 **Inspection** **&** **Test** **Plan** **(ITP)**

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| --- | --- |
| **Package:** | Resilient Flooring - TP23000 |
| **ITP** **No.:** | CPB-NZ1006-ITP-4006 |
| **Date:** | 14/09/2023 |
| **Revision:** | 02 |
| **Sub-Contractor:** | Hills Commercial Floors Limited |
| **Reponsible** **Eng.:** | Theva Abishek |

**THIS** **INSPECTION** **AND** **TEST** **PLAN** **COMPRISES** **THE** **FOLLOWING** **DOCUMENTS** **AND** **ITS** **APPROVED** **FOR** **USE:**

|  |  |
| --- | --- |
| **Part** **1** | Inspection and Test Plan |
| **Part** **2** | On Site Quality Control Checklist |
| **Specifications:** | WAM-SPC-00001 Rev 03 - Architectural Specification |
| **Reference** **Docs:** | 250518-SPE-ST-00-03 Rev 11 - Structural Specification |

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| --- | --- | --- | --- |
| Workflow | Name | Signature | Date |
| **Prepared** **by:** | Fabrizio Mondelli |  | 14/09/2023 |
| **Reviewed** **by:** | Adam Rickenberg |  | 14/09/2023 |
| **Approved** **by:** | Kyle Pol |  | 14/09/2023 |
|  |  |  |  |
|  |  |  |  |

PROJECT: PARAKIORE

NOTE: 5%, 50% and 90% of inspections to be offered as suggested by client documentation.

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| **Resp.** **Foreman.:** |  |
| **Lot** **Number:** |  |
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**Part** **1.1** **-** **Preliminaries**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Inspection | Responsibility | Specification | Conformance Criteria Summary | Method | Frequency | Witness/Hold Point Requirements | | | Record |
| Test Point |  | Reference |  |  |  | Sub-contractor | CPB | Client |  |
| Samples | Senior Project Engineer | WAM-SPC-00001 | Provide samples for approval of:  - Vinyl Surfacing   * Rubber Surfacing * Linolium Surfacing   - Altro Safety Floors & Walls  - Carpet Tiles  - Entry Mats & Carpets  Note: No samples required for freedom trimmaster transition flooring | Review | Pre-Start | WP | WP | **WP** | **Aconex** **Doc** **Register** |
| Slip Resistance (Vinyl / Rubber / Linoleum) | Senior Project Engineer | WAM-SPC-00001 | Provide certificates and any other evidence at the time of selection/supply that the vinyl complies with NZBC D1/VM1 and ANBC D1/AS1: Access Routes.  Slip resistance to comply with NZBC D1/AS1: 2.0 Level access routes and 3.0 Ramps.  - When in place on a level access routek, to have a mean coefficient of friction not less than 0.4 when tested in accordance with AS/NZS3661.1.  - When in place of a sloping access route, to have a coefficient of friction not less than 0.4 + 0.0125S (S=Slope of surface expressed as percentage). | Certificate of Conformance | Pre-Start | WP | WP | **WP** | **Aconex** **Doc** **Register** |
| Surface Fire Performance (Vinyl / Rubber / Linoleum / Carpet) | Senior Project Engineer | WAM-SPC-00001 | Flooring to meet fire performance requirements of NZBC C/AS1-AS7 4.17.3, by either:   * Flooring is tested and achieved the minimum critical radiant flux requirements of NZBC C/as2- as6.. **Provide** **certificates** **or** **other** **evidence** **that** **the** **flooring** **will** **comply.** * Critical Radiant Flux not required if area of non- confirming products have an aggregate surface area of not greater than 5m2 within a firecell to NZBC C/AS2-AS7. | Certificate of Conformance | Pre-Start | WP | WP | **WP** | **Aconex** **Doc** **Register** |
| Qualifications Altro Safety Floors &  Walls | Senior Project Engineer | WAM-SPC-00001 | Altro premier Whiterock installers approved by Altro APAC Pty Ltd. | Review | Pre-Start | WP | WP | **No** | **N/A** |
| Info for O&M | Senior Project Engineer | WAM-SPC-00001 | Prior to Practical Completion, provision of Altro APAC Pty Ltd cleaning and maintenance instruction as electronic Pdf Format Document. | Review | Post Completion | WP | WP | **WP** | **Aconex** **Doc** **Register** |
| Acoustic Requirements (Carpet) | Senior Project Engineer | WAM-SPC-00001 | Floor finishes shall achieve a minimum >Lw16. Where floor finish specified do not achieve this, a resilient acoustic underlay is required.  Vertical impact performance of >= IIC 70 and the measured one third octave sound pressure between 50 & 100 Hz from impacts on the floor shall be <=55 dB LAmax. | Review | Pre-Start | WP | WP | No | **N/A** |
| Fire Performance (Carpet, vinyl, tiles or finished/unfinished surfaces) | Senior Project Engineer | WAM-SPC-00001 | Floor surfaces are required to either be non- combustible or have a critical radiant flux of no less than those given in table 3, tested to ISO9239 part 1:2010. This applies to flexible finishes such as carpets, vinyl sheets or tiles and to finished or unfinished floor surfaces. | Review | Pre-Start | WP | WP | **WP** | **N/A** |
| Surface Fire performance (Entry Mats) | Senior Project Engineer | WAM-SPC-00001 | Product tested to ISO9239.1 and achieve the minimum critical radiant flux requirements of NZBC C/AS2-AS6 table 4.2. Coral/Tread entry Mat 2.5kW/m2.  Requirement no applicable if product is non- combustible or if area of product has been an aggregate surface area of not greather than 5m2 | Review | Pre-Start | WP | WP | **WP** | **N/A** |
| Acessible requirements (Trimmaster transition flooring trim) | Senior Project Engineer | WAM-SPC-00001 | To comply with NZS 4121. | Review | Pre-Start | WP | WP | No | **N/A** |

