					Bridges with low clearance for electrification			
					McKee Barracks Bridge (OBO3)			
				Requirements	-Electrical clearance for electrification -Keep current functionality of roads -Track alignment and drainage requirements (standards)			
					Intervention	**Assessment**		
	Baseline intervention (not subject to options)				-	-	-	
Options Level 1 (PC 1)	Option 0: Do Nothing	Engineering	**Feasibility**	Constructability	Leave as is Standard clearance for electrification and free running solution		Pass	The parapet may need to be raised
				Geometrical fitness for intervention				
				Safety				
			Requirements	Electrical clearance for electrification				
				Track alignment and drainage (standards)				
				Structural soundness of the Bridge (if track interventions)				
				Keep current functionality of roads				
		Economy	Investment guidelines and programme for DART+					
		Environment						No significant environmental issues

					Bridges with low clearance for electrification			
					Blackhorse Avenue Bridge (OBO4)			
				Requirements	-Electrical clearance for electrification -Keep current functionality of roads -Track alignment and drainage requirements (standards)			
					Intervention	**Assessment**		
	Baseline intervention (not subject to options)				-	-	-	
Options Level 1 (PC 1)	Option 0: Do Nothing	Engineering	**Feasibility**	Constructability	Leave as is	🟢	fail	Service bridge on the southern face makes the electrification not feasible
				Geometrical fitness for intervention		🟢		
				Safety		🟢		
			Requirements	Electrical clearance for electrification		🔴		
				Track alignment and drainage (standards)		🟢		
				Structural soundness of the Bridge (if track interventions)		🟢		
				Keep current functionality of roads		🟢		
		Economy		Investment guidelines and programme for DART+		🟢		
		Environment						No significant environmental issues
	Option 1: Do Minimum	Engineering	**Feasibility**	Constructability	Divert service bridge on the southern face of the bridge Standard clearance for electrification and 4.4 m cw height and free running solution	🟢	Pass	Assuming Service bridge can be diverted Parapet needs to be raised
				Geometrical fitness for intervention		🟢		
				Safety		🟢		
			Requirements	Electrical clearance for electrification		🟢		
				Track alignment and drainage (standards)		🟢		
				Structural soundness of the Bridge (if track interventions)		🟢		
				Keep current functionality of roads		🟢		
		Economy		Investment guidelines and programme for DART+		🟢		
		Environment						No significant environmental issues
	Option 2: Do Something	Engineering	**Feasibility**	Constructability	Combination of track lowering, civil intervention and OHLE derrogation for cw heights and electrical clearances	🟢	Pass	Assuming service bridge cannot be diverted
				Geometrical fitness for intervention		🟢		
				Safety		🟢		
			Requirements	Electrical clearance for electrification		🟢		
				Track alignment and drainage (standards)		🟢		
				Structural soundness of the Bridge (if track interventions)		🟢		
				Keep current functionality of roads		🟢		
		Economy		Investment guidelines and programme for DART+		🟢		
		Environment						No significant environmental issues

					Bridges with low clearance for electrification			
					Old Cabra Road Bridge (OBO5)			
				Requirements	-Electrical clearance for electrification -Keep current functionality of roads -Track alignment and drainage requirements (standards)			
					Intervention	**Assessment**		
	Baseline intervention (not subject to options)				-	-	-	
Options Level 1 (PC 1)	Option 0: Do Nothing	Engineering	**Feasibility**	Constructability	Leave as is Standard clearance for electrification and free running solution		Pass	Parapet may need to be raised
				Geometrical fitness for intervention				
				Safety				
			Requirements	Electrical clearance for electrification				
				Track alignment and drainage (standards)				
				Structural soundness of the Bridge (if track interventions)				
				Keep current functionality of roads				
		Economy		Investment guidelines and programme for DART+				
		Environment						Included within the National Inventory of Architectural Heritage (NIAH)

