

Waikeria Prison Development - Inspection & Test Plan (ITP)

**Process / Sub - Process:** Combined Services – EV Charging

**WP Number:** NZ1005-CS-WPK-051

**ITP No.:** AES-NZ1005-STE-ITP-PMT-0030 **Rev: 2 Date:** 24/07/2023

THIS INSPECTION & TEST PLAN COMPRISES THE FOLLOWING DOCUMENTS AND IS APPROVED FOR USE:

**PART 1** Inspection and Test Plan

**PART 2** Check Sheet

**PART 3** Lot Verification Checklist

**Reference Documentation:**

NZT5007-STE-SPC-ELE-0001 Specification for Electrical Services

NZT5007-STE-ESSP-0002 Electrical Services Specification Addendum

AEC-NZ1005-STE-SCH-ELE-0002 ELECTRICAL SERVICES - SITE WIDE CABLE SCHEDULE – MAINS

AEC-NZ1005-STE-SCH-ELE-0004 ELECTRICAL SERVICES - DB EV SCHEDULES

AEC-NZ1005-STE-DWD-ELE-0500 [Electrical Services - MSB-3 Electrical schematic](https://au1.aconex.com/rsrc/20230628.0047/en_AU_DOC/document/view/index.html?ControlledDocument_ID=949133622350946071&ControlledDocument_projectID=1476400639&VIEW_CD_RETURN_URL=%2FSearchControlledDoc%3FSESSION_SAVE_DOCUMENTNO%3D%26SESSION_SAVE_TITLE%3D%26SESSION_SAVE_REVISION%3D%26SESSION_SAVE_STATUS%3D0%26SESSION_SAVE_TYPE%3D0%26SESSION_SAVE_DISCIPLINE%3D%26SESSION_CREATION_DATE%3Dnull%26SESSION_REVISION_DATE%3Dnull%26SESSION_SAVE_REVIEW_DATE%3Dnull%26SESSION_SAVE_REVIEWED_DATE%3Dnull%26SESSION_SAVE_AUTHOR%3D%26SESSION_SAVE_FILETYPE%3Dnull%26SESSION_REFERENCE%3D%26SESSION_SAVE_FOLDER_PATH%3D%26SESSION_SAVE_ALL_REVS%3Dnull%26SESSION_SAVE_SORT_DIR%3DASC%26SESSION_SAVE_SORT_FIELD%3Ddocno%26SESSION_SHARED_TO%3D-1%26SESSION_LINKED_TO_PUBLIC%3D0)

AES-NZ1005-STE-DSH-ELE-0027 EV Charging – MSB-3 Mains Cable

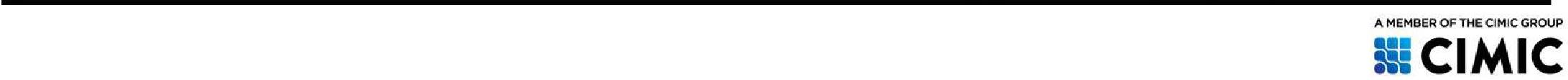
AES-NZ1005-STE-DSH-ELE-0031 [EV Charging - MSB-3 Seismic Floor Mounted Fixings Technical Data](https://au1.aconex.com/rsrc/20230628.0047/en_AU_DOC/document/view/index.html?ControlledDocument_ID=949133622455772892&ControlledDocument_projectID=1476400639&VIEW_CD_RETURN_URL=%2FSearchControlledDoc%3FSESSION_SAVE_DOCUMENTNO%3D%26SESSION_SAVE_TITLE%3D%26SESSION_SAVE_REVISION%3D%26SESSION_SAVE_STATUS%3D0%26SESSION_SAVE_TYPE%3D0%26SESSION_SAVE_DISCIPLINE%3D%26SESSION_CREATION_DATE%3Dnull%26SESSION_REVISION_DATE%3Dnull%26SESSION_SAVE_REVIEW_DATE%3Dnull%26SESSION_SAVE_REVIEWED_DATE%3Dnull%26SESSION_SAVE_AUTHOR%3D%26SESSION_SAVE_FILETYPE%3Dnull%26SESSION_REFERENCE%3D%26SESSION_SAVE_FOLDER_PATH%3D%26SESSION_SAVE_ALL_REVS%3Dnull%26SESSION_SAVE_SORT_DIR%3DASC%26SESSION_SAVE_SORT_FIELD%3Ddocno%26SESSION_SHARED_TO%3D-1%26SESSION_LINKED_TO_PUBLIC%3D0)

