DART+ WEST - MCA Stage 1

Ashtown Level Crossing Assessment

	Parameter		Criteria	Sub-Criteria (Quantitative/ Qualitative)	Do Nothing	Do Minimum (Close LX)	Option 1 (Online Obr)	Option 2 (Underbridge on Mill Lane)	Option 3 (Overbridge on Mill Lane)	Option 4 & 4a (Road bridge West + PedCycUndBridge)	Option 4 & 4b (Road bridge West + PedCycOvBridge)	Option 5 (Low Clearance UndBridge East)	Option 6 (Fixed Road OvBridge East of Station)	Option 7 (Fixed Road OvBridge East of Station from Navan Road)	Option 8 (PedCycOvbridge Only on Station footprint with reconfiguration of the station)	Option 9 (Lower the Railway with at grade roadbridge at LX)	Option 10 (UnBridge West of Mill, PedOvBridge at Station)	Option 11 (Improvements on Local Road Network, PedOvBridge at Station)	Option 12 (Road OvBridge West from Navan Parkway Stn, PedCycOvBridge at Ashtown Station)	Option 13 (OvrBridge West of Mill, PedOvBridge at Station)
					Leave the current level crossings in place. - Electrification is implemented without removal of the road traffic interface but with implementation of CCTV control on the barrier system	**Closure of the existing crossings with no alternative provided.** All traffic would be diverted to alternative routes around the crossing location.	This scheme would require an online structure spanning over the railway and canal. This would lift the existing carriageway by approximately 7.3m above the railway line, accommodating a cross section of a 6.5m carriageway with 2m footpaths across the bridge. There would be insufficient width for a cycleway across the bridge. The topography is such that the northern approach (where the ground falls away towards the Tolka River) would necessarily be very steep and would also require significant modifications to the recent village centre developments of the area overground. The length of the approach on the northern side would be approximately 220m and be at a maximum gradient of 8% and 140m on the southern side at a maximum gradient of 5%. The bridge over the rail line would be at an approximate level of 51.9m OD.	**Bridge under railway and canal at Mill Lane:** This option would entail re-routing Ashtown Road along its old alignment (pre Royal Canal) on Mill Lane and passing under both the railway and the Royal Canal. To curtail the impact on Ashtown Stabled road traffic only is proposed to be carried under the railway. The option can accommodate a cross section of a 6.5m carriageway with 1.5m rubbing strips on both sides between walled approaches. An at-grade turning head and drop-off will be provided to the south of Ashtown Station. The length of the option is approximately 150m on the northern side and 300m south of the rail line. The option would drop to an approximate level of 37.5m OD Malin Head, under the railway which is a at a level of 45.6m. A new mini roundabout is proposed at the junction of Mill Lane and Ashtown Road south of the railway to accommodate traffic interactions. It is proposed that pedestrians, cyclists and disabled users would be accommodated by the construction of a new pedestrian / cycle bridge on the footbridge of the existing train station. This will require reconstruction of the train station. This requires the existing entrance gates to Ashton House to be relocated and the portion of the boundary fronting Mill Lane north of the canal to be taken down and a new higher wall constructed on a new boundary line. This option would require some property acquisition.	**Bridge over railway and canal at Mill Lane:** This option would entail re-routing Ashtown Road along its old alignment (pre Royal Canal) on Mill Lane and passing over both the railway and the Royal Canal. To curtail the impact on Ashtown Stabled road traffic only is proposed to be carried along the roadway. The option can accommodate a cross section of a 6.5m carriageway with 1.5m rubbing strips on both sides between walled approaches. Gradients on the proposed road north of the railway would be in excess of 8.0%. An at-grade turning head and drop-off will be provided to the south of Ashtown Station. The length of the option is approximately 150m on the northern side and 300m south of the rail line. The option would rise to an approximate level of 52.5m OD Malin Head over the railway which is a at a level of 45.6m. A half through bridge form of construction would be required similar to the adjacent Ratoath Road Bridge. A new mini roundabout is proposed at the junction of Mill Lane and Ashtown Road south of the railway to accommodate traffic interactions. It is proposed that pedestrians, cyclists and disabled users would be accommodated by the construction of a new pedestrian / cycle bridge on the footbridge of the existing train station. This will require reconstruction of the train station. This option crosses through the grounds of Ashton House and will require an additional bridge to be constructed over the access road to the house. It is anticipated the proposed roadway would be walled along the extent passing through the estate. The proposal is to tie into the existing roundabout immediately north of ashtown village. A portion of the boundary wall to Ashton house would need to be demolished to accommodate the link road. This option would require some property acquisition.	**Roadbridge at Navan Parkway with link to River Road,** Selected upgrade works to River Road as far as Ashtown, Pedestrian and cycle underpass at Ashtown This option is located approximately 1km to the west of the existing level crossing at Ashtown at the grade separated junction on the Navan Road serving Phoenix Park Railway Station. At this location there is scope to construct a new road link over the canal and railway to link to River Road. This could either descend to tie into River Road or be designed to pass over it to cross the Tolka River and facilitate an onward connection to the Dunsink lands. In the latter case, a short spur would be provided to link to River Road which would need upgrade as far as Ashtown. In both cases this option would involve some vehicular traffic diversion and land acquisition. The option can accommodate a cross section of a 6.5m carriageway with 2m footpaths and 1.75m cycle tracks on both sides. Short term connection to River road is likely to be in the form of a mini roundabout. River road would require upgrade to Ashtown with a new footpath constructed along the northern boundary of the road and requiring the removal of the associated boundary treatment - walls, trees, brush. The road would be at a similar level as the existing junction Phoenix Park crossing the rail at a level of approximately 55.4m OD Malin Head before descending to tie into the level of the River Road at a level of 34.7m. The road on the northern side would be at a gradient of approximately 6% over 300m if permitted to follow a meandering route. This option also includes the construction of a new bridge under the canal and railway at Ashtown to provide pedestrian and cycle access (Option 4A). This option would drop to a level of approximately 40.1m above MSL to tie in with the existing road to the north of the rail line providing a pedestrian and cycling link north and south of the rail line with a 4m wide cross section.	**Roadbridge at Navan Parkway with link to River Road, Selected upgrade works to River Road as far as Ashtown, Pedestrian and cycle overbridge on the footprint of the reconfigured station at Ashtown.** This option is located approximately 1km to the west of the existing level crossing at Ashtown at the grade separated junction on the Navan Road serving Phoenix Park Railway Station. At this location there is scope to construct a new road link over the canal and railway to link to River Road. This could either descend to tie into River Road or be designed to pass over it to cross the Tolka River and facilitate an onward connection to the Dunsink lands. In the latter case, a short spur would be provided to link to River Road which would need upgrade as far as Ashtown. In both cases this option would involve some vehicular traffic diversion and land acquisition. The option can accommodate a cross section of a 6.5m carriageway with 2m footpaths and 1.75m cycle tracks on both sides. Short term connection to River road is likely to be in the form of a mini roundabout. River road would require upgrade to Ashtown with a new footpath constructed along the northern boundary of the road and requiring the removal of the associated boundary treatment - walls, trees, brush. The road would be at a similar level as the existing junction Phoenix Park crossing the rail at a level of approximately 55.4m OD Malin Head before descending to tie into the level of the River Road at a level of 34.7m. The road on the northern side would be at a gradient of approximately 6% over 300m if permitted to follow a meandering route. It includes the demolition of the existing cable stayed footbridge at the level crossing and the existing station footbridge to provide space for a proposed pedestrian cycle overbridge. The rail level at the crossing is approximately 42.1m OD Malin Head, and the canal at 39.3m with the bridge level over the railway at 50.00m. The ramps on either side of the bridge will not exceed 5% gradient. Separate pedestrian stairs could be provided with this option as well to ease pedestrian access and rails for pushing cycle on if required.	**Low clearance underbridge at railway and canal east of Ashtown Road.** This option would involve construction of a new road link parallel to and south of the railway before turning north, crossing under the rail and canal to connect with Rathborne Avenue north of Ashtown Village. This route would descend from the Ashtown Road and run between Ashtown Railway Station and Martin Savage Park residential estate. The route would cross under the railway and canal at right angles before rising in a cutting to join into the existing circulatory roads to the north of the Pelletstown Development. The option can accommodate a cross section of a 6.5m carriageway with 2m footpaths and 1.75m cycle tracks on both sides. The railway is at a level of 42.5m OD and the ground level at the canal is 39.5m OD with this road option lowered to a level of 32.0m OD providing 3.7m clearance. Due to the required levels for tying into the existing road network the clearance envelope under the railway would have to be substandard. This option would have the disadvantage that it would not have the necessary design clearance for double decker buses, other higher delivery vehicles and service vehicles that use this route at present. As the option would be in a cutting form most of its length this would be a disadvantage to cyclists, pedestrians and vulnerable road users. The underpass would also require a pumped drainage system. The option would pass under Ashtown station which is constructed on piles. Construction would require the station to be closed during construction and would require reconstruction of parts of the station. The canal would need to be closed during construction with the bridge constructed below the bed of the canal. The option would introduce traffic along the northern boundary of Martin Savage Park and would require landtake from St Oliver Plunket's GAA club. It would pass through lands north of the railway. the subject of existing planning permission for residential development within the Ashtown - Pelletstown SDZ..	**Road Overbridge East of Ashtown Road.** This option would cross the railway and canal approximately 250m east of the existing level crossing. It incorporates a tightly curved plan layout which facilitates a link to the existing Ashtown road at the train station. The link would traverse the green area between Ashtown Station and Martin Savage Park and would climb to cross over the railway and canal to tie into the new circulation roads through the Pelletstown Development. The option can accommodate a cross section of a 6.5m carriageway with 2m footpaths and 1.75m cycle tracks on both sides. The option would bridge over the railway and canal with approach gradients of 6% either side. The rail level at the crossing is approximately 42.1m above MSL and the canal at 39.3m above MSL with the bridge level over the railway at 50.00m above MSL. The road level crests to a height of 52.0m above MSL, 60m south of the rail line before descending over the rail and canal. The option can be walled or can be constructed with open embankments to provide a softer texture to the scheme. The provision of landscaped embankments would result in a need for more land acquisition. The option would introduce traffic along the northern boundary of Martin Savage Park and would require landtake from St Oliver Plunket's GAA club. It would pass through lands north of the railway. the subject of existing planning permission for residential development within the Ashtown - Pelletstown SDZ.	**Road Overbridge East of Ashtown Road with link to Navan Road.** This option would involve the construction of a new road in front of Kempton Gardens from the Navan Road and a new bridge over the canal and railway accommodating a cross section of a 6.5m carriageway with 2m footpaths and 1.75m cycle tracks on both sides. The option would bridge over the railway and canal with approach gradients of 6% either side. The rail level at the crossing is approximately 42.1m, OD Malin Head and the canal at 39.3m with the bridge level over the railway at 50.00m. The road level crests to a height of 52.0m, 60m south of the rail line before descending over the rail and canal. The route would then tie into the new circulation roads through the Pelletstown Development to the north of the canal. Separate 4m wide shared space for vehicles, bicycles and pedestrians with a dedicated disabled access along the eastern boundary would be provided of south of the canal linking Ashtown Road to the proposed option. This option introduce traffic to the rear of Martin Savage Park and along Kempton Gardens. Furthermore, it would require the construction of a significant new junction on the Navan Road. There would also be impacts on St Oliver Plunket's GAA club to the south of the railway and would be located within zoned housing development land within the Ashtown - Pelletstown SDZ to the north of the rail line and canal. The option can be walled or can be constructed with open embankments to provide a softer texture to the scheme. The provision of landscaped embankments would result in a need for more land acquisition.	This option includes the provision of a new pedestrian and cycle bridge, 5.0m in width with set down facilities only. The bridge would provide a connection between Ashtown road south of the level crossing and a proposed platform between the canal and the railway. The arrangement of the bridge utilises ramps parallel to and to the rear of the station platforme rising to the east before turning perpendicular to the track to cross the railway. The rail level at the crossing is approximately 42.1m OD Malin Head, and the canal at 39.3m with the bridge level over the railway at 50.00m. The ramps on either side of the bridge will not exceed 5% gradient. Separate pedestrian stairs could be provided with this option as well to ease pedestrian access and rails for pushing cycle on if required. Constraints on bridge crossing here include the train station, the Royal Canal, the listed railway structures, and the canal bridge. Vehicular traffic will need to divert around the crossing, the diversion being an estimated 4.3km.	**Lower railway, new road underbridge at level crossing, demolish Canal bridges.** This option provides for lowering the existing railway sufficient to allow the railway pass under a bridge constructed at the level of the existing level crossing. It would require limited road infrastructure works but would require the existing railway to be lowered over a length of approximately 2km centred on the existing level crossing. The railway would require lowering below the existing water level of the canal upstream and downstream of the level crossing. It would require demolition and reconstruction of the train station at a lower level. The canal would need to be channelised or relined and retaining walls would be required to support the canal west of the existing level crossing. The existing protected canal bridge and locks would likely need to be demolished and replaced. It is considered that traffic on the canal and railway would need to be suspended for the duration of the works.	**Road and cycleway bridge under Railway and Canal West of the Mill and linking to Mill Lane at each end:** This option would entail re-routing Ashtown Road along its old alignment (pre railway) along a section of Mill Lane, diverting through commercial lands to the west of the protected mill and passing under both the railway and the Royal Canal to tie into Mill Lane north of the railway. The option is proposed to accommodate a cross section of a 6.5m carriageway with 1.5m rubbing strip to the west and a 3.65m cycleway to the east. An at-grade turning head and drop-off would be provided to the south of Ashtown Station and a set down area north of the canal. The length of the option is approximately 150m on the northern side and 300m south of the rail line. The option would drop to an approximate level of 36.2m OD Malin Head, under the rail which is a at a level of 45.6m at the crossing point. It is proposed to construct a pedestrian cycle bridge at the train station. The bridge will cater for disabled and mobility impaired users. The option will provide for a setdown, maintenance and emergency vehicular access to the station. It is proposed that pedestrians, cyclists and disabled users would be accommodated by the construction of a new pedestrian / cycle bridge on the footbridge of the existing train station. This will require reconstruction of the train station. It is feasible to cross at this location, as it is upstream of the double lock on the canal and the canal is at the same approximate level as the adjacent railway. This option would require some property acquisition and modifications to existing accesses.	This option includes the provision of a new pedestrian and cycle overbridge at the location of the train station and local road improvements. The bridge would provide for disabled and mobility impaired users. The arrangement of the bridge would utilise nested ramps parallel to and over the station platforms rising to the east before turning perpendicular to the track to cross the railway. This option requires reconstruction and reconfiguration of the train station under the footprint of the proposed footbridge. The rail level at the crossing is approximately 42.1m to OD Malin Head and the canal water level is approximately 39.3m. The walking surface on the proposed bridge over the railway rises to a level of approximately 50.0m. The proposed parapets will be approximately 1.35m high remote from the railway and 1.85m high over and adjacent to the live railway. The ramps on either side of the bridge would not exceed 5% gradient and landings are proposed at 10m centres. Separate pedestrian stairs are proposed to be provided with this option also to provide for direct pedestrian access and rails for pushing bicycles could be installed if required. Constraints on a bridge crossing here include the train station, the Royal Canal, the listed railway structures, and the canal bridge. This option provides for motorised traffic to be diverted along the local road network. Upgrades will be necessary to River Road with the construction of a 2.0m pedestrian way along the southern edge of the road west of Ashtown and localised improvements to the east. Where this is adjacent to Ashton House it is proposed to run the pedestrian way along the northern boundary of the road due to the protected status of the property. It would be necessary to provide public lighting along the pedestrian way. It is also proposed to carry out small scale improvement works to junctions along Ratoath Road between river road and the Navan Road. These improvements will include the implementation of signal control on the junction of River Road and the Ratoath Road.	Road link between Navan Parkway Station and the Road network immediatley north of Ashtown Village incorporating a bridge over the railway and canal and a pedestrian cycle bridge over the station in Ashtown. This option would entail re-routing through road traffic away from Ashtown village. The option can accommodate a cross section of a 6.5m carriageway with 2m footpaths on both sides and 2.5m two-way cycle track on the eastern side. An at-grade turning head and drop-off will be provided to the south of Ashtown Station. The length of the option is approximately 300m each side of the rail line and canal. The option would rise to an approximate deck level of 52.9m OD which is a at a level of 45.6m OD at the crossing point. On the southern side a separate pedestrian and cyclist link and link to the riding school are proposed to maintain access for non-motorised use these would have cross section of 4.0m. It is feasible to cross at this location, as it is upstream of the double lock on the canal and the canal is at the same approximate level as the adjacent railway. This option would require some property acquisition and modifications to existing accesses. It would pass through the grounds of the listed Ashton House. The option will provide for a setdown, maintenance and emergency vehicular access to the station. It is proposed that pedestrians, cyclists and disabled users would be accommodated by the construction of a new pedestrian / cycle bridge on the footbridge of the existing train station. This will require reconstruction of the train station.	**Road with cycleway under Railway and Canal West of the Mill and linking to Mill Lane at each end:** This option would entail re-routing Ashtown Road along its old alignment (pre railway) along a section of Mill Lane, diverting through commercial lands to the west of the protected mill and passing under both the railway and the Royal Canal to tie into Mill Lane north of the railway. The option is proposed to accommodate a cross section of a 6.5m carriageway with 1.5m rubbing strip to the West and a 3.65m cycleway to the east. An at-grade turning head and drop-off would be provided to the south of Ashtown Station and a set down area north of the canal. An at-grade turning head and drop-off will be provided to the south of Ashtown Station. The length of the option is approximately 150m on the northern side and 300m south of the rail line. The option would rise to an approximate level of 52.5m OD Malin Head over the railway which is a at a level of 45.6m. A half through bridge form of construction would be required similar to the adjacent Ratoath Road Bridge. A new mini roundabout is proposed at the junction of Mill Lane and Ashtown Road south of the railway to accommodate traffic interactions. It is proposed that pedestrians, cyclists and disabled users would be accommodated by the construction of a new pedestrian / cycle bridge on the footbridge of the existing train station. This will require reconstruction of the train station. This option crosses through the grounds of Ashton House and will require an additional bridge to be constructed over the access road to the house. It is anticipated the proposed roadway would be walled along the extent passing through the estate. The proposal is to tie into the existing roundabout immediately north of ashtown village. A portion of the boundary wall to Ashton house would need to be demolished to accommodate the link road. This option would require some property acquisition.
