Part 10 Maintenance

10.1.1 Introduction

(1) The purpose of this Part is:

a. to outline the obligations of persons who develop land within the City to maintain Public (Municipal) Works carried out by them in connection with such development;
b. to ensure that Public (Municipal) Works are constructed in a good and workmanlike manner with good quality materials and in accordance with the approved design before such works become the full responsibility of the Local Government and, thus, the ratepayers of Ipswich; and
c. to ensure that landscaping works continue to be maintained and that plants are nurtured to maturity, and weeds suppressed.

10.1.2 Definitions

(1) For the purpose of this Part, all definitions used are those contained in the Planning Scheme with the following additions:

"Accelerated Trunk Infrastructure Agreement" means an agreement made pursuant SC6.2 General Works and Infrastructure Planning Scheme Policy.

"Accept on Maintenance" means the issue of a letter by the Local Government in respect of any Public (Municipal) Works pursuant to section 11.1.3 of this Planning Scheme Policy declaring the Public (Municipal) Works "On Maintenance".

"Codes" means the various Planning Scheme Codes which provide the specific outcomes, criteria, probable solutions and standards for various land uses and development types.

"Connecting Works Trunk Infrastructure Agreement" means an agreement made pursuant to SC6.2 General Works and Infrastructure Planning Scheme Policy.

"Establishment Period" means the minimum 12 week period applicable to all public (municipal) landscape planting works commencing from the date of the satisfactory practical completion inspection of the relevant works. The initial twelve (12) week establishment period will be included in the prescribed maintenance period should a successful establishment (i.e. deemed acceptance for on maintenance) be achieved. Otherwise this establishment period is exclusive of, and in addition to, the required maintenance periods.

"Maintain" means the keeping, preserving and enhancing (in the case of landscape works) of Public (Municipal) Works to a standard as set out in this policy and other Codes.

"Maintenance Period" means the following periods for each of the categories of Public (Municipal) Works unless otherwise approved by the assessment manager for any specific reason and/or circumstance:

a. landscaped or grassed areas within road reserves or park areas – the period of eighteen (18) months post establishment period and commencing from the date the relevant Public (Municipal) Works are Accepted on Maintenance;
   Note: Vegetation requires a minimum 12 week establishment period prior to acceptance.
b. landscaping in areas dedicated as open space, civil and landscaping components of dry/wet detention basins (including natural channels, rehabilitation areas, gross pollutant traps, bio-retention stormwater quality systems and associated works and landscaping) - the period of twenty-four (24) months post establishment period and commencing from the date the relevant Public (Municipal) Works are Accepted on Maintenance; and
c. all other Public (Municipal) Works with the exception of hard park infrastructure (e.g. shelters, seats, playground equipment etc.) – the period of twelve (12) months commencing from the date the relevant Public (Municipal) Works are Accepted on Maintenance.

Note 10.1.2A:

1. For the purpose of clarity it is recorded that longer maintenance periods may be required for specific items, where problems have been encountered during construction, where non-standard methods or materials have been used, where temporary works are required after construction is completed, or where Public (Municipal) Works have been constructed in accordance with an Accelerated Trunk Infrastructure Agreement, Connecting Works Trunk Infrastructure Agreement or Trunk Infrastructure Agreement.
2. In the case of vegetated stormwater quality improvement devices, the maintenance period shall not commence until 90% of the contributing stormwater catchment to the device (approved as part of the development application) has the building phase completed, or where the contributing catchment has greater than 20 lots, 95% of the building works have been completed.
3. For vegetated assets, widespread failure of plants (greater than 40% failure) or weed invasion may result in the re-commencement of the maintenance period following rectification of defects.
4. Minor failure may result in other extensions to the maintenance period at the discretion of Council.

"Public (Municipal) Works" means all works, services, land, buildings, structures, roads, park structures, fencing, irrigation, landscape features (hard and soft), grassed or turfed areas, paved areas, footpaths, pathways, cycleways, natural features, park and street furniture, public lighting and associated structures which are to pass to or come under the control of the Local Government.