AES-NZ1005-STE-DSH-ELE-0034 EV Charging Plinth Technical Data

AES-NZ1005-STE-ITP-PMT-0019 Installation of Electrical Conduits and Cable Pits

AES-NZ1005-STE-ITP-PMT-0022 [Electrical Services - Low Voltage Cable Install, Terminations and Testing](https://au1.aconex.com/rsrc/20230628.0047/en_AU_DOC/document/view/index.html?ControlledDocument_ID=949133622405091806&ControlledDocument_projectID=1476400639&VIEW_CD_RETURN_URL=%2FSearchControlledDoc%3FSESSION_SAVE_DOCUMENTNO%3D%26SESSION_SAVE_TITLE%3D%26SESSION_SAVE_REVISION%3D%26SESSION_SAVE_STATUS%3D0%26SESSION_SAVE_TYPE%3D386%26SESSION_SAVE_DISCIPLINE%3D%26SESSION_CREATION_DATE%3Dnull%26SESSION_REVISION_DATE%3Dnull%26SESSION_SAVE_REVIEW_DATE%3Dnull%26SESSION_SAVE_REVIEWED_DATE%3Dnull%26SESSION_SAVE_AUTHOR%3D%26SESSION_SAVE_FILETYPE%3Dnull%26SESSION_REFERENCE%3D%26SESSION_SAVE_FOLDER_PATH%3D%26SESSION_SAVE_ALL_REVS%3Dnull%26SESSION_SAVE_SORT_DIR%3DDESC%26SESSION_SAVE_SORT_FIELD%3Drevisiondate%26SESSION_SHARED_TO%3D-1%26SESSION_LINKED_TO_PUBLIC%3D0)

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| --- | --- | --- |
| **Prepared by:** AES Site Manager: Michael Simpson | **(signature)** | **(date)** |
| **Reviewed by:** CPB Engineer | **(signature)** | **(date)** |
| **Reviewed by:** CPB QA Rep | **(signature)** | **(date)** |
| **Reviewed by:** CPB Completions Rep | **(signature)** | **(date)** |
| **Reviewed by:** Consultant  (If applicable. N/A for Architects) | **(signature)** | **(date)** |
| **Approved by:** CPB SPE or higher | **(signature)** | **(date)** |

**Title:** WPD Inspection and Test Plan - Template

**ID:** MSID-298162371-1209 Version: 3.0 **Date Published:** 20/08/2020 Waikeria Prison Development / WPDP - Uncontrolled Document when Printed Project Specific Document

|  |  |
| --- | --- |
| **Contract** | EV Charging Installation |
| **Document Title** | EV Charging Inspection and Test Plan |
| **Document No.** | AES-NZ1005-STE-ITP-PMT-0030 |
| **Process** | EV Charging Inspection and Testing |

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| --- | --- | --- | --- | --- |
| **Action** | **Position** | **Name** | **Signature** | **Date** |
| **Prepared by** | AE Smith Electrical Supervisor | Mike Simpson |  |  |
| **Reviewed by** | AE Smith Electrical Supervisor | Andrew Maclean |  |  |
| **Reviewed by** | LJE Electrical Supervisor | Gavin Brown |  |  |
| **Approved by** | Downer Electrical Project Mngr. | Peter Dower |  |  |
| **Reviewed by** | CPB Quality Team |  |  |  |
| **Approved by** | CPB Services Manger |  |  |  |
| **Accepted by** | CPB Engineer |  |  |  |

## SCOPE OF WORKS:

This scope of works comprises the provision of the following materials, documentation, services and works for:

Supply and installation of MSB 3 in UT1

Installation of sub mains and termination from MSB 3 to

* + DB-STE-EV1 (HRO Carpark)
    - 5             x             EV charger plinths & double pedestals
    - 1             x             ABB T54 plinth
  + DB-STE-EV2 (UT1 Carpark)
    - 3             x             EV charger plinths & double pedestals
  + DB-STE-EV3 (STA Carpark)
    - 6             x             EV charger plinths & double pedestals
    - 2             x             ABB T54 plinth
* Main Switchboard & DB Commissioning

All work to be compliant with AECOM Electrical specifications & AS/NZS3000:2007 & AS/NZS 3008.1.2:2007

Electrical COC for the completed works

## REFERENCED DOCUMENTATION:

**Specifications/Standards**

|  |  |  |  |
| --- | --- | --- | --- |
|  | NZT5007-STE-SPC-ELE-0001 |  | Specification for Electrical Services |
|  | NZT5007-STE-ESSP-0002 |  | Electrical Services Specification Addendum |
|  | NZT5007-STE-SPC-CSSP-0001 |  | Specification for Communication Services |
|  | CPB-NZ1005-STE-SOW-PMT-0023 |  | Execution – Works completion tests |
|  | AEC-NZ1005-STE-SCH-ELE-0002 |  | ELECTRICAL SERVICES - SITE WIDE CABLE SCHEDULE - MAINS |
|  | AEC-NZ1005-STE-SCH-ELE-0004 |  | ELECTRICAL SERVICES - DB EV SCHEDULES |
|  | AS/NZS3000:2007 |  | Electrical Installations – Wiring Rules |
|  | AS/NZS 3008.1.2:2007 |  | Electrical Installations – Selection of cables |

