# Draft response to Clondegad

*Dear Mr. Minogue,*

*We acknowledge receipt of your Section 54 derogation licence application for a dwelling at Clondegad, Ballynacally, Co. Clare. The Department is of the opinion that the report accompanying the application does not adequately address the conservation concerns and mitigation requirements for the annex II species Lesser Horseshoe Bat.*

*The Department notes the following.*

· *a static bat detector was left in place for 3 days in late august and a dusk/dawn survey using a handheld monitor by one surveyor took place on August 28th. Evidence of Bat usage was noted within the attic above the stairwell and open windows were observed for access/egress which were opened in May 2024 prior to this access is suspected to have been through a missing pane of glass in the first-floor toilet at the rear of the house. 30 Lesser Horseshoe Bats were counted, and this was seemingly through an internal count which was limited due to access and visibility. An accurate external exit count was not achieved presumably due to numerous exit points and only one surveyor. It is possible and likely that the number of 30 individual bats is an underestimate.*

The house is in a poor structural condition with timbers being infected by dry rot and woodworm. The ceiling above the stairwell was missing as it had collapsed due to a combination of leaking roofs and degraded timbers. There have been slates removed by winds in recent storms.

I observed bats flying throughout the house and stairwell on all three floors of the house, prior to commencing foraging. This also gave Lesser horseshoe bats access from the first storey windows at the front of the house where they had been left open since spring of this year (2024) and from the small window at the back of the house. The owners stated that there was no observable bat activity within the house prior to the second story windows been opened in May 2024. This would suggest that this was an opportunistic roost created by ease of access for this bat species to the house for 2024.

· *The report states the following "with reference to the Bat Mitigation Guidelines the unmitigated effect of the potential impacts associated with the works will represent a certain impact on the Lesser horseshoe bats. It is suggested that these effects could be mitigated against, depending on the outcome of an application for a derogation licence". This statement is inaccurate, the granting of a regulation 54 derogation licence is dependent on the provision of detailed mitigation measures as part of the application.*

I accept this statement as being inaccurate. The mitigation strategy was based upon a quicker timeline response from the Department.

· *The mitigation measures outlined in paragraph 3.2 propose the creation of a roost location within the existing attic with the installation of a covered entrance on the new roof. It*

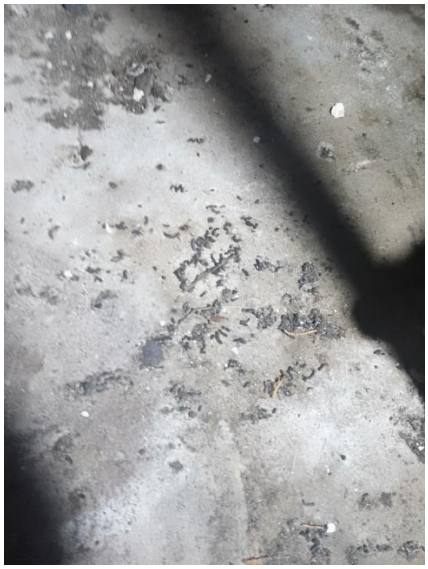
*is taken from this that the roof of the existing building is to be replaced, and it is proposed that the new roost and access would be in place by Spring 2025 for the Bats to return. Other mitigation measures include landscape measures and lighting.*

These mitigation measures were based on a timeframe which is not possible now.

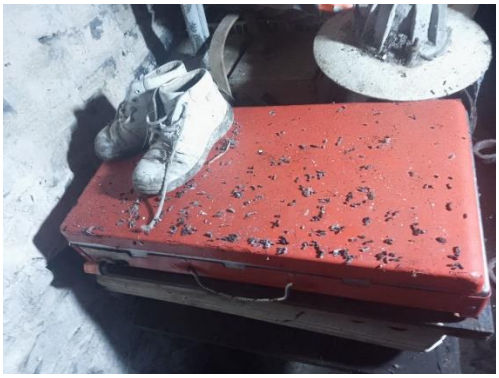
· *The presence of adjoining sheds suitable for Bat roosts is also mentioned. However, it is unclear if these buildings were surveyed and if they are suitable for Lesser Horseshoe maternity roosts.*

These sheds were mentioned as they are suitable for a Lesser horseshoe bat maternity colony.

There was evidence of this species utilising the sheds during survey, this was further verified by the presence of bat droppings found in the loft and adjoining sheds. The further information request asked for a survey of the house, which was provided. The landscape is a rich bat landscape and activity was recorded, especially by Lesser horseshoe bats in this courtyard, behind the house and in the sheds. Historically, according to local people bats were always associated with these sheds.