					Bridges with low clearance for electrification			
					Cabra Road Bridge (OBO6)			
				Requirements	-Electrical clearance for electrification -Keep current functionality of roads -Track alignment and drainage requirements (standards)			
					Intervention	**Assessment**		
	Baseline intervention (not subject to options)				-	-	-	
Options Level 1 (PC 1)	Option 0: Do Nothing	Engineering	**Feasibility**	Constructability	Leave as is		fail	Bridge not clear for electrification
				Geometrical fitness for intervention				
				Safety				
			Requirements	Electrical clearance for electrification				
				Track alignment and drainage (standards)				
				Structural soundness of the Bridge (if track interventions)				
				Keep current functionality of roads				
		Economy		Investment guidelines and programme for DART+				
		Environment						No significant environmental issues
	Option 1 Do Minimum	Engineering	**Feasibility**	Constructability	Combination of track lowering and OHLE derogation from standards/fitted solution. Anticipated 301 mm additional vertical clearance for 4.2 m cw height.		Pass	Feassible in principle but pending structural assessment
				Geometrical fitness for intervention				
				Safety				
			Requirements	Electrical clearance for electrification				
				Track alignment and drainage (standards)				
				Structural soundness of the Bridge (if track interventions)				
				Keep current functionality of roads				
		Economy		Investment guidelines and programme for DART+				
		Environment						No significant environmental issues
	Option 2	Engineering	**Feasibility**	Constructability	Partial bridge reconstruction. Combination of track lowering and OHLE derogation from standards/fitted solution if required (to minimize impact to road levels). Anticipated 501mm additional vertical clearance for 4.4m cw height.		Pass	
				Geometrical fitness for intervention				
				Safety				
			Requirements	Electrical clearance for electrification				
				Track alignment and drainage (standards)				
				Structural soundness of the Bridge (if track interventions)				
				Keep current functionality of roads				
		Economy		Investment guidelines and programme for DART+				
		Environment						Protected structure and Included within the National Inventory of Architectural Heritage (NIAH)

					Bridges with low clearance for electrification			
					Fassaugh Avenue Bridge (OBO7)			
				Requirements	-Electrical clearance for electrification -Keep current functionality of roads -Track alignment and drainage requirements (standards)			
					Intervention	**Assessment**		
	Baseline intervention (not subject to options)				-	-	-	
Options Level 1 (PC 1)	Option 0: Do Nothing	Engineering	**Feasibility**	Constructability	Leave as is		fail	Bridge not clear for electrification
				Geometrical fitness for intervention				
				Safety				
			Requirements	Electrical clearance for electrification				
				Track alignment and drainage (standards)				
				Structural soundness of the Bridge (if track interventions)				
				Keep current functionality of roads				
		Economy		Investment guidelines and programme for DART+				
		Environment						No significant environmental issues
	Option 1: Do minimum	Engineering	**Feasibility**	Constructability	Combination of track lowering and OHLE derogation from standards/fitted solution. Anticipated 178 mm additional vertical clearance for 4.2 m cw height.		Pass	Feassible in principle but pending structural assessment
				Geometrical fitness for intervention				
				Safety				
			Requirements	Electrical clearance for electrification				
				Track alignment and drainage (standards)				
				Structural soundness of the Bridge (if track interventions)				
				Keep current functionality of roads				
		Economy		Investment guidelines and programme for DART+				
		Environment						No significant environmental issues
	Option 2	Engineering	**Feasibility**	Constructability	Partial bridge reconstruction. Combination of track lowering and OHLE derogation from standards/fitted solution if required (to minimize impact to road levels). Anticipated 501mm additional vertical clearance for 4.4m cw height.		Pass	
				Geometrical fitness for intervention				
				Safety				
			Requirements	Electrical clearance for electrification				
				Track alignment and drainage (standards)				
				Structural soundness of the Bridge (if track interventions)				
				Keep current functionality of roads				
		Economy		Investment guidelines and programme for DART+				
		Environment						No significant environmental issues

