EcIA Addendum and Outline Bat Sensitive Lighting Strategy

Land South of Ashford Road, Sellindge July 2024

This Technical Note has been prepared by CSA Environmental on behalf of Gladman Developments Ltd. in response to comments received from the Kent County Council (KCC) Ecological Advice Service (EAS)(dated 29.05.2024 and 18.07.2024) in relation to proposals for residential-led development at 'Land South of Ashford Road, Sellindge' (Folkestone & Hythe District Council (FHDC) Planning Application Reference: 20/0604/FH), hereafter referred to as 'the Site'. Ecological information submitted to date alongside the application has been in relation to habitats, bat activity, breeding birds and reptiles. A desk-based assessment was made for great crested newts and a subsequent application for a District Level Licence (DLL) was made. KCC EAS comments have been provided in relation to these submitted documents. This Technical Note responds to those comments and updates the ecological impact assessment in response to design changes and additional survey information.

1.0 Tree Roosting Bats and Lighting Impacts

Potential Impacts from Lighting

1.1 KCC EAS have provided the following statement from the pre-mitigation assessment of potential impacts and ecological effects in the EcIA:

"During the operational phase, ambient light levels could be increased due to artificial street lighting. However, a large area of public open space and a SUDs are to be provided in the northern and eastern extents of the Site; which it is anticipated that it will not require extensive / any artificial lighting. The provision of new trees / hedgerow planting could buffer these areas of any light-spill from the main development zone to the western extent of the Site.

In the absence of mitigation, the proposed development could have an adverse impact on bats, through disruption of foraging and commuting habitat. Given the survey information gathered to date and the limited habitat loss proposed, development effects have the potential, in the absence of mitigation, to be significant at up to the Site level."

1.2 KCC EAS raised that it was unclear from the submitted information whether dark corridors can be provided to continue to allow bats to forage and commute across the Site (and to areas off-site), or fully protect retained roost features, and that it was unclear how the lighting from the adjacent developments could affect bats. It was

recommended by KCC EAS that the applicant provide an outline lighting strategy (and where possible link this to adjacent developments) in advance of determination to provide assurance that a bat sensitive lighting strategy is achievable at the Site.

1.3 Of particular concern to KCC EAS is '*development and/or potential new residential development directly to the south and east of the Site'*, namely, 'Land adjoining Fencing Yard, Potten Farm (Folkestone & Hythe District Council (FHDC) Planning Application Reference: 23/1935/FH). The County Ecologist response to this same subject on this adjacent application was as follows:

"We advise that the avoidance of increased artificial lighting impacts is secured through provision of a sensitive lighting plan. The Plan should be designed in accordance with National Planning Policy Framework 2023 and the Bat Conservation Trust's 'Guidance Note 8: Bats and Artificial Lighting 08/23'. Suggested wording:

Prior to occupation, a lighting plan for biodiversity will be submitted to, and approved in writing by, the local planning authority. Lighting will be designed in accordance with the Bat Conservation Trust's 'Guidance Note 8: Bats and Artificial Lighting 08/23'. The Plan will show the type and locations of proposed external lighting, as well as the expected horizontal and vertical light spill in lux levels, to demonstrate that areas to be lit will not adversely impact features of importance to biodiversity including existing dark corridors and proposed areas of landscaping. This will include details of any measures to reduce impacts from emitted internal lighting, such as cowls, recessed lighting or glazing treatments. All lighting will be installed in accordance with the specifications and locations set out in the plan and will be maintained thereafter."

1.4 Allowing a sensitive lighting strategy/plan to come forward as per the above suggested condition wording would ensure a consistent approach across recent applications. Lighting design is most appropriate for a detailed application/Reserved Matters scheme as this will otherwise be highly likely to change at Reserved Matters.

1.5 The specific parameters and infrastructure are likely to be similar to other bat sensitive lighting schemes produced for other applications. For example, this has consisted of luminaires comprising a series of 6m lighting columns, mounted with warm white (3000K) LED lanterns, with 0% upward light ratio with glare ratings of G2 and G3. Lighting columns can also be situated away from vegetated boundaries. Footpaths can be lit by low-level (1.00-1.13m) asymmetric bollard luminaires, utilising warm white (2700K) LEDs and bollard caps can be used to avoid upward light spill. External wall-mounted lighting on buildings has comprised Windsor Kirium Bulkhead lights (3x 6W wide optic, 2x 6W narrow optic), to provide lighting of footways. These can be warm white (2700K) LEDs, mounted at 1.60m, with a 0% upwards light ratio, and can be motion-sensored

and set to just one-minute of illumination time, as guided by the latest (2023) guidance from BCT & ILP (GN08/23).