Bat droppings in the loft of the shed (November 2024)



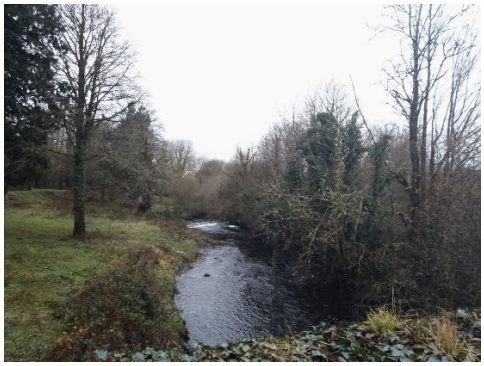
bat dropping in the shed which the loft opens out to (November 2024)

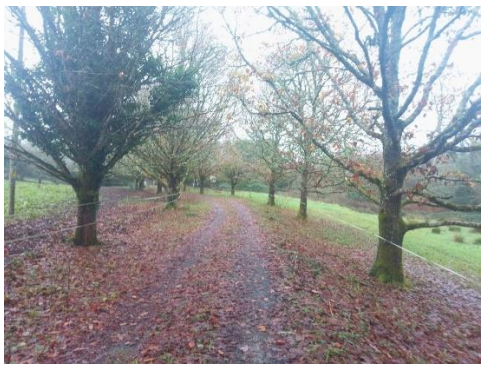
*The Department request that the following concerns are addressed.*

*1. The report mentions that a static survey confirmed bats utilizing the house with 5 species recorded and droppings found throughout. However, only Lesser Horseshoe bats are listed on the derogation application. Clarification is required as to whether any other species were recorded using the building and if so the application and report needs to be updated to reflect this.*

No other species were recorded using the house, just Lesser horseshoe bats. These other species were monitored around the courtyard and vegetation near the river.

Other species were monitored near the church, along the avenue leading to the house as well as along the riparian woodland along the Owenslieve River. There was good bat activity along hedgerows and treelines to the north of the structure. Common Pipistrelle (Pipistrellus pipistrellus), Soprano Pipistrelle (Pipistrellus pygmaeus) and Brown long-eared bat (Plecotus auritus) were the other species monitored around the structure. They were not found to be utilizing the house.


Owenslieve River


Avenue leading to the house

The static monitor located these other species away from the house, the predominance of Lesser horseshoe bat activity is striking (over several days).

| | | |
|---|---|---|
| Myotis daubenton | 4 | 28 |
| None | 6 | 126 |
| Myotis nattereri | 8 | 57 |
| Myotis mystacinus | 9 | 64 |
| Pipistrellus pygma | 39 | 327 |
| Rhinolophus hippo | 978 | 19952 |

When these species are added to the species monitored by the hand-held bat detector.

| | | |
|---|---|---|
| Plecotus auritus | 1 | 24 |
| Pipistrellus pipistre | 8 | 180 |
| Pipistrellus pygma | 30 | 604 |
| Rhinolophus hippo | 65 | 2142 |

It gives a total of 7 out of the 9 resident bat species on and around this site. The only species monitored and surveyed utilising the house was Lesser Horseshoe bats (Rhinolophus hipposideros).

2. *The report mentions that bat droppings were observed on all 3 floors. The possibility of Bats utilizing the building in the autumn and winter is not addressed and should be considered in line with proposed works on the structure.*

Lesser Horseshoe bats engage in warm-up flights prior to foraging, the stairwell of the house was perfect for this, in the following mitigation measures, the loft space opens into a large high roofed shed which would provide a similar space for these warm up flights..

These warm-up flights are a critical part of the bats' nightly routine, ensuring they are physically and mentally prepared for the challenges of foraging. It would also explain the presence of bat droppings throughout the house.

An inspection was undertaken in late November to ascertain the continuing use of the house by bat species during winter, due to the house having a lower level which is not a basement but is below ground level, it was thought that there may have been a possibility of the structure containing a Hibernacula, Underneath the main stairwell to the front door and the bottom of the main stairwell were inspected, no hibernating bats were located. The access to the stairwell was convenient for the bats present as it afforded a gradient of roosting space temperatures that could be useful for bats rearing young.

**There were no bats observed utilising the structure in late autumn and winter 2024.**

Before any works being undertaken a full internal inspection and survey will be conducted.

The house is in a degraded condition. A two-story extension to the rear is not weatherproof and has been allowing significant amounts water into the walls and floors of the original building. This has to be demolished. The Engineers report included in the application states that the roof and much of the flooring in the house are unsafe and degrading. The loss of slates in storm Darragh will further increase the action of weathering on the roof in particular.

