



# Parc Solar Caenewydd, Swansea

### Landscape Strategy

Development of National Significance in the Renewable Energy Sector Application Submission





These implementation and maintenance guidelines are for planning purposes only to indicate the level of workmanship to be specified and do not constitute a detailed specification.

## 1. GENERAL

- 1.1. All landscape operatives will be appropriately trained, certified and qualified to undertake the tasks required. When required, the relevant certificates will be made available for inspection. All work is to be carried out in accordance with the relevant British Standards, Codes of Practice and Legislation.
- 1.2. All plants shall conform to BS 3936 Nursery Stock Specification for Trees and Shrubs and be in accordance with the National Plant Specification. Supplying nurseries shall be registered under the HTA Nursery Certification Scheme. All plants shall be packed and transported in accordance with the Code of Practice for Plant Handling as produced by CPSE.
- 1.3. Planting shall not be carried out when the ground is waterlogged, frost bound or during periods of cold drying winds. All bareroot planting stock will be kept covered until actually planted in order to minimise water-loss and prevent the roots from drying out. Tree handling, storage and planting shall be in accordance with BS 8545 Trees: From nursery to independence in the landscape, Chapters 9 to 10 and Annexes E to F.
- 1.4. The landscape contractor shall maintain all areas of new planting for a period of 12 months following practical completion. All stock deemed to be dead, dying or diseased within the defects period shall be replaced by the contractor
- 1.5. A minimum intervention approach will be used in terms of weed control. In areas of transplant tree/shrub or ornamental shrub planting this is to be achieved by using mulch mats. Weed killer and other chemicals will be used as little as possible on site. Spot removal of weeds will be carried out by hand removal as necessary.
- 2.1. Where necessary remove existing weeds by hand. Chemical removal using a glyphosate based herbicide (and/ or other suitable alternative) will be avoided unless large areas need clearing – following which allow a suitable period to elapse, as recommended by the manufacturer, for the herbicide to take effect.
- 2.2. Tree pits of at least 75mm diameter greater than the root system and no deeper than the rootball / container depth are to be excavated and the sides well scarified to prevent smearing. All extraneous matter such as plastic, wood, metal and stones greater than 50mm in any dimension shall be removed from site.
- 2.3. During excavation of the pit, the soil dug should be placed to one side separating topsoil and subsoil as far as is practical. Tree Planting
- 2.4. Trees shall be planted as per the planting arrangement as set out on the planting plan and plant schedule.
- 2.5. The typical rooting depth for trees is 900mm. The first 300mm shall be made up of topsoil; it shall be ensured that a suitable subsoil provides the remainder of the minimum rooting depth.
- 2.6. The root system of the tree should be wetted prior to planting. The tree should be planted at the correct depth taking into account the position of the root flare and the finished level - the rootball or root stem transition should be level with the existing host soil or surface. The base of the rootball should typically sit on subsoil, for larger rootballs the subsoil will sit around the lower portion of the rootball.
- 2.7. Tree pits should be backfilled with the excavated topsoil, if the original topsoil is not available or deemed unsuitable, a multi-purpose topsoil should be used. Any subsoil excavated should be discarded and the subsoil depth (beyond 300mm deep) backfilled with a high sand content subsoil. Backfill should be added gradually, in layers of 150mm to 230mm depth, ensuring the tree is held upright at each stage the fill should be firmed in to eliminate all air pockets under and around the root system, but with care being taken not to excessively compact the soil. The final layer should not be consolidated.
- 2.8. General-purpose slow release fertiliser (at the rate of 75gm/m2) and Tree Planting and Mulching Compost at the rate of (20litres/m2) are to be incorporated into the top 150mm of topsoil during final cultivations.
- 2.9. Selected standard trees will be protected from rabbit and deer damage by fitting appropriate tree guards.
- 2.10. Heavy Standard trees are to be single staked with 75mm dia stakes. Stakes should be driven at least 300mm into undisturbed ground before planting the tree, taking care to avoid underground services and cables etc. and should typically be one third the height of the tree stem above ground.
- 2.11. Staked trees shall be secured to stakes with suitable proprietary rubber tree ties and spacers.
- 2.12. Immediately after planting, but before applying the below bark mulch, all trees should be saturated to field capacity.
- 2.13.Ornamental composted bark mulch will be spread to a depth of 50mm across a 1m dia circle around individual trees, ensuring that the root flare and base of the stem, along with any ground cover plants, are not buried.

