

Shell Welwyn Garden City

Arboricultural Method Statement

Plan in accordance with BS5837:2012



SQUIRES YOUNG
LANDSCAPE ARCHITECTURE

Date | July 2022
Reference | SY22-292-AMS-22-01



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Crown Yard
Bedgebury Estate
Goudhurst
Kent
TN17 2QZ

Client:	Shell UK
Location:	Shell Welwyn Garden, Stanborough Road, Welwyn Garden City, AL8 6XA
Report Title:	Arboricultural Method Statement
File Reference:	SY22-292-AMS-22-01
Date of Site Visit	18.05.21
Site Visit Carried Out By:	Francis Squires and Cicely Rice-Wilson
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Planning App No.	6/2021/2260/FULL

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Drawing: SY21-292-AMS-TPP-21-09

Arboricultural Method Statement-
Tree Protection Plan
Premier Forecourts and Construction
Construction Phase Site Set Up

SY21-292-LPP-21-08revA

1.0 Introduction to AMS

- 1.1 We have been instructed by jms Planning on behalf of Shell UK to prepare an Arboricultural Method Statement for the proposed new redevelopment at Shell Welwyn Garden City.
- 1.2 This Arboricultural Method Statement has been prepared in order to safeguard both the above and below ground parts of the retained trees during development works. In order to achieve this it will be necessary to implement the tree protection measures as detailed in this document.
- 1.3 This AMS conforms to BS 5837:2012 Trees in relation to design, demolition and construction - Recommendations and is based on Arboricultural data we recorded during the production of our Tree Survey Report and Tree Constraints Plan and Arboricultural Impact Assessment dated July 2021 ref. SY22-292-ARB-22-01.
- 1.4 This survey covers Stage 4 of the 5 stage Arboricultural process used in relation to planning. Stage 1 is the Tree Survey Plan (TSP). Stage 2 is the production of the Tree Constraints Plan (TCP). Stage 3 is the preparation of an Arboricultural Impact Assessment (AIA). Stage 4 is the preparation of an Arboricultural Method Statement (AMS). Stage 5 is the implementation, supervision and ongoing monitoring of the works.
- 1.5 All site personnel should be made aware of the contents of this AMS and be given an arboricultural induction by either the Site Manager or Site Arborist. In particular the importance of maintaining the integrity of any Tree Protection Measures should be stressed.

2.0 Details of consent

- 2.1 Planning consent has been granted subject to pre-commencement conditions including these conditions:

5. Prior to commencement of the development an Arboricultural Method Statement must be submitted to and approved in writing by the Local Planning Authority. The Arboricultural Method statement must include:

a) A plan showing the areas of trees, or parts of trees growing from adjacent sites, to be protected and fencing in accordance with the relevant British Standard (BS5837:2012 Trees in relation to design, demolition and construction - Recommendations) and to identify areas where no chemical or materials or equipment shall be stored, mixed or prepared, no fires or site washings, within the root protection area of the tree or under the canopy spread whichever is the greater;

b) Details of any proposed alterations to existing ground levels and details of any proposed excavation within the proximity of the root protection area of any retained tree, including trees growing from adjacent sites, or within a distance from any retained tree equivalent to half the height of that tree; and

c) Specify any other means needed to ensure that all of the trees to be retained will not be harmed during the development, including by damage to their root system, directly or indirectly.

The approved Arboricultural method statement must thereafter be adhered to from start to completion of the development.

REASON: To protect the existing trees, shrubs and hedgerows in the interest of visual amenity in accordance with Polices R17 and D8 of the Welwyn Hatfield District Plan 2005 and the National Planning Policy Framework.

3.0 Pre-commencement site meeting or alternative

3.1 If required by the LPA a pre-commencement site meeting involving the Site Manager, Site Arborist and LPA will be held to ensure that the details of this AMS are understood, agreed and correctly implemented.

3.2 As an alternative to the meeting above and if the LPA agree the contractor can confirm that the Tree Protection measures are as specified by taking photographs and sending these to the Site Arborist and to the LPA.

