

## **Appendix 3 - Specification**

### **BSS26007 – Roofing and Solar Framework**

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## 1. Re-roofing Fibre Cement Slate

1. Prior to commencement of any works, the contractor is to arrange and carry out a dilapidation survey of the interior of the property. Any issues to be logged.
2. Contractor to liaise and meet all requirements with the appropriate utility service providers to make safe and protect water mains/overhead service cables, namely electricity, telephone, television, etc. prior to erection of scaffolding.
3. Provide scaffolding to current regulations as necessary to undertake the works; include for all works associated with bridging over obstructions such as outbuildings, porches, extensions, etc. All notices and licences for scaffolding to be arranged by the contractor. The property will not be deemed complete until scaffolding has been dismantled and removed from site.
4. The contractor is to remove and re-fit all items attached to the property, to enable the works to be carried out. Re-fitting of items to be agreed with the Inspector.
5. All items are to be protected from damage. Where aerials and satellite dishes are installed which obstruct the working area, the contractor is responsible for temporarily re-siting prior to the works commencing and ensuring continuity of service; subsequently refitting on completion of the works.
6. Contractor to protect adjacent surfaces and buildings/property including gardens and adjoining properties during the execution of the work.
7. The contractor is to allow for weatherproofing the property to prevent the ingress of water during the works.
8. Contractor must ensure that all works are carried out to current regulations and supply Manufacturer's Technical / fixing schedule for each type of roof from Marley or equal approved to the Inspector.
9. All materials are to be stored under cover in such a manner that they are at all times protected from the effects of the weather.
10. All loose items of plant are to be stored securely in a lockable enclosure at the end of each working day.
11. The contractor is to allow for the use of all temporary supports where deemed necessary to undertake the work safely.
12. Carefully remove existing tiles from roof including all ridge tiles and cart away to tip
13. Remove the existing battens, felt and trims and cart away to tip.
14. Remove all redundant nails and staples from rafters.
15. Inspect the condition of the roof structure and confirm with contract administrator if any damaged or rotten timber present prior to re-installing the roof.

16. Any defective timber is to be replaced with similar sized members and either overlapped by a minimum of 600mm and spiked or replaced to the next structural bearing such as wall plate, purlin, ridge board etc.
17. All roof timbers and plates to have approved timber preservative treatment.
18. Allow for protection to any existing roof insulation. The contractor is to advise SA if fiberglass does not meet current building regulations minimum 275mm.
19. If required, supply and fit new UPVC barge board inclusive of all backing boards and fixings to gable ends.
20. Supply and fit new vapour permeable underlay in accordance with the Manufacturer's specification (BSS 5534:2014)
21. Supply and mechanically fix 50x25mm treated softwood battens in accordance with the Manufacturer's specification (BSS 5534:2014)
22. Supply and fix concrete interlocking roof tiles/cloak verge tiles/ventilated ridge system and associated fittings, to include for all valleys, bonding to gutter and support trays as required, all in accordance with the Manufacturer's specification (BSS 5534:2014)
23. Remove redundant chimney stack to below existing roof level, make good to roof structure installing new timbers similar sized as existing roof structure, all allowing for new roof covering to cover removed chimney.
24. Contractor is to ensure that the existing gutters are to remain in situ and are kept in good working order throughout the works and are cleaned and water tested for leakage on completion of the work.
25. Contractor to allow for the re-fitting of all electrical, television and aerial cables and for testing prior to handover.
26. Contractor to arrange for satellite dishes to be re-fitted and tested prior to handover.
27. The contractor is to include for the upgrading existing or installing new fibreglass Rockwool or equal approved insulation to roof space to comply with building regulations.
28. Contractor to include for the necessary extension of roof gables/eaves etc. to accommodate EWI works.
29. Where works are required in or around boiler flues/vents and pipes, the Contractor is to allow for the appropriate isolating, sleeving, adjusting/extending/renewing and sealing of any flues/vents that may be affected by any part of the works being undertaken, this includes where operatives are likely to be working near or around live flues/vents. It is the responsibility of the Contractor to ensure that any heating appliance is isolated prior to the start of any works and that only a suitably qualified service engineers are employed. A landlord's safety certificate must be provided at the end of any such works and must accompany any application for payment of a completed property. Barcud Shared Services' clients have adopted a zero tolerance to the 'Bombing' of materials. No exceptions.

