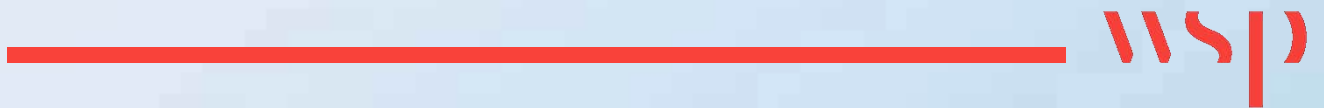


Appendix A

EMERGENCY SURVEYS - RAW DATA





RAW DATA

Emergence Survey – 11/07/2022 – Survey 1 - B1

B1.S2 - North & West elevations

B1.S1 – South & East elevations

	Time	Rain	Cloud Cover	Wind
Start	21.12	22°C	8/8	2, NE
End	23:00	21°C	8/8	2, NE
Sunset	21.27			
Detector	EMT Touch + Batscanner			
Notes	No bats recorded emerging during dusk.			
Time	Species	Activity		
21:58	Soprano pipistrelle	Foraging over playground		
22:20	Soprano pipistrelle	Foraging in trees to south		
22:07	Common pipistrelle	Heard Not Seen (HNS)		



Emergence Survey – 09/08/2022 – Survey 2 - B1

B1.S2 - North & West elevations

B1.S1 – South & East elevations

	Time	Rain	Cloud Cover	Wind
Start	20:32	24°C	0/8	0
End	22:17	22°C	0/8	1
Sunset	20:47			
Detector	EMT Pro + Batscanner			

Notes

- Fresh droppings (<5) noted under fascia board on N and S elevations.
- No bats recorded emerging during dusk.
- Infrared footage reviewed – no emergences.

Time	Species	Activity
20:54	Soprano pipistrelle	Flew from behind (northwest) to southwest over B1.
20:57	Soprano pipistrelle	HNS – very short call
21:02	Soprano pipistrelle	Flew from behind (northwest) to southwest over B1.
21:03	Soprano pipistrelle	Foraging along tree line, west & southwest of B1
21:04	Soprano pipistrelle	Foraging along tree line, west & southwest of B1
21:08	Soprano pipistrelle	HNS
21:09	Soprano pipistrelle	Foraging along tree line, west & southwest of B1
21:10	Soprano pipistrelle	Foraging along tree line, west & southwest of B1
21:15 – 21:38	Soprano pipistrelle	Constant foraging along tree line, west & southwest of B1.
21:55	Common pipistrelle	HNS
21:56	Soprano pipistrelle	HNS



22:02	Common pipistrelle	HNS
22:05	Noctule	HNS
22:15	Noctule	HNS
22:17	Lesser horseshoe	HNS



Emergence Survey – 30/08/2022 – Survey 3 - B1

B1.S1 – East & South elevations

B1.S2 – North and West elevation

	Time	Rain	Cloud Cover	Wind
Start	19:45	20°C	1/8	1, SW
End	21:35	19°C	1/8	1, SW
Sunset	20:03			
Detector	Batlogger			

Notes

- No bats recorded emerging during dusk.
- Constant pipistrelle activity throughout, with foraging along the fence line close to B1.
- Occasional noctule heard.

Time	Species	Activity
B1.S1		
20:07	Soprano pipistrelle	Brief call, HNS
20:30	Soprano pipistrelle	Faint call, HNS
20:31	Soprano pipistrelle	Commuting/foraging along fence
20:32	Noctule	High flight from south to north
20:39	Common pipistrelle	East to west along fence
B1.S2		
20:16	Soprano pipistrelle	HNS
20:18	Soprano pipistrelle	Commuting west over B1
20:29-20:55	Soprano pipistrelle	Foraging
20:34	Noctule	High flight over B1, commuting east



Emergency Survey – 11/07/2022 – Survey 1 - B2

B2.S1 – West & North elevations

B2.S2 – South & West elevations

	Time	Rain	Cloud Cover	Wind
Start	21:12	24°C	8/8	1, NW
End	22:57	22°C	8/8	2, W
Sunset	21:27			
Detector	Batloggers			
Notes	<ul style="list-style-type: none">- No emergencies- Continuous soprano pipistrelle activity throughout survey			
Time	Species	Activity		
B2.S1				
21:43-22:19	Soprano pipistrelle	6 passes, foraging and commuting in front of B2		
22:08	Noctule	HNS		
22:19	Noctule	HNS		
B2.S2				
21:43	Soprano pipistrelle	Commuting along fence from northwest to southeast		
21:51	Soprano pipistrelle	Commuting over roof from east to west		
21:52-22:37, 22:40, 22:55	Soprano pipistrelle	Multiple soprano pipistrelle foraging.		