**Associated documentation**

|  |  |  |  |
| --- | --- | --- | --- |
|  | AES-NZ1005-STE-ITP-PMT-0019 |  | Installation of Electrical Conduits and Cable Pits |
|  | AES-NZ1005-STE-ITP-PMT-0022 |  | [Electrical Services - Low Voltage Cable Install, Terminations and Testing](https://au1.aconex.com/rsrc/20230628.0047/en_AU_DOC/document/view/index.html?ControlledDocument_ID=949133622405091806&ControlledDocument_projectID=1476400639&VIEW_CD_RETURN_URL=%2FSearchControlledDoc%3FSESSION_SAVE_DOCUMENTNO%3D%26SESSION_SAVE_TITLE%3D%26SESSION_SAVE_REVISION%3D%26SESSION_SAVE_STATUS%3D0%26SESSION_SAVE_TYPE%3D386%26SESSION_SAVE_DISCIPLINE%3D%26SESSION_CREATION_DATE%3Dnull%26SESSION_REVISION_DATE%3Dnull%26SESSION_SAVE_REVIEW_DATE%3Dnull%26SESSION_SAVE_REVIEWED_DATE%3Dnull%26SESSION_SAVE_AUTHOR%3D%26SESSION_SAVE_FILETYPE%3Dnull%26SESSION_REFERENCE%3D%26SESSION_SAVE_FOLDER_PATH%3D%26SESSION_SAVE_ALL_REVS%3Dnull%26SESSION_SAVE_SORT_DIR%3DDESC%26SESSION_SAVE_SORT_FIELD%3Drevisiondate%26SESSION_SHARED_TO%3D-1%26SESSION_LINKED_TO_PUBLIC%3D0) |
|  | AES-NZ1005-STE-DSH-ELE-0025 |  | EV Charging – Cable Ladder and accessories |
|  | AES-NZ1005-STE-DSH-ELE-0027 |  | EV Charging – MSB-3 Mains Cable |
|  | AES-NZ1005-STE-DSH-ELE-0031 |  | [EV](https://au1.aconex.com/rsrc/20230628.0047/en_AU_DOC/document/view/index.html?ControlledDocument_ID=949133622455772892&ControlledDocument_projectID=1476400639&VIEW_CD_RETURN_URL=%2FSearchControlledDoc%3FSESSION_SAVE_DOCUMENTNO%3D%26SESSION_SAVE_TITLE%3D%26SESSION_SAVE_REVISION%3D%26SESSION_SAVE_STATUS%3D0%26SESSION_SAVE_TYPE%3D0%26SESSION_SAVE_DISCIPLINE%3D%26SESSION_CREATION_DATE%3Dnull%26SESSION_REVISION_DATE%3Dnull%26SESSION_SAVE_REVIEW_DATE%3Dnull%26SESSION_SAVE_REVIEWED_DATE%3Dnull%26SESSION_SAVE_AUTHOR%3D%26SESSION_SAVE_FILETYPE%3Dnull%26SESSION_REFERENCE%3D%26SESSION_SAVE_FOLDER_PATH%3D%26SESSION_SAVE_ALL_REVS%3Dnull%26SESSION_SAVE_SORT_DIR%3DASC%26SESSION_SAVE_SORT_FIELD%3Ddocno%26SESSION_SHARED_TO%3D-1%26SESSION_LINKED_TO_PUBLIC%3D0) Charging - MSB-3 Seismic Floor Mounted Fixings Technical Data |
|  | AES-NZ1005-STE-DSH-ELE-0034 |  | EV Charging Plinth Technical Data |
|  | AES-NZ1005-UT1-CMR-ELE-0001 |  | MSB-3 Gael Factory Acceptance tests |
|  | LJE-UT1 MSB3 |  | MSB- 3 Commissioning Plan |