## 2. Re-roofing - Concrete Interlocking Tiles

1. Prior to commencement of any works, the contractor is to arrange and carry out a dilapidation survey of the interior of the property. Any issues to be logged.
2. Contractor to liaise and meet all requirements with the appropriate utility service providers to make safe and protect water mains/overhead service cables, namely electricity, telephone, television, etc. prior to erection of scaffolding.
3. Provide scaffolding to current regulations as necessary to undertake the works; include for all works associated with bridging over obstructions such as outbuildings, porches, extensions, etc. All notices and licences for scaffolding to be arranged by the contractor. The property will not be deemed complete until scaffolding has been dismantled and removed from site.
4. The contractor is to remove and re-fit all items attached to the property, to enable the works to be carried out. Re-fitting of items to be agreed with the Inspector.
5. All items are to be protected from damage. Where aerials and satellite dishes are installed which obstruct the working area, the contractor is responsible for temporarily re-siting prior to the works commencing and ensuring continuity of service; subsequently refitting on completion of the works.
6. Contractor to protect adjacent surfaces and buildings/property including gardens and adjoining properties during the execution of the work.
7. The contractor is to allow for weatherproofing the property to prevent the ingress of water during the works.
8. Contractor must ensure that all works are carried out to current regulations and supply Manufacturer's Technical / fixing schedule for each type of roof from Marley or equal approved to the Inspector.
9. All materials are to be stored under cover in such a manner that they are at all times protected from the effects of the weather.
10. All loose items of plant are to be stored securely in a lockable enclosure at the end of each working day.
11. The contractor is to allow for the use of all temporary supports where deemed necessary to undertake the work safely.
12. Carefully remove existing tiles from roof including all ridge tiles and cart away to tip
13. Remove the existing battens, felt and trims and cart away to tip.
14. Remove all redundant nails and staples from rafters.
15. Inspect the condition of the roof structure and confirm with contract administrator if any damaged or rotten timber present prior to re-installing the roof.

16. Any defective timber is to be replaced with similar sized members and either overlapped by a minimum of 600mm and spiked or replaced to the next structural bearing such as wall plate, purlin, ridge board etc.
17. All roof timbers and plates to have approved timber preservative treatment.
18. Allow for protection to any existing roof insulation. The contractor is to advise SA if fiberglass does not meet current building regulations minimum 275mm.
19. If required, supply and fit new UPVC barge board inclusive of all backing boards and fixings to gable ends.
20. Supply and fit new vapour permeable underlay in accordance with the Manufacturer's specification (BSS 5534:2014)
21. Supply and mechanically fix 50x25mm treated softwood battens in accordance with the Manufacturer's specification (BSS 5534:2014)
22. Supply and fix concrete interlocking roof tiles/cloak verge tiles/ventilated ridge system and associated fittings, to include for all valleys, bonding to gutter and support trays as required, all in accordance with the Manufacturer's specification (BSS 5534:2014)
23. Remove redundant chimney stack to below existing roof level, make good to roof structure installing new timbers similar sized as existing roof structure, all allowing for new roof covering to cover removed chimney
24. Contractor is to ensure that the existing gutters are to remain in situ, and are kept in good working order throughout the works and are cleaned and water tested for leakage on completion of the work.
25. Contractor to allow for the re-fitting of all electrical, television and aerial cables and for testing prior to handover.
26. Contractor to arrange for satellite dishes to be re-fitted and tested prior to handover.
27. The contractor is to include for the upgrading existing or installing new fibreglass Rockwool or equal approved insulation to roof space to comply with building regulations.
28. Contractor to include for the necessary extension of roof gables/eaves etc. to accommodate EWI works.
29. Where works are required in or around boiler flues/vents and pipes, the contractor is to allow for the appropriate isolating, sleeving, adjusting/extending/renewing and sealing of any flues/vents that may be affected by any part of the works being undertaken, this includes where operatives are likely to be working near or around live flues/vents. It is the responsibility of the contractor to ensure that any heating appliance is isolated prior to the start of any works and that only a suitably qualified service engineers are employed. A landlord's safety certificate must be provided at the end of any such works and must accompany any application for payment of a completed property.

Barcud Shared Services' clients have adopted a zero tolerance to the 'Bombing' of materials. No exceptions.

