**project check lists major building works**

**use in conjunction with the**

**current major building works**

**master specifications**

INTRODUCTION

It is difficult during a visit to a construction site to memorise all of the details that need to be checked and while the obvious ones stand out, many other items that should be checked are forgotten. Supervisors may get distracted or over extended due to time constraints and overlook items that may have more serious consequences later in the project.

These Check Lists provide a guide to the inspections that are required on site for a particular project. They can be referred back to the specification if the full text of the particular item is required. The Check Lists will remind you of some potential problems in materials, workmanship, and coordination between trades.

Project specific checks may be added to the Check Lists for individual projects and the experience of Supervisors can be shared by the addition of particular checks on items or operations that are generally of concern on site.

Provide one copy of the Check Lists book to the Supervisor and one copy to the Contractor for the particular project.

HOW TO USE THESE CHECK LISTS

Take photocopies of the relevant Check List sections before going on site and study these.

Mark any items in the Check List that are of particular concern.

At the project site, check off the work against the Check Lists and make notes of any action required in the space provided.

When the work is completed and the final check has been made sign off and date in the box provided. There is also space to provide comments.

Keep a record of all of the completed Check Lists for future reference if required. These could prove to be valuable if disputes arise on the project.

There is no better way to document actual site conditions or details than by photographs, so don’t forget to take a camera on site and take images to go with particular items in the Check Lists.

HOLD POINTS AND WITNESS POINTS SCHEDULES

Read these Check Lists in conjunction with the schedules of Hold Points and Witness points. Hold Points and Witness Points are scheduled in the RFT/RFQ and are accessible via:

<https://transport.nt.gov.au/industry/technical-standards-guidelines-and-specifications/technical-specifications/buildings>

FURTHER DEVELOPMENT

If you have any suggestions to improve on these Check Lists or the system in general please contact

Specification Services.

3rd Floor Highway House, Palmerston.

Email: [Specification.Services@nt.gov.au](mailto:Specification.Services@nt.gov.au)

Comments from in-house staff, consultants or contractors are most welcome.

|  |  |
| --- | --- |
| **Project Title** |  |
| **RFT Number** |  |

PROJECT CHECKLISTS

MAJOR BUILDING WORKS

CONTENTS

**SECTION**

1. General Requirements
2. Demolition
3. Groundworks
4. Termite Control
5. Concrete
6. Structural Steel
7. Light Steel Framing
8. Masonry
9. Woodwork
10. Roofing
11. Cladding
12. Insulation, Sarking, and Pliable Membranes
13. Windows
14. Glazing
15. Doors
16. Hardware
17. Suspended Ceilings
18. Partitions
19. Lining
20. Rendering and Plastering
21. Metalwork
22. Fixed Furniture and Joinery
23. Tiling
24. Resilient Finishes
25. Carpets
26. Painting
27. Miscellaneous Fixtures
28. Stormwater
29. Sanitary Services
30. Water
31. LP Gas
32. General Electrical Requirements
33. Wiring and Accessories
34. Generators
35. Liquid Fuels
36. Photovoltaic Installations
37. Uninterruptible Power Supply (UPS)
38. Switchboards
39. Luminaires
40. Communications
41. Master Antenna TV
42. Fire Detection
43. Lightning and Surge Protection
44. Electronic Security and Access Control
45. General Mechanical Requirements
46. Mechanical Systems
47. Mechanical Equipment
48. Air Coils
49. Chillers - Combined
50. Cooling Towers
51. Ductwork
52. Ductwork Insulation
53. Air Grilles
54. Mechanical Pipework
55. Mechanical Pipework Insulation
56. Water Treatment
57. Building management Systems
58. Mechanical Commissioning
59. Mechanical Maintenance
60. Paving
61. Civil Works
62. Fabric Shade Structures
63. Fencing
64. Landscape
65. Irrigation
66. Play Equipment
67. Playground Surfacing

**DEPARTMENT OF INFRASTRUCTURE planning and logistics**

**CHECK LIST – GENERAL REQUIREMENTS**

|  |  |  |  |
| --- | --- | --- | --- |
| PROJECT |  | SPEC. NO. |  |
| Checked by |  | Title |  |
| Work lot |  | Date |  |

**COMPLIANCE CHECKS – Refer Specification**

| **Item** | **Checked - initial & date** |
| --- | --- |
| **INSPECTION** | |
| Notice given before covering up works |  |
| **SAMPLES** | |
| Received and approved |  |
| **TESTING** | |
| NATA endorsed testing authority |  |
| **CONTRACTORS SUBMISSIONS** | |
| Amended drawings proposed procedure received |  |
| Manufacturer’s warranties received in the name of the Principal |  |
| Approval of authorities received whose requirements apply the works |  |
| CEMP received |  |
| PCP received |  |
| ITPs received |  |
| **VOLATILE SUBSTANCES MANAGEMENT** | |
| Details provided of the volatile substances to be brought into the worksite received |  |
| **CAMP SITE/COMPOUND/WORKSHOP** | |
| Permission from the owner or lessee of the land received |  |
| **SAFETY** | |
| Work Health and Safety Management Plan received |  |
| Safety officer details provided |  |
| Safety equipment, clothing, devices and first aid kits available on site |  |
| **PROJECT NOTICE BOARDS - SUPPLY, ERECT AND MAINTAIN PROJECT NOTICE BOARDS** | |
| Project notice board installed if required |  |
| **CONSTRUCTION INDUSTRY WHITE CARD** | |
| All workers on site qualified |  |

Action Required - ITC issued on items that do not comply

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**DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS**

**CHECK LIST – DEMOLITION**

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| PROJECT |  | SPEC. NO. |  |
| Checked by |  | Title |  |
| Work lot |  | Date |  |

**COMPLIANCE CHECKS – REFER SPECIFICATION**

| **Item** | **Checked - Initial & Date** |
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| **MATERIALS AND COMPONENTS** | |
| Hazardous materials identified |  |
| Salvaged materials recovered without damage |  |
| Re-used materials stored as specified |  |
| Material removed from site covered during transport |  |
| **DEMOLITION** | |
| Temporary supports provided as specified |  |
| Weather protection provided as specified |  |
| Dust protection provided as specified |  |
| Any damage made good |  |
| Security provisions provided as specified |  |

Action Required - ITC issued on items that do not comply

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**DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS**

**CHECK LIST – GROUNDWORKS**

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| PROJECT |  | SPEC. NO. |  |
| Checked by |  | Title |  |
| Work lot |  | Date |  |

**TESTS**

Give sufficient notice so that the Superintendent may witness testing:

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| Spec. Ref. | Item | Checked – Initial and date |
| #.15 | Density tests |  |
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**COMPLIANCE CHECKS – REFER SPECIFICATION**

| **ITEM** | **Checked - Initial & Date** |
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| **TREES TO BE RETAINED** | |
| Trees marked as specified |  |
| Tree protection zone and tree protection measures as specified |  |
| Temporary protective enclosures as specified |  |
| **EXISTING SURFACES** | |
| locations of existing underground services marked |  |
| **ENVIRONMENTAL PROTECTION** | |
| Erosion control plan in place |  |
| Groundworks free of water |  |
| **SITE CLEARING** | |
| Site clearing limited to required area |  |
| Cleared material removed from site |  |
| Stumps grubbed out as specified |  |
| Topsoil removed as specified |  |
| Re-useable top soil stock piled in approved location |  |
| **EXCAVATION** | |
| Correct levels |  |
| Footing sizes and depths as specified |  |
| Bearing capacity confirmed |  |
| Supports as specified |  |
| **GRADING** | |
| External areas graded to fall away from buildings |  |
| Subfloor area ground surface graded to fall away from buildings without ponding |  |
| **SURFACE PREPARATION** | |
| Ground surface prepared before placing fill material |  |
| Benching as specified |  |
| Surface finished to required, levels, grade and shape as specified |  |
| **FILL** | |
| Correct type used |  |
| Certification received for Imported fill |  |
| **PLACING FILL** | |
| Layers and density as specified |  |
| Correct moisture content |  |
| **REQUIRED DENSITY** | |
| Required density is as specified |  |
| **PROOF ROLLING** | |
| Roller type and size as specified |  |
| No visible deformation or springing |  |
| **DENSITY TESTS** | |
| NATA registered testing laboratory |  |
| Testing frequency is as specified |  |
| Compaction test results received |  |
| **SANDLAYER** | |
| Materials as specified |  |
| **PILING** | |
| Bored piers as specified |  |
| Screw in foundations proprietary system to AS 2159 |  |
| **SERVICE TRENCHES** | |
| Trench widths and depths as specified |  |
| Backfill material as specified |  |
| Existing services re-instated as specified |  |

Action Required - ITC issued on items that do not comply

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**DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS**

**CHECK LIST – TERMITE CONTROL**

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| PROJECT |  | SPEC. NO. |  |
| Checked by |  | Title |  |
| Work lot |  | Date |  |

**COMPLIANCE CHECKS – REFER SPECIFICATION**

| **ITEM** | **Checked - Initial & Date** |
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| **TESTS** | |
| Certificate of chemical soil barrier type testing received |  |
| **NON CHEMICAL BARRIER** | |
| Cap and strip shield material and components as specified |  |
| Stainless steel mesh barriers location and installation as specified |  |
| **CHEMICAL SOIL BARRIER** | |
| Collars to all penetrations |  |
| Low pressure reticulation system installed to the perimeter strip and on both sides of, and close to, construction joints |  |
| Hand spray application as specified |  |
| Chemical properties as specified |  |
| **RETICULATION SYSTEM** | |
| Material and components as specified |  |
| Approved installer used |  |
| Reticulation plan provided |  |
| **PROTECTION** | |
| System protected from other works in progress |  |
| **GUARANTEE** | |
| System guarantee provided as specified |  |
| **COMPLETION** | |
| Certificates issued for each stage of treatment |  |
| Certificate of completion issued |  |
| Durable notice permanently fixed in a prominent location |  |

Action Required - ITC issued on items that do not comply

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**DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS**

**CHECK LIST – CONCRETE**

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| PROJECT |  | SPEC. NO. |  |
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| Work lot |  | Date |  |

**TESTS**

Give sufficient notice so that the Superintendent may witness testing:

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| Spec. Ref. | Item | Checked – Initial and date |
| #.4 | Compressive strength tests  Slump tests  Other specified tests if required |  |
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**COMPLIANCE CHECKS – REFER SPECIFICATION**

| **ITEM** | **Checked - Initial & Date** |
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| **PROCESS TESTING** | |
| Compressive strength test results received |  |
| Strength assessment agreement |  |
| NATA registered testing authority |  |
| Sampling frequencies as specified |  |
| **CONTRACTOR’S SUBMISSIONS** | |
| Saw joint methods received |  |
| **TERMITE BARRIER** | |
| Barriers installed as specified |  |
| **VAPOUR BARRIER** | |
| Sand bedding in place |  |
| Installation as specified |  |
| Joints lapped at 200mm and sealed with waterproof adhesive tape |  |
| **FORMWORK** | |
| Installed as specified |  |
| Correct surface finish |  |
| Formwork removed, including concealed locations as specified |  |
| **REINFORCEMENT** | |
| Reinforcement, including tie wires, support chairs, spacers etc. as specified |  |
| Dowels as specified |  |
| **PRESTRESSED TENDONS** | |
| As specified if required |  |
| **EMBEDDED ITEMS** | |
| Correctly positioned as specified |  |
| Corrosion protection provided as specified |  |
| **CONCRETE** | |
| Ready mixed concrete as specified |  |
| Placing as specified |  |
| Evaporation control measures provided as specified |  |
| Concrete compacted as specified |  |
| Curing method is as specified |  |
| **ADDITION OF ADMIXTURES** | |
| As specified |  |
| **PRECAST UNITS** | |
| Manufactured as specified |  |
| Installed accurately |  |
| **WATERPROOF MEMBRANES** | |
| Correct type used |  |
| Substrate accepted |  |
| Installed membrane protected as specified |  |
| **CEMENTITIOUS TOPPINGS** | |
| Hardened surfaces prepared as specified |  |
| Correct thickness |  |
| Finish is as specified |  |
| Curing method as specified |  |
| Cured surface free off cracks and other discontinuities |  |
| **JOINTS** | |
| Construction joints installed where specified |  |
| Movement joints installed where specified |  |
| **FINISHES TO UNFORMED SURFACES** | |
| Surface tolerance to specified class |  |
| Finishing method as specified |  |
| **INTEGRAL FINISHES** | |
| Finish type as specified |  |
| **REINFORCED CONCRETE PAVEMENTS** | |
| Subgrade prepared |  |
| Expansion joints installed where specified |  |
| Contraction joints installed where specified |  |
| Finish type as specified |  |
| **GROUT** | |
| Grout beneath footings as specified |  |
| Grout for blockwork cores as specified |  |
| **MISCELLANEOUS ITEMS** | |
| Clothes hoist footing installed as specified |  |
| Splash pads Installed as specified |  |
| Mowing strips installed as specified |  |
| Gas cylinder pad installed as specified |  |

Action Required - ITC issued on items that do not comply

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**DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS**

**CHECK LIST – STRUCTURAL STEEL**

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| PROJECT |  | SPEC. NO. |  |
| Checked by |  | Title |  |
| Work lot |  | Date |  |

**COMPLIANCE CHECKS – REFER SPECIFICATION**

| **ITEM** | **Checked - Initial & Date** |
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| **CONTRACTOR’S SUBMISSIONS** | |
| Shop drawings submitted |  |
| Steel compliance documentation received |  |
| **MATERIALS AND COMPONENTS** | |
| Steel components free of rust and free from damage |  |
| Steel grades as specified |  |
| **CONSTRUCTION GENERALLY** | |
| Steel clearly Identified as specified |  |
| Foundation bolts installed as specified |  |
| Temporary connections as specified |  |
| **WELDING** | |
| Weld procedure specification approval |  |
| Weld category as specified |  |
| Weld type as specified |  |
| Welders and welding supervisors qualifications received |  |
| Preparation as specified |  |
| **BOLTING** | |
| Nuts and bolts as specified |  |
| Anchor bolts provided with 2 nuts and 2 oversize washers and sufficient thread for levelling |  |
| Documentary evidence provided for masonry anchors |  |
| Lock nuts provided for bolts in moving parts |  |
| **PROTECTIVE COATING** | |
| Inspector name and qualifications provided |  |
| Steel surfaces prepared as specified |  |
| Protective coat provided to steel before delivery to site |  |
| Damages repaired after erection |  |

Action Required - ITC issued on items that do not comply

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**DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS**

**CHECK LIST – LIGHT STEEL FRAMING**

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| PROJECT |  | SPEC. NO. |  |
| Checked by |  | Title |  |
| Work lot |  | Date |  |

**COMPLIANCE CHECKS – REFER SPECIFICATION**

| **ITEM** | **Checked - Initial & Date** |
| --- | --- |
| **MATERIALS AND COMPONENTS** | |
| Materials and components rust free and damage free |  |
| **CONSTRUCTION** | |
| Frames fitted firmly as specified |  |
| Correct fasteners used |  |
| Welds clean and primed |  |
| Prefabricated frames undamaged |  |
| Frame cavities clean upon completion |  |
| Lagging installed as specified |  |
| Temporary earthing provided |  |
| **FRAMES** | |
| Stud spacing, nogging and bracing is as specified |  |
| Damp proof course provided as specified |  |
| Lintels installed where specified |  |
| Bracing provided as specified |  |
| Splice plates installed |  |
| Additional supports provided for fixing hardware and accessories |  |
| Service holes pre-cut and flared or site-cut with plastic bushes/grommets |  |
| Flashing provided to external openings |  |
| **ROOF TRUSSES** | |
| Shop drawings and certification received |  |
| Support for water container provided |  |
| Trusses marked correctly |  |
| Fixing correct, including ties and wind bracing |  |
| Trusses installed as specified |  |

Action Required - ITC issued on items that do not comply

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**DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS**

**CHECK LIST – MASONRY**

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| Checked by |  | Title |  |
| Work lot |  | Date |  |

**COMPLIANCE CHECKS – REFER SPECIFICATION**

| **ITEM** | **Checked - Initial & Date** |
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| **SAMPLES** | |
| Samples received |  |
| **MATERIALS AND COMPONENTS** | |
| Correct masonry units are used |  |
| Correct steel components used and galvanised |  |
| Mortar materials checked   * Sand * Cement * Additives * Coloured mortar * Damp proof course |  |
| Correct mortar mix used as specified |  |
| **CONSTRUCTION GENERALLY** | |
| Masonry cleaned as work proceeds |  |
| Masonry protected from wind and rain |  |
| Correct falls to sills and thresholds as specified |  |
| Capstones and weatherings as specified |  |
| Correct joints and cutting used |  |
| Coursing correct |  |
| Bond type correct |  |
| Holes provided for services where required |  |
| Chases cut not hammered |  |
| **FACEWORK** | |
| Correct wall face side used |  |
| Perpends aligned and filled |  |
| Joints as specified |  |
| Face units even in colour |  |
| **DAMP PROOF COURSES** | |
| Correct materials used as specified |  |
| Locations correct as per drawings |  |
| Laps installed correctly and sealed |  |
| **CAVITY WALLS** | |
| Cavity widths correct as specified |  |
| No bridging of cavities |  |
| Cavities filled as specified |  |
| Cavity flashings installed as specified |  |
| Weep holes provided and clear |  |
| **WALL TILES** | |
| Wall ties, type, spacing and installation as specified |  |
| Flexible wall ties used at control joints |  |
| **MOVEMENT JOINTS** | |
| Joint material as specified |  |
| Backing rod inserted |  |
| Correct sealant used |  |
| Width correct |  |
| Slip joint material correct as specified |  |
| **REINFORCED MASONRY** | |
| Reinforcement installed as specified |  |
| Clean out blocks installed as specified |  |
| Cleaning out of core holes completed |  |
| Bond beams as specified |  |
| Lintel blocks as specified |  |
| Grout has completely filled cores |  |
| Grout filling of blockwork minimum 3 days after construction |  |
| Maximum height of pour 3 metres |  |
| All cores filled below ground level |  |
| **STEEL LINTELS** | |
| Correct corrosion protection used |  |
| Correct size lintels used as specified |  |
| Clearance at heads of frames is as specified |  |
| **BAGGING** | |
| Joints cut flush |  |
| Correct mixture used |  |
| Acceptable texture |  |

Action Required - ITC issued on items that do not comply

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**DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS**

**CHECK LIST – WOODWORK**

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| PROJECT |  | SPEC. NO. |  |
| Checked by |  | Title |  |
| Work lot |  | Date |  |

**COMPLIANCE CHECKS – REFER SPECIFICATION**

| **ITEM** | **Checked - Initial & Date** |
| --- | --- |
| **GENERAL** | |
| Handling and storage as specified |  |
| Protective coating to drilled holes |  |
| Cut members sealed |  |
| Protective coating to notches |  |
| **CONTRACTOR’S SUBMISSIONS** | |
| Roof truss certification received |  |
| Roof truss moisture content records received |  |
| **TIMBER** | |
| Certification provided |  |
| Timber identification as specified |  |
| Radiata pine preservative treatment as specified |  |
| Pressure treatment of structural timbers as specified |  |
| Moisture content as specified |  |
| Timber grade as specified |  |
| Strip flooring and decking timber type and grade is as specified |  |
| Finished sizes as specified |  |
| **SHEET PRODUCTS** | |
| Structural plywood type and grade is as specified |  |
| Hardboard bracing type and thickness is as specified |  |
| Fibre cement flooring type and category is as specified |  |
| **FASTENERS AND ADHESIVES** | |
| Fasteners correct type and galvanized where specified |  |
| Adhesives as specified |  |
| Nailing strips as specified |  |
| Post bases as specified |  |
| **FLOORS** | |
| Termite shields installed |  |
| Structural sheet flooring   * Level * Junctions have a smooth and level finish |  |
| Fibre cement flooring   * Sheet ends joined correctly * Expansion joints installed as specified |  |
| Timber decking   * Decking securely nailed to bearers * Nails galvanised as specified * Joints are flush and directly over floor joists |  |
| **WALL FRAMING** | |
| Frame sizes and grades are as specified |  |
| Noggins spaced correctly |  |
| Additional supports provided for fixing hardware and accessories |  |
| Vermin barrier provided |  |
| Damp proof courses installed as specified |  |
| Flashing provided to external openings |  |
| **ROOF AND CEILING FRAMING** | |
| Beam framing as specified |  |
| Support for water container provided |  |
| **ROOF TRUSSES** | |
| Approved manufacturer used |  |
| Shop drawings and certification provided |  |
| Trusses permanently marked with the following:   * Manufacturer * Location * Support points * Special loading requirements |  |
| Fabrication:   * Camber provided * Connector plates in place and free from knots * No gaps greater than 2 mm |  |
| Installation:   * Support trusses correctly positioned * Ties and wind bracing provided * Ceiling batten type is as specified * Battens fixed as specified |  |
| **GLUED-LAMINATED MEMBERS** | |
| End joints installed as specified |  |
| Camber installed as specified |  |
| Protection from weather provided |  |
| **TRIM** | |
| Skirting installed at wall junctions |  |
| Access hatches installed where specified |  |

Action Required - ITC issued on items that do not comply

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**DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS**

**CHECK LIST – ROOFING**

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| PROJECT |  | SPEC. NO. |  |
| Checked by |  | Title |  |
| Work lot |  | Date |  |

**COMPLIANCE CHECKS – REFER SPECIFICATION**

| **ITEM** | **Checked - Initial & Date** |
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| **APPROVED FIXERS** | |
| Fixers approved by the roofing manufacturers |  |
| **SHEET METAL ROOFING - STORAGE AND HANDLING** | |
| Storage and handling as specified |  |
| **PROTECTION** | |
| Roof free from swarf |  |
| All damage repaired |  |
| **THERMAL MOVEMENT** | |
| Expansion breaks provided to manufacturer’s recommendation |  |
| **METAL SEPERATION** | |
| Incompatible metals separated |  |
| **ROOF STRUCTURE ALIGNMENT** | |
| Alignment correct |  |
| Battens placed correctly |  |
| Roof plane is correct |  |
| **MATERIALS AND COMPONENTS** | |
| Material and components rust and damage free |  |
| Roof insulation spacer system fixed to manufacturer’s recommendation |  |
| Prepainted steel sheet identified with manufacturer marking |  |
| Fasteners as specified |  |
| Thermal break provided |  |
| Safety mesh in place |  |
| Installation clean and free of swarf |  |
| **METAL FASCIA AND BARGE** | |
| Material type and size as specified |  |
| Rafter ends fixed correctly |  |
| Corner trims, end trims and cappings installed |  |
| **METAL ROOFING** | |
| Pitch as specified |  |
| Sheets fixed as specified |  |
| Accessories fixed as specified |  |
| Ridges and Eaves installed as specified |  |
| Ridge and barge capping fixed and cut to roof profile |  |
| **ROOF PLUMBING** | |
| Material finishes checked:   * Flashings * Cappings * Gutters * Rainwater heads * Outlets * Downpipes |  |
| Jointing sheet metal rainwater goods as specified |  |
| Flashing and cappings:   * Roof junction checked * Upstands * Abutments * Projections through roof |  |
| Gutters generally   * Turned down into outlets * Overflows provided * Minimum falls checked * Joints in gutters as specified |  |
| Valley gutters as specified |  |
| Eaves gutters as specified |  |
| Box gutters as specified |  |
| Metal downpipes   * Connected to gutter outlets * Fixings correctly positioned |  |
| **ROOF VENTILATORS** | |
| Proprietary roof ventilator system as specified |  |
| **ROOF PLANT ACCESS** | |
| Proprietary roof walkway system including fixings as specified |  |

Action Required - ITC issued on items that do not comply

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**DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS**

