

ISLANDBRIDGE substation MCA Matrix

CAF Parameters	Sub-Criteria	Basis for Comparative Analysis	Option 1 Assessment	Option 2 Assessment	Option 3 Assessment	Option 4 Assessment	Option 5 Assessment	
1. Economy	Capital Expenditure (CAPEX): construction, land acquisition, servicing requirements, temporary works required to implement the option.	This sub-criterion considered comparative cost of construction, land cost (if any) and temporary works cost, servicing requirements of each site option. A high-level cost comparison was undertaken for each option (including potential land acquisitions (permanent and temporary, zoned or un-zoned land). The lowest comparative cost option was preferable to higher cost options.	Significant Comparative Disadvantage over Other Options.  Level differential and requirement for construction of special access route to public road will add to construction costs. ESB network is located on southern side of the railway tracks and would require intervention at the road bridge at St John's Road (Ref OBC0A) to get across the railway.	Some Comparative Disadvantage over Other Options.  Level differential and requirement for construction of special access route to public road via adjacent private development will add to construction costs. ESB network would necessitate interventions similar to that for Option 1.	Some Comparative Disadvantage over Other Options.  Level differential and requirement for construction of special access route to public road via adjacent private development will add to construction costs. ESB network would necessitate interventions similar to that for Option 1.& 2	Significant Comparative Advantage over Other Options  Comparatively simple access route with existing / established access to the public road network. ESB Network runs past the site along St John's Road/ R148	Some Comparable Advantage over Other Options  Comparatively simple access route with existing / established access to the public road network.	
			Significant Comparative Disadvantage over Other Options.  Located on IE property, but would require access via adjacent private residential development, difficult access due to level differences.	Some Comparative Disadvantage over other Options  Located on IE property, but would require access via adjacent private residential development	Some Comparative Disadvantage over other Options  Located on IE property, but would require access via adjacent private residential development	Significant Comparative Advantage over Other Options  Located on IE property	Significant Comparative Advantage over Other Options  Located on IE property	
			Comparable to other options / Neutral  No temp land take anticipated	Comparable to other options / Neutral  No temp land take anticipated	Comparable to other options / Neutral  No temp land take anticipated	Comparable to other options / Neutral  No temp land take anticipated	Comparable to other options / Neutral  No temp land take anticipated	
	OPEX: maintenance costs, operational costs (IE or other entities), Technology advancement and future proofing / obsolescence to maintain the option	This sub-criterion considered long term maintenance costs. The option with less risk for long term maintenance issues (and hence cost) was preferable to options with greater risk of long-term maintenance issues.	Comparable to other options / Neutral  OPEX costs for all options will be comparable	Comparable to other options / Neutral  OPEX costs for all options will be comparable	Comparable to other options / Neutral  OPEX costs for all options will be comparable	Comparable to other options / Neutral  OPEX costs for all options will be comparable	Comparable to other options / Neutral  OPEX costs for all options will be comparable	Comparable to other options / Neutral  OPEX costs for all options will be comparable
	<b>Summary Evaluation</b>		<b>Significant Comparative Disadvantage over Other Options</b>	<b>Some Comparative Disadvantage over Other Options</b>	<b>Some Comparative Disadvantage over Other Options</b>	<b>Significant Comparative Advantage over Other Options</b>	<b>Some Comparative Advantage over Other Options</b>	
	Equipment Integration	The option which best integrates with existing equipment and other infrastructure and services was preferable to other options.	The option which best integrates with existing equipment and other infrastructure and services was preferable to other options.	Some Comparable Advantage over Other Options  The site is located immediately adjacent to the proposed DART tracks	Some Comparable Advantage over Other Options  The site is located immediately adjacent to the proposed DART tracks	Some Comparable Advantage over Other Options  The site is located immediately adjacent to the proposed DART tracks	Some Comparative Disadvantage over Other Options  The site is located across the tracks and away from the proposed DART tracks, requiring additional works such as UTX crossings etc.	Some Comparative Advantage over Other Options  The site is located immediately adjacent to the proposed DART tracks
Some Comparative Disadvantage over Other Options  Existing ESB 39kV and MV services are located to the south along St John's Road and will require works to bring these services to the proposed location.				Some Comparative Disadvantage over Other Options  Existing ESB 39kV and MV services are located to the south along St John's Road and will require works to bring these services to the proposed location.	Some Comparative Disadvantage over Other Options  Existing ESB 39kV and MV services are located to the south along St John's Road and will require works to bring these services to the proposed location.	Some Comparative Advantage over Other Options  Existing ESB 38kV and MV networks are located immediately adjacent to the proposed site.	Some Comparative Disadvantage over Other Options  Existing ESB 39kV and MV services are located to the south along St John's Road and will require works to bring these services to the proposed location.	