1.6 Appendix A provides a plan that utilises the main spine road on the Illustrative Masterplan (CSA/4509/124/C) to show the potential unmitigated extent of light spill based on 6m lighting columns, as described above. The light spill shown on the plan is set to a distance of 18m from the outside edge of the spine road, based on the lighting industry standard of spacing poles at distances of 2.5 to 3 times their height to ensure full illumination (6m x 3m).

1.7 The plan at Appendix A shows that the majority of the Site (including public open space areas) is expected to be unlit and that most dark corridors will be retained even in an unmitigated scenario. The intention is to improve on the unmitigated scenario and ensure boundaries between the adjacent 'Land at Potten Farm' are protected from light spill through the implementation of mitigation measures such as a biodiversity sensitive lighting scheme as described above. The Site and the adjacent site at Potten Farm can be subject to additional planting away from the main spine roads to help preserve connectivity for bats in the local landscape but as this will take time, in the first instance lighting would either be set back, modified (e.g. using automatic timers, lower power settings or physical modifications as described above) or physically screened with barriers to protect these boundaries.

1.8 There is scope to carefully design the lighting infrastructure where the road goes past the eastern end of LT1 to ensure there are no impacts from new light sources in this area. It should also be taken in to consideration that the proposed access on the adjacent Potten Farm has not been formally proposed as a main vehicular access road as part of the 'Land at Potten Farm' application submission. It is shown on the masterplan as a vehicular access as there is potential for this, but it may ultimately be pedestrian/cycle access which would have substantially lower lighting needs. It is also worth noting that H2 is already subject to illumination in the location of the proposed new access road from preexisting street lighting, as was noted during the emergence surveys undertaken of T71 in September 2023. It is concluded that dark corridors can be protected and maintained along treelines and hedgerows, and within the vicinity of the ancient and veteran tree T55 using mitigation measures and as per a condition with wording such as that set out above.

<u>Potential Bat Roosts in Trees</u>

1.9 KCC EAS raised concern over the potential for bats to be roosting in trees also, referring to the latest bat survey guidelines (2023) that say where impacts to trees cannot be avoided a PRF inspection survey should be undertaken to record characteristics of the PRFs. The EAS then progress to say that because a lighting strategy considering both on-site and off-

site lighting has not been provided, further survey of all potentially impacted trees for tree roosting bats should be undertaken in advance of determination.

1.10 We dispute this point, as the scale of any impacts to trees via lighting cannot be assessed at the outline stage due to the high-level nature of the application, as discussed above. However, the scheme does have the scope to maintain habitat connectivity for bats (and other wildlife) through suitable boundary planting / lighting treatment (as set out above).

1.11 This potential impact pathway has already been assessed as fully as possible at this stage in the EcIA, with the only suitable mitigation option being a sensitive lighting strategy at the reserved matters stage to avoid potential impacts. Avoidance measures such as those adopted by a Bat Sensitive Lighting Strategy would likely be the most suitable mitigation measures under a European Protected Species Licence (EPSL), if this was considered an appropriate step.

1.12 This potential impact will also be limited in severity due to the extent of the development area and retention of preexisting foraging areas, as shown on the DFP (CSA/4509/122/E), which are known to be the areas on site most used by bats (See Figure 1 below, taken from the Bat Survey Report in the EcIA CSA/4509/06/Rev C). It is also fair to acknowledge that no significant bat activity was recorded at the boundaries between application sites, indicating that this area does not constitute and important flight path for bats. As such, the above request for further surveys triggered by 'unavoidable impacts', is not considered reasonable or proportionate at this stage.

Figure 1. Indicative 'Utilisation Distribution' (UD) of all bat species/genera at the Site estimated from all transect data combined. Data was collected in July, August and September 2022. The UD illustrates the relative probability of a bat in flight being present at a given point at the Site, with higher/central contours having a greater probability, and lower/peripheral contours having less probability.

