



Gateway Upgrade Project



List of Potential Utility Service Conflicts

**Gateway Upgrade Project EIS
Appendix F - Potential Utility Service Conflicts**

Mt Gravatt - Capalaba Rd to Nudgee Road

Conflict No.	Drawing No.	Service Type	Service Description	Owner (if known)	Chainage	Footprint	Clash	Works Affected	Mitigation Strategy	Comment
Abbreviations: AG - Above Ground UG - Under Ground LV - Low Voltage HV - High Voltage LB - Low Band HB - High Band OFC - Optical Fibre Cable N - No P - Possible Y - Yes NA - Not Available BW - Brisbane Water FCF - Fletcher Challenge Fuels OCR - Old Cleveland Road Service Type: AC - Airport Communications AE - Airport Electrical C - Communications E - Electrical G - Gas and Oil S - Sewage SW - Stormwater U - Unknown W - Water										
Mt Gravatt - Capalaba Rd (Northern Abutment) to Cleveland Rail Line Overbridge (Southern Abutment) (CH5160 to CH14100)										
1 - 01	ES001	E	Electrical LV UG - street lighting	Energex	5300	Gateway Motorway South bound off-ramp Mt Gravatt - Capalaba Rd	Y	Gateway Motorway off-ramp	Relocate to suit new ramp	
1 - 02	ES001	E	Electrical LV UG - street lighting	Energex	5400	Gateway Motorway North bound on-ramp Mt Gravatt - Capalaba Rd	P	Gateway Motorway on-ramp	Relocate to suit new ramp	
1 - 03	ES001	E	Electrical LV UG - street lighting	Energex	5460	Gateway Motorway North bound on-ramp Mt Gravatt - Capalaba Rd	Y	Gateway Motorway on-ramp	Relocate to suit new ramp	
1 - 04	ES001	C	Telecomms LB UG	Telstra	5680	Weedon St East	Y	Gateway Motorway embankment	Remove redundant cable	
1 - 05	ES001	E	Electrical LV UG	Powerlink	5700	Weedon St East	Y	Gateway Motorway embankment	Relocate to suit new embankment works	cutting will expose service
1 - 06	ES001	E	Electrical LV UG - street lighting	Energex	NA	existing motorway alignment	Y	new motorway alignment	Relocate to suit new motorway alignment	Conflicts with new alignment
1 - 07	ES001	E	Electrical HV AG	Powerlink	5450	West embankment of existing motorway	N			maintain construction clearances to overhead lines
2 - 01A	ES002	E	Electrical HV AG	Powerlink	5990	Over Gateway Motorway	N		Leave	Sag OK. maintain construction clearances to overhead lines
2 - 01B	ES002	E	Electrical HVAG	Powerlink	6000	Over Gateway Motorway	N		Leave	Sag OK. maintain construction clearances to overhead lines
2 - 02A	ES002	E	Electrical HVAG	Powerlink	6040	Over Gateway Motorway	N		Leave	Sag OK. maintain construction clearances to overhead lines
2 - 02B	ES002	E	Electrical HVAG	Powerlink	6040	Over Gateway Motorway	N		Leave	Sag OK. maintain construction clearances to overhead lines
2 - 03	ES002	S	Sewer Main	BW	6050	Under Gateway Motorway embankment	P	retaining wall foundation	protect	foundation of retaining wall may clash with underground service. Confirm depth and protect if clash
2 - 04	ES002	E	Electrical HVUG	Energex	6150	Wecker Rd - Under Gateway Motorway embankment	N		leave	Energex 33kV and 11kV lines. UG under existing motorway reserve. AG outside existing motorway reserve
2 - 05	ES002	E	Electrical HVUG	Energex	6200	Wecker Rd - Under Gateway Motorway embankment	N		leave	Energex 11kV line and spare conduit. UG under existing motorway reserve. AG outside existing motorway reserve
2 - 06	ES002	C	Highband Comms UG	Telstra	6200	Wecker Rd - Under Gateway Motorway embankment	N		Protect	
2 - 07	ES002	E	Electrical - street lighting	Energex	NA	existing gateway median	Y	new motorway alignment	relocate to suit new alignment	Conflict with new alignment
2 - 08A	ES002	E	Proposed electrical HVAG 275kV	Powerlink	6250	Over Gateway Motorway	N			proposed 275 kV transmission line. Design towers and cable to provide required vertical and horizontal clearances to motorway.
2 - 08B	ES002	E	Proposed electrical HVAG 275kV	Powerlink	6250	Over Gateway Motorway	N			proposed 275 kV transmission line. Design towers and cable to provide required vertical and horizontal clearances to motorway.
3 - 01	ES003	W	Water Main	BW	6900	Under Gateway Motorway embankment	N		Leave	
3 - 02A	ES003	C	Telecomms abandoned	Telstra	6940	Under Gateway Motorway embankment	N		Leave	confirm status of service - relocate phone/ITS to suit new motorway of required
3 - 02B	ES003	C	Telecomms abandoned	Telstra	6970	Under Gateway Motorway embankment	N		Leave	confirm status of service
3 - 03	ES003	C	Highband Comms UG	Telstra	7430	Under Gateway Motorway embankment	Y	cut embankment - retaining wall	relocate	cutting will expose service - lower cables to suit
3 - 04	ES003	E	Electrical - street lighting	Energex	NA	existing gateway median	Y	new motorway alignment	relocate to suit new alignment	Conflict with new alignment
4 - 01	ES004	C	OFC / Telecomms LBUG	Telstra	7640	Under Gateway Motorway embankment	N		Leave	
4 - 02	ES004	C	OFC	Optus	7525	Mt Petrie Rd - beside Motorway	N		Leave	
4 - 03	ES004	E	Electrical - street lighting	Energex	NA	existing gateway median	Y	new motorway alignment	relocate to suit new alignment	Conflict with new alignment
5 - 01	ES005	C	Telecomms LBUG / OFC	Telstra	8460	Under Gateway Motorway embankment	P	New retaining wall	Leave	check depth below proposed retaining wall - lower cable if clash occurs and relocate phone/etc to suit
5 - 02	ES005	SW	Stormwater	BCC	8750	Greendale Way - under Motorway bridge	Y	new motorway alignment	relocate manholes and pipe to suit new alignment	clash with existing abutment - may be redundant/removed.
5 - 03	ES005	C	Telecomms UG / OFC	Telstra	8750	Greendale Way - under Motorway bridge	N		Leave	
5 - 04	ES005	SW	Stormwater	BCC	8750	Greendale Way - under Motorway bridge	N		Leave	
5 - 05	ES005	W	Water Main	BW	8800	Greendale Way - under Motorway bridge	N		Leave	
5 - 06	ES005	C	Telecomms HBAG	Telstra	8790	Greendale Way - under Motorway bridge	N		Leave	
5 - 07	ES005	E	Electrical	Energex	8790	Greendale Way - under Motorway bridge	N		Leave	

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Appendix F - Potential Utility Service Conflicts**

