**Stage/**

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| **INSPECTION TEST PLAN AND CHECKLIST** | | | | | | | | | | |
| **Client:** | | Richard Crookes Construction Pty Ltd | | **Work area:** | | | **Checklist Number:** | | | |
| **Job Number:** | | 46694V2 | |  |  |  | 46694V2 | | | |
| **Contract/Project Name:** | | Cambridge Street Epping Variation | |
| **Installer:** | |  |  |
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| **Ref** | **Operation or stage of work** | |  | **Records** | **Requirement/ Standard/ Specification** | **Acceptance Criteria** |  | **Inspection \*what/who** | | |
| **Description** | **Characteristics** |  |  | **Installer** |  | **Client** |
| **Frequency** | **Procedure** | **Install** |
|  |  | **Supervisor** |
| **\*W = Witness Point; H = Hold Point; H(A) = Inspection/Test by Authority; U(C) = Inspection/Test by Consultant; S = Surveillance or monitoring; X = Self inspection by performer of work.** | | | | | | | | | | |
| 1 | Tender and Testing conformance | Review specifications and performance standard requirements for project | Pre-contract signing | Checklist | Confirm product is tested and designed to required project performance, international or national standards detailed in specifications at time of tender. | Tested to specification requirements ITP Checklist is relevant to product required |  |  | H |  |
| 2 | Preliminary activities (requiring Principal’s notification) | Notification provided of any changes in design or structures that effect products to be used | Before ordering products and beginning installation | Checklist | Specification, drawings remain unchanged since tender was accepted and contract signed or new plans and specifications are issued and reviewed, changes are accepted by client | Reviewed and changes do not alter quantities and types of products to be installed | Submit details of changes to client and agree to changes in scope or products to be used |  | H | S |
| 3 | Preliminary activities (requiring Contractor’s acceptance) | Approvals required obtained or safety documentation is supplied and induction requirements outlined | Before ordering products and beginning installation | Checklist | variations requested if required, SWMS sent for review and inductions organised. | Change of design or quantities is agreed to and variations issued is SWMS and Induction accepted and conducted | Documents sent and acceptance confirmed with Client |  | H | W |
| 4 | pre installation site investigation/measur e up completed confirmed. | Progress of work and condition of the structure is confirmed, visual inspection where required is completed for compatibility and suitability | Before | Checklist | structures match and conditions on site are suitable for installation to begin | Structural and physical characteristics match | Job pack issued to Installer with relevant ITP Checklist included |  | H | S |
| installation |

**Inspection/ Test**

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| **Work** | **Items/activities to be verified** | **Reference** | **Initialled/OK** | **Comments** | |
| **Pre-Start/ Installation** | Plans and specifications have been reviewed and are current. Existing ITP  checklists are suitable for project. Contract is signed |  |  |  | |
| SWMS and any other documents have been provided, reviewed and accepted by the client |  |  |  | |
| Variations outlined and agreed, no changes or additions are required, job pack and ITP are included to project file. |  |  |  | |
| Site inspected or reviewed, structural match confirmed with materials ordered, instation surface condition is undamaged and installation ready |  |  |  | |
| **I have carried out all necessary inspections and verify that the above items/activities conform to the contract specification/documents** | | | | **Name: Signature:**  **Date:** |  |
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Contract File Forms V15.0 20230524

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| **INSPECTION AND TEST PLAN & CHECKLIST for: Installation of RIS Anchor Points SA711 thru SA723** *(To be completed by the person(s) directly responsible for the work and the installer)* | | | |
| **Client:** | Richard Crookes Construction Pty Ltd | **Work area:** | **Checklist Number:** |
| **Job Number:** | 46694V2 | LEVEL 5 - MAIN BUILDING | 46694V201 |
| **Contract/Project Name:** | Cambridge Street Epping Variation |
| **Installer:** |  |

