

**ARBORICULTURAL METHOD STATEMENT
to BS 5837:2012
at
Highfield
3 Ladderbanks Lane
Baildon
West Yorkshire
BD17 6RX**

Client:
Mr & Mrs Sparrow

Client Address:
Highfield
3 Ladderbanks Lane
Baildon
West Yorkshire
BD17 6RX

JCA Ref:
16245/ChC

JCA Limited
Arboricultural & Ecological Consultants

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1. Introduction

1.1 Purpose of the Method Statement

- 1.1.1 This Arboricultural Method Statement has been prepared to ensure good practice in the protection of retained trees during the construction of a new annexe outbuilding at **Highfield, 3 Ladderbanks Lane, Baildon.**

1.2 Terms of Reference

- 1.2.1 JCA Limited is instructed by **Mr & Mrs Sparrow** to prepare an Arboricultural Method Statement for the project. The arboricultural survey and report conforms to the most recent specifications outlined in BS 5837: 2012 *Trees in relation to design, demolition and construction - Recommendations*.
- 1.2.2 It is proposed to replace the existing timber outbuilding (stable) with a detached stone outbuilding (annexe) to provide alternative and separate accommodation for the property.
- 1.2.3 The following drawings have been provided and these are the basis of the Arboricultural Method Statement and the Tree Protection Plan at **Appendix 4**:
- Topographical Survey
 - Development Layout

1.3 Status of the Method Statement

- 1.3.1 This Arboricultural Method Statement should be included as part of the specification and schedule of works issued to the building contractor and can form part of the contract.
- 1.3.2 This Arboricultural Method Statement should be available on site for inspection by the local authority, building contractors and other relevant persons.

2. Tree Works Prior, During and Post Construction

2.1 Tree Works Prior to Construction

- 2.1.1 Prior to any construction activity, the first operation on site will be the undertaking of any necessary arboricultural works, as described at **Appendix 1**.
- 2.1.2 The tree works include:
- The removal of **T8**.

2.2 Tree Works During Construction

- 2.2.1 No tree works are envisaged to be required during the demolition or construction phase.
- 2.2.2 Damage to trees during the construction phase should be entirely prevented by the installation of the temporary protective barrier (fencing and ground protection), to create a Construction Exclusion Zone (CEZ). All persons on site must be aware of limitations that apply within the CEZ (please refer to **Section 3.1.3**).
- 2.2.3 If any trees on site are damaged, this must be immediately reported to JCA to agree on appropriate remedial action. Contact numbers for all parties can be found at **Section 7**.

2.3 Tree Works Post Construction

- 2.3.1 When the construction phase is complete and when the temporary protective barrier has been removed, some minor remedial works may be required. This may be for aesthetic purposes, to give clearance for new paths or to provide ground clearance for landscaping schemes.
- 2.3.2 No post construction remedial works are to be carried out on the trees until permission has been granted by the Local Planning Authority.

2.4 Recommendations For Tree Works

- 2.4.1 All work must be undertaken to BS 3998: 2010 - *Recommendations for tree work* and carried out by qualified, experienced and, ideally, Arboricultural Association approved contractors who must be adequately insured.
- 2.4.2 Any defects seen by a contractor or the client that were not apparent to the consultant must be brought to the attention of JCA immediately.
- 2.4.3 No liability can be accepted by JCA in respect of the trees unless the recommendations of this Method Statement are carried out under our supervision.