Mt Gravatt - Capalaba Rd to Nudgee Road

Conflict No.	Drawing No.	Service Type	Service Description	Owner (if known)	Chainage	Footprint	Clash	Works Affected	Mitigation Strategy	Comment
<small>Abbreviations: AG - Above Ground UG - Under Ground LV - Low Voltage HV - High Voltage LB - Low Band HB - High Band OFC - Optical Fibre Cable N - No P - Possible Y - Yes NA - Not Available BW - Brisbane Water FCF - Fletcher Challenge Fuels OCR - Old Cleveland Road Service Type: AC - Airport Communications AE - Airport Electrical C - Communications E - Electrical G - Gas and Oil S - Sewage SW - Stormwater U - Unknown W - Water</small>										
5 - 08	ES005	E	Electrical - street lighting	Energex	NA	existing gateway median	Y	new motorway alignment	relocate to suit new alignment	Conflict with new alignment
6 - 01	ES006	C	OFC / Telecomms UG	Telstra	9400	Under Gateway Motorway embankment	N		Leave	
6 - 02	ES006	E	Electrical - street lighting	Energex	NA	existing gateway median	Y	new motorway alignment	relocate to suit new alignment	Conflict with new alignment
6 - 03A	ES006	E	Proposed electrical HVAG 275kV	Powerlink	9200	Over Gateway Motorway	N			proposed 275 kV transmission line. Design towers and cable to provide required vertical and horizontal clearances to motorway.
6 - 03B	ES006	E	Proposed electrical HVAG 275kV	Powerlink	9200	Over Gateway Motorway	N			proposed 275 kV transmission line. Design towers and cable to provide required vertical and horizontal clearances to motorway.
7 - 01	ES007	W	Water Main	BW	9920	OCR footpath - under Motorway crossing	N		Leave	
7 - 02	ES007	SW	Stormwater	BCC	10000	OCR service rd - under Motorway crossing	N		Leave	
7 - 03	ES007	W	Water Main	BW	10010	OCR service rd - under Motorway crossing	N		Leave	under existing and proposed foundation - monitor and protect during construction
7 - 04	ES007	S	Sewer Rising Main	BW	10010	OCR service rd - under Motorway crossing	N		Leave	under existing and proposed foundation - monitor and protect during construction
7 - 05	ES007	C	OFC	Optus	10020	OCR service rd - under Motorway crossing	N		Leave	in embankment behind foundation - monitor and protect during construction
7 - 06	ES007	E	Electrical LVUG	Energex	10020	OCR service rd - under Motorway crossing	N		Leave	in embankment behind foundation - monitor and protect during construction
7 - 07	ES007	C	Telecomms HBUG	Telstra	10100	Under Gateway Motorway embankment	N		Leave	
7 - 08	ES007	C	Telecomms HBUG	Telstra	10570	Ford Ct - Under Gateway Motorway embankment	N		Leave	
7 - 09	ES007	E	Electrical - street lighting	Energex	NA	existing gateway median	Y	new motorway alignment	relocate to suit new alignment	Conflict with new alignment
8 - 01	ES008	E	Electrical LVUG	Energex	10620	Ford Ct - Under Gateway Motorway embankment	N		Leave	
8 - 02	ES008	W	Water Main	BW	10570	Ford Ct Belmont Rd - under Gateway overpass	N		Leave	
8 - 03	ES008	C	Telecomms UG / OFC	Telstra	10600	Ford Ct to Motorway embankment	N		Leave	
8 - 04	ES008	C	Telecomms HBAG	Telstra	10700	Belmont Rd	N		Leave	
8 - 05	ES008	W	Water Main	BW	10700	Belmont Rd	N		Leave	
8 - 06	ES008	E	Electrical LVUG	Energex	10725	Belmont Rd	N		Leave	
8 - 07	ES008	E	Electrical LVUG	Energex	11100	Medowlands Rd. In bridge	N		Leave	
8 - 08	ES008	S	Sewer Rising Main 50mm dia	BW	11100	Medowlands Rd. In bridge	N		Leave	
8 - 09	ES008	E	Electrical - street lighting	Energex	NA	existing gateway median	Y	new motorway alignment	relocate to suit new alignment	Conflict with new alignment
9 - 00	ES009	S	Sewer Rising Main 50mm dia	BW	11360	Under Gateway Motorway embankment	Y	new motorway embankment	Extend and relocate M/H to suit new works	
9 - 01	ES009	S	Sewer Rising Main 50mm dia	BW	11400	Under Gateway Motorway embankment	Y	new motorway embankment	Relocate to suit new works	
9 - 02	ES009	S	Sewer Manhole	BW	11400	Under Gateway Motorway embankment	Y	new motorway embankment	Relocate to suit new works	
9 - 02A	ES009	S	Sewer Rising Main 50mm dia	BW	11350	Under Gateway Motorway embankment	Y	new motorway embankment	Relocate to suit new works and manhole relocations	
9 - 03	ES009	W	abandoned water main	BW	11460	Under Gateway Motorway embankment	N		Leave	confirm status of service
9 - 04	ES009	E	Electrical - street lighting	Energex	NA	existing gateway median	Y	new motorway alignment	relocate to suit new alignment	Conflict with new alignment
10 - 00	ES010	C	Telecomms UG / OFC	Telstra	12310	Under Gateway Motorway embankment	P	comm box/telephone with proposed re-alignment	relocate comms box/telephone	may no longer be required - may abandon
10 - 01	ES010	G	Gas	Energex	12750	Under Gateway Motorway embankment - South of Wynnum Rd	P	widening of motorway	Protect	construct relieving slab above service
10 - 02	ES010	G	Gas	Energex	12750	Under Gateway Motorway embankment - South of Wynnum Rd	P	widening of motorway	Protect	construct relieving slab above service
10 - 03	ES010	S	Sewer Main	BW	12800	Under Gateway Motorway embankment - South of Wynnum Rd	Y	sewer manhole clash with new alignment	relocate sewer manhole to suit new alignment	
10 - 04	ES010	E	Electrical - street lighting	Energex	NA	existing gateway median	Y	new motorway alignment	relocate to suit new alignment	Conflict with new alignment

