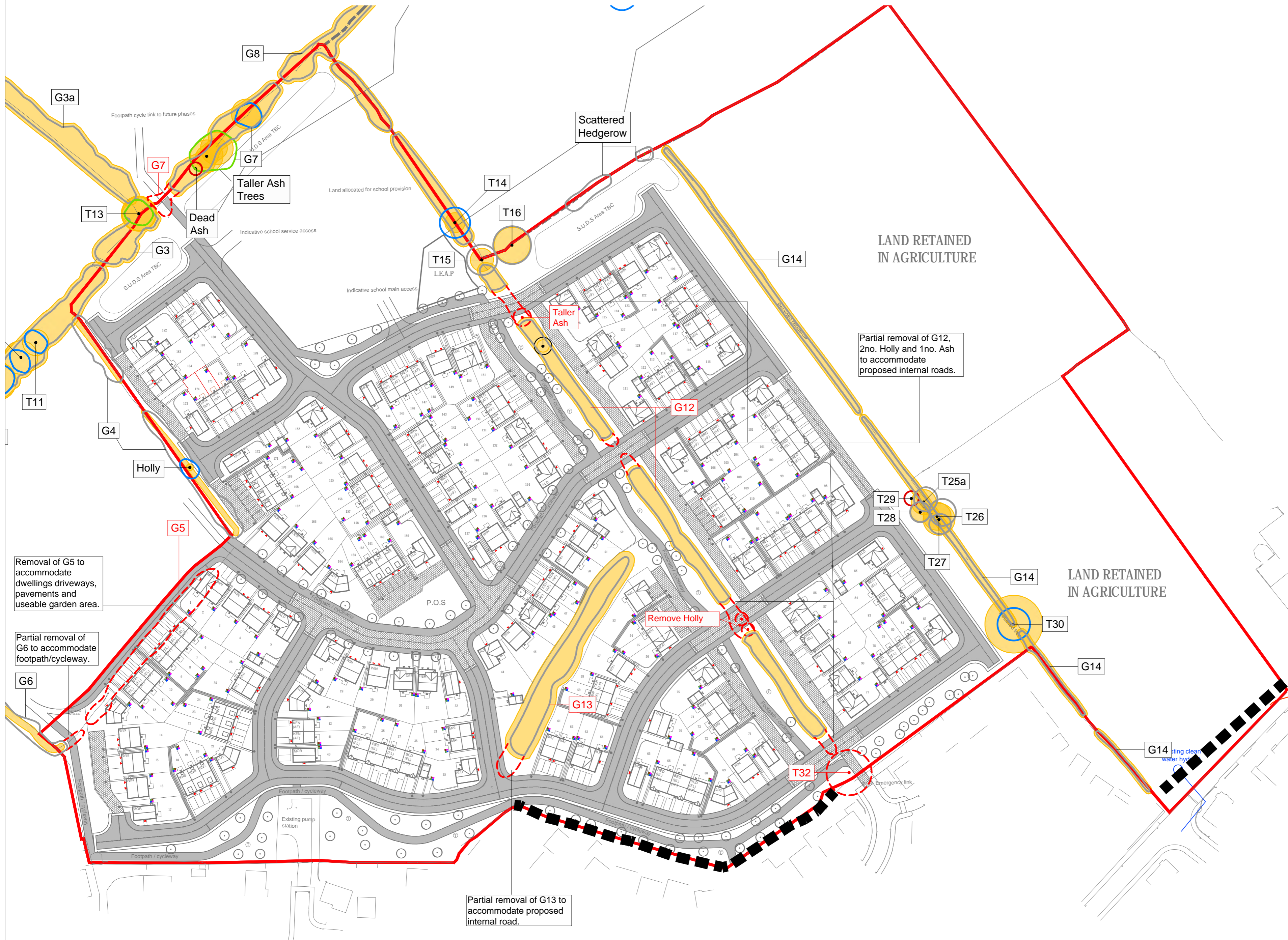




-  Building
-  SI Species Poor Semi-improved Grassland
-  A Amenity Grassland
-  Pond
-  Mature Hedgerow Trees
-  Hedgerow
-  Dry stone wall
-  Fence
-  Ste boundary
-  H1 Hedge number
-  P1 Pond number



Project | Bowland Meadows and Higgins Brook, Land East of Chipping Lane, Longridge
 Drawing Title | **Habitat Features Plan**
 Scale | As Shown (Approximate)
 Drawing No. | 2001/P04c
 Date | August 2014
 Checked | JM/JE



Key

- Category A - Trees of high quality and value
- Category B - Trees of moderate quality and value
- Category C - Trees of low quality and value
- Category U - Trees recommended for removal
- Application Site Boundary
- Approximate Extent of BS5837 Calculated Root Protection Areas (RPAs)
- Trimmed Boundary Hedge
- Proposed Tree Removals