					Bridges with low clearance for electrification			
					Royal Canal and LUAS Twin Arches (OBO8)			
				Requirements	-Electrical clearance for electrification -Keep current functionality of roads -Track alignment and drainage requirements (standards)			
					Intervention	**Assessment**		
	Baseline intervention (not subject to options)				-	-	-	
Options Level 1 (PC 1)	Option 0: Do Nothing	Engineering	**Feasibility**	Constructability	Leave as is		fail	Bridge not clear for electrification
				Geometrical fitness for intervention				
				Safety				
			Requirements	Electrical clearance for electrification				
				Track alignment and drainage (standards)				
				Structural soundness of the Bridge (if track interventions)				
				Keep current functionality of roads				
		Economy		Investment guidelines and programme for DART+				
		Environment						No significant environmental issues
	Option 1 Do Minimum	Engineering	**Feasibility**	Constructability	Track lowering (100 mm) or slab track and slewing. 4.2 m cw height and electrical clearance derogation (special reduced). OHLE Multiple fitted Tunnel arms		Pass	Assumes 100 m track lowering is possible
				Geometrical fitness for intervention				
				Safety				
			Requirements	Electrical clearance for electrification				
				Track alignment and drainage (standards)				
				Structural soundness of the Bridge (if track interventions)				
				Keep current functionality of roads				
		Economy		Investment guidelines and programme for DART+				
		Environment						No significant environmental issues
	Option 2	Engineering	**Feasibility**	Constructability	Combination of track lowering and bridge reconstruction. Standard cw height and electrical clearance. OHLE multiple fitted bridge arms		Pass	
				Geometrical fitness for intervention				
				Safety				
			Requirements	Electrical clearance for electrification				
				Track alignment and drainage (standards)				
				Structural soundness of the Bridge (if track interventions)				
				Keep current functionality of roads				
		Economy		Investment guidelines and programme for DART+				
		Environment						Potential impact to the Royal Canal

					Bridges with low clearance for electrification			
					Maynooth Line Twin Arch (OBO9)			
				Requirements	-Electrical clearance for electrification -Keep current functionality of roads -Track alignment and drainage requirements (standards)			
					Intervention	**Assessment**		
	Baseline intervention (not subject to options)				-	-	-	
Options Level 1 (PC 1)	Option 0: Do Nothing	Engineering	**Feasibility**	Constructability	Leave as is		fail	Bridge not clear for electrification
				Geometrical fitness for intervention				
				Safety				
			Requirements	Electrical clearance for electrification				
				Track alignment and drainage (standards)				
				Structural soundness of the Bridge (if track interventions)				
				Keep current functionality of roads				
		Economy		Investment guidelines and programme for DART+				
		Environment						No significant environmental issues
	Option 1 Do minimum	Engineering	**Feasibility**	Constructability	Track lowering (100 mm) and slewing. 4.2 m cw height and electrical clearance derogation (special reduced). OHLE Multiple fitted Tunnel/bridge arms		Pass	
				Geometrical fitness for intervention				
				Safety				
			Requirements	Electrical clearance for electrification				
				Track alignment and drainage (standards)				
				Structural soundness of the Bridge (if track interventions)				
				Keep current functionality of roads				
		Economy		Investment guidelines and programme for DART+				
		Environment						No significant environmental issues
	Option 2	Engineering	**Feasibility**	Constructability	Combination of track lowering and bridge reconstruction. Standard cw height, electrical clearance. OHLE multiple bridge arms		Pass	
				Geometrical fitness for intervention				
				Safety				
			Requirements	Electrical clearance for electrification				
				Track alignment and drainage (standards)				
				Structural soundness of the Bridge (if track interventions)				
				Keep current functionality of roads				
		Economy		Investment guidelines and programme for DART+				
		Environment						No significant environmental issues