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10 - 05	ES010	E	Proposed electrical HVAG 275kV	Powerlink	12800	Over Gateway Motorway	N			proposed 275 kV transmission line. Design towers and cable to provide required vertical and horizontal clearances to motorway.
11 - 00A	ES011	E	Electrical HVAG	Powerlink	12900	Over Gateway Motorway	N		Leave	Sag OK. maintain construction clearances to overhead lines
11 - 00B	ES011	E	Electrical HVAG	Powerlink	12900	Over Gateway Motorway	N		Leave	Sag OK. maintain construction clearances to overhead lines
11 - 01A	ES011	E	Electrical HVAG	Powerlink	12900	Over Gateway Motorway	N		Leave	Sag OK. maintain construction clearances to overhead lines
11 - 01B	ES011	E	Electrical HVAG	Powerlink	12900	Over Gateway Motorway	N		Leave	Sag OK. maintain construction clearances to overhead lines
11 - 02	ES011	G	Oil	Santos	13000	Under Gateway Motorway embankment	P	widening of motorway	Protect	construct relieving slab above service
11 - 03	ES011	S	Sewer Main	BW	13080	Under Gateway Motorway embankment	N		Leave	
11 - 04	ES011	G	Gas	Energex	13400	Wynnum Rd - under motorway overpass	N		Leave	close to piers - piled foundation already in place so ok
11 - 05	ES011	E	Electrical LVUG	Energex	13400	Wynnum Rd - under motorway overpass	N		Leave	close to piers - piled foundation already in place so ok
11 - 06	ES011	W	Water Main 300mm dia	BW	13400	Wynnum Rd - under motorway overpass	N		leave	close to piers - piled foundation already in place so ok
11 - 07	ES011	E	Electrical HV AG - (proposed 275 kV line)	Powerlink	12800	Over Gateway Motorway				proposed 275 kV transmission line. Design towers and cable to provide required vertical and horizontal clearances to motorway.
11 - 08	ES011	C	Telecomms LBUG / OFC	Telstra	13400	Gateway Motorway south bound on-ramp Wynnum Rd	N		Leave	
11 - 09	ES011	SW	Stormwater	BCC	13450	Wynnum Rd - under motorway overpass	N		Leave	
11 - 10	ES011	E	Electrical HV (proposed 33 kV line)	Energex	12900	East of existing motorway				proposed 33 kV line to cross Wynnum Rd. No conflict with motorway.
11 - 11	ES011	C	Telecomms HBAG / OFC	Telstra	13450	Wynnum Rd - under motorway overpass	N		Leave	close to piers - piled foundation already in place so ok
11 - 12	ES011	S	Sewer Main	BW	13450	Wynnum Rd - under motorway overpass	N		Leave	close to piers - piled foundation already in place so ok
11 - 13	ES011	W	Water Main 150mm dia	BW	13450	Wynnum Rd - under motorway overpass	N		Leave	close to piers - piled foundation already in place so ok
11 - 14	ES011	C	Telecomms HBAG / OFC	Telstra	13450	Wynnum Rd - under motorway overpass	N		Leave	close to piers - piled foundation already in place so ok
11 - 15	ES011	W	Water Main 750mm dia	BW	13450	Wynnum Rd - under motorway overpass	N		Leave	close to piers - piled foundation already in place so ok
11 - 16	ES011	E	Electrical - street lighting	Energex	NA	existing gateway median	Y	new motorway alignment	relocate to suit new alignment	Conflict with new alignment
12 - 00	ES012	E	Electrical HVAG	Powerlink	13820	Above east side of existing motorway	Y	new motorway alignment	embankment retaining wall required	retaining wall for embankment around tower
12 - 01	ES012	E	Electrical - street lighting	Energex	NA	existing gateway median	Y	new motorway alignment	relocate to suit new alignment	Conflict with new alignment
13 - 00	ES013	C	Telecomms LBUG / OFC	Telstra	14600	Under Gateway Motorway bridge	N		Leave	
13 - 01	ES013	S	Sewer Rising Main 225/300mm dia	Privately owned	14775	Under Gateway Motorway bridge	N		Leave	
13 - 02	ES013	G	Gas Main	Energex	14850	Under Gateway Motorway bridge	N		Leave	
13 - 03	ES013	E	Electrical	Energex	14850	Under Gateway Motorway bridge	Y	Bridge piers	relocate to avoid bridge piers	
13 - 04	ES013	C	Telecomms HBAG	Telstra	14850	Under Gateway Motorway bridge	Y	Bridge piers	relocate to avoid bridge piers	
13 - 05	ES013	E	Electrical	Energex	14870	Under Gateway Motorway bridge	N		Leave	
13 - 06	ES013	C	Telecomms LBUG / OFC	Telstra	14880	Under Gateway Motorway bridge	N		Leave	
13 - 07	ES013	C	Telecomms HBAG	Telstra	14880	Under Gateway Motorway bridge	Y	Bridge piers	relocate to avoid bridge piers	
13 - 08	ES013	C	Telecomms HBAG	Telstra	14890	Under Gateway Motorway bridge	Y	Bridge piers	relocate to avoid bridge piers	
13 - 09	ES013	SW	Stormwater	BCC	14850	Under Gateway Motorway bridge	N		Leave	
13 - 10	ES013	E	Electrical LVUG	Energex	14900	Under Gateway Motorway bridge	N		Leave	
13 - 11	ES013	G	Gas Main	Energex	14900	Under Gateway Motorway bridge	N		Leave	
13 - 12	ES013	C	Telecomms HBAG	Telstra	14900	Under Gateway Motorway bridge	N		Leave	
13 - 13	ES013	C	Telecomms LBUG / OFC	Telstra	14900	Under Gateway Motorway bridge	N		Leave	
13 - 14	ES013	E	Electrical LVUG	Energex	15000	Under Motorway embankment	Y	embankment/retaining wall	Relocate to suit new works	
13 - 15	ES013	S	Sewer Main and manhole 300mm dia	BW	15000	Under Gateway Motorway bridge	Y	new motorway alignment	relocate to suit new works	relocate sewer main and manhole to suit new works
13 - 15A	ES013	S	Sewer Main 300mm dia	BW	15000	Under Gateway Motorway bridge	Y	new motorway alignment	relocate to suit new works	
13 - 15B	ES013	S	Sewer manhole	BW	15000	Under Gateway Motorway bridge	Y	new motorway alignment	relocate manhole	
13 - 16	ES013	E	Electrical HVAG	Energex	15000	Over Gateway Motorway	N		Leave	Sag OK. maintain construction clearances to overhead lines
13 - 17	ES013	E	Electrical HVAG	Energex	15000	Over Gateway Motorway	N		Leave	Sag OK. maintain construction clearances to overhead lines
13 - 18	ES013	S	Sewer Rising Main 225/300mm dia	Privately owned	15000	Under motorway embankment	Y		relocate manhole to suit new works	relocate manhole and remove redundant pipeline. drops into gravity sewer (13-15a) ??
13 - 19	ES013	E	Electrical - street lighting	Energex	NA	existing gateway median	Y	new motorway alignment	relocate to suit new alignment	Conflict with new alignment