3. *The building in question is a listed structure and the main mitigation measure refers to the installation of a dormer style opening to allow access for the bats into the new roost in the existing attic. Detailed drawings of the design and location of this access is required, and consideration should be given to whether this change is permitted to a listed building.*

As mentioned above the use of the attic space for a breeding colony was primarily outlined for time constraint reasons, it fitted, in time terms for a building contractor and was outlined to ensure the probable continuance of this space for bats. With the availability of the shed spaces being available and prepared as a contingency, in case the disruption from building or habitation caused colony abandonment. With delays across all aspects of this project, the use of the attic space is not being considered now, as it is unlikely that works will be completed prior to the next breeding cycle. The use of the adjoining loft space in the sheds is where bat activity was observed and was historically where bat activity was centred. The opening up of the house windows early in 2024 gave access to bats to the attic of the house.

The following are attributes which a breeding colony of Lesser horseshoe bats exhibit

**Arrival and Settling**: Female bats start to occupy maternity roosts from April onwards, with most arriving by May. They choose roosts that provide a warm, stable environment, which is crucial for the development of their pups.

**Roosting Behaviour**: Within the roost, bats hang upside down in clusters, often wrapping their wings around their bodies. This behaviour helps conserve body heat and provides a secure environment for the young.

**Social Structure**: Maternity colonies are mixed sex, with up to a fifth of the colony being male. This social structure helps in maintaining a stable and supportive environment for the nursing females.

**Pup Rearing**: Females give birth to a single pup from mid-June to early July. The roost provides a safe space for the pups to develop and grow, with the mother frequently returning to nurse them.

**Shifts Between Roosts**: Throughout the summer, the colony may shift between different parts of the roost, such as attics, cellars, and chimneys, depending on weather conditions and the need for optimal temperature and humidity.

**Foraging and Feeding**: While the roost provides a safe space for LHB's, bats leave it at dusk to forage for food. They typically feed on insects like craneflies, caddisflies, lacewings, midges, and moths, which they catch in woodland, scrub, and along treelines.

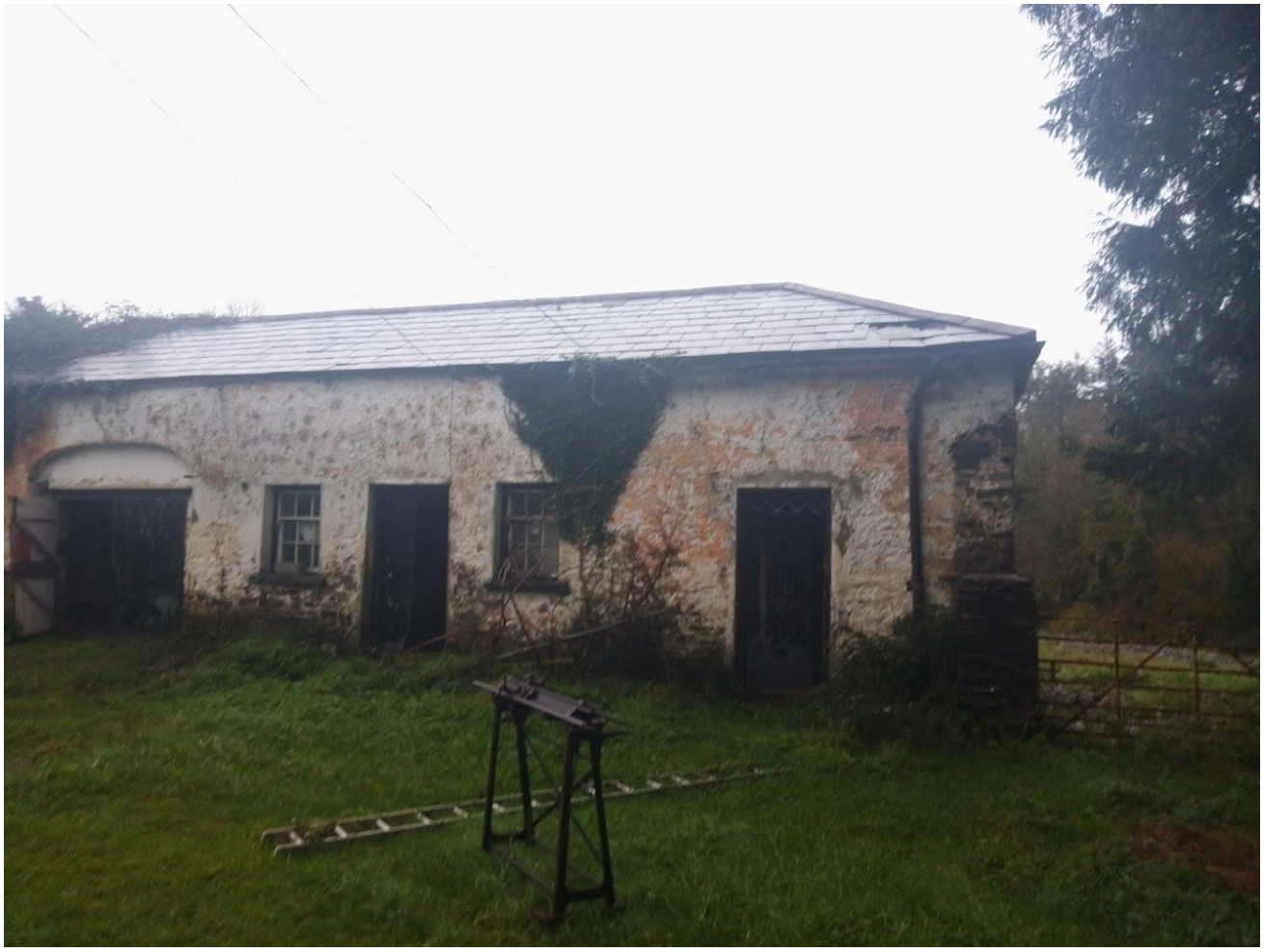
**Hibernation Preparation**: As the season transitions to autumn, bats start to prepare for hibernation. They may become more active within the roost during warmer autumn days, but eventually, they move to hibernation sites such as caves, mines, and tunnels.