**Drawings:**

|  |  |  |  |
| --- | --- | --- | --- |
|  | NZT5007 STE ESDG 0500 FC 1  AES-NZ1005-UT1-SHD-ELE-0100  AES-NZ1005-UT1-SHD-ELE-0101  AES-NZ1005-UT1-SHD-ELE-0102  AES-NZ1005-UT1-SHD-ELE-0103  AES-NZ1005-UT1-SHD-ELE-0104  AEC-NZ1005-STE-DWD-ELE-0500  AES-NZ1005-STE-DWD-ELE-9040  AES-NZ1005-STE-DWD-ELE-9041  AES-NZ1005-STE-DWD-COM-5007  AES-NZ1005-STE-DWD-COM-5010  AES-NZ1005-STE-DWD-COM-5011 |  | MSB-3 ELECTRICAL SCHEMATIC  [EV Chargers Layout Main Switchboard - Sheet 1](https://au1.aconex.com/rsrc/20230628.0047/en_AU_DOC/document/view/index.html?ControlledDocument_ID=949133622354423189&ControlledDocument_projectID=1476400639&VIEW_CD_RETURN_URL=%2FSearchControlledDoc%3FSESSION_SAVE_DOCUMENTNO%3D%26SESSION_SAVE_TITLE%3D%26SESSION_SAVE_REVISION%3D%26SESSION_SAVE_STATUS%3D0%26SESSION_SAVE_TYPE%3D20%26SESSION_SAVE_DISCIPLINE%3DElectrical%2BService%26SESSION_CREATION_DATE%3Dnull%26SESSION_REVISION_DATE%3Dnull%26SESSION_SAVE_REVIEW_DATE%3Dnull%26SESSION_SAVE_REVIEWED_DATE%3Dnull%26SESSION_SAVE_AUTHOR%3D%26SESSION_SAVE_FILETYPE%3Dnull%26SESSION_REFERENCE%3D%26SESSION_SAVE_FOLDER_PATH%3D%26SESSION_SAVE_ALL_REVS%3Dnull%26SESSION_SAVE_SORT_DIR%3DASC%26SESSION_SAVE_SORT_FIELD%3Ddocno%26SESSION_SHARED_TO%3D-1%26SESSION_LINKED_TO_PUBLIC%3D0)  [EV Chargers Schematic Main Switchboard - Sheet 3](https://au1.aconex.com/rsrc/20230628.0047/en_AU_DOC/document/view/index.html?ControlledDocument_ID=949133622354423190&ControlledDocument_projectID=1476400639&VIEW_CD_RETURN_URL=%2FSearchControlledDoc%3FSESSION_SAVE_DOCUMENTNO%3D%26SESSION_SAVE_TITLE%3D%26SESSION_SAVE_REVISION%3D%26SESSION_SAVE_STATUS%3D0%26SESSION_SAVE_TYPE%3D20%26SESSION_SAVE_DISCIPLINE%3DElectrical%2BService%26SESSION_CREATION_DATE%3Dnull%26SESSION_REVISION_DATE%3Dnull%26SESSION_SAVE_REVIEW_DATE%3Dnull%26SESSION_SAVE_REVIEWED_DATE%3Dnull%26SESSION_SAVE_AUTHOR%3D%26SESSION_SAVE_FILETYPE%3Dnull%26SESSION_REFERENCE%3D%26SESSION_SAVE_FOLDER_PATH%3D%26SESSION_SAVE_ALL_REVS%3Dnull%26SESSION_SAVE_SORT_DIR%3DASC%26SESSION_SAVE_SORT_FIELD%3Ddocno%26SESSION_SHARED_TO%3D-1%26SESSION_LINKED_TO_PUBLIC%3D0)  [EV Chargers Schematic Main Switchboard - Sheet 2](https://au1.aconex.com/rsrc/20230628.0047/en_AU_DOC/document/view/index.html?ControlledDocument_ID=949133622354423190&ControlledDocument_projectID=1476400639&VIEW_CD_RETURN_URL=%2FSearchControlledDoc%3FSESSION_SAVE_DOCUMENTNO%3D%26SESSION_SAVE_TITLE%3D%26SESSION_SAVE_REVISION%3D%26SESSION_SAVE_STATUS%3D0%26SESSION_SAVE_TYPE%3D20%26SESSION_SAVE_DISCIPLINE%3DElectrical%2BService%26SESSION_CREATION_DATE%3Dnull%26SESSION_REVISION_DATE%3Dnull%26SESSION_SAVE_REVIEW_DATE%3Dnull%26SESSION_SAVE_REVIEWED_DATE%3Dnull%26SESSION_SAVE_AUTHOR%3D%26SESSION_SAVE_FILETYPE%3Dnull%26SESSION_REFERENCE%3D%26SESSION_SAVE_FOLDER_PATH%3D%26SESSION_SAVE_ALL_REVS%3Dnull%26SESSION_SAVE_SORT_DIR%3DASC%26SESSION_SAVE_SORT_FIELD%3Ddocno%26SESSION_SHARED_TO%3D-1%26SESSION_LINKED_TO_PUBLIC%3D0)  [EV Chargers Schematic Main Switchboard - Sheet 4](https://au1.aconex.com/rsrc/20230628.0047/en_AU_DOC/document/view/index.html?ControlledDocument_ID=949133622354423198&ControlledDocument_projectID=1476400639&VIEW_CD_RETURN_URL=%2FSearchControlledDoc%3FSESSION_SAVE_DOCUMENTNO%3D%26SESSION_SAVE_TITLE%3D%26SESSION_SAVE_REVISION%3D%26SESSION_SAVE_STATUS%3D0%26SESSION_SAVE_TYPE%3D20%26SESSION_SAVE_DISCIPLINE%3DElectrical%2BService%26SESSION_CREATION_DATE%3Dnull%26SESSION_REVISION_DATE%3Dnull%26SESSION_SAVE_REVIEW_DATE%3Dnull%26SESSION_SAVE_REVIEWED_DATE%3Dnull%26SESSION_SAVE_AUTHOR%3D%26SESSION_SAVE_FILETYPE%3Dnull%26SESSION_REFERENCE%3D%26SESSION_SAVE_FOLDER_PATH%3D%26SESSION_SAVE_ALL_REVS%3Dnull%26SESSION_SAVE_SORT_DIR%3DASC%26SESSION_SAVE_SORT_FIELD%3Ddocno%26SESSION_SHARED_TO%3D-1%26SESSION_LINKED_TO_PUBLIC%3D0)  