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13 - 20	ES013	W	Water Main 150mm dia	BW	14850	Ingham Ct - under bridge	Y	new bridge piers	relocate to suit new bridge piers	
Cleveland Rail Line Overbridge (Southern Abutment) to Pinkenba Rail Line (CH15100 to CH19100)										
14 - 00	ES014	SW	Stormwater	BCC	15300	Under Motorway	Y	new motorway alignment	relocate to suit new alignment	
14 - 01	ES014	S	Sewer Rising Main 300mm dia	Privately owned	15350	Under Motorway	P	new motorway alignment	abandon	connects to abandoned rising main. Possibly not in service. Confirm status
14 - 02	ES014	S	Sewer Rising Main 300mm dia	Privately owned	15350	Under Motorway / POB Motorway ramp	Y	new motorway alignment, POB ramp and rail bridge piers	abandon	connects to abandoned rising main. Possibly not in service. Confirm status
14 - 03	ES014	S	Sewer Rising Main 100mm dia and pump station	Privately owned	15600	under embankment POB motorway	Y	south bound on-ramp	relocate pump station and extend rising main	relocate to northern side of ramp and extend rising main for future service of property
14 - 04	ES014	SW	Stormwater	BCC	15500	under motorway	Y	new motorway alignment	relocate to suit new alignment	may need to adjust inlets/manholes to suit new works
14 - 05	ES014	SW	Stormwater	BCC	15500	under motorway	Y	new motorway alignment	relocate to suit new alignment	may need to adjust inlets/manholes to suit new works
14 - 06	ES014	S	Abandoned Sewer Rising Main 300mm dia	Privately owned	15150	Under motorway embankment	N		Leave	
14 - 07	ES014	SW	Stormwater	BCC	15200	over rail line	Y	new motorway alignment	relocate to suit new bridge	need to raise/relocate manhole at rail crossing abutment
14 - 08A	ES014	G	Gas Main	Origin Energy	15790	Under embankment through major cutting	Y	POB motorway and Lytton Rd ramp.	Relocate into Lytton Rd bridge	
14 - 08B	ES014	G	Ampol Line	Ampol	15781	Under Lytton Rd embankments and bridge	Y	POB S/B ramp	relocate into new bridge	
14 - 08C	ES014	E	Electrical LVUG	Energex	15781	Under Lytton Rd embankment and overpass	Y	POB S/B ramp	relocate into new bridge	
14 - 08D	ES014	E	Electrical LVUG	Energex	15770	Under Lytton Rd embankment and overpass	Y	POB S/B ramp	Relocate into bridge	
14 - 08E	ES014	W	Abandoned water main	BW	15760	Under Lytton Rd embankment and overpass	Y	POB S/B ramp	remove	confirm status of service
14 - 08F	ES014	W	Abandoned water main	BW	15761	Under Lytton Rd embankment and overpass	Y	POB S/B ramp	remove	confirm status of service
14 - 08G	ES014	E	Electrical LVUG	Energex	15765	Under Lytton Rd embankment and overpass	Y	POB S/B ramp	Relocate into bridge	
14 - 08H	ES014	G	Gas main	Origin Energy	15781	Under Lytton Rd embankment and overpass	Y	POB S/B ramp	Relocate into bridge	
14 - 08I	ES014	C	Telecomms - Highband above ground	Telstra	15770	Along Lytton Rd overpass	Y	POB S/B ramp	Relocate into bridge	
14 - 09	ES014	E	Electrical - street lighting	Energex	NA	existing gateway median	Y	new motorway alignment	relocate to suit new alignment	Conflict with new alignment
14 - 10	ES014	S	Sewer Rising Main 100mm dia	Privately owned	15400	POB motorway ramp	Y	POB motorway ramp	abandon	not required to service resumed properties
14 - 10A	ES014	S	Sewer Rising Main 100mm dia	Privately owned	15650	POB motorway ramp	N		leave	leave rising main and immediate pump station to service properties
14 - 11	ES014	E	Railway signal box	unknown	15200	Railway reserve	Y	bridge piers	relocate	Confirm service details
14A - 01	ES015	E	Electrical LVAG	Energex	NA	POB motorway ramp	Y	under new POB motorway ramp	remove redundant cable	remove length of cable under new motorway ramp
14A - 02	ES015	C	Telecomms - LB UG	Telstra	NA	POB motorway ramp	Y	under new POB motorway ramp	Leave	confirm extent of service. Leave if UG and still required - protect during construction works.
15 - 01	ES016	E	Electricity LVUG	Energex	15831	Under minor cutting	P	Queensport Rd East (off ramp)	relocate to suit new works	
15 - 02	ES016	W	Water Main (size ?)	BW	15831	Under minor cutting	P	Queensport Rd East off ramp	Relocate to suit new works	
15 - 03A	ES016	S	Sewer Main 300mm dia	BW	15900	Under motorway	P	Queensport Rd East off ramp - minor cut	relocate to suit new works	may be only 1.5m below SL at Queensport Rd ramp. May need to relocate to avoid minor cut
15 - 03B	ES016	S	Sewer Main abandoned	BW	15900	Under embankment	N		Leave - remove manholes to suit new works	
15 - 03C	ES016	S	Sewer Rising Main	BW	15900	Under embankment	Y	POB motorway off ramp	relocate to suit works	
15 - 03D	ES016	S	Sewer Main 300mm dia	BW	15950	Under embankment	N		leave	
15 - 04	ES016	E	Electrical LVUG	Energex	15931	Under embankment	Y	POB motorway off ramp	Excavate and extend conducts	
15 - 05	ES016	E	Electrical LVUG	Energex	16000	Under embankment	Y	POB motorway off ramp	Excavate and extend conducts	

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15 - 06	ES016	C	Telecomms HB AG	Telstra	16031	Above ground	Y	POB motorway and Lytton Rd off ramps	Remove	
15 - 07	ES016	E	Electrical LVUG	Energex	16206	Under embankment	Y	S/B carriageway and POB motorway ramp.	remove	
15 - 08	ES016	C	OFC-UG / telecomms LBUG	unknown	16081	Under embankment	Y	S/B carriageway and POB motorway ramp.	remove	
15 - 09	ES016	C	Telecomms LBUG / OFC-UG	unknown	15810	cutting	Y	POB motorway ramp.	Relocate	
15 - 10	ES016	C	Telecomms HBAG	Telstra	15830	Above off ramp embankment	Y	POB motorway and Lytton Rd ramp.	Relocate to eastern side of POB motorway off ramp	
15 - 11	ES016	W	Abandoned water main (250)	BW	15810	Under embankment	Y	POB motorway and Lytton Rd ramp.	remove	confirm status of service
15 - 13	ES016	C	Telecomms HB AG	Telstra	16411	Under gateway bridge	Y	Gateway bridge and approach	abandoned if not required	investigate extent of service. Abandon if service is redundant relocate to suit new bridge if still required.
15 - 14	ES016	S	Sewer main	BW	16501	Under bridge - southbank	N		Leave	
15 - 15	ES016	S	Sewer Rising Main	BW	16501	Under bridge - southbank	N		Leave	
15 - 16	ES016	E	Electrical - street lighting	Energex	NA	existing gateway median	Y	new motorway alignment	relocate to suit new alignment	Conflict with new alignment
15 - 17	ES016	E	Electrical LVAG	Energex	16000	service corridor north of Lytton Rd	Y	new off ramp	relocate underground to suit new alignment	Conflict with new alignment
16 - 01	ES017	E	Electrical HV UG	Energex	16681	Under bridge - southbank	Y	Gateway bridge	relocate to suit new bridge piers	
16 - 02	ES107	C	OFC-UG / telecoms LBUG	unknown	16801	Under bridge - southbank	N		Leave	
17 - 01	ES018	E	Electrical LVUG	Energex	17481	Under bridge - northbank	N		Leave	
17 - 02	ES018	S	Sewer rising main	BW	17531	Under bridge - northbank	N		Leave	
17 - 03	ES018	G	Gas main	unknown	17961	Under road - Curtain Street	N		Leave	
17 - 05	ES018	S	Stormwater underground	BCC	17981	Under road - Curtain Street	N		Leave	
17 - 06	ES018	C	OFC	Optus	17981	Under road - Curtain Street	P	Bridge Piers	Leave	close to new bridge pier arrangement - minimum clearance during construction and vibration requirements
17 - 07	ES018	E	Electrical - LVUG	Energex	17981	Under road - Curtain Street	Y	New bridge and piers	Underground service and relocate away from bridge piers	
17 - 08	ES018	G	Gas Main	Energex	18001	Under road - Curtain Street. Feed adjacent property.	N		Leave	
18 - 01A	ES019	C	telecomms HB UG	Telstra	18230	Under existing Fison Ave	Y	Retaining wall and embankment	lower and protect to suit new retaining wall	relocate and protect under retaining wall . Expected settlement approx 1.1m. Arrange stabilizing piles to avoid service conflict.
18 - 01B	ES019	C	telecomms HB UG	Telstra	18230	Under existing Fison Ave	Y	Retaining wall and embankment	lower and protect to suit new retaining wall	relocate and protect under retaining wall . Expected settlement approx 1.1m. Arrange stabilizing piles to avoid service conflict.
18 - 01C	ES019	C	telecomms LB UG	Telstra	18181	Under embankment Fison Ave	Y	Retaining wall	lower to suit new retaining wall	relocate and protect under retaining wall.
18 - 02	ES019	S	Abandoned sewer main	BW	18231	Under embankment Fison Ave	P	Retaining wall	leave	confirm depth of service - remove if clash occurs with retaining wall and stabilising piles
18 - 03	ES019	W	Water main 150 mm dia	BW	18231	Under road - Fison Ave	Y	Retaining wall	Cap at end of street and remove	relocate fire hydrant
18 - 04A	ES019	E	Electrical LV UG	Energex	18231	Under road - Fison Ave	Y	Retaining wall	Lower existing cables and protect	relocate and protect under retaining wall . Expected settlement approx 1.1m. Arrange stabilizing piles to avoid service conflict.
18 - 04B	ES019	E	Electrical LV UG	Energex	18231	Under existing Gateway Motorway	N		Leave	confirm extent of service
18 - 05	ES019	S	Sewer raising main	BW	18231	Under Fison Ave	Y	Retaining wall and embankment	lower and protect and raise manholes	Replace with 300mm DICL - relocated between MH's - Protect under retaining wall. Raise manholes. Arrange stabilizing piles to avoid service conflict. Arrange stabilising piles to avoid service conflict.
18 - 06	ES019	G	Gas Main	Energex	18231	Under Fison Ave	Y	Retaining wall and embankment	Cap off at end of Fison Avenue and remove	
18 - 08	ES019	S	Abandoned sewer main	BW	18371	North of Fison Ave	P	Embankment Southern Bifurcation	Leave	check depth of service - remove if conflict occurs with embankment/ret wall

