# SPECIFICATION

## **Carpet Specification**

Project Name. Project Number. Prepared for. Document Reference.		17236 The Hi	High Court Carpet Refurbishment 17236 The High Court of Australia 0013#17236			
ISSUE	STA	TUS	PREPARED	DJAS APPROVAL	DATE	
А	For Tender		EW	AM	13.06.2019	



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## 0652 CARPETS

#### 1 GENERAL

## 1.1 **RESPONSIBILITIES**

## General

Requirement: Install carpet to substrates, as documented within the High Court of Australia (HCA). The client for this project is the HCA. This will require the contractor to;

- Relocate and store furniture;
- demolish existing carpet;
- install carpet and provide accessories to substrates;
- provide a condition report;
- The Trade Contractor is to remove and dispose of all existing carpets, underlay and miscellaneous carpet fittings to areas nominated by the HCA. This includes carpet spares currently in storage within the HCA

N.B. The HCA have procuring wilton loom carpet through a separate tender process.

## 1.2 TOTAL SYSTEM:

## General

Drawings supplied for this Trade Contract are indicative only and shows the design intent of the Architects. The Carpet Contractor shall be entirely responsible for the design, materials, workmanship and completion of work included in this Trade Contract, which may require consultation with other trade contractors and nominated contractors in complying with this intent.

## 1.3 WORKS REQUIRED TO BE UNDERTAKEN BY NOMINATED TRADE CONTRACTORS:

## General

The following works are to be carried out by Client Nominated Trade Contractors. These works are included in this Trade Contract and require co-ordination with work included in this Trade Contract:

- Removal, storage and reinstallation of existing moveable furniture.
- Removal of existing skirtings where necessary

## **Existing Moveable Furniture and Joinery - Protection**

The High Court of Australia contains a number of bespoke items of high quality moveable furniture and custom designed joinery items of significant heritage and design value. Extreme care will be taken when removing existing and installing carpets adjacent to these items. All items remaining in-situ during installation, including joinery, wall paneling, doors, window frames and the like are, to be protected with sheet foam or similar and 3mm Masonite or E0 MDF. A sample of protection for each item type is to be installed prior to carpet installation for approval by the Client. Alternative protection methods may be offered for review.

## 1.4 ALTERNATIVE TO PROPRIETARY PRODUCTS:

## General

An alternative product having the required properties may be offered for review. The client may in their absolute discretion approve or reject the alternative proposed. No claim shall arise from any rejection thereto.

If alternatives to the documented products, methods or systems are proposed, submit sufficient information to permit evaluation of the proposed alternatives, including the following:

- Evidence that the performance is equal to or greater than that specified.
- Evidence of conformity to a cited standard.
- Samples.
  - Essential technical information, in English.

- Reasons for the proposed substitutions.
- Statement of the extent of revisions to the contract documents.
- Statement of the extent of revisions to the construction program.
- Statement of cost implications including costs outside the contract.
- Statement of consequent alterations to other parts of the works. Availability: If the documented products or systems are unavailable within the time
  - constraints of the construction program, submit evidence.

## Criteria

If the substitution is for any reason other than unavailability, submit evidence that the substitution:

- Is of net enhanced value to the principal.
- Is consistent with the contract documents and is as effective as the identified item, detail or method.

## Variation

Unless otherwise agreed, alternatives shall not be grounds for any claim for a variation of additional cost or time. When offering an alternative for review, provide all available technical information, together with any other relevant information as may be requested by the Client. If so requested, the Trade Contractor shall obtain and submit reports on relevant tests by an independent testing authority.

## Alterations

The Trade Contractor shall state whether the use of the alternative proposed will require alterations or modifications to any other part of the Works. If the alternative is accepted, carry out any such alteration without extra charge.

## 1.5 CROSS REFERENCES

## General

Requirement: Conform to the following:

- Safety in design report

## 1.6 STANDARDS

Slip resistance

Classification: To AS 4586.