Tree T71

1.13 Tree T71, which is located near to the northern boundary of the Site, is to be removed for the construction of a SuDS basin. The tree was assessed to be of 'moderate' suitability under the previous iteration of the BCT guidelines (2016), which requires two emergence surveys to be undertaken to determine if the tree is used by roosting bats. Two emergence surveys supported by night-vision assistance (NVAs) were undertaken of T71 on 7 and 26 September 2023. Whilst these surveys were outside of the optimal survey period for confirming presence / likely absence of roosting bats, especially maternity roosts, under the 2016 BCT guidance surveys into September are permissible.

1.14 This tree was reinspected on 6 June 2024 (within the core bat maternity roosting period and reclassified as 'PRF-M' ('multiple roosting features') under the new (2023) BCT guidelines due to the presence of some PRF

features that have the potential to support small groups of bats. No bats or evidence of bats such as droppings were recorded (see Appendix B).

1.15 The approach to PRF-M aerial inspection surveys under the new BCT guidelines (2023) is to conduct '*three visits between May and September, with at least two in the period of May to August. Where access is not possible for aerial inspection either by ladder, climbing or mobile elevated work platform (MEWP), or features are too extensive to survey thoroughly, these could be emergence surveys supported by NVAs'*. A second inspection of this tree took place on 26 June 2024, and a third on 15 July 2024 to be compliant with the new guidelines (thus totalling five surveys using a combination of emergence and aerial inspections) across 2023/2024 with at least three of these surveys being undertaken between May and August) The second and third inspections of the tree did not reveal and bats or any evidence of bats such as droppings, and therefore it is considered appropriate to conclude that T71 does not constitute a bat roosting site.

1.16 T71 needs to be removed to construct the new drainage basin. As this is an outline application, the tree will need to be subject to additional survey visits to inform a Reserved Matters planning application and prior to felling, to confirm the continued presence / likely absence of roosting bats. Such update surveys could be secured by way of a suitably worded planning condition and would be required in line with current guidance and to ensure legal compliance with provisions of the Habitats Regulations 2017/ Wildlife and Countryside Act 1981.

1.17 Should further surveys confirm that the tree supports roosting bats, a European Protected Species licence will be secured from Natural England to permit felling to proceed. The licence will secure appropriate mitigation for the loss of any roost site.

2.0 Biodiversity Net Gain

2.1 We have updated the BNG calculations in line with the latest iteration of the DFP (Rev E) and have provided this alongside this document (4509_BNG Metric_Rev C) along with Table 1 below which summarises the change between Rec B and Rev C.

Table 1. Comparison of net gain results between revisions

	Rev B	**Rev C**	**Net change**
Net project biodiversity units change	-8.83	-7.43	+1.4
Total project biodiversity % change	-25.25	-21.25	+4%

2.2 The EAS stated that the ancient and veteran sweet chestnut (T55) is on-Site and that as such it should be accounted for as irreplaceable habitat

on the metric. While T55 is in the western field, it is not within the red line boundary, and therefore it is not on the application Site and cannot be accounted for in the metric calculations. Furthermore, the latest revision to the DFP (Rev E) has been modified to ensure that the root protection zone of this tree is also to be unaffected. This is confirmed in the Arboricultural Impact Assessment (AIA; CSA/4509/14/Rev B).

2.3 Under the BNG calculations the 'other lowland acid grassland' within the root protection zone is now retained and can be enhanced from 'moderate' condition to 'good'. While the EAS have referred to paragraph 186 of the NPPF 2023, under BNG methodology trees are secondary habitat and the root protection zone of a tree is not captured. It is concluded that, with the removal of the drainage basin from the root protection zone of T55, the loss or deterioration of an irreplaceable habitat has been avoided.