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| **Resp.** **Foreman.:** |  |
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**Part** **1.2** **-** **Conditions** **Before** **Starting**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Inspection | Responsibility | Specification | Conformance Criteria Summary | Method | Frequency | Witness/Hold Point Requirements | | | Record |
| Test Point |  | Reference |  |  |  | Sub-contractor | CPB | Client |  |
| Storage | Supervisor | WAM-SPC-00001 | Take delivery of materials and store on site protecting it from damage. Accept it undamaged and dry. If in Rolls, store it upright with an other material on the level surfaces in- nontraffic area that is enclosed, clean and dry.  Reject and replace goods that are damaged or will not provide the required finish.  Avoid distortion, strecthing, marking and damage to edges while shifting. | Inspection | Pre-Start | WP | WP | **No** | **N/A** |
| Building Conditions Carpet | Supervisor | WAM-SPC-00001 | Concrete slab Humidity not to exceed 75% or until the moisture content does not exceed 5.5%, in accordance with NZS2455.1. | Inspection | Pre-Start | WP | WP | **No** | **N/A** |
| Building Conditions  Carpet | Supervisor | WAM-SPC-00001 | Floor temperature minimum 16 degress  celcius. Concrete PH no more than 10. | Inspection | Pre-Start | WP | WP | **No** | **N/A** |
| Execution Condition (Vinyl / Rubber /  Linoleum / Altro) | Supervisor | WAM-SPC-00001 | To comply with NZS 1884. | Review | Pre-Start | WP | WP | No | **N/A** |
| Execution Condition  ( Carpet ) | Supervisor | WAM-SPC-00001 | To comply with NZS 2455.1, NZS2455.2 | Review | Pre-Start | WP | WP | No | **N/A** |
| Building Conditions Preparation | Supervisor | WAM-SPC-00001 | Dot not start work before the building is enclosed, wet work is complete, doors are hung and lockable, finishes and trims complete and in good lighting is available.  Check that each colour supplied is from the same batch. Follow the preparatory conditioning and working temperatures at all times. Protect work from solar heat gain and switch off under-floor heating during and for 48h either side of the work period.  Inspect substrate to ensure it is a suitable finish. Do not start work if it will not allow work of the required standard.  Clear substrate of debris, clean off surface contamination and carry out surface repairs using a proprietary levelling compound if required. Carefully feather out at perimeters of repaired areas. Grind level than vaccuum to remove dust. | Inspection | Pre-Start | WP | WP | No | **Photo** |
| Layout | Supervisor | WAM-SPC-00001 | Before beggining the installation, confirm the proposed layout of material, location fo seams and other visual considerations. | Inspection | Pre-Start | WP | WP | No | **N/A** |

