

Consultant's 'As Constructed' Survey Certification Check List



This check list shall be used to guide the user through the activities required to meet "as-constructed" specifications defined within Melbourne Water Survey as per the Land Development Website.

Drainage Agreement Details

Job Title: _____

Municipality: _____

Developer: _____

Consultant: _____

Nominated Rep.: _____

Consultant Ref.: _____

Melbourne Water EPMS Ref.: ____/____

Recording of "As-Constructed" Detail

1.	General	Initials
1.1.	All documentation has been adequately labelled with drain numbers and name and section number of works as per the Works Offer	_____
1.2.	Date of construction completion has been noted	_____
1.3.	The original design plans have been annotated and updated to "As Constructed"	_____
1.4.	Addendum plans have been created due to constructed works being significantly different to design	_____
1.5.	Addendum plans have been created due to inability to annotate the original design plans	_____
1.6.	Addendum plan numbers have been agreed to by Melbourne Water	_____
1.7.	All Manholes have unique numbers	_____
1.8.	Sheets containing "as-constructed" data have been certified and signed by a licensed surveyor or VeriSign for electronic documents	_____
1.9.	All constructed works that are not in accordance with design have been appropriately noted (i.e. new alignments, different materials, structural	_____

sizes)

- 1.10.** Submission to consist of only digital files where PDFs are certified using Verisign digital security technology (Signed A1 hardcopy accompanied by digital data as per Section 10 of this Checklist may be provided if digital signature services are not available) _____
- 1.11.** Each drawing shall be in a separate pdf file and oriented to landscape layout _____

2. **Offset, Ties and MGA co-ordinates**

- 2.1.** All the centrelines of underground pipelines, open channels and levee banks have been appropriately recorded in relation to title _____
- 2.2.** MGA co-ordinates have been provided where the subdivision was duly co-ordinated _____
- 2.3.** MGA co-ordinates have been determined for appropriate title corners _____
- 2.4.** Manhole and structures have been appropriately related to title _____
- 2.5.** Datum for co-ordinates have been annotated on the design plans _____

3. **Longitudinal Section**

- 3.1.** The longitudinal section has been annotated with invert levels and running chainages _____
- 3.2.** Invert levels have been taken at tangent points, inlets and outlets of structures, start and end transitions, changes of grade, fittings (including manholes) and any aprons _____
- 3.3.** Running chainages have been established for each of the invert levels _____
- 3.4.** Pipe and/or channel grades have been recomputed and updated where significantly different to design by 15% or greater. _____
- 3.5.** Datum points for establishing AHD have been annotated on the design plan _____

4. **Cross Sections**

- 4.1. Cross-sections have been annotated with levels and offsets _____
- 4.2. Cross-sections show the relationship to title where appropriate _____
- 4.3. Each of the cross-sections has been identified with a running chainage _____
- 4.4. The "as-constructed" cross-sections have been superimposed over the design cross sections where there is significant difference _____
- 4.5. Cross-sections show applicable 1 in 100 ARI flood level _____

5. **Structural Details**

- 5.1. The cover levels of each structure have been annotated on the structural schedule _____
- 5.2. The structural schedule has been updated with inlet and outlet inverts _____
- 5.3. Detailed inserts have been updated with dimensions where significantly different to design _____

6. **Sizes, Materials and Stubs**

- 6.1. The structure schedule has been updated with inlet and outlet pipe sizes _____
- 6.2. Where the constructed Works have been built with different materials, these has been noted on the design plans _____
- 6.3. Invert levels have been established for both ends of the stub pipe _____
- 6.4. The direction of the stub has been determined _____

7. **Feature Plans**

- 7.1. Spot Levels have been annotated on the design plans _____
- 7.2. Where separate feature plans have been prepared, they contain spot levels and generated contours _____

- 7.3. Features such as edges of lakes and Normal Water Level have been delineated _____
- 7.4. A condensed long section is provided where required depicting major roads, major obstacles, major topographical features, river/creek crossings. _____
- 7.5. A limited amount of text is provided to assist with interpretation, such as manhole numbers, descriptions of unusual features, or road names. Line strings may be used to identify the location of 'as constructed' cross sections _____
- 7.6. 1 in 100 ARI flood levels and extents for wetlands, retarding basins and waterways _____

8. Lakes, retarding basins and wetlands

- 8.1. All water bodies and embankments are clearly shown _____
- 8.2. Spot levels and generated contours where appropriate (i.e. spot levels may be more appropriate than cross sections) _____
- 8.3. "As Constructed" Normal Top Water Level (NTWL) must be labelled and delineated _____
- 8.4. A 350 mm or 400 mm contour below NTWL must be labelled and delineated _____
- 8.5. Reduce Level (RL) for NTWL and Extended Detention Depth (EDD) must be labelled and delineated _____
- 8.6. Planting 'zones' – typically these would be 'ephemeral marsh', 'shallow marsh', 'deep marsh' and 'submerged marsh' (or some similar nomenclature), open water _____
- 8.7. Pit details (including oriface control, removable plate, debris guard, riser pipe etc.) _____
- 8.8. Link to provided MUSIC model/functional design report _____
- 8.9. Catchment size and shape (may be linked to MUSIC model) _____

9. Sediment Ponds

- 9.1. "As Constructed" Normal Top Water Level (NTWL) must be labelled and delineated _____

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- 9.2. A 500 mm contour (below NTWL) _____
- 9.3. Base of pond (BOP) _____
- 9.4. If BOP is 'hard' (rock) _____
- 9.5. The designated sediment drying area _____
- 9.6. Catchment size specified _____

10. Digital Data

- 10.1. Digital data has been supplied _____
- 10.2. File names are in accordance with the Melbourne Water Planning and Building website _____
- 10.3. Digital Data includes the relationship to title boundaries _____
- 10.4. CAD files shall be delivered in a single package such as a zip file and contain all reference and system files _____
- 10.5. Supplied data is submitted electronically via email, file transfer weblink, a formatted CD or memory stick _____