3. The Protective Barrier Prior, During and Post Construction

3.1 Protective Barrier Prior to Construction

- 3.1.1 The installation of the temporary protective barrier will be the very first job to be undertaken on site following the completion of the tree works (**Section 2.1**). This barrier will comprise of protective fencing and ground protection.
- 3.1.2 The protective fencing must be constructed in accordance with BS 5837: 2012 *Trees in relation to design, demolition and construction - Recommendations* and will be located as shown on the Tree Protection Plan at **Appendix 4**. Where possible, the protective barrier will enclose the entire Root Protection Area (RPA) of the trees to make a Construction Exclusion Zone (CEZ); **this area is to be considered a restricted area; no pedestrians, vehicles, equipment or machinery are allowed within the CEZ and the storage of materials is not permitted, unless specified within this Method Statement.**
- 3.1.3 The protective fencing will be installed in accordance with BS 5837: 2012 and will comprise of a vertical and horizontal scaffold framework, well braced to resist impacts. The vertical tubes should be spaced at a maximum interval of 3m and driven securely into the ground, taking care to avoid underground services and structural roots. Finally, weld mesh panels are to be securely fixed on the scaffold framework. Please refer to **Appendix 2 (Fig. 1)** for protective fencing details.
- 3.1.4 Once the fencing is installed, waterproof signs with the sentence '*Protected tree zone, no storage or operations within this area*' are to be placed at 3m intervals to ensure that all personnel are aware of the restrictions that apply to the cordoned off area. A prepared sign is available at **Appendix 2**.

3.2 Ground Protection

- 3.2.1 Where it is not possible to enclose the entire RPA of a tree with protective fencing, it will be necessary to lay appropriate ground protection which, in combination with the fencing described in **Section 3.1**, will comprise the protective barrier.
- 3.2.2 The ground protection will be installed prior to construction and retained until the material completion of development. The purpose of the ground protection is to enable site traffic to pass over the RPAs of trees, whilst minimising compaction and disturbance of the underlying soil which can lead to root asphyxiation and damage.
- 3.2.3 Where only pedestrian traffic is required to pass over the RPA, a suspended walkway will be constructed beneath the scaffolding on the western side. This will be achieved by constructing a framework of scaffold poles attached to the main scaffolding and may incorporate driven poles at suitable intervals, if necessary. Scaffold boards will be placed over this framework and utilised as a walkway for **pedestrian use only**. Vehicular/mechanical movement is not permitted over this type of ground protection.
- 3.2.4 Where vehicles, machinery and pedestrian traffic are required to pass over the RPA of **T1, T2 and T6**, the existing hard standing driveway in this area will be utilised as ground protection. This driveway has been in place for many years and is proposed to be retained in situ post construction and will continue to provide parking spaces for all vehicles at the property.

3.3 Checking the Protective Barrier Prior to Construction

- 3.3.1 Once installed, the appointed arboriculturalist will be invited on site to inspect the protective fencing and ground protection, ensuring that it is located in the correct position and that it has been constructed in accordance with this Method Statement. No other work, including soil stripping, excavation, or the bringing onto site of materials or machinery, shall commence until the barrier is installed and confirmed to be acceptable by the appointed arboriculturalist.
- 3.3.2 It is important that the protective fencing and ground protection be checked by the LPA or an arboricultural consultant prior to any construction works being carried out on site. **If at any time during construction the protective fencing or ground protection is not correctly installed, or if it does not comply with BS 5837: 2012, this could result in damage being caused to trees and consequently, a stop notice may be served by the LPA.**

3.4 Protective Barrier During Construction

- 3.4.1 No operations shall take place which require the removal of part of the protective barrier without prior agreement with the Local Planning Authority.
- 3.4.2 The protective barrier must be inspected for faults or damage by the site manager or other responsible named person on a regular basis and a written record kept. Any faults or defects must be repaired or replaced as soon as is reasonably practicable. Details of the site manager and relevant contact details can be found at **Section 7**.

3.5 Removal of the Protective Barrier

- 3.5.1 When the development phase is complete and the main site machinery has been removed, the protective barrier may be dismantled and removed from site.
- 3.5.2 It should be noted the same restrictions apply to all RPAs as the CEZ (please refer to **Section 3.1.2**).

4. Construction Phase

4.1 Demolition Works

- 4.1.1 The existing timber stable will require to be demolished in order to construct the proposed annexe outbuilding. The demolition of the timber structure can go ahead once the temporary fencing has been installed and checked. No further actions are required to prevent foreseeable damage to these trees.

4.2 Ground Level Changes

- 4.2.1 No ground level changes are required within the RPA of any tree to be retained on this site. As such no mitigation actions are considered necessary.