Emergence Survey – 22/08/2022 – Survey 2 - B2

B2.S1 – West & North elevations

B2.S2 – South & West elevations

	Time	Rain	Cloud Cover	Wind
Start	20:05	19°C	8/8	2, W
End	21:50	19°C	8/8	2, W
Sunset	20:20			
Detector	Batloggers			
Notes	<ul style="list-style-type: none">- No emergences- Some drizzle after survey start for 10 mins- Soprano pipistrelle activity throughout survey, and common pipistrelle activity from 21:36 onwards.			
Time	Species	Activity		
B2.S2				
20:24	Soprano pipistrelle	Commuting southwest		
20:35	Noctule	HNS		
20:37	Soprano pipistrelle	Commuting south		
20:39	Soprano pipistrelle	Commuting south and then foraging, joined by a second soprano pipistrelle at 20.31		
B2.S1				
20:24	Soprano pipistrelle	HNS		
20:37-20:59	Soprano pipistrelle	Foraging		
20:45	Noctule	HNS		
21:36	Common pipistrelle	HNS		



Emergence Survey – 12/09/2022 – Survey 3 - B2

B2.S1 – West & North elevations

B2.S2 – South & West elevations

	Time	Rain	Cloud Cover	Wind
Start	19:19	22°C	7/8	1, SW
End	21:04	22°C	7/8	1, SW
Sunset	19:34			
Detector	Batloggers			
Notes	<ul style="list-style-type: none">- No emergences- Lights came on in main building at 20:00 and impaired visibility			
Time	Species	Activity		
19:36	Soprano pipistrelle	HNS		
19:37	Soprano pipistrelle	Possible emergence from apex. Following survey, IR camera footage was checked and confirmed to not be an emergence. Bat flying low over building		
19:47	Soprano pipistrelle	Commuting along fence.		
19:53	Noctule	Commuting high over B2.		
19:55	Soprano pipistrelle	Foraging over grass field.		

Emergence Survey – 11/07/2022 – Survey 1 - B3

B3.S1 – West & South elevations				
	Time	Rain	Cloud Cover	Wind
Start	21:15	24°C	6/8	0
End	23:00	22°C	0/8	0
Sunset	21:30			
Detector	Batloggers			
Notes <ul style="list-style-type: none"> - Waxing gibbous moon, dry over the previous few days. - Fluorescent strip lights remained on in classroom throughout survey. - No emergences from B3, 1 emergence observed from B4. 				
Time	Species		Activity	
21:52	Soprano pipistrelle		Emergence, 1 bat from west gable end of B4 on southern end. After emerging, bat flew west.	
21:56	Common pipistrelle		Two bats commuting, one north and one south.	
21:57	Common pipistrelle		Multiple bats commuting north	
22:00	Soprano pipistrelle		Two bats commuting, one north and one south.	
22:19	Noctule		HNS	



Emergence Survey – 23/08/2022 – Survey 2 - B3

B3.S1 – West & South elevations

	Time	Rain	Cloud Cover	Wind
Start	20:03	19°C	8/8	0
End	21:51	19°C	8/8	1, W
Sunset	20:21			
Detector	Batlogger			
Notes				
- No bat emergences				
Time	Species	Activity		
20:28	Soprano pipistrelle	From south and foraging along treeline		
20:30	Soprano pipistrelle	From south and foraging along treeline		
20:37	Soprano pipistrelle	Two bats flying over building		
20:43	Common pipistrelle and Soprano pipistrelle	Foraging		
20:44	Noctule	HNS		
20:44-21:51	Soprano pipistrelle	Frequent pipistrelle passes. One to two bats foraging, with regular soprano pipistrelle passes.		
21:31	Soprano pipistrelle	HNS.		



Emergency Survey – 12/07/2022 – Survey 1 - B4

B4.S1 – West & North elevations

B4.S2 – South & West elevations

B4.S3 – South & East elevations

B4. C1 – North and East elevations

	Time	Rain	Cloud Cover	Wind
Start	21:11	23°C	7/8	1, SE
End	22:56	22°C	7/8	1, SE
Sunset	21:26			
Detector	Batloggers			
Notes	Three emergencies from west elevation (gable end) above windows.			
Time	Species	Activity		
B4.S3 & B4. C1				
21:54	Noctule	HNS		
22:05	Common pipistrelle	Foraging in courtyard		
22:15	Noctule	HNS		
22:19	Soprano pipistrelle	Foraging in courtyard		
22:35	Noctule	HNS		
B4.S1				
21:41	Soprano pipistrelle	HNS		
21:50	Soprano pipistrelle	Two bats emerging from southern end of west gable end above windows (CRF4-1). One flew west, one flew north		
21:54	Soprano pipistrelle	Multiple commuting bats		

21:53	Soprano pipistrelle	Two bats foraging
21:55	Soprano pipistrelle	One bat emerging from same location as previous (CRF4-1).
22:35	Noctule	HNS
B4.S2		
21:36	Soprano pipistrelle	HNS
21:47	Soprano pipistrelle	Commuting to north of building
21:48	Soprano pipistrelle	Commuting from west to north
21:50-21:52	Soprano pipistrelle	Commuting and foraging
21:54-22:57	Soprano pipistrelle	Commuting and foraging continuously
22:24, 22:35, 22:40	Noctule	HNS



Emergency Survey – 15/08/2022 – Survey 2 - B4

B4.S1 – West & North elevations

B4.S2 – South & West elevations

B4.S3 – South & East elevations

B4. C1 – North and East elevations

	Time	Rain	Cloud Cover	Wind
Start	20:20	23°C	1/8	1, N
End	22:05	20°C	1/8	1, N
Sunset	20:35			
Detector	Batloggers, EchoMeter Touch			
Notes	- Five emergencies from west elevation (gable end) above windows.			
Time	Species	Activity		
B4.S1				
20:50	Noctule	HNS		
20:52	Soprano pipistrelle	Commuting from east to west		
20:55	Soprano pipistrelle	Two emergencies (CRF4-2).		
10:55-21:01	Soprano pipistrelle	Two bats regularly foraging		
21:02	Noctule	Commuting high overhead from northwest to southeast		
21:12-21:28	Soprano pipistrelle	Regular foraging		
21:12	Common pipistrelle	Brief call		
21:54	Common pipistrelle	Brief foraging		
B4.S2				
20:50	Noctule	HNS		