- 3.1. Where necessary existing weeds will be treated with a glyphosate-based herbicide (and/ or other suitable alternative) and a suitable period allowed to elapse, as recommended by the manufacturer, for the herbicide to take effect.
- 3.2. All extraneous matter such as plastic, wood, metal and stones greater than 50mm diameter shall be removed from site.
- 3.3. The planting arrangement shall be as set out in the plant schedule on the relevant planting plan.
- 3.4. Bare-root hedge plants shall be notch planted in a double staggered row at the rate of 5 plants per linear metre (using L- shaped notches) using spades of a design suitable for this purpose. The notches must be vertical and deep enough for the roots to hang freely, with the transplant being planted so that the root collar is exactly level with the ground surface. The notch must then be closed and the soil will be well firmed round the roots in line with the guidelines as set out in BS 4428 (1989).
- 3.5. All bare-root hedge planting stock will be protected from rabbit damage using approved proprietary 600mm clear plastic spiral guards, supported with 0.9m 12/14lb canes as advised by the manufacturer. Maintenance during first growing season
- 3.6. All dead, dying or diseased hedge plants will be replaced with plants of similar size and species. If the failure of the plant is due to disease and the disease is considered likely to re-occur then an alternative species may be used as replacement if agreed with the LPA.
- 3.7. The planting area will be kept weed free throughout the maintenance period by manually removing (or using approved herbicides where necessary in April, June and August).

## 4. NATIVE HEDGEROW SUPPLEMENTARY INFILL PLANTING

### <u>Ground Preparation</u> 4.1. Where necessary existing weeds will be treated with a glyphosate-based herbicide (and/ or other suitable alternative) and a

agreed with the LPA.

- suitable period allowed to elapse, as recommended by the manufacturer, for the herbicide to take effect.
- 4.2. All extraneous matter such as plastic, wood, metal and stones greater than 50mm diameter will be removed from site to a registered waste disposal facility. <u>Planting</u>
- 4.3. The planting arrangement shall be as set out in the plant schedule on the relevant planting plan. 4.4. Bare-root hedge plants shall be notch planted in a double staggered row at the rate of 5 plants per linear metre (using L-
- shaped notches) using spades of a design suitable for this purpose. The notches must be vertical and deep enough for the roots to hang freely, with the transplant being planted so that the root collar is exactly level with the ground surface. The notch must then be closed and the soil will be well firmed round the roots in line with the guidelines as set out in BS 4428 (1989).
- shelters, supported with 0.9m x 32mm x 32mm softwood stakes as advised by the manufacturer.

4.5. All container-grown planting stock will be protected from rabbit damage using approved proprietary 600mm plastic shrub

4.7. All dead, dying or diseased hedge plants will be replaced with plants of similar size and species. If the failure of the plant is due to disease and the disease is considered likely to re-occur, then an alternative species may be used as replacement if

4.6. All bare-root hedge planting stock will be protected from rabbit damage using approved proprietary 600mm clear plastic spiral guards, supported with 0.9m 12/14lb canes as advised by the manufacturer. Maintenance during first growing season

- 5.1. Cut existing rough grass and weeds to between 20mm and 30mm and remove 300x300mm squares of turf.
- 5.2. All native shrub planting to be UK grown, cell grown 60-80cm stock.
- 5.3. The minimum overall recommended rooting depth for shrubs is 600mm and for trees is 900mm. The first 300mm shall be made up of multi-purpose topsoil; it shall be ensured that a suitable subsoil provides the remainder of the minimum rooting depth. Before receiving topsoil, subsoils should be loosened using ripping equipment; this shall be done when the subsoil is dry to encourage soil shattering. All stones and other objects larger than 50 mm shall be removed from
- 5.4. Shrub / tree planting is to be as per the planting pattern as set out on the planting plan and planting schedule, with shrubs / trees planted at even spaces into the prepared soil at the specified number per centre, with minimal disturbance to the rootball, and well firmed in. Planting should avoid man-made grids and lines, and should group species together in groups of 5-7 plants. Spread ornamental pine bark mulch to a depth of 75mm to a 900mm diameter
- 5.5. All bare-root planting stock will be protected from rabbit damage using approved proprietary 0.6m (for shrub species) or 1.2m (for tree species) plastic shrub/tree guards, supported with 0.9m (or 1.35m for trees) x 32mm x 32mm softwood stakes as advised by the manufacturer.
- 5.6. All areas to receive native shrub planting to be covered with weed supressing coir matting and pinned into place. Wood chip mulch be spread to a depth of 75mm across the full extent of the coir matting, ensuring that the root flare and base of the stem, along with any ground cover plants, are not buried.