EV Chargers Base Model  [Electrical Services - MSB-3 Electrical schematic](https://au1.aconex.com/rsrc/20230628.0047/en_AU_DOC/document/view/index.html?ControlledDocument_ID=949133622350946071&ControlledDocument_projectID=1476400639&VIEW_CD_RETURN_URL=%2FSearchControlledDoc%3FSESSION_SAVE_DOCUMENTNO%3D%26SESSION_SAVE_TITLE%3D%26SESSION_SAVE_REVISION%3D%26SESSION_SAVE_STATUS%3D0%26SESSION_SAVE_TYPE%3D0%26SESSION_SAVE_DISCIPLINE%3D%26SESSION_CREATION_DATE%3Dnull%26SESSION_REVISION_DATE%3Dnull%26SESSION_SAVE_REVIEW_DATE%3Dnull%26SESSION_SAVE_REVIEWED_DATE%3Dnull%26SESSION_SAVE_AUTHOR%3D%26SESSION_SAVE_FILETYPE%3Dnull%26SESSION_REFERENCE%3D%26SESSION_SAVE_FOLDER_PATH%3D%26SESSION_SAVE_ALL_REVS%3Dnull%26SESSION_SAVE_SORT_DIR%3DASC%26SESSION_SAVE_SORT_FIELD%3Ddocno%26SESSION_SHARED_TO%3D-1%26SESSION_LINKED_TO_PUBLIC%3D0)  ELECTRICAL CONDUIT LAYOUT AREA 10  ELECTRICAL CONDUIT LAYOUT AREA 11  [Communications Conduits & Micro Duct Area](https://au1.aconex.com/rsrc/20230628.0047/en_AU_DOC/document/view/index.html?ControlledDocument_ID=949133622318530286&ControlledDocument_projectID=1476400639&VIEW_CD_RETURN_URL=%2FSearchControlledDoc%3FSESSION_SAVE_DOCUMENTNO%3D%26SESSION_SAVE_TITLE%3D%26SESSION_SAVE_REVISION%3D%26SESSION_SAVE_STATUS%3D0%26SESSION_SAVE_TYPE%3D0%26SESSION_SAVE_DISCIPLINE%3D%26SESSION_CREATION_DATE%3Dnull%26SESSION_REVISION_DATE%3Dnull%26SESSION_SAVE_REVIEW_DATE%3Dnull%26SESSION_SAVE_REVIEWED_DATE%3Dnull%26SESSION_SAVE_AUTHOR%3Dae%2Bsmith%26SESSION_SAVE_FILETYPE%3Dnull%26SESSION_REFERENCE%3D%26SESSION_SAVE_FOLDER_PATH%3D%26SESSION_SAVE_ALL_REVS%3Dnull%26SESSION_SAVE_SORT_DIR%3DASC%26SESSION_SAVE_SORT_FIELD%3Ddocno%26SESSION_SHARED_TO%3D-1%26SESSION_LINKED_TO_PUBLIC%3D0) 7  [Communications Conduits & Micro Duct Area](https://au1.aconex.com/rsrc/20230628.0047/en_AU_DOC/document/view/index.html?ControlledDocument_ID=949133622318530286&ControlledDocument_projectID=1476400639&VIEW_CD_RETURN_URL=%2FSearchControlledDoc%3FSESSION_SAVE_DOCUMENTNO%3D%26SESSION_SAVE_TITLE%3D%26SESSION_SAVE_REVISION%3D%26SESSION_SAVE_STATUS%3D0%26SESSION_SAVE_TYPE%3D0%26SESSION_SAVE_DISCIPLINE%3D%26SESSION_CREATION_DATE%3Dnull%26SESSION_REVISION_DATE%3Dnull%26SESSION_SAVE_REVIEW_DATE%3Dnull%26SESSION_SAVE_REVIEWED_DATE%3Dnull%26SESSION_SAVE_AUTHOR%3Dae%2Bsmith%26SESSION_SAVE_FILETYPE%3Dnull%26SESSION_REFERENCE%3D%26SESSION_SAVE_FOLDER_PATH%3D%26SESSION_SAVE_ALL_REVS%3Dnull%26SESSION_SAVE_SORT_DIR%3DASC%26SESSION_SAVE_SORT_FIELD%3Ddocno%26SESSION_SHARED_TO%3D-1%26SESSION_LINKED_TO_PUBLIC%3D0) 10  [Communications Conduits & Micro Duct Area](https://au1.aconex.com/rsrc/20230628.0047/en_AU_DOC/document/view/index.html?ControlledDocument_ID=949133622318530286&ControlledDocument_projectID=1476400639&VIEW_CD_RETURN_URL=%2FSearchControlledDoc%3FSESSION_SAVE_DOCUMENTNO%3D%26SESSION_SAVE_TITLE%3D%26SESSION_SAVE_REVISION%3D%26SESSION_SAVE_STATUS%3D0%26SESSION_SAVE_TYPE%3D0%26SESSION_SAVE_DISCIPLINE%3D%26SESSION_CREATION_DATE%3Dnull%26SESSION_REVISION_DATE%3Dnull%26SESSION_SAVE_REVIEW_DATE%3Dnull%26SESSION_SAVE_REVIEWED_DATE%3Dnull%26SESSION_SAVE_AUTHOR%3Dae%2Bsmith%26SESSION_SAVE_FILETYPE%3Dnull%26SESSION_REFERENCE%3D%26SESSION_SAVE_FOLDER_PATH%3D%26SESSION_SAVE_ALL_REVS%3Dnull%26SESSION_SAVE_SORT_DIR%3DASC%26SESSION_SAVE_SORT_FIELD%3Ddocno%26SESSION_SHARED_TO%3D-1%26SESSION_LINKED_TO_PUBLIC%3D0) 11 |