**CHECK LIST – CLADDING**

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| Work lot |  | Date |  |

**COMPLIANCE CHECKS – REFER SPECIFICATION**

| **ITEM** | **Checked - Initial & Date** |
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| **SHEET METAL CLADDING - STORAGE AND HANDLING** | |
| Storage and handling as specified |  |
| **PROTECTION** | |
| Cladding free from swarf |  |
| All damage repaired |  |
| **THERMAL MOVEMENT** | |
| Expansion breaks provided to manufacturer’s recommendation |  |
| **METAL SEPERATION** | |
| Incompatible metals separated |  |
| **MATERIAL AND COMPONENTS** | |
| Sheet metal free of rust and free of damage |  |
| Plywood as specified |  |
| Hardboard as specified |  |
| Fibre cement classification as specified |  |
| Fasteners as specified |  |
| Thermal break provided |  |
| **CONSTRUCTION GENERALLY** | |
| To NT Deemed to Comply Manual |  |
| Substrates or framing aligned correctly |  |
| Trims and accessories installed |  |
| **FIBRE CEMENT CLADDING** | |
| Plank cladding   * Correct plank size * Joints and edges finished as specified * Corner pieces checked |  |
| Sheet cladding   * Correct size and type * Joints and edges finished as specified |  |
| Eaves lining   * Lining secured to bearers * Joints installed as specified |  |
| **COMPRESSED SHEET CLADDING** | |
| Joint sizes correct |  |
| Neoprene gaskets installed |  |
| Fixings as specified |  |
| **METAL CLADDING** | |
| Correct size and type |  |
| Fixed as specified |  |
| Penetrations sealed as specified |  |
| **ALUMINIUM COMPOSITE PANELS** | |
| Aluminium composite panels are fire retardant |  |
| Aluminium composite panels to be classified EW to AS 5113 |  |
| Building-to-building fire spread (BB) testing and classification to AS 5113 |  |
| Material Group number 1 |  |
| Fire engineer report provided as specified |  |
| Supplied material documentary evidence provided as specified |  |
| **METAL BONDED POLYSTYRENE PANELS** | |
| Core material as specified |  |
| Material Group number 1 |  |
| Installation in accordance with the manufacturer's manuals |  |
| FRL as specified |  |

Action Required - ITC issued on items that do not comply

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**DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS**

**CHECK LIST – INSULATION, SARKING, AND PLIABLE MEMBRANES**

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| PROJECT |  | SPEC. NO. |  |
| Checked by |  | Title |  |
| Work lot |  | Date |  |

**COMPLIANCE CHECKS – REFER SPECIFICATION**

| **ITEM** | **Checked - Initial & Date** |
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| **MATERIAL AND COMPONENTS** | |
| Bulk thermal insulation as specified |  |
| Sarking-type material including vapour barriers as specified |  |
| Fasteners galvanized steel |  |
| Safety mesh installed |  |
| **VAPOUR BARRIER INSTALLATION** | |
| Membrane heavy duty and VCM Class 1 |  |
| Membrane water barrier classification |  |
| Requirements as specified |  |
| Moisture proofing at laps, edges, and penetrations |  |
| Installation as specified:   * Masonry walls * Frame construction * Where roof beams pass through the vapour barrier * Large penetrations such as ducts or flues * Where box gutters are incorporated into the roof design |  |
| **INSULATION INSTALLATION** | |
| Boxing provided for loose fill |  |
| Bats fitted as specified |  |
| Sarking installed to required standard |  |
| Reflective foil installed as specified |  |
| Wall sarking installed as specified |  |
| Roof sarking installed as specified |  |

Action Required - ITC issued on items that do not comply

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**DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS**

**CHECK LIST – WINDOWS**

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| Checked by |  | Title |  |
| Work lot |  | Date |  |

**COMPLIANCE CHECKS – REFER SPECIFICATION**

| **ITEM** | **Checked - Initial & Date** |
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| **CONTRACTOR’S SUBMISSIONS** | |
| Shop drawings and certification received |  |
| Names and contact details of proposed manufacturers and installers received |  |
| Operation and maintenance manual received |  |
| Warranties received for supplied product and installation |  |
| **DESIGN** | |
| All windows conform to specified standards |  |
| **FRAME SECTIONS** | |
| Frame sections as specified |  |
| Sills, sub-sills, heads, and sub-heads installed |  |
| **MATERIALS AND COMPONENTS** | |
| Materials and components comply with specified standards |  |
| Glass free from defects |  |
| Report received for ceramic-coated spandrel glass |  |
| Report received for opacified glass |  |
| Flashings as specified |  |
| Fasteners as specified |  |
| Metal finishes as specified |  |
| **CONSTRUCTION GENERALLY** | |
| Joints fitted tightly |  |
| Jointing materials as specified |  |
| Elastomeric sealants as specified |  |
| Moving parts operate freely without sticking |  |
| Flashing and weatherings   * Correct type * Flashing installed correct |  |
| Sills, sub-sills, heads, and sub-heads fitted to manufacturer’s recommendations |  |
| Installation   * Windows are installed plumb and level * Correctly fixed to building structure * Are not carrying any building loads * Allow for thermal movement |  |
| Fixing as specified |  |
| Internal metal trims are as specified |  |
| **LOUVRE WINDOW ASSEMBLIES** | |
| Adjustable louvres   * Fixed to sub frame as per manufacturer’s recommendations * Stiles and mullions secured to building structure * Operating handle and latching device operational |  |
| Metal louvres   * Material as specified * Sub frame secured |  |
| Louvre arrangement as specified |  |
| **INFILL PANELS** | |
| Material as specified |  |
| Fixings as specified |  |
| **INSECT SCREENS** | |
| Aluminium framed screens   * Fixed as specified * Finish matches window frames * Mesh is taught and without distortion |  |
| Fixed screens   * Fitted with clipping device for removal * Finish matches window frames |  |
| Sliding screens   * Fixed as specified * Finish matches window frames |  |
| Hinged screens hardware and hinged at the top as specified |  |
| **SECURITY WINDOW GRILLES** | |
| Type and finish as specified |  |
| **DEBRIS SCREEN** | |
| Type and finish is as specified |  |

Action Required - ITC issued on items that do not comply

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**DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS**

**CHECK LIST – GLAZING**

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| PROJECT |  | SPEC. NO. |  |
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| Work lot |  | Date |  |

**COMPLIANCE CHECKS – REFER SPECIFICATION**

| **ITEM** | **Checked - Initial & Date** |
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| **CONTRACTOR SUBMISSIONS** | |
| Certification received |  |
| Samples received |  |
| Shop drawings received |  |
| Warranties received |  |
| **MATERIALS AND COMPONENTS** | |
| Glass type and thickness as specified |  |
| Safety glass certified and marked |  |
| Insulating glass units as specified |  |
| Heat soaking glass marked |  |
| Glazing materials as specified |  |
| Mirrors as specified |  |
| Noise reducing glazed assemblies marked |  |
| **GLAZING** | |
| Installation:   * Each piece permanently fixed * Building movements are not transferred to the glass * External work airtight/watertight * Certification received as specified * Glazing data received as specified |  |
| Frameless installations:   * Joints installed correctly * Panels spaced correctly * Finish is clean and free of defects |  |
| Preglazing is as specified |  |
| Mirrors fixed as specified |  |
| **GLAZED SHOWER SCREENS** | |
| Shower screen system as specified |  |
| Water shedding as specified |  |
| Doors close smoothly |  |

Action Required - ITC issued on items that do not comply

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**DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS**

**CHECK LIST – DOORS**

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| Checked by |  | Title |  |
| Work lot |  | Date |  |

**COMPLIANCE CHECKS – REFER SPECIFICATION**

| **ITEM** | **Checked - Initial & Date** |
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| **CONTRACTOR SUBMISSIONS** | |
| Type test results fire and smoke doorsets |  |
| **MATERIALS AND COMPONENTS** | |
| Doorsets and doors as specified |  |
| Flashings and weatherings   * Corrosion resistant * Installation to prevent water from penetrating the building |  |
| Jointing and pointing material non-staining and compatible |  |
| **CONSTRUCTION GENERALLY** | |
| Doorframes engraved with identifier |  |
| Joints accurate and tight |  |
| Operate freely and smoothly |  |
| Installation   * Plumb, level, straight and within tolerance * Adequately fixed * Do not carry any building loads |  |
| Hinged doorsets in two leaves as specified |  |
| Window and door assemblies as specified |  |
| Seals as specified |  |
| Trim as specified |  |
| Door furniture height correct |  |
| **TIMBER DOOR FRAMES** | |
| Material and grade as specified |  |
| Installation   * Plumb, level, straight and within tolerance * Adequately fixed * Do not carry any building loads |  |
| Heads of fasteners as specified |  |
| Fixing to metal frames as specified |  |
| Thresholds to external doors fitted |  |
| Weather seals to external doors fitted |  |
| **TIMBER DOORS** | |
| Installation as specified |  |
| Thickness 38 mm minimum |  |
| Flush doors:   * Edge strips as specified * Cut-outs 120 mm minimum from door edges * Primed before painting * Painting as specified * Manufacturer branding visible on exposed top or bottom rail edge |  |
| Special facings as specified |  |
| Door types as specified |  |
| **SLIDING DOOR FRAMES** | |
| Accessories as specified |  |
| **STEEL DOOR FRAMES** | |
| Sections as specified |  |
| Continuous weld across mitred flanges grinded smooth and cold galvanized |  |
| Shop primed |  |
| Hardware as specified |  |
| Installation as specified |  |
| **HINGED SECURITY DOORSETS** | |
| Materials and components as specified |  |
| Installation as specified |  |
| **ALUMINIUM DOORSETS** | |
| Materials and components as specified |  |
| Installation as specified |  |
| **FIRE RESISTANT DOORSETS** | |
| Materials and components as specified |  |
| Construction and installation as specified |  |
| **OVERHEAD DOORS** | |
| Roller shutters as specified |  |
| Sectional overhead doors as specified |  |
| Tilting overhead doors as specified |  |
| Motorized operation as specified |  |
| Manual operation force to lift does not exceed 220 |  |
| Wind loading to engineers specifications |  |

Action Required - ITC issued on items that do not comply

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**DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS**

**CHECK LIST – HARDWARE**

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| Work lot |  | Date |  |

**COMPLIANCE CHECKS – REFER SPECIFICATION**

| **ITEM** | **Checked - Initial & Date** |
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| **CONTRACTOR SUBMISSIONS** | |
| Manufacturer's published product data received |  |
| **MATERIALS AND COMPONENTS** | |
| Materials and components comply with specification |  |
| **INSTALLATION** | |
| Fixings   * Correct type * Non-corrosive * Back support provided where required |  |
| Door hardware   * Correct type * Correct mounting height |  |
| Door stops are positioned correctly |  |
| **HINGES** | |
| Correct number of hinges as specified |  |
| Correct type |  |
| **KEYING** | |
| Correct key type |  |
| Correctly identified |  |
| Group key provided |  |
| Grandmaster key provided |  |
| **LOCKS AND LATCHES** | |
| Strike plate same as lock |  |
| Locking mechanism works |  |
| Mortar guards provided |  |
| **DOOR CONTROLLERS** | |
| Fire door and smoke door closers operating correctly |  |
| **SLIDING DOOR TRACK** | |
| End stops and floor guides correctly positioned |  |
| Pelmet installed as specified |  |
| **CURTAIN TRACKS AND BLINDS** | |
| Tracks installed at correct height |  |
| Runners, end stops and fixing clips installed |  |
| Operation smooth and free from sticking |  |
| **HARDWARE FIXTURES** | |
| Installed as specified |  |

Action Required - ITC issued on items that do not comply

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**DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS**

**CHECK LIST – SUSPENDED CEILINGS**

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| PROJECT |  | SPEC. NO. |  |
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| Work lot |  | Date |  |

**COMPLIANCE CHECKS – REFER SPECIFICATION**

| **ITEM** | **Checked - Initial & Date** |
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| **CONTRACTOR SUBMISSIONS** | |
| Fire hazard properties received |  |
| Warranties received |  |
| **PERFORMANCE CRITERIA** | |
| System tested as specified |  |
| **MATERIALS AND COMPONENTS** | |
| Material and components comply with specification |  |
| Spare tiles provided |  |
| **PROTOTYPE** | |
| Sample installation provided |  |
| **CONSTRUCTION GENERALLY** | |
| Grid set-out is as specified |  |
| Service penetrations through solid tiles only |  |
| Cut tile edges are as specified |  |
| System stable, free of looseness and/or rattling components |  |
| Support members:   * Installation as specified * Corrosion protection * Height adjustment * Purlin clips not used |  |
| Bracing provided as specified |  |
| No fasteners visible in the finished ceiling |  |
| Bulkheads braced |  |
| Panels painted before installation |  |
| Panels installed accurately as specified |  |
| Control joints installed where specified |  |
| Accessories and trim provided |  |
| **ACCESS PANELS** | |
| Installed where specified |  |
| Finish to match ceiling |  |
| Reinforcement provided |  |
| Identification provided |  |

Action Required - ITC issued on items that do not comply

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**DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS**

**CHECK LIST – PARTITIONS**

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| PROJECT |  | SPEC. NO. |  |
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| Work lot |  | Date |  |

**COMPLIANCE CHECKS – REFER SPECIFICATION**

| **ITEM** | **Checked - Initial & Date** |
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| **CONTRACTOR SUBMISSIONS** | |
| Warranties submitted for materials and components, and installation |  |
| **MATERIALS AND COMPONENTS** | |
| Coated steel as specified |  |
| Aluminium as specified |  |
| Fasteners as specified |  |
| **CONSTRUCTION GENERALLY** | |
| Base prepared receive the partitions |  |
| Set-out as per drawings |  |
| Partitions installed plumb and level with correct alignment |  |
| **PRODUCTS** | |
| Marked as specified |  |
| Compressed fibre cement panels as specified |  |
| Sheet faced reconstituted wood-based panels and doors as specified |  |
| High pressure decorative laminate (HPDL) and panels and doors as specified |  |
| Division, front and nib panels material thickness correct |  |
| Door material thickness and size correct |  |
| Accessories as specified |  |
| **EXECUTION** | |
| Cubicle system installation to manufacturer’s recommendations |  |

Action Required - ITC issued on items that do not comply

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**DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS**

**CHECK LIST – LINING**

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**COMPLIANCE CHECKS – REFER SPECIFICATION**

| **ITEM** | **Checked - Initial & Date** |
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| **CONTRACTOR SUBMISSIONS** | |
| Fire hazard properties received |  |
| Warranties submitted for materials and installation |  |
| **MATERIALS AND COMPONENTS** | |
| Plywood and blockboard as specified |  |
| Plasterboard as specified |  |
| Fiberock fixing and installation to manufacturer’s recommendations |  |
| Fibre cement Type B, Category 2 |  |
| Tongue and groove boards Responsible Wood or FSC certified |  |
| Coated steel as specified |  |
| Fasteners as specified |  |
| Adhesives and sealants as specified |  |
| **CONSTRUCTION GERERALLY** | |
| Area enclosed and weather tight |  |
| Substrates and/or framing aligned correctly |  |
| Battens installed as specified |  |
| Ceiling lining installed as specified |  |
| Accessories and trim provided |  |
| Adhesives fit for purpose and do not cause discolouration |  |
| Fire-resisting and acoustic installations as specified |  |
| Fiberock used for high impact areas |  |
| **PLASTERBOARD LINING** | |
| Supports installed as specified |  |
| Installation as specified |  |
| Joints installed as specified |  |
| **FIBRE CEMENT LINING** | |
| Supports installed as specified |  |
| Installation as specified |  |
| Joints installed as specified |  |
| **TONGUE AND GROOVE LINING** | |
| Installation as specified |  |
| Boards correctly fixed |  |
| Joints installed as specified |  |
| **ACOUSTIC AND DECORATIVE FABRIC LINING** | |
| Fire performance Group number 1 |  |
| NRC 0.40 minimum |  |
| Aluminium wallboard capping used mechanically fixed to substrate at 400 mm centres |  |
| Substrate preparation:   * Cleaned * Voids and/or cracks filled * Joins taped * Level 3 finish * Porous substrates sealed * Gloss and semi-gloss finishes sanded |  |
| Installation   * Manufacturer accredited installers * Fixing and installation to manufacturer’s recommendations |  |
| Pile direction consistent |  |

Action Required - ITC issued on items that do not comply

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**DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS**

**CHECK LIST – RENDERING AND PLASTERING**

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| PROJECT |  | SPEC. NO. |  |
| Checked by |  | Title |  |
| Work lot |  | Date |  |

**COMPLIANCE CHECKS – REFER SPECIFICATION**

| **ITEM** | **Checked - Initial & Date** |
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| **CONTRACTOR SUBMISSIONS** | |
| Plaster system samples received |  |
| **MATERIALS AND COMPONENTS** | |
| Accessories as specified |  |
| Plaster materials as specified |  |
| Lime putty mix mixed 24 hours before use |  |
| Gauged mixes as specified |  |
| **SUBSTRATE** | |
| All defects repaired |  |
| Substrate clean and dust free |  |
| Embedded items treated as specified |  |
| Chases covered with metal lath as specified |  |
| Dense concrete background treated as specified |  |
| Dash coat installed as specified |  |
| **PLASTERING** | |
| Number of coats and thickness is as specified |  |
| Hidden surfaces finished as specified |  |
| Incidental work as specified |  |
| Joins concealed in finish |  |
| Tolerances are as specified |  |
| Surface finish as specified |  |
| Curing as specified |  |
| Two coat set plaster   * Undercoat applied * Setting coat applied |  |
| White set plaster as specified |  |
| External rendering mix and application is as specified |  |

| Waterproof render   * Correct mixture * Penetrations re-sealed |  |
| --- | --- |
| Tyrolean render as specified |  |
| **JOINTS** | |
| Movement joints installed as specified |  |
| V-joints installed as specified |  |
| Terminations as specified |  |

Action Required - ITC issued on items that do not comply

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**DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS**

**CHECK LIST – METALWORK**

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| PROJECT |  | SPEC. NO. |  |
| Checked by |  | Title |  |
| Work lot |  | Date |  |

**COMPLIANCE CHECKS – REFER SPECIFICATION**

| **ITEM** | **Checked - Initial & Date** |
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| **CONTRACTOR SUBMISSIONS** | |
| Operation and maintenance manuals received |  |
| Manufacturer’s data received |  |
| Shop drawings received |  |
| Names and contact details of proposed suppliers and installers received |  |
| Proposed welding procedures received |  |
| **MATERIALS AND COMPONENTS** | |
| Steel as specified |  |
| Steel for powder coating and electroplating as specified |  |
| Coated steel as specified |  |
| Stainless steel as specified |  |
| Aluminium and aluminium alloys as specified |  |
| Fasteners as specified |  |
| **CONSTRUCTION GENERALLY** | |
| Correct fasteners used |  |
| Edges and surfaces clean neat and free from burs |  |
| Joints fitted accurately |  |
| Neat bends |  |
| Colour matches for sheets, extrusions and fasteners |  |
| Welding and brazing as specified |  |
| **FINISHES** | |
| Visible joints finishing as specified |  |
| Preparation for coating as specified |  |
| Preparation for thermoset powder coating as specified |  |
| Hot-dip Galvanizing as specified |  |
| Electroplating as specified |  |
| Anodizing as specified |  |
| Thermoset powder coating as specified |  |

Action Required - ITC issued on items that do not comply

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**DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS**

**CHECK LIST – FIXED FURNITURE AND JOINERY**

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| PROJECT |  | SPEC. NO. |  |
| Checked by |  | Title |  |
| Work lot |  | Date |  |

**COMPLIANCE CHECKS – REFER SPECIFICATION**

| **ITEM** | **Checked - Initial & Date** |
| --- | --- |
| **CONTRACTOR SUBMISSIONS** | |
| Product warranty received and installation warranty received |  |
| Operations and maintenance manual received |  |
| Shop drawings received |  |
| Names and contact details of proposed suppliers and installers received |  |
| **MATERIALS AND COMPONENTS** | |
| Joinery timber as specified |  |
| Plywood as specified   * Visible surface with clear finish veneer quality A * Other visible surfaces veneer quality B |  |
| Wet processed fibreboard (including hardboard) as specified |  |
| Particleboard as specified |  |
| Dry-processed fibreboard (including medium density fibreboard) as specified |  |
| Decorative overlaid wood panels as specified |  |
| High pressure decorative laminate (HPDL) sheets as specified |  |
| Timber veneer as specified   * Visible surface with clear finish veneer quality A * Other visible surfaces veneer quality B |  |
| **CONSTRUCTION GENERALLY** | |
| Components built square and installed plumb |  |
| Joins over supports |  |
| Accessories and trim provided |  |
| Correct fasteners and adhesives used |  |
| Finishes:   * Scribed to structure * All exposed edges edged to match sheet faces |  |
| **CUPBOARD, SHELF AND DRAWER UNITS** | |
| Plinths installed as specified |  |
| Carcass installed as specified |  |
| Drawer fronts and doors installed as specified |  |
| **BENCHTOPS** | |
| Laminate benchtops:   * Material as specified * Thickness as specified * Underside sealed * Scribed to walls * Joint sealant to match finish |  |
| Splashback:   * Material as specified * Thickness as specified |  |
| **VANITY UNIT** | |
| Correct material |  |
| Installation as specified |  |
| **WARDROBES** | |
| Correct material |  |
| Installation as specified |  |
| **LINEN AND BROOM CUPBOARD** | |
| Correct material |  |
| Installation as specified |  |
| **SHELVES** | |
| Correct material |  |
| Installation as specified |  |

Action Required - ITC issued on items that do not comply

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**DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS**

**CHECK LIST – TILING**

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| Work lot |  | Date |  |

**COMPLIANCE CHECKS – REFER SPECIFICATION**

| **ITEM** | **Checked - Initial & Date** |
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| **CONTRACTOR SUBMISSIONS** | |
| Waterproofing membrane report received |  |
| Samples received |  |
| **MATERIALS AND COMPONENTS** | |
| Ceramic tiles as specified |  |
| Tactile ground surface indicators as specified |  |
| Exposed edges:   * Mitred * Metal trim provided |  |
| Coves, nosings and skirtings match tiles |  |
| Accessories provided |  |
| Metal trims provided, finish as specified |  |
| Spare tiles provided |  |
| Adhesives as specified |  |
| Mortar and bedding mortar as specified |  |
| Water clean and free from any deleterious matter |  |
| Grout as specified |  |
| **SUBSTRATE** | |
| Curing as specified |  |
| Moisture content provided |  |
| Substrate clean and free of deleterious material |  |
| **WATERPROOFING WET AREAS** | |
| Shower tray installed as specified |  |
| Membrane installed as specified |  |
| Membrane fully cured before tiling |  |
| Falls as specified |  |
| Water stops provided at door thresholds |  |
| Bond breaker material and installation as specified |  |
| Sealants waterproof, flexible, mould-resistant and compatible with host materials |  |
| **TILING** | |
| Tiles cut neatly to fit around fixtures and fittings |  |
| Setting out tiles as specified |  |
| Joint alignment is as specified |  |
| Correct falls and levels as specified |  |
| Bedding as specified |  |
| Bath ventilated with at least 2 vermin proof ventilating tiles |  |
| **JOINTS AND ACCESSORIES** | |
| Control of movement as specified |  |
| Movement joints provided |  |
| Grouting applied as specified |  |
| Sealant applied as specified |  |
| Floor finish dividers provided |  |

Action Required - ITC issued on items that do not comply

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**DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS**

**CHECK LIST – RESILIENT FINISHES**

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| PROJECT |  | SPEC. NO. |  |
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| Work lot |  | Date |  |

**COMPLIANCE CHECKS – REFER SPECIFICATION**

| **ITEM** | **Checked - Initial & Date** |
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| **CONTRACTOR SUBMISSIONS** | |
| Fire hazard properties received |  |
| Manufacturer’s data received |  |
| Warranties received |  |
| **MATERIALS AND COMPONENTS** | |
| Materials identification as specified |  |
| Edges of sheets and tiles square, clean and undamaged |  |
| Underlay as specified |  |
| Cork as specified |  |
| Linoleum as specified |  |
| Cork linoleum as specified |  |
| Rubber as specified |  |
| PVC as specified |  |
| Slip resistance as specified |  |
| Static control as specified |  |
| Vinyl bench topping as specified |  |
| Spare materials provided |  |
| Adhesives as specified |  |
| **SUBSTRATE** | |
| Substrate clean and free of deleterious material |  |
| Moisture content test results provided |  |
| **RESILIENT FINISHES INSTALLATION/LAYING** | |
| Sheet set-out correct |  |
| Tile set-out correct |  |
| Joints tightly fit showing no visible defects |  |
| Junctions:   * Scribed neatly up to returns, edges, fixtures and fittings * Finish flush with adjoining surfaces |  |
| Levels correct |  |
| **CORK TILES** | |
| Correct adhesive used |  |
| Surface level and free of abnormalities |  |
| **RUBBER TILES** | |
| Correct adhesive used |  |
| Stretcher bond laying |  |
| Joints aligned with no visible defects |  |
| Finished work cleaned and free of foreign matter |  |
| **VINYL SHEETING** | |
| All joins welded as specified |  |
| Finishing to manufacturer’s recommendations |  |
| **STAIRS** | |
| Tiles accurately scribed, and fitted as specified |  |
| Anti-slip nosings installed |  |
| **JOINTS AND ACCESSORIES** | |
| Junctions finished flush with adjoining surfaces |  |
| Doorway junctions installed as specified |  |
| Edge strips provided as specified |  |
| Movement joints installed as specified |  |
| Vinyl skirting installed as specified |  |
| Aluminium skirting as specified |  |
| Rubber coved skirtings and margins as specified |  |
| Cover skirtings as specified |  |
| **COMPLETION** | |
| Traffic kept off installation |  |
| Installation buffed and polished |  |
| Cleaning static control flooring as specified |  |