1	**Economy**	1.1	**Construction and Land Cost**	Assessment of cost of construction of option, land costs, acquisition costs and temporary works	Significant comparative advantage over other options	Significant comparative advantage over other options	Some comparative disadvantage over other options	Some comparative disadvantage over other options	Significant comparative disadvantage over other options	Some comparative disadvantage over other options	Some comparative disadvantage over other options	Some comparative disadvantage over other options	Some comparative disadvantage over other options	Significant comparative disadvantage over other options	Some comparative advantage over other options	Significant comparative disadvantage over other options	Some comparative disadvantage over other options	Some comparative advantage over other options	Significant comparative disadvantage over other options	Some comparative disadvantage over other options
					The proposed signalling system will need augmentation to accommodate the level crossing left in place.	Cost of removing crossing is nominal in comparison to provision of road crossing. Set down and Turning areas requires both sides of the railway.	This option is considered to be impracticable due to the direct impacts on the community immediately in the vicinity of the level crossing. The multistorey complex to the north incorporates a streetscape and extensive underground carpark. The impact on these properties of a bridge over or under the streetscape would be inordinately impactful.	Construction cost impacts are high due to direct impacts on canal and existing rail and more difficult construction. Land costs lower than option to east into zoned lands. Additional pedestrian / cycle bridge required in Ashtown and reconfiguration of the station.	This option requires a crossing of the canal and railway on skew and an extended road alignment through the listed Ashton House property to facilitate a tie in to the north of the canal and railway. Additional pedestrian / cycle bridge required in Ashtown and reconfiguration of the station.	Some realignment and improvement works required on River Road. A two or three span bridge configuration is anticipated here requiring construction activity between the canal and the railway. Additional pedestrian / cycle underbridge required in Ashtown.	Some realignment and improvement works required on River Road. A two or three span bridge configuration is anticipated here requiring construction activity between the canal and the railway. Requires land acquisition in former demense lands north of the railway. The costs for this option includes the fixed pedestrian and cycle bridge over the canal and railway with associated ramps, station alterations, turning facilities and set down facilities, and associated land acquisition costs.	Construction of the bridge under the train station presents significant engineering challenges. The station structure is supported on piles and the track is supported on the ground. It is considered a section of the train station would need to be demolished and reconstructed to facilitate this option. This option also requires construction in rock below canal level to provide a structure of substandard vertical clearance which would only cater for cars and small commercial vehicles.	Construction cost lowest of road bridge options but impact on zoned lands to the north and impact on sports facilities to the south would result in higher costs.	Construction costs higher than option 6 and greater impact on lands north and south would result in higher costs.	The costs for this option include the fixed pedestrian and cycle bridge over the canal and railway with associated ramps, station reconfiguration, turning facilities and set down facilities and associated land acquisition costs. There is no road bridge associated with this option.	The railway will need to be lowered over a length of approximately 2km by a maximum of 7.0m at the level crossing where a new bridge would be required to carry traffic over the railway. The width of the proposed bridge would be constrained by the width of the contiguous Longford bridge. This option would require reconstruction of the train station at a lower level. The lowered railway would be below water level on the canal over a significant length east of the level crossing and between longford bridge and Navan Parkway Station. This would present a substantial engineering challenge with retaining structures designed to prevent water leaking from the canal. The drainage system along the depressed section of railway would may require pumping or may need to pass under the canal to outfall to the River Tolka. It is likely the option would require substantial reconstruction of the canal channel along it's full length. It may not be practicable to preserve all of the listed structures along the canal. Retaining structures would also be required along the southern boundary of the works to restrict the impact on adjacent lands.	Construction cost impacts are high due to direct impacts on canal and existing railway and more difficult construction. The costs for this option includes the fixed pedestrian and cycle bridge over the canal and railway with associated ramps, station alterations, turning facilities and set down facilities, and associated land acquisition costs.	The costs for this option include the fixed pedestrian and cycle bridge over the canal and railway with associated ramps, station alterations, turning facilities and set down facilities and associated land acquisition costs. There is no road bridge associated with this option. Upgrades are proposed along the local road network including new footpaths, signalling at the River Road junction with Ratoath Road, shuttle working at locations and improvements on bends.	This option requires a crossing of the canal and railway on skew and an extended road alignment through the listed Ashton House property to facilitate a tie in to the north of the canal and railway. The costs for this option includes the fixed pedestrian and cycle bridge over the canal and railway with associated ramps, station alterations, turning facilities and set down facilities, and associated land acquisition.	This option requires a crossing of the canal and railway on skew and an extended road alignment through the listed Ashton House property to facilitate a tie in to the north of the canal and railway. The costs for this option includes the fixed pedestrian and cycle bridge over the canal and railway with associated ramps, station alterations, turning facilities and set down facilities, and associated land acquisition.
		1.2	**Long Term Maintenance costs**	Ongoing annual maintenance costs associated with varied options	Significant comparative disadvantage over other options	Significant comparative advantage over other options	Some comparative disadvantage over other options	Some comparative disadvantage over other options	Some comparative disadvantage over other options	Some comparative advantage over other options	Some comparative advantage over other options	Some comparative disadvantage over other options	Some comparative advantage over other options	Some comparative advantage over other options	Some comparative advantage over other options	Significant comparative disadvantage over other options	Some comparative disadvantage over other options	Some comparative advantage over other options	Some comparative disadvantage over other options	Some comparative disadvantage over other options
					The existing crossing is manned resulting in an ongoing annual cost. The level crossing equipment incurs an annual maintenance cost and replacement cost on a 15yr cycle.	The closure of the level crossing would remove the maintenance requirement of the level crossing.	This option is characterised on the basis of fixed unmovable structures and a robust structural interface with the multistorey structure to the north of the level crossing.	A fixed bridge will reduce maintenance requirements over a level crossing or other mechanical solution. Bridge option would determine overall maintenance costs.	A fixed bridge will reduce maintenance requirements over a level crossing or other mechanical solution. Bridge option would determine overall maintenance costs. The likely need for elevated approach ramps along the northern approach to the bridge from the level crossing results in an additional ongoing maintenance cost.	A fixed bridge will reduce maintenance requirements over a level crossing or other mechanical solution. Bridge option would determine overall maintenance costs, 2No. In this case.	Maintenance costs include a Composite Steel Railway and Canal Overbridge, extensive retaining walls and 0.6km of new roadway . It also includes a steel pedestrian/cyclist overbridge at the station .	There is additional costs for maintenance of a pumped drainage system associated with this option.	An overbridge would increase the maintenance requirements over a level crossing, though it would not be significantly more so than other options.	An overbridge would increase the maintenance requirements over a level crossing, though it would not be significantly more so than other options.	A pedestrian/cyclist overbridge would require minimal maintenance in short term with regular inspections and remedial works in the long term. The long term maintenance low compared to other options.	In dropping the railway adjacent to the canal a new drainage system will be needed which is likely to be sealed and pumped. In addition the earth retaining structured required over the full length of the proposed cut will require maintenance.	Maintenance costs include a Composite Concrete bridge under Railway and Canal, a single span access bridge over the proposed road and retainng walls along sections of the roadway. It also includes a steel pedestrian/cyclist overbridge at the station .	A pedestrian/cyclist overbridge would require minimal maintenance in short term with regular inspections and remedial works in the long term. The long term maintenance low compared to other options.	Maintenance costs include a Composite Steel Railway and Canal Overbridge, a single span bridge for access to Ashton House, extensive retaining walls and 1km of new roadway . It also includes a steel pedestrian/cyclist overbridge at the station .	Maintenance costs include a Composite Steel Railway and Canal Overbridge, a single span bridge for access to Ashton House, and extensive retaining walls . It also includes a steel pedestrian/cyclist overbridge at the station .
		1.3	**Traffic Functionality /economic benefit**	Benefits to vehicular traffic through reduction in journey time lengths and delays through removal of level crossings. Consideration of potentially longer routes for traffic.	Significant comparative disadvantage over other options	Significant comparative disadvantage over other options	Some comparative advantage over other options	Some comparative advantage over other options	Some comparative advantage over other options	Significant comparative advantage over other options	Significant comparative advantage over other options	Some comparative advantage over other options	Some comparative advantage over other options	Some comparative advantage over other options	Significant comparative disadvantage over other options	Some comparative advantage over other options	Some comparative advantage over other options	Some comparative disadvantage over other options	Significant comparative advantage over other options	Some comparative advantage over other options
					Reduced capacity as train frequencies increase; increase in journey times for local residents. Baseline traffic flow of approx 450 in AM peak and 370 in PM peak. Additional Traffic flow Do Something vs Do Minimum, of approx 269 in AM peak and 174 in PM peak, Two diversion routes available for local traffic, 4.7km and 5.7km. Through traffic diversions small, relates to approx 45% of traffic. No road improvements are proposed with this option to ameliorate impact.Estimated Additional Vehicle km per day = 2754	Diversion to other crossings for local traffic. Severance for Pedestrians and cyclists Baseline traffic flow of approx 450 in AM peak and 370 in PM peak. Additional Traffic flow Do Something vs Do Minimum, of approx 269 in AM peak and 174 in PM peak, Two diversion routes available for local traffic, 4.7km and 5.7km. Through traffic diversions small, relates to approx 45% of traffic. No road improvements are proposed with this option to ameliorate impact.Estimated Additional Vehicle km per day = 2754	General reduction in journey times due to removal of level crossing and minimal diversion associated with the option. The route is on the desire line of transport customers. Potential for induced trips along River Road; Potential to increase congestion at Ashtown Roundabout and on the R147. General reduction in journey times for pedestrians and cyclists. Baseline traffic flow of approx 450 in AM peak and 370 in PM peak. Additional Traffic flow Do Something vs Do Minimum, of approx 269 in AM peak and 174 in PM peak, no diversion.	Reduces Traffic in Ashtown village. General reduction in journey times due to removal of level crossing and minimal diversion associated with the option. The route is largely on the desire line of transport customers. Potential for induced trips along River Road; Potential to increase congestion at Ashtown Roundabout and on the R147. General reduction in journey times for pedestrians and cyclists. Baseline traffic flow of approx 450 in AM peak and 370 in PM peak. Additional Traffic flow Do Something vs Do Minimum, of approx 269 in AM peak and 174 in PM peak, 0.1km diversion. Estimated Additional Vehicle km per day = 270 Does not cater for cyclists on the roadway - through cyclists will need to negotiate the ramps of the proposed pedestrian cycle bridge.	Reduces Traffic in Ashtown village. General reduction in journey times due to removal of level crossing and minimal diversion associated with the option. The route is largely on the desire line of transport customers. Potential for induced trips along River Road; Potential to increase congestion at Ashtown Roundabout and on the R147. General reduction in journey times for pedestrians and cyclists. Baseline traffic flow of approx 450 in AM peak and 370 in PM peak. Additional Traffic flow Do Something vs Do Minimum, of approx 269 in AM peak and 174 in PM peak, 0.1km diversion. Estimated Additional Vehicle km per day = 270 Does not cater for cyclists on the roadway - through cyclists will need to negotiate the ramps of the proposed pedestrian cycle bridge.	Reduces Traffic in Ashtown village. This option requires vehicles to divert from Ashtown to cross the railway. Reduction in Traffic on R147 and at Ashtown Roundabout. Potential for induced trips along River Road. Cycle, pedestrian, mobility impaired and disabled access proposed at station. Traffic flow of approx 450 in AM peak and 370 in PM peak diverted for approx. Additional Traffic flow Do Something vs Do Minimum, of approx 269 in AM peak and 174 in PM peak. 1.5km minimum diversion. Through traffic diversions small, relates to approx 45% of traffic. Estimated Additional Vehicle km per day = 810	Reduces Traffic in Ashtown village. This option requires vehicles to divert from Ashtown to cross the railway. Reduction in Traffic on R147 and at Ashtown Roundabout. Potential for induced trips along River Road. Cycle, pedestrian, mobility impaired and disabled access proposed at station. Traffic flow of approx 450 in AM peak and 370 in PM peak diverted for approx. Additional Traffic flow Do Something vs Do Minimum, of approx 269 in AM peak and 174 in PM peak. 1.5km minimum diversion. Through traffic diversions small, relates to approx 45% of traffic. Estimated Additional Vehicle km per day = 810	Reduces Traffic in Ashtown village. General reduction in journey times due to removal of level crossing and minimal diversion associated with the option. The route is largely on the desire line of transport customers. Potential for induced trips along River Road; Potential to increase congestion at Ashtown Roundabout and on the R147. General reduction in journey times for pedestrians and cyclists. Baseline traffic flow of approx 450 in AM peak and 370 in PM peak. Additional Traffic flow Do Something vs Do Minimum, of approx 269 in AM peak and 174 in PM peak, 0.1km diversion. Estimated Additional Vehicle km per day = 270 Route not suitable for large delivery vehicles, service vehicles and double decker buses. Two diversion routes available 4.7km and 5.7km.	Reduces Traffic in Ashtown village. General reduction in journey times due to removal of level crossing and minimal diversion associated with the option. The route is largely on the desire line of transport customers. Potential for induced trips along River Road; Potential to increase congestion at Ashtown Roundabout and on the R147. General reduction in journey times for pedestrians and cyclists. Baseline traffic flow of approx 450 in AM peak and 370 in PM peak. Additional Traffic flow Do Something vs Do Minimum, of approx 269 in AM peak and 174 in PM peak, 0.1km diversion. Estimated Additional Vehicle km per day = 270	Reduces Traffic in Ashtown village. General reduction in journey times due to removal of level crossing and minimal diversion associated with the option. The route is largely on the desire line of transport customers. Potential for induced trips along River Road; Potential to increase congestion at Ashtown Roundabout and on the R147. General reduction in journey times for pedestrians and cyclists. Baseline traffic flow of approx 450 in AM peak and 370 in PM peak. Additional Traffic flow Do Something vs Do Minimum, of approx 269 in AM peak and 174 in PM peak, 0.1km diversion. Estimated Additional Vehicle km per day = 270 Improvement in journey times; potential for induced trips; potential to increase congestion on Navan Road due to proposed new junction and potential for delay on a high frequency multi-modal corridor into the City.	Improved access for mobility impaired and cycle traffic via ramped alternative routes; Baseline traffic flow of approx 450 in AM peak and 370 in PM peak. Additional Traffic flow Do Something vs Do Minimum, of approx 269 in AM peak and 174 in PM peak, Two diversion routes available for local traffic, 4.7km and 5.7km. Through traffic diversions small, relates to approx 45% of traffic. No road improvements are proposed with this option to ameliorate impact.Estimated Additional Vehicle km per day = 2754	Increases Traffic through Ashtown village - Additional Traffic flow Do Something vs Do Minimum, of approx 269 in AM peak and 174 in PM peak. General reduction in journey times due to removal of level crossing and minimal diversion associated with the option. Traffic flow will however be constrained by the width of the existing listed canal bridge in Ashtown. This option offers shortest journey times for all modes of transport. Potential to increase congestion at Ashtown Roundabout as a result of induced traffic.	Reduces Traffic in Ashtown village. General reduction in journey times due to removal of level crossing and minimal diversion associated with the option. The route is largely on the desire line of transport customers. Potential for induced trips along River Road; Potential to increase congestion at Ashtown Roundabout and on the R147. General reduction in journey times for pedestrians and cyclists. Baseline traffic flow of approx 450 in AM peak and 370 in PM peak. Additional Traffic flow Do Something vs Do Minimum, of approx 269 in AM peak and 174 in PM peak, 0.1km diversion. Estimated Additional Vehicle km per day = 270	Reduces Traffic in Ashtown village. General increase in journey time due to diversion along local road network and the introduction of controlled single lane shuttle running on sections of River Road. Journey time savings for pedestrians and cyclists. Potential for negative impact along diversion routes with up to 2.0mins additional delay at existing junctions. Baseline traffic flow of approx 450 in AM peak and 370 in PM peak. Additional Traffic flow Do Something vs Do Minimum, of approx 269 in AM peak and 174 in PM peak, Two diversion routes available for local traffic, 4.7km and 5.7km. Through traffic diversions small, relates to approx 45% of traffic. Road improvements will ameliorate impact.Estimated Additional Vehicle km per day = 2754	Reduces Traffic in Ashtown village. This option requires vehicles to divert from Ashtown to cross the railway. Reduction in Traffic on R147 and at Ashtown Roundabout. Potential for induced trips along River Road. Cycle, pedestrian, mobility impaired and disabled access proposed at station. General reduction in journey times for pedestrians and cyclists. Traffic flow of approx 450 in AM peak and 370 in PM peak diverted for approx. Additional Traffic flow Do Something vs Do Minimum, of approx 269 in AM peak and 174 in PM peak. 1.5km minimum diversion. Through traffic diversions small, relates to approx 45% of traffic. Estimated Additional Vehicle km per day = 810	Reduces Traffic in Ashtown village. General reduction in journey times due to removal of level crossing and minimal diversion associated with the option. The route is largely on the desire line of transport customers. Potential for induced trips along River Road; Potential to increase congestion at Ashtown Roundabout and on the R147. General reduction in journey times for pedestrians and cyclists. Baseline traffic flow of approx 450 in AM peak and 370 in PM peak. Additional Traffic flow Do Something vs Do Minimum, of approx 269 in AM peak and 174 in PM peak, 0.1km diversion. Estimated Additional Vehicle km per day = 270