"Practical Complete" means where all Public (Municipal) Works are considered by Council to be completed with only minor

defects to be rectified and submission pursuant to Sections 10.2.3(1), 10.1.3 (6) and (7) of this Planning Scheme Policy required.

(2) Where any provision outlined in this Part does not accord with the terms or intent of any Infrastructure Agreement, the provisions of the Infrastructure Agreement is to take precedence.

10.1.3 Acceptance on Maintenance

(1) Upon the Local Government being satisfied that any Public (Municipal) Works have been properly completed or established, a notification letter titled “On Maintenance Inspection” is to be issued.

(2) The Public (Municipal) Works except for the Landscape Planting works, are deemed to be Accepted on Maintenance from the date of that letter subject to Section 10.1.3(6).

(3) With regard to the Public (Municipal) Landscape Planting Works, an inspection with Council’s attendance is required following the practical completion of the works.

(4) A second inspection following the minimum 12 week establishment period is also required.

(5) The satisfactory establishment of the landscaping works is deemed necessary for the issuing of the notification letter to indicate the “On Maintenance” acceptance.

(6) Where the outstanding matter or matters preventing the acceptance of “On Maintenance” as listed in the notification letter titled “On Maintenance Inspection” are not completed or submitted to Council within twenty (20) business days of the date of this letter, the on Maintenance acceptance date will revert to the date of where all these outstanding matters are completed or satisfactorily addressed.

(7) Prior to Accepting on Maintenance any Public (Municipal) Works the following is required:
   a. a bank guarantee or bond equivalent to not less than the greater of: 5% of the value of the Public (Municipal) Works or 100% of the value of the vegetated asset works or minimum $2000 to be lodged with the Local Government as security for the performance of the maintenance obligations; and
   b. a Maintenance Bond ; or
   c. a Bond and Licence Deed agreement in accordance with Section 9.1.4 if it is requested by the assessment manager.

Note 10.1.3A: In the case of vegetated assets and landscaping works, the maintenance bond may be reduced as the maintenance period progresses on a pro-rate basis, subject to performance (ie substantial vegetation growth and adequate weed suppression) and at the discretion of Council.

(8) Before any Public (Municipal) Works are passed as practically complete and Accepted on Maintenance, the requirements of Part 9 ‘Compliance with Standards for Reconfigurations and Site Development Works’ of this Planning Scheme Policy are to be complied with.

Note 10.1.3B:

1. The following list is a guide for consultants to help facilitate acceptance of public (municipal) works “On Maintenance” by the Local Government.

a. Preliminary inspections carried out by Consultant of roadworks, , stormwater drainage systems and, if relevant, parkland at or near practical completion and the pre-inspection checklist as required by Part 9 “Compliance with Standards for Reconfigurations and Site Development Works” of this Planning Scheme Policy are completed and forwarded to the Local Government prior to the requested “On Maintenance” inspection date.
b. A formal “On Maintenance” inspection is carried out by the Local Government’s representative and the Consultant.
c. A date of practical completion is nominated and any further items requiring rectification listed.
d. The works will be “Accepted on Maintenance” for the required period from the date a letter declaring the Public (Municipal) Works “On Maintenance” has been issued by the Local Government following the receipt by the Local Government of the information that satisfactorily addresses the items contained in Appendix 4.