### 3. GRP Flat Roof

1. Prior to commencement of any works, the contractor is to arrange and carry out a dilapidation survey of the interior of the property. Any issues to be logged
2. Contractor to liaise and meet all requirements with the appropriate utility service providers to make safe and protect water mains/overhead service cables, namely electricity, telephone, television, etc. prior to erection of scaffolding.
3. Provide scaffolding to current regulations as necessary to undertake the works; include for all works associated with bridging over obstructions such as outbuildings, porches, extensions, etc. All notices and licences for scaffolding to be arranged by the contractor. The property will not be deemed complete until scaffolding has been dismantled and removed from site.
4. The contractor is to remove and re-fit all items attached to the property, to enable the works to be carried out. Re-fitting of items to be agreed with the Inspector.
5. All items are to be protected from damage. Where aerials and satellite dishes are installed which obstruct the working area, the contractor is responsible for temporarily re-siting prior to the works commencing and ensuring continuity of service; subsequently refitting on completion of the works.
6. Contractor to protect adjacent surfaces and buildings/property including gardens and adjoining properties during the execution of the work.
7. Contractor must and ensure that all works are carried out to current regulations.
8. Remove existing flat roof coverings including wetted drip and complete removal of existing boards any insulation present and cart to tip.
9. Supply and fit 18mm approved (CE structural 2+) ply-board mechanically fixed to timber joists to provide a new base for the system. Include overhanging to incorporate additional thickness for external wall insulation.
10. Supply and fit a 1000 gauge vapour control layer, to be fitted and taped in accordance with manufacturers' instructions. Vapour layer to be continuous and encapsulate the insulation boards at abutments, penetration and exposed edges.
11. Graded timber supports should be fitted to all exposed perimeter edges as required using proprietary fixings applicable to construction/environmental conditions.
12. Supply and fit 120mm PIR insulation, all boards to be laid staggered and comply with the manufacturer's instructions.

13. Supply and fit GRP system to roof area complete including all necessary fixings/finishes etc. Preformed GRP trims to be mechanically fixed to the deck using treated clout nails to form edge detailing. For drip trims or upstand trims, additional support must be provided at trim joints in the form of butt straps/timber battens.
14. Expansion trims to be fixed, taped and coated in accordance with manufacturer's instructions.
15. Roof termination details should be a minimum 150mm upstand height above the finished surface of the roof and should be terminated behind a lead flashing(s)
16. Check for pinholes/misses and rectify accordingly between applications.
17. Contractor to provide manufactures company backed insurance guarantee, which should include all labour and materials for a minimum period of 20 years against any workmanship or material defect and consequential damage.
18. Supply and fix white square-line gutters, including all necessary outlets. Joints and trims, stop ends etc. all fitted to manufacturer's instructions.
19. Supply and fix white square-line rainwater down pipes, all to be fitted in accordance with manufacturer's instructions.
20. Supply and fix new soffits/PVCu fascia's including all joint cutting/trimming, end caps, capped screws etc.
21. The Contractor is to ensure that fascia's, soffits and rainwater gutters are to be cleaned out, washed down and water tested for leakage on completion of works.
22. Where works are required in or around boiler flues/vents and pipes, the Contractor is to allow for the appropriate isolating, sleeving, adjusting/extending/renewing and sealing of any flues/vents that may be affected by any part of the works being undertaken, this includes where operatives are likely to be working near or around live flues/vents. It is the responsibility of the Contractor to ensure that any heating appliance is isolated prior to the start of any works and that only a suitably qualified service engineers are employed. A landlord's safety certificate must be provided at the end of any such works and must accompany any application for payment of a completed property.

#### 4. Flat Roof Adaptions – Metro Tile

1. Contractor to liaise and meet all requirements with the appropriate utility service providers to make safe and protect water mains/overhead service cables, namely electricity, telephone, television, etc. prior to erection of scaffolding.
2. Provide scaffolding as necessary to undertake the works; include for all works associated with bridging over obstructions such as outbuildings, porches, extensions, etc. All notices and

licences for scaffolding to be arranged by the contractor. The property will not be deemed complete until scaffolding has been dismantled and removed from site.

3. Contractor to protect items attached to property, this will include the removal and refitting of attached items when required. Where aerials and satellite dishes are installed which obstruct the working area, the contractor is responsible for temporarily re-siting prior to the works commencing and ensuring continuity of service; subsequently refitting on completion of the works.