2	**Integration**	2.1	**Transport Integration**	Impact on scope for and ease of interchange between modes. Impact on the operation of other transport services both during construction and in operation. New interchange nodes and facilities; Reduced walking and wait times associated with interchanges. Modal shift figures during construction and operations. Changes to journey times to transport nodes.	Significant comparative disadvantage over other options	Significant comparative disadvantage over other options	Significant comparative disadvantage over other options	Some comparative disadvantage over other options	Some comparative disadvantage over other options	Some comparative advantage over other options	Some comparative advantage over other options	Some comparative disadvantage over other options	Some comparative disadvantage over other options	Some comparative disadvantage over other options	Significant comparative disadvantage over other options	Some comparative disadvantage over other options	Significant comparative advantage over other options	Some comparative disadvantage over other options	Significant comparative advantage over other options	Some comparative advantage over other options
					The train timetable will result in the level crossing being closed for extensive periods of time. GDA Cycle Network Plan cannot be realised with such poor connectivity. Reduced access to train station, Ashtown Village, and local businesses caused by extensive queuing along Ashtown Road.	Inconsistent with GDA Cycle Network Plan - which shows a secondary route on Ashtown Road; Reduction in accessibility to and from the train station, local businesses and Ashtown Village Centre. Severance issue for all modes.	General reduction in journey times. Cycle and pedestrian routes not provided for due to narrow corridor available. Possible negative impact on cyclists due to increased traffic (induced demand). Reduction in accessibility to and from train station.	General reduction in journey times. The route is largely on the desire line of transport customers. Cycle, pedestrian, mobility impaired and disabled access proposed at station. Substandard (narrow and two way) cycle track, due to lack of space, pedestrian footpath proposed along the western side of the new road ends just north of bend coming out of the tunnel. Not as effective as options 10 and 13 due to narrow width of roadway corridor.	General reduction in journey times. The route is largely on the desire line of transport customers. Cycle, pedestrian, mobility impaired and disabled access proposed at station. No Cycle track or pedestrian access proposed along roadway due to lack of space. Not as effective as options 10 and 13 due to narrow width of roadway corridor.	Improved interchange between modes. The route is largely on the desire line of transport customers. Cycle, pedestrian, mobility impaired and disabled access proposed at station. Cycle track provided.	Improved interchange between modes due to veh access to PnR. Route encourages customers away from Ashtown. Cycle, pedestrian, mobility impaired and disabled access proposed at station. Cycletrack provided along New roadway, not practicable on River Road.	Improved interchange between modes, subject to satisfactory access to train station platforms. General reduction in journey times. Vehicular access across the railway would be curtailed to cars and small vans. Slightly more circuitous route for pedestrians & cyclists. Cycle track provided. No drop off at the station Commercial and bus traffic would need to divert along the local road network. Option would require closure of railway station and canal traffic during construction period.	Improved interchange between modes, subject to satisfactory access to train station platforms. General reduction in journey times. There may be severance to existing connectivity on the northern side of the canal and railway as a result of the construction of the required approach ramps. Slightly more circuitous route for pedestrians & cyclists. Cycle track provided. No drop off at the station.	Potential for improved interchange between modes, subject to satisfactory access to train station platforms. General reduction in journey times. There may be severance to existing connectivity on the northern side of the canal and railway as a result of the construction of the required approach ramps. Cycle track provided.	This option reduces the scope for interaction between modes of transport in comparison to all other options.	General reduction in journey times. Disimproved interchange between modes - Ramp/steps and/or elevator required for access to platforms. cycle track not provided on new bridge sue to tie-in with existing bridge.	This option does not enhance access to the Navan Road Park and Ride facility. General reduction in journey times due to removal of level crossing and minimal diversion associated with the option. The route is largely on the desire line of transport customers. Cycle, pedestrian, mobility impaired and disabled access proposed at station. Cycletrack provided along New roadway.	This option does not enhance access to the Navan Road Park and Ride facility. This option diverts traffic onto the local road network increasing congestion. Where this arises on River road it is not practicable to provided dedicated facilities for cyclists. Cycle, pedestrian, mobility impaired and disabled access proposed at station. Cycletrack not practicable on River Road.	Improved interchange between modes. General reduction in journey times. The route results in some diversion of motorised transport customers. Cycle, pedestrian, mobility impaired and disabled access proposed at station. Cycle track provided.	This option does not enhance access to the Navan Road Park and Ride facility. General reduction in journey times due to removal of level crossing and minimal diversion associated with the option. The route is largely on the desire line of transport customers. Cycle, pedestrian, mobility impaired and disabled access proposed at station. Cycletrack provided along New roadway, not practicable on River Road.

	Parameter		Criteria	Sub-Criteria (Quantitative/ Qualitative)	Do Nothing	Do Minimum (Close LX)	Option 1 (Online Obr)
2	**Integration**	2.2	**Land Use Integration**	Impact on land use strategies and regional and local plans. Assessment of support for land use factors local land use and planning. Inclusion of project in relevant local planning documents.	Significant comparative disadvantage over other options	Significant comparative disadvantage over other options	Significant comparative disadvantage over other options
					The retention of the level crossing in it's current form would not support the delivery of a sustainable public transport system for a growing population. Do-Nothing would not bring forward objectives regaerding supporting the DART Expansion contained in Dublin MASP, FDP and DCC .	At local planning policy level, this option would not significanly impact on either the Fingal DP or DCC planning policies/objectives. However, closure of the level crossing with no cycle or vehicular alternatives provided will negatively impact connectivity in the area and all modes of transport. No alternatives access is likely to impact on existing and future planning & transport development which is due to take place in the area. (e.g. lands associated with Navan Road Parkway LAP and the Ashtown – Pelletstown LAP 2014. (subject to details of these plans and traffic studies).	The Ashtown – Pelletstown LAP 2014 has defined the area north of the level crossing as "village node" which is an established mixed use local retail and commercial space. The area has a high quality public realm and community function. The introduction of an overbridge option and raised roadway along Ashtown Road would result in significant planning/development, landscape impacts, community severance and connectivity issues that would negatively impact on the function of this core retail area. These changes would also influence future land use factors.
		2.3	**Geographical Integration**	Alternative level crossing options are mostly neutral in respect of Geographical Integration due to localised nature of the level crossings.	Comparable to other options	Comparable to other options	Comparable to other options
					No significant effect on geographical integration.	No significant effect on geographical integration.	No significant effect on geographical integration.
		2.4	**Other Government Policy Integration**	Integration with the other Government policy such as the NPF and RSES.	Significant comparative disadvantage over other options	Significant comparative disadvantage over other options	Significant comparative disadvantage over other options
					This option would not support the delivery of the higher level national and regional planning policies regarding the DART + programme (NPF- (NS04), RSES & GDA Transport Strategy).	Closing the level crossing would support national and regional planning policy and sustainable mobility (NS04 of the NPF) with regards to the delivery of the DART + West however the provision of no alternatives for cyclists and vehicular traffic would lead to impacts on Smarter Travel policy, GDA Transporrt Strategy and other modes of transport.	This option supports government policies relating to DART + programme. However, likely significant impacts due to overbridge option along Ashtown Road particlarly regarding landscape, access issues, integeration affecting social & economic development of Rathborne/Ashtown core village area.
3	**Environment**	3.1	**Noise and Vibration**	Estimated number of sensitive properties within 100m of the works. Options closer to more sensitive locations will have an increased risk of generating a noise impact. However, qualative criteria are also used where necessary to differentiate between the options.	Some comparative advantage over other options	Significant comparative advantage over other options	Significant comparative disadvantage over other options
					Retains vehicular traffic which will impact a low number of sensitive receptors in proximity.	Removes vehicular traffic and minimal construction impacts.	For the overbridge option the elevated rood way will result in significant elevated structures which is likely to increase noise levels at local receptors and require noise mitigation measures along it's extent/ as it would run directly in front of a number of mixed-use multi-storey buildings in the core village area along Ashtown Road. The construction phase noise and vibration impacts would also be significant. The noise environment has the potential to change for the 199 properties located within 100m.
		3.2	**Air Quality and Climate**	Estimated number of number of receptors within 50m reviewed as part of appriasal. Options closer to more sensitive locations will have an increased risk of changes in air quality during construction or operational phases. However, qualative criteria are also used where necessary to differentiate between the options.	Some comparative advantage over other options	Significant comparative advantage over other options	Some comparative disadvantage over other options
					Retains vehicular traffic with which will impact a low number of sensitive receptors in proximity.	Removes vehicular traffic and minimal construction phase. No assessemtn of traffi redistribution has been completed	Online options is similar to the current scenario however due to the elevated nature of the structure air impacts would be located closer to sensitive receptors particularly in the core village area at the multi-storey buildings in Ashtown mixed use area. However no new sensitive receptors impacted. This option does not reduce the number of sensitive receptors within 50m of the route - 112 dwellings within 50m. Potential for construction phase dust impacts particularly at Ashtown village core.
		3.3	**Landscape and Visual (including light)**	Key landscape characteristics affected; Impact on landscape character; Impacts on landscape features, protected landscapes. Key visual characteristics affected; Impacts on properties, amenities, protected views, key views.	Significant comparative advantage over other options	Significant comparative advantage over other options	Significant comparative disadvantage over other options
					No impact on existing landscape or visual characteristics. Maintains existing environmental conditions.	Minimal impact on existing landscape or visual characteristics - no likely significant landscape or visual impacts. Loss of local connectivity. Potential for some negative townscape / visual effects on the surrounding road network.	Online overbridge option is likely to have a significant negative impact on landscape and visual amenity and public realm of Rathborne Village Centre and along the extent of Ashtown Road. Significant visual impact on the architectural heritage setting of 10th Lock on Royal Canal and thus impacts on the achievemnet of Objective CH43 of Fingal Development Plan. Significant impact due to removal of roadside tree-lined hedgerows leading to railway - significant visual impact for properties in Martin Savage Park and for Ashtown Stables. [Objective CH43 Protect and enhance the built and natural heritage of the Royal Canal and ensure that development within its vicinity is sensitively designed and does not have a detrimental effect on the character of the Canal, its built elements and its natural heritage values and that it adheres to the Waterways Irelands Heritage Plan 2016-2020.)
		3.4	**Biodiversity (flora and fauna)**	Potential compliance/conflict with biodiversity objectives; Indirect impacts on protected species, designated sites; Overall effect on nature conservation resource.	Significant comparative advantage over other options	Significant comparative advantage over other options	Some comparative advantage over other options
					No direct impacts.	No direct impacts.	This option is hydrologically connected to European Sites downstream in the Tolka Estuary and Dublin Bay. There is no risk of Likely Significant Effects to these sites or any other European Site. There is potential for impacts to Royal Canal pNHA arising from noise, artificial lighting and impacts to water quality during construction. As the new structure over the railway and canal is aligned with the existing crossing there will be minimal habitat loss and less impact on the overall integrity of the pNHA than some other options.
		3.5	**Cultural, Archaeological and Architectural Heritage**	Overall effect on cultural, archaeological and architecture heritage resource. Likely effects on RPS, National Monuments, SMRs, Conservation areas, etc. Number of designated sites/structures (by level of designation) directly impacted by scheme (landtake)	Significant comparative advantage over other options	Significant comparative advantage over other options	Some comparative disadvantage over other options
					No direct impacts.	No direct impacts.	Indirect impacts on Longford Bridge (RPS No. 693). Potential for indirect impacts to the Royal Canal (RPS No. 944a) and setting of protected structures in the area.
		3.6	**Water Resources**	Overall potential significant effects on water resource attributes likely to be affected during construction and operation.	Significant comparative advantage over other options	Significant comparative advantage over other options	Some comparative advantage over other options
					This Option will have neutral impacts on water resources as there will be no changes to the receiving environment. Has a significant comparative advantage over other options.	Removes vehicular traffic borne pollutants and minimal construction phase & no increased flood risk. The Do Minimum Option has a significant comparative advantage compared to other options overall.	This option has the potential to impact on water quality of the Royal Canal during the construction phase of the overbridge. Has some comparative advantage over other options.
		3.7	**Agriculture and Non-Agricultural**	Overall impact on land take & property. Number of properties to be impacted/acquired. Likely temporary or permanent severance effects, etc.	Significant comparative advantage over other options	Significant comparative advantage over other options	Some comparative disadvantage over other options
					No direct impacts.	No direct impacts.	The agricultural impact will have a significant impact on Ashtown Stables. The non-agricultural impact will include a significant impact on one residential property.
		3.8	**Geology and Soils (including Waste)**	Soils and Geology and likely impact on geological resources based on preliminary/likely construction details. Soil or topsoil resources to be developed/removed. Existing information relating to potential to encounter contaminated land. High-level assessment based on the likely structures/ works required and the potential for ground contamination due to historic landfills, pits and quarries.	Significant comparative advantage over other options	Significant comparative advantage over other options	Some comparative advantage over other options
					No direct impacts	No direct impacts	Overbridge options require fill import to the site for construction over existing roadway (Minor negative). Potential for ground contamination is considered low, subject to further investigation. Comparative advantage is considered as construction is proposed on existing route and unlikely to encounter new areas of soft ground or contamination.
		3.9	**Radiation and Stray Current**	Overall likely impact on existing sources of electromagnetic radiation.	Some comparative advantage over other options	Some comparative advantage over other options	Some comparative disadvantage over other options
					No changes from an EMI perspective transverse to the railway therefore advantage over other options.	No changes from an EMI perspective transverse to the railway therefore advantage over other options.	It is assumed that the routing of the cabling, the location of existing substations, hubs etc. along the line will be changed or impacted by the selection of any of the options over the entire project. All Do-Something options are comparable from an EMI perspective at this stage in the assessment.
4	**Accessibility & Social inclusion**	4.1	**Impact on Vulnerable Groups**	Impacts on low income groups, non-car owners, mobility impaired, visually impaired and people with a disability.	Significant comparative disadvantage over other options	Significant comparative disadvantage over other options	Significant comparative disadvantage over other options
					Original Distance roundabout to roundabout 500m retained. The long closure times associated with the level crossing will, however, restrict access.	This option severs access locally across the railway	This options introduces steepened gradients north of the railway and cannot accommodate appropriate pedestrian and cycle access due to the constrained width of the available corridor. The stables represent a significant amenity for vulnerable persons. This option is likely to result in the stables being unavailable to vulnerable for up to 3yrs.
		4.2	**Stations Accessibility**	Quantification of increased service levels to the vulnerable groups.	Significant comparative disadvantage over other options	Significant comparative disadvantage over other options	Significant comparative disadvantage over other options
					Station Accessibility is addressed for all level crossing options in proximity to a station This option will require that traffic seeking to access the station from the north will divert along the existing road network due to delays at the level crossing Shortest diversion route 4.5km.(7 x diversion route. Original Distance roundabout to Rockfield Drive crossroads 500m retained.	Station Accessibility is addressed for all level crossing options in proximity to a station This option requires that all traffic accessing the station from the north must divert along the existing road network Shortest diversion route 4.5km (7x diversion route).	Station Accessibility is addressed for all level crossing options in proximity to a station This options introduces steepened gradients north of the railway and cannot accommodate appropriate pedestrian and cycle access due to the constrained width of the available corridor.
		4.3	**Social Inclusion**	Service levels impacts including severance of community groups; Severance from community facilities consequent on an option.	Significant comparative disadvantage over other options	Significant comparative disadvantage over other options	Significant comparative disadvantage over other options
					This option causes severance of the community through curtailment of local access over the railway without replacement with effective alternative access. Community facilities affected by reduced access include Shopping facilities, Giraffe Childcare, Pelletstown Educate Together National School - North of the railway and Halfway House, Ashtown Post Oddice St Dominics College, Meaghers Pharmacy, Daughters of Charity - south of the railway.	This option causes severance of the community through curtailment of local access over the railway without replacement with effective alternative access. Community facilities affected by reduced access include Shopping facilities, Giraffe Childcare, Pelletstown Educate Together National School - North of the railway and Halfway House, Ashtown Post Oddice St Dominics College, Meaghers Pharmacy, Daughters of Charity - south of the railway.	This option causes community severance for those on foot or bicycle. Community facilities affected by reduced access include Shopping facilities, Giraffe Childcare, Pelletstown Educate Together National School - North of the railway and Halfway House, Ashtown Post Oddice St Dominics College, Meaghers Pharmacy, Daughters of Charity - south of the railway.
