

Shell Waterloo

Tree Protection details T10, T11 & T12



SQUIRES YOUNG
LANDSCAPE ARCHITECTURE

Date January 2024
Reference | SY23-370-TPD-23-01



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Client:	Shell UK Oil Products Ltd
Location:	Shell Waterloo, Crosby Road North, Waterloo, Liverpool L22 0LA.
Report Title:	Tree Protection Details T10, T11 & T12
File Reference:	SY23-370-TPD-23-01
Date of Site Visit	05.08.2023
Site Visit Carried Out By:	Francis Squires
Report Author:	Francis Squires

Contents

- 1.0 Introduction to TPD
- 2.0 Details of consent
- 3.0 Pre-commencement site meeting or alternative
- 4.0 Arboricultural Method Statement timeline
- 5.0 Site access facilitation pruning
- 6.0 Tree Protection measures - Tree Protection fencing
- 7.0 Tree Protection measures – Details
- 8.0 Underground services
- 9.0 Conclusions
- 10.0 Contact details

Appendix

Drawing: SY23-370-AIA-TPP23-04

Tree Protection Plan

SY23-370-LPP-24-01

1.0 Introduction to TPD

- 1.1 We have been instructed by jms Planning on behalf of Shell UK to prepare Tree Protection Details for the proposed new redevelopment at Shell Waterloo.
- 1.2 These Tree Protection Details have 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 TPD 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 October 2023 ref. SY23-370-ARB-23-01.
- 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) of which this document forms part. 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 TPD 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:

No development shall commence, until there has been submitted to and approved in writing by the local planning authority details of a scheme for the protection of trees T10, T11 and T12 shown to be retained on drawing number SY23-370-AIA-TPP-23-04 within the Tree Survey Report. The approved scheme shall be carried out throughout the course of the construction of the development.

Reason: These details are necessary prior to the commencement of development to safeguard all existing trees on site

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 TPD 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 Tree Protection Detail timeline

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

- Tree Protection Details 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 document to LPA for approval in writing	Planner
2	Installation of Tree Protection measures as detailed in this document	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 believe that Facilitation Pruning will be necessary to allow works to take place. Details follow in section 7.

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. SY23-370-AIA-TPP-23-04 dated 27.10.23 illustrated with a blue lines. 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 Facilitation pruning will be necessary to install Tree Protection Fencing and then the construction of the proposed sub-station fencing. This pruning will be required for trees T15, T16, T17 and T19. Whilst this pruning may lead to an unbalanced crown we feel that these trees will respond well and form a balanced crown in the future. This pruning must be carried out under Arboricultural Supervision before the installation of the Tree Protection fencing.
- 7.2 It will be necessary to install a 1000 mm x 800 mm concrete plinth within the Root Protection Areas of T10, T11 and T12. To avoid damage to the root system this plinth will be constructed above the existing soil surface with a 'no dig' solution. A membrane of 2000 gauge black polythene (500 mu) will be laid on the existing soil surface where the new Air/Water plinth is required and a 150 mm deep shuttering ply box placed on it. This polythene membrane will extend to the trunks of the retained trees to avoid concrete 'splash' contamination. The ply box will be filled with concrete to the Architects specification. After the concrete is fully cured the excess membrane will be removed. These works will require the temporary removal of the Tree Protection fencing and should be carried out under Arboricultural Supervision.
- 7.3 Services to the new Air/Water machine will run through the existing hard surface. The impact on the retained trees should be minimal.

8.0 Underground services

- 8.1 We are not aware of any services (other than above) 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