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	IE Land use integration	The option which best integrates with existing IÉ-owned property and facilities was preferable to other options.	<p>Significant Comparative Disadvantage over Other Options</p> <p>Buildability is considered significantly more complex for this site given its location, access requirements from the road network. The design would necessitate a more complex construction phase mainly due to the space constraints and level differential to adjacent roads.</p>	<p>Some Comparative Disadvantage over Other Options</p> <p>Buildability is considered Solely more complex for this site given its location and access requirements from the road network. At time of assessment, it is also proposed to use this area for a proposed drainage attenuation tank / pond which would lead to a more complex design and construction phase</p>	<p>Significant Comparative Disadvantage over Other Options</p> <p>Buildability is considered significantly more complex for this site given its location, access requirements from the road network. The design would necessitate a more complex construction phase mainly due to the space constraints and level differential to adjacent roads.</p>	<p>Significant Advantage over Other Options</p> <p>Ease of access, favourable terrain / topography and the generous separation from other non IÉ-owned buildings means this site offers ease of construction.</p>	<p>Some Comparative Advantage over Other Options</p> <p>Ease of access, favourable terrain / topography. However site is located in close proximity to IÉ-owned buildings may cause issues when constructing.</p>
			<p>Some Comparative Disadvantage over Other Options</p> <p>This site was identified by IÉ as having greater development potential when compared to other options.</p>	<p>Some Comparative Disadvantage over Other Options</p> <p>This site was identified by IÉ as having greater development potential when compared to other options.</p>	<p>Some Comparative Advantage over Other Options</p> <p>This site was identified by IÉ as having some potential for development, but to a lesser extent than others options under consideration.</p>	<p>Some Comparative Advantage over Other Options</p> <p>This site was identified by IÉ as having some potential for development, but to a lesser extent than others options under consideration.</p>	<p>Some Comparative Advantage over Other Options</p> <p>This site was identified by IÉ as having some potential for development, but to a lesser extent than others options under consideration.</p>
			<p>Comparable to Other Options / Neutral</p> <p>All options can be constructed without impacting on operation of the railway</p>	<p>Comparable to Other Options / Neutral</p> <p>All options can be constructed without impacting on operation of the railway</p>	<p>Comparable to Other Options / Neutral</p> <p>All options can be constructed without impacting on operation of the railway</p>	<p>Comparable to Other Options / Neutral</p> <p>All options can be constructed without impacting on operation of the railway</p>	<p>Comparable to Other Options / Neutral</p> <p>All options can be constructed without impacting on operation of the railway</p>
2. Integration	Road Access Integration	The option which best accesses the road network was preferable to other options.	<p>Significant Disadvantage compared to Other Options</p> <p>The significant level differential means it is difficult to get access to the adjacent road network. The configuration of the road network immediately outside this site is within a one-way element of the adjacent major route interchange / junction. Hence, getting access to the site entry point would be difficult from a traffic routing perspective.</p>	<p>Some Disadvantage compared to Other Options</p> <p>Access to the road network would be via private residential development roads and could be problematic throughout construction phase. Occasional access during the Operation phase would be rare/occasional, but would require Right of Way or other similar legal easement / agreement.</p>	<p>Significant Disadvantage compared to Other Options</p> <p>The significant level differential means it is difficult to get access to the adjacent road network. The configuration of the road network immediately outside this site is within a one-way element of the adjacent major route interchange / junction. Hence, getting access to the site entry point would be difficult from a traffic routing perspective.</p>	<p>Significant Advantage over Other Options</p> <p>Direct access to an arterial route via an existing IE-owned access point.</p>	<p>Significant Advantage over Other Options</p> <p>Direct access to an arterial route via an existing IE-owned access point.</p>