4. *The Bat Mitigation Guidelines with regard to mitigation/compensation for the loss of a maternity roost for a rare species state; timing constraints, like for like replacement as a minimum and no destruction of former roost until replacement completed and usage demonstrated. There are very few examples of LHB maternity roosts in occupied houses. The applicant should bear this in mind and develop suitable mitigation plans. They should*

*include evidence that similar mitigation has worked elsewhere. The presence of adjoining sheds with roosting potential is mentioned but with no further details and no pictures.*

As outlined above the time constraints have run to beyond what was expected, as such the mitigation is now centred in the shed spaces.

These are outlined below



Sheds from the front, (Facing south) from the right is the cart house which the loft opens out to.

In the middle section with two windows is the space below the loft.

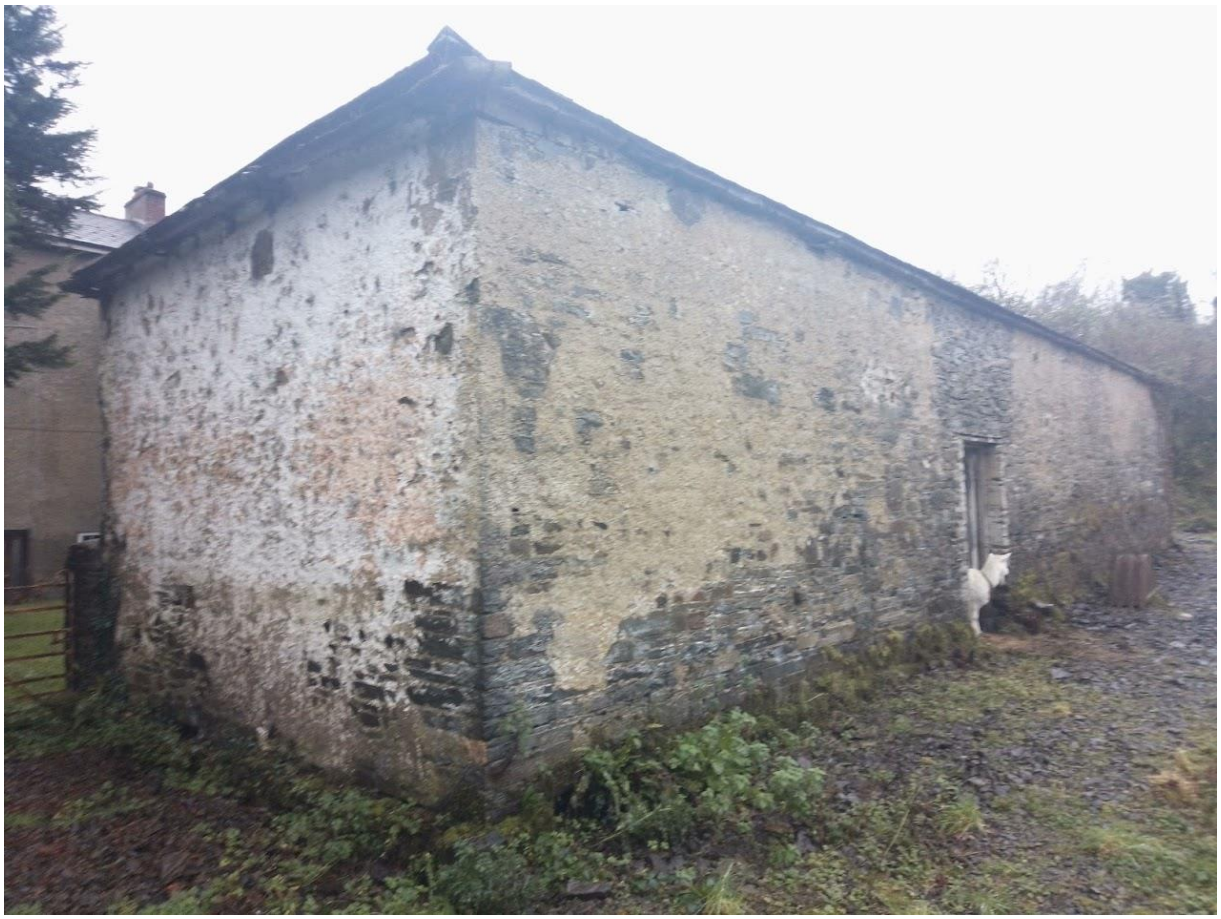
To the left is a cow byre which is closest to the Owenslieve River as seen it is adjacent to treelines and riparian vegetation.