4.0 Arboricultural Method Statement timeline

4.1 It is necessary to undertake the following Sequence of Operations in relation to Arboricultural input for the development.

- Arboricultural Method Statement approved by the LPA
- Installation of tree protection measures
- Pre-commencement site meeting/submission of photographic evidence
- Arboricultural induction for all site personnel
- Delivery & installation of site buildings
- Demolition, Excavation and construction works to take place
- Site clearance including the removal of site buildings
- Removal of tree protection measures
- Examination to determine any areas of compacted soil
- Soil decompaction carried out if required
- Landscaping works carried out

4.2 Table of above showing responsibility:

Sequence of Operations

Stages	Action Required	Personnel
1	Issue this AMS to LPA for approval in writing	Planner
2	Installation of Tree Protection measures as detailed in this AMS	Site manager
3	Pre-commencement site meeting/submission of photographic evidence	Site manager / Arb Consultant / LPA
4	Arboricultural induction	Site manager / Arb Consultant
5	Delivery and installation of site buildings	Site manager
6	Excavation and construction works	Site manager

Sequence of Operations (continued)

Stages	Action Required	Personnel
7	Removal of tree protection measures	Site manager to obtain permission from LPA
8	Examination to determine any soil compaction	Arb Consultant
9	Soil decompaction carried out if required	Arb Consultant / Landscape contractor
10	Landscaping works carried out	Landscape contractor

5.0 Site Access - Facilitation pruning

- 5.1 The site access and exit will remain as at present. We do not believe that any Facilitation Pruning will be necessary to allow works to take place. If any are required the site Arboriculturalist should be informed before these take place.

6.0 Tree Protection measures - Tree Protection fencing

- 6.1 The protective fencing for this site should be located as shown on our drawing no. SY21-292-AMS-TPP-20-09 dated 05.07.22 illustrated with a blue lines. The light blue lines indicate the first positions of the protective fencing. The dark blue lines indicate the final positions of the protective fencing.
- 6.2 The final fencing position must be approved by the LPA before any site works commence.
- 6.3 BS 5837:2012 states 'Barriers should be fit for the purpose of excluding construction activity and appropriate to the degree and proximity of work taking place around the retained trees. Barriers should be maintained to ensure they remain rigid and complete.'
Barrier details are to be found on the AMS TPP drawing. In this case we recommend the following specification of fencing to protect the TPO'd trees and trees close to the proposed works - 2m tall welded mesh panels on rubber or concrete feet or attached to scaffold poles driven into the ground. The panels should be joined together with 4 no. non-releasable plastic ties. All weather notices (min.A4 size) marked 'Construction Exclusion Zone No Access' (or similar) should be attached to the barriers. It is important that these notices are fixed where they are visible to the site construction labour force, so the majority of these signs should be fixed to the site side of the barrier and not on the 'public' side. It is important that all of the

site labour force are aware that these barriers are not to be removed, even temporarily, without permission of the Local Planning Authority or Site Arborist. After erection any Tree Protection fencing should be examined by ourselves to ensure that it fulfils the recommendations of BS5837:2012.

- 6.4 The TPF should be inspected on a daily basis to ensure that it remains in position without any damage. Any damage should be repaired immediately to restore its protective properties.
- 6.5 The TPF shall not be altered or removed without the prior written authorisation of the LPA.