4. Contractor to protect adjacent surfaces including gardens and adjoining properties during the execution of the work.

5. Supply and install new rafters 75 x 38mm fixed to new wall plate 150 x 44mm @ 600mm centres; wall plate to be plugged and screwed to wall. Pitch of roof to be min. 10° (allow for soffit overhangs to accommodate for EWI). Side gables to be constructed with timber stud partition 75 x 50mm.

6. Supply and fix 50 x 25mm treated softwood battens on and including one layer of 'TYVEK SUPRO\SPIRTECH 250' non-rip breathable or equal approved vapour permeable underlay to existing rafters/trusses. Ensure 150mm laps to underlay and sufficient overhang to extend into rainwater gutter. Where a lap in the roof underlay occurs between battens, it should be held down by an extra batten in order to restrain the lap from opening under wind uplift.

7. Supply and fix 'metro tile 900,' to be fitted in accordance with the manufacturer's instructions; including all necessary cutting, trimming etc. Metro tile to be fitted to mono pitch and gable ends of new structure.

8. Supply and lay a minimum of 270mm Rockwool or similar to new roof space.

9. Supply and fix new cavity trays to main building.

10. Supply and fix stepped code 4 leadwork to abutment of new roof truss and main building.

11. Supply and fix new PVCu fascia's including all joint cutting/trimming, end caps, capped screws etc.

12. Supply and fix white square-line gutters, including all necessary outlets. Joints and trims, stop ends etc. all fitted to manufacturer's instructions.

13. Supply and fix white square-line rainwater down pipes, all to be fitted in accordance with manufacturer's instructions.

14. All newly fitted rainwater goods are to be cleaned, washed down and water tested on completion of works; remedial works to be carried out if test fails.

15. All new rainwater goods to discharge directly into the existing rainwater gully where appropriate. Provide and install new rainwater gully connected into the existing surface water drainage system where required.

16. The contractor is to allow for the appropriate isolating, sleeving, adjusting/extending/renewing and sealing of any boiler flues/vents that may be affected by any part of the works being undertaken, this includes where operatives are likely to be working near or around live flues/vents. It is the responsibility of the contractor to ensure that any heating appliance is isolated prior to the start of any works and that only a suitably qualified service engineers are employed. A landlord's safety certificate must be provided at the end of any such works and must accompany any application for payment of a completed property.

## 5. Fascias, Soffits, Verges and Rainwater Goods Renewal

1. Prior to commencement of any works, the contractor is to arrange and carry out a dilapidation survey of the interior of the property. Any issues to be logged.

2. Contractor to liaise and meet all requirements with the appropriate utility service providers to make safe and protect water mains/overhead service cables, namely electricity, telephone, television, etc. prior to erection of scaffolding.

3. Provide scaffolding to current regulations as necessary to undertake the works; include for all works associated with bridging over obstructions such as outbuildings, porches, extensions, etc. All notices and licences for scaffolding to be arranged by the contractor. The property will not be deemed complete until scaffolding has been dismantled and removed from site.

4. The contractor is to remove and re-fit all items attached to the property, to enable the works to be carried out. Re-fitting of items to be agreed with the Inspector.

5. All items are to be protected from damage. Where aerials and satellite dishes are installed which obstruct the working area, the Contractor is responsible for temporarily re-siting prior to the works commencing and ensuring continuity of service; subsequently refitting on completion of the works.

6. Contractor to protect adjacent surfaces and buildings/property including gardens and adjoining properties during the execution of the work.

7. Contractor must and ensure that all works are carried out to current regulations.

8. Where works are required in or around boiler flues/vents and pipes, the Contractor is to allow for the appropriate isolating, sleeving, adjusting/extending/renewing and sealing of any flues/vents that may be affected by any part of the works being undertaken, this includes where operatives are likely to be working near or around live flues/vents. It is the responsibility of the Contractor to ensure that any heating appliance is isolated prior to the start of any works and that only a suitably qualified service engineers are employed. A landlord's safety certificate must be provided at the end of any such works and must accompany any application for payment of a completed property.