20:51	Soprano pipistrelle	HNS
20:53	Soprano pipistrelle	Emergence (CRF4-1).
20:56	Soprano pipistrelle	Emergence (CRF4-1).
21:00	Soprano pipistrelle	Emergence (CRF4-1).
21:02	Noctule	Commuting southeast
B4.S3 & B4. C1		
20:50	Noctule	HNS
21:02	Noctule	Commuting north to south high over building
21:16	Soprano pipistrelle	Commuting northeast to southwest in courtyard
21:44	Common pipistrelle	Commuting northeast to southwest in courtyard

Emergence Survey – 14/09/2022 – Survey 3 - B4

B4.S1 – West & North elevations

B4.S2 – South & West elevations

B4.S3 – South & East elevations

B4. C1 – North and East elevations

	Time	Rain	Cloud Cover	Wind
Start	19:14	19°C	1/8	2, N
End	20:59	19°C	1/8	2, N
Sunset	19:24			
Detector	Batloggers			
Notes				
<ul style="list-style-type: none"> - Four emergences from north elevation (gable end) above windows. - Intermittent Soprano pipistrelle passes and bat commuting through courtyard. - Little insect activity. 				
Time	Species		Activity	
B4.S1 & B4.S2				
19:43	Soprano pipistrelle		Emergence from CRF4-1	
19:44	Soprano pipistrelle		Emergence from CRF4-1	
19:46	Soprano pipistrelle		Emergence from CRF4-1	
19:47	Soprano pipistrelle		Commuting/foraging	
19:47	Soprano pipistrelle		Emergence from CRF4-1	
19:47-20:00	Soprano pipistrelle		Continuous foraging	
B4.S3 & B4. C1				
19:53	Soprano pipistrelle		Commuting through courtyard	



Emergence Survey – 14/07/2022 – Survey 1 – B5

B5.S1 – East & North elevations

B5.S2 – West & North elevations

B5.S3 – South & East elevations

	Time	Rain	Cloud Cover	Wind
Start	21:20	18°C	1/8	0
End	22:55	16°C	1/8	0
Sunset	21:25			
Detector	Batloggers			
Notes				
- Waning gibbous moon				
- One bat emerging from west elevation				
- Multiple soprano pipistrelles foraging throughout survey, with less activity in the final 20 minutes				
Time	Species		Activity	
B5.S2				
22:52	Soprano pipistrelle		Commuting from east to west, and then returning via the same flight path in reverse	
21:57	Soprano pipistrelle		Emergence (CRF 5-1).	
22:01	Soprano pipistrelle		Three bats foraging directly east and south of building	
B5.S3				
22:07	Soprano pipistrelle		Commuting/foraging	
22:12	Soprano pipistrelle		Commuting/foraging	
22:25	Soprano pipistrelle		Commuting/foraging	
22:47	Soprano pipistrelle		Commuting/foraging	



B5.S1		
22:01	Noctule	HNS
22:03	Soprano pipistrelle	HNS
22:06	Common pipistrelle	Foraging along boundary



Emergence Survey – 18/08/2022 – Survey 2 – B5

B5.S1 – East & North elevations

B5.S2 – West & North elevations

B5.S3 – South & East elevations

	Time	Rain	Cloud Cover	Wind
Start	20:14	19°C	8/8	2, NE
End	22:50	19°C	8/8	3, NE
Sunset	20:30			
Detector	Batloggers			
Notes	- Misty rain 21:00, but bats were still flying during rain			
Time	Species	Activity		
B5.S1 & B5.S2				
20:39	Common pipistrelle	Two bats flying west		
20:40	Common pipistrelle	Commuting		
20.44	Soprano pipistrelle	Two bats social calling		
20.46	Soprano pipistrelle	Commuting west		
20.54	Noctule	HNS		
B5.S3				
20:46	Noctule	HNS		
20:53	Soprano pipistrelle	HNS – very faint call		
21:05	Common pipistrelle	HNS		
21:49	Noctule	HNS		



Emergence Survey – 01/09/2022 – Survey 3 – B5

B5.S1 – East & North elevations

B5.S2 – West & North elevations

B5.S3 – South & East elevations

	Time	Rain	Cloud Cover	Wind
Start	19:44	21°C	4/8	2, SW
End	21:29	19°C	4/8	2, NE
Sunset	19:59			
Detector	Batloggers			
Notes	- No emergencies			
Time	Species	Activity		
B5.S1 & B5.S2				
20:18	Soprano pipistrelle	HNS		
20:20	Soprano pipistrelle	Commuting west		
20:23	Common pipistrelle	Foraging		
20:24	Noctule	Commuting east overhead		
20:24-21:00	Soprano pipistrelle	Foraging, two bats at 20:31		
20:31	Common pipistrelle	Foraging		
21:08	Noctule	HNS		
B5.S3				
20:25	Noctule	HNS		
20:48	Common pipistrelle	HNS		
21:10	Noctule	HNS		



Emergence Survey – 03/08/2022 – Survey 1– B6

B6.S1 – East & North elevations

B6.S2 – East & South elevations

	Time	Rain	Cloud Cover	Wind
Start	20:50	18°C	2/8	3, W
End	22:27	17°C	6/8	3, W
Sunset	20:57			
Detector	Batloggers			