## 1.7 INTERPRETATION

## Definitions

General: For the purposes of this worksection, the definitions given in AS 2454 and the following apply:

- Substrate: The surface to which a material or product is applied.
- Underlay: A non-structural layer of sheet material or in situ levelling material on the substrate to provide a smooth and level surface.

## 1.8 SUBMISSIONS

## Fire performance

Fire hazard properties: Submit evidence of conformance to PRODUCTS, **FIRE PERFORMANCE**, **Fire hazard properties**.

## Operation and maintenance manuals

Contents: Submit maintenance manuals with the following:

- A technical specification of the carpet installation.
- The manufacturer's recommendations for use, care and maintenance of the carpet conforming to AS/NZS 3733.
- The names and addresses of the suppliers and manufacturers of each component.

## Products and materials

Slip resistance: Submit evidence of conformance.

## Samples

General: Provide duplicate samples of the following items, being fully labelled as to its tender package number, source of supply, together with any relevant technical data, together with type tests or factory test data, including safety sheets supplied by the manufacturer:

Underlay sample size: At least 500 x 500mm.

Accessories: One sample of each of the following:

- Carpet gripper;
- Edge strips;
- Heat seam joined carpet
- Heat-bonding tape;
- Bonding adhesives.
- Stair nosings.

Penetrations: Provide a production carpet sample with a penetration access cut as specified in the Clause PENETRATIONS – CARPETS.

#### Prototypes

General: Submit labelled production run samples demonstrating the range of colour, pattern, texture and pile yarn available in one required carpet types.

Prototype size: Submit the following:

- Location and area: The prototype is will be the extent of works on Level 8. Once approved, prototype to be left insitu.
- Carpet: Manufacturer's standard swatch.
- Edge strip, trims, extrusions and stair nosings
- Underlay.

Penetrations: If required, submit one production carpet sample with a penetration access cut as specified in EXECUTION, **LAYING CARPET**.

#### Shop drawings

General: Submit drawings to the client indicating the proposed layout, including location of joints in carpet installations. Shop drawing's to be approved by client prior to installation.

#### Tests

Site tests: Submit results, as listed in **PRODUCTS**, **TESTS**.

#### Warranties

General: Submit the manufacturer's and installers product warranties.

## 1.9 INSPECTION

#### Notice

Inspection: Give notice so that inspection may be made by the High Court of Australia of the following:

- Each batch of material upon delivery.
- Substrate immediately before fixing underlay.
- Fixings, edge strips, and underlay installed ready to lay carpet.
- Completed carpet after cleaning and before covering for protection.

## 2 PRODUCTS

## 2.1 GENERAL

#### Storage and handling

Requirement: Store in a clean, dry, well ventilated environment. High Court of Australia will provide storage for small batches of carpet. Excess carpet will be stored off-site at the by the carpet supplier.

## 2.2 FIRE PERFORMANCE

#### Fire hazard properties

Critical radiant flux: Tested to AS ISO 9239.1.

## 4.4 UNDERLAYS

General Installation: To AS/NZS 2455.1.

## Soft underlay

Standard: To AS 4288.

Textile underlay: High-performance recycled textile underlay with minimum 30% wool content.

Proprietary items: BRIDGESTONE "Airstep Cushion Pad" 9mm textile underlay.

## 4.5 ADHESIVES AND TAPES

## Adhesives

General: Compatible with the floor covering material, and suitable for bonding it to the subfloor.

Type: Adhesives shall be as recommended by the underlay manufacturer.

#### Hot-melt adhesive tapes

General: Commercial grade glass fibre and cotton thermoplastic adhesive coated tape 60 mm wide on a 90 mm wide metal foil base and backed with silicone-coated release paper.

## 4.6 ACCESSORIES

#### Preformed gripper strips

General: Commercial grade plywood carpet gripper strip with 3 rows of corrosion-resistant angled pins of length appropriate to the carpet type.

Size (minimum): 33 mm wide x 7 mm thick.

Location: At edges, except where edge strips are used. Provide double gripper strips to edges where recommended.

#### Edge strips

Scope: Retain and reuse existing edge strips throughout the project. Replace damaged or unable edge strips with similar.