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	Other Land Use integration	The option with greater consistency and compliance with planning policy was preferable to others.	Some Comparative Disadvantage over Other Options  This site is zoned Z10 "to consolidate and facilitate the development of inner city and inner suburban sites for mixed uses, with residential the prominent use in suburban locations, and office/retail/residential the prominent uses in inner city areas.  This site is located adjacent to the railway , roads and the Clancy Barracks primarily residential scheme.	Some Comparative Disadvantage over Other Options  This site is zoned Z10 "to consolidate and facilitate the development of inner city and inner suburban sites for mixed uses, with residential the prominent use in suburban locations, and office/retail/residential the prominent uses in inner city areas.  This site is located adjacent to the railway, Heuston Station and the Clancy Barracks primarily residential scheme.	Some Comparative Disadvantage over Other Options  This site is zoned Z10 "to consolidate and facilitate the development of inner city and inner suburban sites for mixed uses, with residential the prominent use in suburban locations, and office/retail/residential the prominent uses in inner city areas.  This site is located adjacent to the railway, Heuston Station and the Clancy Barracks primarily residential scheme.	Some Comparative Advantage over other Options  This site is zoned Z5 " To consolidate and facility the development of the central area, and to identify, reinforce, strengthen and protect its civic design".  While the zoning seeks to identify, reinforce, strengthen and protect civic design, the site is located within the existing railway infrastructure.	Some Comparative Disadvantage over Other Options  This site is zoned Z10 "to consolidate and facilitate the development of inner city and inner suburban sites for mixed uses, with residential the prominent use in suburban locations, and office/retail/residential the prominent uses in inner city areas.  This site is located adjacent to the railway, Heuston Station and the Clancy Barracks primarily residential scheme.
			Comparable to Other Options / Neutral  All options are considered equal insofar as impacts on opportunities for regeneration / urban renewal are concerned.	Comparable to Other Options / Neutral  All options are considered equal insofar as impacts on opportunities for regeneration / urban renewal are concerned.	Comparable to Other Options / Neutral  All options are considered equal insofar as impacts on opportunities for regeneration / urban renewal are concerned.	Comparable to Other Options / Neutral  All options are considered equal insofar as impacts on opportunities for regeneration / urban renewal are concerned.	Comparable to Other Options / Neutral  All options are considered equal insofar as impacts on opportunities for regeneration / urban renewal are concerned.
			Comparable to Other Options / Neutral  All options expected to have similar impacts on local external links in terms of road traffic etc.	Comparable to Other Options / Neutral  All options expected to have similar impacts on local external links in terms of road traffic etc.	Comparable to Other Options / Neutral  All options expected to have similar impacts on local external links in terms of road traffic etc.	Comparable to Other Options / Neutral  All options expected to have similar impacts on local external links in terms of road traffic etc.	Comparable to Other Options / Neutral  All options expected to have similar impacts on local external links in terms of road traffic etc.
	Geographical integration	The option which minimise disruption and accessibility during construction was preferable.	Comparable to Other Options / Neutral  No community severance impact is anticipated for any option.	Comparable to Other Options / Neutral  No community severance impact is anticipated for any option.	Comparable to Other Options / Neutral  No community severance impact is anticipated for any option.	Comparable to Other Options / Neutral  No community severance impact is anticipated for any option.	Comparable to Other Options / Neutral  No community severance impact is anticipated for any option.