4.3 Construction of Hard Surfaces

- 4.3.1 New hard surfaces are proposed for this project. If any of the proposed new surfacing is situated within RPA's of retained trees then these new surfaces must be sensitive, and avoid excavation, the finished surface must also be permeable to allow for gaseous exchange and to allow moisture to reach the roots below. A gravel surface with wooden edging would be considered appropriate for this project.
- 4.3.2 The existing driveway on site provides vehicular access to the property and as such this should be retained and utilised wherever possible to avoid unnecessary excavations.

4.4 Construction of the New Building

- 4.4.1 The proposed outbuilding has been designed so that it is situated outside of the RPA of the closest, most prominent tree (**T6**). As such, no specialist foundation methods are required for arboricultural purposes.

4.5 Excavations and Services

- 4.5.1 We have been informed that all services are to be connected to/provided via the existing services for the main house. It is however advised that once a drainage/service layout plan has been produced we are provided with a copy of this to assess and provide advice if deemed necessary.
- 4.5.2 If, for whatever reason, incursions into the RPAs are considered unavoidable, the consulting arboriculturalist and/or the LPA must be consulted immediately, to prevent a breach of planning conditions and/or damage to retained trees.

4.6 Location of the Site Compound

- 4.6.1 The site compound, typically including the site office, mess facilities, toilets, storage of materials and parking, must be located away from, and outside the RPA of retained trees.
- 4.6.2 Those areas designated for the storage and/or mixing of chemicals, including petrol, diesel and oils must also be located away from, and outside the RPA of retained trees. Such areas should be constructed with consideration to, and contingencies for, the occurrence of spillages, preventing the leaching of chemicals into unprotected, open ground.

5. Timescale of Works

5.1 The timescale for arboricultural requirements are summarised below:

Timescale	Action	✓	Initial
Stage 1	All requirements listed in the planning consent are approved by the Local Authority planning office.		
Stage 2	Undertake the removal of T8 .		
Stage 3	Install the temporary protective fencing around the trees (as detailed at Appendix 2 and as shown on the Tree Protection Plan at Appendix 4).		
Stage 4	Install ground protection underneath the scaffolding on the western side of the proposed annexe, within the RPAs of T6 , and as shown in blue shade on the Tree Protection Plan at Appendix 4 .		
Stage 5	Have the Local Planning Authority or Arboricultural Consultant inspect the fencing and ground protection measures prior to any on site activity. Once inspected, the protective fencing and ground protection must not to be moved or breached.		
Stage 6	Undertake the demolition of the existing timber outbuilding (stable)		
Stage 7	Undertake the construction of the new outbuilding (annexe).		
Stage 8	Following the completion of the construction phase and when all site traffic and machinery has left, the protective fencing and ground protection can be removed.		
Stage 9	Undertake the proposed new tree planting of 2x fruit trees		

6. Relevant Contact Details

Contact Name	Organisation/Detail	Contact Number
Charles Cocking Arboricultural Consultant	JCA Limited	01422 376335
Simon Keenan/Elizabeth McLaughlin Tree Officer	Local Authority	01274 434297
TBC Site Manager	TBC	TBC
Karen Gill Architect	The Drawing Room Ltd	TBC