Action Required - ITC issued on items that do not comply

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**DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS**

**CHECK LIST – CARPETS**

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| PROJECT |  | SPEC. NO. |  |
| Checked by |  | Title |  |
| Work lot |  | Date |  |

**COMPLIANCE CHECKS – REFER SPECIFICATION**

| **ITEM** | **Checked - Initial & Date** |
| --- | --- |
| **CONTRACTOR SUBMISSIONS** | |
| Fire hazard properties received |  |
| Manufacturer’s data received |  |
| Samples received |  |
| Warranties received |  |
| Shop drawings received |  |
| **MATERIALS AND COMPONENTS** | |
| Materials stored in a clean, dry, ventilated area |  |
| Materials identification as specified |  |
| Batching consistent |  |
| Anti-microbial treatment provided |  |
| Insect resistance provided |  |
| Underlay type provided as specified |  |
| Carpet tiles as specified |  |
| Sustainable carpet tile backing as specified |  |
| Door mats provided |  |
| Spare materials provided |  |
| Low VOC adhesives compatible with floor covering material used |  |
| Hot-melt adhesive tape as specified |  |
| Preformed gripper strip installed as specified |  |
| Edge strip installed as specified |  |
| **SUBSTRATE** | |
| Substrate preparation:   * Stripped and clean * Repairs done * Fixtures and fittings removed prior to completion * Strip flooring lightly sanded |  |
| Moisture content test results provided |  |
| **LAYING CARPET** | |
| Setting out as specified |  |
| Seams flat and close fitting |  |
| Fixing as specified |  |
| **LAYING CARPET TILES** | |
| Setting out as specified |  |
| Chequerboard laying pattern |  |
| **PENRTRATIONS** | |
| Cross-cut and fit snugly |  |
| **CLEARANCE** | |
| Doors trimmed to clear finished carpet by 3 mm |  |
| **CLEANING AND PROTECTION** | |
| Finished product clean and undamaged |  |
| Protection from wheeled traffic as specified |  |

Action Required - ITC issued on items that do not comply

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**DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS**

**CHECK LIST – PAINTING**

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| PROJECT |  | SPEC. NO. |  |
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| Work lot |  | Date |  |

**COMPLIANCE CHECKS – REFER SPECIFICATION**

| **ITEM** | **Checked - Initial & Date** |
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| **CONTRACTOR SUBMISSIONS** | |
| Name and contact details of proposed specialist applicators provided |  |
| Warranties received |  |
| Samples received |  |
| **SAMPLES** | |
| Samples submitted for approval |  |
| **MATERIALS AND COMPONENTS** | |
| Low VOC paints used |  |
| Trade names of the paint types referred to by generic type and APAS specification received |  |
| Paints delivered to site in the manufacturer's labelled containers |  |
| Invoices receipts or delivery dockets received |  |
| Putty as specified |  |
| **PAINTING** | |
| ITPs provided |  |
| Substrate preparation as specified |  |
| Mould remediation as specified |  |
| Application:   * Manufacturers product datasheets and application specifications available * Safety Data Sheets available |  |
| Fixtures removed prior to painting |  |
| “Wet paint” signs provided |  |
| Paint application is uniform in colour   * Gloss * Thickness and texture * Free of runs, sags and other discontinuities |  |
| Protection as specified |  |
| Warning notices in place to areas of wet paint |  |
| Restoration as specified |  |
| Fillers as specified |  |
| Paint application as specified |  |
| Approval required for spray painting |  |
| Wood primed before fixing into position |  |
| Cut or welded galvanizing primed |  |
| Paint system description as specified |  |
| Number of coats as specified |  |
| Colour selection as specified |  |
| **POWDER COATING** | |
| Colour selection as specified |  |
| Name and contact details of proposed specialist applicators provided |  |
| Warranties received |  |

Action Required - ITC issued on items that do not comply

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**DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS**

**CHECK LIST – MISCELLANEOUS FIXTURES**

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| PROJECT |  | SPEC. NO. |  |
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| Work lot |  | Date |  |

**COMPLIANCE CHECKS – REFER SPECIFICATION**

| **ITEM** | **Checked - Initial & Date** |
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| **FIRE FIGHTING** | |
| Fire extinguishers and signs in place as specified |  |
| Fire blankets and signs in place as specified |  |
| **WHITEBOARDS** | |
| Size and type correct |  |
| Installed as specified |  |
| **ELECTRONIC INTERACTIVE WHITEBOARD SYSTEMS (IWBS)** | |
| Size and type correct |  |
| Installed as specified |  |
| Projector type mounted as specified |  |
| **PINBOARDS** | |
| Size and type correct |  |
| Installed as specified` |  |
| **CHALKBOARDS** | |
| Size and type correct |  |
| Installed as specified |  |
| **PROJECTION SCREENS** | |
| Size and type correct |  |
| Installed as specified |  |
| **CLOTHES HOISTS** | |
| Size and type correct |  |
| Installed as specified |  |
| **LETTER BOXES** | |
| Size and type correct as per drawings |  |

Action Required - ITC issued on items that do not comply

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**DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS**

**CHECK LIST – SANITARY SERVICES**

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**TESTS**

Give sufficient notice so that the Superintendent may witness testing:

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| Spec. Ref. | Item | Checked – Initial and date |
| #.3.2 | Hydrostatic tests |  |
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**COMPLIANCE CHECKS – REFER SPECIFICATION**

| **ITEM** | **Checked - Initial & Date** |
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| **TESTS** | |
| Hydrostatic test results received |  |
| **CONTRACTOR SUBMISSIONS** | |
| Work-as-executed drawings submitted |  |
| **CONNECTION** | |
| Local authorities draining plans obtained |  |
| Existing connection made good |  |
| **PIPEWORK MATERIALS** | |
| Exposed pipework, including fittings and supports finishes as specified |  |
| **SANITARY DRAINS** | |
| Inspection chambers installed as specified |  |
| Levels as specified |  |
| Completed pipelines flushed with water and clean |  |
| **SEWERAGE TREATMENT** | |
| Septic tank type as specified |  |
| On-site wastewater management system as specified |  |
| **SANITARY PLUMBING** | |
| Pipe supports materials as specified |  |
| Building penetrations as specified |  |
| Vent pipe materials as specified |  |
| Temporary seals provided as specified |  |
| **SANITARY FIXTURES** | |
| Products listed in the WaterMark Product Database |  |
| Water efficiency labelling scheme (WELS) |  |
| Accessories provided |  |
| Waterproofing to wet areas |  |
| Sealants as specified |  |

Action Required - ITC issued on items that do not comply

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**DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS**

**CHECK LIST – STORMWATER**

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| PROJECT |  | SPEC. NO. |  |
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**TESTS**

Give sufficient notice so that the Superintendent may witness testing:

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| Spec. Ref. | Item | Checked – Initial and date |
| #.3.2 | Hydrostatic tests |  |
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**COMPLIANCE CHECKS – REFER SPECIFICATION**

| **ITEM** | **Checked - Initial & Date** |
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| **TESTS** | |
| Hydrostatic test results received |  |
| **CONTRACTOR SUBMISSIONS** | |
| Work-as-executed drawings submitted |  |
| **CONNECTION** | |
| Local authorities draining plans obtained |  |
| Existing drain excavation made good |  |
| **FILL MATERIAL** | |
| Standard fill as specified |  |
| Select fill as specified |  |
| **TRENCHES** | |
| Cover to pipes as specified |  |
| **STORMWATER DRAINS** | |
| Levels and gradients are as specified |  |
| Spigot ends in direction of flow |  |
| Bedding material as specified |  |
| Trench backfill as specified |  |
| Inspection openings provided where specified |  |
| Anchor blocks installed where specified |  |
| Downpipe connections where specified |  |
| Finished work is flushed and clean |  |
| **LINED SURFACE DRAINS** | |
| Half round pipe drains installed as specified |  |
| Grated trenches installed as specified |  |
| **TABLE DRAINS** | |
| Correct size as specified |  |
| Graded to prevent ponding of water |  |
| Discharge into culverts, offlet drains or watercourses |  |
| **SUBSOIL DRAINS** | |
| Pipe depths are as specified |  |
| Filter material as specified |  |
| Geotextile fabric as specified |  |
| Trench widths minimum 300 mm |  |
| Subsoil drainpipe 100 mm diameter Class SN8 |  |
| Laying and backfilling as specified |  |
| Filter sock installed as specified |  |
| End walls installed as specified |  |
| **STORMWATER AND INLET PITS** | |
| Reinforced concrete pits installed as specified |  |
| Metal covers and grates installed |  |
| Cover levels as specified |  |
| Finish smooth, seamless, equal to steel trowelled render or concrete cast in steel forms |  |

Action Required - ITC issued on items that do not comply

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**DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS**

**CHECK LIST – WATER**

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| PROJECT |  | SPEC. NO. |  |
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**TESTS**

Give sufficient notice so that the Superintendent may witness testing:

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| Spec. Ref. | Item | Checked – Initial and date |
| #.3.2 | Hydrostatic tests |  |
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**COMPLIANCE CHECKS – REFER SPECIFICATION**

| **ITEM** | **Checked - Initial & Date** |
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| **TESTS** | |
| Hydrostatic test results received |  |
| **CONTRACTORS SUBMISSIONS** | |
| Work-as-executed drawings submitted |  |
| **CONNECTION** | |
| Local authorities arrangement |  |
| Existing connection excavation made good |  |
| **PIPEWORK MATERIALS** | |
| Polyethylene (PE) Piping as specified |  |
| Copper pipe as specified |  |
| Galvanized steel pipe as specified |  |
| Piping to corrosive water areas as specified |  |
| Finishes as specified |  |
| **PIPEWORK INSTALLATION** | |
| Piping installed in straight lines and uniform grades |  |
| Piping free from vibration and water hammer |  |
| Concealment as specified |  |
| Approval required for building penetrations |  |
| Pipe supports installed as specified |  |
| Pipework cleaned on completion |  |
| Insulation as specified |  |
| **ACCESSORIES** | |
| Products listed in the WaterMark Product Database |  |
| Water efficiency labelling scheme (WELS) |  |
| Accessories schedule as specified |  |
| Cover plates installed as specified |  |
| **COLD WATER SYSTEM** | |
| Correct material |  |
| **HEATED WATER SYSTEM** | |
| Correct material |  |
| Tap positions are correct |  |
| **UNITARY HEATING SYSTEMS** | |
| Correct location |  |
| Type as specified |  |
| **SOLAR WATER HEATING SYSTEM** | |
| Proprietary item as specified |  |
| Installed as specified |  |
| **EVACUATED TUBE WATER HEATING SYSTEM** | |
| Proprietary item as specified |  |
| **HEAT PUMP HOT WATER HEATING SYSTEM** | |
| Proprietary item as specified |  |
| **GAS FIRED HOT WATER STORAGE SYSTEM** | |
| Proprietary item as specified |  |
| **WATER FILTER** | |
| Proprietary item as specified |  |
| **FIRE HOSE REELS** | |
| Authorised product from the ActivFire Register |  |
| Installed as specified |  |
| Commissioning as specified |  |

Action Required - ITC issued on items that do not comply

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**DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS**

**CHECK LIST – LP GAS**

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**TESTS**

Give sufficient notice so that the Superintendent may witness testing:

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| Spec. Ref. | Item | Checked – Initial and date |
| #.3.1 | Pressure tests |  |
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**COMPLIANCE CHECKS – REFER SPECIFICATION**

| **ITEM** | **Checked - Initial & Date** |
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| **TESTS** | |
| Pressure test results received |  |
| **CONTRACTORS SUBMISSIONS** | |
| Notification sent to NT WorkSafe |  |
| Work-as-executed drawings submitted |  |
| Certificates of compliance submitted |  |
| Operating instructions submitted |  |
| **PIPING MATERIALS** | |
| Piping labelled |  |
| Exposed pipework finished as specified |  |
| Valves finish match connected pipework |  |
| **INSTALLATION** | |
| Piping installed in straight lines and uniform grades |  |
| Piping concealed as specified |  |
| Buried pipes clearly identified |  |
| Quality of bedding and backfill as specified |  |
| Corrosion protection as specified |  |
| Approval required for building penetrations |  |
| Pipe supports installed as specified |  |
| **VALVES AND FITTINGS** | |
| Pressure regulator installed |  |
| Excess flow valve installed |  |
| Emergency shut off valve installed |  |
| Flashback arrestor installed |  |
| Manual isolating and control valves installed |  |
| Under pressure shut-off as specified |  |
| Isolation solenoid as specified |  |
| **ACCESSORIES** | |
| Cover plates provided as specified |  |
| **LPG GAS STORAGE INSTALLATION** | |
| Tank installation as specified |  |
| Cylinder installation as specified |  |
| Dome installation as specified |  |
| **COMPLETION** | |
| Installation tested and approved |  |
| **COMPLIANCE PLATE** | |
| Compliance plate provided as specified |  |
| Certificate of approval received |  |

Action Required - ITC issued on items that do not comply

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**DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS**

**CHECK LIST – GENERAL ELECTRICAL**

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| PROJECT |  | SPEC. NO. |  |
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| Work lot |  | Date |  |

**TESTS**

Give sufficient notice so that the Superintendent may witness testing:

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| Spec. Ref. | Item | Checked – Initial and date |
| #.13.1 | Testing |  |
| #.13.2 | Integrated system testing |  |
| #.13.3 | Completion tests |  |
| #.13.9 | Services review and tests |  |

**COMPLIANCE CHECKS – REFER SPECIFICATION`**

| **ITEM** | **Checked - initial & date** |
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| **QUALITY** | |
| Superintendent written approval:   * Manufacture of switchboards * Confirmation of orders for luminaires |  |
| **CONTRACTOR’S SUBMISSIONS** | |
| Shop drawings submitted |  |
| As-constructed drawings submitted |  |
| Power and Water Corporation approval main switchboard |  |
| Product data submitted:   * Luminaires * Accessories * Cable supports * Cable pits * System components |  |
| Quality assurance system documentation submitted |  |
| List of all plant and equipment installed submitted |  |
| **AUTHORITIES AND UTILITIES** | |
| Correspondence and notes of meetings submitted |  |
| Approval of the authorities and utilities submitted |  |
| **EXISTING SYSTEMS** | |
| Surveyed and identified on drawings |  |
| **MATERIALS, EQUIPMENT AND COMPONENTS** | |
| Equipment and components new, of good quality and fit for purpose |  |
| Software ownership and access:   * Ownership transferred to the Principal * Unrestricted rights to modify or replace * Password access * Software upgrades to the end of the Defects Liability Period |  |
| Equipment selection:   * Established manufacturers used * Same manufacturer or source throughout project * Safety as specified |  |
| Manufacturers’ or suppliers’ recommendations   * Transport, deliver, store, handle, protect, finish, adjust and prepare to manufacturer’s recommendations * Recommendations and instructions submitted * Product modifications as specified * Product certification as specified |  |
| Manufacturers’ name plates provided as specified |  |
| Supplied materials or products in original containers or packages |  |
| Prohibited materials as specified |  |
| **INSTALLATION** | |
| Equipment and services installed parallel or perpendicular to building elements |  |
| Clearance as specified |  |
| Movement and expansion as specified |  |
| Protection as specified |  |
| Access as specified |  |
| Plant shutdowns co-ordinated with Superintendent and Principal |  |
| Services connections as specified |  |
| Building penetrations as specified |  |
| Fixing:   * Details of types of fixings, locations, and loads submitted for approval * No piercing of water proof roofs, floors, walls, or vapour barriers * Fasteners as specified * Corrosion protection as specified |  |
| **IDENTIFICATION** | |
| Label, marker or identifier submitted |  |
| Labelling as specified |  |
| Wiring and terminal strips as specified |  |
| Equipment identified by name and identification number |  |
| Minor equipment identified to the relevant distribution board |  |
| Labels as specified |  |
| **OPERATION AND MAINTENANCE MANUALS** | |
| Operation and maintenance manuals submitted |  |
| Warnings and calculations included |  |
| Format hard copy as specified |  |
| Format soft copy as specified |  |
| Contents as specified |  |
| Operating instructions and schematic diagrams mounted alongside equipment |  |
| **TRAINING** | |
| Comprehensive training course provided to Principal’s staff |  |
| Certificates of training issued to trainees |  |
| Technical assistance provided to Principal’s staff during the warranty period |  |
| **SPARE PARTS SCHEDULE** | |
| Spare parts schedule submitted with manufacturer's current price |  |
| **TESTING AND COMMISSIONING** | |
| Type tests NATA accredited |  |
| Testing and commissioning program submitted |  |
| Integrated system testing as specified |  |
| Completion tests as specified |  |
| Thermographic scan as specified |  |
| Copies of all test reports submitted |  |
| Failed tests as specified |  |
| Load of the installation balanced at each switchboard |  |
| Services review and tests |  |
| Principal's staff informed in the recommended methods for operating and maintaining the system |  |
| **MAINTENANCE AND DEFECTS LIABILITY** | |
| Maintenance records submitted |  |
| Service visits recorded and submitted |  |
| Proposal for on-going maintenance submitted |  |

Action Required - ITC issued on items that do not comply

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**DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS**

**CHECK LIST – WIRING AND ACCESSORIES**

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| PROJECT |  | SPEC. NO. |  |
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**TESTS**

Give sufficient notice so that the Superintendent may witness testing:

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| Spec. Ref. | Item | Checked – Initial and date |
| #.16.1 | Movement detector sensitivity tests |  |
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**COMPLIANCE CHECKS – REFER SPECIFICATION**

| **ITEM** | **Checked - Initial & Date** |
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| **CONTRACTOR'S SUBMISSIONS** | |
| Shop drawings submitted |  |
| Cable sizing calculations submitted |  |
| Protection grading study submitted |  |
| **WIRING SYSTEM INSTALLATION** | |
| Installation methods as specified |  |
| Single core cables secured on cable ladder/tray in trefoil arrangement |  |
| Extra-low voltage circuits tied together at regular intervals |  |
| Multicore cables and trefoil groups identified at each end using stamped non-ferrous tags clipped around each cable or trefoil group |  |
| Origin of all wiring identified |  |
| **POWER CABLES** | |
| Selection as specified |  |
| Unsheathed installation as specified |  |
| Fire-rated (other than MIMS) – Installation as specified |  |
| Support of fire resisting cables:   * To AS/NZS 3013 * Test certificate issued by NATA registered laboratory * Stainless steel cable ties provided * Fire rated connections provided for cable tray fixing |  |
| **TERMINATIONS** | |
| Copper conductors as specified |  |
| Within assemblies and equipment as specified |  |
| **WIRING ENCLOSURES AND CABLE SUPPORT** | |
| Conduits steel or PVC, as specified |  |
| Minimum size 20 mm |  |
| Rigid conduits as specified |  |
| Flexible conduits as specified |  |
| Mild steel wiring enclosures galvanized |  |
| Set-out as specified |  |
| Inspection fittings provided in accessible locations |  |
| Draw cords provided |  |
| Draw-in boxes as specified |  |
| Bends and elbows as specified |  |
| Conduit saddles and brackets as specified |  |
| Concealed conduits as specified |  |
| Conduits in concrete slabs as specified |  |
| Conduits and fittings chased in as specified |  |
| Prohibited floor slabs and face brickwork as specified |  |
| Hollow block floors as specified |  |
| Columns as specified |  |
| **METALLIC CONDUITS AND FITTINGS** | |
| Type as specified |  |
| Corrosion protection as specified |  |
| Galvanised water pipe medium or heavy, to AS 1074 |  |
| Expansion joints as specified |  |
| Conductivity maintained between the two ends of rigid metallic conduit |  |
| Free movement for expansion and contraction |  |
| Sets and bends as specified |  |
| **NON-METALLIC CONDUITS AND FITTINGS** | |
| Conduits in roof spaces as specified |  |
| Conduits in slabs as specified |  |
| Flexible conduit as specified |  |
| Sets and bends as specified |  |
| Associated fittings as specified |  |
| Inspection type fittings provided in accessible locations and where exposed to view |  |
| Cemented or snap on joints provided |  |
| Expansion joints as specified |  |
| **DUCTED WIRING ENCLOSURES** | |
| Ducting as specified |  |
| Construction as specified |  |
| Installation as specified |  |
| **CABLE SUPPORTS** | |
| Complete cable support system provided consisting of baskets, trays or ladders, and including brackets, fixings and accessories |  |
| Single manufacturer used for baskets, trays, ladders and accessories |  |
| Cable baskets:   * Interior material as specified * Exterior material hot-dip galvanised steel or stainless steel * Cuts made good by galvanizing * All accessories, supports, joints, bends, tees and radii selected from the same manufacturer’s product range |  |
| Cable trays:   * Interior material as specified * Exterior material hot-dip galvanised steel * Cuts made good by galvanizing * Minimum steel thickness as specified * Folded edge greater 19 mm deep and radiused * Admiralty pattern, reverse stamping * Fish plates or splines for tees, crosses and joints |  |
| Cable ladders:   * Manufacture as specified * Material galvanised steel * Rung spacing 300 mm maximum * Cables less than 13 mm diameter run in cable trays or ducts * Structural sections as specified |  |
| Single spine cable baskets, trays or ladders:   * Maximum width 400 mm each side * central supports |  |
| Fixing to building structure as specified |  |
| Access:   * 150 mm free space above * 600 mm free space on one side of trays |  |
| Slats or rails provided suitable for fixing cable ties, strapping or saddles |  |
| Bend radius as specified |  |
| Cable protection as specified |  |
| Steel straps on MIMS cables provided |  |
| Minimum clearances:   * Hot water pipes 200 mm * Boilers or furnaces 500 mm |  |
| Penetrations as specified |  |
| Expansion joints as specified |  |
| **BUSDUCTS** | |
| Systems as specified |  |
| Selection as specified |  |
| Plug-in boxes (indoor systems only) as specified |  |
| Installation as specified |  |
| **UNDERGROUND CABLES** | |
| To cited standards and Power and Water Corporation requirements |  |
| Trenches as specified |  |
| Conduit/Cable installation as specified |  |
| Routes accurately recorded on as-constructed drawings |  |
| Location marking as specified |  |
| Cable marker tape and protective cover strips installed as specified |  |
| **CABLE PITS** | |
| Proprietary cable pits as specified |  |
| Pit covers as specified |  |
| Drainage provided from the bottom as specified |  |
| **COLUMNS** | |
| Design, manufacture, and testing by approved manufacturer |  |
| Construction as specified |  |
| **ACCESSORIES** | |
| General:   * Selection compatible with the final interior design * Orientation compatible with the final interior design * Position as specified * Acoustic separation as specified * Proprietary labels provided * Construction as specified * Location as specified * Plant rooms as specified |  |
| Lighting and socket outlet switches:   * Rocker type designed for inductive and fluorescent lighting loads * Multi switch/function ganged under one cover plate * Installation on the latch side of doors and door swings * Multiphase as specified * Pull switches as specified * Minimum rating 15 A (Inductive), 230 VAC * Indicators visible with switches “on” * 150 mm clearance or physical barrier between LV and ELV terminations * Mounting heights as specified * Multigang as specified |  |
| Switched socket outlets:   * Same manufacture as the switches used * Power outlets combination rocker switch/socket type flush wall mounted * Socket mounted with the earth pins in the 6 o'clock position * Double outlets under one flush plate * Plugs provided with outlets of greater rating than 10 A 250 V * Pendant outlets as specified |  |
| Phase outlets:   * Minimum rating: 20 A, 500 V a.c. * Pin arrangement as specified * Matching plug top for each outlet * Surface mounted integral switched socket outlet with flap lid on the outlet * High impact plastic * IP56 rating |  |
| Clock outlets:   * 4 round pin outlet * Matching plug for each outlet |  |
| Lighting outlets:   * 3 flat pin with looping terminal. |  |
| Installation:   * Flush mounted accessories except in plant rooms * Surface mounting on proprietary mounting blocks * No installations across junctions of wall finishes * Isolating switches and outlets labelled to identify circuit origin and designation |  |
| Appliances:   * Internally wired and complete with control switches, controllers or connecting links * Isolating switch adjacent to each directly connected appliance * Separate neutral and earth for 3 phase equipment * Flexible conduit for equipment within 60 mm of a wall * Equipment greater than 600 mm from a wall - concealed conduit, in-floor ducting cast into the slab or in a service pole |  |
| Ceiling fan sweeps:   * Minimum height from blades to finished floor level 2200 mm * Minimum 1200 mm from blade tip to wall cupboards or shelves that require access by ladder or steps * Speed Regulators * Inductive - surface mounted with adequate clearance for ventilation * Capacitive and Electronic - Flush mounted * Hangsure mounting arrangements for ceiling sweep fans on inclined/sloping/raked ceilings |  |
| Ceiling mounted appliances:   * Support brackets fixed through ceiling to the building structure * Bracing to prevent lateral movement and to resist the imposed horizontal seismic force |  |
| Tee-offs:   * Proprietary tee-off boxes for the connection of submains from rising mains complete with links, fuses or circuit breakers * Enclosures as specified * To nearest power earth * Stud mounted covers complete with stainless steel handles * Traffolyte labels to systematically and uniquely identify each tee-off box * Front access |  |
| **MOVEMENT DETECTOR SWITCHING** | |
| Dual technology movement detectors with sensors |  |
| Utilisation as specified |  |
| Installation as specified |  |
| Location to suit the particular requirements for switching |  |