5	**Safety**	5.1	**Rail Safety**	Safety for Rail users – removal of Level crossings is considered a significant safety enhancement	Significant comparative disadvantage over other options	Significant comparative advantage over other options	Significant comparative advantage over other options
					This Option leaves the railway level crossing in place, a characteristic which is considered negative from the perspective of railway safety. This option will require construction activity associated with signalling along the live railway associated with the level crossing.	This option removes the railway level crossing, a characteristic which is considered positive from the perspective of railway safety. There is no significant construction activity along the railway associated with the level crossing	This option removes the railway level crossing, a characteristic which is considered positive from the perspective of railway safety. There is no significant construction activity along the railway associated with the level crossing
		5.2	**Vehicular Traffic Safety**	Quality of Access for these road users, lengths of diversions, removal of interface with rail and other modes of transport	Significant comparative disadvantage over other options	Significant comparative disadvantage over other options	Some comparative advantage over other options
					This option retains the level crossing - a signficant hazard to transport users; This option will result in traffic diversions of up to 4.3km and increased congestion on the local road network.	This option closes the level crossing - removes a signficant hazard to transport users; This option will result in traffic diversions of up to 4.3km and increased congestion on the local road network.	This option closes the level crossing - removes a signficant hazard to transport users; This option will not significantly divert traffic.
		5.3	**Pedestrian, Cyclist and Vulnerable Road user Safety**	Quality of Access for these road users. removal of interfaces	Significant comparative disadvantage over other options	Significant comparative disadvantage over other options	Significant comparative disadvantage over other options
					The curtailed availability of access over the level crossing associated with this option will divert vulnerable road users onto the existing road network. Diverted road users will be required to negotiate up to 6No additional junctions including traffic light junctions and roundabouts, typically turning left travelling southbound, right if travelling northbound. This options does not provide for segregation on the diversion routes for vulnerable road users.	The removal access over the level crossing associated with this option will divert vulnerable road users onto the existing road network. Diverted road users will be required to negotiate up to 6No additional junctions including traffic light junctions and roundabouts, typically turning left travelling southbound, right if travelling northbound. This options does not provide for segregation on the diversion routes for vulnerable road users.	The removal access over the level crossing associated with this option will divert vulnerable road users onto the existing road network. Diverted road users will be required to negotiate up to 6No additional junctions including traffic light junctions and roundabouts, typically turning left travelling southbound, right if travelling northbound. This options does not provide for segregation on the diversion routes for vulnerable road users.
6	**Physical Activity**	6.1	**Connectivity to adjoining cycling facilities**	Analysis of the extent that the scheme connects with cycle tracks.	Significant comparative disadvantage over other options	Significant comparative disadvantage over other options	Significant comparative disadvantage over other options
					No formal cycle tracks currently present on the immediately surrounding road network, but increased closures of the level crossing would reduce access to the proposed Royal Canal Greenway. Access to the train station for pedestrians and cyclists will be significantly inhibited by the level crossing, particularly with the planned level of service on the railway.	No cycle tracks currently present on the immediately surrounding road network, but removal of level crossing will sever access to the Royal Canal Greenway from the opposite side of the railway. Access to the train station for pedestrians and cyclists will be significantly inhibited by removal of the level crossing.	This option does not provide good linkage between existing and proposed cycle routes. The quality of access to the train station for pedestrians and cyclists is poor in respect of this option.
		6.2	**Permeability and local access opportunity**	Journey Time and lengths of diversions for active modes and numbers affected. Analysis of the connectivity between level crossing and green areas/key attractions related to active mode	Significant comparative disadvantage over other options	Significant comparative disadvantage over other options	Significant comparative disadvantage over other options
					Cross Railway journey = nil as crossing remains in place; Inaccessible when crossing is closed. Diversion for cyclists when level crossing closed 4.3km The principal high amenity greenspaces in the vicinity of the existing train station include the Royal canal, the gaelic football grounds south of the railway, Pheonix Park, south of the railway and the amenity zoned lands north west of the level crossing. Increased closures of the level crossing would reduce access to each of them.	Cross Railway journey = 4.3km as level crossing is removed. Diversion for cyclists when level crossing closed 4.3km The principal high amenity greenspaces in the vicinity of the existing train station include the Royal canal, the gaelic football grounds south of the railway, Pheonix Park, south of the railway and the amenity zoned lands north west of the level crossing. Removal of the level crossing would curtial access to each of them.	Cross Railway journey = nil as the proposed option is along the plan alignment of the existing Ashtown Road. This option does not effectively facilitate cycle access due to the constrained width of the corridor. The principal high amenity greenspace in the vicinity of the existing train station is the Royal canal. This access is maintained by the proposed bridge scheme.

	Criteria		Do Nothing	Do Minimum (Close LX)	Option 1 (Online Obr)	Option 2 (Underbridge on Mill Lane)	Option 3 (Overbridge on Mill Lane)	Option 4 & 4a (Road bridge West + PedCycUndBridge)	Option 4 & 4b (Road bridge West + PedCycOvBridge)	Option 5 (Low Clearance UndBridge East)	Option 6 (Fixed Road OvBridge East of Station)	Option 7 (Fixed Road OvBridge East of Station from Navan Road)	Option 8 (PedCycOvbridge Only on Station footprint with reconfiguration of the station)	Option 9 (Lower the Railway with at grade roadbridge at LX)	Option 10 (UnBridge West of Mill, PedOvBridge at Station)	Option 11 (Improvements on Local Road Network, PedOvBridge at Station)	Option 12 (Road OvBridge West from Navan Parkway Stn, PedCycOvBridge at Ashtown Station)	Option 13 (OvrBridge West of Mill, PedOvBridge at Station)
1	**Economy**		Some comparative disadvantage over other options	Significant comparative advantage over other options	Some comparative disadvantage over other options	Some comparative disadvantage over other options	Some comparative disadvantage over other options	Some comparative advantage over other options	Some comparative advantage over other options	Some comparative disadvantage over other options	Some comparative advantage over other options	Some comparative advantage over other options	Some comparative advantage over other options	Significant comparative disadvantage over other options	Some comparative disadvantage over other options	Some comparative advantage over other options	Some comparative disadvantage over other options	Some comparative advantage over other options
2	**Integration**		Significant comparative disadvantage over other options	Significant comparative disadvantage over other options	Significant comparative disadvantage over other options	Some comparative advantage over other options	Some comparative advantage over other options	Some comparative advantage over other options	Some comparative advantage over other options	Some comparative disadvantage over other options	Some comparative disadvantage over other options	Some comparative disadvantage over other options	Significant comparative disadvantage over other options	Some comparative advantage over other options	Significant comparative advantage over other options	Some comparative disadvantage over other options	Some comparative advantage over other options	Significant comparative advantage over other options
3	**Environment**		Significant comparative advantage over other options	Significant comparative advantage over other options	Some comparative disadvantage over other options	Significant comparative disadvantage over other options	Significant comparative disadvantage over other options	Significant comparative disadvantage over other options	Some comparative disadvantage over other options	Some comparative disadvantage over other options	Some comparative disadvantage over other options	Significant comparative disadvantage over other options	Some comparative advantage over other options	Significant comparative disadvantage over other options	Significant comparative disadvantage over other options	Some comparative advantage over other options	Some comparative disadvantage over other options	Some comparative disadvantage over other options
4	**Accessibility and social inclusion**		Significant comparative disadvantage over other options	Significant comparative disadvantage over other options	Significant comparative disadvantage over other options	Some comparative disadvantage over other options	Some comparative disadvantage over other options	Some comparative advantage over other options	Some comparative advantage over other options	Significant comparative advantage over other options	Some comparative advantage over other options	Some comparative advantage over other options	Some comparative advantage over other options	Significant comparative advantage over other options	Some comparative advantage over other options	Some comparative advantage over other options	Some comparative advantage over other options	Some comparative advantage over other options
5	**Safety**		Significant comparative disadvantage over other options	Some comparative disadvantage over other options	Some comparative advantage over other options	Significant comparative advantage over other options	Some comparative advantage over other options	Significant comparative advantage over other options	Significant comparative advantage over other options	Significant comparative disadvantage over other options	Some comparative advantage over other options	Some comparative advantage over other options	Some comparative disadvantage over other options	Some comparative advantage over other options	Significant comparative advantage over other options	Some comparative disadvantage over other options	Significant comparative advantage over other options	Significant comparative advantage over other options
6	**Physical Activity**		Significant comparative disadvantage over other options	Significant comparative disadvantage over other options	Significant comparative disadvantage over other options	Significant comparative advantage over other options	Significant comparative advantage over other options	Some comparative advantage over other options	Significant comparative advantage over other options	Significant comparative advantage over other options	Some comparative disadvantage over other options	Some comparative disadvantage over other options	Significant comparative advantage over other options	Significant comparative advantage over other options	Significant comparative advantage over other options	Significant comparative advantage over other options	Significant comparative advantage over other options	Significant comparative advantage over other options
	Progress To Stage 2		No	No	No	No	No	No	Yes	No	No	No	No	No	Yes	Yes	Yes	Yes
	Comment																	

	Criteria	Option 2 (Underbridge on Mill Lane)	Option 3 (Overbridge on Mill Lane)	Option 4 & 4a (Road bridge West + PedCycUndBridge)	Option 4 & 4b (Road bridge West + PedCycOvBridge)	Option 5 (Low Clearance UndBridge East)
2.2	**Land Use Integration**	Significant comparative advantage over other options	Some comparative advantage over other options	Some comparative disadvantage over other options	Some comparative disadvantage over other options	Significant comparative disadvantage over other options
		Underbridge online option on mill lane: At local planning policy level, a small section of this option is located on DCC (DP) lands close to Ashtown Station, zoned Z11 and also contains the conservation area of the Royal Canal. The remainder of this option is located in FDP area: relevant zoning includes "High Technology' (to the south of the Canal) and travel north of the canal into the start of a large area of land zoned 'High Amenity'. This option is within close proximity to the future Navan Road Parkway LAP (map based objective: LAP 13.B) and is likely to support overall land use and transport planning integration. Subject to further deisgn and traffic data. The pedestrian and cyclist overbridge is located entirely within the Dublin CDP area. The bridge is located within lands zoned for Z9 (Amenity, Open Space, Green Network) and Z11 (canal, coastal and river amenities) associated with the Royal Canal. The overbridge will provide an improved walking and cycling access into the Village Centre.	Overbridge on Mill Lane: At local planning policy level, Option 3 is similar to Option 2, however its entire extent is located within the FDP area only: relevant zoning includes "High Technology' (to the south of the Canal). This route travels along the eastern boundary of a large area of land zoned 'High Amenity' (north of the canal). The introduction of a new overbridge in a High Amenity area would not work towards 'Objective NH51 (FCDP) "Protect High Amenity areas from inappropriate development and reinforce their character, distinctiveness and sense of place". However, for the most part this option follows the edge of High Amenity lands which would reduce the overal impact on those lands. The option travels east of the future Navan Road Parkway LAP (map based objective: LAP 13.B) which would be linked by vehicular, pedestrian and cycle access. This option is likely to work towards overall land use and transport planning integration in this local area. Subject to further deisgn and traffic data. The pedestrian and cyclist overbridge is located entirely within the Dublin CDP area. The bridge is located within lands zoned for Z9 (Amenity, Open Space, Green Network) and Z11 (canal, coastal and river amenities) associated with the Royal Canal. The overbridge will provide an improved walking and cycling access into the Village Centre.	At local level, the majority Option 4 is located within lands zoned by Fingal DP as "High Amenity". The route travels close to the boundary of the existing Coolmine Rugby Club and could support Fingal DP local map-based Specific Objective 136 "Facilitate pedestrian access from Coolmine Rugby Club grounds over the Canal adjacent to the Phoenix Park Railway Station". However, the introduction of a new road infrastructure in 'High Amenity' zoned land would go against Objective NH51 (FCDP) "Protect High Amenity areas from inappropriate development and reinforce their character, distinctiveness and sense of place". However, in terms of future land use factors, Option 4 could create a direct link into map based objective (LAP13.B - Navan Road Parkway Local Area Plan) and also linking into LAP13.C. Option 4a section would result in a direct pedestrian and cycle access from the station into the "The Village Centre" via a new underbridge structure. This option has some comparative disadvantage due to the impact on zoned high amenity lands.	At local level, the majority Option 4 is located within lands zoned by Fingal DP as "High Amenity". The route travels close to the boundary of the existing Coolmine Rugby Club and could support Fingal DP local map-based Specific Objective 136 "Facilitate pedestrian access from Coolmine Rugby Club grounds over the Canal adjacent to the Phoenix Park Railway Station" However, the introduction of a new road infrastructure in 'High Amenity' zoned land would go against Objective NH51 (FCDP) "Protect High Amenity areas from inappropriate development and reinforce their character, distinctiveness and sense of place". However, in terms of future land use factors. Option 4 could create a direct link into map based objective (LAP13.B - Navan Road Parkway Local Area Plan) and also linking into LAP13.C. Option 4b section would result in a direct pedestrian and cycle access from the station into residential zoned lands associated with Ashtown – Pelletstown LAP 2014. This option has some comparative disadvantage due to the impact on zoned high amenity lands.	Option 5 (is similar to 6 and 7), located entirely within the DCDP area. This option is located on lands zoned Z11 'canal, coastal and river amenities' associated with the royal canal and travels along the north edge of the (Z9 zoned) existing Martin Savage Park (GAA pitch). North of the Canal it travels through currently a greenfield site, zoned for residential use in the Pelletstown Action Area Plan 2014. This option goes against the LAP residential zoning however, subject to traffic and design studies it may support the overall future land use and transport planning integration. Option 5 is at some disadvantage due to the impact on the functionality of the GAA/ amenity lands however it is still at a disadvantage due to the negative effects on zoned residential land. (even though it is less than options 6 and 7). On the north side of the canal, Option 5 is routed through a permitted residential development (DCC Ref. 3666/15, ABP ref. PL29N.246373). This option is likely to have an impact on this development.
2.3	**Geographical Integration**	Comparable to other options	Comparable to other options	Comparable to other options	Comparable to other options	Comparable to other options
		No significant effect on geographical integration.	No significant effect on geographical integration.	No significant effect on geographical integration.	No significant effect on geographical integration.	No significant effect on geographical integration.
2.4	**Other Government Policy Integration**	Significant comparative advantage over other options	Significant comparative advantage over other options	Significant comparative advantage over other options	Significant comparative advantage over other options	Significant comparative advantage over other options
		This option supports the delivery of the higher level national and regional planning policies regarding the DART + programme (NPF, RSES, GDA Transport Strategy).	This option supports the delivery of the higher level national and regional planning policies regarding the DART + programme (NPF, RSES, GDA Transport Strategy).	This option supports the delivery of the higher level national and regional planning policies regarding the DART + programme (NPF, RSES, GDA Transport Strategy).	This option supports the delivery of the higher level national and regional planning policies regarding the DART + programme (NPF, RSES, GDA Transport Strategy).	This option supports the delivery of the higher level national and regional planning policies regarding the DART + programme (NPF, RSES, GDA Transport Strategy).
3.1	**Noise and Vibration**	Some comparative advantage over other options	Some comparative disadvantage over other options	Some comparative advantage over other options	Some comparative advantage over other options	Some comparative disadvantage over other options
		Moves traffic to rear of apt block from current road layout. This option will introduce additional noise to the rear apartments while also decreasing road traffic noise levels to the apartments currently facing the front of the apartment block. Construction phase of this option will be more significant due to the excavation required. 198 properties within 100m.	Moves traffic to rear of apt block from current road layout. This option will introduce additional noise to the rear apartments while also decreasing road traffic noise levels to the apartments currently facing the front of the apartment block. Construction phase of this option will be less significant than Option 2 due to less excavation required. 150 dwellings within 100m.	Operational traffic impacts only affects 2 dwellings. Pedestrian crossing will have impacts during construction. 130 dwellings within 100m of both vehicular route and pedestrian crossing. 2 properties within 100m of the vehicular route.	Operational traffic impacts only affects 2 dwellings. Pedestrian crossing will have impacts during construction. 148 dwellings within 100m of both vehicular route and pedestrian crossing. 2 properties within 100m of the vehicular route.	Moves traffic to rear of apt block from current road layout and along the northern edge of Martin Savage Park. This option will introduce additional noise to the rear apartments while also decreasing road traffic noise levels to the apartments currently facing the front of the apartment block. Construction phase is potentially more significant than Option 6 due to greater excavation required. 119 dwellings within 100m.