Access will be improved by leaving windows open and cutting sections from existing doors.

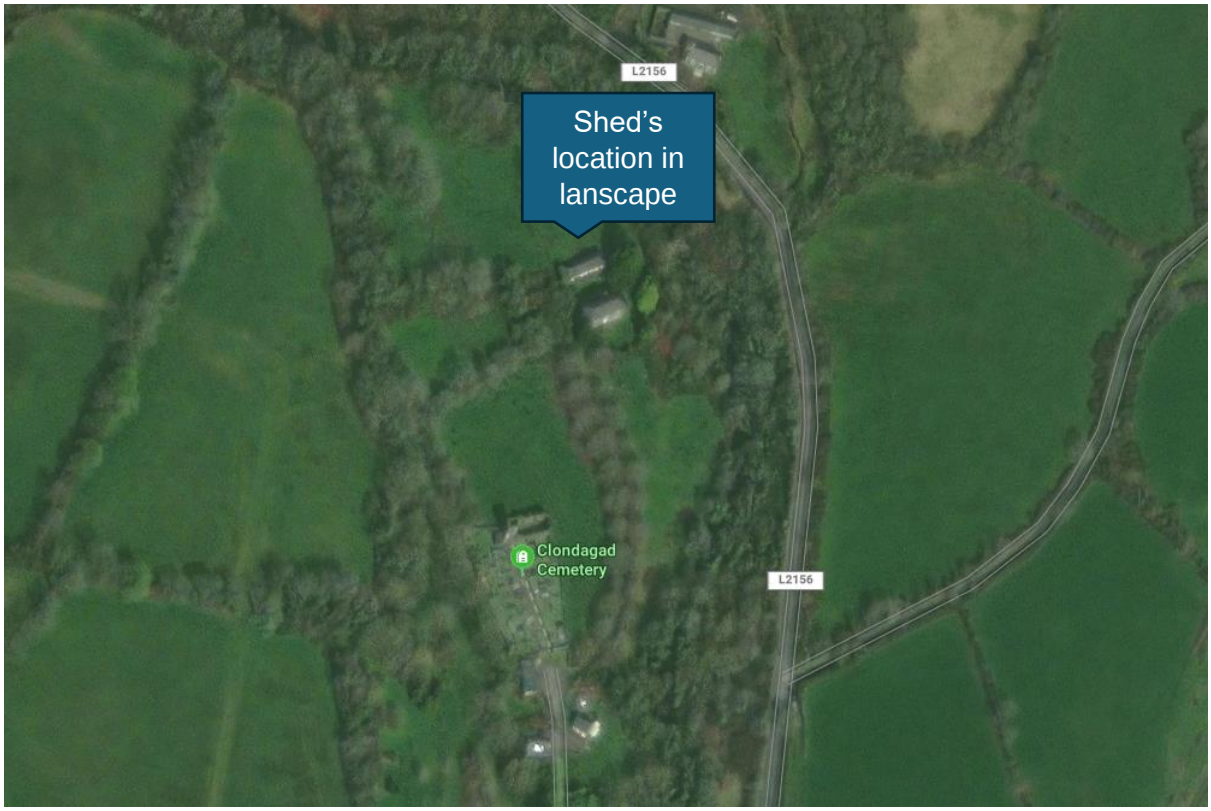
The middle section shed with windows either side of the door gives access to the courtyard behind the house and to open areas to the north of the shed. The floor is broken in some areas allowing access from this space into the loft. There is access through the wall of the cow byre in a dividing wall between this shed and the loft also, as such there are presently good access to the loft from the three sheds, with a constructed roost in place, it would be an undisturbed area allowing bats to observe their annual cycles in a less disturbed area than the house.

The cart house has the loft access and would make a good pre-flight/swarming area. (photos below)

Some maintenance is required with the floor of the loft requiring strengthening and missing slates replaced.



The back of the sheds (Facing North) showing the access to the area below the loft. (where goat is). This area is to be enhanced with shrubs and standards planted from the doorway towards the near corner, as this would connect the roost with the Owenslieve River.