## DEFINITION OF TERMS:

|  |  |
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| Conformance Record | Record submitted by AE Smith to CPB of the evidence pertaining to each lot which demonstrates that the specified requirements for that lot have been met |
| Hold Point | An identified point in a process past which AE Smith shall not proceed without a direction from CPB |
| Lot | A portion of material or a section of the Works which has been constructed and/or supplied under essentially uniform conditions and contains material of essentially uniform quality, or  A single finished item of work which includes several materials and/or work types (e.g. a pit in place) |
| Witness Point | An identified point in a construction process at which an activity is observed |

## INSPECTION AND TEST PLAN:

Responsible: SE-AE Smith / Downer Site Engineer, SUP-AE Smith / Downer Supervisor, SRV-Surveyor Method: DR-Document review, FM-Field measure, FT-Field test, M-Monitoring, S-Survey, V-Visual

Record: FTR-Field test report, LTR-Laboratory test report, TDS-Technical data sheet, QCC-Quality control checklist

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| **#** | **Inspection and Test Control Point** | **Resp.** | **Referenced Documentation** | **Conformance Criteria** | **Method** | **Frequency** | **Ctrl Point** | | **Records** |
| **WP** | **HP** |
| 1.0 MATERIAL COMPLIANCE | | | | | | | | | |
| 1.1 | RDM & Consent Approval | CPB | RDM Tracker Consent Tracker | RDM approval tracker Consent approval tracker | DR | By Building/ Site Wide | AES |  | Receipt of Approval by Client |
| 1.2 | General | SE | NZT5007-STE-ESSP-0001 | For all materials, a certificate of compliance shall be provided to the Client Rep. before the materials are incorporated into the works.   * Specifications & QA Documents Approved * Drawings are confirmed. * Equipment fit for purpose | DR | Each material | CPB |  | Aconex approval  Incoming Inspection Checklists  Drawing Register |

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| **#** | **Inspection and Test Control Point** | **Resp.** | **Referenced Documentation** | **Conformance Criteria** | **Method** | **Frequency** | **Ctrl Point** | | **Records** |
| **WP** | **HP** |
| 2.0 MSB 3 Installation | | | | | | | | | |
| 2.1 | Factory acceptance tests | SUP | AS/NZS 3000:2007 | * Confirm FATs complete | DR | Once | AES  CPB |  | Check Sheet  +CMR |
| 2.2 | Location | SUP | AS/NZS 3000:2007 | * Check MSB is located as per the approved drawings. * Complies with standards | V + FM | Once | AES |  | Check Sheet  +  Photo |
| 2.3 | fixings | SUP |  | * Check seismic fixings comply with approved submission | V | Once | AES |  | Check Sheet |