10.1.4 Bonding Incomplete Works Associated with the Reconfiguring of Land

(1) The Local Government may approve Plans of Subdivision, prior to acceptance of works "On Maintenance", subject to the following prerequisites (refer to Note 10.1.4A):
   a. The bulk earthworks are completed (refer to Note 10.1.4B);
   b. Kerbing and channelling and carriageway works are completed (refer to Note 10.1.4C);
   c. Roads are certified by an authorised surveyor to be within the correct alignment (refer to Note 10.1.4C);
   d. Stormwater works are to have achieved practical completion (with an included CCTV report).
   e. Where a bond is accepted:
      i. the amount of the bond is to be the value of outstanding civil and public lighting works plus 25% and 100% of the value of the approved landscaping works and 100% of the value of stormwater quality

devices, natural channels and rehabilitation areas, provided that at all times the total bond is not less than 5% of the total cost of the bonded works and 100% of the value of the vegetated asset works; and

ii. a Combined Incomplete Works and Maintenance Bond and Licence Deed agreement (if required by the assessment manager) is to be in effect.

f. The Consulting Engineer and/or the Consulting Landscape Architect is to provide a certified Schedule of Quantities and rates for the outstanding works as the basis for the Local Government determining the appropriate amount of the bond (refer to Note 10.1.4.F).

g. The Developer is to give an undertaking, in writing to the Local Government, that unless all outstanding development (operational) works are completed and "Accepted On Maintenance" within three (3) months of the date of the approval of the Plans of Subdivision (or such longer time as the Local Government may approve), the Local Government may call up the bond and undertake all works to complete the approved development, including all testing and compilation of "as constructed" information (refer to Note 10.1.4.G).

h. Bonding is to be in the form of a Bank Guarantee in form acceptable to Local Government except for very minor works where the Local Government may agree to accept a cash bond. Amongst other matters the Bank Guarantee must comply with the following:
   i. Council's Policies in relation to Credit Risk;
   ii. Detail the name of the customer/applicant;
   iii. Detail the real property description of the property for which the security bond is held;
   iv. Where applicable, detail the different types of bonds, the relative amounts covered by the guarantee and a statement describing the specific purpose of the bond; and
   v. Detail the development permit and date (refer to Note 10.1.4.H).

Note 10.1.4A: At all times, the Local Government reserves the right not to accept the bonding of incomplete works if it considers that satisfactory security has not been given to ensure compliance with the requirements of the Act or this Planning Scheme.
Note 10.1.4B: Bulk earthworks include any proposed cutting and filling of lots.
Note 10.1.4C: Road works that may be bonded include: streetlighting and other electrical infrastructure, streetscape landscaping, verge works footpaths and turfing.
Note 10.1.4F:

1. For stormwater works (excluding water quality devices or systems) practical completion means that infrastructure is deemed acceptable with only minor rectification works required.
2. For stormwater water quality devices or systems practical completion means that the devices are constructed to the agreed standard that allows for adequate protection of the devices throughout the construction phase.

Note 10.1.4G: The Schedule of Quantities is to include the provision of all required testing, compilation of "as constructed" information and any outstanding park or streetscaping works.
Note 10.1.4H:

1. Subdivisional (operational) works and "As Constructed" information are to be completed and a licensed surveyor's certificate stating that all survey marks (including reinstated survey marks) are in their correct position in accordance with the Plan of Subdivision are to be lodged within 3 months of the approval of the Plan of Subdivision (or such longer time as the Local Government may approve).
2. The approval of the Plan of Subdivision is also subject to the developer meeting all the conditions of the permit(s) which do not involve bonded works.

Note 10.1.4I:

1. Generally an incomplete works bond shall be reduced when the outstanding works are formally accepted "On Maintenance" by Council, at which time the bond shall be reduced to the required maintenance bond.
2. The original Bank Guarantee should be worded appropriately to enable reduction i.e. "incomplete works/maintenance bond".
3. Alternatively, a separate bond may be submitted to enable works to be "Accepted On Maintenance".

10.1.5 Maintenance of Public Works

(1) Each item of Public (Municipal) Works is to be at no cost to the Local Government:
   a. maintained during its Maintenance Period;
   b. for stormwater systems - provided with a CCTV report after the maintenance period; and
   c. have any latent defects of which the Council gives notice prior to the formal acceptance "off maintenance", promptly rectified.

(2) Failure to perform the obligations under this Part entitles the Local Government to call up the whole or any part of a bank guarantee or bond held by it as security in respect of those Public (Municipal) Works and apply all moneys to meet the cost of the Local Government performing those obligations.