			Comparable to Other Options / Neutral  All options considered are expected to be equally adaptable	Comparable to Other Options / Neutral  All options considered are expected to be equally adaptable	Comparable to Other Options / Neutral  All options considered are expected to be equally adaptable	Comparable to Other Options / Neutral  All options considered are expected to be equally adaptable	Comparable to Other Options / Neutral  All options considered are expected to be equally adaptable
	Adaptability in the future (robustness in the solution)	The option with greater adaptability for the future was preferable to others.	Comparable to Other Options / Neutral  All options considered are expected to be equally adaptable	Comparable to Other Options / Neutral  All options considered are expected to be equally adaptable	Comparable to Other Options / Neutral  All options considered are expected to be equally adaptable	Comparable to Other Options / Neutral  All options considered are expected to be equally adaptable	Comparable to Other Options / Neutral  All options considered are expected to be equally adaptable
	Summary Evaluation		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 Disadvantage over Other Options

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CAF Parameters	Sub-Criteria	Basis for Comparative Analysis	Option 1 Assessment	Option 2 Assessment	Option 3 Assessment	Option 4 Assessment	Option 5 Assessment
	Noise and vibration		<p>Some Comparative Disadvantage over Other Options</p> <p>This site is located immediately adjacent to an existing residential development at the Clancy Quay area with a number of apartment blocks. Due to the nature of the construction works for the substation, the duration of construction works and proximity to properties, it is likely some noise impacts will occur. The construction traffic impact has potentially a greater impact compared to the Option 4 due to the access requirements to the site. The operational phase of the substation is likely to have some noise emissions associated with the operation of the electrical switching and feeding equipment. For the operational phase any noise emissions from the substation building will need to be mitigated to ensure that the noise impact at the nearest sensitive location avoids adverse impacts. Option 1 and 2 are located adjacent to residential development and have the same potential for noise and vibration impacts associated with the operation of substation.</p>	<p>Some Comparative Disadvantage over Other Options</p> <p>This site is located immediately adjacent to an existing residential development at the Clancy Quay area with a number of apartment blocks. Due to the nature of the construction works for the substation, the duration of construction works and proximity to properties, it is likely some noise impacts will occur. The construction traffic impact has potentially greater impact compared to the other options due to the construction of special access route to public road via adjacent private development. The operational phase of the substation is likely to have some noise emissions associated with the operation of the electrical switching and feeding equipment. For the operational phase any noise emissions from the substation building will need to be mitigated to ensure that the noise impact at the nearest sensitive location avoids adverse impacts. Option 1 and 2 are located adjacent to residential development and have the same potential for noise and vibration impacts associated with the operation of substation.</p>	<p>Some Comparative Disadvantage over Other Options</p> <p>This site is located immediately adjacent to an existing residential development at the Clancy Quay area with a number of apartment blocks. Due to the nature of the construction works for the substation, the duration of construction works and proximity to properties, it is likely some noise impacts will occur. The construction traffic impact has potentially greater impact compared to the other options due to the construction of special access route to public road via adjacent private development. The operational phase of the substation is likely to have some noise emissions associated with the operation of the electrical switching and feeding equipment. For the operational phase any noise emissions from the substation building will need to be mitigated to ensure that the noise impact at the nearest sensitive location avoids adverse impacts. Option 1, 2 and 6 are located adjacent to residential development and have the same potential for noise and vibration impacts associated with the operation of substation.</p>	<p>Some Comparative advantage over Other Options</p> <p>This site is not located immediately adjacent to any residential development. Due to the nature of the construction works for the substation, the duration of construction works and proximity to properties, it is likely some noise impacts will occur. The operational phase of the substation is likely to have some noise emissions associated with the operation of the electrical switching and feeding equipment. For the operational phase any noise emissions from the substation building will need to be mitigated to ensure that the noise impact at the nearest sensitive location avoids adverse impacts. Option 4 is not located adjacent to residential development and so the potential for noise and vibration impacts associated with the operation of substation is less than the other options. To the south are the open grounds/ green areas associated with the Royal Hospital Kilmainham which may justifiably require, for its proper use, the absence of noise at nuisance levels.