Action Required - ITC issued on items that do not comply

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**DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS**

**CHECK LIST – GENERATORS**

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**TESTS**

Give sufficient notice so that the Superintendent may witness testing:

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| Spec. Ref. | Item | Checked – Initial and date |
| #.6.1 | Pre commissioning tests |  |
| #.6.2 | Temporary test loads |  |
| #.6.3 | On-site commissioning |  |
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**COMPLIANCE CHECKS – REFER SPECIFICATION**

| **ITEM** | **Checked - Initial & Date** |
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| **CONTRACTOR’S SUBMISSIONS** | |
| Operation and maintenance manuals submitted |  |
| Products and materials technical data submitted |  |
| Shop drawings submitted |  |
| As-constructed drawings submitted |  |
| **PRODUCTS** | |
| General:   * Multiple generating sets – same make and type * Mounting as specified * Vibration suppression and seismic restraints as specified * Coupling as specified |  |
| Alternators:   * Anti-condensation heaters as specified * Winding thermistors as specified * Terminal boxes as specified |  |
| Engines:   * Governing as specified |  |
| Diesel fuel storage as specified |  |
| Controls:   * Manual sequence control as specified * Automatic start control as specified * Remote start and stop provided * Automatic engine shutdown as specified * Engine shutdown as specified * Emergency and fault shutdown as specified * Automatic synchronising as specified * Emergency stop push-buttons as specified |  |
| Remote monitoring   * Common alarm connected into a remote monitoring system * BMS interface |  |
| Control panels:   * Control panels, switchgear and controlgear assemblies as specified * Engine local control board as specified |  |
| Batteries and chargers:   * Starting batteries as specified * Starting batteries chargers as specified * Control and alarm batteries as specified * Chargers - control and alarm batteries as specified |  |
| Starting:   * Starter motors, batteries and chargers, and associated control equipment provided to automatically start each engine * Wiring as specified * Starting interlock as specified |  |
| Acoustic enclosures:   * Weatherproof acoustic enclosures provided * Sound pressure level limit as specified * Size as specified * Door material to match enclosure and fitted with stays * Ventilation as specified |  |
| Marking:   * Rating plates as specified * Thermistor detector identification and warning plates as specified * Auxiliary wiring as specified * Engine direction of rotation as specified * Charger enclosure markings as specified |  |
| **EXECUTION** | |
| General:   * Reinforced concrete plinths for floor mounted equipment * 6 resilient mounting blocks minimum between the frame and the plinth * Removable drip trays as specified |  |
| Permanent test load as specified |  |
| Engine cooling:   * System consisting of radiators, fans and pumps provided * Cooling air ductwork as specified |  |
| Engine air intake:   * Filters as specified * Ductwork as specified * Fans as specified |  |
| Exhaust system:   * Allowable noise level as specified * Noise-attenuation silencer grade as specified * Exhaust piping as specified * weatherproof flashing, sleeves and acoustic seals provided * Drainage to drainage pockets, or connected to a drainage outlet * Exhaust pipe insulation as specified |  |
| Diesel fuel system:   * Fuel connections as specified * Provide stop valves fitted on the inlet to, and outlets from, the day tank |  |
| **COMPLETION** | |
| Pre commissioning tests as specified |  |
| Temporary test loads as specified |  |
| On-site commissioning as specified |  |
| Reports submitted |  |
| **MAINTENANCE** | |
| Faults and defects identified during the defects liability rectified |  |

Action Required - ITC issued on items that do not comply

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**DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS**

**CHECK LIST – LIQUID FUELS**

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| PROJECT |  | SPEC. NO. |  |
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| Work lot |  | Date |  |

**TESTS**

Give sufficient notice so that the Superintendent may witness testing:

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| Spec. Ref. | Item | Checked – Initial and date |
| #.13.1 | Piping site tests |  |
| #.13.2 | Tank site tests |  |
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**COMPLIANCE CHECKS – REFER SPECIFICATION**

| **ITEM** | **Checked - Initial & Date** |
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| **STORAGE TANKS** | |
| Construction:   * Tank material as specified * Bunding provided * Underground tanks as specified |  |
| Fittings as specified |  |
| Voltage-free contacts as specified |  |
| Level sensor as specified |  |
| Above ground tank support as specified |  |
| **SERVICE TANKS/DAY TANKS** | |
| Construction:   * Open - welded construction, reinforced around the top edge complete with lid fabricated from metallic-coated steel 0.8 mm thick with rolled edge * Closed - welded construction complete with bolted inspection cover |  |
| Welded tank stand at least 900 mm high, fabricated from mild steel angle |  |
| Collection tray fabricated from metallic-coated steel sheet 0.8 mm thick, with a 50 mm upturn and rolled edge |  |
| Tank connections as specified |  |
| Controls as specified |  |
| Auxiliary contacts and communications as specified |  |
| **TANK FINISHES** | |
| External as specified |  |
| Internal debris removed and clean |  |
| **FUEL PUMPS** | |
| Type as specified |  |
| Automatic built-in overpressure bypass with adjustable spring relief |  |
| Motor and pump mounted on a common base plate |  |
| Material as specified |  |
| 50 mm deep galvanized steel drip tray under each pump |  |
| Fill point as specified |  |
| **UNDERGROUND TANK INSTALLATION** | |
| Excavation and backfilling:   * Excavations free of surface water * backfilling with sand as specified |  |
| **ABOVE GROUND TANK INSTALLATION** | |
| Installation to manufacturer’s recommendations |  |
| Installed on structurally adequate concrete base |  |
| Bunding as specified |  |
| Access provided in 2 locations for safe and easy inspection and maintenance |  |
| Tank earthed |  |
| **TRENCH COVERS** | |
| 6 mm thick mild steel checker plate, cut to fit floor trench rebates and galvanized |  |
| **CATHODIC PROTECTION** | |
| System as specified |  |
| **CONTENTS INDICATORS** | |
| Dipsticks as specified |  |
| Remote-reading contents gauge as specified |  |
| **PIPING AND ACCESSORIES** | |
| Pipes inside tank heavy steel |  |
| Above ground filling and service piping as specified |  |
| Joints for steel piping as specified |  |
| Piping flushed with fuel when the system is complete |  |
| Underground piping as specified |  |
| Gradients as specified |  |
| Corrosion protection to AS 4897 |  |
| Lock boxes as specified |  |
| **MARKING** | |
| Identification to AS 4977 |  |
| **TESTING** | |
| Piping site tests as specified |  |
| Tank site tests as specified |  |
| Test results submitted |  |

Action Required - ITC issued on items that do not comply

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**DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS**

**CHECK LIST – PHOTOVOLTAIC**

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| PROJECT |  | SPEC. NO. |  |
| Checked by |  | Title |  |
| Work lot |  | Date |  |

**TESTS**

Give sufficient notice so that the Superintendent may witness testing:

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| Spec. Ref. | Item | Checked – Initial and date |
| #.12 | Completion tests |  |
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**COMPLIANCE CHECKS – REFER SPECIFICATION**

| **ITEM** | **Checked - Initial & Date** |
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| **CONTRACTOR’S SUBMISSIONS** | |
| Rebate application submitted |  |
| Shop drawings submitted |  |
| Section 40 Structural Certificate and Permit to Build submitted |  |
| Technical data submitted |  |
| Test reports submitted |  |
| **PHOTOVOLTAIC MODULE** | |
| Panels and inverters Clean Energy Council approved |  |
| Array as specified |  |
| Cells as specified |  |
| **REGULATOR** | |
| Charge cycle control function:   * Low battery voltage disconnect * Pulse width modulation * ≥ 3 step series regulation |  |
| Display as specified |  |
| Visible and audible low and high battery voltage alarms |  |
| Transient protection |  |
| **BATTERY SYSTEM** | |
| Performance as specified |  |
| Blocking diodes |  |
| Service life ≥ 10 years |  |
| **INVERTER** | |
| Performance as specified |  |
| Display:   * Output power * Grid stability |  |
| Synchronisation as specified |  |
| **CONTROL SYSTEM** | |
| Photovoltaic system control panels, switchgear and controlgear assemblies |  |
| PV switch disconnectors as specified |  |
| **PHOTOVOLTAIC METERING** | |
| Photovoltaic metering equipment as specified |  |
| **REMOTE MONITORING** | |
| Common alarm to be connected into a remote monitoring system |  |
| BMS connection to monitor system output and to monitor system alarms |  |
| **INSTALLATION** | |
| Photovoltaic array as specified |  |
| Regulator location as specified |  |
| Battery system location, enclosure and support as specified |  |
| Inverter location as specified |  |
| Low voltage connection as specified |  |
| Earthing provided |  |
| Support as specified |  |
| **COMPLETION** | |
| Completion tests as specified |  |
| Operation and maintenance manuals submitted |  |
| Work-as-executed drawings submitted |  |
| Warranties submitted |  |

Action Required - ITC issued on items that do not comply

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**DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS**

**CHECK LIST – UNINTERUPTED POWER SUPPLY**

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| PROJECT |  | SPEC. NO. |  |
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| Work lot |  | Date |  |

**TESTS**

Give sufficient notice so that the Superintendent may witness testing:

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| Spec. Ref. | Item | Checked – Initial and date |
| #.9.2 | Test loads |  |
| #.9.3 | Functional unit tests |  |
| #.9.4 | On-site tests |  |
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**COMPLIANCE CHECKS – REFER SPECIFICATION**

| **ITEM** | **Checked - Initial & Date** |
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| **CONTRACTOR”S SUBMISSIONS** | |
| Calculated input power factor and harmonic content submitted |  |
| Operation and maintenance manuals submitted |  |
| Shop drawings submitted |  |
| Test results submitted |  |
| **SYSTEM** | |
| Performance as specified |  |
| Protection as specified |  |
| **RECTIFIER** | |
| Performance meets system requirements |  |
| **BATTERY CHARGER** | |
| Performance meets system requirements |  |
| **BATTERY** | |
| Performance as specified |  |
| Sealed lead acid, recombination type |  |
| Service life ≥ 10 years |  |
| **INVERTER** | |
| Performance meets system requirements |  |
| Testing as specified |  |
| Class A classification |  |
| **MONITORING AND CONTROL** | |
| Local functions as specified |  |
| Common alarm provided to be connected into a remote monitoring system |  |
| BMS connection to monitor system output and to monitor system alarms |  |
| **COMPLETION TESTS** | |
| Test loads as specified |  |
| Functional unit tests as specified |  |
| On-site tests as specified |  |
| **COMPLETION** | |
| Spare parts supplied |  |
| Spare parts packaged and labelled within the UPS room |  |

Action Required - ITC issued on items that do not comply

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**DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS**

**CHECK LIST – SWITCHBOARDS**

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| PROJECT |  | SPEC. NO. |  |
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**TESTS**

Give sufficient notice so that the Superintendent may witness testing:

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| Spec. Ref. | Item | Checked – Initial and date |
| #.4.1 | Type tests |  |
| #.4.2 | Production tests |  |
| #.4.3 | Site tests |  |
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**COMPLIANCE CHECKS – REFER SPECIFICATION**

| **ITEM** | **Checked - Initial & Date** |
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| **CONTRACTOR’S SUBMISSIONS** | |
| Type test certificates submitted |  |
| Calculations verifying design characteristics submitted |  |
| Design calculations of non-type-tested and non-proprietary busbar assemblies submitted |  |
| Type test data submitted |  |
| Product data submitted as specified |  |
| Shop drawings submitted |  |
| Protection grading study submitted |  |
| Power and Water Corporation approval |  |
| **TESTING** | |
| Type tests as specified |  |
| Production tests as specified |  |
| Site tests as specified |  |
| **CUSTOM-BUILT SWITCHBOARDS** | |
| Approved manufacturers details provided |  |
| Construction as specified |  |
| Degrees of protection:   * Indoor minimum IP42 * Outdoor minimum IP56W |  |
| Fault levels as specified |  |
| Separation as specified |  |
| Spare facilities:   * Main switchboard 20% * Sub-switchboards 25% * Distribution boards 25% only on number of poles |  |
| Expansion provided as detailed on the drawings |  |
| Mounting level and plum and as specified |  |
| Connection:   * Indoor cable entries top and bottom, to suit location * Outdoor cable entries bottom only |  |
| Layout as specified |  |
| Enclosures and panels:   * 1.6 mm zinc-coated sheet steel * Outdoor assemblies 1.6 mm zinc-coated sheet steel with coating class Z450 or stainless steel |  |
| Arc chutes and ventilating outlet emissions direct upwards and away from operator and away from adjacent compartments |  |
| Ventilation as specified |  |
| Equipment mounting panels metal minimum 3 mm thick or non-metallic board with heavy metal angle supports or plates bolted or welded to enclosure sides |  |
| Equipment fixing as specified |  |
| Hardware as specified |  |
| Earth continuity as specified |  |
| Lifting provisions as specified |  |
| Concealed fixings or brackets to supporting structure |  |
| Wall-mounting angle trims of the same material and finish as the enclosure provided |  |
| Floor mounting as specified |  |
| Finishes as specified |  |
| Cable entries as specified |  |
| Gland plates:   * Removable fitted with gaskets to maintain the degree of protection * Material as specified |  |
| Doors:   * Width 900 mm * 120°swing * Stays provided * Construction as specified * Hanging as specified * Hardware as specified * Lockable-keys provided * Door mounted equipment protected * Provision for wiring diagrams and circuit schedules * Earthing as specified |  |
| Covers:   * 900 mm wide and 1.2 m² surface area maximum * Fixing as specified * Corrosion-resistant "D" type handles provided * Neoprene type gaskets installed within retaining channels * Covers shall be held in place with chrome plated acorn nuts |  |
| Escutcheon plates as specified |  |
| Transient protection as specified |  |
| **PROPRIETARY SWITCHBOARDS** | |
| As for CUSTOM-BUILT SWITCHBOARDS checklist |  |
| **ARRANGEMENTS FOR DISTRIBUTION BOARDS** | |
| Layout as specified |  |
| Wiring connections and components fully accessible |  |
| Future expansion provided as shown on the drawings |  |
| Busbar sizes:   * Rating as shown on the drawings * Maximum temperature rise 50°C when carrying rated current on 40°C ambient |  |
| Isolating switch as specified |  |
| Neutral links provided and numbered |  |
| Earthing as specified |  |
| Wiring as specified |  |
| **ARRANGEMENTS FOR CIRCUIT BREAKER TEE OFF UNITS** | |
| Front part removable |  |
| Installation as specified |  |
| Gland plates as specified |  |
| Circuit breakers or fuse links provided |  |
| **ARRANGEMENTS FOR MARSHALLING CUBICLES** | |
| Layout as specified |  |
| Terminals as specified |  |
| **CONDUCTORS FOR SWITCHBOARDS** | |
| Busbars hard-drawn high-conductivity electrolytic tough pitched copper alloy bars, designation 110 |  |
| Phase sequence as specified |  |
| Colour coding as specified |  |
| Busbar systems:   * Type as specified * Busbar system inspection as specified |  |
| Current carrying capacity:   * Active conductors as specified * Neutral conductors as specified * Protective earth conductors as specified |  |
| Tee-off busbars current rating as specified |  |
| Fault current limiters as specified |  |
| Busbar links as specified |  |
| MEN Links as specified |  |
| Future extensions provided |  |
| Jointing as specified |  |
| Wiring as specified |  |
| Terminations as specified |  |
| **SWITCHGEAR** | |
| Moulded case and miniature circuit breakers as specified |  |
| Switch-isolator and fuse-switch units as specified |  |
| Fuses as specified |  |
| Earth leakage devices as specified |  |
| **CONTROL GEAR FOR CUSTOM-BUILT SWITCHBOARDS** | |
| Control and test switches:   * Push buttons as specified * Rotary switches as specified * Time switches as specified |  |
| Control relays as specified |  |
| Contactors as specified |  |
| Alternating current motor starters as specified |  |
| Motor protection as specified |  |
| **ACCESSORIES** | |
| Digital power analysers:   * Display parameters as specified * Maximum demand as specified * Programmable with passwords provided * Log sags and swells as specified |  |
| Current transformers (metering):   * Test links provided as specified * Test studs provided as specified * Accuracy classification as specified * Ratings as specified * Type as specified * Installation as specified |  |
| Instruments and meters:   * Construction as specified * Meter scales as specified * Transducers as specified * Accuracy as specified * Accessories as specified * Mounting as specified * Protection devices as specified * Labels as specified * Ammeters as specified * Voltmeters as specified * Kilowatt hour meters as specified * Maximum demand indicators as specified * Accuracy class as specified * Wattmeters and varmeters as specified * Hours-run meters as specified * Watthour meters as specified * Frequency meters as specified * Synchroscopes as specified * Phase angle meters as specified |  |
| Indicator lights as specified |  |
| Extra-low voltage transformers as specified |  |
| Anti-condensation heaters as specified |  |
| **MARKING AND LABELLING** | |
| Each label screw fixed or riveted adjacent to the relevant item of equipment |  |
| Material two colour laminated plastic, or photo anodized rigid aluminium |  |
| Labels on assembly interiors as specified |  |
| Danger, warning and caution notices as specified |  |
| Circuit schedule as specified |  |
| Single-line diagrams provided as specified |  |

Action Required - ITC issued on items that do not comply

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**DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS**

**CHECK LIST – LUMINAIRES**

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| PROJECT |  | SPEC. NO. |  |
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**TESTS**

Give sufficient notice so that the Superintendent may witness testing:

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**COMPLIANCE CHECKS – REFER SPECIFICATION**

| **ITEM** | **Checked - Initial & Date** |
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| **CONTRACTOR’S SUBMISIONS** | |
| Operation and maintenance manuals submitted |  |
| Technical data submitted |  |
| Photometric test results submitted |  |
| Samples submitted |  |
| Shop drawings submitted |  |
| **PROPRIETARY LUMINAIRES** | |
| Same type from the same brand and country of manufacture |  |
| **FLUORESCENT LAMPS** | |
| Fluorescent lamp properties as specified |  |
| **FLUORESCENT LAMP BALLASTS** | |
| Linear and circular lamp types |  |
| CFL lamp types as specified |  |
| Fluorescent lamp power factor correction as specified |  |
| **DISCHARGE LAMPS** | |
| Discharge lamp ballasts as specified |  |
| HID power factor correction as specified |  |
| Capacitors as specified |  |
| Integral fuses as specified |  |
| **LIGHT-EMITTING DIODES (LEDS) LUMINAIRES** | |
| Light-emitting diode luminaires as specified |  |
| Light-emitting diode lamp replacement modules as specified |  |
| **CONTROL GEAR ENCLOSURE** | |
| Support enclosure as specified |  |
| Mounting assemblies as specified |  |
| Screw fixed |  |
| **WIRING** | |
| External flexible cords as specified |  |
| **LIGHTING CONTROL** | |
| Manual control of luminaires into groups, zones and to individual devices provided |  |
| Digital control system as specified |  |
| Remote monitoring:   * Common alarm provided * BMS interface provided |  |
| **ACCESSORIES** | |
| Electrical accessories from the same manufacturer provided |  |
| Lighting outlets pin arrangement as specified |  |
| Lighting switches as specified as specified |  |
| Key switches provided as specified |  |
| Run on timer switches adjustable to 20 minutes provided as specified |  |
| Dimmer switchers as specified |  |
| Proximity switches as specified |  |
| Daylight switches as specified |  |
| Motion detector switches as specified |  |
| Manual time delay switches as specified |  |
| **RE-USE OF LUMINAIRES** | |
| Modifications and refurbishing as specified |  |
| **SUPPORTS** | |
| Suspended luminaires |  |
| Surface mounted luminaires:   * Packing pieces and packing strips fitted * Fixing as specified |  |
| Recessed luminaires installed in trimmed openings in the suspended ceiling |  |
| **WIRING CONNECTION** | |
| Recessed luminaires connected to a plug socket outlet |  |
| Lighting tracks as specified |  |
| **ACCESSORIES** | |
| Installation as specified |  |
| Installation of ceiling mounted accessories as specified |  |
| **COMPLETION** | |
| Operation of all luminaires verified |  |
| Aiming and controls adjusted for night time conditions |  |
| Lamps which have been in service for a period greater than 50% of the lamp life replaced |  |

Action Required - ITC issued on items that do not comply

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**DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS**

**CHECK LIST – COMMUNICATIONS**

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| PROJECT |  | SPEC. NO. |  |
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| Work lot |  | Date |  |

**TESTS**

Give sufficient notice so that the Superintendent may witness testing:

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| Spec. Ref. | Item | Checked – Initial and date |
| #.13 | Testing:   * Copper * Optical fibre |  |
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**COMPLIANCE CHECKS – REFER SPECIFICATION**

| **ITEM** | **Checked - Initial & Date** |
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| **CONTRACTOR’S SUBMISSIONS** | |
| Product certification and installation certification submitted |  |
| Technical data submitted |  |
| Samples submitted |  |
| Shop drawings submitted |  |
| **SYSTEM DESCRIPTION** | |
| Accommodation as specified |  |
| System performance as specified |  |
| **BUILDING ENTRANCE FACILITIES** | |
| Campus distributor as specified |  |
| Network termination device as specified |  |
| **DISTRIBUTORS** | |
| Building distributors and floor distributors for voice and data provided |  |
| Cable termination racks, patch panels, equipment mounting racks for servers and routers complete with power outlets provided |  |
| Equipment racks as specified |  |
| Cross connect patch panels:   * Terminated directly to the modular connector * Patch cord ends terminated with appropriate registered jacks * Vendor certification and 20 year warranty received |  |
| Optical fibre termination panels:   * Rack mounted termination frames provided * Vendor certification and 20 year warranty received |  |
| Cross connect patch panels (Optical fibre cables) as specified |  |
| Cable Management record book submitted as specified |  |
| **CABLES** | |
| External cables to ACIF C524 |  |
| Horizontal cables as specified |  |
| Optical fibre as specified |  |
| Stranded UTP fly leads to 50% of the UTP outlets installed provided |  |
| Pre-terminated patch cords for 100% of the total incoming and outgoing UTP and fibre ports provided |  |
| **SURGE PROTECTION DEVICES (SPD)** | |
| SPD provided as specified |  |
| **TELECOMMUNICATIONS OUTLETS** | |
| Outlets as specified |  |
| Pinouts as specified |  |
| **EXECUTION** | |
| Installation as specified |  |
| Reinstatement as specified |  |
| Redundant structured cabling system removed and site drawings updated |  |
| Firestop:   * Penetrations through fire rated building elements * Certification of firestop system submitted |  |
| Cable Installation as specified |  |
| Cable separation as specified |  |
| **EARTHING SYSTEM** | |
| Communications earth system as specified |  |
| **LABELS** | |
| Cables labelled with the origin and destination of the cable |  |
| Outlets labelled with the origin of the cross-connect, the workstation or outlet number and the port designation |  |
| **TESTING** | |
| Rest results received |  |
| Copper as specified |  |
| Optical fibre as specified |  |
| **COMPLETION** | |
| Cable management log books submitted |  |
| As build drawings submitted |  |
| Operations and maintenance manuals submitted |  |
| Warranty submitted |  |

Action Required - ITC issued on items that do not comply

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**DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS**

**CHECK LIST – MASTER ANTENNA**

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| PROJECT |  | SPEC. NO. |  |
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**TESTS**