Project Name
Land East of Chipping Lane, Longridge - Phase 2 and 3

Drawing Title
Tree Retention and Removal Plan

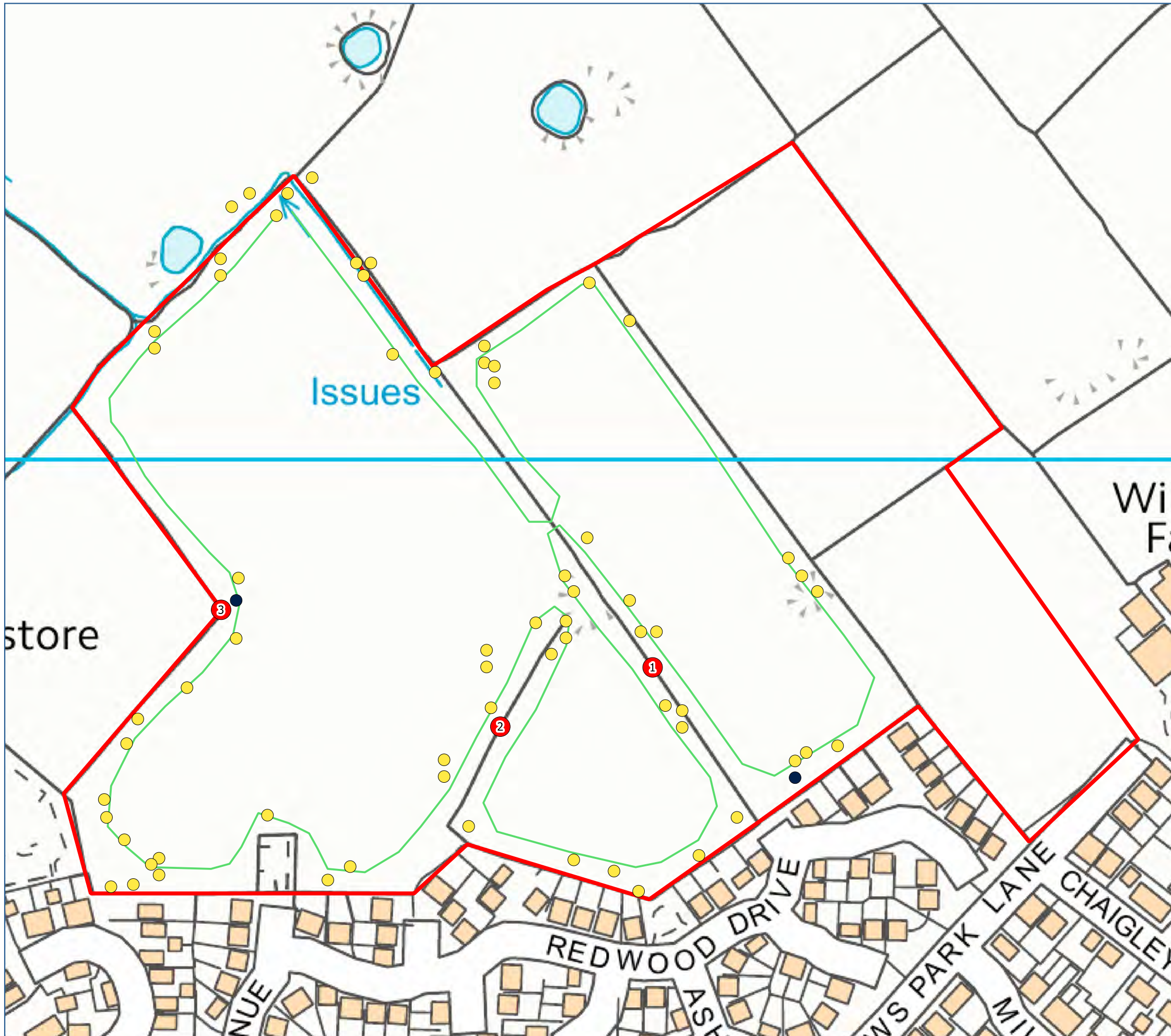
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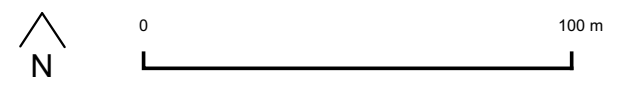
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Drawn by	Checked by
LB	CG
Drawing No.	Revision
11319/P06	-



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- Site Boundary
- Noctule
- Common pipistrelle
- Transect Route
- Static bat detector locations



Project	Land East of Chipping Lane, Longridge - Phase 2/3
Drawing Title	Bat Activity Survey Results
Scale	As Shown (Approximate)
Drawing No.	11319/P09
Date	October 2018
Checked	SJC/LRD



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