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| **INSPECTION TEST PLAN** | | | | | | | | | | |
| **Ref** | **Operation or stage of work** | | **Stage/ Frequency** | **Records** | **Requirement/ Standard/ Specification** | **Acceptance**  **Criteria** | **Inspection/ Test**  **Procedure** | **Inspection \*what/who** | | |
| **Description** | **Characteristics** | **Installer** | **Install**  **Supervisor** | **Client** |
| **\*W = Witness Point; H = Hold Point; H(A) = Inspection/Test by Authority; U(C) = Inspection/Test by Consultant; S = Surveillance or monitoring; X = Self inspection by performer of work.** | | | | | | | | | | |
|  | Access point location (s) | AS5532 7.3 (h) AS1891.4 3.2.2 | Prestart installation work | Checklist | Standard/Specification | Visual | Measurement | X | S | S |
|  | Position and orientation of anchor point to roof/structure | AS5532 6.3.1.3 (v)  AS1891.4 - 3.1.2 (g) Single point anchorages suitable for direct connection of personal fall-arrest | On Installation | Checklist | Standard/Specification | Visual | Measurement | X | S | S |
|  | Additional Pendulum fixing points to roof/wall/structure to allow safe transition and access | AS1891.4 Table 2.1 restraint technique  AS4488 5.3 a | On Installation | Checklist | Standard/Specification | Visual | Measurement | X | S | S |
|  | Load Testing | AS1891.4 - 3.1.2 (g) Single point anchorages suitable for direct connection of personal fall-arrest  AS5532 7.3 (f) | On Installation | Checklist | Standard/Specification | Load Test | Measurement | X | S | S |
|  | Product marking and signage | AS5532 7.2.3 a, b & c | On Installation | Checklist | Standard/Specification | Visual | Measurement | X | S | S |
|  | Instructions for general use | AS5532 7.1 a, b, c, d, e, f & g | On Completion | Checklist | Standard/Specification | Visual | Completion  Handover |  | H | H |

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| **CHECKLIST** | | | | |
| **Work** | **Items/activities to be verified** | **Reference** | **Initialled/OK** | **Comments** |
| **Installation (Refer to Installation**  **Instructions)** | Access point location(s) | Systems can be accessed safely by trained persons without the risk of an uncontrolled fall |  |  |
| Position and orientation of anchor point to roof | Eye of anchor to run 90 degrees to the primary work area.  Glued-in anchorages shall be placed so that the shear load and the pull angle must not exceed 20° to the surface in which the bolt  is installed.  Minimum edge distance = 200mm  Minimum spacing = 300mm  Minimum concrete thickness = 150mm |  |  |

Page 1 / 2

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|  | SA711 - SA713 Chemical anchor fitting per anchor/bolt  SA721- SA723 Chemical anchor fitting per anchor/bolt | Drill diameter = 30mm  Drill diameter = 40mm  Minimum depth of hole: 90mm (complete the hole that you start to the correct depth and the hole is cleaned appropriately)  Clean drilled out hole, Hilti Chemical Set Product Code HIT200-  R |  | **Confirm what size hole was drilled:** | |
| Anchor points to roof to prevent lateral swing fall are installed or mitigation agreed | The distance to the next anchor is less than the length to the closest edge, unless mitigated by other means |  |  | |
| Load Test each anchor with calibrated pull tester. Last calibration date must not exceed 12 months | 15kN tested to 7.5kN. Test the anchor once the chem-set has cured fully. |  |  | |
| Water proofing | Anchor sealed and inspected for water tight fit |  |  | |
| Anchor at entry point with a stainless steel Strop | Anchor strop must be positioned to enable user to reach and connect to.  Strop is marked and rated to 15kN.  Mallion/Quicklink connection to roof anchor point is secured and mechanically tightened or chemically set with loctite. |  | **Not applicable as anchor is not within the Fall Zone.** | |
| Site clean up and picture evidence if handover is not possible | Site has been cleared of swarf or other debris installation inspection completed and witnessed by the customers representative. Where a client cannot sign for handover, clear high resolution pictures have been taken of each anchor point. |  |  | |
| Anchor systems installation completion action | Anchor fit for use sticker/tag filled in and attached to the anchor point, mark with confirmed rating. Entry point signage updated and installed. |  |  | |
| **I have carried out all necessary inspections and verify that the above items/activities conform to the contract specification/documents** | | | | **Name:** |  |
| **Signature:** |  |
| **Date:** |  |