3.2	**Air Quality and Climate**	Some comparative disadvantage over other options	Some comparative disadvantage over other options	Some comparative advantage over other options	Some comparative advantage over other options	Some comparative disadvantage over other options
		Moves traffic to rear of apt block from current road layout. 130 dwellings within 50m where traffic has been moved from front to back. Embodied carbon for new bridge. Potential for construction phase dust impact is not significant when mitigation measures are put in place.	Pedestrian crossing will have impacts during construction. 52 dwellings within 50m of both vehicular route and pedestrian crossing. Potential for construction phase dust impact is not significant when mitigation measures are put in place.	Pedestrian crossing will have impacts during construction. 48 dwellings within 50m of pedestrian crossing. Pedestrian crossing will have impacts during construction. Only 1 property within 50m of the vehicular route of operational traffic. Two separate bridges will increase embodied carbon for this option. Potential for construction phase dust impact is not significant when mitigation measures are put in place.	Pedestrian crossing will have impacts during construction. 32 dwellings within 50m of pedestrian crossing. Pedestrian crossing will have impacts during construction. Only 1 property within 50m of the vehicular route of operational traffic. Two separate bridges will increase embodied carbon for this option. Potential for construction phase dust impact is not significant when mitigation measures are put in place.	22 dwellings within 50m. Moves traffic to rear of apt block from current road layout. Potential for construction phase dust impact is not significant when mitigation measures are put in place.
3.3	**Landscape and Visual (including light)**	Significant comparative disadvantage over other options	Significant comparative disadvantage over other options	Some comparative disadvantage over other options	Some comparative disadvantage over other options	Significant comparative disadvantage over other options
		Option will have a very significant impact on boundary trees/woodlands, entrance gates and lodge at Ashton (Ashtown) House, a protected structure (No. 690). Lands of Ashton House and the corridor of the Royal Canal west of Longford Bridge are zoned High Amenity and identified as a Nature Development Area in the Fingal Development Plan. Very significant visual impact for setting of 10th Lock on Royal Canal. Significant impact due to removal of roadside tree-lined hedgerows leading to railway. Very significant impact for the setting of Ashtown Stables.	Option will have a very significant impact on boundary trees/woodlands, entrance gates and lodge at Ashton (Ashtown) House, a protected structure (No. 690). Lands of Ashton House and the corridor of the Royal Canal west of Longford Bridge are zoned High Amenity and identified as a Nature Development Area in the Fingal Development Plan. Very significant visual impact for setting of 10th Lock on Royal Canal. Significant impact due to removal of roadside tree-lined hedgerows leading to railway. Significant impact for setting of Ashtown Stables.	Alignment will have a very significant impact on the landscape character and structure, trees and woodlands of lands between Ashtown Lodge (and its associated lodge) and Coolmine Rugby Club. Alignment will impact existing landscape character of River Road and lands north to the Tolka River. The majority of the lands are laid out in mature parkland with trees, walks and boundary woodland - all of which will be impacted by the alignment. The lands and the corridor of the Royal Canal are zoned High Amenity and identified as a Nature Development Area in the Fingal Development Plan. Tree and Woodland preservation objectives in Fingal Development Plan apply to the lands. Underbridge will have a significant impact on boundary trees/woodlands, entrance gates and setting of lodge at Ashton (Ashtown) House, a protected structure (No. 690). Lands of Ashton House and the corridor of the Royal Canal west of Longford Bridge are zoned High Amenity and identified as a Nature Development Area in the Fingal Development Plan. Side slopes (if proposed) would have significant impact due to removal of roadside tree-lined hedgerows leading to railway - significant impact for Ashtown Stables.	Alignment will a very significant impact on the landscape character and structure, trees and woodlands of lands between Ashtown Lodge (and its associated lodge) and Coolmine Rugby Club. Alignment will impact existing landscape character of River Road and lands north to the Tolka River. The majority of the lands are laid out in mature parkland with trees, walks, and boundary woodland - all of which will be impacted by the alignment. The lands and the corridor of the Royal Canal are zoned High Amenity and identified as a Nature Development Area in the Fingal Development Plan. Tree and Woodland preservation objectives in Fingal Development Plan apply to the lands. Pedestrian/cycle bridge will have a significant impact on trees/hedgerows along the royal canal and on open space north of Martin Savage Park. The bridge overswings the canal in a visually incongruous manner. Royal canal corridor is a conservation area in the Dublin City Development Plan. Lands south of the canal are zoned open space (Z9) for the protection, provision and improvement of recreational amenity, open space and green networks.	Option cuts through a permitted residential development on north side of canal - with very significant implications for the permitted layout (DCC Ref. 3666/15, ABP ref. PL29N.246373). Option will have a significant impact on boundary trees/hedgerows along the railway / canal corridor (a conservation area in the Dublin City Development Plan). Option will have a significant impact on open space at Martin Savage Park, including on Oliver Plunket's GAA pitches. Option will have very significant visual impact for properties at the north end of Martin Savage Park and for users of the Royal Canal. NOTE: Further design detail provided for full assessment of likely impact. Note: Option cuts through a permitted residential development on north side of canal - with very significant implications for the permitted layout (DCC Ref. 3666/15, ABP ref. PL29N.246373 - Active planning application 2596/20).
3.4	**Biodiversity (flora and fauna)**	Some comparative disadvantage over other options	Some comparative disadvantage over other options	Some comparative disadvantage over other options	Some comparative disadvantage over other options	Significant comparative disadvantage over other options
		This option is hydrologically connected to European Sites downstream in the Tolka Estuary and Dublin Bay. There is no risk of Likely Significant Effects to these sites or any other European Site. There is potential for impacts to Royal Canal pNHA arising from noise, artificial lighting and impacts to water quality during construction. During construction of the pedestrian/cycle overbridge, water quality in the canal could be impacted during the dewatering required for the realignment of the canal in addition to the demolition of the existing bridge. Works within the canal could impact fish and native white-clawed crayfish which will have to be taken from the water in advance of the works. Demolition works could also disturb and displace fauna. Badger and their setts could be disturbed during construction leading to sett abandonment. Demolition of Old Mill Lane buildings may impact bats but further studies would be required to determine potential impacts on bats.	This option is hydrologically connected to European Sites downstream in the Tolka Estuary and Dublin Bay. There is no risk of Likely Significant Effects to these sites or any other European Site. There is potential for impacts to Royal Canal pNHA arising from noise, artificial lighting and impacts to water quality during construction. During construction of the pedestrian/cycle overbridge, water quality in the canal could be impacted during the dewatering required for the realignment of the canal in addition to the demolition of the existing bridge. Works within the canal could impact fish and native white-clawed crayfish which will have to be taken from the water in advance of the works. Demolition works could also disturb and displace fauna. Badger and their setts could be disturbed during construction leading to sett abandonment. Demolition of Old Mill Lane buildings may impact bats but further studies would be required to determine potential impacts on bats. Loss of woodland habitat is anticipated.	This option is hydrologically connected to European sites downstream in the Tolka Estuary and Dublin Bay. There is no risk of Likely Significant Effects to this or any other European site. There is potential for impacts to Royal Canal pNHA arising from noise, artificial lighting and impacts to water quality during construction. During construction of the pedestrian/cycle overbridge, water quality in the canal could be impacted during the dewatering required for the realignment of the canal in addition to the demolition of the existing bridge. Works within the canal could impact fish and native white-clawed crayfish which will have to be taken from the water in advance of the works. Demolition works could also disturb and displace fauna. Works along the north side of River Road have the potential to impact negatively on water quality in the Tolka River and European sites downstream. Loss of linear woodland and treeline/hedgerow habitat along this road will fragment ecological connectivity and disturb dwelling and resting habitats for fauna therefore negatively impacting biodiversity within the river corridor. Disturbance and displacement of fauna may occur where vegetation is removed but further studies would be required to determine potential impacts.	This option is hydrologically connected to European sites downstream in the Tolka Estuary and Dublin Bay. There is no risk of Likely Significant Effects to this or any other European site. There is potential for impacts to Royal Canal pNHA arising from noise, artificial lighting and impacts to water quality during construction. During construction of the pedestrian/cycle overbridge, water quality in the canal could be impacted during the dewatering required for the realignment of the canal in addition to the demolition of the existing bridge. Works within the canal could impact fish and native white-clawed crayfish which will have to be taken from the water in advance of the works. Demolition works could also disturb and displace fauna. Works along the north side of River Road have the potential to impact negatively on water quality in the Tolka River and European sites downstream. Loss of linear woodland and treeline/hedgerow habitat along this road will fragment ecological connectivity and disturb dwelling and resting habitats for fauna therefore negatively impacting biodiversity within the river corridor. Disturbance and displacement of fauna may occur where vegetation is removed but further studies would be required to determine potential impacts.	This option is hydrologically connected to European Sites downstream in the Tolka Estuary and Dublin Bay. Construction at Martin Savage Park could result in disturbance to Light-bellied Brent Goose (Qualifying Interest of SPAs) which are known forage in significant numbers at this location. There is potential for impacts to Royal Canal pNHA arising from noise, artificial lighting and impacts to water quality during construction. Loss of grassland habitat anticipated.
3.5	**Cultural, Archaeological and Architectural Heritage**	Significant comparative disadvantage over other options	Significant comparative disadvantage over other options	Significant comparative disadvantage over other options	Some comparative disadvantage over other options	Some comparative advantage over other options
		Direct impacts on gate lodge, entrance and demesne associated with Ashton House (RPS 0690). Indirect impacts on mill and outbuildings (RPS 691). Direct impacts on Pelletstown House and outbuildings (structures of architectural merit). . Potential indirect impacts on Royal Canal (RPS No. 944a) and the Royal Canal 10th Lock (RPS No. 944b). Potential to encounter archaeological deposits that may survive in undeveloped areas and path of former road way.	Direct impacts on gate lodge, entrance and demesne associated with Ashton House (RPS No. 0690). Indirect impacts on mill and outbuildings (RPS No. 691). Direct impact on Pelletstown House and outbuildings (structures of architectural merit). Potential indirect impacts on Royal Canal (RPS No. 944a) and the Royal Canal 10th Lock (RPS No. 944b). Potential to encounter archaeological deposits that may survive in undeveloped areas and path of former road way.	Direct impacts on River Tolka and former demesne landscapes associated with Ashbrook (RPS No. 941) & Ashtown Lodge. Direct impacts on entrance and demesne associated with Ashton House (RPS 690). Indirect impacts on mill and outbuildings (RPS 691) . Direct impacts on Pelletstown House and outbuildings (structures of architectural merit). Potential indirect impacts on Royal Canal (RPS No. 944a) and the Royal Canal 10th Lock (RPS No. 944b). Potential to encounter archaeological deposits that may survive in undeveloped areas.	Direct impact on demesne landscape associated with Ashtown Lodge, which is not a protected structure. Potential for direct impact on the Royal Canal (RPS No. 944a). Potential to encounter on archaeological deposits that may survive in undeveloped areas.	Potential for indirect impacts on the Royal Canal (RPS No. 944a). Potential to encounter archaeological deposits that may survive within undeveloped areas.
3.6	**Water Resources**	Some comparative disadvantage over other options	Some comparative advantage over other options	Significant comparative disadvantage over other options	Significant comparative disadvantage over other options	Some comparative disadvantage over other options
		Underpass excavations pose potential risk to Groundwater quality and residual flood risk. Has some comparative disadvantage over other options.	This option has the potential to impact on water quality of the Royal Canal during the construction phase of the overbridge. Has some comparative advantage over other options.	Some works north of river road are within floodplain of the river Tolka creating potential increase in flood risk to neighbouring lands. Creates potential pathway for pollutants to Tolka River resulting on negative impacts to Water Quality. Underpass excavations also pose potential risk to Groundwater quality. Options 4a is disadvantageous across all sub-criteria and has a significant comparative disadvantage over other options.	Some works north of river road are within floodplain of the river Tolka creating potential increase in flood risk to neighbouring lands. Creates potential pathway for pollutants to Tolka River resulting on negative impacts to Water Quality. Options 4b has significant comparative disadvantage over other options.	Underpass excavations pose potential risk to Groundwater quality & residual flood risk. Has some comparative disadvantage over other options.
3.7	**Agriculture and Non-Agricultural**	Significant comparative disadvantage over other options	Significant comparative disadvantage over other options	Significant comparative disadvantage over other options	Some comparative advantage over other options	Some comparative advantage over other options
		The agricultural impact will have a profound impact on Ashtown Stables. The non-agricultural impact will include a significant impact on one residential property. The remaining residential, commercial and amenity property impacts will be slight.	The agricultural impact will have a profound impact on Ashtown Stables. The non-agricultural impact will include a moderate impact on Ashtown House lands. The remaining residential, commercial and amenity property impacts will be slight.	The agricultural impact will have a profound impact on Ashtown Stables. The non-agricultural impact will have a significant impact on one residential property. The remaining residential, commercial and amenity property impacts will be slight.	The agricultural impact will have a slight impact on Ashtown Stables. The non-agricultural impact will have a significant impact on one residential property. The remaining residential and commercial property impacts will be slight.	The agricultural impact will have a slight impact on Ashtown Stables. The non-agricultural impact will have significant impacts on a development property (with planning permission (Ref. 3666/15) for residential development) and on St. Oliver Plunkett Club lands. The remaining residential and commercial property impacts will be slight.
3.8	**Geology and Soils (including Waste)**	Some comparative disadvantage over other options	Some comparative advantage over other options	Some comparative disadvantage over other options	Some comparative advantage over other options	Some comparative advantage over other options
		Underbridge option means that some materials may arise, which could possibly be suitable for reuse elsewhere on the project (Minor positive). This is balanced by an associated impact of interfering with the canal and existing railway, which may require specific materials be imported. Involves other geotechnical risks to design and construction which would require further studies and design information.	Overbridge options require fill import to the site for construction over existing roadway (Minor negative). Potential for ground contamination is considered low, subject to further investigation. Comparative advantage is considered as construction is proposed on existing route and unlikely to encounter new areas of soft ground or contamination.	Fill import requirements (Minor negative). Option 4A footbridge has higher comparative earthworks needs, interfering with the canal and existing railway, which may require specific materials be imported. Involves other geotechnical risks to design and construction which would require further studies and design information.	Fill import requirements (Minor negative). Option 4b limited to existing footprint (minimal impact) however difficulties in interaction with existing platform structures - survey / investigation required to manage geotechnical risks.	Underbridge option means that some materials may arise, which could possibly be suitable for reuse elsewhere on the project (Minor positive). This is balanced by an associated impact of interfering with the canal and existing railway, which may require specific materials be imported. Involves other geotechnical risks to design and construction which would require further studies and design information.
3.9	**Radiation and Stray Current**	Some comparative disadvantage over other options	Some comparative disadvantage over other options	Some comparative disadvantage over other options	Some comparative disadvantage over other options	Some comparative disadvantage over other options
		It is assumed that the routing of the cabling, the location of existing substations, hubs etc. along the line will be changed or impacted by the selection of any of the options over the entire project. All Do-Something options are comparable from an EMI perspective at this stage in the assessment.	It is assumed that the routing of the cabling, the location of existing substations, hubs etc. along the line will be changed or impacted by the selection of any of the options over the entire project. All Do-Something options are comparable from an EMI perspective at this stage in the assessment.	It is assumed that the routing of the cabling, the location of existing substations, hubs etc. along the line will be changed or impacted by the selection of any of the options over the entire project. All Do-Something options are comparable from an EMI perspective at this stage in the assessment.	It is assumed that the routing of the cabling, the location of existing substations, hubs etc. along the line will be changed or impacted by the selection of any of the options over the entire project. All Do-Something options are comparable from an EMI perspective at this stage in the assessment.	It is assumed that the routing of the cabling, the location of existing substations, hubs etc. along the line will be changed or impacted by the selection of any of the options over the entire project. All Do-Something options are comparable from an EMI perspective at this stage in the assessment.
4.1	**Impact on Vulnerable Groups**	Significant comparative disadvantage over other options	Significant comparative disadvantage over other options	Significant comparative disadvantage over other options	Significant comparative advantage over other options	Significant comparative advantage over other options
		Road traffic diverted distance route is 572m (1.1x diversion route). Local ped/cycle access maintained along ramped access through underpass, ~340m diversion. The stables represent a significant amenity for vulnerable persons. This option is likely to require temporary relocation of the stables for 3yrs and reinstatement on a smaller site or permanent loss of the stables.	Road traffic diverted distance route is 750m (1.4 x diversion route) steep gradients on north side of option will be a disadvantage to vulnerable road users. Local ped/cycle access maintained along ramped access over proposed bridge - ~400m diversion The stables represent a significant amenity for vulnerable persons. This option is likely to require temporary relocation of the stables for 3yrs and reinstatement on a smaller site or permanent loss of the stables.	Road traffic diverted distance route is 2.5km (1.4 x diversion route) steep gradients on north side of option will be a disadvantage to vulnerable road users. Local ped/cycle access maintained along ramped access over proposed bridge - ~400m diversion. The stables represent a significant amenity for vulnerable persons. This option is likely to require temporary relocation of the stables for 3yrs and reinstatement on a smaller site or permanent loss of the stables.	Road traffic diverted distance route is 2.5km (1.4 x diversion route) steep gradients on north side of option will be a disadvantage to vulnerable road users. Local ped/cycle access maintained along ramped access over proposed bridge - ~400m diversion.	Diverted distance route is 450m (1.0x diversion route).
4.2	**Stations Accessibility**	Significant comparative advantage over other options	Significant comparative advantage over other options	Significant comparative advantage over other options	Significant comparative advantage over other options	Significant comparative advantage over other options
		Station Accessibility is addressed for all level crossing options in proximity to a station This option does not significantly affect access to the station.	Station Accessibility is addressed for all level crossing options in proximity to a station. This option does not significantly affect access to the station.	Station Accessibility is addressed for all level crossing options in proximity to a station. This option does not significantly affect access to the station.	Station Accessibility is addressed for all level crossing options in proximity to a station. This option does not significantly affect access to the station.	Station Accessibility is addressed for all level crossing options in proximity to a station. This option does not significantly affect access to the station.