The landscape is very suitable for bat species and Lesser horseshoe bats, with the siting of the maternity colony in the loft of the sheds landscape considerations are important. There are plenty of good foraging areas available in the surrounding landscape as shown above. The immediate connection to the riparian vegetation alongside the Owenslieve River opens an important dark corridor for bat species to commute through.

Considerations include

**Vegetation Enhancement**:

There is good connection to linear features such as the north facing wall of the sheds and the riparian vegetation. Vegetation surrounds the site providing good habitat for bat species.

**Water Sources**:

The river provides clean water with pools and areas of slow water.

**Minimize Disturbance**:

- **Limit Human Activity**: Keep human activity around the sheds to a minimum, especially during the maternity season (late spring to early autumn).
- **Control Pets**: Keep pets away from the area to prevent disturbance to the bats.

**Lighting**:

- **Minimize Artificial Light**: Avoid installing bright lights near the sheds, as bats are sensitive to light, and it can disrupt their natural behaviour. Lesser horseshoe bats and Brown long eared bat are particularly sensitive to crossing light fields.

**Habitat Connectivity**:

- **Create Corridors**: Ensure there are safe commuting routes between the sheds and foraging areas. This can be achieved by maintaining continuous vegetation.

**Monitoring and Maintenance**:

- **Regular Inspections**: Conduct regular inspections to monitor bat activity and assess the effectiveness of the landscape management.

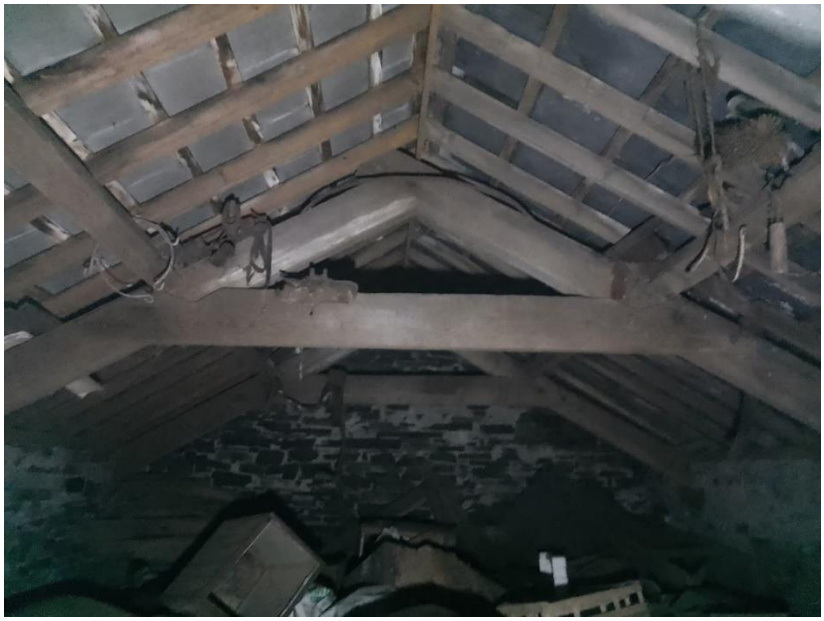
The building is a stone structure with some weathering, which suggests it might require some attention and maintenance to make it suitable for bats.

**Steps to Adapt the Shed for a Maternity Roost**

**Structural Enhancements**

1. **Roof and Walls**: Ensure the roof is in good condition and free from leaks. The slate roof should be watertight.
2. **Insulation**: the roof and walls will maintain a warm, stable temperature (around 20-25°C). This is crucial for the bats, especially during the breeding season. The temperature would seem to presently suit bat species.
3. **Entrance Points**: there are secure entrance points that through the floor of the middle shed and through the loft doorway into the cart shed. These are easy for bats to find and access but secure from predators. The cart shed is a very suitable area for warmup flights.
4. **The floors of the loft are in a poor condition and unsafe**. Strengthening and supporting the floor from below would be the safest and most efficient method of achieving this**.**
5. **Internal Features**

1. **Roosting Areas**: The shed roof provides gradients and beams and rafters which provide varied roosting options. Bats prefer small, secure spaces to cluster in.
2. **Hanging Structures**: There are wooden battens and rafters where bats can hang upside down.



Internal view of the loft space, showing the roof in good condition with good roosting areas.

**Monitoring and Maintenance**

1. **Regular Inspections**: Conduct non-intrusive inspections to monitor bat activity and check the condition of the roost.
2. **Adjustments**: Make necessary adjustments based on monitoring results to ensure the roost remains suitable. This could include additional insulation, improving access points, or enhancing internal features.