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| **#** | **Inspection and Test Control Point** | **Resp.** | **Referenced Documentation** | **Conformance Criteria** | **Method** | **Frequency** | **Ctrl Point** | | **Records** |
| **WP** | **HP** |
| 3.0 Low Voltage Cable & DB Installation | | | | | | | | | |
| 3.1 | Electrical conduits | SUP | Refer  AES-NZ1005-STE-ITP-PMT-0019 | * Complete as per the referred ITP | DR | Once | AES |  | Check Sheet  +  ITP |
| 3.2 | Mains & submains Installed & terminated to MSB-3 | SUP | AEC-NZ1005-STE-SCH-ELE-0002  AEC-NZ1005-STE-SCH-ELE-0004  AES-NZ1005-STE-ITP-PMT-0022  AS/NZS 3000:2007 | * Installed as per cable schedule on cable tray & inground conduits & pull pits. * Installed & terminated. * Pre-livening tests **ONLY** as per AES-NZ1005-STE-ITP-PMT-0022 | V + FM | Once | AES |  | Check Sheet  +  ITP |
| 3.3 | Carpark DBs Installed   * HRO * UT1 * STA | SUP |  | * Location as per drawings * Plinths installed & grouted around conduit * Conduits cut down for DB install * DB placed & fixed to plinth | V | Each Location | AES |  | Check Sheet  +  Photo |
| 3.4 | Submains Terminated to DBs   * DB-STE-EV1 (HRO * DB-STE-EV2 (UT1) * DB-STE-EV3 (STA) | SUP | AEC-NZ1005-STE-SCH-ELE-0004  AES-NZ1005-STE-ITP-PMT-0022  AS/NZS 3000:2007 | * Installed as per cable schedule on cable tray & inground conduits & pull pits. * Installed & Terminated. * Pre-livening tests **ONLY** as per AES-NZ1005-STE-ITP-PMT-0022 | V + FM | Each Location | AES |  | Check Sheet |
| 3.5 | MSB-3 Pre-Livening Checks Complete | SUP | LJE-UT1 MSB3  AS/NZS 3000:2007 | * As per LJE commissioning Plan * MSB-3 Main Switch & Sub Circuit breakers Isolated * Safe to Liven Mains from TX3 to MSB3 | V + DR | Once |  | LJE  AES  CPB | Check Sheet  +  CMP |
| 3.6 | HV Switching TX3 | SUP |  | * HV Switching confirmed by CPB | V | Once |  | AES  CPB | Check Sheet |
| 3.7 | MSB-3 Energisation & Commissioning | SUP | AES-NZ1005-STE-ITP-PMT-0022  LJE-UT1 MSB3  AS/NZS 3000:2007 | * Live cable testing on MSB-3 as per AES-NZ1005-STE-ITP-PMT-0022 * Main Switch Isolation removed. * MSB-3 commissioned as per LJE commissioning plan | V + FM + DR | Once | AES | CPB | Check Sheet  +  ITP  +  CMP  +  COC |
| 3.8 | Site DBs Pre-Livening Checks Complete | SUP | LJE-UT1 MSB3  AS/NZS 3000:2007 | * As per LJE commissioning Plan * DB Main Switch & Sub Circuit breakers Isolated * Safe to Liven Mains from MSB-3 to DBs | V + DR | Each Location |  | LJE  AES  CPB | Check Sheet  +  CMP |
| 3.9 | Site DBs Energised & Commissioned   * DB-STE-EV1 (HRO * DB-STE-EV2 (UT1) * DB-STE-EV3 (STA) | SUP | AES-NZ1005-STE-ITP-PMT-0022  LJE-UT1 MSB3  AS/NZS 3000:2007 | * Live cable testing on DBs as per AES-NZ1005-STE-ITP-PMT-0022 * Main Switch Isolation removed. * DBS commissioned as per LJE commissioning plan | V + FM + DR | Each Location | AES | CPB | Check Sheet  +  ITP  +  CMP  +  COC |
| **#** | **Inspection and Test Control Point** | **Resp.** | **Referenced Documentation** | **Conformance Criteria** | **Method** | **Frequency** | **Ctrl Point** | | **Records** |
| **WP** | **HP** |
| 4.0 Communication Install | | | | | | | | | |
| 4.1 | Communications conduits Install | SUP | Refer  AES-NZ1005-STE-ITP-PMT-0008 | * Complete as per the referred ITPs | DR | Once | AES |  | Check Sheet  +  ITP |