Appendices

Tree Ref.	Age Common Name <i>Botanical Name</i>	Height (m)	Crown Height (m)	Height (m) and Direction of the Lowest Branch	Diameter (cm)	Crown Spread N W E S	Observations	Recommendations	Physiological Condition	Structural Condition	Amenity Value	NHBC Water Demand	Life Expectancy (yrs)	Retention Category
T 1	Mature Sycamore <i>Acer pseudoplatanus</i>	13	3.5	3.5 W	64	1.5 7 5 8	Multi-stemmed at 3.5m with a slightly unbalanced crown. Overhanging the footpath and road. Forming one canopy with T2. Previous pruning wounds noted. No major visible defects.	No action required at present.	GOOD	GOOD	MOD	MOD	20+	1 B 2
T 2	Mature Sycamore <i>Acer pseudoplatanus</i>	14	6	7 SW	46	3 6 3.5 3	Single-stemmed with a slight lean and a reasonably balanced crown. Overhanging the footpath and road. Forming one canopy with T1. Previous pruning wounds noted. No major visible defects.	No action required at present.	GOOD	GOOD	MOD	MOD	20+	1 B 2
T 3	Semi-mature Hornbeam <i>Carpinus betulus</i>	5	0+	n/a n/a	17	2.5 2.5 2.5 3	Single-stemmed and vertical with a balanced crown. A planted tree near the boundary. Good future potential.	No action required at present.	GOOD	GOOD	MOD	LOW	40+	B 1
T 4	Mature Sycamore <i>Acer pseudoplatanus</i>	14	4	4 E	46	4 4 5 3.5	Single-stemmed and vertical with a balanced crown. No major visible defects.	No action required at present.	GOOD	GOOD	MOD	MOD	20+	1 B 2
T 5	Early-mature Sycamore <i>Acer pseudoplatanus</i>	9	1.5	2.5 SW	#32	2 5 5.5 3	Twin-stemmed at 2.5m with a slightly unbalanced crown. Situated on adjacent land but overhanging the subject property garden.	No action required at present.	FAIR	FAIR	LOW	MOD	10+	C 2
T 6	Mature Sycamore <i>Acer pseudoplatanus</i>	16	6	3 n/a	90	7 4.5 6 8	Single-stemmed and vertical with a balanced crown. An excellent feature specimen within the centre of the garden. Previous pruning wounds noted. No major visible defects.	No action required at present.	GOOD	GOOD	HIGH	MOD	40+	1 A 2
H 7	Early-mature Leyland Cypress <i>X Cupressocyparis leylandii</i>	To 8	1+	n/a n/a	n/a	See Plan	Situated on adjacent land. A boundary hedge offering some screening value.	No action required at present.	GOOD	GOOD	LOW	HIGH	10+	C 2
T 8	Semi-mature Apple <i>Malus sp.</i>	3	0.5	n/a n/a	12	1 2.5 1 2.5	Single-stemmed and leaning with an unbalanced crown. Low arboricultural value.	Remove to allow for the construction of the new annexe outbuilding.	FAIR	POOR	LOW	MOD	10+	C 2

Appendix 2: Protective Barrier

A2.1 The protective barrier will be installed in accordance with BS5837: 2012. The default specification of BS 5837: 2012 (pictured below for reference) recommends a vertical and horizontal, scaffold framework, well braced to resist impacts, with vertical tubes at no more than 3m intervals. These should be driven into the ground. Weld mesh panels should be affixed to this framework with scaffold clamps - See Figure 1.