7.0 Tree Protection measures - Details

- 7.1 Demolition - as retained trees are adjacent to the buildings to be removed, the demolition should be undertaken inwards within the footprint of the existing building (often referred to as 'top down, pull back').
As the work programme is for works to be carried out in the Autumn / Winter period we do not believe dust on retained tree foliage should be a problem.
- 7.2 It will be necessary to carry out the removal of existing soft surfacing and the introduction of new permeable gravel surfacing within the RPA of tree T2. We recommend that this is carried out under Arboricultural Supervision and any exposed roots protected as detailed in BS 5837;2012. The site operatives should have gravel or sharp sand available together with damp sacking to cover any exposed roots. The existing soft surface should be removed using hand held breakers or by machinery situated outside the calculated RPA area and which 'drags' the arisings to outside the RPA. We understand that the proposed site levels will be the same as existing levels. It will be necessary to carry out the removal of existing hard surfacing within the RPAs of trees T9-T11. We recommend that this is carried out under Arboricultural Supervision. The existing hard surface should be removed using hand held breakers or by machinery situated outside the calculated RPA areas and which 'drags' the broken surface to outside the RPAs. We understand that the proposed site levels will be the same as existing levels. It will We recommend that these are carried out under Arboricultural Supervision and any exposed roots protected as detailed in BS 5837;2012. The site operatives should have topsoil available to cover any exposed roots.
- 7.3 T13 to T15 are off-site trees whose RPAs may be impacted by proposed works. Tree Protection Fencing is indicated to remind contractors that minimal excavation should take place within these areas. Works proposed within the RPA of T13 again should be carried out under arboricultural supervision, an initial position of TPF is indicated.

8.0 Underground services

- 8.1 We are not aware of any services to be installed within the RPA of any Retained trees. Where the incursion of services within the RPA of retained trees become necessary they must be carried out in accordance with the guidelines contained in the National Joint Utilities Group publication NJUG Volume 4 – Guidelines for the Planning, Installation and maintenance of Utility Apparatus in Proximity to Trees.

8.2 The Site Arborist should be informed of any proposed services within the RPA of retained trees.

9.0 Conclusions

9.1 The previously submitted drawing SY21-292-AIA-TRR-21-06 shows that four trees are to be removed to allow works to take place. These are all 'C' rated.

9.2 Replanting works are proposed as detailed in our drawing SY21-292-LPP-22-08revA.

9.3 We do not expect any ground compaction issues, however after all the site works are completed an examination will be made by the site arborist. If any soil compaction within the RPA of any retained trees is found appropriate measures to remove this will be carried out, these may include mulching (both horizontal and vertical), the use of an air spade or biochar injection.

We have received both a Construction Environment Management Plan (CEMP) and a detailed Construction Logistic Plan from the contractors Premier Forecourts and Construction the latter document shows the positions of Site Offices, Car Parking and material delivery areas etc. and their plan is attached in the appendix to this document.

10.0 Contact details

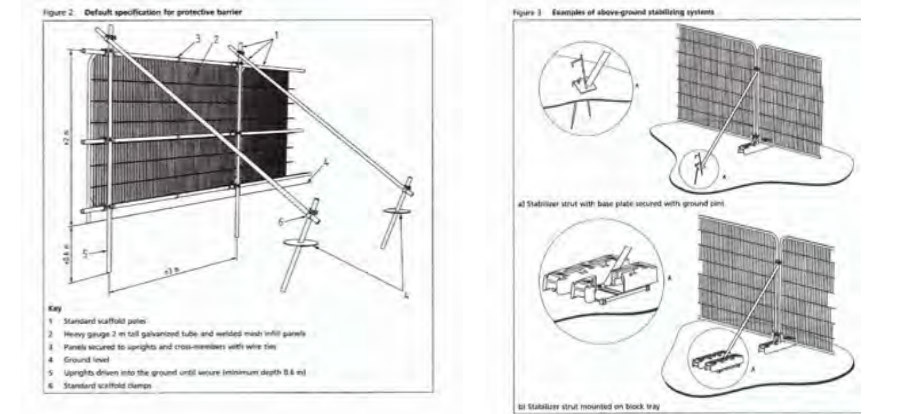
Contact	Name	Company / LPA	Contact no.	Contact email
Architect	Warren Smith	mbh Design Studio Ltd	[REDACTED]	[REDACTED]
Planner	Jackie Ford	JMS Planning	[REDACTED]	[REDACTED]
LPA	Christopher Dale	WelwynHatfieldBC		planning@welhat.gov.uk
Site Construction Contact	Shane Fairburn	Premier Forecourts	[REDACTED]	[REDACTED]
Arborist	Francis Squires	Squires Young Landscape Architecture	[REDACTED]	[REDACTED]

The retained trees and planting will require protection
Landscape & Tree Protection fencing- as per details shown below

Fencing will be installed before any demolition or construction works take place and be removed after construction works are completed to allow landscape works to be carried out.