Notes

- No emergencies
- Dry, with very light drizzle at end of survey
- Lights in passage adjacent to east elevations were turned on at 21:15

Time	Species	Activity
B6.S1		
21:24	Soprano pipistrelle	HNS
21:56	Common pipistrelle	HNS
22:16	Noctule	HNS
B6.S2		
20:24	Soprano pipistrelle	HNS



Emergency Survey – 08/08/2022 – Survey 1– B7

B7.S1 – East & North elevations

B7.S2 – West & South elevations

	Time	Rain	Cloud Cover	Wind
Start	20:34	23°C	2/8	3, W
End	22:19	20°C	0/8	2, NW
Sunset	20:57			
Detector	Batloggers			
Notes	- No emergencies - Floodlight on south side of building			
Time	Species	Activity		
B7.S1				
20:49	Noctule	Commuting over B7		
21:01, 21:15, 21:25, 21:28, 22:02, 22:08	Noctule	HNS		
21:04, 21:14, 21:41, 21:49, 22:04	Soprano pipistrelle	HNS		
21:04, 21:55, 22:03, 22:05	Common pipistrelle	HNS		
21:15-21:30, 21:32-21:38	Common pipistrelle	Continuous foraging behind surveyor position		
B7.S2				
21:00	Noctule	Flying high above building		
21:15	Noctule	Flying high southeast of building		
21:19, 21:25, 22:02, 22:06, 22:09	Noctule	HNS		



21:21	Common pipistrelle	HNS
21:28	Common pipistrelle	Commuting around southeast corner of building
21:33, 21:34, 22:14	Soprano pipistrelle	HNS
21:50	Common pipistrelle	Commuting along eastern aspect of building



Emergence Survey – 31/08/2022 – Survey 2– B7

B7.S1 – East & North elevations

B7.S2 – West & South elevations

	Time	Rain	Cloud Cover	Wind
Start	19:45	22°C	3/8	E
End	21:30	20°C	2/8	3, NE
Sunset	20:00			
Detector	Batloggers			
Notes	- No emergences			
Time	Species	Activity		
B7.S1 & B7.S2				
20:21	Soprano pipistrelle	Commuting and foraging		
20:28-21:06	Common pipistrelle and Soprano pipistrelle	Two bats foraging in garden area to north-east of B7.S1		
21:20	Soprano pipistrelle	HNS		

Emergency Survey – 01/08/2022 – Survey 1– B8

B8.S1 – South elevations

B8.S2 – North & West elevations

B8. C1 –East elevations

	Time	Rain	Cloud Cover	Wind
Start	20:46	19°C	6/8	2, N
End	22:31	17°C	4/8	1, N
Sunset	21:01			
Detector	Batloggers			

Notes

- No emergencies
- Very light drizzle from 21:45-21:59 and 22:11-22:20
- C.pip roost likely present in houses to north outside of house boundary.

Time	Species	Activity
B8.S1		
21:04	Soprano pipistrelle	HNS
21:34	Soprano pipistrelle	Commuting
21:25	Common pipistrelle	HNS
21:30	Soprano pipistrelle	Foraging
B8.C1		
21:05, 21:06, 21:20, 21:22, 21:39-21:58	Soprano pipistrelle	Commuting, first pass was east over B8, and foraging
21:21, 21:25, 21:27, 21:33, 21:34, 22:08	Common pipistrelle	Commuting or HNS
21:58, 22:27	Noctule	HNS

B8. S2		
21:04	Soprano pipistrelle	Flew from houses to northwest of B8
21:21	Common pipistrelle	HNS
21:25-21:46	Common pipistrelle	Intermittent foraging
21:43	Soprano pipistrelle & Common pipistrelle	Foraging to northwest of B8 and B10
21:47	Soprano pipistrelle	Foraging to northwest of B8 and B10
21:49-21:57	Soprano pipistrelle & Common pipistrelle	Constant foraging behind northwest of B8 and B10
21:57	Noctule	HNS
21:58	Soprano pipistrelle	HNS
22:01	Common pipistrelle	HNS
22:01-22:31	Common pipistrelle & Soprano pipistrelle	Intermittent foraging, mainly northwest of B8 and B10 until end of survey. More common pipistrelle than soprano pipistrelle
22:28	Noctule	HNS



Emergence Survey – 25/08/2022 – Survey 2– B8

B8.S1 – South elevations

B8.S2 – North & West elevations

B8. C1 –East elevations

	Time	Rain	Cloud Cover	Wind
Start	19:59	18°C	2/8	2, SE
End	21:45	16°C	2/8	2, SE
Sunset	20:15			
Detector	Batlogger			
Notes	- No emergences			
Time	Species	Activity		
B8.S1, B8.S2 & B8.C1				
20:40	Soprano pipistrelle	Foraging around building		
21:03	Common pipistrelle	Commuting through garden		



Emergency Survey – 01/08/2022 – Survey 1– B10

B10.S1 – North & West elevations

B8.S1– South and East elevations

	Time	Rain	Cloud Cover	Wind
Start	20:46	19°C	6/8	2, N
End	22:31	17°C	4/8	1, N
Sunset	21:01			
Detector	Batloggers			

Notes

- Undertaken at same time as B8 survey on 1st August
- No emergencies
- Very light drizzle from 21:45-21:59 and 22:11-22:20
- Common pipistrelle roost likely present in houses to north outside of house boundary.