10.1.6 Formal Acceptance Off Maintenance

(1) Upon formal acceptance of the works "off maintenance" for any item of Public (Municipal) Works, maintenance of that item becomes the responsibility of the Local Government, subject to the rectification of defects identified at the Off Maintenance inspection or notified in accordance with section 10.1.5(1)(c).

Note 10.1.6A:
The following list is a guide for Consulting Engineers or Consulting Landscape Architects to facilitate the acceptance of public (municipal) works "Off

Maintenance" by the Local Government.

a. The consultant by letter is to notify the Local Government of the expiration date of the “on maintenance” period.
b. The Consultant is to submit any outstanding items as listed at the time of acceptance of works "On Maintenance".
c. Any works items listed during "On Maintenance" inspection are to be rectified and works prepared for joint inspection.
d. The Consultant is to arrange a joint "Off Maintenance" inspection with the Local Government’s representatives.
e. Following the inspection and approval by the Local Government’s representatives of the rectification of any listed items, the Consulting Engineer is to forward to the Local Government a letter requesting that the—
    i. development be taken off maintenance; and
    ii. the maintenance security and any other bond monies be released.

f. The Local Government is to send a letter to the Owner/Consultant upon formal acceptance of works "Off Maintenance" and confirming release of the maintenance security bond.

10.1.7 Liability

(1) Nothing in this Part operates so that any duty of care relating to the design and construction of any Public (Municipal) Works owed to the Local Government is limited, released or waived in any respect.

10.1.8 Agreements

(1) Where an agreement is required, details to be assessed and covered by the agreement are to include the following matters (as applicable):
a. the Maintenance Period;
b. the maintenance standard to be applied to the various Public (Municipal) Works;
c. the nature and amount of security to be lodged and details of the use and release of such security; and
d. any other details deemed appropriate by the Local Government.

(2) Any agreement required under this section is to be in writing and prepared by the Local Government at the Developer’s cost or by the Developer at the Developer’s cost (subject to such agreement being acceptable to the Local Government).

SC6.2.10 - CERTIFICATE OF DESIGN COMPLIANCE — LANDSCAPE WORKS APPENDIX 1

ICC Reference File No:
Date:

CERTIFICATE OF DESIGN COMPLIANCE—LANDSCAPE WORKS
(Documentation of Proposed Works)

The documentation of the proposed Landscape Works

at

…….

in accordance with the following drawings

…….

…….

for

…….

I, …… of

…….

being duly authorised in this behalf, do certify that the documentation of the proposed Landscape Works for the above development, comply with the desired standards of service for …….. as per the Local Government Infrastructure Plan. Where items are non-complying, a statement has been prepared in accordance with the

guiding principles outlined in section 4.1.2 of SC6.2 Planning Scheme Policy —General Works and Infrastructure.

Designation ……

Certified this …….. day of …… 20 …….

SC6.2.10 - CERTIFICATE OF COMPLETION COMPLIANCE – LANDSCAPE WORKS APPENDIX 2

ICC Reference File No:
Date:

CERTIFICATE OF COMPLIANCE—LANDSCAPE WORKS
(Practical Completion of Landscape Works)

The construction of the proposed Landscape Works

at

……

in accordance with the following drawings

……

……

for

……

I, …… of

……

being duly authorised in this behalf, do certify that the proposed Landscape Works for the above development, have been completed in accordance with the approved drawings, the conditions of approval for the Development incorporating any approved amendments within generally accepted tolerances, also in accordance with relevant certificates, sound Landscape Architectural principles and practices and that the works are for the purpose for which they are intended.

And I make this certificate conscientiously believing that I/We have appropriate procedures for inspection in place to assure the quality of the works and conscientiously believing these procedures have been followed during the construction of the works.

Designation ……

Certified this …….. day of …… 20 …….