**Gateway Upgrade Project EIS
Appendix F - Potential Utility Service Conflicts**

Mt Gravatt - Capalaba Rd to Nudgee Road

Conflict No.	Drawing No.	Service Type	Service Description	Owner (if known)	Chainage	Footprint	Clash	Works Affected	Mitigation Strategy	Comment
<small>Abbreviations: AG - Above Ground UG - Under Ground LV - Low Voltage HV - High Voltage LB - Low Band HB - High Band OFC - Optical Fibre Cable N - No P - Possible Y - Yes NA - Not Available BW - Brisbane Water FCF - Fletcher Challenge Fuels OCR - Old Cleveland Road Service Type: AC - Airport Communications AE - Airport Electrical C - Communications E - Electrical G - Gas and Oil S - Sewage SW - Stormwater U - Unknown W - Water</small>										
18 - 09	ES019	S	Sewer main 150	BW	18501	Under embankments and retaining walls	Y	Retaining wall and embankment	lower and protect. Relocate manholes	confirm extent of service - may be required to continue service to properties
18 - 11	ES019	C	OFC	Optus	18601	Laverack Avenue	N		Leave	
18 - 12	ES019	W	Water main UG	BW	18601	Laverack Ave	N		Leave	
18 - 12C	ES019	W	Water main UG	BW	18601	Property off Laverack Ave - under embankment	Y	Embankment of Southern Bifiration Rd	Disconnect and remove	Not required to service resumed properties
18 - 12D	ES019	W	Water main UG	BW	18601	Property off Laverack Ave - under embankment	Y	Embankment of Southern Bifiration	Disconnect and remove	Not required to service resumed properties
18 - 12E	ES019	W	Water main UG	BW	18601	Property off Laverack Ave	N		Leave	
18 - 12F	ES019	W	Water main UG	BW	18601	Property off Laverack Ave	N		Leave	
18 - 13	ES019	C	Highband comms UG	Telstra	18601	Laverack Ave	N		Leave - underground service beneath Laverack Avenue overpass	check and maintain clearance and vibration during construction
18 - 13B	ES019	C	Highband comms UG	Telstra	18601	Property off Laverack Ave - under embankment	Y	Embankment of Southern Bifiration Rd	Remove	Not required to service resumed properties
18 - 13C	ES019	C	Highband comms UG	Telstra	18601	Property off Laverack Ave - under embankment	Y	Embankment of Southern Bifiration Rd	Remove	Not required to service resumed properties
18 - 13D	ES019	C	Highband comms UG	Telstra	18601	Property off Laverack Ave - under embankment	Y	Embankment of Southern Bifiration Rd	Remove	Not required to service resumed properties
18 - 13E	ES019	C	Highband comms UG	Telstra	18601	Property off Laverack Ave - under embankment	Y		Remove	Not required to service resumed properties
18 - 14	ES019	S	Sewer Rising Main	BW	18601	Under bridge across Laverack Ave	N		Leave	check and maintain clearance and vibration during construction
18 - 15	ES019	G	Ampol Oil Line	Ampol	18631	Under Laverack Ave	N		Leave	check and maintain clearance and vibration during construction
18 - 16	ES019	E	electrical AG	Energex	18631	Laverack Ave Centre median	Y	South Bifiration Rd overpass (Laverack Ave)	Relocate underground	
18 - 16E	ES019	E	Electrical AG - to property	Energex	18631	Property off Laverack Ave	Y	Embankment of Southern Bifiration Rd	Remove and recover overhead services	Not required to service resumed properties
18 - 16G	ES019	E	Electrical AG - to property	Energex	18631	Property off Laverack Ave	Y	Embankment of Southern Bifiration Rd	Remove and recover overhead services	Not required to service resumed properties
18 - 16H	ES019	E	Electrical AG - to property	Energex	18631	Property off Laverack Ave	Y	Embankment of Southern Bifiration Rd	Remove and recover overhead services	Not required to service resumed properties
18 - 16J	ES019	E	Electrical AG - to property	Energex	18621	Property off Laverack Ave	N		Leave	
18 - 17	ES019	U	telecomms HB UG and Remote switching Unit (RSU)	Telstra	18621	Laverack Ave	Y	new bridge piers	Leave	design and construct bridge piers to avoid conflict with comms box. Use bored piers and maintain clearance and vibration requirements (1 m clearance, 50mm/sec max vib). Relocate cables to suit piers.
18 - 18A	ES019	S	Sewer main	BW	18635	Laverack Ave	N		leave	
18 - 18B	ES019	S	Abandoned sewer 150mm dia	BW	18601	Under embank Gateway Bifiration Rd	Y	Embankment of Motorway southern bifiration	Disconnect and remove	
18 - 18C	ES019	S	Sewer main 150mm dia	BW	18635	Property of Laverack Ave	Y		disconnect and remove	Not required to service resumed properties
18 - 19	ES019	W	Water main	BW	18635	Under Laverack Ave	N		Leave	
18 - 19A	ES019	W	Water main 150mm dia	BW	18635	To property off Laverack Ave	Y		Disconnect	Not required to service resumed properties
18 - 19B	ES019	W	Water main 150mm dia	BW	18635	To property off Laverack Ave	N		Leave	
18 - 20	ES019	C	Telecomms HB AG	Telstra	18635	Laverack Ave - under motorway overpass	N		leave	check and maintain clearance and vibration during construction
18 - 20A	ES019	C	Telecomms HB AG	Telstra	18635	Laverack Ave and properties	Y		remove	Not required to service resumed properties
18 - 20B	ES019	C	Telecomms HB AG	Telstra	18635	Laverack Ave and properties	Y		remove	Not required to service resumed properties
18 - 20C	ES019	C	Telecomms HB AG	Telstra	18635	Laverack Ave and properties	N		Leave	
18 - 20D	ES019	C	Telecomms HB AG	Telstra	18635	Laverack Ave (E-W) and across road under Gateway overpass	Y	new bridge piers	relocate to suit new bridge piers	
18 - 21	ES019	E	electricity HVUG	Energex	18635	Laverack Ave and properties	N		Leave	