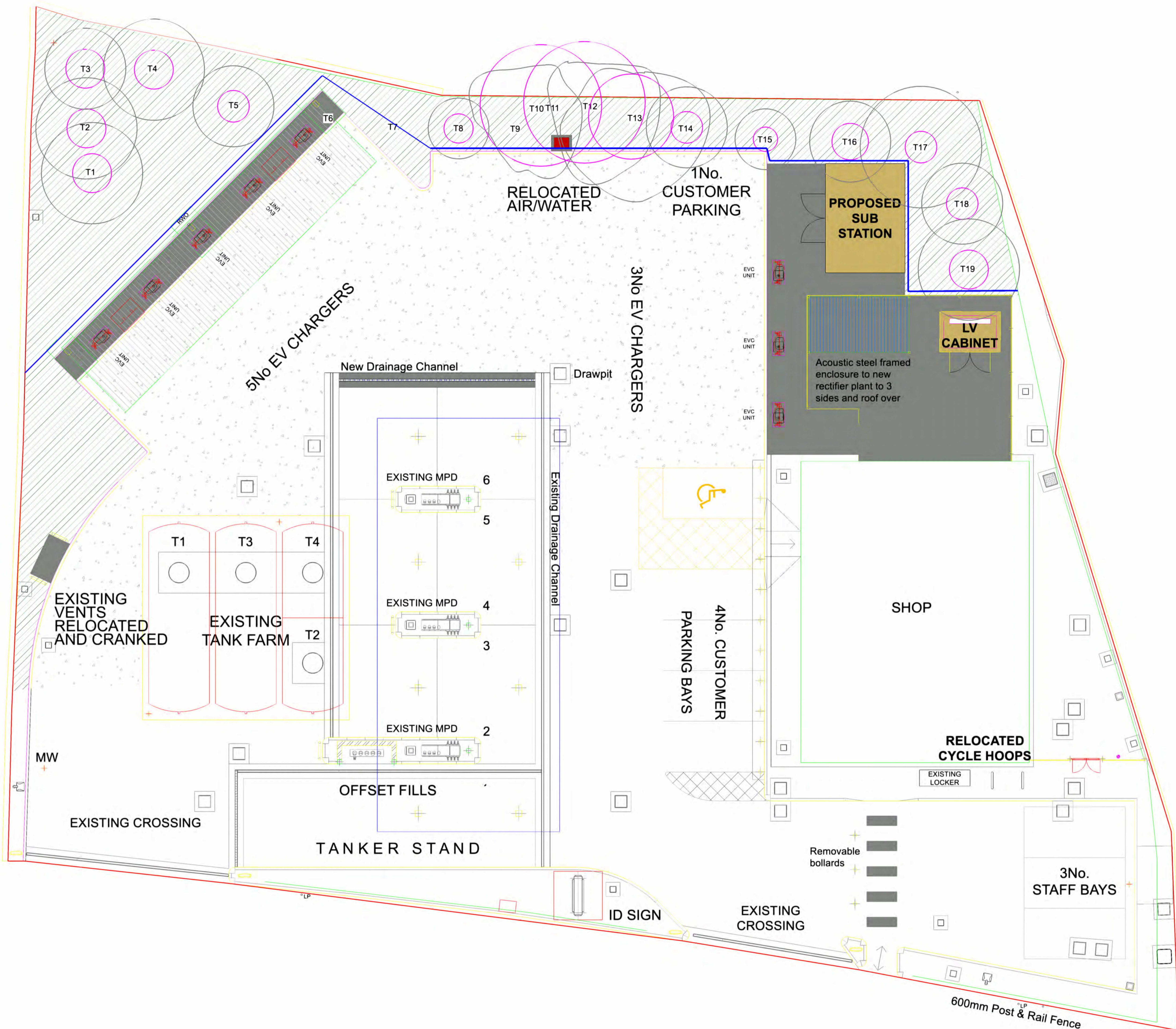
9.1 The previously submitted drawing SY23-370-AIA-TRR-23-03 shows that two trees are to be removed to allow works to take place. These are all 'C' rated.

9.2 Replanting works are proposed as detailed in our drawing SY23-370-LPP-24-01.

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.

10.0 Contact details

Contact	Name	Company / LPA	Contact no.	Contact email
Architect	Peter Stanworth	Jennings Design Ltd	[REDACTED]	[REDACTED]
Planner	Jackie Ford	JMS Planning	[REDACTED]	[REDACTED]
Site Construction Contact	John Whittaker	Williams Southern Ltd	[REDACTED]	[REDACTED].com
Arborist	Francis Squires	Squires Young Landscape Architecture	[REDACTED]	[REDACTED]



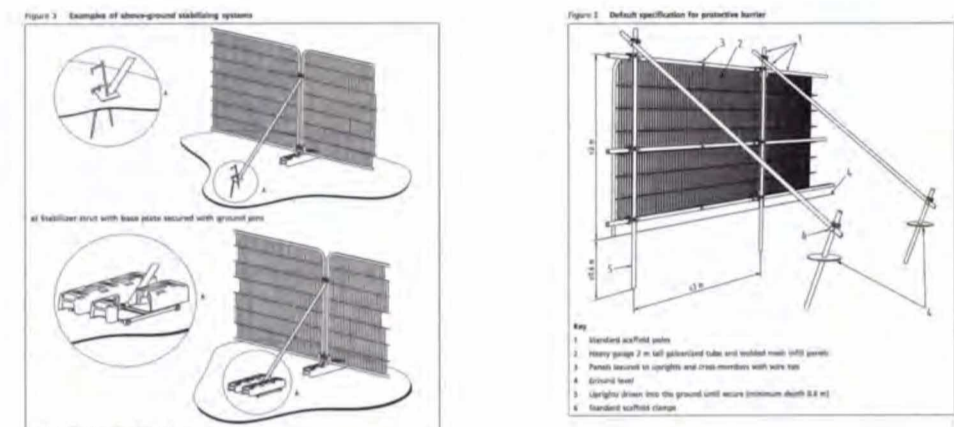
The retained trees and planting will require protection

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 plastic ties 1m apart. 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.



Category U
Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years

Trees to be considered for retention

Category A
Trees of high quality with an estimated remaining life expectancy of at least 40 years

Category B
Trees of moderate quality with an estimated remaining life expectancy of at least 20 years

Category C
Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm

Calculated Root Protection Area

Note- Arboricultural Supervision required for pruning required for installation of Tree Protection Fencing and installation of Air/Water equipment.

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

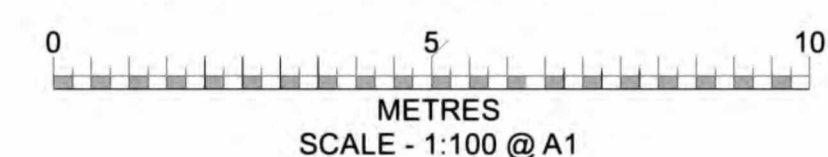
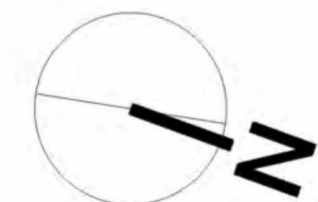
Project Shell Waterloo
Title Arboricultural Impact Assessment Tree Protection Plan

Scale 1:100 @ A1
Dwg No. SY23-370-A1A-TPP-23-04
Date 27.10.23

Revision 0
Revision Date

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