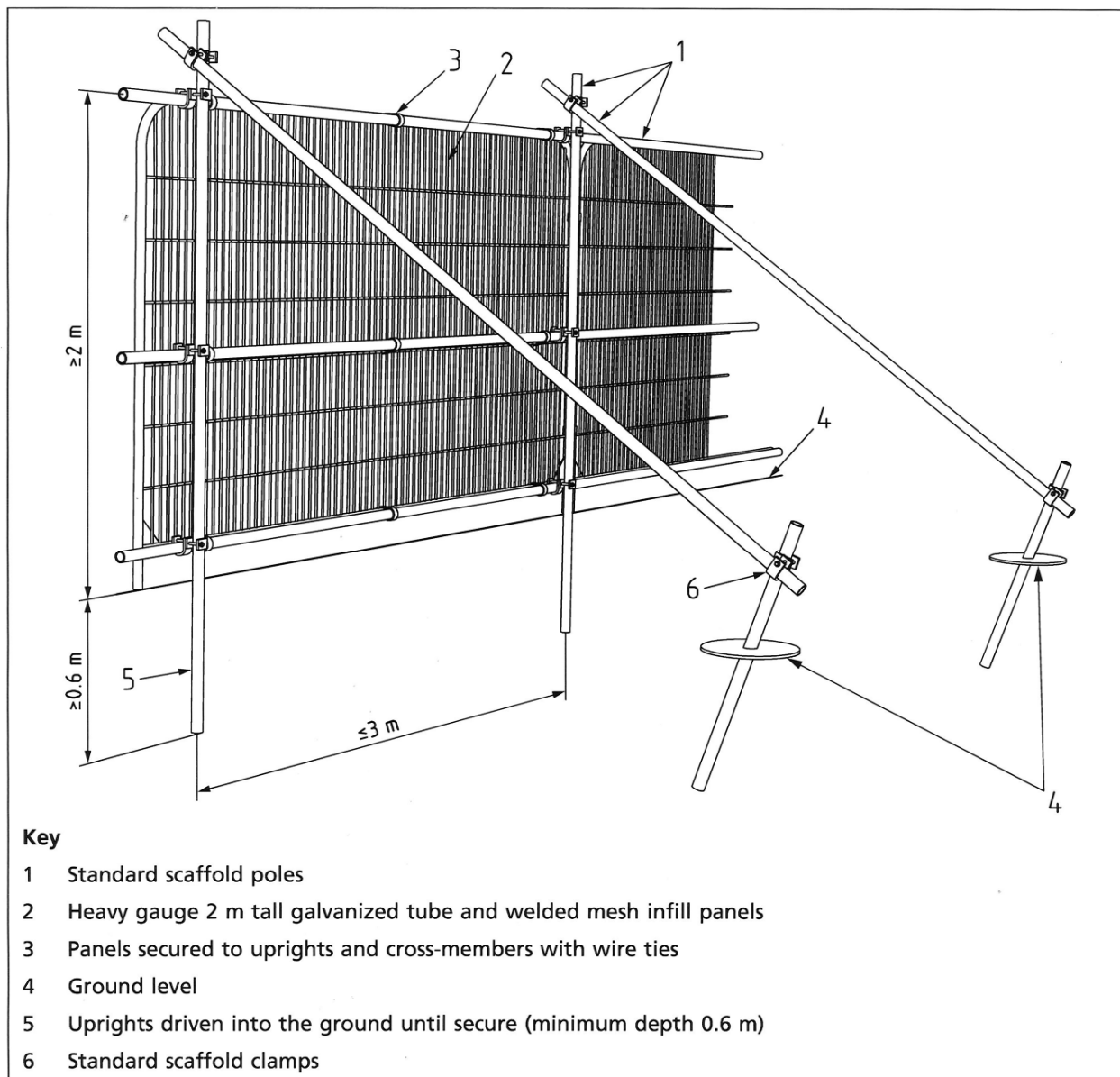


Figure 1: 'Protective Barrier to BS 5837: 2012'. To be used where situated in open ground.

TREE PROTECTION ZONE

KEEP OUT!

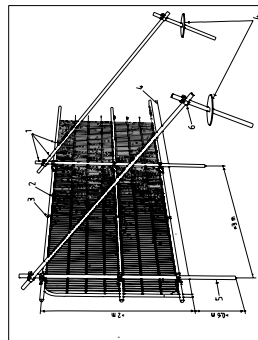
TREES ENCLOSED BY THIS FENCE ARE PROTECTED
BY STRICT PLANNING CONDITIONS

ANY DAMAGE CAUSED TO THESE TREES MAY
RESULT IN CRIMINAL PROSECUTION

RESTRICTED AREA:

- THE PROTECTIVE FENCE MUST NOT BE MOVED OR BREACHED
- NO PERSON, MACHINERY, VEHICLE OR PLANT IS PERMITTED WITHIN THE TREE PROTECTION ZONE
- NO MATERIALS SHALL BE STORED WITHIN THE TREE PROTECTION ZONE
- NO EXCAVATIONS ARE PERMITTED WITHIN THE TREE PROTECTION ZONE
- NO SPOIL IS TO BE DEPOSITED WITHIN THE TREE PROTECTION ZONE
- NO FIRES ARE TO BE LIT WITHIN THE TREE PROTECTION ZONE