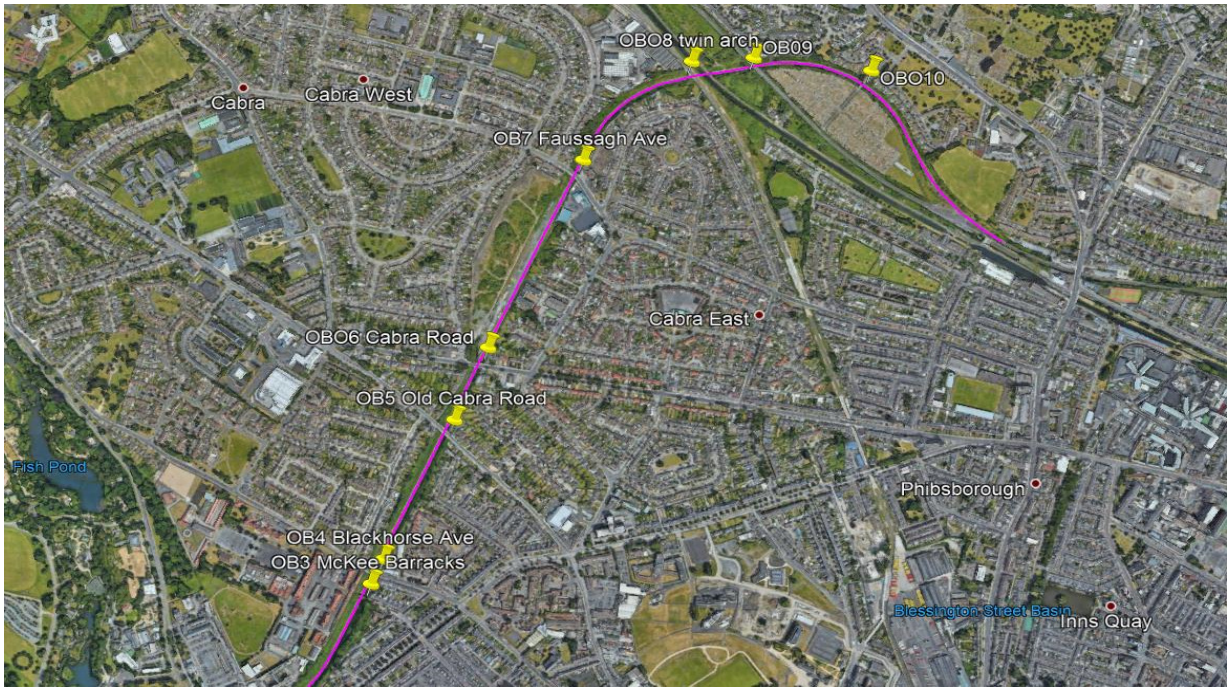
					Bridges with low clearance for electrification			
					Glasnevin Cemetery Road Bridge (OBO10)			
				Requirements	-Electrical clearance for electrification -Keep current functionality of roads -Track alignment and drainage requirements (standards)			
					Intervention	**Assessment**		
	Baseline intervention (not subject to options)				-	-	-	
Options Level 1 (PC 1)	Option 0: Do Nothing	Engineering	**Feasibility**	Constructability	Leave as is		fail	Bridge not clear for electrification
				Geometrical fitness for intervention				
				Safety				
			Requirements	Electrical clearance for electrification				
				Track alignment and drainage (standards)				
				Structural soundness of the Bridge (if track interventions)				
				Keep current functionality of roads				
		Economy		Investment guidelines and programme for DART+				
		Environment						No significant environmental issues
	Option 1 Do Minimum	Engineering	**Feasibility**	Constructability	Track lowering (100 mm). 4.2 m cw height and electrical clearance derrogation. OHLE fitted solution		Pass	
				Geometrical fitness for intervention				
				Safety				
			Requirements	Electrical clearance for electrification				
				Track alignment and drainage (standards)				
				Structural soundness of the Bridge (if track interventions)				
				Keep current functionality of roads				
		Economy		Investment guidelines and programme for DART+				
		Environment						No significant environmental issues
	Option 2	Engineering	**Feasibility**	Constructability	Combination of track lowering and bridge reconstruction. Standard cw height and electrical clearance. OHLE multiple bridge arms		Pass	
				Geometrical fitness for intervention				
				Safety				
			Requirements	Electrical clearance for electrification				
				Track alignment and drainage (standards)				
				Structural soundness of the Bridge (if track interventions)				
				Keep current functionality of roads				
		Economy		Investment guidelines and programme for DART+				
		Environment						No significant environmental issues

OB7

OB8

OB9

OB10



OB06

OB5

OB4

OB3