SC6.2.10 - EXAMPLE OF DESIGN CERTIFICATION CIVIL OR STREET LIGHTING APPENDIX 3.1

ICC Reference File No:
Date:

Design Certification

For the Design of Public Street Lighting, Roadworks, Stormwater Drainage and Associated Works (delete where not relevant), AT

_____

FOR

_____

I, _____

_____ of_____

Consulting Engineers, being duly authorised in this behalf, do certify that the engineering plans as listed below have been prepared in accordance with Ipswich City Council requirements and standards, any relevant development approval conditions, appropriate engineering standards and sound engineering practice.

_____

Designation_____

RPEQ No._____

Certified this _____ day of _____ 20__

Plan No. Revision

EXAMPLE ONLY

SC6.2.10 - CONSULTING ENGINEER'S CERTIFICATE APPENDIX 3.2

ICC Reference File No:
Date:

CONSULTING ENGINEER'S CERTIFICATE

Construction of Roadworks, Streetlighting, Stormwater Drainage and Associated Works.

at

.....

for

.....

I, ... of

.....

Consulting Engineers, being duly authorised in this behalf, do certify that the earthworks, roadworks, streetlighting, stormwater drainage and associated works for the above Development, have been completed in accordance with the approved drawings, designs, schedules and specifications, the conditions of approval for the Development incorporating any approved amendments, and within specified tolerances or, where not specified, within generally accepted tolerance, also in accordance with relevant certificates, sound engineering principles and practices and that the works are fit for the purpose for which they are intended.

And I make this certificate conscientiously believing that I/We have appropriate procedures for inspection and testing in place to assure the quality of the works and conscientiously believing these procedures have been followed during the construction of the works.

Designation .....

RPEQ No ……..

Certified this .....day of..... 20 ……

EXAMPLE ONLY

SC6.2.10 - SUMMARY OF TESTS FOR MATERIAL QUALITY COMPLIANCE APPENDIX 3.3

Testing for quality compliance is to be carried out in accordance with the applicable standard test procedures of the Department of Transport and Main Roads, including in particular the following:

DTMR Test Description Method Method No.

Q101	Preparation of Distributed Sample
Q102	Moisture Content
Q103A	Particle Size Distribution (wet sieving)
Q104A	Liquid Limit (Cone penetrometer)
Q105	Plastic Limit and Plasticity Index
Q110A	Dry Density/Moisture Relationship (standard compaction)
Q110B	Dry Density/Moisture Relationship (modified compaction)
Q113A	California Bearing Ratio (standard compaction)
Q215	Determination of Crushed Faces
Q106	Linear Shrinkage
Q119	Resistance to Weathering
Q204B	Aggregate Crushing Value (wet)

Los Angeles Abrasion Test and the Sodium Soundness Test is to be in accordance with the following ASTM Specification—

	Course	Fine
Los Angeles Abrasion Test ASTM	C 535 and C131	
Sodium Sulphate Soundness Test ASTM	C88 - 69	

SC6.2.10 - CONCRETE TESTING APPENDIX 3.4

CONCRETE CYLINDER TESTS

Inspection and Certification

Item	Target Strength (28 days)	Frequency	Submit to Local Government	When Required
Kerb and Channel	25MPa	1 per 300 m	Yes	On Mtce
Vehicular Crossings	25 MPa	1 per crossing	No	

Bikeways	25 MPa	1 per 300 m	Yes	On Mtce
Footpaths	25 MPa	1 per 300 m	Yes	On Mtce
Concrete channels	25 MPa	1 per 150 m	Yes	On Mtce
Structures[3]	per design	as directed	Yes	On Mtce[2]
Manholes/Gully-Pits[4]	per design	as directed	Yes	On Mtce[2]

Notes:
1. Test according to AS 1012 (pts 1-14) "Method of Testing Portland Cement Concrete".
2. 28-day test required.
3. Bridges, retaining walls, cast insitu box culverts, etc.
4. Major structures other than standard manholes and gully-pits.