2m high panels to be joined together with two metal joiners 1m apart (or 4 plastic ties). Signage to be fixed to the panels (facing towards site operations) saying- 'CONSTRUCTION EXCLUSION ZONE- NO ACCESS' or similar.

The purpose of this fencing is to remind contractors of the importance of avoiding damage to the retained trees and to protect the retained landscape areas.



Example Tree Protection Sign

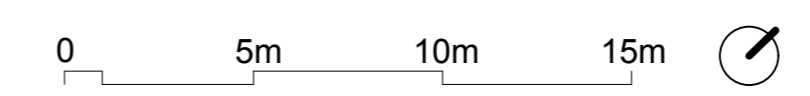
Final position of fencing
 Initial position of fencing
 Proposed works within RPA of retained trees
 Calculated Root Protection Area

The original of this drawing was produced in colour – a monochrome copy should not be relied upon.

Project Title	Shell Welwyn Garden City Arboricultural Method Statement Tree Protection Plan
Scale	1-200 @ A2
Dwg No.	SY21-292-AMS-TPP-21-09
Date	05.07.22
Revision	0
Revision Date	



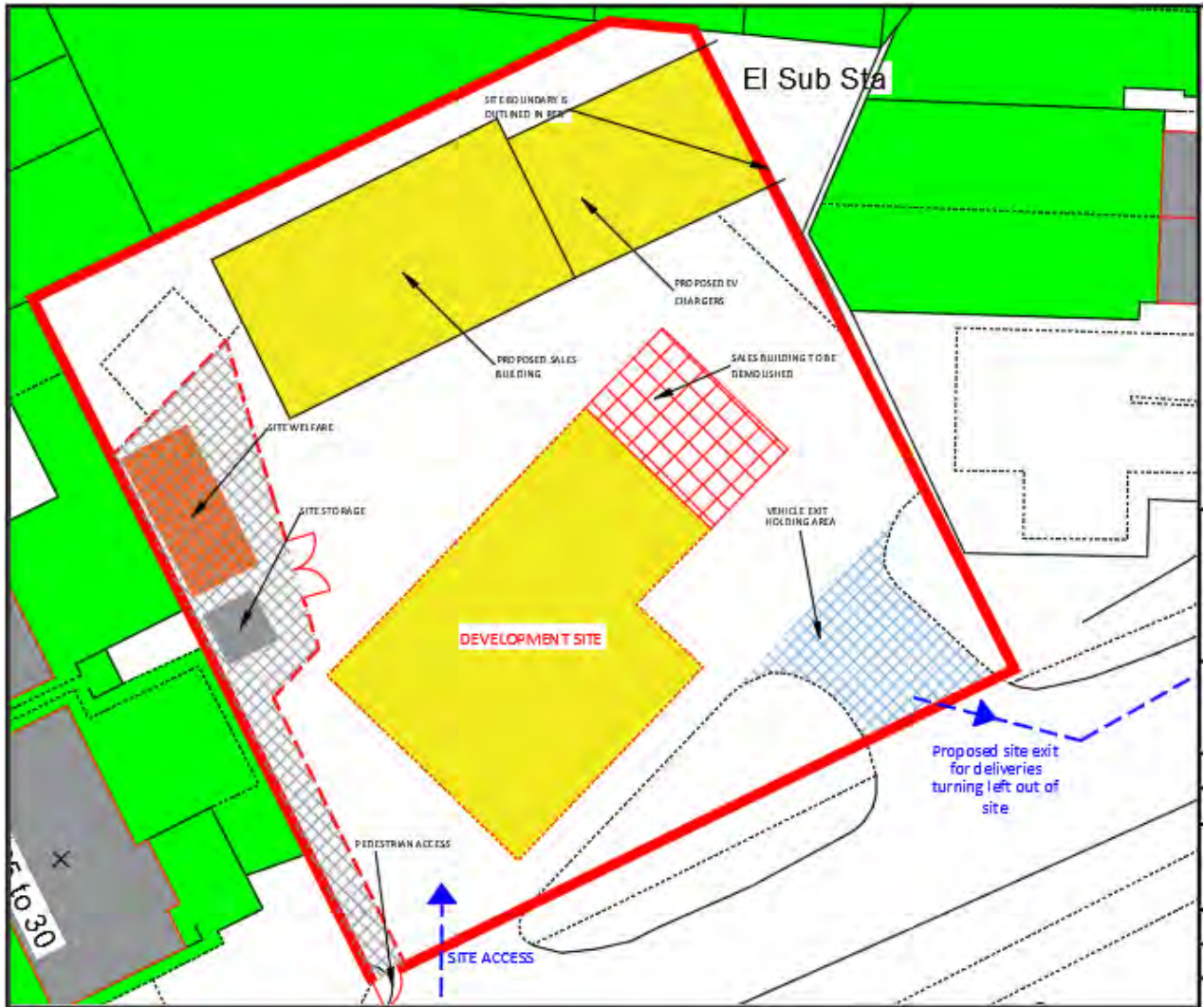
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CONSTRUCTION LOGISTIC PLAN SHELL BUDGENS WELWYN GARDEN FUEL STATION.