Time	Species	Activity
B8.S1		
21:04	Soprano pipistrelle	HNS
21:34	Soprano pipistrelle	Commuting
21:25	Common pipistrelle	HNS
21:30	Soprano pipistrelle	Foraging
B8. S2		
21:04	Soprano pipistrelle	Flew from houses to northwest of B8
21:21	Common pipistrelle	HNS
21:25-21:46	Common pipistrelle	Intermittent foraging
21:43	Soprano pipistrelle & Common pipistrelle	Foraging to northwest of B8 and B10



21:47	Soprano pipistrelle	Foraging to northwest of B8 and B10
21:49-21:57	Soprano pipistrelle & Common pipistrelle	Constant foraging behind northwest of B8 and B10
21:57	Noctule	HNS
21:58	Soprano pipistrelle	HNS
22:01	Common pipistrelle	HNS
22:01-22:31	Common pipistrelle & Soprano pipistrelle	Intermittent foraging, mainly northwest of B8 and B10 until end of survey. More common pipistrelle calls than soprano pipistrelle calls observed.
22:28	Noctule	HNS



Emergence Survey – 18/07/2022 – Survey 1– B15

B15.S1 – East elevations				
	Time	Rain	Cloud Cover	Wind
Start	21:05	27°C	2/8	2, E
End	22:50	25°C	2/8	2, E
Sunset	21:20			
Detector	Batloggers			
Notes				
- Light on around courtyard and beneath roofing				
Time	Species		Activity	
B15.S1				
21:41	Noctule		Faint call, HNS	
21:27, 22:29	Soprano pipistrelle		HNS	



Emergence Survey – 18/07/2022 – Survey 1– B16

B16.S1 – North and West elevations

B16.S2 – South and East elevations

B16.C1 – North and East elevations

	Time	Rain	Cloud Cover	Wind
Start	21:05	28°C	2/8	1, W
End	22:50	26°C	2/8	1, W
Sunset	21:20			
Detector	Batloggers			
Notes	Large floodlight on NW corner of building			
Time	Species	Activity		
B16.S1				
22:27, 22:29	Soprano pipistrelle	HNS		
B16.S2 & B16.C1				
21:56	Soprano pipistrelle	Commuting in courtyard		
22:05	Common pipistrelle	HNS		
22:22, 22:57	Soprano pipistrelle	HNS		



Emergence Survey – 22/08/2022 – Survey 2– B16

B16.S1 – North and West elevations

B16.S2 – South and East elevations

B16.C1 – North and East elevations

	Time	Rain	Cloud Cover	Wind
Start	20:06	20°C	8/8	0
End	21:51	19°C	8/8	1, W
Sunset	20:21			
Detector	Batloggers			
Notes				
<ul style="list-style-type: none">- Waning crescent moon- Light drizzle prior to survey and on and off during survey- Lights in lower two storeys of B16 and lights under shelter remained on until ~20:30				
Time	Species	Activity		
B16.S1				
20:45, 21:46, 21:48	Noctule	HNS		
B16.S2				
21:02, 22:03, 22:05	Noctule	Commuting overhead		
22:49	Common pipistrelle	Commuting and foraging		
B16.C1				
21:07	Soprano pipistrelle	Commuting from north to south		
21:20	Soprano pipistrelle	HNS		



Emergence Survey – 02/08/2022 – Survey 1– B18

B18.S1 –South and West elevations

B18.S2 – North and West elevations

B18.C1 – South and East elevations

	Time	Rain	Cloud Cover	Wind
Start	20:48	19°C	8/8	3, W
End	22:29	19°C	8/8	3, SW
Sunset	20:58			
Detector	Batloggers			

Notes

- Very well lit by car park
- Disruption in first 20 mins of survey as sports hall was in use
- Light drizzle at beginning of survey

Time	Species	Activity
B16.S1		
21:29	Soprano pipistrelle	Commuting north over B18
B16.S2 & B16.C1		
21:09	Soprano pipistrelle	HNS
21:12	Soprano pipistrelle	Foraging
21:13	Common pipistrelle	HNS
21:15	Common pipistrelle	Foraging
21:19-21:52	Soprano pipistrelle & common pipistrelle	Foraging intermittently, both soprano pipistrelle and common pipistrelle
21:24-22:24	Soprano pipistrelle & common pipistrelle	Both soprano pipistrelle and common pipistrelle commuting



Emergence Survey – 13/07/2022 – Survey 1– B19

B19.S1 – North and East elevations

B19.S2 – South and East elevations

B19.S3 – South and West elevations

B19.C1 – North and West elevations

	Time	Rain	Cloud Cover	Wind
Start	20:48	19°C	8/8	3, W
End	22:29	19°C	8/8	3, SW
Sunset	20:58			
Detector	Batloggers			
Notes				
<ul style="list-style-type: none">- Very well lit by car park- Disruption in first 20 mins of survey as sports hall was in use- Light drizzle at beginning of survey- No bats recorded at B19.S1				
Time	Species	Activity		
B19.C1				
21:55	Soprano pipistrelle	HNS		
22:07	Soprano pipistrelle	HNS, assumed to be behind surveyor positions		
22:13	Soprano pipistrelle	Foraging around B20		
22:26	Soprano pipistrelle	Foraging around B20		
B16.S2				
21:51	Soprano pipistrelle	HNS, likely foraging		
21:56	Common pipistrelle	HNS, likely foraging		
22:02	Common pipistrelle	Commuting from west to south		