**Give sufficient notice so that the Superintendent may witness testing:**

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| Spec. Ref. | Item | Checked – Initial and date |
| #.8.1 | Commissioning |  |
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**COMPLIANCE CHECKS – REFER SPECIFICATION**

| **ITEM** | **Checked - Initial & Date** |
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| **CONTRACTOR’S SUBMISSIONS** | |
| Certification of installation submitted |  |
| Documentation submitted |  |
| Technical data submitted |  |
| Product data submitted |  |
| Record drawings submitted |  |
| Correspondence with network operators submitted |  |
| Samples submitted |  |
| Shop drawings submitted |  |
| **SYSTEM DESCRIPTION** | |
| System type as specified |  |
| Performance:   * Installed capacity to accommodate 30% additional outlets or no less than 2 additional connections |  |
| Signal source:   * Free-to-air as specified * Network operator as specified * Local signal source as specified |  |
| Service entry facilities to suit signal sources, head end equipment and distribution systems provided |  |
| Head end equipment provided to suit signal sources, distribution systems and documented performance |  |
| Surge Protection Devices (SPD) as specified |  |
| Distribution system as specified |  |
| Outlets:   * Outlets and feeders from distribution tap(s) provided * Separate sockets for each source and service provided * Match electrical accessories |  |
| **PRODUCTS** | |
| Free-to-air antenna as specified |  |
| Active equipment:   * Masthead amplifier(s) as specified * Head end amplifier(s) as specified * Distribution amplifiers as specified |  |
| Passive equipment:   * Splitters as specified * Couplers as specified * Taps as specified |  |
| Coaxial cable:   * Types as specified * Connectors as specified |  |
| Outlets as specified |  |
| External components degree of weather protection IPX4 |  |
| **EXECUTION** | |
| Free-to-air antennae as specified |  |
| Proprietary purpose built distribution equipment enclosure provided |  |
| Coaxial cable as specified |  |
| **OUTLETS** | |
| Installation:   * Flush mount * All outlets fully screened |  |
| Manufacturer pre-terminated 1500 mm fly leads to all outlets provided |  |
| **COMMISSIONING** | |
| Testing as specified |  |

Action Required - ITC issued on items that do not comply

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**DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS**

**CHECK LIST – FIRE DETECTION**

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| PROJECT |  | SPEC. NO. |  |
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| Work lot |  | Date |  |

**TESTS**

**Give sufficient notice so that the Superintendent may witness testing:**

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| Spec. Ref. | Item | Checked – Initial and date |
| #.25.1 | Commissioning tests |  |
| #.25.2 | Acceptance testing |  |
| #.25.3 | Hot smoke tests |  |
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**COMPLIANCE CHECKS – REFER SPECIFICATION**

| **ITEM** | **Checked - Initial & Date** |
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| **CONTRACTOR’S SUBMISSIONS** | |
| Installer's statement and certificates submitted |  |
| System commissioning statement submitted |  |
| Sound pressure level measurements submitted |  |
| As-Installed drawings submitted |  |
| **FIRE INDICATOR PANEL (FIP)** | |
| FIP listed on the ActivFire Register of Fire Protection Equipment |  |
| Facilities as specified |  |
| Mounting as specified |  |
| Cabinet as specified |  |
| Panel as specified |  |
| Fire Brigade Equipment as specified |  |
| **FIRE MIMIC PANEL / SUB FIRE INDICATOR PANELS (SFIP)** | |
| Location as shown on drawings |  |
| Manufactured as specified |  |
| **OCCUPANCY WARNING SYSTEM** | |
| Tone generators, amplifying equipment and accessories provided |  |
| Equipment listed in the ActivFire Register of Fire Protection Equipment |  |
| Loudspeakers mounted as specified |  |
| **BATTERIES AND BATTERY CHARGER** | |
| Battery charger and stand-by batteries as specified |  |
| **DETECTORS** | |
| General:   * Do not obstruct filters access panels and the like * Readily accessible * Access panels provided 150 mm x 450 mm * Field wiring as specified * Self-test facilities in place |  |
| Unique circuit or serial number identification |  |
| LED mounting position correct |  |
| LED installed as specified |  |
| **CONVENTIONAL IONISATION SMOKE DETECTORS** | |
| Ionisation detectors as specified and listed by ActivFire as approved for use as commercial smoke detectors |  |
| **CONVENTIONAL PHOTO OPTICAL SMOKE DETECTORS** | |
| Photo-optical detectors as specified |  |
| **CONVENTIONAL THERMAL HEAT DETECTORS** | |
| Thermal detectors as specified |  |
| **ADDRESSABLE ANALOGUE SMOKE DETECTORS** | |
| Photo-optical unless the environmental conditions favour the use of ionisation detectors |  |
| Interchangeable |  |
| Ionisation detectors dual chamber |  |
| Photo-optical detectors as specified |  |
| **ADDRESSABLE DETECTOR MODULES** | |
| Addressable detector modules as specified |  |
| **MULTIPLE INPUT / OUTPUT** | |
| Multiple input / output provided where necessary as specified |  |
| **ANALOGUE ADDRESSABLE DEVICES** | |
| Analogue addressable devices provided where necessary as specified |  |
| **BUILDING MONITORING SYSTEM (BMS) INTERFACE** | |
| FIP provided high level communications link with the BMS |  |
| BMS inputs as specified |  |
| **EWIS INTERFACE** | |
| EWIS interface as specified |  |
| **AIR CONDITIONING CONTROLS** | |
| Controls as specified |  |
| **INTERFACE WIRING / SUPERVISION** | |
| Interface wiring / supervision as specified |  |
| **MANUAL CALL POINTS** | |
| Break Glass Alarms provided as specified |  |
| **EXTERNAL ALARM** | |
| Red strobe light installed as specified |  |
| **MAGNETIC DOOR HOLDERS** | |
| Electromagnetic door holders provided as specified |  |
| Control facilities as specified |  |
| **BLOCK DIAGRAM** | |
| Block diagram installed as specified |  |
| Digital copy of block diagram received |  |
| **ANCILLARY SYSTEMS AND DEVICES** | |
| AS 1668 controls as specified |  |
| Fire rated shutters as specified |  |
| Retractable smoke barriers as specified |  |
| **MULTI POINT ASPIRATING SMOKE DETECTION SYSTEM (MASD)** | |
| MASD as specified |  |
| **COMMISSIONING** | |
| Commissioning tests :   * Commissioning program submitted * Testing as specified * Test reports submitted |  |
| Acceptance testing:   * Acceptance test procedure submitted * Testing as specified * Test reports submitted |  |
| Hot smoke tests   * Testing as specified * Test reports submitted |  |

Action Required - ITC issued on items that do not comply

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**DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS**

**CHECK LIST – LIGHTNING AND PROTECTION**

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| PROJECT |  | SPEC. NO. |  |
| Checked by |  | Title |  |
| Work lot |  | Date |  |

**COMPLIANCE CHECKS – REFER SPECIFICATION**

| **ITEM** | **Checked - Initial & Date** |
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| **LIGHTNING PROTECTION CONTRACTOR SUBMISSIONS** | |
| Operational and maintenance submitted |  |
| Records submitted |  |
| Shop drawings submitted |  |
| Subcontractors names and details submitted |  |
| Test results submitted |  |
| **LIGHTNING PROTECTION PRODUCTS** | |
| Lightning protection system components custom designed or proprietary components |  |
| Air terminals, mounting bases and accessories as specified |  |
| Isolated system as specified |  |
| Downconductors:   * Structural steel-framed buildings as specified * Steel reinforcement encased in concrete as specified * Independent downconductors as specified |  |
| Equipotential bonding conductors as specified |  |
| Earthing electrodes as specified |  |
| **LIGHTNING PROTECTION INSTALLATION** | |
| Lightning protection earthing system as specified |  |
| Thermal expansion:   * Expansion loops as specified * Saddles as specified * Saddle spacing as specified |  |
| Air Terminations:   * Mounting as specified * Placement and connection as specified * Requirement as specified |  |
| Downconductors:   * Steel reinforcement encased in concrete and steel framed buildings as specified * Independent downconductors as specified |  |
| Equipotential bonding conductors:   * Bonding as specified * Bonding of roof mounted structures as specified |  |
| Aluminium strip conductors as specified |  |
| Earthing electrodes:   * Properties as specified * Earth terminations as specified * Electrode pits as specified * Steel reinforcement earth footing as specified |  |
| **SURGE PROTECTION DEVICES (SPD)** | |
| Primary protection:   * Type I SPD as specified * Type II SPD as specified |  |
| Secondary protection:   * Type III SPD as specified |  |
| Combined primary and secondary surge reduction filter protection |  |
| Protection of final subcircuits as specified |  |

Action Required - ITC issued on items that do not comply

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**DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS**

**CHECK LIST – ELECTRONIC SECURITY AND ACCESS CONTROL**

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| PROJECT |  | SPEC. NO. |  |
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| Work lot |  | Date |  |

**TESTS**

Give sufficient notice so that the Superintendent may witness testing:

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| #.10.2 | Commissioning |  |
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**COMPLIANCE CHECKS – REFER SPECIFICATION**

| **ITEM** | **Checked - Initial & Date** |
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| **CONTRACTOR”S SUBMISSIONS** | |
| Records submitted |  |
| Operational and Maintenance manuals submitted |  |
| As-installed drawings submitted |  |
| Cabler(s) registration(s) submitted |  |
| **SHOP DRAWINGS** | |
| Shop drawings submitted |  |
| **PRODUCTS** | |
| Alarm system panels or processors:   * Separate sectors for each nominated detection device zone * Adjustable time delay entry/exit for each sector |  |
| Sealed battery and charger system contained within each control panel provided |  |
| Activation:   * Keypads, cards, card readers and other activation devices provided * Installed 1100 mm from floor level |  |
| External audible and visual alarms as specified |  |
| Anti-tamper devices to control panels, external equipment, control and activating devices, and access control devices provided |  |
| Alarm circuit supervision as specified |  |
| Remote monitoring as specified |  |
| **ACCESS CONTROL** | |
| Access control processors or panels:   * Capacity as specified * Lock status and door position monitoring of door control devices provided * Door control devices connected in a fail-safe mode * Double leaf doors (solid frame) as specified |  |
| Vehicle control:   * Vehicle access control system as specified * Exit loop detection as specified * Photo electric beam safety interlock provided * Push-buttons and readers as specified * Mounting height 1000 mm from floor level * Reed switches as specified |  |
| Intercom:   * Intercom base station, interconnected with the individual local stations * Wall mounted flush stainless steel panel * IP56 * Digital push-button type * Schedule as specified * Local station as specified * Internal station type surface mounted removable handset type * Operation as specified * Door control as specified |  |
| **INTRUDER ALARM** | |
| Volumetric detection systems as specified |  |
| Door contacts as specified |  |
| **DURESS ALARM** | |
| Duress alarm switches as specified |  |
| **VIDEO MONITORING** | |
| CCTV system as specified |  |
| CCTV cameras as specified |  |
| CCTV LCD colour monitors compatible with the security system provided complete with fixing brackets and hardware |  |
| CCTV recording system as specified |  |
| CCTV video switching system as specified |  |
| **EXECUTION** | |
| Mains supply:   * Licensed electrician used * Permanent power supply: * Intruder alarm panels * Access control panels * Intercom stations * CCTV monitors * Marking as specified |  |
| CCTV camera positioning and adjustment as specified |  |
| Interconnection to other services as specified |  |
| Completion tests as specified |  |
| Alterations carried out due to false alarms |  |
| **COMPLETION** | |
| Training provided |  |
| Pre-commissioning testing as specified |  |
| Commissioning test plan submitted |  |
| Commissioning history report submitted |  |

Action Required - ITC issued on items that do not comply

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**DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS**

**CHECK LIST – GENERAL MECHANICAL**

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| PROJECT |  | SPEC. NO. |  |
| Checked by |  | Title |  |
| Work lot |  | Date |  |

**TESTS**

Give sufficient notice so that the Superintendent may witness testing:

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| Spec. Ref. | Item | Checked – Initial and date |
| #.27.7 | Completion |  |
| #.28.2 | Air balancing |  |
| #.28.3 | Water balancing |  |
| #.28.4 | Noise testing |  |
| #.28.5 | Vibration testing |  |
| #.28.6 | Acceptance |  |
| #.28.7 | Final |  |

**COMPLIANCE CHECKS – REFER SPECIFICATION**

| **ITEM** | **Checked - Initial & Date** |
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| **PRELIMINARY DETAILS** | |
| Preliminary documentation submitted |  |
| **CONTRACTOR’S SUBMISSIONS** | |
| Notes of meetings with authorities submitted |  |
| Building penetrations details submitted |  |
| Certification submitted |  |
| Design documentation submitted |  |
| Contract drawings submitted |  |
| Functional descriptions submitted |  |
| Maximum demand calculations |  |
| Structural loadings submitted |  |
| Execution details submitted |  |
| Marking and labelling samples submitted |  |
| Operations and maintenance manual submitted |  |
| Maintenance log books submitted |  |
| Products and materials data submitted |  |
| Prototypes submitted |  |
| As-built documents, photographs, system diagrams, schedules and log books submitted |  |
| Samples submitted |  |
| Shop drawings submitted |  |
| Tests:   * Inspection and testing plan submitted * Certificates for type tests submitted * Fire hazard properties submitted * Test reports and certificates submitted |  |
| Warranties submitted |  |
| Identification as specified |  |
| **SHOP DRAWINGS** | |
| Shop drawings approved |  |
| Documentation as specified |  |
| Functional descriptions approval as specified |  |
| Preliminary submission as specified |  |
| Detailed submission as specified |  |
| **WORK AS-INSTALLED DRAWINGS** | |
| As-installed drawings submitted as specified |  |
| Services record drawings as specified |  |
| **SITE FIRE AND LIFE SAFETY SYSTEMS MANUAL** | |
| Manual submitted as specified |  |
| **LOG BOOK** | |
| Maintenance attendance log book provided in each plant room and at each control system remote user interface |  |
| **PRODUCS** | |
| Installation to manufacturer's recommendations |  |
| Operating software passwords provided |  |
| Substitutions as specified |  |
| **PRODUCT MATERIALS AND COMPONENTS** | |
| Same manufacturer used for each material or product |  |
| Corrosion resistance as specified |  |
| Galvanizingas specified |  |
| **INSTALLATION** | |
| General:   * Fixing as specified * Cyclone fixing as specified * Installation as specified * Concealment as specified * Lifting as specified * Suspended ground floors as specified * Arrangement as specified |  |
| Personnel appropriately licensed |  |
| Dissimilar metals joined with fittings of electrolytically compatible material |  |
| Open ends of pipe protected with metal or plastic covers or caps |  |
| Differential movement as specified |  |
| Certification and building approval provided |  |
| Work platforms as specified |  |
| **CONCRETE PLINTHS** | |
| Concrete plinths provided under all equipment located on concrete floor slabs as specified |  |
| **ACCESS FOR MAINTENANCE** | |
| Minimum clearances as specified |  |
| Elevated services other than in occupied areas:   * Access classifications as specified * Temporary means of access as specified * Areas in which access is restricted to authorised maintenance personnel as specified * Other areas as specified * Labelling of equipment concealed in ceilings as specified |  |
| Facilities for equipment removal and replacement as specified |  |
| Facilities for access:   * Equipment behind hinged doors as specified * Equipment behind removable panels as specified * Removable panels as specified * Insulated plant and services as specified |  |
| Piping as specified |  |
| Electrical and controls as specified |  |
| **BUILDING PENETRATIONS** | |
| Penetrations as specified |  |
| Sealing:   * Fire-resisting building elements as specified * Non fire-resisting building elements as specified * Vapour barriers as specified * Water proofing barriers as specified |  |
| Sleeves provided as specified |  |
| **CONTROL SYSTEMS** | |
| General:   * Controlled variables as specified * Service interruption as specified * Safety controls as specified * Control interlocks as specified * Smoke and fire control as specified * Radio frequency interference as specified * Environment as specified |  |
| Equipment:   * General as specified * Packaged plant as specified |  |
| Controls provided which are compatible with existing plant |  |
| Plant operation:   * Time switching as specified * Manual override as specified * Approved makes as specified * Fan/coil unit controls as specified * Room thermostats as specified * Temperature controllers as specified * Air flow safety cut-outs as specified * Sequences of operation as specified |  |
| Installation:   * To manufacturer's written instructions * Sensor locations as specified * Identification as specified * Corrosion protection as specified * Vibration isolation as specified * Dust control as specified * Room controls as specified * Sensing elements as specified |  |
| **MECHANICAL WIRING AND ACCESSORIES** | |
| Cables:   * Type as specified * Electronic control as specified * Smoke spill systems as specified * Installation as specified * Terminations as specified * Identification as specified * Colour codings as specified * Tagging as specified |  |
| Conduits:   * Materials as specified * Installation as specified |  |
| Motors:   * Enclosures as specified * Separate terminal boxes for power and accessory cables provided * Heaters as specified * Variable frequency drives as specified |  |
| **MECHANICAL SWITCHBOARDS** | |
| Construction:   * Design as specified * Construction as specified * Installation as specified * Coordination as specified |  |
| Electrical equipment:   * Mounting as specified * Busbars as specified * Neutral links as specified * Wiring as specified * Terminations as specified * Circuit breakers as specified * Phase failure relays as specified * Control relays as specified * Fire alarm relays as specified * Contactors as specified * Motor starters as specified |  |
| Switching and indication:   * Control switches as specified * Auto-off-manual switches as specified * Indicator lights as specified * Ammeters and voltmeters as specified * Watthour meters as specified |  |
| **VIBRATION SUPPRESSION** | |
| Connections as specified |  |
| Inertia bases as specified |  |
| Vibration isolation mountings as specified |  |
| **FINISHES TO BUILDING SERVICES** | |
| Powder coating as specified |  |
| Surface preparation as specified |  |
| Painting as specified |  |
| Paint application:   * Coats as specified * Combinations as specified * Protection as specified |  |
| Protective coatings   * Aluminium as specified * Galvanized steel as specified * Rolled steel as specified |  |
| Underground metal piping:   * Corrosion protection provided * Protection methods as specified |  |
| Low VOC emitting paints used |  |
| Services subject to potential damage:   * Protection as specified * Vapour barriers as specified |  |
| **IDENTIFICATION, MARKING AND LABELLING** | |
| Services and equipment marked and labelled |  |
| Scheme consistent across all services elements |  |
| Extent as specified |  |
| Label samples and schedules submitted as specified |  |
| Isolating switches and outlets labelled to identify circuit origin |  |
| Operable devices marked as specified |  |
| Equipment concealed in ceilings as specified |  |
| Points list as specified |  |
| Pressure vessels as specified |  |
| Valves and pumps as specified |  |
| Underground services as specified |  |
| Depth of cover:   * Chilled water as specified * Electrical services as specified * Gas services as specified |  |
| Location marking:   * Markers installed as specified * Marker bases 200 mm diameter x 200 mm deep minimum, concrete * Direction marking as specified * Plates brass, aluminium or stainless steel with black filled engraved lettering, minimum size 75 x 75 x 1 mm thick * Waterproof adhesive and 4 brass or stainless steel countersunk screws for plate fixing * Marker plate flush with paved surfaces, and 25 mm above other surfaces |  |
| Labels and notices:   * Materials as specified * Emergency functions as specified * Colours as specified * Edges as specified * Labelling text and marking as specified * Lettering heights as specified * Label locations as specified * Fixing as specified * Labels do not penetrate vapour barriers |  |
| **TOOLS AND SPARE PARTS** | |
| Spare parts provided |  |
| Tools and spare parts schedule submitted |  |
| **TESTING** | |
| Testing by registered testing authority |  |
| Test reports submitted |  |
| Completion tests:   * Functional checks as specified * Type test reports as specified * Sound pressure level measurements as specified * Sound pressure levels as specified |  |
| Certification as specified |  |
| Manufacturer's certificate submitted |  |
| Calibration certificate submitted |  |
| **COMMISSIONING** | |
| Air balancing tests as specified |  |
| Water balancing tests as specified |  |
| Noise testing tests as specified |  |
| Vibration testing tests as specified |  |
| Acceptance tests as specified |  |
| Final tests as specified |  |
| **TRAINING** | |
| Training provided as specified |  |
| **CLEANING** | |
| All exterior and interior surfaces cleaned |  |
| Labels removed not required for maintenance |  |
| **OPERATIONAL MAINTENANCE** | |
| Maintenance period as specified |  |
| Maintenance program submitted |  |
| Maintenance records recorded as specified |  |
| **POST CONSTRUCTION MANDATORY INSPECTIONS AND MAINTENANCE** | |
| Records as specified |  |
| Certification as specified |  |
| Annual inspection as specified |  |
| Final completion as specified |  |

Action Required - ITC issued on items that do not comply

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**DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS**

**CHECK LIST – MECHANICAL SYSTEMS**

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| PROJECT |  | SPEC. NO. |  |
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| Work lot |  | Date |  |

**COMPLIANCE CHECKS – REFER SPECIFICATION**

| **ITEM** | **Checked - Initial & Date** |
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| **GENERAL CLIENT REQUIREMENTS** | |
| Durability of component design, fabrication, installation, commissioning and maintenance as specified |  |
| Energy efficiency criteria as specified |  |
| Safety requirements as specified |  |
| Peak load performance as specified |  |
| Energy monitoring provided as specified |  |
| **GENERAL MECHANICAL SYSTEM DESCRIPTION** | |
| Cooling plant design as specified |  |
| Chilled water recirculation design as specified |  |
| Cooling plant heat rejection design as specified |  |
| Air handling systems design as specified |  |
| **DESIGN** | |
| Design for durability and maintainability as specified |  |
| Outdoor design conditions as specified |  |
| Indoor design conditions as specified |  |
| Heat rejection equipment design conditions as specified |  |
| Preliminary details as specified |  |
| **CONTRACTOR'S SUBMISSIONS** | |
| Calculations submitted |  |
| Certification submitted |  |
| Electrical loading information for mechanical services:   * Electrical loading information submitted * Loading and connection information submitted * Starting characteristics details submitted * Switchboards information submitted |  |
| Mechanical services contract drawings submitted |  |
| Technical data submitted |  |
| Control function descriptions submitted |  |
| Operations and maintenance manual submitted |  |
| Site fire and life safety systems manuals submitted |  |
| Building certification provided |  |
| Operating software provided |  |
| **WORK ON EXISTING SYSTEMS** | |
| Equipment removal as specified |  |
| Existing air and water systems as specified |  |
| **SUPPORT OF PLANT AND EQUIPMENT** | |
| Support of roof mounted plant and equipment:   * Platforms as specified * Balustrades as specified |  |
| Support of ground level plant and equipment:   * Ground level as specified * Balustrades as specified |  |

Action Required - ITC issued on items that do not comply

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**DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS**

**CHECK LIST – MECHANICAL EQUIPMENT**

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| PROJECT |  | SPEC. NO. |  |
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| Work lot |  | Date |  |