9. Remove rainwater goods, timber fascia's, soffits, bargeboards (where present) and cart to tip. All debris to be removed from site on a daily basis as work proceeds.
10. Where necessary, supply and fix additional timber noggins to ends of rafters/trusses and walls to carry and support new fascia and soffit boards.
11. Where necessary, supply and fix suitable 22mm thick treated sawn timber to support PVCu capping board. Supply and fix 200 x 8mm capping board to fascia including associated joint trims, end caps, capped screws, etc. PVCu units to be from "Swish Building Products" or similar approved and fixing to be in accordance with manufacturer's recommendations.
12. Supply and fix 200 x 8mm white vented PVCu soffit board including associated joint trims, end caps, capped screws, etc. PVCu units to be from "Swish Building Products" or similar approved. Fixing to be in accordance with manufacturer's recommendations.
13. Supply and fit new bargeboards where required.
14. Where necessary, supply and fix PVCu dry verge to gables. The dry verge is to be wrapped over the existing cement verge and to be fixed as per manufacturer's instructions including all associated joints caps and fixings.
15. Supply and fix white PVCu square line gutters, including all necessary outlets. Joints and trims, stop ends etc. all fitted to manufacturer's instructions.
16. Supply and fix white PVCu square line rainwater down pipes, all to be fitted in accordance with manufacturer's instructions.
17. Supply and fix white PVCu square line snow box, where necessary, as per existing all fitted to manufacturer's instructions.
18. Make good to all disturbed areas.
19. All newly fitted rainwater goods are to be cleaned out, washed down and water tested on completion of works; remedial works to be carried out if test fails.

## 6. Solar Installations and Repairs

1. Contractors shall hold appropriate Microgeneration Certification Scheme (MCS) accreditation for solar PV installation works throughout the duration of the contract.
2. All operatives shall be suitably trained, competent and accredited for the works undertaken, including working at height and electrical works.
3. A full roof condition and structural suitability survey shall be undertaken prior to installation to confirm load capacity, roof condition and suitability for PV systems.
4. All installations shall comply with:
  - Building Regulations

- IET Wiring Regulations (BS 7671)
- MCS standards
- Relevant British Standards and manufacturer guidance

5. Fixing and mounting systems shall be appropriate to the roof construction and covering and shall not compromise roof integrity or weather tightness.

6. All roof penetrations shall be fully sealed, weatherproofed and guaranteed for the life of the installation.

7. The Contractor shall protect existing roof coverings, insulation, rainwater goods and building fabric at all times.

8. All works shall be carried out in full compliance with Health and Safety at Work legislation, CDM Regulations and any site-specific requirements.

9. Suitable risk assessments and method statements (RAMS) shall be provided prior to commencement of works.

10. Safe access arrangements, including scaffolding or edge protection, shall be provided where required and removed on completion.

11. The Contractor shall ensure minimal disruption to residents and building occupants, with particular regard to noise, dust and duration of works.

12. Waste materials shall be removed from site and disposed of in accordance with environmental legislation.

13. PV panels, mounting systems, cabling, meters, inverters and isolators shall be installed strictly in accordance with manufacturer instructions and industry best practice.

14. Systems shall be installed to optimise performance, taking account of roof orientation, shading and available space.

15. All electrical connections shall be tested, labelled and certified by a qualified electrician.

16. Systems shall be fully tested and commissioned on completion, with generation and safety functionality verified.

17. Where applicable, export limitation devices and monitoring equipment shall be installed, configured and tested.

18. On completion of works, the Contractor shall provide a full handover pack, including:

- Operating and maintenance manuals
- MCS certificates
- Electrical test certificates
- Warranty documentation for panels, inverters and workmanship
- As-installed drawings and system layout details
- Monitoring system details and user guidance (where applicable)

All documentation shall be provided in electronic format unless otherwise agreed.

19. The Contractor shall undertake fault diagnosis, repairs and remedial works as instructed by the Client.
20. Response times shall be agreed for both urgent and non-urgent defects.
21. Any damage to roofing elements, fixtures or building fabric resulting from PV works shall be made good at no additional cost to the Client.
22. Replaced components shall be of equivalent or better specification to the original installation.
23. The Client reserves the right to inspect works at any stage.
24. Any defective workmanship or materials identified shall be rectified promptly at no additional cost.
25. Installations shall be subject to post-installation inspection and performance verification where required.

#### Warranties

- A minimum 5-year workmanship warranty shall be provided for all solar PV installation and roofing works.
- Manufacturer warranties for panels, inverters and associated equipment shall be passed in full to the Client.