There are some specific steps to enhance the loft and make it suitable for the bats:

**Enhancing the Loft Space for Maternity Roost**

**Structural Adjustments**

**Temperature and Humidity Control**:

- Ensure the loft maintains a warm, stable temperature (around 20-25°). (Summer daytime).
- Maintain moderate humidity levels. Avoid damp conditions but ensure there is sufficient moisture to prevent dehydration.

**Environmental Enhancements**

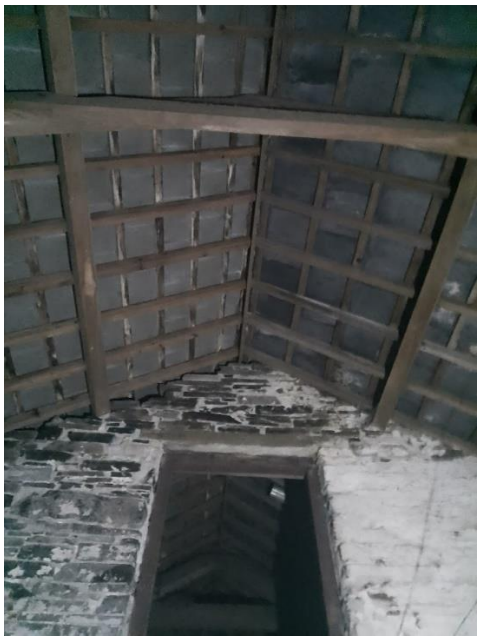
1. **Lighting and Noise**:
   - Keep the loft space dark and free from artificial light, as bats are sensitive to light.
   - Minimize noise and disturbance around the loft, especially during the breeding season.
2. **Vegetation and Foraging**:

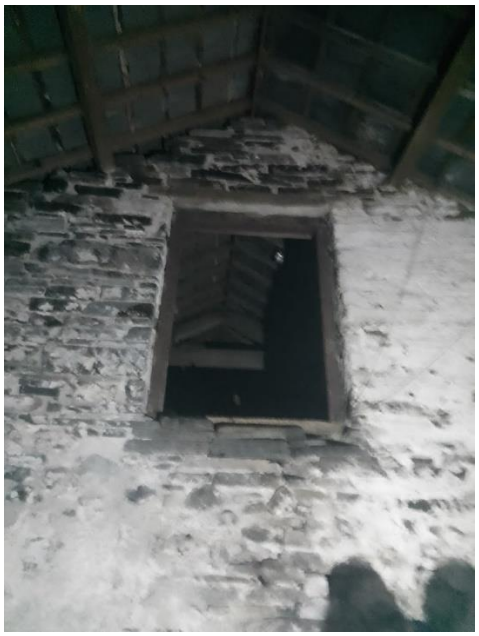
- Enhance the surrounding area with native trees and shrubs to attract insects. Maintain hedgerows and keep present linear and riparian woodlands.
- There are safe commuting routes between the loft and nearby foraging areas.

3. **Water Features**:
    - Nearby water sources are clean and accessible for bats to drink from.

**Monitoring and Maintenance**

1. **Regular Inspections**:
    - Conduct non-intrusive inspections to monitor bat activity and assess the condition of the roost.
    - Look for signs of bat presence, such as droppings or changes in humidity levels.
2. **Post-Reroofing Checks**:
    - Once the reroofing of the adjacent house is complete, conduct checks to ensure bats are not present.
3. **Ongoing Maintenance**:
    - Regularly check and address any issues such as water ingress, structural damage, or predator access to maintain the roost's suitability.





The loft door from the loft to the cart shed giving good secure access for Lesser horseshoe bats. Externally windows and doors have spaces that accommodate this species flying to

roost.

**Enhancing the Loft Space for Maternity Roost**

1. **Post-Reroofing Checks**:
    - **Check for Trapped Bats**: Once the reroofing of the adjacent house is complete, ensure thorough checks to confirm no bats are trapped and that the new roof is bat friendly.
2. **Ongoing Maintenance**:
    - **Maintenance**: Regularly check for and address any issues such as water ingress, structural damage, or predator access to maintain the roost's suitability.

The timing of works regarding the potential disturbance of the species needs to be considered in more detail. This should not only address the replacement roosting location, but all construction works on site with the potential to disturb the roost.

**Timing of Works to Minimize Disturbance**

1. **Replacement Roosting Location**:
    - **Preparation**: Ensure the replacement roost is fully prepared before any construction begins. This includes installing all necessary features and ensuring the environment is suitable for the bats.
    - **Relocation**: the bats should relocate during a period when they are least vulnerable, typically before the maternity season starts (usually early spring) or after the young have fledged (late summer to early autumn).
2. **Construction Works Timing**:
    - **Outside Maternity Season**: Schedule major construction activities outside the maternity season (April to August) to avoid disturbing the bats during their most sensitive period.
    - **Daytime Works**: Conduct noisy construction works during the daytime when bats are less active, as they are nocturnal and are usually roosting during the day.
    - **Monitoring**: Regularly monitor the construction site to ensure that the works are not causing undue stress or disturbance to the bats.

