Made:			DY		Scheme Name - N2 Rath Roundabout to Kilmoon Cross	
Checked:				G	Project Number - 60602546	
Approved:			C	A:		
Date			Dec-20			
2019 PMGs				ise 2		
Identified Hazard or Risk.	Ex	Exposed Party			Evaluation, Design Decisions and / or Alternative Actions	
(P) indicates a Particular Risk listed in Schedule 1 of the Regulations	Contractor	Public	End User	Maintainer	<i>Description of risk or hazardous activity</i> Describe the design decisions, assumed construction methods and / or alternative actions	Is the risk / hazard significant, ie 1. Not obvious to a competent contractor or other designers, or 2. Unusual, or 3. Difficult to manage such that information should be provided to the PSDP?
Work which puts persons at work at risk of falling from a height (P)	*				The preferred option requires a crossing of the River Hurley as well as overbridges or underbridges at intersections with local roads, notably the R155 near Primatestown. Bridge construction to be optimised to accommodate prefabrication of elements of the bridge construction to minimise exposure to risk of falling from height during construction of the structures.	Yes
Work which puts persons at work at risk of burial under earthfalls (P)	*				Following the Phase 2 - Stage 3 refinements to the indicative alignment of the preferred option, a large cutting is currently included within the scheme extents. This will be revisited in Phase 3, as part of the optimisation of the cut/fill balance across the scheme. Excavations for foundations, drains, attenuation systems are to be highlighted to the contractor as part of the works information.	No
Work which puts persons at work at risk of engulfment in swampland (P)	~				There are no areas within the corridor of the preferred option that are identified as peat deposits on the Teagasc mapping. However, extents of alluvial deposits and lacustrine sediments may be encountered in proximity to the Hurley River. These areas have been identified as having compressible soil with potential instability. The preferred construction method will vary depending on the depth of the deposits encountered. Impact of soft ground at specific locations across the scheme will be highlighted to the contractor.	No

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Work which puts persons at work at risk from chemical or biological substances (P)	*				There are a number of sites within proximity to the preferred option that could have the potential for contamination beyond the boundaries of their sites. These include commercial and industrial sites, cemeteries, service stations as well as backfilled quarries. Ground investigation, including chemical testing of any route close to these sites will be implemented to determine whether contamination exists. Where possible, further refinements of the alignment design will be undertaken during Phase 3 to avoid or allow contaminated ground to remain un-disturbed. Any evidence of contamination shall be highlighted to the tenderers and incorporated within the preliminary health and safety plan, with possible remediation measures incorporated within the tender documentation.	Yes
Work with ionising radiation requiring the designation of controlled or supervised areas (P)	~				It is not envisaged that work with ionising radiation will be employed on this project.	N/A
Work near high voltage power lines (P)	*				The Baltrasna-Drybridge 110 kV Transmission Line traverses the preferred option. There is also further ESB Networks Infrastructure including MV, LV Overhead Line Infrastructure. A kick-off meeting will be held with ESB following confirmation of the preferred option. Further liaison will take place with ESB over the development of the design during Phase 3 to mitigate against potential conflicts with MV & HV powerlines. Consideration will be given to advance works contracts to divert overhead lines prior to the main construction contract commencing on site.	Yes
Work exposing persons at work to the risk of drowning (P)	1				The preferred option will include a crossing of the River Hurley. As such there is the possibility of instream works and works adjacent to major watercourses which could put the person at risk of drowning. To mitigate against this risk, new bridges should clear span the waterways where possible to reduce instream works.	Yes
Work on wells, underground earthworks and tunnels (P)	~				It is not envisaged that work on wells, underground earthworks or tunnels will be employed on this project.	N/A
Work carried out in a caisson with compressed-air atmosphere (P)	~				It is not envisaged that work in a caisson will be employed on this project.	N/A
Work involving the use of explosives (P)	~				It is not envisaged that the use of explosives will be employed on this project.	N/A