</p>	<p>Some Comparative Disadvantage over Other Options</p> <p>This site is located within Heuston yard immediately adjacent to an existing IÉ owned cabins. Due to the nature of the construction works for the substation, the duration of construction works and proximity to properties, it is likely some noise impacts will occur. The construction traffic impact has potentially greater impact compared to the other options due to the construction of special access route to public road via adjacent private development. The operational phase of the substation is likely to have some noise emissions associated with the operation of the electrical switching and feeding equipment. For the operational phase any noise emissions from the substation building will need to be mitigated to ensure that the noise impact at the nearest sensitive location avoids adverse impacts. Option 4 is not located adjacent to residential development and so the potential for noise and vibration impacts associated with the operation of substation is less than the other options. To the south are the open grounds/ green areas associated with the Royal Hospital Kilmainham which may justifiably require, for its proper use, the absence of noise at nuisance levels.</p>
	Air quality and Climate		<p>Comparable to Other Options / Neutral</p> <p>General construction and operation phase impacts in terms of air quality are largely similar for all options.</p>	<p>Comparable to Other Options / Neutral</p> <p>General construction and operation phase impacts in terms of air quality are largely similar for all options. "</p>	<p>Comparable to Other Options / Neutral</p> <p>General construction and operation phase impacts in terms of air quality are largely similar for all options. "</p>	<p>Comparable to Other Options / Neutral</p> <p>General construction and operation phase impacts in terms of air quality are largely similar for all options.</p>	<p>Comparable to Other Options / Neutral</p> <p>General construction and operation phase impacts in terms of air quality are largely similar for all options. "</p>

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3. Environment - considers impacts, such as emissions to air, noise, and ecological and architectural impacts.	Landscape and Visual	The Option which minimises potential impact on the environmental factor under consideration was preferable to other options.	Comparable to Other Options / Neutral  During the operational phase there is potential for changes to the landscape character and/or visual amenity due to the presence of a permanent substation building. It is likely to have landscape and visual impact to the neighbouring residential receptors. Depending on the size and scale of the proposed substation building, landscape and visual impacts will vary.	Comparable to Other Options / Neutral  During the operational phase there is potential for changes to the landscape character and/or visual amenity due to the presence of a permanent substation building. It is likely to have landscape and visual impact to the neighbouring residential receptors. Depending on the size and scale of the proposed substation building, landscape and visual impacts will vary.	Comparable to Other Options / Neutral  During the operational phase there is potential for changes to the landscape character and/or visual amenity due to the presence of a permanent substation building. It is likely to have landscape and visual impact to the neighbouring residential receptors. Depending on the size and scale of the proposed substation building, landscape and visual impacts will vary.	Comparable to Other Options / Neutral  During the operational phase there is potential for changes to the landscape character and/or visual amenity due to the presence of a permanent substation building. Option 4 is not located adjacent to residential development and so the potential for landscape and visual impacts on neighbouring residential prosperities is lower than the other options. To the south are the open grounds/ green areas associated with the Royal Hospital Kilmainham. DCC have a landscape protection objective for this area (Z9) "to preserve, provide for and improve recreational amenity and open space/ green networks." Depending on the size and scale of the proposed substation building, landscape and visual impacts on the designated landscape of the grounds of The Royal Hospital Kilmainham will vary.	Comparable to Other Options / Neutral  During the operational phase there is potential for changes to the landscape character and/or visual amenity due to the presence of a permanent substation building. It is likely to have landscape and visual impact to the neighbouring residential receptors. Depending on the size and scale of the proposed substation building, landscape and visual impacts will vary.