## <u>Maintenance</u>

- 5.7. Using approved herbicides, a 900mm diameter circle centred on each planting station shall be kept weed free throughout the maintenance period. In the autumn following planting the CA will prepare a list of all plants which are dead, dying or diseased and are to be replaced during the following planting season.
- 6. GRAZING MIXTURE AND MEADOW MIXTURE

6.1. Areas of grassland to be seeded shall be sprayed out with a glyphosate herbicide (and/ or other suitable alternative) and cultivated to a depth of 100mm removing all weeds debris and stones over 75mm diameter. The surface shall be raked to smooth flowing contours with a fine tilth.

6.3. To achieve an even sowing, bulk with an inert carrier, such as sand. Seed shall be sown in two equal sowings in

- 6.2. Seeds shall be sown in September during calm weather and not when the ground is frost bound or waterlogged.
- transverse directions at e.g. EG26 Standard old Fashioned Grazing Mixture and EM2 Standard General Purpose Meadow Mixture, 4g/m2. After sowing the contractor shall roll in the seed to guarantee intimate contact with the soil, ensuring not to rake or cover the seed with soil.

- completion. All stock deemed to be dead, dying or diseased within the defects period shall be replaced by the contractor at his own cost. The site is to be visited monthly throughout the year to undertake the Following operations:
- Weed clearance: All planting areas to be kept weed free by herbicide treatment.
- Litter clearance: All litter is to be removed from planting beds. Watering: All planted areas are to be watered for the first two years from May to September following any dry
- periods of 7 days.
- <u>Trees and Shrubs</u>

2. All trees are to be watered weekly from May to the end of September unless unnecessary due to heavy rain; to receive 20 gallons of water. All shrubs are to be watered for the first two years from May to September following any dry periods of 7 days. All tree ties and stakes are to be checked and adjusted if too loose, too tight or if chaffing is occurring. Any broken stakes are to be replaced. Any damaged shoots/branches are to be pruned back to healthy wood. Plants are to be pruned in accordance with good horticultural practice to maintain healthy, well-shaped specimens. Native shrubs - Using approved herbicides a 1m diameter circle centred on each planting station shall be kept weed free throughout the maintenance period. Stakes may be removed from Year 2 if plant is fully established and if shelter is suppressing further growth.

7.3. Hedge lines shall be kept mulched until established. At the end of the Defects Liability Period / First Year's Maintenance the CA will prepare a list of all plants which are dead, dying or diseased and are to be replaced during the following planting season at the contractor's expense.

First Issue- 15/06/2022 LAB A- (21/06/2022 LAB) Landscape proposal updated to client comment B - (04/07/2022 IHW) Amended to client and ecologists comments - (08/07/2022 IHW) Amended to client and comments (16/08/2022 IHW) Proposed pond added, panels simplified : - (31/10/2022 IHW) Hedgerow alignments amended to central PRoW corridor following comments received from LPA PRoW officer F - (13/02/2023 IHW) Redline amended; landscape adjusted to revised layout; PRoW alignments updated; connecting cable routes added G - (28/02/2023 IHW) Redline amended; ecology notes added H - (01/03/2023 IHW) Solar layout amended J - (04/10/2023 IBD) Red line amended to exclude southern fields; solar layout amended site-wide; landscape proposals amended to suit K - (05/10/2023 IBD) Reptile Mitigation Area amended L - (11/10/2023 IBD) Planting clash corrected M - (08/12/2023 IBD) Amended to suit layout PSC 100 001 V13

# Landscape Strategy Parc Solar, Caenewydd

N - (13/12/2023 IBD) Key amended to client comments

Client: Taiyo Power & Storage Ltd

REV: **N** DRWG No: **P21-2998\_12** Drawn by : LAB/IBD Approved by: IBD Date: 13/12/2023

Scale: 1:2000 @ A0