3.2.2. CONSTRUCTION PHASE SITE SET UP



Site Safety:

The proposed site is to be managed by an approved safety management system.

As part of the requirements and shown above, first aid provision will be always provided from the site and sign posted for location also.

The controlled fire point is to be located within the sterile welfare area and is to be complete with a fire alarm to sound to the site in the event of an emergency.

A muster point / assembly point is established, and sign posted at the entrance area of the site.

All suitable control of works boards, paperwork and permits etc are kept within the site office and maintained by the site manager. All this information is discussed within site inductions and regular inspections, toolbox talks, and audits are undertaken in order to maintain the required level of safety compliance.

Trees to be planted in positions shown:

- AC Acer campestre 12-14.45f (Barchams// Tree Carbon credit score rating B)
- LJ Ligustrum japonicum 10-12.35f 1.5m clear stem (Credit score B)
- UL Ulmus Lobel 12-14.45f (Barchams// Tree Carbon credit score rating A)

Trees to be supplied by **Barcham Trees** or **alternative UK supplier with similar biosecurity protocols also with Plant Health Certificate of Conformity**

All trees to have double all round short stakes with a half round bar between them. The trees should be fixed to this bar with 'Naturite' biodegradable tree tie material. All trees in grass to have a 2 metre diameter tree pit with 70mm chipped bark cover around roots.

Thoroughly water each tree on completion of planting to expel air pockets and to settle soil around roots.

Apply at the following rates:

50 litres per tree.
The existing topsoil should be used for tree planting with 5% mushroom compost and 2.5kg Carbon Gold Tree Soil Improver (BioChar) per tree.

Shrub planting:

PL Prunus lusitana 100-125 10f planted as hedge 1m apart in double row 0.75m apart. All planted areas to be topsoiled to a minimum depth of 600mm using topsoil saved from the site. If topsoil needs to be imported it must be to BS 3882:2015

All planted areas to be mulched with 70mm of chipped bark mulch

Landscape Maintenance

It is the responsibility of the new buildings owners to ensure that the Landscape Maintenance is carried out as detailed in the following notes for the life of the development.

The following notes relate to the maintenance of the soft landscaping areas as it may be that maintenance of the hard surfacing may not be the responsibility of the Landscape Contractor. If this is the case the contractor responsible for the hard surface maintenance should be advised that the use of residual herbicide is not acceptable. Hard surfaces can be kept weed free by mechanical means and, if necessary, the use of herbicides.