4.3	**Social Inclusion**	Significant comparative disadvantage over other options	Significant comparative disadvantage over other options	Significant comparative disadvantage over other options	Some comparative disadvantage over other options	Significant comparative advantage over other options
		This option does not cause community severance. This option does not curtail access to community amenities Diverted distance route is 572m (1.1x diversion route). This option requires the demolition of Ashtown Stables which acts as a significant community resource in Ashtown.	This option does not cause community severance. This option does not significantly affect access to community amenities Diverted distance route is 750m (1.4 x diversion route). This option requires the demolition of Ashtown Stables which acts as a significant community resource in Ashtown.	Diverted distance route 798m (1.6x diversion route) but existing vehicular route severed. Community facilities affected by reduced access include Shopping facilities, Giraffe Childcare, Pelletstown Educate Together National School - North of the railway and Halfway House, Ashtown Post Oddice St Dominics College, Meaghers Pharmacy, Daughters of Charity - south of the railway. This option requires the demolition of Ashtown Stables which acts as a significant community resource in Ashtown.	Diverted distance route 798m (1.6x diversion route) but existing vehicular route severed. Community facilities affected by reduced access include Shopping facilities, Giraffe Childcare, Pelletstown Educate Together National School - North of the railway and Halfway House, Ashtown Post Oddice St Dominics College, Meaghers Pharmacy, Daughters of Charity - south of the railway.	This option does not cause community severance. This option does not curtail access to community amenities Diverted distance route is 450m (1.0 x diversion route).
5.1	**Rail Safety**	Significant comparative advantage over other options	Significant comparative advantage over other options	Significant comparative advantage over other options	Significant comparative advantage over other options	Significant comparative disadvantage over other options
		Option removes the rail - road interface	Option removes the rail - road interface	Option removes the rail - road interface	Option removes the rail - road interface	Option removes the rail - road interface. Limited clearance underbridge poses potential hazard to structure and in turn rail users if a bridge strike occurs.
5.2	**Vehicular Traffic Safety**	Significant comparative advantage over other options	Significant comparative advantage over other options	Significant comparative advantage over other options	Significant comparative advantage over other options	Significant comparative disadvantage over other options
		Providing a segregated crossing would have a significant advantage as vehicular traffic is not crossing the live rail.	Providing a segregated crossing would have a significant advantage as vehicular traffic is not crossing the live rail.	Providing a segregated crossing would have a significant advantage as vehicular traffic is not crossing the live rail.	Providing a segregated crossing would have a significant advantage as vehicular traffic is not crossing the live rail	Providing a segregated crossing would have a significant advantage as vehicular traffic is not crossing the live rail. Limited clearance underbridge poses potential hazard to high vehicles and and their occupants.
5.3	**Pedestrian, Cyclist and Vulnerable Road user Safety**	Some comparative advantage over other options	Some comparative disadvantage over other options	Some comparative advantage over other options	Some comparative advantage over other options	Some comparative disadvantage over other options
		Diverted distance route is 572m (1.1x diversion route).	Diverted distance route is 565m (1.1x diversion route) steep gradients on north side of option will be a disadvantage to vulnerable road users.	Diverted distance route 798m (1.6x diversion route). With the incorporation of a pedestrian / cycle bridge in this option, any impact on prdestrians, cyclists and vulnerable road users is significantly reduced. Detour ~400m	Diverted distance route is 798m (1.6x diversion route). With the incorporation of a pedestrian / cycle bridge in this option, any impact on prdestrians, cyclists and vulnerable road users is significantly reduced. Detour ~400m	Diverted distance route is 821m (1.6x diversion route).
6.1	**Connectivity to adjoining cycling facilities**	Significant comparative advantage over other options	Significant comparative advantage over other options	Significant comparative advantage over other options	Significant comparative advantage over other options	Significant comparative advantage over other options
		This option supports good linkage between existing and proposed cycle facilities The quality of access to the train station for pedestrians and cyclists is good in respect of this option.	This option supports good linkage between existing and proposed cycle facilities The quality of access to the train station for pedestrians and cyclists is good in respect of this option.	This option supports good linkage between existing and proposed cycle facilities The quality of access to the train station for pedestrians and cyclists is good in respect of this option.	This option supports good linkage between existing and proposed cycle facilities The quality of access to the train station for pedestrians and cyclists is good in respect of this option.	This option supports good linkage between existing and proposed cycle facilities The quality of access to the train station for pedestrians and cyclists is good in respect of this option.
6.2	**Permeability and local access opportunity**	Significant comparative advantage over other options	Significant comparative advantage over other options	Some comparative advantage over other options	Significant comparative advantage over other options	Significant comparative advantage over other options
		Cross Railway journey = nil as the proposed option is along the plan alignment of the existing Coolmine Road. Diversion for cyclists when level crossing closed 0.3km The principal high amenity greenspace in the vicinity of the existing train station is the Royal canal. This access is maintained by the proposed bridge scheme.	Cross Railway journey = nil as the proposed option is along the plan alignment of the existing Coolmine Road. Diversion for cyclists when level crossing closed 0.4km The principal high amenity greenspace in the vicinity of the existing train station is the Royal canal. This access is maintained by the proposed bridge scheme.	Cross Railway journey = nil as the proposed option is along the plan alignment of the existing Coolmine Road. Diversion for cyclists when level crossing closed 0.3km The principal high amenity greenspace in the vicinity of the existing train station is the Royal canal. This access is maintained by the proposed bridge scheme.	Cross Railway journey = nil as the proposed option is along the plan alignment of the existing Coolmine Road. Diversion for cyclists when level crossing closed 0.3km The principal high amenity greenspace in the vicinity of the existing train station is the Royal canal. This access is maintained by the proposed bridge scheme.	Cross Railway journey = nil as the proposed option is along the plan alignment of the existing Coolmine Road. Diversion for cyclists when level crossing closed 0.45km The principal high amenity greenspace in the vicinity of the existing train station is the Royal canal. This access is maintained by the proposed bridge scheme.

	Criteria	Option 6 (Fixed Road OvBridge East of Station)	Option 7 (Fixed Road OvBridge East of Station from Navan Road)	Option 8 (PedCycOvbridge Only on Station footprint with reconfiguration of the station)	Option 9 (Lower the Railway with at grade roadbridge at LX)
2.2	**Land Use Integration**	Significant comparative disadvantage over other options	Significant comparative disadvantage over other options	Significant comparative disadvantage over other options	Some comparative advantage over other options
		Option 6 (is similar to 5 and 7) located entirely within the DCDP area. This option is located on lands zoned Z11 'canal, coastal and river amenities' associated with the royal canal and travels along the north edge of the existing Martin Savage Park (GAA pitch) (Z9 zoned - recreational, amenity and open space). North of the Canal it travels through currently a greenfield site, zoned for residential use in the Pelletstown Action Area Plan 2014 . This option goes against the LAP residential zoning. Option 6 is at some advantage (over option 7) as it will have less of an impact on the functionality of the GAA/ amenity lands however it will also have a disadvantage due on future zoned residential land. On the north side of the canal, Option 6 is routed through a permitted residential development (DCC Ref. 3666/15, ABP ref. PL29N.246373).	Option 7 (is similar to 5 and 6) and is located entirely within the DCDP area. This option is located on lands zoned Z11 'canal, coastal and river amenities' associated with the royal canal and travels through Zoned Z9 (associated with Amenity, Open Space, Green Network) associate with the existing Martin Savage Park (GAA pitch). North of the Canal it travels through currently a greenfield site, zoned residential in the Pelletstown Action Area Plan 2014. This option would go against the LAP. Option 7 is more disadvantageous than 5 and 6 due to impact on the continued functionality of the GAA/ amenity lands, larger area of zoned residential land impacted and impacts to residential amenity. On the north side of the canal, Option 7 is routed through a permitted residential development (DCC Ref. 3666/15, ABP ref. PL29N.246373). This option will impact on this permitted development.	Option 8 is located entirely within the DCDP area. Option 8 is located within lands zoned for Z9 (Amenity, Open Space, Green Network) and Z11 (canal, coastal and river amenities) associated with the Royal Canal. Option 8 provides walking and cycling access only which would impact vehicular connectivity to existing and future developments . The GDATS includes an objective to enhance linkages to planned developments.	Upgrades the Irish Rail's railway infrastructure. No direct impacts to planning policy/ zoned lands. Significant land use integration during construction stage due to requirement to close railway for approximately 3 years during construction phase impacting rail uses.
2.3	**Geographical Integration**	Comparable to other options	Comparable to other options	Comparable to other options	Comparable to other options
		No significant effect on geographical integration.	No significant effect on geographical integration.	No significant effect on geographical integration.	No significant effect on geographical integration.
2.4	**Other Government Policy Integration**	Significant comparative advantage over other options	Significant comparative advantage over other options	Significant comparative disadvantage over other options	Significant comparative advantage over other options
		This option supports the delivery of the higher level national and regional planning policies regarding the DART + programme (NPF, RSES, GDA Transport Strategy).	This option supports the delivery of the higher level national and regional planning policies regarding the DART + programme (NPF, RSES, GDA Transport Strategy).	This option would not support the delivery of the higher level national and regional planning policies regarding the DART + programme (NPF- (NS04), RSES & GDA Transport Strategy).	This option supports the delivery of the higher level national and regional planning policies regarding the DART + programme (NPF, RSES, GDA Transport Strategy).
3.1	**Noise and Vibration**	Some comparative disadvantage over other options	Significant comparative disadvantage over other options	Some comparative advantage over other options	Some comparative disadvantage over other options
		Moves traffic to rear of apt block from current road layout. This option will introduce additional noise to the rear apartments while also decreasing road traffic noise levels to the apartments currently facing the front of the apartment block. Construction phase is potentially less significant than Option 5 due to lesser excavation required. 220 dwellings within 100m.	Moves traffic to new route away from current route and therefore introduces traffic - related impacts on other properties. 316 properties within 100m.	Pedestrian crossing will have impacts during construction. 147 dwellings within 100m of both vehicular route and pedestrian crossing. Traffic is removed in during the operational phase and diverted to Ratoath Road, River Road, Nephin Road and the Navan Road.	The construction stage impacts of this option are potentially significant on a greater number of properties due to the 2km extent either side. Operational noise impacts are not expected to change compared to the Do Nothing scenario.
3.2	**Air Quality and Climate**	Some comparative disadvantage over other options	Some comparative disadvantage over other options	Significant comparative advantage over other options	Significant comparative disadvantage over other options
		Moves traffic to new route away from current route and therefore impacts on properties. 91 dwellings within 50m. This option also brings additional traffic to proximity of a school (highly sensitive receptor). Potential for construction phase dust impact is not significant when mitigation measures are put in place.	Moves traffic to new route away from current route and therefore impacts on properties. 100 properties within 50m. Additional road infrastructure would increase embodied carbon for this option. Potential for construction phase dust impact is not significant when mitigation measures are put in place.	Pedestrian crossing will have impacts during construction. 30 dwellings within 50m of pedestrian crossing with only construction phase impacts. Potential for construction phase dust impact is not significant when mitigation measures are put in place. Traffic is diverted onto the local road network during the operational phase. Traffic requires rerouting a significant distance however traffic redistribution has not been considered.	The construction stage impacts of this option are potentially significant on a greater number of properties due to the 2km extent either side. The construction phase is also likely to have a great embodied energy and due to the closure of the railway for an extended period impact on potential rail users. Potential for construction phase dust impact is not significant when mitigation measures are put in place.
3.3	**Landscape and Visual (including light)**	Significant comparative disadvantage over other options	Significant comparative disadvantage over other options	Some comparative advantage over other options	Significant comparative disadvantage over other options
		Option will have a significant impact on boundary trees/hedgerows along the railway / canal corridor (a conservation area in the Dublin City Development Plan). Option will have a very significant impact on open space and Oliver Plunket's GAA club/pitches at Martin Savage Park. Options would have a very significant impact on mature tree-lined hedgerow and linear open space between the established residential developments of Kempton Green and Ashbrook. NOTE: Option cuts through a permitted residential development on north side of canal - with very significant implications for the permitted layout (DCC Ref. 3666/15, ABP ref. PL29N.246373 - Active planning application 2596/20) Option will have very significant visual impact for properties at Ashbrook, Kempton Green, and for users of Martin Savage Open Space and the Royal Canal.	Option will have a significant visual impact along the canal corridor and for users of the canal (a conservation area in the Dublin City Development Plan). Option will have a very significant impact on open space and sports pitches at Martin Savage Park. Option will have very significant visual impact for properties at the north end of Martin Savage Open Space. Note: Option cuts through a permitted residential development on north side of canal - with very significant implications for the permitted layout (DCC Ref. 3666/15, ABP ref. PL29N.246373 - Active planning application 2596/20).	The bridge overswings the canal in a visually incongruous manner. Royal canal corridor is identifed as a conservation area in the Dublin City Development Plan. Lands south of the canal are zoned open space (Z9) for the protection, provision and improvement of recreational amenity, open space and green networks.	Signficant loss of trees and vegetation along canal and railway corridor. Visual impact for properties along lowered railway / works areas. Signficant construction period with associated significant landscape and visual disruption.
3.4	**Biodiversity (flora and fauna)**	Significant comparative disadvantage over other options	Significant comparative disadvantage over other options	Some comparative disadvantage over other options	Significant comparative disadvantage over other options
		This option is hydrologically connected to European Sites downstream in the Tolka Estuary and Dublin Bay. Construction at Martin Savage Park could result in permanent loss of habitat and disturbance to Light-bellied Brent Goose (Qualifying Interest of SPAs) which are known forage in significant numbers at this location. There is potential for impacts to Royal Canal pNHA arising from noise, artificial lighting and impacts to water quality during construction. Loss of grassland habitat anticipated.	This option is hydrologically connected to European Sites downstream in the Tolka Estuary and Dublin Bay. Construction at Martin Savage Park could result in permanent loss of habitat and disturbance to Light-bellied Brent Goose (Qualifying Interest of SPAs) which are known forage in significant numbers at this location. There is potential for impacts to Royal Canal pNHA arising from noise, artificial lighting and impacts to water quality during construction. Loss of grassland and treeline habitat anticipated.	This option is hydrologically connected to European Sites downstream in the Tolka Estuary and Dublin Bay. There is no risk of Likely Significant Effects to these sites or any other European Site. There is potential for construction and operational stage impacts to Royal Canal pNHA arising from noise and artificial lighting. During construction of the pedestrian/cycle overbridge, water quality in the canal could be impacted during the dewatering required for the realignment of the canal in addition to the demolition of the existing bridge. Works within the canal could impact fish and native white-clawed crayfish which will have to be taken from the water in advance of the works. Demolition works could also disturb and displace fauna.	This option is hydrologically connected to European Sites downstream in the Tolka Estuary and Dublin Bay. There is no risk of Likely Significant Effects to this or any other European Site. There is potential for construction and operational stage impacts to Royal Canal pNHA arising from noise and artificial lighting. During the construction stages water quality in the canal could be impacted during the dewatering required for the channelisation and relining of the canal in addition to the demolition of the canal bridge and locks. Works within the canal could impact fish and native white-clawed crayfish which will have to be taken from the water in advance of the works. Demolition works could also disturb and displace fauna. Long term closure of the canal will act as barrier to connectivity for Otter and result in loss of foraging resources for Otter and Bats which commute and forage along the canal. Badger and their setts could be disturbed during construction leading to sett abandonment.
3.5	**Cultural, Archaeological and Architectural Heritage**	Some comparative advantage over other options	Some comparative advantage over other options	Some comparative advantage over other options	Significant comparative disadvantage over other options
		Potential for indirect impacts on the Royal Canal (RPS No. 944a). Potential to encounter archaeological deposits that may survive within undeveloped areas.	Potential for indirect impacts to the Royal Canal (RPS No. 944a). Potential to encounter archaeological deposits that may survive within undeveloped areas.	Potential for indirect impacts to the Royal Canal (RPS No. 944a). Potential to encounter archaeological deposits that may survive within undeveloped areas.	Potential direct impacts on Royal Canal (RPS No. 944a) and the Royal Canal 10th Lock (RPS No. 944b) and direct impact on Longford Bridge.
3.6	**Water Resources**	Some comparative advantage over other options	Some comparative advantage over other options	Some comparative advantage over other options	Significant comparative disadvantage over other options
		This option has the potential to impact on water quality of the Royal Canal during the construction phase of the overbridge. Has some comparative advantage over other options.	This option has the potential to impact on water quality of the Royal Canal during the construction phase of the overbridge. Has some comparative advantage over other options.	Construction works for this option are adjacent to the Royal Canal and has the potential for minor impact on surface water quality during construction. This option however, removes vehicular traffic born pollutants and minimal construction phase.	The in-stream works required constitute a flood hazard and is significantly disadvantageous compared to the other options. The construction works within the Royal Canal proposed as part of Option 9 is likely to have a significant negative impact on Surface water quality. Excavations required for lowering of the railway vertical alignment also pose potential risk to Groundwater quality. Option is disadvantageous across all water sub-criteria and has a significant comparative disadvantage.