22:03	Common pipistrelle	Commuting from west to north
22:35	Soprano pipistrelle	Commuting from east to north
22:37	Common pipistrelle	Commuting from south to west in front of B19
B19.S3		
21:50	Soprano pipistrelle	Commuting east
21:56, 21:59, 22:02	Soprano pipistrelle	Commuting east
21:19, 22:20, 22:38, 22:42, 22:48	Soprano pipistrelle	HNS, possible foraging
22:32, 22:37, 22:51	Common pipistrelle	HNS
22:53	Noctule	Commuting overhead



Emergency Survey – 17/08/2022 – Survey 2– B19

B19.S1 – North and East elevations

B19.S2 – South and East elevations

B19.S3 – South and West elevations

B19.C1 – North and West elevations

	Time	Rain	Cloud Cover	Wind
Start	20:16	19°C	8/8	2, SE
End	22:01	18°C	5/8	4, SE
Sunset	20:31			
Detector	Batloggers			
Notes	- No emergencies			
Time	Species	Activity		
B19.S1, B19.S3, B19.S3, & B19.C1				
20:42	Noctule	HNS		
20:49	Noctule	HNS		



Emergence Survey – 07/09/2022 – Survey 3 – B19

B19.S1 – North and East elevations

B19.S2 – South and East elevations

B19.S3 – South and West elevations

B19.C1 – North and West elevations

	Time	Rain	Cloud Cover	Wind
Start	19:32	18°C	6/8	2, W
End	21:17	16°C	4/8	2, W
Sunset	19:47			
Detector	Batloggers			
Notes				
<ul style="list-style-type: none">- Multiple flood lights on, and B19 lights on until 21:09.- Light glare made it difficult to see south elevation after 20:19.- No bat activity observed from B19.S1 and B19.C1				
Time	Species	Activity		
B19.S3				
20:00	Soprano pipistrelle	Commuting		
20:01	Soprano pipistrelle	Foraging		
20:02	Common pipistrelle	Commuting		
20:11	Common pipistrelle	Foraging		
B19.S2				
20:02	Common pipistrelle	Commuting from behind from west to east		
20:09	Soprano pipistrelle	Commuting from east to west		
20:11-20:17	Common pipistrelle	Foraging west and east along south elevation of B19		



20:42, 20:50, 20:53, 21:13	Soprano pipistrelle	HNS
20:58, 21:00	Common pipistrelle	HNS
20:59	Noctule	HNS



Emergence Survey – 20/07/2022 – Survey 1 – B20

B20.S1 – North and East elevations

B20.S2 – South and East elevations

B20.S3 – South and West elevations

	Time	Rain	Cloud Cover	Wind
Start	21:03	20°C	3/8	2, NW
End	22:48	20°C	6/8	2, NW
Sunset	21:18			
Detector	Batloggers			
Notes	- B20 north-east corner illuminated.			
Time	Species	Activity		
B20.S1				
21:44	Common pipistrelle	Brief call, HNS		
22:56	Soprano pipistrelle	Foraging		
B20.S2				
21:52	Common pipistrelle and soprano pipistrelle	HNS		
21:58-22:04	Soprano pipistrelle	Single bat foraging		
22:05	Soprano pipistrelle	Second bat foraging with first		
22:36	Soprano pipistrelle	HNS		
22:38	Noctule	HNS		
B20.S3				
21:57	Soprano pipistrelle	Faint call, HNS		
22:09	Soprano pipistrelle	Foraging in courtyard		

Emergence Survey – 24/08/2022 – Survey 2 – B20

B20.S1 – North and East elevations

B20.S2 – South and East elevations

B20.S3 – South and West elevations

	Time	Rain	Cloud Cover	Wind
Start	20:02	20°C	8/8	2, W
End	21:47	19°C	7/8	2, W
Sunset	20:17			
Detector	Batloggers			
Notes				
- Light rain at start of survey for 15-20 mins.				
Time	Species	Activity		
B20.S1				
20:44, 20:49	Soprano pipistrelle	HNS		
21:29, 21:32, 21:36	Noctule	HNS		
B20.S2				
20:43	Soprano pipistrelle	Commuting		
20:49	Soprano pipistrelle	HNS, possibly overhead		
21:29, 21:32	Noctule	HNS, commuting overhead		
B20.S3				
20:33	Soprano pipistrelle	Foraging		
21:31	Noctule	HNS		
21:37	Soprano pipistrelle	Foraging in clearing		



Emergence Survey – 20/07/2022 – Survey 1 – B21

B21.S1 – South and East elevations

B21.S2 – North and West elevations

	Time	Rain	Cloud Cover	Wind
Start	21:03	20°C	3/8	2, NW
End	22:48	20°C	6/8	2, NW
Sunset	21:18			
Detector	Batloggers			
Notes				
- B20 north-east corner illuminated.				
Time	Species	Activity		
B21.S1				
21:44	Common pipistrelle	Brief call, HNS		
22:56	Pipistrelle	Foraging		
B21.S2				
21:52	Soprano pipistrelle	HNS		
21:58-22:04	Soprano pipistrelle	Single bat foraging		
22:05	Soprano pipistrelle	Second bat foraging with first		
22:36	Soprano pipistrelle	HNS		
22:38	Noctule	HNS		