**COMPLIANCE CHECKS – REFER SPECIFICATION**

| **ITEM** | **Checked - Initial & Date** |
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| **SPLIT SYSTEM AIR CONDITIONING UNITS** | |
| Cassette indoor units:   * Above ceiling type and as specified * Installation as specified * Control as specified |  |
| Wall mounted indoor units:   * Slim line construction and as specified * Installation as specified * Control as specified |  |
| Under ceiling indoor units:   * Slim line construction and as specified * Installation as specified * Control as specified |  |
| Floor mounted indoor units:   * Slim line construction and as specified * Installation as specified |  |
| Outdoor units:   * Weatherproofed units suitable for outdoor operation and as specified * Installation as specified * Clearance as specified * Protection as specified |  |
| Operating conditions:   * Ambient temperature range as specified * Refrigerant type R410A * Refrigerant piping as specified * Unit capacities as specified |  |
| Condensate drains:   * 20 mm minimum drains provided and as specified * UPVC pressure pipes and fittings * Installation as specified * Soaker pit provided as specified * Drip tray provided as specified |  |
| Electrical as specified |  |
| **ROOM AIR CONDITIONER UNITS** | |
| General:   * Packaged air conditioners provided as specified * Air diffuser, return air grille and filter, and user controls supplied * Unit capacities as specified * Installation as specified |  |
| Condensate drains:   * 20 mm minimum drains provided and as specified * UPVC pressure pipes and fittings * Installation as specified * Soaker pit provided as specified |  |
| Wall mounted type:   * Through the wall type, mounted in a vertical cabinet * Electrical hard wire from isolating switches adjacent to the units |  |
| Window/wall type:   * Single chassis unit housed in a metal cabinet fixed in an opening in the window or wall * Electrical connect to adjacent general purpose outlet, with a suitably rated 3 flat pin plug and flexible cord |  |
| **PACKAGED AIR CONDITIONING UNITS** | |
| General:   * Air cooled, package unit type and as specified * Fan-coil section as specified * Condensing section as specified |  |
| Operating conditions as specified |  |
| Refrigerant type R410A |  |
| Plant capacities suit the design conditions |  |
| Line devices:   * Stop valves as specified * Service valves as specified * Dryer as specified * Flow and moisture indicator as specified * Strainer as specified |  |
| Safety devices:   * Pressure relief as specified * High pressure cut out as specified * Low pressure cut out as specified * Oil safety cut out as specified |  |
| Condensate drains:   * 20 mm minimum drains provided and as specified * UPVC pressure pipes and fittings * Drip tray provided as specified * Soaker pit provided as specified |  |
| Fan coil unit insulation as specified |  |
| Installation:   * Cyclonic regions to Northern Territory Building Act * Non cyclonic regions to manufacturer's recommendations * Fan coil units as specified * Condensing units as specified * Refrigeration piping as specified |  |
| Control as specified |  |
| Electrical as specified |  |
| **CHILLED WATER AIR HANDLING UNITS** | |
| Unit construction as specified |  |
| Supply air fan as specified |  |
| Cooling coils as specified |  |
| Installation as specified |  |
| Electrical as specified |  |
| Control as specified |  |
| **EVAPORATIVE COOLERS** | |
| Construction:   * Corrosion resistant materials suitable for outdoor operation * Structural frame as specified * Cabinet as specified * Water reservoir as specified |  |
| Supply air fan as specified |  |
| Installation:   * To manufacturer's recommendations * Upstands as specified * Above roof as specified * Floor mounting within plantroom as specified * Floor mounting at ground level as specified |  |
| Water supply connected to each unit, automatically controlled by a ball float valve |  |
| Bleed, drain and overflow as specified |  |
| Control as specified |  |
| Electrical as specified |  |
| **FANS** | |
| General:   * Quite operation and as specified * Balancing as specified |  |
| Axial flow fans:   * Construction as specified * Heavy galvanised steel or bronze mesh guards provided * terminal box external to the fan casing and wired to the fan motor provided |  |
| Centrifugal fans:   * Assembly as specified * Backward inclined blades as specified * Forward inclined blades as specified * Drive as specified |  |
| In-line centrifugal fans:   * Direct-driven fan with casings of galvanised steel, moulded fibreglass or impact resistant plastic * Impellers backward inclined * Terminal box external to the fan casing and wired to the fan motor provided |  |
| Window/wall mounted fans weatherproof plastic construction and as specified |  |
| Roof mounted fan units:   * Weatherproof construction and as specified * Fan types centrifugal, axial or mixed flow * Housing as specified |  |
| Installation:   * Access provided for maintenance * Vibration isolation * Flexible duct connections to isolate fans from ductwork and plant casings used * Trims as specified |  |
| Electrical as specified |  |
| **AIR FILTERS** | |
| Media as specified |  |
| Frames as specified |  |
| Filter access provided as specified |  |
| Measurement as specified |  |
| **PUMPS** | |
| Material as specified |  |
| Construction:   * Casing as specified * Components as specified * Motors as specified * Couplings as specified * Base plates as specified |  |
| Installation:   * Alignment as specified * Doweling as specified * Shaft seal drip trays as specified |  |

Action Required - ITC issued on items that do not comply

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**DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS**

**CHECK LIST – AIR COILS**

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**TESTS**

**Give sufficient notice so that the Superintendent may witness testing:**

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| Spec. Ref. | Item | Checked – Initial and date |
| #.5.4.1 | Pre completion tests |  |
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**COMPLIANCE CHECKS – REFER SPECIFICATION**

| **ITEM** | **Checked - Initial & Date** |
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| **DESIGN** | |
| Air pressure drop as specified |  |
| Face velocity as specified |  |
| Fin pitch as specified |  |
| Water pressure drop as specified |  |
| **PRODUCTS** | |
| Production tests as specified |  |
| Fabrication:   * Tubes arranged with uniform spacing in a staggered pattern * Fins as specified * Frames as specified * Air leakage as specified * Eliminator plates as specified |  |
| **WATER COILS** | |
| Chilled and hot water coils < 100ºC as specified |  |
| High temperature water coils ≥ 100ºC as specified |  |
| Headers as specified |  |
| **REFRIGERANT COILS** | |
| Direct expansion coils:   * Connections as specified * Tube arrangement as specified * Material as specified |  |
| Condensing coils:   * Connections as specified * Tube arrangement as specified   Material as specified |  |
| **ADDITIONAL COIL TREATMENT** | |
| Coil corrosion protection coating to the condensing coils as specified |  |
| Treatment as specified |  |
| **MARKING** | |
| Labels provided as specified |  |
| **EXECUTION** | |
| Pipe connections temporary sealing of end connections as specified |  |
| Fins protected with double corrugated cardboard or hardboard as specified |  |
| **COILS** | |
| Fluid and air flow directions are counter flow |  |
| Heating coils in ductwork access and support as specified |  |
| Damaged fins combed straight |  |
| **PIPING** | |
| Access, removal and support as specified |  |

Action Required - ITC issued on items that do not comply

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**DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS**

**CHECK LIST – CHILLERS COMBINED**

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| PROJECT |  | SPEC. NO. |  |
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| Work lot |  | Date |  |

**TESTS**

Give sufficient notice so that the Superintendent may witness testing:

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| #.16.1 | Commissioning |  |
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**COMPLIANCE CHECKS – REFER SPECIFICATION**

| **ITEM** | **Checked - Initial & Date** |
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| **CONTRACTOR’S SUBMISSIONS** | |
| Certification as specified |  |
| Factory performance testing submitted |  |
| Product data submitted |  |
| **PRODUCTS** | |
| Performance rating to AS/NZS 4776.1.1 |  |
| Weatherproof sheet metal enclosures provided for equipment requiring weather protection |  |
| Motors and starters as specified |  |
| Integrated lifting facilities as specified |  |
| Labels provided as specified |  |
| **COMPRESSORS** | |
| Scroll compressors as specified |  |
| Screw compressors as specified |  |
| **SHELL AND TUBE LIQUID COOLERS** | |
| Direct expansion type as specified |  |
| Flooded type as specified |  |
| Construction as specified |  |
| Accessories as specified |  |
| **PLATE EVAPORATORS** | |
| 316 stainless steel single pass, counterflow, brazed plate heat exchangers provided |  |
| **LIQUID COOLER INSULATION** | |
| Cold system with metal sheathing or elastomeric foam with minimum material R-value: 1.8 m².K/W |  |
| **SHELL AND TUBE CONDENSERS** | |
| Type and performance rating as specified |  |
| Construction:   * Shells as specified * Tube bundles as specified * Tube plate material as specified * Rigidly fixed to suitable supports |  |
| Removable water boxes provided as specified |  |
| Accessories as specified |  |
| **AIR COOLED CONDENSERS** | |
| Type and performance rating as specified |  |
| Equipment enclosures as specified |  |
| Condensing coils as specified |  |
| Condenser fans as specified |  |
| Additional fan corrosion protection as specified |  |
| 4.9.7 Control panel degree of protection ≥ IP44. |  |
| **HEAT RECOVERY CHILLER** | |
| Compressor and drive as specified |  |
| Heat recovery or double-bundle condenser:   * Mounted on the chiller next to the cooling tower condenser * Construction as specified * Hot gas bypass as specified |  |
| **REFRIGERATION SYSTEM** | |
| Minimum refrigerant leakage |  |
| Flammable refrigerants not used |  |
| Accessories as specified |  |
| **CONTROL SYSTEM** | |
| Menu driven, stand alone, microprocessor based module |  |
| Remote monitoring:   * Common alarm provided * Interrogated to the BMS |  |
| Scroll chillers as specified |  |
| Screw chillers as specified |  |
| **SAFETY CONTROLS** | |
| Requirement as specified |  |
| **CAPACITY CONTROL** | |
| Scroll chillers:   * Operation as specified * Capacity controller as specified |  |
| Screw chiller:   * Operation as specified * Control system as specified * Current limiter as specified * Demand limiter as specified |  |
| Fan cycling for head pressure control provided to air cooled chillers |  |
| Condenser water control as specified |  |
| **INSTALLATION** | |
| Installation to manufacturer's instructions |  |
| Seismic restraint provided |  |
| Damage or loss of refrigerant holding charge reported |  |
| Piping as specified |  |
| Refrigerant pressure relief as specified |  |
| Safety provisions as specified |  |
| Refrigerant sensor as specified |  |
| **COMMISSIONING** | |
| Commissioning as specified |  |

Action Required - ITC issued on items that do not comply

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**DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS**

**CHECK LIST – COOLING TOWERS**

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| PROJECT |  | SPEC. NO. |  |
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**TESTS**

Give sufficient notice so that the Superintendent may witness testing:

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| Spec. Ref. | Item | Checked – Initial and date |
| #.12.1 | Type tests/production tests |  |
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**COMPLIANCE CHECKS – REFER SPECIFICATION**

| **ITEM** | **Checked - Initial & Date** |
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| **CONTRACTOR’S SUBMISSIONS** | |
| Technical data provided |  |
| **PRODUCTS** | |
| Marking as specified |  |
| Materials:   * Pipe connections as specified * Fibreglass treatment as specified * Fibreglass gel coat as specified * Nozzles ABS or polypropylene * Hardware for wetted parts type 316 stainless steel to ASTM A240/A240M * Fill and drift eliminators as specified |  |
| Galvanized steel components as specified |  |
| Stainless steel components as specified |  |
| **COOLING TOWER CONSTRUCTION** | |
| Fibreglass towers:   * Casing material fibreglass * Cold water basin fibreglass * Atmospheric corrosivity category as specified |  |
| Stainless steel towers:   * Casing material stainless steel * Cold water basin stainless steel * Mechanical equipment support stainless steel * Non-wetted structure stainless steel * Hardware for non-wetted parts stainless steel |  |
| **COLD WATER BASINS** | |
| Construction:   * Capable of supporting the weight of service personnel and the rated water content * Fibreglass cold water basins: Minimum thickness 6 mm |  |
| Capacity as specified |  |
| Accessories as specified |  |
| Sumps as specified |  |
| **CASING** | |
| Louvres and splash guards:   * Readily removable air inlet louvres and splash guards provided * Air inlet louvres as specified * Air inlet screens as specified |  |
| Cell partitions as specified |  |
| **WATER DISTRIBUTION SYSTEM** | |
| Fill wave formed sheets designed for even water distribution to give maximum wetted surface area |  |
| Drift eliminators as specified |  |
| Distribution system:   * Counterflow towers as specified * Crossflow towers as specified |  |
| **FANS** | |
| Centrifugal fans |  |
| Axial flow fans |  |
| Rotating equipment balanced statically and dynamically |  |
| Shaft stainless steel |  |
| Guards provided as specified |  |
| Belt drives:   * Belts as specified * Belt tensioning equipment as specified * Drive guards as specified * Pulleys as specified |  |
| Gearboxes as specified |  |
| Fan bearings as specified |  |
| Fan stacks smoothly contoured with minimum fan blade tip clearance |  |
| Motors as specified |  |
| **ACCESS AND CLEANING PROVISIONS** | |
| Access doors and panels watertight and airtight |  |
| Access ladders and platforms as specified |  |
| Internal walkways as specified |  |
| Dead legs as specified |  |
| **EXECUTION** | |
| Mounting bases and frames   * Requirement as specified * Seismic restraint provided * Steel components hot-dip galvanized |  |
| Vibration isolating mountings as specified |  |
| **COMPLETION** | |
| Spread of water is even over the fill |  |
| Sump water level adjusted to manufacturer's recommendations |  |
| **COMPLETION TESTS** | |
| Type tests/production tests results provided |  |

Action Required - ITC issued on items that do not comply

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**DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS**

**CHECK LIST – DUCTWORK**

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**TESTS**

Give sufficient notice so that the Superintendent may witness testing:

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| Spec. Ref. | Item | Checked – Initial and date |
| #.26 | Leakage testing |  |
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**COMPLIANCE CHECKS – REFER SPECIFICATION**

| **ITEM** | **Checked - Initial & Date** |
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| **RESPONSIBILITIES** | |
| Design and construct:   * Requirement as specified * Standards as specified * Size as specified * Drawings as specified |  |
| Construction:   * Pressure rating as specified * Sealing as specified |  |
| **CONTRACTOR'S SUBMISSIONS** | |
| Calculations submitted |  |
| Construction methodologies submitted |  |
| Certification, test certificates, and duct conformance report submitted |  |
| Execution details submitted |  |
| Fire hazard properties submitted |  |
| Samples submitted |  |
| Type test certificates submitted |  |
| **MATERIALS AND COMPONENTS** | |
| Corrosion resistance as specified |  |
| Adhesive duct tapes non-toxic, high tack, synthetic pressure-sensitive type |  |
| **SHEET METAL DUCTWORK** | |
| Material:   * Galvanized steel as specified * Thickness as specified * Components as specified |  |
| Fasteners:   * Rivets as specified * Self-tapping screws as specified * Self-drilling and tapping screws as specified * Bolts, nuts, washers and drop rods as specified * Washers provided under nuts and bolt heads |  |
| Draw bands material as specified |  |
| Duct sealing:   * Duct seal class as specified * Extent of sealing as specified * Sealant materials as specified * Adhesive duct tapes as specified * Mastic at corners of machine rolled flanges |  |
| **PVC-U DUCTWORK** | |
| Material as specified |  |
| Sheet stiffening as specified |  |
| Thickness as specified |  |
| Welding as specified |  |
| Bending as specified |  |
| Seams as specified |  |
| Cross joints:   * Flanged as specified * Slip sockets as specified |  |
| Fittings as specified |  |
| Dampers fabricated from PVC-U |  |
| Supports for PVC-U ductwork as specified |  |
| **FLEXIBLE DUCT** | |
| Uninsulated flexible duct as specified |  |
| Insulated flexible duct as specified |  |
| Material R-value as specified |  |
| **KITCHEN EXHAUST DUCTWORK** | |
| Construction:   * Grading as specified * Joints as specified * Access as specified * Drains as specified * Spark arrestance as specified |  |
| **FIRE PROTECTION OF DUCTWORK** | |
| Sprayed coatings type as specified |  |
| Composite systems type as specified |  |
| Access:   * Fire damper access as specified * Exhaust fan access as specified |  |
| **FLEXIBLE CONNECTIONS** | |
| Requirement as specified |  |
| Materials as specified |  |
| Sufficient slack free movement and vibration isolation provided |  |
| Connected equipment openings aligned |  |
| Fixing as specified |  |
| Easy removal and replacement provided |  |
| Restriction as specified |  |
| Insulation and vapour sealing as specified |  |
| **DAMPERS - GENERAL** | |
| Balancing dampers located at each branch duct or tee and as specified |  |
| **VOLUME CONTROL DAMPERS** | |
| General:   * Free of rattles, fluttering or slack movement and as specified * Face dimensions equal to duct size * Mating angle flanged cross joints connection * Frames as specified * Dampers in smoke-spill systems as specified |  |
| Blades:   * Metallic-coated steel, aluminium or stainless steel * No sharp edges and sufficiently rigid * Thickness as specified * Maximum length 1200 mm * Single blade dampers as specified * Multi blade dampers as specified |  |
| Bearings as specified |  |
| Spindles:   * Material as specified * Securely fix to damper blades * Minimum diameter as specified |  |
| Linkages fixed securely to blades so that the blades rotate equally and close tightly without slip |  |
| Damper adjustment as specified |  |
| **SPLITTER DAMPERS** | |
| Construction as specified |  |
| **MOTORISED DAMPERS** | |
| Construction as specified |  |
| Flow characteristics as specified |  |
| **NON-RETURN DAMPERS** | |
| Construction as specified |  |
| **FIRE AND SMOKE DAMPERS** | |
| General:   * Type as specified * Requirement as specified * Material as specified |  |
| Links:   * Mechanical fire dampers as specified * Smoke dampers as specified * Mount for easy replacement |  |
| Access for maintenance and replacement of links provided |  |
| **SUBDUCTS** | |
| Material same as connecting ductwork or shaft |  |
| Subducts through lightweight walls as specified |  |
| **ACCESS OPENINGS - LOCATION** | |
| Access doors provided as specified |  |
| **ACCESS PANELS** | |
| Sizes as specified |  |
| Construction:   * Type as specified * Arranged to prevent condensation on cold surfaces * Frames as specified * Seals as specified * Latches type and number as specified * D handles provided |  |
| **ACCESS DOORS** | |
| Construction:   * Thickness ≥ 50 mm * Construction as specified * Size as specified * Door swing as specified * Arranged to prevent condensation on cold surfaces * Jamb, stiles and head as specified * Door hardware as specified * Seals as specified * Insulation as specified |  |
| **ELECTRIC DUCT HEATERS** | |
| Elements: Sheathed in steel or nickel alloy with brazed spiral steel fins |  |
| Frames as specified |  |
| Heating section as specified |  |
| Fin rating: < 20 W/m2 |  |
| Permanent electrical connection to the heater |  |
| **KITCHEN HOODS** | |
| Material as specified |  |
| Volume dampers as specified |  |
| Luminaires as specified |  |
| **FUME CUPBOARDS** | |
| Type as specified |  |
| Standards as specified |  |
| Fans:   * Type as specified * Motor variable speed * Construction as specified * Fan located outside the building * Material as specified |  |
| Construction:   * Materials and fabrication as specified * Shell and interior welded PVC-U * One piece welded PVC-U work surface * Sash as specified * Double sided fume cupboards as specified * Finish of internal fixtures and components |  |
| Ductwork:   * Material as specified * Installation as specified * Lockable damper in each system * Discharge as specified |  |
| Drains:   * Location as specified * Construction as specified * Discharge to waste |  |
| Services:   * Lighting as specified * Socket outlets located outside the chamber * Acid neutralising tank for waste treatment |  |
| Controls as specified |  |
| **DUCTWORK INSTALLATION** | |
| Storage and delivery as specified |  |
| Arrangement as specified |  |
| Spacing as specified |  |
| Seismic restraint provided |  |
| Flexible duct   * Installation as specified * Length as specified * Joints as specified * Joints between flexible ducts as specified * Support as specified * Maximum length of flexible duct sections 3 metres * Substitution as specified |  |
| Fire and smoke dampers as specified |  |
| Motorised dampers   * Maintenance access as specified * Mounting as specified * Operation as specified |  |
| * Construction debris and foreign material removed from inside ducts |  |
| Drainage as specified |  |
| Ductwork exposed to weather as specified |  |
| **LEAKAGE TESTING** | |
| Standard as specified |  |
| Test method as specified |  |
| Leakage testing report submitted |  |

Action Required - ITC issued on items that do not comply

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**DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS**

**CHECK LIST – DUCTWORK INSULATION**

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| PROJECT |  | SPEC. NO. |  |
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| Work lot |  | Date |  |

**COMPLIANCE CHECKS – REFER SPECIFICATION**

| **ITEM** | **Checked - Initial & Date** |
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| **RESPONSIBILITIES** | |
| Plant and equipment selections as specified |  |
| Insulating materials selection as specified |  |
| Ducting insulation design, application and calculations as specified |  |
| Documentation drawings as specified |  |
| **CONTRACTOR'S SUBMISSIONS** | |
| Calculations provided |  |
| Condensation tray locations provided if applicable |  |
| Acoustic performance details provided |  |
| Fire hazard properties submitted |  |
| Products and materials evidence of conformance submitted |  |
| Samples submitted |  |
| **PRODUCTS** | |
| Insulation material R-value as specified |  |
| Insulation material properties as specified |  |
| Vapour barrier classification as specified |  |
| Semi-rigid insulation:   * Properties as specified * Type as specified |  |
| Adhesives suitable for bonding facing to the insulation with Smoke-Developed-Index 0 |  |
| Aluminium foil laminate sheet as specified |  |
| Adhesive duct tapes as specified |  |
| Elastomeric foam insulation:   * Material as specified * Physical properties as specified * Adhesives as specified * Protection as specified * Alternative protection as specified |  |
| **EXECUTION** | |
| Fixing devices:   * No traverse free edge insulation joins * Stud welded fully annealed metallic-coated steel pins * Speed clips as specified * Protection as specified |  |
| Insulation overlap as specified |  |
| Joins as specified |  |
| Insulation near moisture producing equipment as specified |  |
| Vapour barriers:   * Type as specified * Location as specified |  |
| Application of tapes as specified |  |
| Duct free from off cuts, drill swarf or other loose material |  |
| Internal insulation of ductwork connected to evaporative coolers, kitchen exhaust, and moisture laden ducting as specified |  |
| **INTERNAL INSULATION - LAMINATE FACED** | |
| Semi-rigid board or batt |  |
| Application as specified |  |
| Joins as specified |  |
| Fixing:   * Butt joints as specified * Vapour sealing as specified * Demountable joints as specified * Fixing pins as specified * Internal insulation as specified |  |
| **INTERNAL INSULATION - METAL FACED** | |
| Location as specified |  |
| Type as specified |  |
| Application as specified |  |
| Rectangular ductwork:   * Metal facing as specified * Facing material 0.55 mm metallic-coated steel uniformly perforated with 2.5 mm diameter holes as specified * End nosings as specified * Nosing size 0.55 mm thick with a minimum 25 mm turn-back over the metal facing * Fixing as specified |  |
| Circular ductwork:   * Material as specified   Method and fabrication as specified |  |
| **EXTERNAL INSULATION - LAMINATE FACED** | |
| Flexible batts or blanket |  |
| Application as specified |  |
| Fixing method as specified |  |
| **EXTERNAL INSULATION - LAMINATE FACED AND METAL SHEATHED** | |
| Semi-rigid batts |  |
| Application:   * Support as specified * Joints in sheathing as specified * Sealing as specified |  |
| **INSULATION OF DUCTWORK COMPONENTS AND FITTINGS** | |
| Insulation material R-value as specified |  |
| Installation as specified |  |
| Plenum and cushion head boxes on air grilles:   * Insulation type as specified * Insulation fixing as specified |  |
| Dampers   * Internal as specified * External as specified |  |
| Insulation provided to access doors and panels |  |
| **INSULATION OF DUCT FLEXIBLE CONNECTIONS** | |
| Insulation material R-value equal to connected duct |  |
| Method as specified |  |

Action Required - ITC issued on items that do not comply

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**DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS**

**CHECK LIST – AIR GRILLES**

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| PROJECT |  | SPEC. NO. |  |
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| Work lot |  | Date |  |

**COMPLIANCE CHECKS – REFER SPECIFICATION**

| **ITEM** | **Checked - Initial & Date** |
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| **CONTRACTOR’S SUBMISSIONS** | |
| Type tests submitted |  |
| Samples submitted |  |
| **MANUFACTURE** | |
| Proprietary air grilles as specified |  |
| Powder coat finish colour |  |
| Fixings as specified |  |
| **VOLUME CONTROL DAMPERS** | |
| Dampers controlling a single air grille attached to flexible duct as specified |  |
| Butterfly dampers as specified |  |
| Stream splitter dampers as specified |  |
| Opposed blade dampers as specified |  |
| **AIR GRILL TYPES** | |
| Air grilles in suspended ceilings as specified |  |
| Louvre ceiling diffusers:   * Type as specified * Reducer necks as specified * Frame as specified * Cushion necks as specified * Air volume control as specified |  |
| Circular diffusers:   * Spun circular aluminium material * Cushion head box provided to a flexible duct * Air volume control as specified |  |
| Curved blade diffusers   * Cushion head box provided to a flexible duct * Air volume control as specified |  |
| Perforated plate diffusers   * Cushion head box provided to a flexible duct * Air pattern control as specified * Air volume control as specified |  |
| Perforated face air grilles as specified |  |
| Luminaire air diffusers   * Single sided or double sided, to conform to design of light fitting * Physical compatibility * Performance as specified * Construction as specified * Air flow deflection as specified * Air volume control as specified |  |
| Slot diffusers   * Type as specified * Construction as specified * Plenum as specified * Frame as specified * Finished appearance as specified * Air pattern control as specified * Air volume control as specified |  |
| Side wall registers   * Type as specified * Construction as specified * Removable core * Blades > 600 mm long supported at mid-point on a notched support bar * Dampers as specified |  |
| Jet diffusers   * 3 concentric sections made of spun aluminium, bolted together * Air pattern control as specified * Cushion head box provided to a flexible duct * Air volume control as specified * Mounting suitable for either ceiling, wall or direct duct mounted application |  |
| Thermally powered VAV diffusers   * Type as specified * Construction as specified * Powder coated metallic-coated steel sheet material * Frame style to suit the type of ceiling, and ceiling grid mounting requirements * Operation * Control * Heating operation * Room temperature set point adjustable from below the face of the diffuser over the range 21°C to 26°C * Cushion head box provided to a flexible duct * Air volume control as specified |  |
| Weatherproof louvre grilles   * Extruded aluminium with fixed horizontal blades set into a fixed frame * Louvre blades as specified * Flanged or channel frame to suit the installation profile * Pressure drop ≤ 15 Pa at the documented air flow * Screens as specified |  |
| Return or exhaust air grilles – indoor   * Type as specified * Pressure drop ≤ 10 Pa at the documented air flow * Blades as specified * Air volume control as specified |  |
| Mesh air grilles   * Light duty type as specified * Heavy duty type as specified |  |
| Egg crate return or exhaust air grilles   * Type as specified * Removable core provided * Free area ≥ 90% of nominal face area * Air volume control as specified |  |
| **INSTALLATION OF AIR GRILLES** | |
| Protective wrappings in place until final mounting |  |
| Mounting as specified |  |
| Fixing as specified |  |
| Plenum and cushion head boxes:   * Material as specified * Insulation as specified * Interior of plenum box matt black, if visible through the air grille * Flexible duct connections as specified * Support of plenum boxes as specified |  |
| Alternative plenum and cushion head boxes:   * Shop drawings provided * Warranties provided |  |