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| **Project Completion** | Handover operating and systems documentation issued |  |  | |
| **I have carried out all necessary inspections and verify that the above items/activities conform to the contract specification/documents** | | | **Name: Signature:**  **Date:** |  |
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Contract File Forms V15.0 20230524



Page 2 / 2

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| **INSPECTION AND TEST PLAN & CHECKLIST for: Installation of RIS Single Sided Handrail only** *(To be completed by the person(s) directly responsible for the work and the installer)* | | | |
| **Client:** | Richard Crookes Construction Pty Ltd | **Work area:** | **Checklist Number:** |
| **Job Number:** | 46694V2 | LEVEL 5 - SCHOOL | 46694V201 |
| **Contract/Project Name:** | Cambridge Street Epping Variation |
| **Installer:** |  |

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| **INSPECTION TEST PLAN** | | | | | | | | | | |
| **Ref** | **Operation or stage of work** | | **Stage/ Frequency** | **Records** | **Requirement/ Standard/ Specification** | **Acceptance**  **Criteria** | **Inspection/ Test**  **Procedure** | **Inspection \*what/who** | | |
| **Description** | **Characteristics** | **Installer** | **Install**  **Supervisor** | **Client** |
| **\*W = Witness Point; H = Hold Point; H(A) = Inspection/Test by Authority; U(C) = Inspection/Test by Consultant; S = Surveillance or monitoring; X = Self inspection by performer of work.** | | | | | | | | | | |
|  | Access point location(s) | AS1657 J2.2, 5.4.1 & G5 | Prestart installation work | Checklist | Standard/Specification | Visual | Measurement | X | S | S |
|  | Labelling of Installation | AS1657 8.2 Labelling of Installation | On Installation | Checklist | Standard/Specification | Visual | Measurement | X | S | S |
|  | Material | AS/NZS 1664.1 & AS/NZS 1664.2 | On Installation | Checklist | Standard/Specification | Visual | Measurement | X | S | S |
|  | Headroom | AS1657 3.1.5 | On Installation | Checklist | Standard/Specification | Visual | Measurement | X | S | S |
|  | Safety below access areas | AS1657 4.5 & 4.6 | On Installation | Checklist | Standard/Specification | Visual | Measurement | X | S | S |
|  | Provision of a barrier | AS1657 5.4.1 | On Installation | Checklist | Standard/Specification | Visual | Measurement | X | S | S |
|  | Stability and structural capacity | AS1657 6.1.1 | On Installation | Checklist | Standard/Specification | Visual | Measurement | X | S | S |
|  | Finished surfaces, height and hand clearance | AS1657 5.6.1, 5.6.2 & 5.6.3 | On installation | Checklist | Standard/Specification | Visual | Measurement | X | S | S |
|  | Documentation to be supplied | AS1657 8.3 | On completion | Checklist | Standard/Specification | Visual | Visual |  | H | S |

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| **CHECKLIST** | | | | |
| **Work** | **Items/activities to be verified** | **Reference** | **Initialled/OK** | **Comments** |
| **Installation (Refer to Installation**  **Instructions)** | Access point location(s) | Systems can be accessed safely by trained persons without the risk of an uncontrolled fall |  |  |
| Material | All materials installed are from tested and pre-fabricated RIS Stock |  |  |
| Obstructions and headroom | Pathways allow 2m of clearance in proximity to the handrail systems installed |  |  |
| Safety below access areas | Kickboards installed to areas that require dropped object protections. Gaps between kickboard and standing surface do not exceed 10mm. |  |  |
| Provision of guard railing | Guard railing extends to the agreed zones and provides effective fall prevention |  |  |
| Structural stability and fixing metal roof mounted systems | Roof materials minimum .42 BMT, 1 Handrail post, 1 Post Brace, Base Support Channel, 12x 4.8mm SS Rivets, 2 x 6mm Aluminimum Rivet, 2 x EPDM Rubber Washer.  Maximum corner post spacing 500mm. Maximum span between posts 1500mm |  |  |