	Biodiversity (flora and fauna)		Comparable to Other Options / Neutral  The presence of the existing rail line has reduced biodiversity potential along the route to a large degree, however areas of rough grasslands, scrub and trees will be directly impacted as with all options. Also potential to effect habitat suitable for bird nesting and / or bat roosting. There is potential for spreading invasive species.	Comparable to Other Options / Neutral  The presence of the existing rail line has reduced biodiversity potential along the route to a large degree, however areas of rough grasslands, scrub and trees will be directly impacted as with all options. Also potential to effect habitat suitable for bird nesting and / or bat roosting. There is potential for spreading invasive species.	Comparable to Other Options / Neutral  The presence of the existing rail line has reduced biodiversity potential along the route to a large degree, however areas of rough grasslands, scrub and trees will be directly impacted as with all options. Also potential to effect habitat suitable for bird nesting and / or bat roosting. There is potential for spreading invasive species.	Comparable to Other Options / Neutral  The presence of the existing rail line has reduced biodiversity potential along the route to a large degree, however areas of rough grasslands, scrub and trees will be directly impacted as with all options. Also potential to effect habitat suitable for bird nesting and / or bat roosting. There is potential for spreading invasive species.	Comparable to Other Options / Neutral  The presence of the existing rail line has reduced biodiversity potential along the route to a large degree, however areas of rough grasslands, scrub and trees will be directly impacted as with all options. Also potential to effect habitat suitable for bird nesting and / or bat roosting. There is potential for spreading invasive species.
	Cultural, archaeological and architectural heritage		Comparable to Other Options / Neutral  The site is situated within the Zone of Archaeological Potential (ZAP) for Dublin (DU018-020). There are no Record of Monuments and Places (RMP) sites located within the site, however there is general archaeological potential of greenfield sites particularly as the site is located within a stretch of railway from Inchicore (War Memorial Park) eastward to Heuston Station, that has significant potential to reveal medieval burials and artefacts. Based on available mapping and information, there are no architectural heritage features with designations (NIAH, RPS and Industrial Heritage) located within the site.	Comparable to Other Options / Neutral  The site is situated within the Zone of Archaeological Potential (ZAP) for Dublin (DU018-020). There are no Record of Monuments and Places (RMP) sites located within the site, however there is general archaeological potential of greenfield sites particularly as the site is located within a stretch of railway from Inchicore (War Memorial Park) eastward to Heuston Station, that has significant potential to reveal medieval burials and artefacts. Based on available mapping and information, there are no architectural heritage features with designations (NIAH, RPS and Industrial Heritage) located within the site.	Comparable to Other Options / Neutral  The site is situated within the Zone of Archaeological Potential (ZAP) for Dublin (DU018-020). There are no Record of Monuments and Places (RMP) sites located within the site, however there is general archaeological potential of greenfield sites particularly as the site is located within a stretch of railway from Inchicore (War Memorial Park) eastward to Heuston Station, that has significant potential to reveal medieval burials and artefacts. Based on available mapping and information, there are no architectural heritage features with designations (NIAH, RPS and Industrial Heritage) located within the site.	Comparable to Other Options / Neutral  The site is situated within the Zone of Archaeological Potential (ZAP) for Dublin (DU018-020). There are no Record of Monuments and Places (RMP) sites located within the site, however there is general archaeological potential of greenfield sites particularly as the site is located within a stretch of railway from Inchicore (War Memorial Park) eastward to Heuston Station, that has significant potential to reveal medieval burials and artefacts. Based on available mapping and information, there are no architectural heritage features with designations (NIAH, RPS and Industrial Heritage) located within the site.	Comparable to Other Options / Neutral  The site is situated within the Zone of Archaeological Potential (ZAP) for Dublin (DU018-020). There are no Record of Monuments and Places (RMP) sites located within the site, however there is general archaeological potential of greenfield sites particularly as the site is located within a stretch of railway from Inchicore (War Memorial Park) eastward to Heuston Station, that has significant potential to reveal medieval burials and artefacts. Based on available mapping and information, there are no architectural heritage features with designations (NIAH, RPS and Industrial Heritage) located within the site.