3.0 References

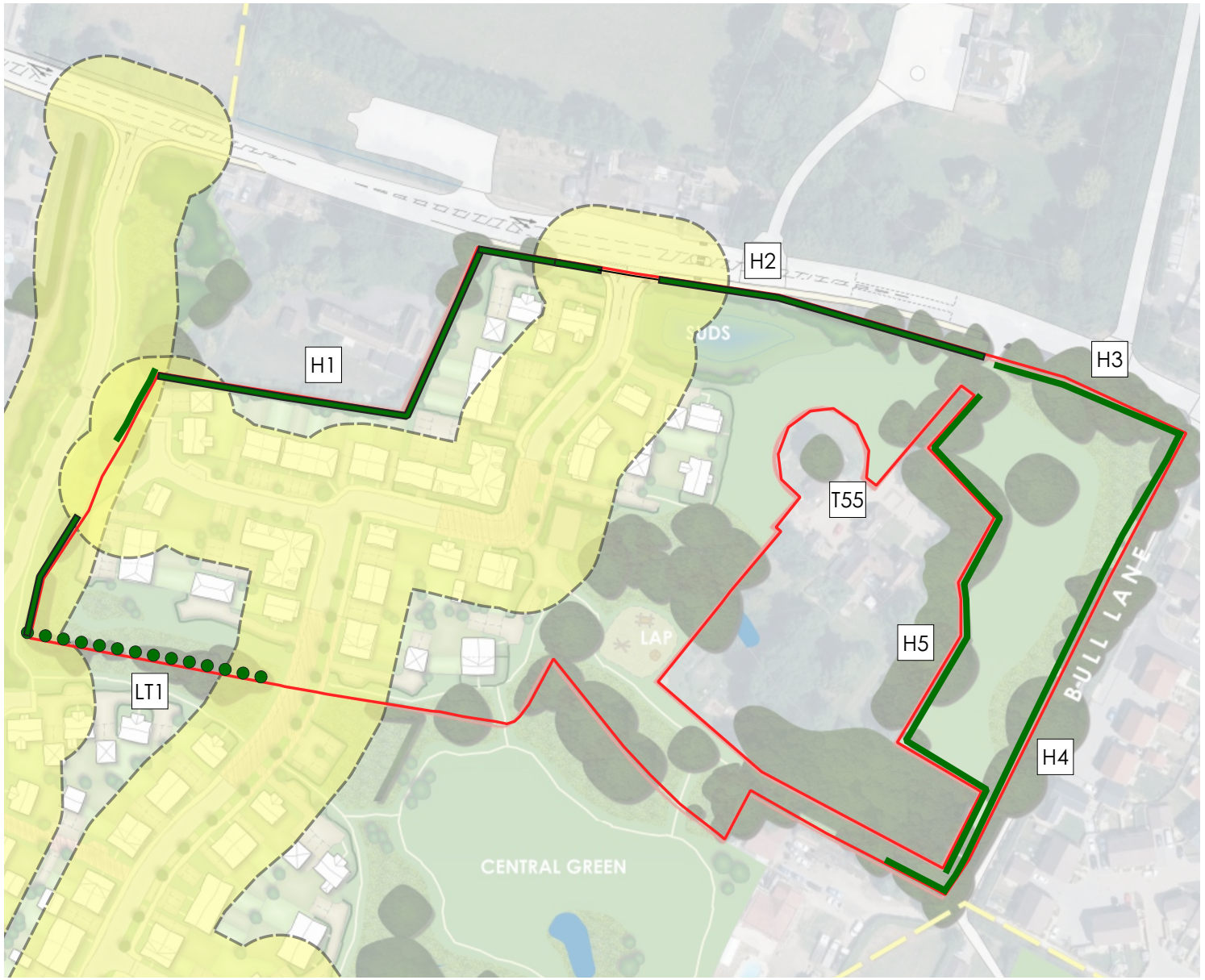
DEFRA, 2023. Statutory Biodiversity Metric. *The Statutory Biodiversity Metric. User Guide*.

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

Collins, J., ed., 2023. *Bat Surveys for Professional Ecologists: Good Practice Guidelines*. 4th ed. London: The Bat Conservation Trust.