Page 1 / 2

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|  | Structural stability and fixings concrete/steel systems | 1 Handrail post, 1 base spigot, 8x 4.8mm SS Rivets, Maximum corner post spacing 500mm.  Maximum span between posts 1500mm  Mechanical Fixings:  2 x HSA R M12 x 100 20/5, drill bit for 12mm thread = 12mm hole x 2, torque wrench tensioned **EXACTLY** 50Nm Chemical Fixings:  2 x Stainless M12 with minimum 110mm embedment, Drill bit for  12mm thread = 2 x14mm hole, Hilti Chemical Set product code HIT 200 R, Nut is torque wrench tensioned to **EXACTLY** 40Nm Steel Fixings:  2 x M12 stainless steel bolts with nyloc nuts and washers, Drill bit for 12mm thread = 2 x 13mm hole, torque wrench tensioned to 80Nm  Minimum edge distance to fixing steel: 25mm |  | **Nominate the fixing method that you have used on**  **site:** | |
| Structural stability and fixing for handrails, midrail, corners, end caps and kickboard | Joins in Hand and Mid Rails, End caps, Kickboards and Corners have 2 x 4.8mm SS Rivets per side.  Closure bends have 6 x 4.8mm SS Rivets per bend. Handrail bracing is installed at every corner, every 15m for straight runs, at the start and end of each system. |  |  | |
| Finished surfaces, height and hand clearance | Handrail finished surfaces are free from sharp edges, burs and other conditions. Hand clearance between handrails and other adjacent structures is not less than 50mm. |  |  | |
| Site clean up and picture evidence if handover is not possible | Site has been cleared of swarf or other debris installation inspection completed and witnessed by the customers representative. Where a client cannot sign for handover, clear high resolution pictures have been taken of the installed product. |  |  | |
| Systems installation completion action | Fit for use sticker/tag filled in and attached to the handrail, mark with confirmed rating. Entry point signage updated and installed. |  |  | |
| **I have carried out all necessary inspections and verify that the above items/activities conform to the contract specification/documents** | | | | **Name:** |  |
| **Signature:** |  |
| **Date:** |  |

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| **Project Completion** | Handover operating and systems documentation issued |  |  | |
| **I have carried out all necessary inspections and verify that the above items/activities conform to the contract specification/documents** | | | **Name: Signature:**  **Date:** |  |
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Contract File Forms V15.0 20230524

Page 2 / 2

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| **INSPECTION AND TEST PLAN & CHECKLIST for: Installation of RIS Davit Arms** *(To be completed by the person(s) directly responsible for the work and the installer)* | | | |
| **Client:** | Richard Crookes Construction Pty Ltd | **Work area:** | **Checklist Number:** |
| **Job Number:** | 46694V2 | LEVEL 28 - MAIN BUILDING | 46694V201 |
| **Contract/Project Name:** | Cambridge Street Epping Variation |
| **Installer:** |  |

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| **INSPECTION TEST PLAN** | | | | | | | | | | |
| **Ref** | **Operation or stage of work** | | **Stage/ Frequency** | **Records** | **Requirement/ Standard/ Specification** | **Acceptance**  **Criteria** | **Inspection/ Test**  **Procedure** | **Inspection \*what/who** | | |
| **Description** | **Characteristics** | **Installer** | **Install**  **Supervisor** | **Client** |
| **\*W = Witness Point; H = Hold Point; H(A) = Inspection/Test by Authority; U(C) = Inspection/Test by Consultant; S = Surveillance or monitoring; X = Self inspection by performer of work.** | | | | | | | | | | |
|  | Access point location(s) | AS5532 7.3 (h) AS1891.4 3.2.2 | Prestart installation work | Checklist | Manufacturer recommendation | Visual | Measurement |  | S | S |
|  | Position and orientation of anchor point to roof/structure | AS5532 6.3.1.3 (v) | On Installation | Checklist | Installation Instruction followed | Visual | Measurement | H | S | S |
|  | Additional pendulum fixing points to roof/wall/structure to allow safe transition and access | AS1891.4 Table 2.1 restraint technique  AS4488 5.3 a | On Installation | Checklist | Installation Instruction followed | Visual | Measurement | H | S | S |
|  | Load testing | AS1891.4 - 3.1.2 (g) Single point anchorages suitable for direct connection of personal fall-arrest  AS5532 7.3 (f) | On Installation | Checklist | Installation Instruction followed | Visual | Measurement | H | S | S |
|  | Prevention of corrosion | AS5532 5.1 | On Installation | Checklist | Installation Instruction followed | Visual | Measurement | H | S | S |
|  | Product marking and signage | AS5532 7.2.3 a, b & c | On installation | Checklist | Installation Instruction followed | Visual | Measurement | H | S | S |