Action Required - ITC issued on items that do not comply

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**DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS**

**CHECK LIST – MECHANICAL PIPEWORK**

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| PROJECT |  | SPEC. NO. |  |
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| Work lot |  | Date |  |

**TESTS**

**Give sufficient notice so that the Superintendent may witness testing:**

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| Spec. Ref. | Item | Checked – Initial and date |
| #.33.1 | Completion tests |  |
| #.33.2 | Hydrostatic testing |  |
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**COMPLIANCE CHECKS – REFER SPECIFICATION**

| **ITEM** | **Checked - Initial & Date** |
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| **DESIGN** | |
| Design pressures as specified |  |
| Piping system as specified |  |
| Piping design, application and calculations as specified |  |
| Shop drawings submitted |  |
| Valves and pipeline components for water systems as specified |  |
| Valves and pipeline components for steam and condensate systems as specified |  |
| Valves and pipeline components for liquid fuel systems as specified |  |
| **CONTRACTOR'S SUBMISSIONS** | |
| Manufacturer's specifications and reports submitted |  |
| **COPPER PIPING** | |
| Jointing as specified |  |
| Fittings:   * Capillary fittings as specified * Compression fittings as specified * Unions as specified * Flanges as specified * Bends and tees as specified * Centreline radius of bend or tee branch ≥ 1.5 times the pipe diameter |  |
| 3.4.4 Permanent joints as specified |  |
| **STEEL PIPING** | |
| Steel pipe for closed systems |  |
| 3.5.2 Pipe for aerated systems |  |
| 3.5.3 Jointing |  |
| 3.5.4 Fittings:   * Welded pipe as specified * Bends and tees as specified * Centreline radius of bend or tee branch ≥ 1.5 times the pipe diameter * Steel for fabricated pipe fittings same grade and wall thickness as the pipe * Non-vertical lines as specified |  |
| **STAINLESS STEEL PIPING** | |
| Pipes as specified |  |
| Jointing as specified |  |
| Fittings:   * Material stainless steel of the same grade and wall thickness as the pipe * Unions as specified * Flanges as specified * Bends and tees as specified * Centreline radius of bend or tee branch ≥ 1.5 times the pipe diameter * Stainless steel nuts bolts and washers of the same grade as the pipe used |  |
| Welding as specified |  |
| **ABS PIPING** | |
| Installation as specified |  |
| Solvent cement and priming as specified |  |
| Jointing as specified |  |
| **PVC PIPING** | |
| Installation as specified |  |
| Jointing as specified |  |
| **POLYETHYLENE (PE) PIPING** | |
| Installation as specified |  |
| Jointing as specified |  |
| **VALVES AND FITTINGS - GENERAL** | |
| Components:   * Valve size as specified * Insulated valves as specified * Automatic control valves as specified * Connections as specified * Handwheels and handles as specified * Copper alloy valves as specified * Valves for water circuits open to air including open condenser water circuits as specified |  |
| Installation as specified |  |
| Valve identification as specified |  |
| **WATER VALVE TYPES** | |
| Drinking water to PCA B1 and PCA B2 |  |
| Non-drinking water as specified |  |
| **WATER VALVES AND FITTINGS** | |
| Selection as specified |  |
| Gate valves as specified |  |
| Ball valves as specified |  |
| Butterfly valves as specified |  |
| Non-return valves as specified |  |
| Globe valves as specified |  |
| Calibrated balancing valves as specified |  |
| Automatic/dynamic system balancing valves as specified |  |
| Pressure relief valves as specified |  |
| Pressure-reducing valves as specified |  |
| Ball float valves as specified |  |
| Strainers as specified |  |
| Automatic air vents as specified |  |
| Vacuum breaker valves as specified |  |
| **STEAM AND CONDENSATE VALVES AND FITTINGS** | |
| Selection as specified |  |
| Ball valves as specified |  |
| Non-return valves as specified |  |
| Combined sight glass and non-return valve as specified |  |
| Globe valves as specified |  |
| Pressure relief valves as specified |  |
| Pressure-reducing valves as specified |  |
| Ball float valves as specified |  |
| Steam traps as specified |  |
| Strainers as specified |  |
| Automatic air vents as specified |  |
| Vacuum breaker valves as specified |  |
| **STEAM SEPARATORS** | |
| Baffle type as specified |  |
| Diffuser-vortex type as specified |  |
| **LIQUID FUEL VALVES AND FITTINGS** | |
| Selection as specified |  |
| Gate valves as specified |  |
| Ball valves as specified |  |
| Non-return valves as specified |  |
| Globe valves as specified |  |
| Pressure relief valves as specified |  |
| Strainers as specified |  |
| **HOT WATER PANEL RADIATORS** | |
| Pressed steel construction with welded joints, baked enamel finish |  |
| Key operated air vent provided |  |
| Mounting at least 150 mm clear of floor, with concealed wall mounting brackets |  |
| Valves as specified |  |
| **INSTRUMENTS - GENERAL** | |
| Locations as specified |  |
| **PRESSURE GAUGES** | |
| Bourdon tube type as specified |  |
| Full scale range between 130% and 200% of maximum working pressure |  |
| Construction as specified |  |
| Installation as specified |  |
| **THERMOMETERS** | |
| Dial thermometers:   * Mercury in steel * Accuracy within ± 1% of full scale deflection or better * Construction as specified * Installation as specified |  |
| **SENSING POINTS** | |
| Test plugs as specified |  |
| Thermometer pockets as specified |  |
| Thermometer wells as specified |  |
| **WATER FLOW MEASUREMENT** | |
| Pitot type sensors as specified |  |
| Flow meters as specified |  |
| **REFRIGERATION PIPING** | |
| Pips as specified |  |
| Bends as specified |  |
| Pipe fittings as specified |  |
| Brazed joints as specified |  |
| Sleeves as specified |  |
| Layout as specified |  |
| Refrigeration pipe insulation as specified |  |
| Pressure test and holding charge as specified |  |
| **INSTALLATION** | |
| General:   * Requirement as specified * Layout as specified * Arrangement as specified * Spacing as specified * Dissimilar metals as specified * Structural point loads submitted * Secondary support necessary to transfer piping mass through to the primary structure provided * Vibration suppression devices provided |  |
| Connections as specified |  |
| Seismic restraint provided |  |
| Hydraulic separation of components |  |
| Accessibility as specified |  |
| **CLEANING** | |
| Scale, rust, burrs and grease removed |  |
| Surfaces clean and dry |  |
| Protection as specified |  |
| **SUPPORTS** | |
| Support systems as specified |  |
| Support spacing as specified |  |
| **FLEXIBILITY** | |
| General:   * Requirement as specified * Anchors and guides as specified |  |
| Flexible connections as specified |  |
| **SLEEVES** | |
| Provided where penetrations through walls, floors, and other building elements |  |
| Cover plates as specified |  |
| JOINTS | |
| Demountable joints as specified |  |
| Flanged joints as specified |  |
| Screwed joints as specified |  |
| **DRAINS, VENTS AND GRADING** | |
| Drains:   * Water systems as specified * Drain size as specified * Drain points as specified * Air inlet points for draining systems as specified |  |
| Air release vents:   * Vent type as specified * Location as specified * Water system risers as specified |  |
| Grading as specified |  |
| **UNDERGROUND PIPING** | |
| Underground piping separated from electrical cables, gas pipes and other services by ≥ 300 mm |  |
| Installation:   * Pipe underlay as specified * Bedding material as specified * Chases as specified |  |
| Pipe surrounds as specified |  |
| Valves installed in underground control boxes |  |
| Corrosion protection as specified |  |
| **SERVICES SUBJECT TO POTENTIAL DAMAGE** | |
| Insulated piping as specified |  |
| Vapour barriers as specified |  |
| **TESTING** | |
| Completion tests as specified |  |
| Hydrostatic testing results submitted |  |
| **LABELLING AND MARKING** | |
| Identification of piping as specified |  |

Action Required - ITC issued on items that do not comply

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**DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS**

**CHECK LIST – MECHANICAL PIPEWORK INSULATION**

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| PROJECT |  | SPEC. NO. |  |
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**COMPLIANCE CHECKS – REFER SPECIFICATION**

| **ITEM** | **Checked - Initial & Date** |
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| **RESPONSIBILITIES** | |
| Performance as specified |  |
| Plant and equipment selections as specified |  |
| Insulating materials selection as specified |  |
| Piping insulation design, application and calculations as specified |  |
| Documentation submitted as specified |  |
| **CONTRACTOR'S SUBMISSIONS** | |
| Calculations submitted |  |
| Selection and fixing statements submitted for vapour barrier installation |  |
| Exposed cold surfaces details submitted |  |
| Acoustic performance details submitted |  |
| Fire hazard properties submitted |  |
| Samples submitted |  |
| **INSULATION PERFORMANCE** | |
| Material R-value as specified |  |
| **PRODUCTS** | |
| Insulation materials as specified |  |
| Fire hazard properties as specified |  |
| Vapour barrier classification as specified |  |
| Polystyrene foam as specified |  |
| Polyolefin foam as specified |  |
| Phenolic, polyurethane and polyisocyanurate foam as specified |  |
| Glass wool and rock wool and polyester as specified |  |
| Adhesives, sealants and mastics as specified |  |
| Aluminium foil laminate sheet as specified |  |
| Aluminium foil laminate tape as specified |  |
| Elastomeric foam insulation as specified |  |
| Metal sheathing as specified |  |
| **INSTALLATION - GENERALLY** | |
| Preparation as specified |  |
| Surface temperature as specified |  |
| Supports as specified |  |
| Joints as specified |  |
| Use of multiple layers as specified |  |
| Cold piping as specified |  |
| Hot piping as specified |  |
| Pump and valve insulation as specified |  |
| **COLD PIPING INSULATION SYSTEMS** | |
| Installation of cold piping insulation systems other than elastomeric foam:   * Vapour barrier as specified * Application of adhesive or sealant as specified * Longitudinal joints as specified * Butt joints as specified * Straps as specified * Bends as specified * Mounting blocks as specified |  |
| Installation of elastomeric foam insulation:   * Installation as specified * Protection as specified * Alternative protection as specified |  |
| Fittings, valves and flanges:   * R-value as specified * Installation as specified * Vapour barrier as specified |  |
| **HOT PIPING INSULATION** | |
| Glass wool, rock wool and polyester:   * Surface finish as specified * Application as specified |  |
| Elastomeric foam insulation as specified |  |
| **SHEATHING OF PIPING INSULATION** | |
| Location as specified |  |
| Surface protection material secured without damaging vapour barriers |  |
| Metal sheathing:   * Installation as specified * Fixing as specified * Bends as specified * Weatherproofing as specified * Serviceable items as specified |  |
| **TANK, VESSEL AND HEAT EXCHANGER INSULATION** | |
| R-value as specified |  |
| Material as specified |  |
| Vapour barrier installed as specified |  |
| Removable insulated covers provided |  |
| **COLD TANK, VESSEL AND HEAT EXCHANGER INSULATION** | |
| Rigid foam sheet as specified |  |
| Elastomeric foam insulation as specified |  |
| **HOT TANK, VESSEL AND HEAT EXCHANGER INSULATION** | |
| Installation and fixing as specified |  |
| **SHEATHING OF TANK, VESSEL AND HEAT EXCHANGER INSULATION** | |
| Location as specified |  |
| Metal sheathing:   * Installation and fixing as specified * External joints and fixings weatherproof with sealant |  |
| **FLUE AND EXHAUST PIPE INSULATION** | |
| Insulation material as specified |  |
| R-value as specified |  |
| Application as specified |  |
| Sheathing as specified |  |

Action Required - ITC issued on items that do not comply

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**DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS**

**CHECK LIST – WATER TREATMENT**

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| PROJECT |  | SPEC. NO. |  |
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**TESTS**

**Give sufficient notice so that the Superintendent may witness testing:**

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| Spec. Ref. | Item | Checked – Initial and date |
| #.12.1 | Tests before building occupation |  |
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**COMPLIANCE CHECKS – REFER SPECIFICATION**

| **ITEM** | **Checked - Initial & Date** |
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| **CONTRACTOR'S SUBMISSIONS** | |
| Execution details submitted |  |
| **CHEMICAL DOSING - OPEN SYSTEMS** | |
| Requirement as specified |  |
| Storage tanks:   * Size as specified * Bund provided * Alarm provided |  |
| Dosing pumps electrically direct driven, manually adjustable type with clear plastic suction lines |  |
| Automatic bleed as specified |  |
| Biocide dosing as specified |  |
| **CHEMICAL DOSING - CLOSED SYSTEM** | |
| Requirement as specified |  |
| Feeder vessels as specified |  |
| **WATER FILTERS** | |
| Construction as specified |  |
| **CATHODIC PROTECTION** | |
| System characteristics as specified |  |
| Probe sockets as specified |  |
| **CHEMICALS** | |
| Chemicals for pre-cleaning, cleaning, flushing and treatment of mechanical piping systems provided |  |
| Quantities as specified |  |
| **TEST LOOPS** | |
| Test loops provided as specified |  |
| **MARKING** | |
| Piping and storage vessels containing hazardous materials identified |  |
| Safety signage to hazardous chemical storage |  |
| **INITIAL TREATMENT** | |
| Chemical cleaning and flushing as specified |  |
| Initial treatment as specified |  |
| Discharge to sewer as specified |  |
| **COMPLETION** | |
| Tests before building occupation as specified |  |
| Test reports submitted |  |

Action Required - ITC issued on items that do not comply

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**DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS**

**CHECK LIST – BUILDING MANAGEMENT SYSTEM**

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**TESTS**

Give sufficient notice so that the Superintendent may witness testing:

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| #.6.5 | Pre completion Tests |  |
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**COMPLIANCE CHECKS – REFER SPECIFICATION**

| **ITEM** | **Checked - Initial & Date** |
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| **FUNCTIONAL DESCRIPTIONS** | |
| Preliminary descriptions submitted as specified |  |
| **SYSTEM ARCHITECTURE** | |
| Specialized plant controllers:   * Requirements as specified * Safety as specified * Interlocks as specified * Modulation as specified * Data as specified * High level interface as specified |  |
| Local plant controllers:   * Operation as specified * Local data storage as specified * Information transfer as specified * Communication between LPC’S as specified * Remote user interfaces as specified * Communication network as specified * Power supplies as specified |  |
| General configuration:   * System components as specified * System integration as specified * System performance as specified * Expansion provisions as specified |  |
| **CONTRACTOR'S SUBMISSIONS** | |
| Listings submitted |  |
| Samples submitted |  |
| Documentation submitted |  |
| Drawings submitted |  |
| ITPs submitted |  |
| Manuals submitted |  |
| Prototypes submitted |  |
| Products and materials submitted |  |
| Subcontractor's qualifications submitted |  |
| Technical data submitted |  |
| System hardware submitted |  |
| System software submitted |  |
| As installed documentation submitted |  |
| **PRODUCTS** | |
| Local plant controllers:   * Resident library as specified * Functionality as specified |  |
| Operating software:   * Hardware operating software as specified * Algorithm software as specified |  |
| Devices for incorporation as specified |  |
| Spare capacity as specified |  |
| Software:   * Passwords provided * Manuals provided * Compatibility as specified * Licence as specified * OSI model as specified * System software as specified * Application software as specified * Function as specified * Modular construction as specified * Pre-delivery tests as specified * High level interface test as specified |  |
| Operator interface properties:   * BACnet web server as specified * System security as specified * Graphics as specified * Object properties as specified * Operating schedules as specified * Alarms as specified * Critical alarms as specified * Trends as specified * Reports as specified * Logs as specified * Server operating system as specified * Control system hardware as specified * Priorities as specified * Time synchronisation as specified |  |
| Active computer hardware   * Network hub/switch as specified * Network router as specified * Gateways as specified * Routers as specified * Wireless access point as specified * ADSL modem as specified * Coaxial cable modem as specified * Printers as specified * WAN interfaces as specified |  |
| Web server and operator workstations:   * Operator workstations as specified * Web server as specified |  |
| Portable operator terminals:   * Licenced software provided * Terminals as specified * Physical configuration as specified * Display as specified * Access as specified * Software and software functions as specified * Trend logs as specified * Trend log display as specified * History as specified * Hours run as specified |  |
| Network architecture:   * System requirement as specified * Network protocol as specified * System communication as specified * Data network cabling as specified * Copper as specified * Optical fibre as specified * External as specified * Copper cable connections as specified |  |
| Data sharing:   * Data values as specified * Monitoring as specified * Modification of values as specified * Analog objects as specified * Binary objects as specified * Out of service as specified * Calendar objects as specified * Loop objects as specified * Multistate objects as specified * Schedule objects as specified * Dynamic object creation as specified * Maintenance system as specified * High level interface as specified * Low level interface as specified |  |
| **EXECUTION** | |
| Programming operator interface as specified |  |
| Software development:   * Test facilities as specified * Inspection and test plans as specified |  |
| Ownership of all software and supporting documentation provided |  |
| Passwords provided |  |
| Pre completion tests:   * Software testing as specified * System testing as specified * System performance as specified |  |
| Training provided as specified |  |

Action Required - ITC issued on items that do not comply

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**DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS**

**CHECK LIST – MECHANICAL COMMISSIONING**

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| PROJECT |  | SPEC. NO. |  |
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**TESTS**

Give sufficient notice so that the Superintendent may witness testing:

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**COMPLIANCE CHECKS – REFER SPECIFICATION**

| **ITEM** | **Checked - Initial & Date** |
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| **RESPONSIBILITIES** | |
| General:   * Ratings and capacities of existing points for connection confirmed * Terminations as specified * Commissioning and re-commissioning of staged works as specified * Commissioning points locations provided |  |
| Experienced personnel engaged |  |
| Works program submitted |  |
| Safe workplace procedures developed |  |
| Noise and vibration as specified |  |
| Occupant amenity as specified |  |
| **INDEPENDENT CERTIFICATION OF COMMISSIONING AGENT** | |
| Registered testing authority |  |
| **CONTRACTOR'S SUBMISSIONS** | |
| Calibration certificates submitted |  |
| Certification submitted:   * Fire and life safety * Manual and automatic safety devices * Penetrating services * Deemed to comply provisions |  |
| Completion program submitted |  |
| Records report submitted |  |
| **COMMISSIONING** | |
| Fire safety measures as specified |  |
| Reports submitted |  |
| Starting up to manufacturer’s recommendations and as specified |  |
| **RELATED TESTS** | |
| Factory performance testing as specified |  |
| Statutory authorities as specified |  |
| **INSTRUMENTATION** | |
| Calibration certificates |  |
| Air quantity at diffusers, outlets and grilles:   * Hood adjustment factors as specified * Instruments as specified |  |
| Air pressures and differential pressures as specified |  |
| Water pressure and differential pressures as specified |  |
| Temperature:   * Air temperature instruments as specified * Chilled water and condenser water temperature instrument as specified * Instrument specifications for other temperature applications as specified |  |
| Humidity instruments as specified |  |
| Water flow instruments as specified |  |
| Electrical instruments as specified |  |
| Rotational speed as specified |  |
| Recording instruments as specified |  |
| **SOUND PRESSURE LEVEL MEASUREMENTS** | |
| Internal as specified |  |
| External as specified |  |
| **AIR BALANCING** | |
| Air balancing conditions met as specified |  |
| Diversity as specified |  |
| Measurement methods as specified |  |
| Preparation for air balancing as specified |  |
| Additional adjustment of air quantities as specified |  |
| On completion of air balancing as specified |  |
| **MANUFACTURER'S RECOMMENDED COMMISSIONING PROCEDURES** | |
| Commissioning procedures as specified |  |
| Instrumentation as specified |  |
| Tolerances as specified |  |
| **FIRE MODE OPERATION** | |
| All fire mode systems tested |  |
| Related systems as specified |  |
| All systems returned to normal operating mode |  |
| Fire and smoke dampers as specified |  |
| Fire isolated exit pressurisation as specified |  |
| Testing completed before the date for Practical Completion |  |
| **MOTORISED DAMPER LEAKAGE** | |
| Testing:   * Dampers as specified * Leakage criterion as specified * Procedure as specified |  |
| **AIR BALANCE REPORTS** | |
| Air balancing reports submitted and as specified |  |
| **ROOM AIR PRESSURE DIFFERENTIALS** | |
| General:   * Adjustment as specified * Pressure differentials without numerical value as specified * Test conditions as specified * Excessive building air leakage reported |  |
| Procedure as specified |  |
| **BUILDING ENVELOPE TESTING** | |
| Positive and negative building envelope pressurization test conducted as specified |  |
| Construction quality as specified |  |
| Pressurization equipment sizing as specified |  |
| Test conditions as specified |  |
| **WATER BALANCING** | |
| Balancing conditions met |  |
| Water quantity tolerances as specified |  |
| Diversity as specified |  |
| Preparation for water balancing as specified |  |
| Water flow measurement methods as specified |  |
| Completion as specified |  |
| **HEATING VALVE LEAKAGE** | |
| All heating valves tested for leakage |  |
| Procedure as specified |  |
| **ELECTRIC DUCT HEATERS** | |
| Testing as specified |  |
| **WATER BALANCE REPORTS** | |
| Water balance reports submitted |  |
| **AUTOMATIC CONTROLS** | |
| Tested for correct operation |  |
| Sensors calibrated |  |
| **SAFETY CONTROLS** | |
| Testing as specified |  |
| Monitoring as specified |  |
| **PLANT OPERATION PERIOD** | |
| Mechanical systems operated continuously during the plant operation period |  |
| **FIRE AND LIFE SAFETY TRAINING** | |
| Fire authority training provided |  |
| Principal training provided |  |
| **COMPLETION TESTS** | |
| Heating and air conditioning performance tests as specified |  |
| Electric duct heaters as specified |  |
| **HANDOVER** | |
| Handover meeting provided |  |
| Support material provided |  |
| **HANDOVER MEETING** | |
| Handover meeting minutes provided |  |
| Agenda items as specified |  |
| **HANDOVER TRAINING** | |
| Handover training provided |  |
| Training topics as specified |  |
| **FINAL COMPLETION DOCUMENTATION** | |
| Final completion documentation provided as specified |  |

Action Required - ITC issued on items that do not comply

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**DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS**

