

UDC Construction Audit Checklist



To be completed by Ergon Energy's Assessment Officer.

Ergon Energy Work Request			
Developers Representative			
Contractor Name			
Project Name			
Stage No.			
Project Location			
Random audit dates:			
Random audit 1			
Random audit 2			
Random audit 3			
Random audit 4			
Final Assessment audit date		Time Taken	Hrs
			1 st Reaudit date: 2 nd Reaudit date:
Assessment Officer (AO)			Date:
Signature of AO			

UDC Construction Audit Checklist



AUDIT OUTCOME DEFINITIONS

Outcome Category	Definition	Record audit outcome by
Observation	A variation from standard specification that does not need to be rectified and is a recommendation for future work.	Tick 'Yes' on the appropriate item and make an observation either in the 'Results / Comments' field or in the 'Audit Notes' section on page 13.
Minor Non-Conformance	A variation from standard specification that affects product quality and requires rectification.	Tick 'No' on the appropriate item and add details, referencing the line item as well, in the 'Audit Notes' section on page 13.
Major Non-Conformance	A variation from standard specification, Acts, Regulations or requirements that has a material effect on product quality, the environment or safety of the Contractor, Ergon Energy or the general public and requires immediate rectification.	Tick 'No' on the relevant double-asterisk item and add details, referencing the line item as well, in the 'Audit Notes' section on page 13.

NOTE: Checklist items flagged with ** constitute a Major Non-Conformance if not passed by the Assessment Officer.

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Item	Audit Question	Cat No	Random Audit 1			Random Audit 2			Random Audit 3			Random Audit 4			Final Compliance Audit			Results / comments
			Yes	No	N/A	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A	
TRENCHES																		
1	** Trench alignment and depth	12																
2	** Conduit alignment and depth (nb. Max = 300mm deeper than shown)	9																
3	Conduit correct type & size	15																
4	Conduit configuration as per construction issue plan	13																
5	No conduit crossovers	17																
6	Correct conduit bends installed	12																
7	Correct conduit arrangement at pillars, padmounts and poles (also, pits were applicable)	10																
8	Conduit joints glued, plugged and draw rope installed	4																
9	Conduit draw rope free	4																
10	Conduit bedding material installed to specification	12																
	** Clearance to other services (as applicable):																	
11	• Telstra	3																
12	• Water	3																
13	• Gas	3																
14	• Sewerage	3																
15	• Storm water	3																

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			Yes	No	N/A	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A	
16	Communication	3																
17	Street lighting (i.e. If Rate 3)	3																
18	Kerb & cable markers installed (within tolerances)	17																
19	** Polymeric cable protection cover where required	10																
20	** Caution tape installed over conduit as per the Underground construction manual requirements	11																
21	Correct backfill over conduits	17																
22	Backfill material at pillars, earth pits and padmounts appropriate	9																
23	Footpath levels finalized	13																
PADMOUNTED SUBSTATION																		
24	Correct location and within easement	5																
25	Correct foundation and height RL	6																
26	** Correct earthing and depth (NB. Common earth or separate earth – larger site size for separate earth)	13																
27	** Switchgear / Transformer / Cable ends labelled correctly?	7																
28	Warning signs (High voltage) visible & adequate?	8																
29	** Earthing configuration correct?	13																
30	** Cable terminations correct?	16																
31	** Correct earth resistance readings for separate earths or common earth (as applicable)?	13																

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			Yes	No	N/A	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A	
32	Correct HV & LV fuse sizes?	10																
33	L.V correct as per plan?	12																
34	Correct substation installed as per plan?	10																
35	Substation numbered correctly?	7																
36	Correct transformer mounting height & orientation?	12																
37	Finish to padmount and free standing RMU's sites in accordance with drawings and specification	16																
38	Correct conductor size for transformer wiring?	9																
39	Number of padlocks supplied appropriate	8																
40	Bedding material backfill at all padmount substations and free standing RMU's locations	12																
41	Retaining walls where required constructed to the approved design	16																
PILLARS / DISTRIBUTION BOX																		
42	Check base mounted correct height above ground?	12																
43	Check ground around base consolidated.	12																
44	Does link pillar have correct destinations	3																
45	Bedding material backfill at all pillar locations.	12																
46	Check fuse panels fitting and wired correctly (including S/L fuse if applicable).	10																
47	Check terminations and connections.	11																