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| **Resp.** **Foreman.:** |  |
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**Part** **1.3** **-** **Installation**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Inspection | Responsibility | Specification | Conformance Criteria Summary | Method | Frequency | Witness/Hold Point Requirements | | | Record |
| Test Point |  | Reference |  |  |  | Sub-contractor | CPB | Client |  |
| Application Primer or Adhesive (Rubber / Vinyl / Linolium / Altro) | Supervisor | WAM-SPC-00001 | Rubber / Vinyl / Linoleum / Altro: Apply approved adhesive by trowel and wetted roller as required. Follow requirements for open time, taking notes of the substrate porosity, ambient temperature and relative humidity. Remove excess if required. | Inspection | Work in Progress | WP | WP | **No** | **Photo** |
| Application of Vinyl and Linoleum | Supervisor | WAM-SPC-00001 | Vinyl & Linoleum: Roll out, cut, leave to condition and isntall sheets. Ensure there are no air bubbles or twisting, the seams are kept clear of adhesive and immediately she sheet is  adhered, roll with a 68kg roller. | Inspection | Work in Progress | WP | WP | **No** | **Photo** |
| Application of Carpet Tiles & Mat | Supervisor | WAM-SPC-00001 | Set out from the cnetre of the area in two  esxperiemental runs and if required modify to suit. Lay tiles from the centre to the flooring manufacturer`s requirements ensuring air is expelled. As each section is completed, immediatel roll with a 68kg roller and sandbag corners. Complete sections before scribing perimeter tiles.  Lay in a mono direction, execpt where specifically instructed otherwise. Cut tiles back using carpet tile manufacturer`s required | Inspection | Work in Progress | WP | WP | **No** | **Photo** |
| Welding  Vinyl / Linoleum / Altro | Supervisor | WAM-SPC-00001 | After machine grooving, thermo weld seams, heating the sheet and weld rod to a sufficient temperature to melt and fuse them together in a single mass. Trim and glaze the weld to leave a smooth, flush surface with the sheet. The width of the weld to be 1.33 times the sheet thickness. | Inspection | Work in Progress | WP | WP | **No** | **Photo** |
| Cross Joins (Vinyl / Linoleum) | Supervisor | WAM-SPC-00001 | Cross joins are not allowed in wet areas. Plan and allow cuts to avoid cross joins. Review position and before proceeding, if in a dry area and cross joins are unavoidable, seek approval by the Client. | Inspection | Work in Progress | WP | WP | **No** | **Photo** |
| Fitting Accessories | Supervisor | WAM-SPC-00001 | Scribe fit, adhere and otherwise fix true to line and face for each particular location.  Install transition trims where necessary in accordance with specification and drawings. | Inspection | Work in Progress | WP | WP | **No** | **Photo** |
| Cleaning | Supervisor | WAM-SPC-00001 | For Rubber floors only: Strip protective wax coating before cleaning and buffing according to the manufacturers requirements to achieve the slip resistant properties.  All Floors: Clean flooring surfaces of adhesive, drit and debris. Vaccuum off.  For Linoleum & Rubber floors only: Mop it, dry and apply rotary machine using pads at 300rpm.  Protect the floor to avoid damages from follow on trades. | Inspection | Work in Progress | WP | WP | **No** | **Photo** |