SC6.2.10 - COMPLIANCE WITH STANDARDS
APPENDIX
3.5

COMPLIANCE WITH STANDARDS

Pre-On Maintenance Inspection Checklist of Works

DEVELOPMENT ……..

ICC FILE NO. ……..

Item	Work Passed (Yes/No/N.A.)	Comment
Roofwater Drainage System The works have been finally inspected and—		
(a) Roofwater drainage system is constructed to plan.		
(b) Roofwater pits have been constructed to a satisfactory standard, i.e.— - benching; - correct cover, embossed RWD, or correct grate; - location relative to lot boundaries; - 50-75mm proud of finished surface level (for QUDM Level II).		
(c) Pipework has been visually inspected and is satisfactory, i.e.— - alignment and grade; - free of debris and siltation; - sanded end connector, for uPVC pipework; - no visual sign of trench subsidence.		
(d) Outlets (especially to kerb and channel) are satisfactory.		
(e) Lots not provided with a roofwater drainage system can be drained to kerb and channel.		
Stormwater Drainage System The works have been finally inspected and—		
(a) Pipe layout is as per plan or approved amendments with respect to pipe size, class, levels and location.		
(b) Pipework has been visually inspected and is satisfactory, i.e.— - alignment and grade; - free of debris and siltation; - pipe joints satisfactory; - lifting plug holes sealed; - no visible sign of trench subsidence.		
(c) Gully pits and manholes have been constructed to the correct standards, i.e.— - correct type of grate or cover; - backstones/lintels; - side entry slots;		

- benching; - pipe connections are not constructed to the corner of two walls such that the pipe capacity is reduced; - grates are satisfactorily seated in frames; - weepholes provided to bedding material.		
(d) All density tests of backfill are available and satisfactory.		
(e) PSD's have been submitted or are available for bedding material.		
(f) Outlet/inlet structures are satisfactorily constructed and are free from scour or siltation.		
(g) All access chamber and gully pit pipe connections are mortared flush with the walls and no pipe reinforcement is exposed.		
(h) Open cut channels have been finally inspected and are satisfactory, i.e.— - cut to design profiles; - lining of channel is to the required thickness and reinforcement, with appropriate weepholes.		
(i) Overland flow works have been finally inspected and appropriate flowpaths are provided and clear of obstruction.		
(j) Outlets and outfalls have been constructed to control discharge flow in accordance with the plans.		
(k) Subsoil drainage discharges to gullies or other approved point of discharge.		
Earthworks The works have been finally inspected and—		
(a) Toe of batters not on road reserve except as approved.		
(b) Retaining walls clear of road reserve except as approved.		
(c) Batter slopes stabilised against erosion.		
(d) Interim drainage constructed in accordance with drawings.		
(e) All areas disturbed by the works have been grass seeded and fertilised.		

Item	Work Passed (Yes/No/N.A.)	Comment
Road Pavements The works have been finally inspected and—		
(a) Plan layout and geometry of road system is in accordance with the drawings.		
(b) Finished levels at crown and channel are at design levels.		
(c) Crossfalls are to the approved plan.		
(d) AC is satisfactory with regard to finish and thickness and is no lower than the lip of kerb.		
(e) Joints in the seal (especially where various development stages apply) are flush.		
(f) The sealed surface is free of blemishes, including those caused by the base of backhoe legs.		
Segment Pavers The works have been finally inspected and—		
(a) All pavers have been correctly laid to pattern, within allowable tolerance, compacted and the joints filled.		
(b) Bedding sand for pavers drains to sub-soil drainage.		
(c) Pavers adjacent to CKC, edge restraints etc have been correctly cut and laid.		
Concrete Kerb and Channel Medians		