Appendix A

Retained Dark Corridors Plan



N

Site boundary

Estimated extent of unmitigated streetlighting

0 50 100 m

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Project	Land South of Ashford Road, Sellindge	Date June 2024	Drawing No. CSA/4509/130
Drawing Title	Retained Dark Corridors	Scale Refer to scale	Rev -
Client	Gladman Developments Ltd.	Drawn JT	Checked CC

Appendix B

Tree T71 Inspection Results

Tree ref.	71	Species	Ash	Location (w3w)	Evolving.marked.proclaims	Tree Height (m)	11	Tree Alive or Dead	Alive	Single or Multi-stem	Single	Initial Suitability Category	PRF
Notes Main stem is hollow and heart wood is dry and exposed. Close inspection has revealed some good prfs but the majority of heart wood is just dry with no roosting features, apart from crevices in bottom 1.75cm. The upper canopy has no roosting features. Tree has dieback.													
Further surveys required?						Yes, x2 more ladder inspections. Tree PRF-M.							

PRF Ref.	PRF Type	PRF Height (m)	PRF Loc.	Aspect of PRF Entrance	PRF Suitability	Description of Suitability	Hibernation Suitability	Hibernation - Further Survey	6.6.24 Inspection Notes	26.6.24 Inspection Notes	15.07.24 Inspection Notes
1	Desiccation	3	Main stem	South-west	PRF-I	Lifted dead heart wood, forming dry crevices, entrances range from 2-6cm, transitional/day roosts	No	No	Open feature only part covered 4cm deep, quite exposed. 2cm opening is exposed to rainfall from the top. No evidence of bats.	No bats or evidence of bats.	No bats or evidence of bats.
2	Rot hollow	3	Main stem	South west travelling north east	PRF-I	24cm deep, 2-3cm wide, upward facing, dry, transitional only	No	No	Full of woodlice. No evidence of bats.	No bats or evidence of bats.	No bats or evidence of bats.
3	Rot hollow	3	east pointing branch	North west	PRF-I	Measured to 50cm deep (length of endoscope) but goes further, 5-6cm diameter closes in further up, transitional/day roost for couple bats, dry	No	No	Full of woodlice and slugs. No evidence of bats.	No bats or evidence of bats.	No bats or evidence of bats.

PRF Ref.	PRF Type	PRF Height (m)	PRF Loc.	Aspect of PRF Entrance	PRF Suitability	Description of Suitability	Hibernation Suitability	Hibernation - Further Survey	6.6.24 Inspection Notes	26.6.24 Inspection Notes	15.07.24 Inspection Notes
4	Rot hollow	3	Main stem	Faces north travels south	PRF-I	14cm deep, 2-3cm wide, dry,	No	No	Full of woodlice/slugs. No evidence of bats.	No bats or evidence of bats.	No bats or evidence of bats.
5	Rot hollow	3	Main trunk	North	PRF-M	33cm deep, dry, straight up on south-western branch, 5x8cm entrance, smooth sides,	No	No	Woodlice. No evidence of bats.	No bats or evidence of bats.	No bats or evidence of bats.
6	Rot hollow	3	On the west aspect	East	N/A	Not suitable	No	No	Travels directly up. However, it's about 10cm deep, c15cm wide at opening, quite open and exposed to light. No evidence of bats.	No bats or evidence of bats.	No bats or evidence of bats.
7	Rot hollow	3	On western side of tree.	East	PRF-M	Big enough for small maternity roost		No	Approx 30cm deep travelling straight up. The opening is about 20cm total. Full of cobwebs. Woodlice, dry. No evidence of bats.	No bats or evidence of bats.	No bats or evidence of bats.
8	Lifted heartwood	2-2.5 m high	Main stem	Central inner stem	PRF-I	Could be used by a small number of bats	No	No	Limitation - hard to reach as inside main stem.	No bats or evidence of bats.	No bats or evidence of bats.

PRF Ref.	PRF Type	PRF Height (m)	PRF Loc.	Aspect of PRF Entrance	PRF Suitability	Description of Suitability	Hibernation Suitability	Hibernation - Further Survey	6.6.24 Inspection Notes	26.6.24 Inspection Notes	15.07.24 Inspection Notes
									No evidence of bats.		
9	Rot hollow	Ground level	Main stem	Central inner stem	N/A	Not suitable	No	No	Within hollow of tree, small rot hollow leading down into root going beneath ground level. Not suitable for bats. No evidence of bats.	No bats or evidence of bats.	No bats or evidence of bats.
10	Desiccation	Through out hollow stem, ground level to 1.75m	Within stem	All aspects	PRF-I	Small number of bats could use crevices in heartwood	No	No	Cracks within heartwood are deep enough for bats. Heartwood gets smoother as it goes up, lower crevices more suitable. No evidence of bats.	No bats or evidence of bats.	No bats or evidence of bats.