**Gateway Upgrade Project EIS
Appendix F - Potential Utility Service Conflicts**

Mt Gravatt - Capalaba Rd to Nudgee Road

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18 - 24	ES019	E	Electricity LVUG	Energex	18561	Harvey St	Y	South Bound connection at Southern Bifiction	disconnect and remove	
18 - 25	ES019	S	Sewer rising main 200mm dia	BW	18561	Harvey St	Y	South Bound connection at Southern Bifiction	relocate and protect rising main. Relocate / raise manholes	
18 - 26	ES019	W	Water main 150mm dia	BW	18571	Harvey St	Y	South Bound connection at Southern Bifiction	disconnect and cap at end under new motorway embankment	relocate fire hydrant at end of Harvey st
18 - 28	ES019	S	sewer main 150mm dia	BW	18775	nth laverack ave	Y	new motorway alignment	disconnect and relocate manhole to suit new works	
18 - 29	ES019	E	Electrical - street lighting	Energex	NA	existing gateway median	Y	new motorway alignment	relocate to suit new alignment	Conflict with new alignment
18A - 02	ES020	E	Electrical - street lighting	Energex	NA	existing gateway median	Y	new motorway alignment	relocate to suit new alignment	Conflict with new alignment
18A - 03	ES020	C	OFC-UG/Lowband UG	unknown	18541	Harvey St	Y	new retaining wall	abandon end of cable and remove	
18A - 04	ES020	G	Gas main	Energex	18581	Property off Laverack Ave	N		Leave	
18A - 11	ES020	C	Telecomms HBUG	Telstra	(MC81) 650	Cullen Ave and new ramp	P	south bound on-ramp	Leave	
18A - 12	ES020	G	Ampol Oil Line	Ampol	(MC81) 650	cullen ave under motorway alignment and retaining wall	Y	new motorway embankment/retaining wall	Protect	protect service where new works pass over pipeline. Confirm treatment with owners
18A - 13A	ES020	S	Sewer Main 150mm dia	BW	(MC81) 575	under retaining wall and motorway Cullen Ave	Y	south bound on ramp embankment	relocate manholes to suit new works	
18A - 13B	ES020	S	Sewer Main 150mm dia (possibly abandoned)	BW	(MC81) 760	under motorway embankment Links Ave	Y	motorway widening	abandon and remove	confirm extent of service and remove
18A - 13C	ES020	S	Sewer Main 250mm dia	BW	(MC81) 780	under motorway embankment Links Ave	Y	motorway widening and retaining wall	relocate to suit new alignment	
18A - 13D	ES020	S	Sewer Main	BW	(MC81) 760	under motorway embankment Links Ave	Y	south bound embankment/retaining wall	relocate manhole to suit new works	
18A - 13E	ES020	S	Sewer Main	BW	(MC81) 820	under motorway embankment Links Ave	Y	south bound embankment/retaining wall	relocate to suit new alignment	
18A - 14	ES020	C	Telecomms HBUG	Telstra	(MC81) 760	under motorway embankment Links Ave	Y	new embankment and retaining wall	lower and protect under retaining wall	check depth of service and lower under retaining wall if conflict occurs. Confirm location of junction with Cullen Ave service and maintain clearance to new works - relocate if required
18A - 15	ES020	S	stormwater	BCC	(MC81) 740	under motorway embankment Links Ave into Cullen Ave	Y	new embankment and retaining wall	relocate manholes and inlets to suit new works	
18A - 16	ES020	G	Gas Main	Energex	(MC81) 800	Links Ave - under motorway and ret wall	Y	new retaining wall	Protect	confirm depth of service and suitability to leave under new embankment and retaining wall
18A - 17	ES020	E	Electrical LVUG	Energex	(MC81) 800	under embankment Links Ave	N		Leave	confirm depth of service and suitability to leave under new embankment and retaining wall
18A - 18	ES020	E	Electrical LVUG	Energex	(MC81) 820	Cullen ave east	Y	off ramp	Extend underground conduits. Relocate underground cables	
18A - 19	ES020	E	Electrical LVUG	Energex	(MC81) 820	Cullen ave east	Y	off ramp	Extend underground conduits. Relocate underground cables	
18A - 20	ES020	SW	Stormwater	BCC	(MC81) 820	under motorway	Y	new south bound embankment	relocate to suit new alignment	
18A - 21	ES020	E	Electrical LVUG	Energex	(MC81) 880	Fison Ave off ramp	P	retaining wall	relocate away from retaining wall	close to new retaining wall - check clearance and monitor construction
18A - 22	ES020	E	Electrical Power Pole	Energex	(MC81) 650	Cullen ave east	N		Leave	
18A - 23	ES020	E	Electrical LVUG	Energex	(MC81) 700	under embankment Links / Cullen Ave	Y	motorway embankment	abandon and remove	Not required to service resumed properties
18B - 01	ES021	SW	Stormwater	BCC	(MC81) 1090	under motorway embankment	Y	new alignment and retaining wall	relocate manhole to suit new alignment	
18B - 02	ES021	SW	Stormwater	BCC	(MC81) 1110	under motorway embankment	Y	new alignment and retaining wall	relocate manhole to suit new alignment	
18B - 03	ES021	E	Electrical LVUG	Energex	(MC81) 1200	under motorway embankment	P	new alignment and retaining wall	Leave	confirm depth of service and suitability to leave under new embankment and retaining wall
18B - 04A	ES021	S	Sewer Main 150mm dia	BW	(MC81) 1040	Fison Ave	N		leave	

**Gateway Upgrade Project EIS
Appendix F - Potential Utility Service Conflicts**

Mt Gravatt - Capalaba Rd to Nudgee Road

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18B - 04B	ES021	S	Sewer Main 150mm dia	BW	(MC81) 1040	Fison Ave	N		leave	
18B - 04C	ES021	S	Sewer Main 150mm dia	BW	(MC81) 1040	Fison Ave	N		leave	
18B - 04D	ES021	S	Sewer Main 150mm dia	BW	(MC81) 1070	Fison Ave	N		leave	
18B - 05	ES021	W	Water	BW	(MC81) 1075	Fison Ave	N		leave	
18B - 06	ES021	W	Water	BW	(MC81) 1090	Fison Ave	N		leave	
18B - 07	ES021	E	Electrical LVUG	Energex	(MC81) 1060	Fison Ave	N		leave	
18B - 08A	ES021	E	Electrical LVUG	Energex	(MC81) 1180	Fison Ave	N		leave	
18B - 08B	ES021	E	Electrical LVUG	Energex	(MC81) 1250	KSD	N		leave	close to new retaining wall - check clearance and monitor construction
18B - 09	ES021	C	Telecomms HBAG	Telstra	(MC81) 1190	Fison Ave	N		Leave	
18B - 10	ES021	E	Electrical HVUG 33kV	Energex	(MC81) 1250	Fison Ave across KSD under motorway embankment	N		Leave	
18B - 10A	ES021	E	Electrical HVUG 33kV	Energex	(MC81) 1350	Bunya St	P	new bridge piers	leave	close to new bridge piers - check clearance and design piers to suit cable location
18B - 11	ES021	E	Electrical HVUG 33kV	Energex	(MC81) 1250	Fison Ave across KSD under motorway embankment	N		Leave	
18B - 11A	ES021	E	Electrical HVUG 33kV	Energex	(MC81) 1350	Bunya St	P	new bridge piers	leave	close to new bridge piers - check clearance and design piers to suit cable location
18B - 12	ES021	S	Sewer Rising Main 375mm dia	BW	(MC81) 1250	Fison Ave / KSD	N		Leave	
18B - 13	ES021	E	Electrical power poles (x3)	Energex	(MC81) 1200-1250	Fison Ave	N		Leave	
18B - 14	ES021	SW	Stormwater	BCC	(MC81) 1270	Fison Ave / KSD	N		Leave	
18B - 15	ES021	E	Electrical LVUG	Energex	(MC81) 1260	Fison Ave / KSD	N		leave	
18B - 16	ES021	S	Sewer Main 150mm dia	BW	(MC81) 1270	Fison Ave / KSD motorway embankment	N		leave	close to new retaining wall - check clearance and monitor construction
18B - 17	ES021	G	Gas Main	Energex	(MC81) 1320	KSD under motorway crossing	N		Leave	close to new retaining wall - check clearance and monitor construction
18B - 18	ES021	G	Gas Main	Energex	(MC81) 1320	KSD under motorway crossing	Y	new bridge piers	relocate to suit new works	
18B - 19	ES021	W	Water Main	BW	(MC81) 1300	KSD under motorway crossing	N		Leave	
18B - 20	ES021	E	Electrical LVUG	Energex	(MC81) 1300	KSD under motorway crossing	N		leave	
18B - 20A	ES021	E	Electrical LVUG	Energex	(MC81) 1300	KSD under motorway crossing	P	new bridge piers	leave	close to new bridge piers - check clearance and monitor construction
18B - 20B	ES021	E	Electrical LVUG	Energex	(MC81) 1300	KSD under motorway crossing	Y	new bridge piers	relocate to suit new works	
18B - 21	ES021	S	Sewer Main 1500mm dia	BW	(MC81) 1320	KSD under motorway crossing	N		Leave	approx 14m below SL - requirement for no load impact during/after construction.
18B - 21A	ES021	S	Sewer Main 150mm dia	BW	(MC81) 1330	KSD/Bunya St under motorway crossing	Y	new bridge piers	relocate to suit new bridge piers	relocate across corner of KSD-Bunya St to suit new piers