During the five year period, annual visits by the implementing Landscape Architect should be made to check that all maintenance works are being carried out properly and as detailed.

Soft Landscape Maintenance Details for Shell Welwyn Garden City

To be carried out by the Landscape Contractor and thereafter by the appointed maintenance team.

Watering During periods of reduced rainfall all planting should be irrigated to maintain a moist and healthy root zone. This shall be carried out by hand from a bowser or by hose from a permitted water point.

Weed control All planting must be kept weed free. Inspect mulches on each visit and maintain to a depth of 70mm thereby assisting water retention and suppressing weed growth. Herbicide use should be kept to a minimum particularly in areas of ground cover which should be weeded by hand.

Tree support Check for any sign of wind rocking, frost heave, settlement or human interference and ensure that trees remain stable and secure.

Pruning of shrubs Little pruning of shrubs should be required in the establishment period and after as follows: However any aberrant, uncharacteristic or reverted growth should be removed and all pathways, roadsides and sight lines kept clear.

Protection of planting Visits should be used to observe and where appropriate obstruct any desire paths that may appear or alternatively manage them in a constructive way. Also areas that show wear or erosion at the periphery should be restored and if required protected by temporary fencing.

Pests and Diseases On each visit inspect for any sign of disease, pest infestation or damage by vermin and take appropriate control measures if required.

Litter Litter picking in both planted areas and hard surfaces should be carried out on each visit.

Plant failures On each visit note should be taken of any dead or missing plants and these replaced before the end of the five year period.

Grass See maintenance notes on this drawing.

Frequency of visits

December/January/February/March – 1 visit each month.

April – November – 2 visits each month.

This schedule of visits may need to be altered if any period of extreme weather occurs such as drought, excessive rain, or high wind.

Planting Maintenance during the period should be as detailed for the establishment period with the following additional details:

• Fertiliser application

Years two, four, all trees to be given the following rate of Granulated sugar:

3 grammes per litre per square metre of crown spread

Years three, five: all planted areas to be fertilised with Sierrablend Flora granular fertiliser at 70g/square metre

After this period the fertilising regime should be reassessed by the Landscape Architect

Pruning of plants

All pruning should be carried out to maintain the natural shape and form of plants and pruning to 'box' shapes should be avoided.

Perennial meadow grass.

New grassed areas should be cultivated and have the soil raked to a medium tith and sown with Emorsgate EMS Meadow Mixture for Loamy Soils at a rate of 4g/m² and then trodden in.

Now the newly sown meadow grass regularly in the first year of establishment to a height of 40-60mm removing all straws.

Year 2 - 5

Spring cutting in March can be carried out if deemed necessary, the mower should be set

Weed out or spot treat any perennial weeds which appear.

Cut in late July to a height of 40-70 mm, removing all cuttings.

Remember to remove all cuttings to gradually reduce the soil fertility and to avoid leaving a

patch which will inhibit the growth of next years' lowers.

Autumn cut can take place if required.

No fertiliser should be applied

General Reference Documents:

British Standards Institution

BS 3936 - Specification for Nursery Stock.

BS 4428 - 1989 Code of practice for general landscape operations (excluding hard surfaces)

BS 3882 - 2015 Specification for topsoil.

BS 6545 - 2014 Trees: from nursery to independence in the landscape - Recommendations

BS 3698 - 2012 Trees work - Recommendations

All works to be carried out in accordance with the recommendations of the British Standards shown above.

As we have not had access to a full services drawing the Contractor should check for services before commencing works.



New trees planted

Existing trees retained

Perennial Meadow Grass

Existing planting retained

Existing planting retained but hard pruned down to 250mm high

Prunus lusitana hedge

The original of this drawing was produced in colour – a monochrome copy should not be relied upon.

Project Title Shell Welwyn Garden City Landscape Planting Plan

Scale 1-100 @ A0

Dwg No. SY21-292-LPP-21-08rev A

Date 19.07.21

Revision A- substation moved

Revision Date 11.11.21



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0 5m 10m 15m

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