3.7	**Agriculture and Non-Agricultural**	Some comparative disadvantage over other options	Some comparative disadvantage over other options	Significant comparative advantage over other options	Significant comparative advantage over other options
		The agricultural impact will have a slight impact on Ashtown Stables. The non-agricultural impact will have significant impacts on a development property (with planning permission (Ref. 3666/15) for residential development) and on a playing pitch on St. Oliver Plunkett Club lands. The remaining residential and commercial property impacts will be slight.	The non-agricultural impact will have significant impacts on a development property (with planning permission (Ref. 3666/15) for residential development) and on two playing pitches in St. Oliver Plunkett's Club. The remaining residential and commercial property impacts will be slight.	The agricultural impact will have a slight impact on Ashtown Stables. The non-agricultural impact will have a slight impact on amenity lands including Martin Savage Park and St. Oliver Plunkett Club lands.	The agricultural impact will have a slight impact on Ashtown Stables. The non-agricultural impact will involve impacts on the existing Ashtown train station which is proposed to be demolished and then reconstructed. The remaining works will occur within the confines of existing railway corridor therefore no significant impacts.
3.8	**Geology and Soils (including Waste)**	Some comparative disadvantage over other options	Some comparative disadvantage over other options	Significant comparative advantage over other options	Significant comparative disadvantage over other options
		Some made ground on-site (requires walkover survey / investigation). Overbridge options require increased fill import to the site (Minor negative).	Some made ground on-site (requires walkover survey / investigation). Overbridge options require increased fill import to the site (Minor negative). This option appears to have the highest earthworks needs.	Development limited to existing footprint with minimal/low fill import requirements (minimal impact) however difficulties in interaction with existing platform structures - survey / investigation required to manage geotechnical risks.	Although overbridge and approach roads construction requires less fill import to the site, the arisings from the railway lowering are much more likely to include ground contamination (considered medium to high risk, subject to further investigation). No pits or quarries are present. Comparative disadvantage is due to likelihood of ground contamination and more extensive length of works interfacing the canal.
3.9	**Radiation and Stray Current**	Some comparative disadvantage over other options	Some comparative disadvantage over other options	Some comparative disadvantage over other options	Some comparative disadvantage over other options
		It is assumed that the routing of the cabling, the location of existing substations, hubs etc. along the line will be changed or impacted by the selection of any of the options over the entire project. All Do-Something options are comparable from an EMI perspective at this stage in the assessment.	It is assumed that the routing of the cabling, the location of existing substations, hubs etc. along the line will be changed or impacted by the selection of any of the options over the entire project. All Do-Something options are comparable from an EMI perspective at this stage in the assessment.	It is assumed that the routing of the cabling, the location of existing substations, hubs etc. along the line will be changed or impacted by the selection of any of the options over the entire project. All Do-Something options are comparable from an EMI perspective at this stage in the assessment.	It is assumed that the routing of the cabling, the location of existing substations, hubs etc. along the line will be changed or impacted by the selection of any of the options over the entire project. All Do-Something options are comparable from an EMI perspective at this stage in the assessment.
4.1	**Impact on Vulnerable Groups**	Some comparative advantage over other options	Some comparative advantage over other options	Significant comparative advantage over other options	Significant comparative advantage over other options
		Diverted distance route is 650m (1.4 x diversion route).	Diverted distance route is 650m (1.4 x diversion route).	Road traffic diverted distance route is 4.3km (10 x diversion route) steep gradients on north side of option will be a disadvantage to vulnerable road users. Local ped/cycle access maintained along ramped access over proposed bridge - ~400m diversion.	Original Distance roundabout to roundabout 500m retained.
4.2	**Stations Accessibility**	Significant comparative advantage over other options	Significant comparative advantage over other options	Significant comparative advantage over other options	Significant comparative advantage over other options
		Station Accessibility is addressed for all level crossing options in proximity to a station This option does not significantly affect access to the station.	Station Accessibility is addressed for all level crossing options in proximity to a station. This option does not significantly affect access to the station.	Station Accessibility is addressed for all level crossing options in proximity to a station. This option does not significantly affect access to the station.	Station Accessibility is addressed for all level crossing options in proximity to a station. This option does not significantly affect access to the station.
4.3	**Social Inclusion**	Some comparative disadvantage over other options	Some comparative disadvantage over other options	Significant comparative disadvantage over other options	Significant comparative advantage over other options
		This option does not cause community severance. This option does not curtail access to community amenities Diverted distance route is 650m (1.4 x diversion route).	This option does not cause community severance. This option does not curtail access to community amenities Diverted distance route is 650m (1.4 x diversion route).	Diverted distance for vehicular traffic 4.3km (10 x diversion route), proposed pedestrian / cycle bridge maintains local non-vehicular access. Community facilities affected by reduced access include Shopping facilities, Giraffe Childcare, Pelletstown Educate Together National School - North of the railway and Halfway House, Ashtown Post Oddice St Dominics College, Meaghers Pharmacy, Daughters of Charity - south of the railway.	This option does not cause community severance. This option does not affect access to community amenities.
5.1	**Rail Safety**	Significant comparative advantage over other options	Significant comparative advantage over other options	Significant comparative advantage over other options	Significant comparative disadvantage over other options
		This option removes the railway level crossing, a characteristic which is considered positive from the perspective of railway safety. There is no significant construction activity along the railway associated with the level crossing	This option removes the railway level crossing, a characteristic which is considered positive from the perspective of railway safety. There is no significant construction activity along the railway associated with the level crossing	This option removes the railway level crossing, a characteristic which is considered positive from the perspective of railway safety. There is no significant construction activity along the railway associated with the level crossing	This option removes the railway level crossing, a characteristic which is considered positive from the perspective of railway safety. This option has significant and prolongues impact on the live railway during construction.
5.2	**Vehicular Traffic Safety**	Significant comparative advantage over other options	Significant comparative advantage over other options	Significant comparative disadvantage over other options	Significant comparative advantage over other options
		Providing a segregated crossing would have a significant advantage as vehicular traffic is not crossing the live rail.	Providing a segregated crossing would have a significant advantage as vehicular traffic is not crossing the live rail.	This option closes the level crossing - removes a signficant hazard to transport users; This option will result in traffic diversions of up to 4.3km and increased congestion on the local road network. This option incorporates good segregation for pedestrians, cyclists and cars from railway traffic.	This option closes the level crossing - removes a signficant hazard to transport users; This option will not significantly divert traffic. This option incorporates good segregation for pedestrians, cyclists and cars from railway traffic.
5.3	**Pedestrian, Cyclist and Vulnerable Road user Safety**	Some comparative disadvantage over other options	Some comparative disadvantage over other options	Some comparative disadvantage over other options	Significant comparative advantage over other options
		Diverted distance route is 1.1km (2x diversion route).	Diverted distance route is 974m (1.9x diversion route).	This option removes the level crossing. It replaces pedestrian and cycle access with a pedestrian cycle bridge. Other vulnerable road users are diverted onto the existing road network. Diverted road users will be required to negotiate up to 6No additional junctions including traffic light junctions and roundabouts, typically turning left travelling southbound, right if travelling northbound. This options does not provide for segregation on the diversion routes for vulnerable road users.	This option closes the level crossing. It provides a new link along approximately the same line as the original; The junction strategy for vulnerable road users is unaffected by this option; This option incorporates good segregation for pedestrians, cyclists and cars from railway traffic.
6.1	**Connectivity to adjoining cycling facilities**	Significant comparative advantage over other options	Significant comparative advantage over other options	Significant comparative advantage over other options	Significant comparative advantage over other options
		This option supports good linkage between existing and proposed cycle facilities The quality of access to the train station for pedestrians and cyclists is good in respect of this option.	This option supports good linkage between existing and proposed cycle facilities The quality of access to the train station for pedestrians and cyclists is good in respect of this option.	This option supports good linkage between existing and proposed cycle facilities The quality of access to the train station for pedestrians and cyclists is good in respect of this option.	This option supports good linkage between existing and proposed cycle facilities The quality of access to the train station for pedestrians and cyclists is good in respect of this option.
6.2	**Permeability and local access opportunity**	Some comparative disadvantage over other options	Some comparative disadvantage over other options	Significant comparative advantage over other options	Significant comparative advantage over other options
		Cross Railway journey = nil as the proposed option is along the plan alignment of the existing Coolmine Road. Diversion for cyclists when level crossing closed 0.65km The principal high amenity greenspace in the vicinity of the existing train station is the Royal canal. This access is maintained by the proposed bridge scheme.	Cross Railway journey = nil as the proposed option is along the plan alignment of the existing Coolmine Road. Diversion for cyclists when level crossing closed is 0.65km. The principal high amenity greenspace in the vicinity of the existing train station is the Royal canal. This access is maintained by the proposed bridge scheme.	Cross Railway journey = nil as the proposed option is along the plan alignment of the existing Ashtown Road. Diversion for cyclists when level crossing closed is 0.3km. The principal high amenity greenspace in the vicinity of the existing train station is the Royal canal. This access is maintained by the proposed bridge scheme.	Cross Railway journey = nil as the proposed option is along the plan alignment of the existing Ashtown Road. Diversion for cyclists when level crossing closed is nil. The principal high amenity greenspace in the vicinity of the existing train station is the Royal canal. This access is maintained by the proposed bridge scheme.

	Criteria	Option 10 (UnBridge West of Mill, PedOvBridge at Station)	Option 11 (Improvements on Local Road Network, PedOvBridge at Station)	Option 12 (Road OvBridge West from Navan Parkway Stn, PedCycOvBridge at Ashtown Station)	Option 13 (OvrBridge West of Mill, PedOvBridge at Station)
2.2	**Land Use Integration**	Significant comparative advantage over other options	Significant comparative disadvantage over other options	Some comparative disadvantage over other options	Some comparative disadvantage over other options
		Option 10 consists of two structures, an overbridge west of Mill Lane and a pedestrian overbridge at Ashtown Station. At local planning policy level, the extents of the underbridge are primarily located within Fingal CDP area. Lands are zoned for 'High Technology' (to the south of the Canal) and travels north of the canal into the start of a large area of land zoned 'High Amenity'. This option is within the future Navan Road Parkway LAP (map-based objective: LAP 13.B) and is likely to support overall land use and transport planning integration. Subject to further design and traffic data. Northern extents of Option 10 are located within High Amenity lands however, for most part the option follows the existing road network which would reduce its impact on this land use. Road works proposed as part of Option 10 are also located within a small section of Dublin CDP area zoned for Z9 (Amenity, Open Space, Green Network). The pedestrian and cyclist overbridge is located entirely within the Dublin CDP area. The bridge is located within lands zoned for Z9 (Amenity, Open Space, Green Network) and Z11 (canal, coastal and river amenities) associated with the Royal Canal. The overbridge will provide an improved walking and cycling access into the Village Centre.	Option 11 consists of upgrade works to River Road and the construction of a pedestrian and cyclist bridge at Ashtown Station. Option 11 is within Dublin CDP and Fingal CDP areas. The road upgrade works are confined largely to the footprint of the existing road, however widening works will be required into lands zoned Z9 (Amenity, Open Space, Green Network) under the Dublin CDP and lands zoned 'High Amenity' under Fingal CDP. The improvement works proposed as part of Option 11 support the realisation of Objective MTO31 of the Dublin CDP to 'To initiate and/or implement the following road improvement schemes and bridges' which lists River Road as one of the roads to be improved. The pedestrian and cyclist overbridge is located entirely within the Dublin CDP area. The bridge is located within lands zoned for Z9 (Amenity, Open Space, Green Network) and Z11 (canal, coastal and river amenities) associated with the Royal Canal. Although Option 11 maintains pedestrian and cyclist access at Ashtown Station, vehicular connectively to existing and future developments will be impacted. The GDATS includes an objective to enhance linkages to planned developments.	Option 12 consists of two structures, a vehicular overbridge from Navan Road Parkway station connecting to Ashtown Village Centre and a pedestrian overbridge at Ashtown Station. At local planning policy level, the vehicular overbridge are located within Fingal CDP area. Lands are zoned for 'High Technology' (to the south of the Canal) and travel north of the canal into the start of a large area of land zoned 'High Amenity'. The introduction of a new overbridge in a High Amenity area would not work towards 'Objective NH51' (FCDP) "Protect High Amenity areas from inappropriate development and reinforce their character, distinctiveness and sense of place". Option 12 crosses through the middle of lands zoned for 'High Amenity' and would have a greater impact on its land use zoning objective when compared to Options 2 and 3. Extents of the option to the south of the Royal Canal are within undeveloped lands zoned for development under future Navan Road Parkway LAP (map-based objective: LAP 13.B). Option 12 may reduce the area of land to be developed as part of the LAP but will likely to support overall land use and transport planning integration. Subject to further design and traffic data. The pedestrian and cyclist overbridge is located entirely within the Dublin CDP area. The bridge is located within lands zoned for Z9 (Amenity, Open Space, Green Network) and Z11 (canal, coastal and river amenities) associated with the Royal Canal. The overbridge will provide an improved walking and cycling access into the Village Centre. This option has some comparative disadvantage due to the impact on zoned high amenity lands.	Option 13 consists of two structures, an all-user overbridge west of Mill Lane and a pedestrian overbridge at Ashtown Station. At local planning policy level, the overbridge is located within Fingal CDP area. Lands are zoned for 'High Technology' (to the south of the Canal) and travel north of the canal into the start of a large area of land zoned 'High Amenity'. The introduction of a new overbridge in a High Amenity area would not work towards 'Objective NH51' (FCDP) "Protect High Amenity areas from inappropriate development and reinforce their character, distinctiveness and sense of place". Option 13 crosses through the middle of lands zoned for 'High Amenity' and would have a greater impact on its land use zoning objective when compared to Options 2 and 3. This option is within the future Navan Road Parkway LAP (map-based objective: LAP 13.B) and is likely to support overall land use and transport planning integration. Subject to further design and traffic data. The pedestrian and cyclist overbridge is located entirely within the Dublin CDP area. The bridge is located within lands zoned for Z9 (Amenity, Open Space, Green Network) and Z11 (canal, coastal and river amenities) associated with the Royal Canal. The overbridge will provide an improved walking and cycling access into the Village Centre. This option has some comparative disadvantage due to the impact on zoned high amenity lands.
2.3	**Geographical Integration**	Comparable to other options	Comparable to other options	Comparable to other options	Comparable to other options
		No significant effect on geographical integration.	No significant effect on geographical integration.	No significant effect on geographical integration.	No significant effect on geographical integration.
2.4	**Other Government Policy Integration**	Significant comparative advantage over other options	Significant comparative advantage over other options	Significant comparative advantage over other options	Significant comparative advantage over other options
		This option supports the delivery of the higher level national and regional planning policies regarding the DART + programme (NPF, RSES, GDA Transport Strategy).	This option supports the delivery of the higher level national and regional planning policies regarding the DART + programme (NPF, RSES, GDA Transport Strategy).	This option supports the delivery of the higher level national and regional planning policies regarding the DART + programme (NPF, RSES, GDA Transport Strategy).	This option supports the delivery of the higher level national and regional planning policies regarding the DART + programme (NPF, RSES, GDA Transport Strategy).
3.1	**Noise and Vibration**	Some comparative advantage over other options	Significant comparative advantage over other options	Some comparative advantage over other options	Some comparative advantage over other options
		Moves traffic to rear of apt block from current road layout. This option will introduce additional noise to the rear apartments while also decreasing road traffic noise levels to the apartments currently facing the front of the apartment block. Construction phase of this option will be more significant due to the excavation required. 206 properties within 100m.	The pedestrian bridge and station upgrades will have some impacts during construction. 673 dwellings within 100m of both vehicular route and pedestrian crossing, however, this option is expected to reduce noise impacts within Ashtown and is expected to result in small scale change in noise levels elsewhere due to traffic redistribution during the operational phase.	Moves traffic to rear of apt block from current road layout. This option will introduce additional noise to the rear apartments while also decreasing road traffic noise levels to the apartments currently facing the front of the apartment block. Construction phase of this option will be less significant than Option 2 due to less excavation required. 168 dwellings within 100m.	Moves traffic to rear of apt block from current road layout. This option will introduce additional noise to the rear apartments while also decreasing road traffic noise levels to the apartments currently facing the front of the apartment block. Construction phase of this option will be more significant due to the excavation required. 206 properties within 100m.
3.2	**Air Quality and Climate**	Some comparative disadvantage over other options	Significant comparative advantage over other options	Some comparative disadvantage over other options	Some comparative disadvantage over other options
		Moves traffic to rear of apt block from current road layout. 117 dwellings within 50m where traffic has been moved from front to back. Embodied carbon for new over and under bridge. Potential for construction phase dust impact is not significant when mitigation measures are put in place.	Pedestrian cycle bridge and station reconstruction will have minor impacts during construction. 158 dwellings within 50m of both vehicular route and pedestrian crossing, however, this option is expected to reduce air emission impacts within Ashtown. This rating is chosen on the assumption that congestion is not increased elsewhere as a result of the new road arrangement.	Pedestrian crossing will have impacts during construction. 94 dwellings within 50m of both vehicular route and pedestrian crossing. Potential for construction phase dust impact is not significant when mitigation measures are put in place.	Moves traffic to rear of apt block from current road layout. 114 dwellings within 50m where traffic has been moved from front to back. Embodied carbon for new bridge and excavation. Potential for construction phase dust impact is not significant when mitigation measures are put in place.