**Gateway Upgrade Project EIS
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Mt Gravatt - Capalaba Rd to Nudgee Road

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18B - 22	ES021	E	Electrical LVUG	Energex	(MC81) 1300	KSD under motorway crossing	N		Leave	
18B - 23	ES021	E	Electrical LVUG	Energex	(MC81) 1300	KSD under motorway crossing	N		Leave	
18B - 24	ES021	S	Sewer Main 1575mm dia	BW	(MC81) 1330	Bunya Rd intersection under properties to the west	N		Leave	approx 14m below SL - requirement for no load impact during/after construction.
18B - 25	ES021	G	Gas Main	Energex	(MC81) 1370	Bunya Rd and across KSD	Y	new bridge piers	relocate to suit new works	relocate across corner of KSD-Bunya St to suit new piers
18B - 26	ES021	C	Telecomms HBUG	BW	(MC81) 1375	Bunya Rd / KSD	Y	new bridge piers	relocate to suit new works	relocate across corner of KSD-Bunya St to suit new piers
18B - 27	ES021	C	OFC	Optus	(MC81) 1325	KSD under motorway overpass	N		Leave	
18B - 28	ES021	W	Water Main	BW	(MC81) 1340	KSD west of motorway embankment-KSD north side	N		Leave	
18B - 28A	ES021	W	Water Main	BW	(MC81) 1341	Bunya St	Y	retaining wall	relocate to suit new works	water main network around cnr KSD and Bunya St relocate pipelines, MH's and valves to suit new retaining wall and piers
18B - 29	ES021	C	Telecomms HBAG	Telstra	(MC81) 1300	KSD	N		Leave	
18B - 30	ES021	SW	Stormwater	BCC	(MC81) 1360	KSD / Bunya Rd under bridge	Y	new abutment and bridge piers	relocate to suit new works	relocate pits/manholes and pipe around Bunya St-KSD intersection
18B - 31	ES021	S	Sewer Main 1575mm dia	BW	(MC81) 1350	cross Bunya Rd and west of motorway	P	new bridge piers	Leave	approx 14m below SL - requirement for no load impact during/after construction.
18B - 32	ES021	S	Sewer Main 150mm dia	BW	(MC81) 1440	north of KSD under new motorway alignment	Y	new alignment and retaining wall	abandon and cut off	
18B - 33	ES021	SW	Stormwater	BCC	(MC81) 1530	under embankment north of KSD	N		Leave	
18B - 34	ES021	E	electrical LVUG 11kV line	Energex	(MC81) 1325	Bunya Rd/KSD	Y	retaining wall and new bridge piers	relocate to suit new works	relocate across corner of KSD-Bunya St to suit new piers and retaining wall
18B - 34A	ES021	E	electrical LVUG 11kV line	Energex	(MC81) 1326	Bunya Rd	Y	retaining wall and new bridge piers	relocate to suit new works	relocate across corner of KSD-Bunya St to suit new piers and retaining wall
18B - 35	ES021	E	Electrical substation	Energex	(MC81) 1060	Fison Ave	Y	new alignment and retaining wall	relocate to neighbouring property	neighbouring property owned by Energex - relocate to Energex property
18B - 36	ES021	C	telecomms LB UG / OFC	Telstra	(MC81) 1325	Bunya Rd	Y	retaining wall - Bunya Rd	relocate to suit new works	possibly above ground - remove end of cable under retaining wall - relocate if still required
18B - 37	ES021	E	Electrical LVAG	Energex	(MC81) 1325	Bunya Rd	Y	retaining wall - Bunya Rd	abandon end of cable under retaining wall	determine full extent of service - possibly not required to service resumed properties. If still required - underground and relocate to suit new retaining wall.
18B - 38	ES021	E	Electrical - street lighting	Energex	NA	existing gateway median	Y	new motorway alignment	relocate to suit new alignment	Conflict with new alignment
18B - 39	ES021	E	Electrical LV UG	Energex	(MC81) 1300	KSD under motorway overpass	Y	new bridge piers	relocate to suit new bridge piers	
19 - 01	ES022	C	Telecomms HB AG	Telstra	18901	KSD	Y	new motorway bridge	relocate underground	
19 - 02	ES022	C	Telecomms HB AG	Telstra	18901	KSD	Y	new motorway bridge	relocate underground	
19 - 02A	ES022	C	Telecomms HB AG	Telstra	18881	KSD - service to property	N		Leave	
19 - 02B	ES022	C	Telecomms HB AG	Telstra	18891	KSD - service to property	Y		Remove	not required to service resumed properties
19 - 02C	ES022	C	Telecomms HB AG	Telstra	18871	KSD - service to property	Y		Remove	not required to service resumed properties
19 - 03	ES022	G	Gas Main	Energex	18901	KSD	N		Leave	check and maintain clearances and vibration during construction
19 - 04	ES022	W	Water main 150mm dia	BW	18921	KSD	N		Leave	
19 - 04A	ES022	W	Water main 150mm dia	BW	18921	KSD - service to property	N		Leave	
19 - 04B	ES022	W	Water main 150mm dia	BW	18921	KSD - service to property	Y	Gateway Bification Road - overpass of KSD	Disconnect	not required to service resumed properties

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19 - 04C	ES022	W	Water main 150mm dia	BW	18921	KSD - service to property	Y	Gateway Bification Road - overpass of KSD	Disconnect	not required to service resumed properties
19 - 04D	ES022	W	Water main 150mm dia	BW	18921	KSD - service to property	Y	Gateway Bification Road - overpass of KSD	Disconnect	not required to service resumed properties
19 - 04E	ES022	W	Water main 150mm dia	BW	18921	KSD - service to property	Y	Gateway Bification Road - overpass of KSD	Disconnect	not required to service resumed properties
19 - 04F	ES022	W	Water main 150mm dia	BW	18921	KSD - service to property	Y	Gateway Bification Road - overpass of KSD	Disconnect	not required to service resumed properties
19 - 04G	ES022	W	Water main 150mm dia	BW	18930	KSD	N		Leave	close to bridge piers - check clearance and monitor during construction
19 - 05A	ES022	S	Sewer rising main 900mm dia	BW	18931	KSD	N		Leave	
19 - 05B	ES022	S	Sewer rising main 1350mm dia	BW	18931	KSD	N		Leave	
19 - 05C	ES022	S	Sewer rising main 1350mm dia	BW	18931	KSD	N		Leave	
19 - 06	ES022	E	electrical LVAG	Energex	18930	KSD	Y	new motorway bridge	relocate underground	
19 - 07	ES022	C	Highband comms AG	Telstra	18941	KSD	Y	new motorway bridge	relocate underground	
19 - 08	ES022	C	OFC	Optus	19081	Railway Reserve	N		relocate to avoid bridge piers	
19 - 09	ES022	E	Electrical LVUG	Energex	19111	Railway Reserve	Y	bridge piers	relocate to avoid bridge piers	
19 - 12	ES022	E	Electrical LVUG	Energex	18901	KSD	N		Leave	Confirm extent of service. Switch box/transformer
19 - 13	ES022	S	Stormwater	BCC	18911	KSD	N		Leave	
19 - 14	ES022	G	Oil pipeline	FCF	18921	KSD	N		Leave	
19 - 15	ES022	E	Power poles - AG Electricity	Energex	18931	KSD	N		Leave	
19 - 16	ES022	S	Stormwater	BCC	18930	KSD	N		Leave	
19 - 17	ES022	E	Electrical LV AG	Energex	19075	Railway Reserve	Y	new motorway bridge	relocate underground	
19 - 18	ES022	E	Electrical LV AG - street lights	Energex	NA	north of KSD	Y	new motorway	remove/relocate	Conflict with new alignment