Emergence Survey – 25/07/2022 – Survey 1 – B23

B23.S1 – North and East elevations

B23.S2 – East elevations

B23.S3 – West elevations

	Time	Rain	Cloud Cover	Wind
Start	21:05	17°C	2/8	2, NW
End	22:41	16°C	1/8	2, W
Sunset	21:11			
Detector	Batloggers			
Notes	- Trees and scaffolding restricted clear view of west elevation			
Time	Species	Activity		
B23.S1				
21:40 – 22:40	Soprano pipistrelle	Regular foraging in courtyard		
B23.S2				
21:24	Soprano pipistrelle	2 passed over building flying west		
21:33	Soprano pipistrelle	Commuting northward		
21:35, 21:42	Soprano pipistrelle	HNS		
21:46	Soprano pipistrelle	Three bats foraging to south of building		
21:59	Soprano pipistrelle	Commuting southward		
B23.S3				
21:24, 21:54	Soprano pipistrelle	Commuting east		
21:57	Soprano pipistrelle	Commuting west		



Emergence Survey – 21/07/2022 – Survey 1 – B24

B24.S1 – North and East elevations

B24.S2 – South and West elevations

	Time	Rain	Cloud Cover	Wind
Start	21:01	20°C	7/8	1, NW
End	22:46	18°C	7/8	1, W
Sunset	21:16			
Detector	Batloggers			
Notes				
- Regular soprano pipistrelle activity throughout survey				
Time	Species	Activity		
B24.S1				
21:27	Soprano pipistrelle	Three emergences - west gable end (CRF24-1)		
21:29-22:04	Soprano pipistrelle	Constant foraging around garden		
22:12-22:46	Soprano pipistrelle	Regular foraging around garden		
22:31	Noctule	Commuting over		
B24.S2				
21:31 – 21:35	Soprano pipistrelle	Commuting - heading northwest		
21:48 – 22:17	Soprano pipistrelle	Regular foraging east and northeast of B24		
22:31	Noctule	HNS		



Emergence Survey – 09/08/2022 – Survey 2– B24

B24.S1 – North and East elevations

B24.S2 – South and West elevations

	Time	Rain	Cloud Cover	Wind
Start	20:30	15°C	1/8	1, NW
End	22:15	13°C	1/8	1, W
Sunset	20:45			
Detector	Batloggers			
Notes				
- Infrequent bat activity throughout survey				
Time	Species	Activity		
B24.S1 & B24.S2				
20:55	Soprano pipistrelle	Commuting - heading north to west		
21:06	Soprano pipistrelle	Commuting - heading north to south		
21:08	Noctule	Commuting – east to west over house		
21:21	Noctule	HNS		
22:06	Common pipistrelle	HNS		



Emergence Survey – 25/08/2022 – Survey 3– B24

B24.S1 – North and East elevations

B24.S2 – South and West elevations

	Time	Rain	Cloud Cover	Wind
Start	20:00	18°C	1/8	3, WNW
End	21:45	17°C	1/8	3, WNW
Sunset	20:15			
Detector	Batloggers			
Notes	- Regular soprano pipistrelle activity throughout survey.			
Time	Species	Activity		
B24.S1				
20:14	Soprano pipistrelle	HNS		
20:33	Soprano pipistrelle	Commuting south		
20:41	Common pipistrelle	HNS		
21:04-21:45	Soprano pipistrelle	Regular passes - HNS		
B24.S2				
20:29	Soprano pipistrelle	Emergence - west gable end (CRF24-1)		
20:34	Soprano pipistrelle	Two emergences - west gable end (CRF24-1)		
20:37	Soprano pipistrelle	Emergence - west gable end (CRF24-1)		
20:41-21:40	Soprano pipistrelle	Regular foraging around garden		
21:30	Noctule	Commuting over		



B24.S3		
21:24, 21:54	Soprano pipistrelle	Commuting east
21:57	Soprano pipistrelle	Commuting west

Appendix B

PHOTOS

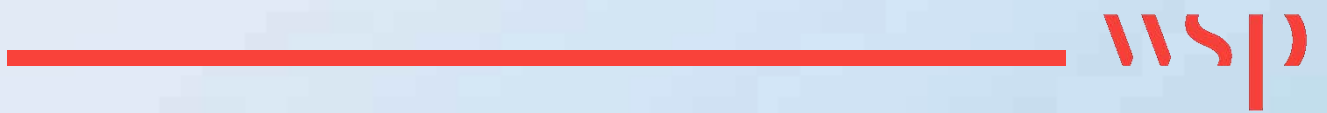




Photo 1 – B1 Confirmed roost and bat droppings (north and south elevations)



Photo 2 – B4 Confirmed roost and emergence points (west elevation)



Photo 3 – B5 Confirmed roost and emergence point (north elevation)



Photo 4 – B24 Confirmed roost and emergence point (west elevation)



Photo 5 – B19 Confirmed roost (Historic)