Type: Heavy duty edge strip appropriate to the floor covering type (tackless or adhesive fixed), capable where necessary of accommodating different levels of adjacent floor finishes.

Form: Brass.

Colour: Colour to match existing.

Location: As per existing locations and at exposed edges of the carpet, and at junctions with differing floor finishes or finishes of a different thickness. Where edge strips occur at doorways, locate the junctions directly below the closed door.

## Stair nosings:

Existing edge strips and stair nosings may be re-used if they are undamaged and in good condition, subject to approval from the Client.

Proprietary or Custom item: Latham 'Asbrabronz' solid brass noising. Profile 'B775S' with 'Sparkling black' infill. Where luminance contrast with carpet is less than 30% contrast, use the equivalent aluminum steel nosing.

Form: Brass unless noted otherwise. Stainless steel will be required in some areas to achieve luminance contrast with the carpet.

Colour of inserts: to match existing.

Location: At stair nosings, as per existing locations.

Fixing: Screw fixed to concrete tread, in accordance with the manufacturer's recommendations.

## 5 EXECUTION

## 5.1 PREPARATION

#### Substrate tolerance table

	Length of straightedge laid in any direction	Max. deviation under the straightedge
Flatness Class B	3 m	6 mm
Smoothness	150 mm	1 mm

## Substrates

General: Conform to the following:

- To AS/NZS 2455.1 or AS/NZS 2455.2, as appropriate.
- Clean and free of any deposit or finish which may impair adhesion or location and functioning of control joints.
- Free of any imperfections, including ridges, indentations and projections which may adversely affect the installed carpet.
- Stripping and cleaning: Remove deleterious and loose material, including existing floor coverings and surface treatments that could adversely affect adhesion. Leave the surface dust-free and clean;
- Repairs: Make good to the surface finish as necessary. Fill depressions with a suitable filler, and remove high spots and projections. If necessary lay a steel-trowelled underlay to concrete substrate; and

Concrete substrate rectification: Remove projections, grind as necessary and fill voids and hollows with a levelling compound compatible with the adhesive to achieve the required tolerance.

Timber substrate rectification: Remove projections. If conformance with the **Substrate tolerance table** cannot be achieved, fix an underlay in brick pattern. Make sure joints do not coincide with substrate joints.

Moisture content: Do not start installation unless:

- Concrete: The moisture content of the concrete has been tested to AS/NZS 2455.1 Appendix B and the values in AS/NZS 2455.1 clause 2.4.2 (c) have been obtained.
- Timber, plywood or particleboard substrates: The moisture content has been tested to AS 1080.1 for timber and particleboard or AS/NZS 2098.1 for plywood and values are obtained as follows:
  - . Air conditioned buildings: 8 to 10%.
  - . Intermittently heated buildings: 10 to 12.5%.
  - . Unheated buildings: 12 to 15%.

Fixtures: Remove door stops and other fixtures, and refix in position undamaged on completion of the installation. Make sure fixings penetrate substrate and are stable.

## Working environment

General: Do not start work before the building is enclosed, wet work is complete and dry, overhead work is complete and good lighting is available. Protect adjoining surfaces.

## Conditioning

General: Stabilise the room temperature for seven days before, and two days after laying carpet as follows:

- Areas with air conditioning installed: Run air conditioning at operational temperature.
- Air conditioned areas not operational: Maintain a room temperature range between 10°C and 35°C.
- Underfloor heating: Turn off heating and allow substrate to stabilise at the temperature recommended by the carpet manufacturer.
- Non-air conditioned areas: Install at room temperature between 10°C and 35°.

Carpet: Cut to length and lay in position, 24 hours prior to installation.

Hardboard underlay: Expose both faces of each sheet for more than 24 hours before fixing.

Soft underlay: Unroll the carpet and allow to come to the temperature of the in-service environment before laying.

## 5.2 LAYING CARPET

#### General

Installation: To AS/NZS 2455.1.

#### Setting out

General: Lay the carpet in continuous lengths without cross joins in the body of the area. If unavoidable cross joints occur at doorways, locate the joints directly below the closed doors.