**CHECK LIST – MECHANICAL MAINTENANCE**

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| PROJECT |  | SPEC. NO. |  |
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**COMPLIANCE CHECKS – REFER SPECIFICATION**

| **ITEM** | **Checked - Initial & Date** |
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| **REFERENCE DOCUMENTATION** | |
| Operating and maintenance instructions and as installed documentation returned |  |
| Maintenance log books provided |  |
| **CONTRACTOR'S SUBMISSIONS** | |
| Maintenance and performance reports submitted as specified |  |
| Statutory certification submitted |  |
| Statutory reports submitted |  |
| Spillage or spoilage reports submitted |  |
| **PRODUCTS** | |
| Products to be substituted submitted |  |
| **MAINTENANCE REQUIREMENTS** | |
| Frequency as specified |  |
| Software uploads installed |  |
| Operational enhancements rationale submitted |  |
| **EMERGENCY REPAIRS** | |
| Remedial work as specified |  |
| Temporary work as specified |  |
| Contact details provided |  |
| **PERIODIC MAINTENANCE** | |
| General:   * Routine visits as specified * Notification of defects as specified * Requirement as specified * System and component maintenance as specified |  |
| Replacement materials and consumables:   * Requirement as specified * Substitution as specified |  |
| Maintenance for energy efficiency as specified |  |
| Air filters as specified |  |
| Air intake and discharge as specified |  |
| Air pressure differentials as specified |  |
| Air quality as specified |  |
| Automatic controls as specified |  |
| Boilers and burners as specified |  |
| Chillers as specified |  |
| Cooling towers and cooling water systems as specified |  |
| Ductwork including electric duct heaters, kitchen exhaust ducts and hoods as specified |  |
| Electrical systems as specified |  |
| Evaporative air coolers as specified |  |
| Fire and smoke dampers as specified |  |
| Fume cupboards as specified |  |
| Gas-fired appliances as specified |  |
| Humidifiers as specified |  |
| Medical gas systems as specified |  |
| Packaged air conditioning plant and room air conditioners as specified |  |
| Piped systems as specified |  |
| Refrigeration systems as specified |  |
| Tanks and piping for potable water as specified |  |
| VAV boxes as specified |  |
| Water treatment as specified |  |
| **END OF MAINTENANCE PERIOD SERVICE** | |
| Service tasks as specified |  |
| **RECOMMISSIONING** | |
| To manufacturer's recommendations |  |
| **COMPLETION** | |
| Maintenance reports submitted |  |
| Restitution after maintenance tasks as specified |  |
| **FINAL COMPLETION** | |
| Final completion meeting |  |
| **HANDOVER TRAINING** | |
| Handover training provided |  |
| **HANDOVER MEETING** | |
| Handover meeting documentation submitted |  |
| **FINAL COMPLETION DOCUMENTATION** | |
| Submitted as per schedule |  |

Action Required - ITC issued on items that do not comply

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**DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS**

**CHECK LIST – PAVING**

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| PROJECT |  | SPEC. NO. |  |
| Checked by |  | Title |  |
| Work lot |  | Date |  |

**COMPLIANCE CHECKS – REFER SPECIFICATION**

| **ITEM** | **Checked - Initial & Date** |
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| **MATERIALS AND COMPONENTS** | |
| Bedding sand as specified |  |
| Mortar:   * Sand, cement, and water as specified * Mix proportions: 1:3 cement:sand |  |
| Bitumen as specified |  |
| **PAVING GENERALLY** | |
| Substrate clean and dust free |  |
| Grades and falls are correct |  |
| Tolerances as specified |  |
| Movement joints installed |  |
| 10 mm thick closed cell cross-linked polyethylene compressible filler strip installed at abutments with buildings for paving greater than 1.5 m |  |
| Junctions installed as specified |  |
| **BASE COURSE** | |
| Subgrade 150 mm compacted to 95% MMDD CBR 10 |  |
| Base material for gravel and asphalt paving:   * Urban areas fine crushed rock as specified * Outside urban areas natural gravel as specified |  |
| Spread and compacted as specified |  |
| Required density is as specified |  |
| Level are as specified |  |
| **SPRAY SEALED SURFACING WORKS** | |
| Surface preparation:   * Constructed to the specified density, shape and level * Tightly bound and free from vegetation and other foreign matter * Surface broomed |  |
| Spray sealing as specified |  |
| Conformance testing on finished works as specified |  |
| **DENSE GRADED ASPHALT** | |
| Asphalt properties as specified |  |
| Surface preparation:   * Constructed to the specified density, shape and level * Tightly bound and free from vegetation and other foreign matter * Surface broomed |  |
| Mixing as specified |  |
| Spreading as specified |  |
| Compaction as specified |  |
| Conformance testing on finished works as specified |  |
| **UNIT PAVING** | |
| Masonry units are as specified |  |
| Cut units maintain accurate joints and sharp arises |  |
| 50 mm sand bedding in place |  |
| Sand bedding compacted |  |
| Mortar bedding as specified |  |
| Laying pattern as specified |  |
| Edge restraints in place |  |
| Paving joints as specified |  |
| **IN SITU CONCRETE PAVING** | |
| Correct thickness |  |
| Reinforcing mesh in place |  |
| Subgrade 100 mm compacted to 95% MMDD CBR 10 |  |
| 50 mm sand bedding in place with 200 µm builders plastic |  |
| Quality assurance testing results as specified |  |
| Formwork secure |  |
| Movement joints installed as required |  |
| Finish as specified:   * Broom * Exposed aggregate * Sponge * Pattern |  |
| **GRAVEL PAVING** | |
| Stabilizing as specified |  |
| Surface is level |  |
| Correct thickness |  |
| Edge restraint installed |  |
| **GRAVEL DRIVEWAYS** | |
| Type 3 material used |  |
| Thickness 150 mm minimum |  |
| Falls 1:100 |  |
| Compaction to 100% MMDD |  |

Action Required - ITC issued on items that do not comply

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**DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS**

**CHECK LIST – CIVIL WORKS**

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| PROJECT |  | SPEC. NO. |  |
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**TESTS**

* Give sufficient notice so that the Superintendent may witness testing:

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| Spec. Ref. | Item | Checked – Initial and date |
| #.3.6 | Proof rolling |  |
| #.4.7 | Proof rolling |  |
| #.5.14 | Spraying |  |
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**COMPLIANCE CHECKS – REFER SPECIFICATION**

| **ITEM** | **Checked - Initial & Date** |
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| **CLEARING, GRUBBING AND REHABILITATION** | |
| Mulching:   * Clearing as specified * Stockpiles 2 m maximum |  |
| Stripping of top layer   * Top layer of natural material to a depth of 100 mm * Stockpiles 2 m maximum |  |
| Grubbing as specified |  |
| Reinstatement as specified |  |
| Excess fill, rubble and other debris removed from site |  |
| **EARTHWORKS** | |
| Excess material as specified |  |
| Rock in subgrade as specified |  |
| Unsuitable material below subgrade surface other than rock as specified |  |
| Unsuitable material beneath fill as specified |  |
| Fill material as specified |  |
| Proof rolling:   * Proof rolling procedure submitted * Plant requirements as specified * Level tolerance and layer thickness as specified * Compliance as specified |  |
| Conformance testing:   * Each layer of fill material * Subgrade as specified * Subgrade conformance |  |
| **PAVEMENTS AND SHOULDERS** | |
| Natural gravel as specified |  |
| Fine crushed rock as specified |  |
| Sand clay as specified |  |
| Program and procedure for process control testing submitted |  |
| Level checking as specified |  |
| Level auditing as specified |  |
| Tolerances as specified |  |
| Proof rolling conformance |  |
| Conformance testing as specified |  |
| **SPRAY SEALING** | |
| Material requirements as specified |  |
| Bitumen emulsion as specified |  |
| Sprayers and personnel:   * Accreditation * Calibration of sprayers * Spraying plant and equipment must be in good working condition |  |
| Preparation of pavement:   * Deleterious materials, rocks, refuse and organic materials removed * Loose stones, dust, dirt and foreign matter removed by sweeping * Excess water removed * No traffic on prepared surface |  |
| Binder coat requirements as specified |  |
| Prime coat as specified |  |
| Straight run binder coats as specified |  |
| Polymer modified binder coats as specified |  |
| Sampling of binder as specified |  |
| Precoating aggregate:   * Aggregates dry before precoating * Uniform film of precoating material applied * Precoating to take place at pre-approved site stockpile locations * Powered shaking screen deck precoater used |  |
| Adhesion agent as specified |  |
| Spraying as specified |  |
| Application of aggregate as specified |  |
| **DENSE GRADED ASPHALT** | |
| Mix type and binder type as specified |  |
| Mix requirements:   * Registered in accordance with Department’s Code of Practice for Registration of Asphalt Mix Designs |  |
| Materials as specified |  |
| Surface preparation as specified |  |
| Construction program and paving plan submitted |  |
| Compaction as specified |  |
| **CONFORMANCE TESTING** | |
| Panel Period Contractors contractor list provided |  |
| Notice of testing |  |
| Conformance testing results received |  |
| **PAVEMENT MARKING** | |
| Painting Contractor Certification Program accreditation |  |
| Road marking paint:   * Conforming to APAS 0041/5 * Suitable for application by spray equipment to asphalt and bituminous seal road surfaces * Suitable for use with Intermix drop on spherical glass beads * Paint Certificate of Compliance submitted |  |
| Materials as specified |  |
| Setting out to DIPL Standard Drawing CS 3400 |  |
| Application:   * Equipment approval * Equipment calibration to NTTM 405.1 * Glass bead application as specified * Markings free from ghosting and raggedness * Road surface is free from dirt, loose detritus, mud and other extraneous matter, and dry |  |
| Application rates as specified |  |
| Longitudinal application as specified |  |
| Transverse and other marking applications as specified |  |
| Tolerances as specified |  |
| Workmanship:   * Markings straight, with smooth even curves * Defective marking removed by sand blasting, or other approved methods * Applications protected from traffic * Tyre pickup marks removed |  |
| Field testing:   * Wet film thickness as specified * Glass bead application as specified * Wear assessment limits as specified * Degree of wear as specified * Wear limits for pavement marking as specified |  |
| **ROAD FURNITURE AND TRAFFIC CONTROL DEVICES** | |
| Temporary site safety fence installed to manufacturer’s specifications |  |
| Pedestrian fence to civil standard drawing CS 3307 |  |
| Vehicle movement barriers/fences to Civil Standard Drawing CS 3305 |  |
| Cyclist holding rails to Civil Standard Drawing number CS 3305 |  |
| Guide posts as specified |  |
| Certification of guide posts received |  |
| Guide post characteristics as specified |  |
| Delineators as specified |  |
| Road signs as specified |  |

Action Required - ITC issued on items that do not comply

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**DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS**

**CHECK LIST – FABRIC SHADE STRUCTURES**

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| PROJECT |  | SPEC. NO. |  |
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**COMPLIANCE CHECKS – REFER SPECIFICATION**

| **ITEM** | **Checked - Initial & Date** |
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| **SPECIALIST FIRM** | |
| Specialist firm details provided |  |
| **GENERAL LAYOUT** | |
| As shown on drawings |  |
| **CONTRACTOR SUBMISSIONS** | |
| Design drawings received |  |
| Section 40 certificate received |  |
| Calculations received |  |
| Fabric samples received |  |
| **BUILDING CERTIFICATION** | |
| Section 40 certificate received |  |
| Permit to Build received |  |
| Occupancy Certificate received |  |
| **SUPPORT STRUCTURE** | |
| As shown on drawings |  |
| Support poles completely sealed |  |
| Continuous fillet welds around plate caps, brackets and cleats |  |
| Correct finish |  |
| **PROTECTIVE COATINGS** | |
| Steelwork hot-dip galvanized |  |
| Fasteners and components hot-dip galvanized |  |
| Bases of columns shall be coated with Epireze 215 |  |
| **SUSPENSION CABLES AND FITTINGS** | |
| Suspension cables as specified |  |
| Terminal connections stainless steel grade 316 |  |
| Membrane anchor plates material and finish as specified |  |
| Weak links as specified |  |
| **MEMBRANE FABRIC** | |
| Shade fabric as specified:   * Material * UV factor * Colour * Seams * Stitching * Perimeter reinforcing * Warranty received |  |
| Waterproof membranes as specified:   * Material * Quality * Weight * Colour * Seams * Joins * Seam tests * Warranty received |  |
| **MEMBRANE INSTALLATION** | |
| Handling as specified |  |
| Tensioned to design tension figures shown on drawings |  |
| **AS-CONSTRUCTED DRAWINGS** | |
| Drawings received |  |
| **MAINTENANCE MANUAL** | |
| Maintenance manual received |  |
| **COMPLETION** | |
| Installation clean |  |
| Connections tight |  |
| Tensioning systems secured |  |
| Locking mechanisms in place |  |
| Any damage made good |  |

Action Required - ITC issued on items that do not comply

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**DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS**

**CHECK LIST – FENCING**

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| Work lot |  | Date |  |

**COMPLIANCE CHECKS – REFER SPECIFICATION**

| **ITEM** | **Checked - Initial & Date** |
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| **MATERIALS AND COMPONENTS** | |
| Galvanizing as specified |  |
| Powder coating as specified |  |
| Steel tubes as specified |  |
| Wire as specified |  |
| Concrete as specified |  |
| Metal components as specified |  |
| **CONSTRUCTION GENERALLY** | |
| Fence alignment cleared as specified |  |
| Property boundaries confirmed survey |  |
| Posts, gates and bracing panels are positioned as specified |  |
| Post holes excavated as specified |  |
| Concrete footings installed and finished as specified |  |
| Steel panel fencing drain holes to bottom rails and are at least 50 mm clear of the ground or mowing strip |  |
| Mowing strip provided |  |
| **GATES** | |
| Location as per drawings |  |
| Hardwire as specified |  |
| Hand access provided |  |
| Swimming pool enclosures as specified |  |
| **FENCE TYPES** | |
| Domestic fences as specified |  |
| Security fences as specified |  |
| Remote community fences as specified |  |
| Swimming pool fences as specified |  |
| Horizontal sheet metal fences   * Non cyclonic areas as specified * Cyclonic areas to NT Deemed to Comply Drawings |  |
| Vertical sheet metal fences   * Non cyclonic areas as specified   Cyclonic areas to NT Deemed to Comply Drawings |  |

Action Required - ITC issued on items that do not comply

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**DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS**

**CHECK LIST – LANDSCAPE**

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| Work lot |  | Date |  |

**COMPLIANCE CHECKS – REFER SPECIFICATION**

| **Item** | **Checked - Initial & Date** |
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| **CONTRACTOR SUBMISSIONS** | |
| Suppliers data received   * Certificates identifying seed species and germination viability * Material source * Planting and maintenance recommendations |  |
| Samples received |  |
| Warranties received |  |
| **PREPARATION** | |
| Weeds eradicated |  |
| Vegetative spoil removed as specified |  |
| **EARTH MOUNDS** | |
| 150 mm clean fill layers |  |
| Compaction 85% of the dry density ratio of the surrounding soil |  |
| Changes in grade as specified |  |
| **ROCK WORK** | |
| Existing rock work as specified |  |
| New rock work as specified |  |
| **SUBSOIL** | |
| Ripping depth as specified |  |
| Cultivation as specified |  |
| Additives applied after ripping |  |
| **TOPSOIL** | |
| Site topsoil as specified |  |
| Imported topsoil as specified |  |
| Placing topsoil:   * Finished levels and contours achieved after light compaction * Grassed areas finished 20 mm below adjacent hard surfaces |  |
| Consolidation:   * Design levels correct * Finished surfaces smooth and free of stones and lumps of soil * Graded to drain freely * Graded evenly into adjoining surfaces |  |
| Topsoil depths are as specified |  |
| Surplus topsoil spread on designated areas on site or disposed off-site |  |
| **FERTILIZER** | |
| Correct type |  |
| Fertilizer schedule is as specified |  |
| **BARRIERS, BOLLARDS** | |
| Location as per drawings |  |
| Precast concrete bollards   * Correct material * Installed as specified |  |
| Timber bollards   * Correct material * Installed as specified * Termite protection provided |  |
| Steel tube bollards   * Correct material * Tube filled with concrete * Concrete footing provided as specified |  |
| Recycled plastic bollards   * Correct material * Installation as per manufacturer recommendations |  |
| **GARDEN EDGING** | |
| Masonry edging installed as specified |  |
| Steel edging installed as specified |  |
| Spade edging is as specified |  |
| Profiled concrete edging is as specified |  |
| **GRASS SEEDING** | |
| Preparation as specified |  |
| Sowing as specified |  |
| Rolling completed after sowing |  |
| Correct seed type |  |
| Watering as specified |  |
| Germination as specified |  |
| Any weeds removed |  |
| **TURFING** | |
| Topsoil fertilized before laying |  |
| Turf layed in specified pattern |  |
| Watering as specified |  |
| Finish is flush with adjacent surfaces |  |
| **SPRAYGRASS (HYDROSEEDING / HYDROMULCHING)** | |
| Preparation as specified |  |
| Application as specified |  |
| Watering as specified |  |
| **MOWING** | |
| Grass height between 40 to 80 mm |  |
| **TREES, SHRUBS AND GROUND COVERS** | |
| Characteristics:   * Large healthy root systems * Sturdy trunks/stems * A minimum of three months in their container * Vigorous, well established, and free from disease and pests * Hardened off and suitable for planting |  |
| Treatment of plants as specified |  |
| **EXCAVATION AND PLANTING** | |
| Setting out of holes:   * Cable and services locations identified * Set out as per drawings |  |
| Planting holes excavated as specified |  |
| Plant type is as specified |  |
| Ripline planting as specified |  |
| Holes treated as specified |  |
| Spoil removed |  |
| Plant species labelled |  |
| Storage as specified |  |
| Locations as per drawings |  |
| Watering as specified |  |
| Placement as specified |  |
| Root control barrier installed as per drawings |  |
| Hole fertilized as specified |  |
| Hole backfilled as specified |  |
| Watering basin for plants in grass provided where specified |  |
| **MULCHING** | |
| Mulch sample received |  |
| Mulch type as specified |  |
| Mulch depth as specified |  |
| **STAKES AND TIES** | |
| Stakes:   * Correct material * Correct sizes |  |
| Ties provided as specified |  |
| **TREE SURGERY** | |
| Qualified arborist employed |  |
| Tree surgery is as specified |  |
| **PLANTING ESTABLISHMENT** | |
| Maintenance work as specified |  |
| Stakes and ties removed at the end of the establishment period |  |
| Temporary fencing removed at the end of the establishment period |  |

Action Required - ITC issued on items that do not comply

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**DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS**

**CHECK LIST – IRRIGATION**

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| PROJECT |  | SPEC. NO. |  |
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**TESTS**

Give sufficient notice so that the Superintendent may witness testing:

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| Spec. Ref. | Item | Checked – Initial and date |
| #.4.1 | Hydrostatic tests |  |
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**COMPLIANCE CHECKS – REFER SPECIFICATION**

| **ITEM** | **Checked - Initial & Date** |
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| **CONTRACTOR SUBMISSIONS** | |
| Design drawings received |  |
| Manufacturer’s data received |  |
| **TESTS** | |
| Hydrostatic test results received |  |
| **CONNECTION** | |
| Local authorities informed |  |
| Connection as specified |  |
| **PIPEWORK MATERIALS** | |
| Galvanised steel pipe is as specified |  |
| Finishes as specified |  |
| Valves match connected pipework |  |
| **EXCAVATION AND INSTALLATION** | |
| Setting out:   * Cable and services locations identified * Set out as per drawings |  |
| Excavation as specified |  |
| Installation as specified |  |
| Maintenance accessibility as specified |  |
| Backfilling as specified |  |
| Fill material as specified |  |
| **IRRIGATION SYSTEM** | |
| Performance as specified |  |
| **FIXED LOCATION SYSTEMS** | |
| Heads as specified |  |
| Risers as specified |  |
| Pressure regulating valves as specified |  |
| Irrigation controllers as specified |  |
| Quick coupling valves as specified |  |
| **MICRO IRRIGATION SYSTEMS** | |
| Polyethylene irrigation pipe class RURAL |  |
| Pipe layed under mulch and fixed in place with U shaped stakes |  |
| Microsprays mounted on stakes 300 mm above ground and connect to the piping with microtubes |  |
| Turbulent flow drippers used |  |
| Valve box as specified |  |
| **VALVE BOX INSTALLATION** | |
| Flush with the surrounding surface in turfed areas |  |
| 50 to 100 mm above the surrounding surface in garden beds or mulched areas |  |
| **COMPLETION** | |
| System flushed |  |
| Strainers clean |  |
| Even distribution |  |
| Work-as-executed drawings received |  |

Action Required - ITC issued on items that do not comply

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**DEPARTMENT OF INFRASTRUCTURE planning and logistics**

**CHECK LIST – PLAY EQUIPMENT**

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**TESTS**

Give sufficient notice so that the Superintendent may witness testing:

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| Spec. Ref. | Item | Checked – Initial and date |
| #.14.1 | Comprehensive post-installation inspection |  |
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**COMPLIANCE CHECKS – REFER SPECIFICATION**

| **ITEM** | **Checked - Initial & Date** |
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| **CONTRACTOR SUBMISSIONS** | |
| Subcontractor names and contact details received |  |
| Subcontractor past experience received |  |
| Section 40 Structural Certificate received |  |
| Permit to Build received |  |
| Product information received |  |
| Installation information received |  |
| **EXISTING SERVICES** | |
| Located and marked |  |
| **BASE PREPERATION** | |
| As specified |  |
| Spoil removed from site as specified |  |
| **SUBGRADE** | |
| 150 mm depth mixed and re-compact to 95% standard compaction |  |
| **BASE MATERIAL** | |
| Fine crushed rock – urban areas as specified |  |
| Natural gravel – outside urban areas as specified |  |
| Placement as specified |  |
| **SUBSOIL DRAINAGE** | |
| Drain pipe 100 mm diameter SN8 class 400 |  |
| Installation depth 450 mm to the crown of the pipe |  |
| Trench width minimum 300 mm |  |
| Geotextile fabric as specified |  |
| Filter material 20 mm particle size |  |
| Installation as specified |  |
| **FOOTINGS** | |
| Tops of the foundations are at minimum 200 mm below the loose fill surface |  |
| Covered by items of equipment or parts |  |
| **Installation** | |
| To manufacturer’s installation manuals |  |
| Protective coatings removed |  |
| Surfaces cleaned |  |
| Identification plaque fixed permanently in a position visible from ground level |  |
| Base level mark for impact-attenuating clean washed soft fall sand height |  |
| **FINISH OF EQUIPMENT** | |
| Non splintering materials |  |
| No protrusions that may cause injury |  |
| All welds shall be ground smooth |  |
| **INSTALLATION INSPECTIONS** | |
| Comprehensive post-installation inspection undertaken by an independent qualified Level 3 Comprehensive Playground Safety Inspector |  |
| Report received |  |
| Recommendations received to achieve compliance on any non‑compliant elements. |  |
| **MAINTENANCE AND INSPECTION PROGRAM** | |
| Maintenance program received |  |
| Inspection frequencies received |  |
| **COMPLETION** | |
| Test reports received |  |
| Warranties received |  |
| As-constructed drawings received |  |

Action Required - ITC issued on items that do not comply

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**DEPARTMENT OF INFRASTRUCTURE planning and logistics**

**CHECK LIST – PLAYGROUND SURFACING**

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| PROJECT |  | SPEC. NO. |  |
| Checked by |  | Title |  |
| Work lot |  | Date |  |

**TESTS**

Give sufficient notice so that the Superintendent may witness testing:

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| Spec. Ref. | Item | Checked – Initial and date |
| #.12.1 | On-site impact-attenuating surface testing |  |
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**COMPLIANCE CHECKS – REFER SPECIFICATION**

| **ITEM** | **Checked - Initial & Date** |
| --- | --- |
| **CONTRACTOR SUBMISSIONS** | |
| Operation and maintenance manuals received |  |
| Manufacturer’s data received |  |
| Samples received |  |
| Subcontractor names and contact details received |  |
| **EXISTING SERVICES** | |
| Located and marked |  |
| **BASE PREPERATION** | |
| As specified |  |
| Spoil removed from site as specified |  |
| **SUBGRADE** | |
| 150 mm depth mixed and re-compact to 95% standard compaction |  |
| **BASE MATERIAL** | |
| Fine crushed rock – urban areas as specified |  |
| Natural gravel – outside urban areas as specified |  |
| Placement as specified |  |
| **SUBSOIL DRAINAGE** | |
| Drain pipe 100 mm diameter SN8 class 400 |  |
| Installation depth 450 mm to the crown of the pipe |  |
| Trench width minimum 300 mm |  |
| Geotextile fabric as specified |  |
| Filter material 20 mm particle size |  |
| Installation as specified |  |
| **IMPACT-ATTENUATION SUB LAYER (SHOCK PADS)** | |
| Properties as specified |  |
| Installation as specified |  |
| **IMPACT-ATTENUATING SURFACE (WEARING LAYER)** | |
| Material properties as specified |  |
| Certificate of authenticity received |  |
| Installation as specified |  |
| **EDGE TREATMENT** | |
| Abutting hard pavements as specified |  |
| Abutting garden beds, turf areas or tree surrounds as specified |  |
| **TESTING** | |
| Testing date not sooner than 14 days from the last day of the installation |  |
| Tester independent qualified and competent person |  |
| Test reports received |  |
| **COMPLETION** | |
| Spare materials received |  |
| Warranties received |  |
| As-constructed drawings received |  |
| **LOOSE-FILL IMPACT-ATTENUATING MATERIAL** | |
| Depth 300 mm |  |
| Soft fall sand certified to AS 4422 |  |
| 5 kg sample received |  |
| Material properties as specified |  |
| Boarders for containment of loose fill materials as specified |  |

Action Required - ITC issued on items that do not comply

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