3. **General Construction Measures**:

- **Minimize Noise**: Use quieter machinery and techniques where possible and implement noise barriers to reduce the impact of construction noise on the bats.
- **Reduce Light Pollution**: Avoid using bright lights near the roosting site at night. If necessary, use downward-facing lights or shades to minimize light spill.
- **Sequential Works**: Plan the construction works in a sequence that minimizes disturbance, such as completing the most disruptive tasks in a single phase rather than spreading them out over time.

4. **Detailed Schedule**:
   - **Preparation Phase**: Complete preparation of the new roosting site (e.g., February-March).
   - **Relocation Phase**: this when the relocation of the bats to the new roost (e.g., March-April).
   - **Construction Phase**: Conduct major construction works (e.g., September-March), ensuring all noisy activities are carried out during the daytime.
5. **Continuous Monitoring and Adaptation**:
   - **Regular Inspections**: Conduct regular inspections of both the original and replacement roost sites to ensure the bats are not being disturbed.
   - **Adaptive Management**: Be prepared to adapt the construction schedule if monitoring indicates that the bats are being disturbed.

**Detailed Timeline**

**Preparation Phase (January - March)**

1. **January - Early February**:
   - **Design and Planning**: Finalize the design and preparation of the new roosting location in the adjoining shed.
2. **Mid-February - Early March**:
   - **Construction of New Roost**: Complete any necessary modifications to the shed to create a suitable roosting environment. This includes, ensuring stable temperature and humidity, and securing the area from predators.

**Relocation Phase (March - April)**

3. **Mid-March**:
   - **Final Checks**: Conduct final inspections of the new roost to ensure it is ready for the bats.
   - **Pre-Relocation Monitoring**: Monitor bat activity to determine the optimal time for relocation, ensuring that it is done outside the critical maternity season.

4. **Late March - Early April**:
    - **Relocation**: There will be no physical capture and relocation of the bats to the new roosting location in the shed. A number of enticement measure will be enacted. This should be done when the bats are least vulnerable, typically before the maternity season starts. This is a less intrusive approach. The fact that the LHS bats were actively utilising the sheds means that they are familiar with the spaces. The conditions present are suitable for the maternity colony. Historically there was always bat activity associated with these sheds.

**Enticement Measures for Lesser Horseshoe Bats**

**Creating an Attractive Roosting Environment**

1. **Suitable Microclimate**: Ensure the new roost has a stable temperature and humidity like their preferred conditions. Use insulation and ventilation to achieve this.
2. **Security and Seclusion**: Provide a roost that feels secure from predators and disturbances. Ensure it has minimal human activity around it.
3. **Natural Materials**: Use natural materials like untreated wood to make the new roost appealing and familiar to the bats.

**Enhancing the New Roost**

1. **Internal Crevices**: there are internal baffles and crevices within the roost to mimic their natural habitat. Lesser horseshoe bats prefer narrow, secure spaces.
2. **Roost Size and Layout**: Ensure the roost is large enough to accommodate a colony, with multiple entry and exit points.

**Enticement Techniques**

1. **Attracting Bats with Scent**: Use guano or scent from the old roost to make the new roost smell familiar and more inviting to the bats.
2. **Lighting Adjustments**: Minimize artificial light around the new roost.

**Monitoring and Adaptation**

1. **Regular Monitoring**: Keep a close watch on both the old and new roosts to monitor bat activity and determine the effectiveness of the enticement measures.
2. **Adaptive Management**: Be prepared to adapt our approach based on monitoring results. If bats are not moving to the new roost as expected, there will be a need to consider additional modifications.

**Construction Phase**

5. **April-August (Maternity Season)**:
    - **Major Construction Works**: Conduct significant construction activities outside this period. Schedule noisy activities during the daytime to minimize disturbance.

- **Noise and Light Management**: Implement noise reduction measures and minimize light pollution near the roosting site.

6. **September - October**:
    - **Finishing Works**: Complete any remaining construction activities and ensure the roost site is free from disturbance.

**Post-Construction Monitoring (October - December)**

7. **October - December**:
    - **Post-Relocation Monitoring**: Regularly monitor the new roosting site to ensure the bats have completed their breeding and rearing cycles, observe whether bats are adapting well and there is no undue stress or disturbance. Bats should cease utilising the roost during these months.
    - **Assessment and Reporting**: Assess the success of the relocation and provide reports to the relevant wildlife authorities as required.

1. *There are 2 mentions of a "gate lodge" in the report, this appears to be a copy and paste error and should be rectified.*

   This has been corrected.

   JM 20/12/24