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| **#** | **Inspection and Test Control Point** | **Resp.** | **Referenced Documentation** | **Conformance Criteria** | **Method** | **Frequency** | **Ctrl Point** | | **Records** |
| **WP** | **HP** |
| 5.0 EV Charger Plinth Install | | | | | | | | | |
| 5.1 | Foundations & Plinths Installed | SUP | AES-NZ1005-STE-DSH-ELE-0034 | * Foundations for ABB wall charger pedestals installed to approved specification. * Precast plinths for ABB T54 * Chargers installed at HRO & STA carparks | Each location | V | AES |  | Check Sheet  +  Photos |
| 5.2 | Low Voltage Cables Installed | SUP | AEC-NZ1005-STE-SCH-ELE-0004  AES-NZ1005-STE-ITP-PMT-0022  AS/NZS 3000:2007 | * Installed as per cable schedule through inground conduits & pull pits. * Pre-livening tests **ONLY** as per AES-NZ1005-STE-ITP-PMT-0022 * Communication & Charger control cables run to each location from DBs | Each location | V + DR + FM |  | AES | Check Sheet  +  Photos  +  ITP |

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| **#** | **Inspection and Test Control Point** | **Resp.** | **Referenced Documentation** | **Conformance Criteria** | **Method** | **Frequency** | **Ctrl Point** | | **Records** |
| **WP** | **HP** |
| 6.0 Completion Test & Record | | | | | | | | | |
| 6.1 | Works Completion Test  WCT 54 | SUP | Schedule 11  WCT 54 (e)(f)  AS/NZS 3000:2007 | * The EIS for the New Waikeria Facility have been installed in accordance with the FDD. This includes EIS testing and satisfactory commissioning (including interfaces with other services) has been completed, recorded and compliance results presented to the Independent Reviewer for the following systems:  1. general power; 2. earthing system; | FTR + V + DR | Once | AE Smith  +  LJE | AES  /  CPB  /  IR | Check  Sheet  +  QA documents  +  COC |
| 6.2 | Works Completion Test  WCT 83 |  | Schedule 11  WCT 83 Cable pull pits | * Cable Pull pits inside the primary physical barrier are accessible for maintenance and have locking type bolt down metal covers | DR | On completion of installation | AES  /  Downer | AES  /  CPB  /  IR | Check Sheet |
| 6.3 | Conformance records | SUP |  | * All relevant records will be provided and demonstrate compliance with project requirements | DR | Each Lot | AES |  | Check Sheet |
| 6.4 | As-built Survey | SUP | NZT5007-SSS-CSSP-0001 | * As Built Completed | DR | Each Lot | AES |  | Check Sheet |

Inspection and Test Plan Lot Verification Checklist

PART 3 OF INSPECTION & TEST PLAN

|  |  |
| --- | --- |
| **Lot Number:** |  |
| **Lot Description:** | Tank Farm |

*Note: Item / # records to be filled out by CPB Engineer - minimum is to match ITP, extra documents can be added*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No. Item**  **ITP / Quality Control Checklists** | | **Number of Records Required** | **LOT Subfolder No:** | **Remarks (initial / date)** |
| 1.0 |  |  |  |  |
| 1.1 |  |  |  |  |
| **Survey Results** | | | | |
| 2.0 |  |  |  |  |
| 2.1 |  |  |  |  |
| **Test Results** | | | | |
| 3.0 |  |  |  |  |

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| --- | --- | --- | --- |
| **Conformance of Work Statement *(if required ie if some docs not signed*):**  The works for this construction lot conforms in respects to the ITP. | | | |
| **Name:** | **Signed:** | ***Subcontractor:*** | **Date:** |
| **Conformance of Work Statement:**  The works for this construction lot conforms in respects to the ITP. | | | |
| **Name:** | **Signed:** | ***Foreman/Supervisor*** | **Date:** |
| **Conformance / Verification of Construction Lot Statement:**  This closed lot conforms in all respects with the standards and requirements specified in the Contract Documents. The lot verification records are complete and attached. Any non-conformances have been dispositioned in accordance with the contract requirements. | | | |
| **Name:** | **Signed:** | ***Project Engineer/Senior Project Engineer*** | **Date:** |
| **Quality Review:** | | | |
| **Name:** | **Signed:** | ***Quality Manager / Rep.*** | Date: |



**Title:** WPD Inspection and Test Plan - Template

**ID:** MSID-298162371-1209 Version: 3.0 **Date Published:** 20/08/2020 Waikeria Prison Development / WPDP - Uncontrolled Document when Printed

Project Specific Document Page 4 of 4