Arc Infrastructure Requirements for Non Arc Infrastructure Services Crossing Rail Corridor Land

Note: Each application is assessed individually against existing railway assets, existing services in the ground and possible future rail requirements.

W 880 300 001 Rev 1.01

Services containing toxic or noxious substances will not be permitted on the Rail Corridor		**Pipeline carrying non-flammable substances or cables**	**Pipeline carrying combustible liquid and flammable fluids**
General Requirements for all services in Rail Corridor Land		Service or pipeline shall cross the tracks at **90°± 5°** Service installations parallel to the rail line are generally not permitted. Cathodic Protection not permitted	
Plans and Information		Required in accordance with Section 2.3 of AS4799, and in particular compliance with section 2.3.2.1 *"Plans of the proposed services or pipelines shall be drawn to scale showing their relation to railway tracks, other services and pipelines (above or below ground level), overhead wiring structures and other facilities, property boundaries …"*	
Geotechnical Report		A geotechnical investigation and interpretative report considering ground conditions and natural water levels is required for works involving ground disturbance on the corridor and off the corridor if the zone of influence of the works will impact BR's corridor	
Services Crossing under Rail Line	**Size of Encasing Pipe/Sleeve**	Internal diameter of the encasing pipe shall be at least **50mm** greater than the largest external diameter for carrier pipes less than 150mm and shall be at least **100mm** greater for carrier pipes with external diameter equal to or greater than 150mm	
	Minimum depth to top of Encasing Pipe/ Sleeve	All services should be encased **2500mm** below natural ground level for full corridor width. Direct buried cables not permitted	
	Minimum depth to top of Encasing Pipe/ Sleeve at level crossing or turnout	**3000mm** from top of rail	
	Minimum depth under drains	**1000mm** under drain	**1200mm** under drain
	Minimum length of Encasing Pipe/Sleeve	The entire corridor width	
Minimum distance of pits and access chambers at right angles to the rail		Installation of new pits in rail corridor should be avoided. Only in exceptional circumstances will new pits be allowed. Should pits be permitted minimum distances set out in AS4799.2000 apply.	Not Permitted
Mechanical Protection		N/A	As per AS4799 Figures 5.1 and 5.2 plus centered over service
Separation from other services – Horizontal Plane		Minimum of **600mm** in the horizontal plane or diameter of largest enchasing pipe whichever is the greatest.	
Separation from other services – Vertical Plane		**1000mm** from any service	
Valve locations and Flare Points		Subject to approval from Arc Infrastructure	
Service clearances from railway infrastructure (i.e. Platforms, signalling equipment, masts etc.)		Minimum of **3000mm**, in accordance with AS4799 Section 3.2.6 or diameter of largest encasing pipe whichever is the greatest	
Drainage		Services or pipelines shall not impede the free flow of drainage along the property: Reference AS4799 Section 3.2.7	
Bollards		Minimum requirements are 90 NB MED (101 OD) galvanised steel with galvanised steel cap, at least 1550mm long with 1m above the ground level (deeper in ground if ground conditions deem otherwise). Two 50mm wide reflective tape around the circumference 50mm from top of bollard with a 50mm space between the two strips. Reflective tape colours are: orange for bollards associated with protecting electrical items, blue if delineating water assets (water ways, culverts, valves etc.), white for all other general protection	
Backfilling		Access road or side drains to be reinstated with similar material to that which was removed and the road surface of the access road is to achieve a compaction of not less than 97% of the maximum dry density during the test as specified in AS 1289.	
Markers		Markers shall be provided and maintained in accordance with AS4799 Section 3.10 to indicate location of underground services and depth of service	
Inspections and Testing		Proponent subject to Brookfield Rail's Network Safeworking Rules and Procedures	
As Construction Drawings		Proponent shall provide Arc Infrastructure with plans of the work as executed	