REPORT TREE DAMAGE TO JCA LIMITED ON
01422 376 335



- HEYGATE LANE










THIS PLAN IS TO BE PRINTED IN COLOUR
AND READ IN CONJUNCTION WITH THE
UCA ARBORICULTURAL REPORT
(JCA REF: 16245/ChC)

Appendix 4: Tree Protection Plan

ADDRESS: Highfield, 3 Ladderbanks Lane,
Baildon, West Yorkshire, BD17 6RX.
JCA REF: 16245/ChC

SCALE: 1:200	PAPER SIZE : A2
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	TREE TO BE RETAINED
	TREE TO BE REMOVED
	STEM OF TREE TO BE RETAINED
	STEM OF TREE TO BE REMOVED
	ROOT PROTECTION AREA (RPA)
	PROTECTIVE FENCE LINE (PFL)
	AREA OF RPA WHERE TEMPORARY ACQUISITION BEING TAKEN (TEMPORARY ACQUISITION BEING TAKEN (TA) ONLY)



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TREE PROTECTION MEASURES

THE ROOT PROTECTION AREA (RPA) INDICATES THE LIKELY ROOTING ZONE OF A TREE.

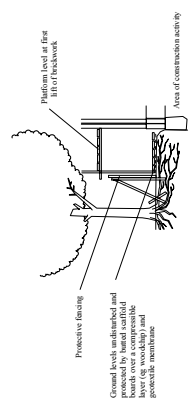
UNLESS OTHERWISE STATED IN THE ARBORICULTURAL METHOD STATEMENT, THIS AREA NEEDS TO REMAIN UNDISTURBED.

TO ACHIEVE THIS, PROTECTIVE FENCING WILL BE INSTALLED TO ENCLOSE THE RPA TO MAKE A CONSTRUCTION EXCLUSION ZONE (CEZ):

THIS AREA IS TO BE CONSIDERED A RESTRICTED AREA: NO PEDESTRIANS, VEHICLES, THE STORAGE OF MATERIALS, EQUIPMENT OR MACHINERY ARE ALLOWED WITHIN THE CEZ, UNLESS SPECIFIED WITHIN THE ARBORICULTURAL METHOD STATEMENT.

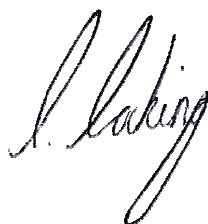
IT IS IMPORTANT THAT THE PROTECTIVE FENCING IS CHECKED BY THE LPA OR THE ARBORICULTURAL CONSULTANT PRIOR TO ANY CONSTRUCTION WORKS BEING CARRIED OUT. IF THE TREE PROTECTION MEASURES ARE NOT CORRECTLY INSTALLED OR IF THEY DO NOT COMPLY WITH BS 5837: 2012, THIS COULD RESULT IN DAMAGE BEING CAUSED TO TREES AND CONSEQUENTLY A STOP NOTICE MAY BE SERVED BY THE LPA.

An example of scaffolding within the RPA



I hope that this report provides all the necessary information, but should any further advice be needed please do not hesitate to contact the author.

Signed



.....
Charles Cocking *FdSc (Arboriculture) MArborA.*

5th January 2021

For and on behalf of **JCA Ltd**

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Professional Tree and Ecology Advice nationwide

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Guidance for Architects and Developers

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- Veteran Tree Management

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- Tree Health Checks
- Disease Mitigation and Control

ECOLOGICAL SERVICES

Ecological Pre-Planning Services

- Phase 1 Habitat Surveys
- Great Crested Newt eDNA Sampling
- Protected Species: Bat, Wintering and Nesting Bird, Badger, Amphibian, Otter, Water Vole, White-Clawed Crayfish, Dormice and Reptile Surveys.
- Preparation for Environmental Impact Assessment (EIA)
- Invasive Species Surveys
- Code for Sustainable Homes

Ecological Post-Planning Services

- Biodiversity Enhancement Plans
- Protected Species Mitigation
- Ecological Management (Bat and Bird box installation and inspection)

HEAD QUARTERS:

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