T71 viewed from the north

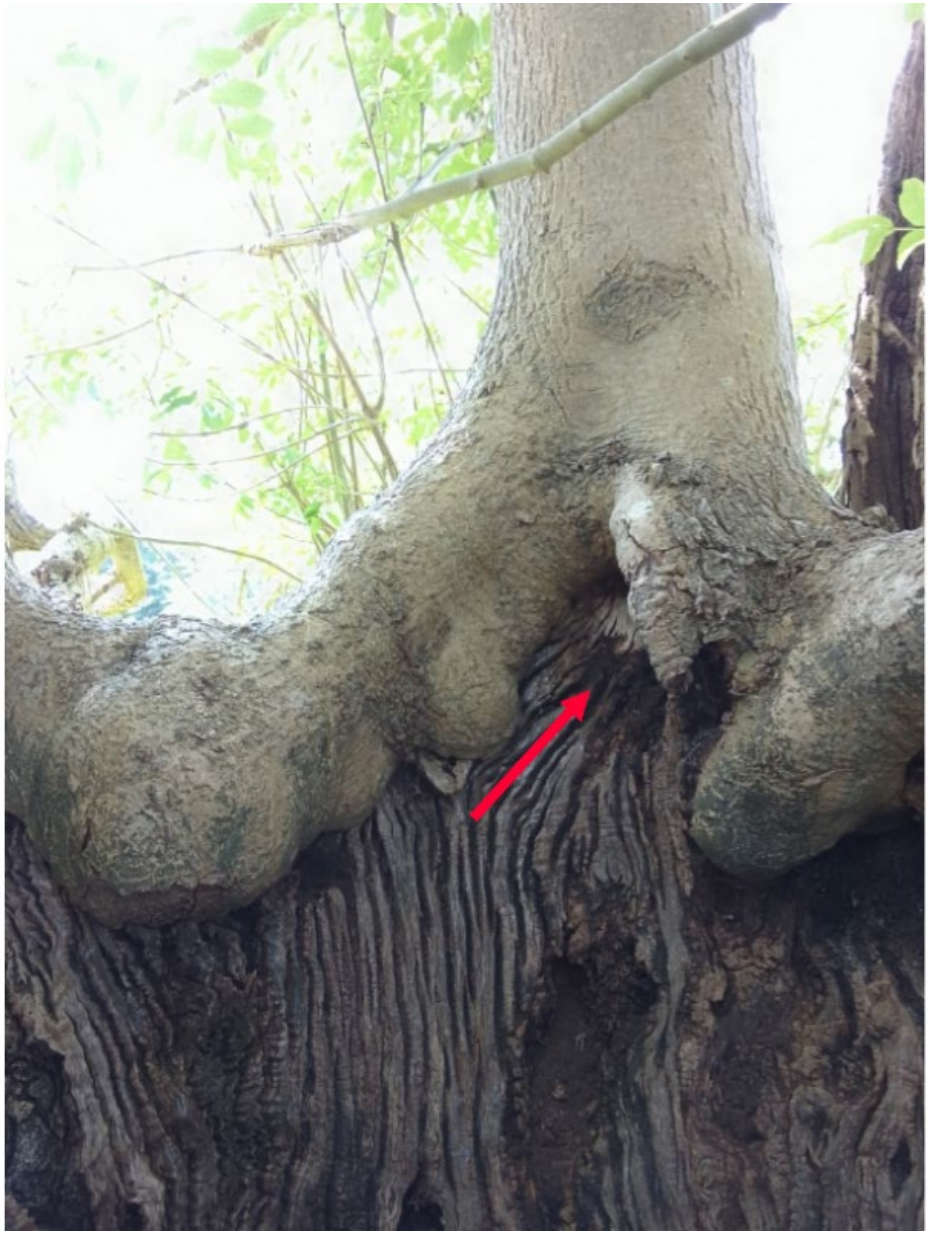
T71 viewed from the south

PRF1

PRF 2

PRF 3

PRF 4



PRF 5

PRF 6

PRF 7

PRF 8

PRF 10