**Gateway Upgrade Project EIS
Appendix F - Potential Utility Service Conflicts**

Mt Gravatt - Capalaba Rd to Nudgee Road

Conflict No.	Drawing No.	Service Type	Service Description	Owner (if known)	Chainage	Footprint	Clash	Works Affected	Mitigation Strategy	Comment
<small>Abbreviations: AG - Above Ground UG - Under Ground LV - Low Voltage HV - High Voltage LB - Low Band HB - High Band OFC - Optical Fibre Cable N - No P - Possible Y - Yes NA - Not Available BW - Brisbane Water FCF - Fletcher Challenge Fuels OCR - Old Cleveland Road Service Type: AC - Airport Communications AE - Airport Electrical C - Communications E - Electrical G - Gas and Oil S - Sewage SW - Stormwater U - Unknown W - Water</small>										
Pinkenba Rail Line to Nudgee Road (CH19100 to CH25250)										
19 - 10	ES022	W	Water main	BW	19121	Railway Reserve	N		Leave	close to new bridge piers - check clearance and monitor construction
19 - 11	ES022	C	Highband comms AG	unknown	19121	Railway Reserve	N		Leave	
19 - 19	ES022	S	Proposed sewerage pump station and rising main	BW	19100	Terminal Drive	P	bridge piers	locate PS and RM to avoid proposed bridge alignment	
21 - 01	ES024	AC	Airport comms abandoned	BAC	20431	under bridge - south of Airport Dr	N		Leave	
21 - 02	ES024	AC	Airport comms abandoned	BAC	20431	under bridge - south of Airport Dr	N		Leave	
21 - 03	ES024	AE	Airport Electrical abandoned	BAC	20431	under bridge - south of Airport Dr	Y	bridge piers	remove	
21 - 04	ES024	AE	Airport Electrical abandoned	BAC	20431	under bridge - south of Airport Dr	N		Leave	
21 - 05	ES024	AE	Airport Electrical abandoned	BAC	20556	under bridge - south of Airport Dr	N		Leave	
21 - 06	ES024	AE	Airport Electrical abandoned	BAC	20556	under bridge - south of Airport Dr	N		Leave	
21 - 07	ES024	AC	Airport comms abandoned	BAC	20631	under bridge - south of Airport Dr	Y	bridge piers	remove	
21 - 08	ES024	AC	Airport comms abandoned	BAC	20671	under bridge - south of Airport Dr	N		Leave	
21 - 09	ES024	AC	Airport comms abandoned	BAC	20711	under bridge - south of Airport Dr	N		Leave	
21 - 10	ES024	AC	Airport comms abandoned	BAC	20741	under bridge - south of Airport Dr	N		Leave	
21 - 11	ES024	S	Sewer Main abandoned	BW	20781	under bridge - south of Airport Dr	N		Leave	
21 - 12	ES024	AC	Airport comms abandoned	BAC	20791	under bridge - south of Airport Dr	N		Leave	
21 - 13	ES024	W	Water Main abandoned	BW	20791	under bridge - south of Airport Dr	N		Leave	
21 - 14A	ES024	AC	Airport comms UG	BAC	20831	partially under bridge - south of Airport Dr	N		Leave	
21 - 14B	ES024	AC	Airport comms UG	BAC	20831	East of bridge - south of Airport Dr	N		Leave	
21 - 15	ES024	C	Telecomms LBUG abandoned	BAC	20831	under bridge - south of Airport Dr	N		Leave	
21 - 16	ES024	S	Sewer Rising Main	BW	20851	under bridge - south of Airport Dr	N		Leave	
21 - 17	ES024	U	Unknown	unknown	20791	under bridge - south of Airport Dr	N		Leave	
21 - 18A	ES024	E	Electrical	unknown	20831	under bridge - south of Airport Dr	N		Leave	
21 - 18B	ES024	E	Electrical	unknown	20831	under bridge - south of Airport Dr	Y	bridge piers	remove/relocate	
21 - 19	ES024	W	Water Main	BW	20831	partially under bridge - south of Airport Dr	N		Leave	
21 - 20	ES024	W	Water Main	BW	20851	under bridge - south of Airport Dr	P	bridge piers	relocate to avoid bridge piers	
21 - 21	ES024	E	Electrical LVUG	unknown	20881	under bridge - south of Airport Dr	N		Leave	
21 - 21A	ES024	E	Electrical LVUG	unknown	20825	under bridge - south of Airport Dr	Y	bridge piers	remove	
21 - 22	ES024	C	Telecomms HBUG	unknown	20931	Airport Dr south	P	bridge piers	relocate to avoid bridge piers	
21 - 23	ES024	S	Sewer Rising Main	BW	20951	Airport Dr south	N		Leave	
21 - 24	ES024	U	Service Ducts	unknown	20951	Airport Dr south	P	bridge piers	Leave	
21 - 25	ES024	C	Telecomms HBAG	unknown	20981	Airport Dr north	N		Leave	
21 - 26	ES024	E	Electrical LVUG	Energex	20971	Airport Dr north	N		Leave	
21 - 27	ES024	E	Electrical LVUG	Energex	20675	under bridge - south of Airport Dr	N		Leave	
21 - 28	ES024	E	Electrical LVUG	Energex	20825	under bridge - south of Airport Dr	N		Leave	
21 - 29	ES024	E	Electrical LVUG	Energex	20825	under bridge - south of Airport Dr	N		Leave	
22 - 01	ES025	E	Electrical HVUG 110kV	Energex	21381	under new motorway embankment	Y	embankment over service	Bridge	110kV oil filled cable not tollerable to differential settlements. Construct bridge over cable.
23 - 01	ES026	W	Water Main 300 mm dia	BW	22481	Under embankment future airport link	Y	embankment over service	Protect	Protect with large culvert to accommodate settlements
23 - 02	ES026	E	Electrical LVUG	Energex	22481	Under embankment future airport link	Y	embankment over service	Protect	33kV line. Protect with large culvert to accommodate settlements
23 - 03	ES026	E	Electrical HVUG	Energex	22481	Under embankment future airport link	Y	embankment over service	Protect	33kV line. Protect with large culvert to accommodate settlements
26 - 01	ES029	C	Telecomms LBUG / OFC	Telstra	23931	Under embankment North Bification	P	embankment over service	Leave	
27 - 01	ES030	E	Electrical HVAG	Powerlink	24331	over existing motorway	N		Leave	check sag and maintain construction clearances