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			Yes	No	N/A	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A	
48	** Check termination shrouds installed correctly.	11																
49	** Check MEN connection.	16																
50	Check aluminox or equivalent on joints.	15																
51	Check pillar cover fixed to base and numbered correctly.	3																
52	Pillar plumb and on correct alignment / peg.	12																
53	RP Pegging and allotment numbers allocated	3																
54	Pillar numbered correctly	7																
ROAD LIGHTING FOUNDATIONS																		
55	Correct alignment	14																
56	**Correct location (Tolerance as approved by the local authority identified on the construction Issue Plan)	13																
57	Correct foundation depth and loose material removed	17																
58	Correct orientation & height of hold-down bolts – bolts secured	3																
59	Bolt thread protection	17																
60	Correct height above ground for concrete and top of foundation level	14																
61	** Correct conduit depth and exit direction	12																
62	Correct pole & outreach used?	15																
63	Pole plumb	14																

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			Yes	No	N/A	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A	
64	Light columns numbered correctly?	7																
65	Correct Luminaire & lamp as per plan?	15																
66	Grouting of base neat & correct?	12																
67	Correct mounting height & orientation?	15																
68	Inspection cover plate secured	10																
69	Correct wiring configuration?	11																
70	Lighting pits install are to standard	13																
CABLING																		
71	Lighting pits identified so as not to be damaged vehicles(Slasher)	14																
72	Check cable installed to Ergon Energy specification?	15																
73	Controlled cable pulling techniques used	4																
74	Check correct size cable installed?	10																
75	Check cables lubricated before installing in conduit?	13																
76	Check that conduits are proved before installing cable?	17																
77	Check cable bending radius is greater than the minimum	11																
78	Check maximum cable tension not exceeded (actual HV cable pulling tension noted on 'As Constructed' drawing)	13																
79	Check cable joint positions are staggered	16																

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			Yes	No	N/A	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A	
80	Check cable joint positions are in accessible locations and not subject to interference such as driveways.	12																
81	Bedding material backfill at all cable joint pits and cable termination pole locations?	12																
82	Check that cables are resealed immediately after cutting	11																
83	Check that rollers or skid plates are to be used	4																
84	Cables marked correctly?	9																
85	** All conduit & cable to be on alignment as specified by the local authority & to depth shown in Constr. Manual	16																
86	All conduits & Cables installed as per plan	13																
87	** Polymeric cable protection cover where required	9																
88	** Marker tape installed over conduits or cable as per construction manual?	17																
89	Cables at termination poles are labeled appropriately	17																
EARTHING																		
90	** All tests results OK?	13																
91	Earth marker tape installed correctly	11																
92	Installed as per requirements?	16																

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			Yes	No	N/A	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A	
ENVIRONMENTAL																		
93	Site left clean?	14																
94	Potential for erosion minimised?	9																
95	Gutters Clean?	1																
JOB FOLDER / PAPERWORK																		
96	Certificate of Completion - Electrical Works received and signed by Site Manager?	7																
97	As constructed drawings completed and marked up as required	7																
98	Documentation as per Pre-Start meeting document list and relevant specifications	6																
99	**Registered Easement Documents received (If required) DNR Statutory approvals have been received (Check notes in Ellipse for confirmation)	7																
100	**Council Public Lighting approvals have been received. (Check notes in Ellipse for confirmation)	7																

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AUDIT NOTES

Enter additional information here if required

ACTION PLAN				
No	Action	Responsibility	Target Date	Sign on completion