Photo 6 – B2



Photo 7 – B3



Photo 8 – B6



Photo 9 – B7

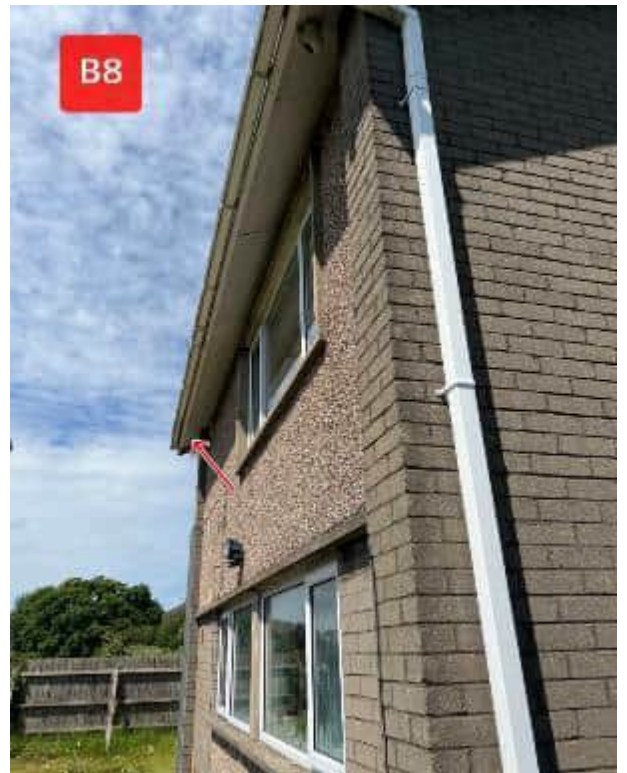


Photo 10 – B8



Photo 11 – B10

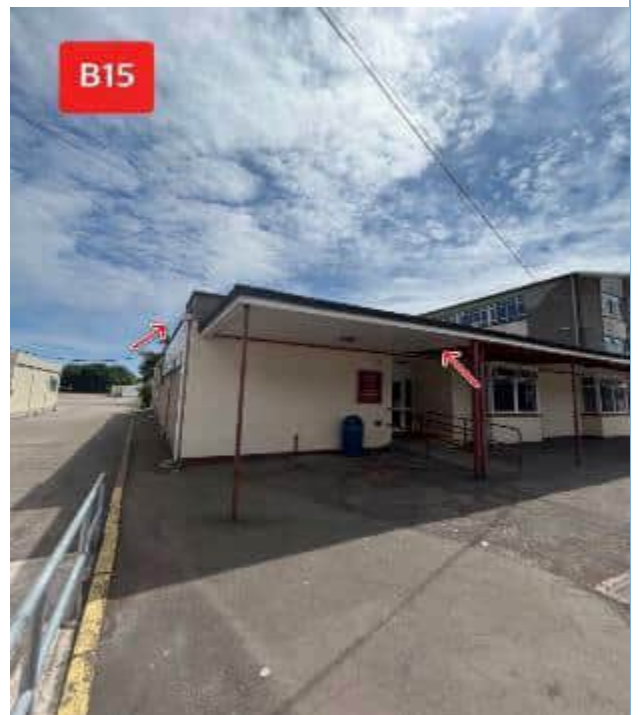


Photo 12 – B15



Photo 13 – B16



Photo 14 – B18



Photo 15 – B20



Photo 16 – B21



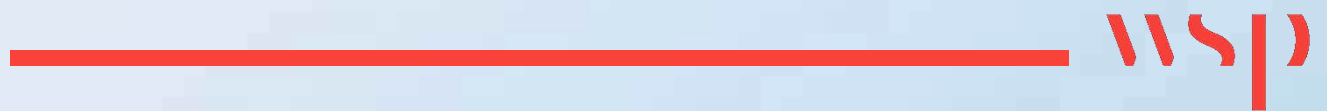
Photo 17 – B23



Photo 18 – Eastern boundary of the Site

Appendix C

GENOTYPING RESULTS





13 October 22

Re: Identification Results for Matt Mott-Dowling, WSP

Job number 19036, received 03 October 2022

Sample labelled: B1

PCR amplification successful. DNA sequence:

ATGACAACATTGAAAGTCCCATCCCCTAATCAAATTATTAACAGCTGATTCATTG
ACCTACCAGCTCCATCAAACATCTCAGCATGAGGAATTTGGATCC

Phylogenetic analysis identification: *Pipistrellus pygmaeus*

Confirmed by maximum likelihood, maximum parsimony, bootstrap 100%.

Best regards,

Professor Robin Aliaby

The results and conclusions in this report are based on an investigation of mtDNA sequence analysis. The results obtained have been reported with accuracy. The interpretation represents the most probable conclusion for the DNA sequence obtained rather than the sample provided given current levels of species data. It should be borne in mind that different circumstances might produce different results. Therefore, care must be taken with interpretation of the results especially if they are used as the basis for commercial recommendations.

Professor Robin Aliaby

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7 October 22

Re: Identification Results for Matt Mott-Dowling, WSP

Job number 19037, received 03 October 2022

Sample labelled: B5

PCR amplification successful. DNA sequence:

ATGACAAACATTGAAAGTCCCATCCCCTAATCAAATTATTAACAGCTCATTG
ACCTACCAGCTCCATCAAACATCTCAGCATGATGGAATTTGGATCCCTATTAGGCAT
C

Phylogenetic analysis identification: *Pipistrellus pygmaeus*

Confirmed by maximum likelihood, maximum parsimony, bootstrap 100%.

Best regards,

Professor Robin Allaby

The results and conclusions in this report are based on an investigation of mtDNA sequence analysis. The results obtained have been reported with accuracy. The interpretation represents the most probable conclusion for the DNA sequence obtained rather than the sample provided given current levels of species data. It should be borne in mind that different circumstances might produce different results. Therefore, care must be taken with interpretation of the results especially if they are used as the basis for commercial recommendations.

Professor Robin Allaby

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