The works have been finally inspected and—		
(a) The correct type has been used at all locations (including medians) in accordance with standards.		
(b) Ponding of stormwater does not occur.		
(c) Transitions and connections to existing construction are smooth and to a satisfactory standard of workmanship.		
(d) Service markers have been placed to kerb face.		
(e) Lip and back of kerb are flush with the roadway and footpath respectively.		
(f) All channelisation works and medians have been satisfactorily completed.		
(g) Infill treatment of medians has been inspected and found satisfactory. Any landscaping has been completed to standard.		
(h) Backing strips have been provided to median kerbs where required.		
(i) Side drains have been provided under medians.		
Footpaths The works have been finally inspected and—		
(a) Profiles are as per plan.		
(b) Footpath has been topsoiled to Local Government's requirements.		
(c) Footpaths have been grass seeded and fertilised or turfed to Local Government's requirements.		
(d) All service fixtures (such as valves etc) are flush with the surrounding footpath.		
(e) Concrete footpaths have been constructed to Local Government's requirements.		
(f) Kerb ramps constructed as required.		
Pathways, Driveways and Bikeways The works have been finally inspected and—		
(a) Location and width are as per the plan.		
(b) Kerb ramps and crossings are constructed.		
(c) Safety rails and signs have been installed.		
Bushland Management		
(a) Works have been completed in accordance with the approved bushland management plan.		
(b) Monitoring reports have been submitted		
(c) Vegetation planted has had a minimum 12 week establishment period.		
(d) 100% of declared weeds have been removed and 95% of environmental weeds (except where staged weed removal is required in erosion prone areas).		
(e) Minimum 90% plant survival rate.		
(f) All rubbish has been removed.		
(g) Eroded or otherwise degraded areas have been stabilised.		
Vegetated Assets (including stormwater devices and drainage channels)		
(a) Vegetation planted has had a minimum 12 week establishment period.		
(b) 100% suppression of environmental and declared weeds.		
(c) No evidence of scour, erosion or siltation.		

Item	Work Passed (Yes/No/N.A.)	Comment
Other		
(a) Street name signs, traffic signs and pavement marking have been installed.		
(b) Works have not resulted in problems on neighbouring properties. Clearance letters as may be applicable have been submitted or are available.		
(c) All boundaries of Reconfiguration/Development have been inspected to ensure works as constructed will not affect adjoining properties.		
(d) All necessary testing to ensure the quality of the work has been carried out and results are available and have been provided to the Local Government.		
(e) Engineer's (civil and electrical) Certificate of completion is available and has been provided to the Local Government.		
(f) Private works accounts for live sewer and water connections etc have been paid.		
(g) "As Constructed" details are available and have been provided to the Local Government including pavement depth details.		
(h) All lot boundaries, easements etc, have been pegged.		
(i) Any outstanding fees and charges have been paid, i.e. Reinspection Fee, Road Opening Permit etc.		
NOTE: Construction is within stated tolerances or otherwise within normally accepted engineering standard tolerances. CONSULTANT'S SIGNATURE: _____ NAME: _____ NAME OF CONSULTANCY: _____ DATE: ____/____/____		

SC6.2.10 - COMPLIANCE REQUIREMENTS FOR PUBLIC (MUNICIPAL) WORKS APPENDIX 3.6

COMPLIANCE REQUIREMENTS FOR PUBLIC (MUNICIPAL) WORKS

Tests And Certificates	Provide Prior To	Comments
Earthworks - Density Tests - Retaining walls and Batters, Structural and Geotechnical Certification	 On Maintenance On Maintenance	 Consultant responsible for submission of all relevant test results.
Roadworks • Subgrade CBR/OMC • Pavement Design • Subgrade, Field Density Pavement— • Field Density • CBR's/PSD • Material Quality • As Constructed Levels • Traffic Signals connected to STREAMS AC Surfacing— • Marshall Tests • Delivery Dockets • Compaction Tests • AC Core Tests	 Pavement Construction Pavement Construction Subgrade Inspection Pre-seal Inspection On Maintenance On Maintenance On Maintenance On Maintenance On Maintenance On Maintenance	 Consultant responsible for submission of all relevant test results.