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| **Resp.** **Foreman.:** |  |
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**Part** **2** **-** **On** **Site** **Checklist**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Inspection | Responsibility | Specification | Conformance Criteria Summary | Method | Frequency | Witness/Hold Point Requirements | | | Record |
| Test Point |  | Reference |  |  |  | Sub-contractor | CPB | Client |  |
| Storage | Supervisor | WAM-SPC-00001 | Take delivery of materials and store on site protecting it from damage. Accept it undamaged and dry. If in Rolls, store it upright with an other material on the level surfaces in- nontraffic area that is enclosed, clean and dry.  Reject and replace goods that are damaged or will not provide the required finish.  Avoid distortion, strecthing, marking and damage to edges while shifting. | Inspection | Pre-Start |  |  | **N/A** | **N/A** |
| Building Conditions Carpet | Supervisor | WAM-SPC-00001 | Concrete slab Humidity not to exceed 75% or until the moisture content does not exceed 5.5%, in accordance with NZS2455.1. | Inspection | Pre-Start |  |  | **N/A** | **N/A** |
| Building Conditions  Carpet | Supervisor | WAM-SPC-00001 | Floor temperature minimum 16 degress  celcius. Concrete PH no more than 10. | Inspection | Pre-Start |  |  | **N/A** | **N/A** |
| Building Conditions Preparation | Supervisor | WAM-SPC-00001 | Dot not start work before the building is enclosed, wet work is complete, doors are hung and lockable, finishes and trims complete and in good lighting is available.  Check that each colour supplied is from the same batch. Follow the preparatory conditioning and working temperatures at all times. Protect work from solar heat gain and switch off under-floor heating during and for 48h either side of the work period.  Inspect substrate to ensure it is a suitable finish. Do not start work if it will not allow work of the required standard.  Clear substrate of debris, clean off surface contamination and carry out surface repairs using a proprietary levelling compound if required. Carefully feather out at perimeters of repaired areas. Grind level than vaccuum to remove dust. | Inspection | Pre-Start |  |  | N/A | **Photo** |
| Layout | Supervisor | WAM-SPC-00001 | Before beggining the installation, confirm the proposed layout of material, location fo seams and other visual considerations. | Inspection | Pre-Start |  |  | N/A | **N/A** |
| Application Primer or Adhesive (Rubber / Vinyl / Linolium / Altro) | Supervisor | WAM-SPC-00001 | Rubber / Vinyl / Linoleum / Altro: Apply approved adhesive by trowel and wetted roller as required. Follow requirements for open time, taking notes of the substrate porosity, ambient temperature and relative humidity.  Remove excess if required. | Inspection | Work in Progress |  |  | **N/A** | **Photo** |
| Application of Vinyl and Linoleum | Supervisor | WAM-SPC-00001 | Vinyl & Linoleum: Roll out, cut, leave to condition and isntall sheets. Ensure there are no air bubbles or twisting, the seams are kept clear of adhesive and immediately she sheet is  adhered, roll with a 68kg roller. | Inspection | Work in Progress |  |  | **N/A** | **Photo** |
| Application of Carpet Tiles & Mat | Supervisor | WAM-SPC-00001 | Set out from the cnetre of the area in two  esxperiemental runs and if required modify to suit. Lay tiles from the centre to the flooring manufacturer`s requirements ensuring air is expelled. As each section is completed, immediatel roll with a 68kg roller and sandbag corners. Complete sections before scribing perimeter tiles.  Lay in a mono direction, execpt where specifically instructed otherwise. Cut tiles back using carpet tile manufacturer`s required  cutting technique | Inspection | Work in Progress |  |  | **N/A** | **Photo** |
| Welding  Vinyl / Linoleum / Altro | Supervisor | WAM-SPC-00001 | After machine grooving, thermo weld seams, heating the sheet and weld rod to a sufficient temperature to melt and fuse them together in a single mass. Trim and glaze the weld to leave a smooth, flush surface with the sheet. The width of the weld to be 1.33 times the sheet thickness. | Inspection | Work in Progress |  |  | **N/A** | **Photo** |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Cross Joins (Vinyl / Linoleum) | Supervisor | WAM-SPC-00001 | Cross joins are not allowed in wet areas. Plan and allow cuts to avoid cross joins. Review position and before proceeding, if in a dry area and cross joins are unavoidable, seek approval by the Client. | Inspection | Work in Progress |  |  | **N/A** | **Photo** |
| Fitting Accessories | Supervisor | WAM-SPC-00001 | Scribe fit, adhere and otherwise fix true to line and face for each particular location.  Install transition trims where necessary in accordance with specification and drawings. | Inspection | Work in Progress |  |  | **N/A** | **Photo** |
| Cleaning | Supervisor | WAM-SPC-00001 | For Rubber floors only: Strip protective wax coating before cleaning and buffing according to the manufacturers requirements to achieve the slip resistant properties.  All Floors: Clean flooring surfaces of adhesive, drit and debris. Vaccuum off.  For Linoleum & Rubber floors only: Mop it, dry and apply rotary machine using pads at 300rpm.  Protect the floor to avoid damages from follow on trades. | Inspection | Work in Progress |  |  | **N/A** | **Photo** |

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| **Client** **Inspection** **Record** | | | | | |
| **Responsible** **Witness** | **Position** | **Name** | **Signature** | **Accepted** **or**  **Rejected?** | **Comments** |
| Sub-Contractor |  |  |  |  |  |
| CPB |  |  |  |  |  |
| Client |  |  |  |  |  |

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