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Work involving the assembly or dismantling of heavy prefabricated components (P)	~				The works will involve the construction of a structure crossing the River Hurley. It is envisaged that a smaller span arrangement will suffice for this river crossing, as such the potential structure will likely be constructed using precast beams and permanent formwork over the river.	Yes
Confined Spaces	~				It is possible that the construction of the scheme will involve works within confined spaces. Design options to consider maximising the use of prefabrication.	No
Construction Traffic	~				It is likely that a significant amount of construction traffic will be required for the construction of the works. The preferred option involves sections of online widening and offline construction. For the online sections, further consideration will be given to either retaining the existing N2 or providing a parallel link road to provide access for local traffic and seperate this away from construction traffic. For the offline sections, it is envisaged that the majority of the construction traffic will utilise a haul route within the site, with discreet access points from the national road network as required to facilitate the works.	Yes
Railway	✓				No current or historic railway lines are located within proximity to the preferred option.	N/A
Demolition	~	✓			Subject to further refinements of the alignment design during Phase 3, the preferred option is likely to require the demolition of a number of properties. The nature of any buildings to be demolished will need to be ascertained to assess the risks and hazards.	Yes
Flooding	¥				The preferred option incorporates a crossing of the Hurley River. The Flood mapping indicates that certain areas surrounding the Hurley River are prone to flooding during extreme rainfall events. Options to reduce the risk of flooding during construction will be considered as part of the design during Phase 3. These options inlcude the identification of how premanent river / flood protection works could be installed, or the inclusion of additional land for temporary flood management. Appropriate mitigation and safety systems to be implemented by the contractor to minimise potential for flooding during the construction of the scheme and by the designer for the operational phase of the scheme. Details of flooding to be provided to the tenderers and incorporated into the Preliminary Health and Safety Plan.	Yes

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Live Traffic	~				The preferred option involves online upgrading of sections of the existing N2, as such traffic management measures will be implemented to ensure the operation of the N2 during construction. A Design Stage Traffic Management Plan will need to be developed prior to works commencing. The preferred option also involves sections of offline construction which will interface with live traffic routes such as the R155 and R152. There may be the possibility of temporary closures of some local roads during the construction of the scheme.	Yes
Utilities - EirGrid	V				The East-West Interconnector underground HV cable traverses the preferred option at the intersection between the existing N2 and the L50161 (Old Curragha Road). A kick-off meeting was held with EirGrid and APS during Phase 2, during which the location of joint bays were clarified as well as the level of the interconnector along this section. The likely solution will involve the protection of the interconnector in-situ and the construction of the new road above with a suitable clearance. Further liaison will take place with EirGrid over the development of the design during Phase 3.	Yes
Utilities - Gas Networks Ireland	1				A high-pressure Transmission gas pipeline traverses the preferred option to the north of Rath Roundabout. The Aurora Telecom National Network also traverses the N2 adjacent to the high- pressure gas line. A kick-off meeting was held with Gas Networks Ireland during Phase 2, during which the level of the gas pipeline was clarified as well as the typical protection slab and clearance requirements. The likely solution will involve the protection of the gas pipeline in-situ and the construction of the new road above with a suitable clearance. Further liaison will take place with Gas Networks Ireland over the development of the design during Phase 3.	Yes
Utilities - Irish Water	*				Rath service reservoir is located within proximity of the preferred option adjacent to the Rath Roundabout. This reservoir is the primary public water supply for the Ashbourne area and is fully operational. The facility contains the reservoir structure, water treatment facilities, water supply borehole, booster pumps, supply and distribution pipework and an electricity supply kiosk. A kick-off meeting will be held with Irish Water following confirmation of the preferred option Further liaison will take place with Irish Water over the development of the design during Phase 3. It is also noted that the Irish Water access to the existing N2 at this location is unsafe and this will also be considered as part of the design development during Phase 3.	Yes

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Presence of Asbestos	✓	~	✓	1	No presence of asbestos has been determined at this stage of the project.	N/A
Security / unauthorised access	~	✓			The preferred option is within proximity to a number of settlements including Ashbourne, Curragha, Primatestown and Cushinstown. As such, it is possible that unauthorised access could be attempted. It is also possible that there will be other location specific risks / hazards associated with anti-social behaviour. Where any locations are identified appropriate measures should be put in place prior to and during the construction phase to avoid unauthorised access to the construction site.	Yes