3.3	**Landscape and Visual (including light)**	Some comparative advantage over other options	Some comparative disadvantage over other options	Some comparative disadvantage over other options	Significant comparative disadvantage over other options
		Option will have a very significant impact on boundary trees/woodlands, entrance gates and lodge at Ashton (Ashtown) House, a protected structure (No. 690). Lands of Ashton House and the corridor of the Royal Canal west of Longford Bridge are zoned High Amenity and identified as a Nature Development Area in the Fingal Development Plan. Option underpassess canal, which reduces landscape and visual impact on canal corridor. Moderate visual impact for setting of 10th Lock on Royal Canal and for mill buildings south of canal. Moderate impact due to removal of roadside tree-lined hedgerows leading to railway.	The footbridge overswings the canal in a visually incongruous manner. Royal canal corridor is identified as a conservation area in the Dublin City Development Plan. Lands south of the canal are zoned open space (Z9) for the protection, provision and improvement of recreational amenity, open space and green networks. Significant landscape and visual impact associated with construction works on River Road.	Option will have a very significant impact on boundary trees/woodlands, entrance gates and lodge at Ashton (Ashtown) House, a protected structure (No. 690). Lands of Ashton House and the corridor of the Royal Canal west of Longford Bridge are zoned High Amenity and identified as a Nature Development Area in the Fingal Development Plan.	Option will have a very significant impact on boundary trees/woodlands, entrance gates and lodge at Ashton (Ashtown) House, a protected structure (No. 690). Lands of Ashton House and the corridor of the Royal Canal west of Longford Bridge are zoned High Amenity and identified as a Nature Development Area in the Fingal Development Plan.
3.4	**Biodiversity (flora and fauna)**	Some comparative disadvantage over other options	Significant comparative disadvantage over other options	Some comparative disadvantage over other options	Some comparative disadvantage over other options
		This option is hydrologically connected to European Sites downstream in the Tolka Estuary and Dublin Bay. There is no risk of Likely Significant Effects to these sites or any other European Site. There is potential for impacts to Royal Canal pNHA arising from noise, artificial lighting and impacts to water quality during construction. During construction of the pedestrian/cycle overbridge, water quality in the canal could be impacted during the dewatering required for the realignment of the canal in addition to the demolition of the existing bridge. Works within the canal could impact fish and native white-clawed crayfish which will have to be taken from the water in advance of the works. Demolition works could also disturb and displace fauna. Badger and their setts could be disturbed during construction leading to sett abandonment. Demolition of Old Mill Lane buildings may impact bats but further studies would be required to determine potential impacts on bats. Loss of woodland habitat is anticipated.	This option is hydrologically connected to European Sites downstream in the Tolka Estuary and Dublin Bay through both the Royal Canal and Tolka River. There is no risk of Likely Significant Effects to these Sites or any other European site. There is potential for construction and operational stage impacts to Royal Canal pNHA arising from noise and artificial lighting. During construction of the pedestrian/cycle overbridge, water quality in the canal could be impacted during the dewatering required for the realignment of the canal in addition to the demolition of the existing bridge. Works within the canal could impact fish and native white-clawed crayfish which will have to be taken from the water in advance of the works. Demolition works could also disturb and displace fauna. Works along the north side of River Road have the potential to impact negatively on water quality in the Tolka River and European sites downstream. Extensive loss of linear woodland and treeline/hedgerow habitat along this road will fragment ecological connectivity and disturb dwelling and resting habitats for fauna therefore negatively impacting biodiversity within the river corridor. Disturbance and displacement of fauna may occur where vegetation is removed but further studies would be required to determine potential impacts.	This option is hydrologically connected to European Sites downstream in the Tolka Estuary and Dublin Bay. There is no risk of Likely Significant Effects to these sites or any other European Site. There is potential for impacts to Royal Canal pNHA arising from noise, artificial lighting and impacts to water quality during construction. During construction of the pedestrian/cycle overbridge, water quality in the canal could be impacted during the dewatering required for the realignment of the canal in addition to the demolition of the existing bridge. Works within the canal could impact fish and native white-clawed crayfish which will have to be taken from the water in advance of the works. Demolition works could also disturb and displace fauna. Badger and their setts could be disturbed during construction leading to sett abandonment. Demolition of Old Mill Lane buildings may impact bats but further studies would be required to determine potential impacts on bats. Loss of woodland, scrub and grassland habitat is anticipated.	This option is hydrologically connected to European Sites downstream in the Tolka Estuary and Dublin Bay. There is no risk of Likely Significant Effects to this or any other European Site. There is potential for impacts to Royal Canal pNHA arising from noise, artificial lighting and impacts to water quality during construction. During construction of the pedestrian/cycle overbridge, water quality in the canal could be impacted during the dewatering required for the realignment of the canal in addition to the demolition of the existing bridge. Works within the canal could impact fish and native white-clawed crayfish which will have to be taken from the water in advance of the works. Demolition works could also disturb and displace fauna. Demolition of Old Mill Lane buildings may impact bats but further studies would be required to determine potential impacts on bats. Loss of woodland and grassland habitat is anticipated.
3.5	**Cultural, Archaeological and Architectural Heritage**	Significant comparative disadvantage over other options	Some comparative advantage over other options	Significant comparative disadvantage over other options	Significant comparative disadvantage over other options
		Indirect impacts on mill and outbuildings (RPS 691) . Potential indirect impacts on Longford Bridge (RPS No. 693 FCC, 907 DCC), Royal Canal (RPS No. 944a) and the Royal Canal 10th Lock (RPS No. 944b). Direct impact on demesne of Ashton House in the immediate vicinity of the gate lodge, which is protected (RPS 0690). Potential to encounter archaeological deposits that may survive in undeveloped areas and path of former road way.	Potential for indirect impacts to Longford Bridge (RPS No. 693), the Royal Canal (RPS No. 944a). Potential to encounter archaeological deposits that may survive within undeveloped areas.	Direct impacts on entrance and demesne associated with Ashton House and indirect impact on setting of Ashton House (RPS No. 0690). Indirect impacts on mill and outbuildings (RPS No. 691) and Pelletstown House (structure of architectural merit). Potential indirect impacts on Royal Canal (RPS No. 944a) and the Royal Canal 10th Lock (RPS No. 944b). Potential to encounter archaeological deposits that may survive in undeveloped areas and path of former road way.	Direct impacts on entrance and demesne associated with Ashton House (RPS 0690), though at a further distance from Ashton House than option 12. Indirect impacts on mill and outbuildings (RPS 691) and Pelletstown House (structure of architectural merit). Potential indirect impacts on Royal Canal (RPS No. 944a) and the Royal Canal 10th Lock (RPS No. 944b). Potential to encounter archaeological deposits that may survive in undeveloped areas and path of former road way.
3.6	**Water Resources**	Some comparative disadvantage over other options	Some comparative advantage over other options	Some comparative advantage over other options	Some comparative advantage over other options
		Underpass excavations pose potential risk to groundwater quality and residual flood risk. This option also has some minor potential impacts on surface water from the construction of the pedestrian / cyclist overbridge. Has some comparative disadvantage over other options.	Construction works for this option are adjacent to the River Tolka/Royal Canal and has the potential for minor impact on surface water quality during construction of the overbridge. Potential impacts on River Tolka are greater over other options. This option however, removes vehicular traffic borne pollutants by removing traffic at the Royal Canal. Overall, minimal construction works are required for this option when compared to other options.	This option has the potential to impact on water quality of the Royal Canal during the construction phase of the road and the pedestrian / cyclist overbridge. Has some comparative advantage over other options.	This option has the potential to impact on water quality of the Royal Canal during the construction phase of the road and the pedestrian / cyclist overbridge. Has some comparative advantage over other options.
3.7	**Agriculture and Non-Agricultural**	Significant comparative disadvantage over other options	Significant comparative advantage over other options	Some comparative advantage over other options	Significant comparative disadvantage over other options
		The agricultural impact will have a slight impact on Ashtown Stables. The non-agricultural impact will include a profound impact on one commercial (Burke Bros Ltd.) property and significant impacts on one commercial property (Gowans) and development property. The remaining residential, commercial and amenity property impacts will be slight.	The agricultural and non-agricultural property impacts will have slight property impacts associated with upgrade of local road network including River road from Dunsink Lane to Rathoath Road.	The non-agricultural impact will have a moderate impact on Ashtown House lands and one development property. The remaining amenity property impacts will be slight.	The agricultural impact will have a slight impact on Ashtown Stables. The non-agricultural impact will include a profound impact on one commercial (Burke Bros Ltd.) property and significant impacts on one commercial property (Gowans) and one development property. It will also include a moderate impact on Ashtown House lands. The remaining residential, commercial and amenity property impacts will be slight.
3.8	**Geology and Soils (including Waste)**	Some comparative disadvantage over other options	Significant comparative advantage over other options	Some comparative advantage over other options	Some comparative advantage over other options
		Underbridge option means that some materials may arise, which could possibly be suitable for reuse elsewhere on the project (Minor positive). Some made ground on-site (requires walkover survey / investigation). Associated impact of interfering with the canal and existing railway, which may require specific materials be imported. Involves other geotechnical risks to design and construction which would require further studies and design information.	Road network improvements on-line mainly within existing footprint with minimal/low fill import requirements (minimal impact). Minor impact for pedestrian overbridge plus this has difficulties in interaction with existing platform structures - survey / investigation required to manage geotechnical risks.	Some made ground on-site (requires walkover survey / investigation). Road overbridge has fill import requirements (minor negative impact). Minimal impact for pedestrian/station overbridge but this has difficulties in interaction with existing platform structures - survey / investigation required to manage geotechnical risks.	Some made ground on-site (requires walkover survey / investigation). Road overbridge has fill import requirements (minor negative impact). Minimal impact for pedestrian/station overbridge but this has difficulties in interaction with existing platform structures - survey / investigation required to manage geotechnical risks.
3.9	**Radiation and Stray Current**	Some comparative disadvantage over other options	Some comparative disadvantage over other options	Some comparative disadvantage over other options	Some comparative disadvantage over other options
		It is assumed that the routing of the cabling, the location of existing substations, hubs etc. along the line will be changed or impacted by the selection of any of the options over the entire project. All Do-Something options are comparable from an EMI perspective at this stage in the assessment.	It is assumed that the routing of the cabling, the location of existing substations, hubs etc. along the line will be changed or impacted by the selection of any of the options over the entire project. All Do-Something options are comparable from an EMI perspective at this stage in the assessment.	It is assumed that the routing of the cabling, the location of existing substations, hubs etc. along the line will be changed or impacted by the selection of any of the options over the entire project. All Do-Something options are comparable from an EMI perspective at this stage in the assessment.	It is assumed that the routing of the cabling, the location of existing substations, hubs etc. along the line will be changed or impacted by the selection of any of the options over the entire project. All Do-Something options are comparable from an EMI perspective at this stage in the assessment.
4.1	**Impact on Vulnerable Groups**	Some comparative disadvantage over other options	Significant comparative advantage over other options	Significant comparative advantage over other options	Some comparative disadvantage over other options
		Road traffic diverted distance route is 572m (1.1x diversion route). Local ped/cycle access maintained along ramped access over ped/cycle bridge, ~340m diversion. The stables represent a significant amenity for vulnerable persons. This option is likely to result in some impact on the stables during construction.	Road traffic diverted distance route is 4.3km (10 x diversion route). Local ped/cycle access maintained along ramped access over proposed bridge - ~400m diversion.	Road traffic diverted distance route is 750m (1.4 x diversion route) steep gradients on north side of option will be a disadvantage to vulnerable road users. Local ped/cycle access maintained along ramped access over proposed bridge - ~340m diversion.	Road traffic diverted distance route is 572m (1.1x diversion route). Local ped/cycle access maintained along ramped access across overbridge, ~340m diversion. The stables represent a significant amenity for vulnerable persons. This option is likely to result in a small degree of impact on the stables during construction.
4.2	**Stations Accessibility**	Significant comparative advantage over other options	Significant comparative advantage over other options	Significant comparative advantage over other options	Significant comparative advantage over other options
		Station Accessibility is addressed for all level crossing options in proximity to a station. This option does not significantly affect access to the station.	Station Accessibility is addressed for all level crossing options in proximity to a station. This option does not significantly affect access to the station.	Station Accessibility is addressed for all level crossing options in proximity to a station. This option does not significantly affect access to the station.	Station Accessibility is addressed for all level crossing options in proximity to a station. This option does not significantly affect access to the station.
4.3	**Social Inclusion**	Some comparative advantage over other options	Some comparative disadvantage over other options	Some comparative disadvantage over other options	Some comparative advantage over other options
		This option does not cause community severance. This option does not curtail access to community amenities Diverted distance route is 572m (1.1x diversion route). This option impacts the southern extremity of Ashtown Stables only.	Diverted distance for vehicular traffic 4.3km (10 x diversion route), proposed pedestrian / cycle bridge maintains local non-vehicular access. Community facilities affected by reduced access include Shopping facilities, Giraffe Childcare, Pelletstown Educate Together National School - North of the railway and Halfway House, Ashtown Post Oddice St Dominics College, Meaghers Pharmacy, Daughters of Charity - south of the railway.	Diverted distance route 798m (1.6x diversion route) but existing vehicular route severed. Community facilities affected by reduced access include Shopping facilities, Giraffe Childcare, Pelletstown Educate Together National School - North of the railway and Halfway House, Ashtown Post Oddice St Dominics College, Meaghers Pharmacy, Daughters of Charity - south of the railway.	This option does not cause community severance. This option does not curtail access to community amenities Diverted distance route is 572m (1.1x diversion route). This option impacts the southern extremity of Ashtown Stables
5.1	**Rail Safety**	Significant comparative advantage over other options	Significant comparative advantage over other options	Significant comparative advantage over other options	Significant comparative advantage over other options
		Option removes the rail - road interface	This option removes the railway level crossing, a characteristic which is considered positive from the perspective of railway safety. There is no significant construction activity along the railway associated with the level crossing	Option removes the rail - road interface	Option removes the rail - road interface
5.2	**Vehicular Traffic Safety**	Significant comparative advantage over other options	Some comparative disadvantage over other options	Significant comparative advantage over other options	Significant comparative advantage over other options
		Providing a segregated crossing would have a significant advantage as vehicular traffic is not crossing the live rail.	This option closes the level crossing - removes a signficant hazard to transport users; This option will result in traffic diversions of up to 4.3km and increased congestion on the local road network. This option incorporates good segregation for pedestrians, cyclists and cars from railway traffic.	Providing a segregated crossing would have a significant advantage as vehicular traffic is not crossing the live rail	Providing a segregated crossing would have a significant advantage as vehicular traffic is not crossing the live rail
5.3	**Pedestrian, Cyclist and Vulnerable Road user Safety**	Significant comparative advantage over other options	Some comparative disadvantage over other options	Significant comparative advantage over other options	Significant comparative advantage over other options
		Diverted distance route is 572m (1.1x diversion route).	This option removes the level crossing. It replaces pedestrian and cycle access with a pedestrian cycle bridge. Other vulnerable road users are diverted onto the existing road network. Diverted road users will be required to negotiate up to 6No additional junctions including traffic light junctions and roundabouts, typically turning left travelling southbound, right if travelling northbound. This options does not provide for segregation on the diversion routes for vulnerable road users.	Diverted distance route is 565m (1.1x diversion route) steep gradients on north side of option will be a disadvantage to vulnerable road users.	Diverted distance route is 572m (1.1x diversion route).
6.1	**Connectivity to adjoining cycling facilities**	Significant comparative advantage over other options	Significant comparative advantage over other options	Significant comparative advantage over other options	Significant comparative advantage over other options
		This option supports good linkage between existing and proposed cycle facilities The quality of access to the train station for pedestrians and cyclists is good in respect of this option.	This option supports good linkage between existing and proposed cycle facilities The quality of access to the train station for pedestrians and cyclists is good in respect of this option.	This option supports good linkage between existing and proposed cycle facilities The quality of access to the train station for pedestrians and cyclists is good in respect of this option.	This option supports good linkage between existing and proposed cycle facilities The quality of access to the train station for pedestrians and cyclists is good in respect of this option.
6.2	**Permeability and local access opportunity**	Significant comparative advantage over other options	Significant comparative advantage over other options	Significant comparative advantage over other options	Significant comparative advantage over other options
		Cross Railway journey = nil as the proposed option is along the plan alignment of the existing Coolmine Road. Diversion for cyclists when level crossing closed 0.3km The principal high amenity greenspace in the vicinity of the existing train station is the Royal canal. This access is maintained by the proposed bridge scheme.	Cross Railway journey = nil as the proposed option is along the plan alignment of the existing Ashtown Road. Diversion for cyclists when level crossing closed is 0.3km. The principal high amenity greenspace in the vicinity of the existing train station is the Royal canal. This access is maintained by the proposed bridge scheme.	Cross Railway journey = nil as the proposed option is along the plan alignment of the existing Coolmine Road. Diversion for cyclists when level crossing closed 0.4km The principal high amenity greenspace in the vicinity of the existing train station is the Royal canal. This access is maintained by the proposed bridge scheme.	Cross Railway journey = nil as the proposed option is along the plan alignment of the existing Coolmine Road. Diversion for cyclists when level crossing closed 0.3km The principal high amenity greenspace in the vicinity of the existing train station is the Royal canal. This access is maintained by the proposed bridge scheme.