Stormwater Drainage - Trench and backfill compaction • under road • other - PSD's for bedding material - CCTV recordings	 Subgrade Inspection On Maintenance On Maintenance and Off Maintenance	Consultant responsible for submission of all relevant test results.
Concrete Tests - CKC - Footpaths - Bikeways - Crossings - Other	 See Appendix 4.3	
Landscaping and Bushland Management - Completed Certificate of Compliance – Landscape Works (practical completion of landscape works) - Monthly log of works - Photographic monitoring	 On Maintenance Off Maintenance Off Maintenance	
Other - Pre-Inspection Certificate / Checklist - Engineers Certificate - As Constructed Drawings and ADAC XML digital file - Red-lined marked-up design plans - Clearance letters if applicable - Outstanding fees and charges - Request for works to go On Maintenance - As Constructed pavement depth details - Playground equipment certification - Plumbing and Building Approvals and finals for any structures,	 On Maintenance On Maintenance On Maintenance On Maintenance On Maintenance On Maintenance On Maintenance On Maintenance On Maintenance On Maintenance	 Required before inspection will proceed Consultant to formally request list of outstanding items, works to be rectified to be included
Maintenance Period - Rectify all defects - Provide any additional "As Constructed" details as may be required by the Local Government - Submit any other outstanding test results or certificates	 Off Maintenance	
Off Maintenance - Request to take works off maintenance - All works rectified - Maintenance security bond	 Off Maintenance Off Maintenance Post Off Maintenance	 Consultant to formally request Consultant to formally request release of maintenance security bond

SC6.2.10 - ENGINEERING CERTIFICATION CHECKLIST - ON MAINTENANCE APPENDIX 4

Application No: …….. / ……. Development Name:.....

General		
		Engineer's Certificate of Construction (civil)
		Pre-On Maintenance Inspection Checklist
		Geotechnical and Structural Certification where applicable i.e. retaining walls, cut and fill batters etc.

		"Electronic As Constructed" Database and associated ADAC xml digital file received. Date Received: ….. / …… / …….
		"As Constructed" plans certified/signed by Consultant and Surveyor
		Field items listed as defects rectified satisfactorily
		Last Issue of the Engineering Design Drawings (Electronic Issue) "Redlined" to show any variations during Operational Works phase
		Specific RPEQ Certification received for items identified during construction. Example: Unobserved rectification of specific defects identified during Council sub-grade and pre-seal inspections.
Earthworks		
		Lot fill compaction test results
		As required by Development Approval conditions
		Level I Certificate
Roadworks		
		CBR test results for Type 2.1, 2.3 and 2.5
		Subgrade compaction test results
		Pavement gravel materials compaction test results for Type 2.1, 2.3 and 2.5
		Pavement gravel quality compliance test results for Type 2.1, 2.3 and 2.5 (Test results from Quarry)
		Pavement gravel Quality Assurance test results for Type 2.1, 2.3 and 2.5 (Test results from in-situ location)
		Asphalt quality test results
		Asphalt compaction and core test results
		Pavement depth verification test results – signed by consultant and surveyor
Stormwater		
		Trench backfill compaction test results
		PDS's for bedding material if required by the Local Government
		CCTV video and inspection Summary Report
Concrete Test Results		
		As required by A.S. Specification and Manufacture of Concrete
		As required by PSP3 Appendix 3.3
Miscellaneous		
		Clearance letters
		Outstanding design documentation
		Matters listed during construction
Public Lighting		
		Engineer's Certificate of Construction
		Electrical Installation Certificate of Test
		Electrical Installation Test Results
		"Electronic As Constructed" Database received. Date Received: ….. / …… / …….
		"As Constructed" Certification Signed by Consultant and Surveyor
		Field items listed as defects rectified satisfactorily
		Last Issue of the Engineering Design Drawings (Electronic Issue)
		Financial Apportionment Form (Hard Copy and Electronic)

		Specific RPEQ Certification received for items identified during construction

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