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| **CHECKLIST** | | | | |
| **Work** | **Items/activities to be verified** | **Reference** | **Initialled/OK** | **Comments** |
| **Installation (Refer to Installation**  **Instructions)** | Access point location(s) | Systems can be accessed safely by trained persons without the risk of an uncontrolled fall. |  |  |
|  | Floor or Wall Base: Mechanical anchor fitting per HSA  anchor/bolt | Drill bit for 16mm thread = 16mm (complete the hole that you  start to the correct depth and the hole is cleaned appropriately) Torque wrench tensioned to 100Nm  Minimum edge distance: 250mm  Minimum of 4 x M16 fixings  Minimum of 3 bolt threads above the nut: |  | **Nominate the fixing method used** |
| Floor or Wall Base: Chemical anchor fitting per anchor/bolt | Drill bit for 16mm thread = 18mm (complete the hole that you start to the correct depth and the hole is cleaned appropriately) Clean drilled out hole, Hilti Chemical Set Product Code  HIT500 -R  Minimum edge distance: 250mm  Minimum of 4 x M16 fixings  Minimum of 3 bolt threads above the nut: |  |
| Concealed Base retro fit: | Core diameter 100mm hole, a minimum of 200mm deep and use 1 x 300ml tube of Hilti Hit 500 chem set. Core hole to be a minimum of 500mm from slab edge. |  |

Page 1 / 2

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|  | Concealed Base cast in: | If using the aluminium design base, any exposed aluminium is covered with suitable material separator prior to concrete pour and the base is positioned 500mm from slab edge and secured into position prior to concrete pour. The stainless steel concealed base does not require material seperation. |  |  | |
|  | Position and orientation of primary and secondary anchor point  to structure  Load Test each anchor/bolt with calibrated pull tester, last calibration date must not exceed 12 months | Eye of anchor to run 90 degrees to the primary work area.  Friction and glued-in anchorages shall be placed so that the shear load and the pull angle must not exceed 20° to the surface in which the bolt is installed.  Minimum measured distance between the centre of the anchor  and a edge of a structure is 200mm.  Minimum spacing between anchors is 300mm.  Primary and Secondary anchors 50% proof tested to 7.5kN |  |  | |
| Anchor points to structure to prevent lateral swing fall are installed or mitigation agreed | The distance to the next anchor is less than the length to the closest edge, unless mitigated by other means. |  |  | |
| Floor Mount and Wall Mount Davit base load Test each anchor/bolt with calibrated pull tester, last calibration date must not exceed 12 months.  Concealed Base testing not required. | Each individual friction or glued in bolt is tested to 50% of the required design load: |  |  | |
| 21kN tested to 10.5kN |  |  | |
| Water proofing | Sealed and inspected for water tight fit. |  |  | |
| Corrosion prevention | Dissimilar metals are separated by EPDM barrier or sealant. |  |  | |
| Site clean up and picture evidence if handover is not possible | Site has been cleared of swarf or other debris installation inspection completed and witnessed by the customers representative. Where a client cannot sign for handover, clear high resolution pictures have been taken of the installed product. |  |  | |
| Systems Installation completion action | Anchor fit for use sticker/tag filled in and attached to the anchor point, mark with confirmed rating. Entry point signage updated and installed |  |  | |
| **I have carried out all necessary inspections and verify that the above items/activities conform to the contract specification/documents** | | | | **Name:** |  |
| **Signature:** |  |
| **Date:** |  |

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| **Project Completion** | Handover operating and systems documentation issued |  |  | |
| **I have carried out all necessary inspections and verify that the above items/activities conform to the contract specification/documents** | | | **Name: Signature:**  **Date:** |  |
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| **I have carried out all necessary inspections and verify that the above work for this work area has been completed and conforms to the contract specification/documents** | **Name: Signature:**  **Date:** |  |
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Contract File Forms V15.0 20230524

Page 2 / 2