Joints in underlay: Make sure joints in underlay do not coincide with carpet joints. Do not carry underlay over carpet grippers or edge strips.

Partition layout: Confirm that permanent partitions have been installed before starting carpet laying.

#### **Fixing underfelt**

To timber floors: Secure underfelt with staples at 100 mm centres at edges and joints, in parallel lines 600 mm apart.

To concrete floors: Glue continuously at edges and joints with a 100 mm wide strip to each piece, and at 600 mm centres both ways with 150 mm diameter patches.

#### Seaming methods

Woven carpet: Machine or hand sew. Do not provide glued taped seams unless selvages are woven to suit and recommended by manufacturer.

#### Carpet installation

All carpets to be installed using Conventional installation method using gripper strips (stretch-in) in accordance with carpet and underlay manufacturers recommendations. Existing grippers may be reused if they are undamaged and in original condition.

Stretching: To AS/NZS 2455.1 clause 3.4

Gripper system: To AS/NZS 2455.1 clause 3.5.

Direct-stick system: To AS/NZS 2455.1 clause 3.6.

Double-bond system: To AS/NZS 2455.1 clause 3.7.

Pre-applied underlay adhesive system: To AS/NZS 2455.1 clause 3.8.

Hook and loop system: To AS/NZS 2455.1 clause 3.9.

#### Cutting laid carpet

Method: Where penetrations through laid carpet are necessary for **ELECTRICAL**, **TELEPHONE OR OTHER** outlets, cut the carpet either by cross cutting or by cutting rectangular or circular openings.

Access hatches (where applicable): Proprietary access hatches in existing locations. The Carpet Contractor is to allow to trim the opening and carpet the access panel lid with brass bar/angle as per existing access hatches. Existing trims may be re-used if they are undamaged and in good condition subject to approval from the client/Architect. Quantity of access hatches to be confirmed by Trade Contractor during tender.

Holes required in concrete floors after carpet installation: Where approval has been obtained for cutting holes in concrete floors, protect the carpet and remove concrete particles and dust on completion. Replace the cut carpet over the opening without any signs of fraying or other damage, and fix with a peel-up adhesive, or resew to approval.

## 5.3 CARPETED SKIRTINGS

## General

Laying: Fix skirting carpet to the wall, and neatly terminate the top edge.

Location: As per existing locations against angled window sills.

Method of fixing: To manufacturers requirements.

Termination method for top edge: As per existing detail.

#### 5.4 STAIRS

#### Installation

General: To AS/NZS 2455.1 clause 3.10.

**Concrete stairs** Fixing: Adhesive method.

Laying method: Apply the floor covering continuously to the treads and risers.

#### Laying method

Closed risers: Apply the floor covering continuously to the treads and risers.

Open risers: Wrap the carpet around the tread and neatly butt join beneath the nosing if a separate nosing is required, or if not, in the centre of the underside of the tread.

#### Stair nosing

Type: Refer to Section 2.6

#### 5.5 COMPLETION

#### Cleaning

Requirement: Progressively clean the work. Remove waste, excess materials and adhesive.

Final cleaning: When the installation is complete, clean the carpet as necessary to remove extraneous matter, marks and soiling and to lift the pile where appropriate.

General: Before the date for practical completion, clean finished surface in strict accordance with manufacturers requirements. Perform wet pendulum slip test after cleaning to verify slip rating has been achieved. Submit test results.

#### Protection

Requirement: Provide fabric drop sheets. Do not use plastic sheeting. If wheeled traffic is to follow carpet installation, protect with hardboard sheets butted and fixed with adhesive tape.

## 6 SELECTIONS

## 6.1 SCHEDULES

Refer to drawings for extent of carpet types.

Construction	Wilton loom single frame full cut
Yarn	Colours to be advised.
Weft/ tight/ binding	pp/Jute/ Polycotton
Pile height	7.5mm
Pile weight	1480grm.m2
Carpet height	9.5mm
Carpet weight	2850grm/m2
Warp/ pitch	320/320
Pattern repeat	All cut

#### Carpet type 1 (C1, C2, C3, C4, C5)