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	Water resources		Comparable to Other Options / Neutral No record of historical or predicted flooding within the site. Option will create additional increase in hardstanding areas, which will alter the existing drainage regime and may increase risk of pluvial flooding to the site itself. Water quality risk during construction phase as runoff pollutants may enter the receiving waterbodies, site runoff management will be required. Likely have a neutral/negligible impact on flood risk during operation.	Comparable to Other Options / Neutral No record of historical or predicted flooding within the site. Option will create additional increase in hardstanding areas, which will alter the existing drainage regime and may increase risk of pluvial flooding to the site itself. Water quality risk during construction phase as runoff pollutants may enter the receiving waterbodies, site runoff management will be required. Likely have a neutral/negligible impact on flood risk during operation.	Comparable to Other Options / Neutral No record of historical or predicted flooding within the site. Option will create additional increase in hardstanding areas, which will alter the existing drainage regime and may increase risk of pluvial flooding to the site itself. Water quality risk during construction phase as runoff pollutants may enter the receiving waterbodies, site runoff management will be required. Likely have a neutral/negligible impact on flood risk during operation.	Comparable to Other Options / Neutral No record of historical or predicted flooding within the site. Option will create additional increase in hardstanding areas, which will alter the existing drainage regime and may increase risk of pluvial flooding to the site itself. Water quality risk during construction phase as runoff pollutants may enter the receiving waterbodies, site runoff management will be required. Likely have a neutral/negligible impact on flood risk during operation.	Comparable to Other Options / Neutral No record of historical or predicted flooding within the site. Option will create additional increase in hardstanding areas, which will alter the existing drainage regime and may increase risk of pluvial flooding to the site itself. Water quality risk during construction phase as runoff pollutants may enter the receiving waterbodies, site runoff management will be required. Likely have a neutral/negligible impact on flood risk during operation.
	Agricultural and non-agricultural		Comparable to Other Options / Neutral Located on IE property. No land take required. No temp land take anticipated.	Comparable to Other Options / Neutral Located on IE property. No land take required. No temp land take anticipated.	Comparable to Other Options / Neutral Located on IE property. No land take required. No temp land take anticipated.	Comparable to Other Options / Neutral Located on IE property. No land take required. No temp land take anticipated.	Comparable to Other Options / Neutral Located on IE property. No land take required. No temp land take anticipated.
	Geology and soils (include waste)		Comparable to Other Options / Neutral Brownfield site located on IE property. Soil excavation required for construction. Located in area of Low groundwater vulnerability. According to the GSI, the underlying quaternary sidemen is "TLs", that is Till derived from limestones. Potential for contaminated land due to brownfield nature of the site.	Comparable to Other Options / Neutral Brownfield site located on IE property. Soil excavation required for construction. Located in area of Low to Medium groundwater vulnerability. According to the GSI, the underlying quaternary sidemen is Urban ground. Potential for contaminated land due to brownfield nature of the site.	Comparable to Other Options / Neutral Brownfield site located on IE property. Soil excavation required for construction. Located in area of Low to Medium groundwater vulnerability. According to the GSI, the underlying quaternary sidemen is Urban ground. Potential for contaminated land due to brownfield nature of the site.	Comparable to Other Options / Neutral Brownfield site located on IE property. Soil excavation required for construction. Located in area of Low to Medium groundwater vulnerability. According to the GSI, the underlying quaternary sidemen is "TLs", that is Till derived from limestones. Potential for contaminated land due to brownfield nature of the site.	Comparable to Other Options / Neutral Brownfield site located on IE property. Soil excavation required for construction. Located in area of Low to Medium groundwater vulnerability. According to the GSI, the underlying quaternary sidemen is Urban ground. Potential for contaminated land due to brownfield nature of the site.
	Summary Evaluation		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 Disadvantage over Other Options
4. Accessibility and Social Inclusion - considers social deprivation, geographic isolation and mobility and sensory deprivation	Neighbours	The option which can provide a higher level of amenity to neighbours is preferable.	Some Comparative Disadvantage over Other Options This site is located immediately adjacent to an existing existential development.	Some Comparative Disadvantage over Other Options This site is located immediately adjacent to an existing existential development.	Some Comparative Disadvantage over Other Options This site is located immediately adjacent to an existing existential development.	Some Comparative Advantage over Other Options This site is located away from residential and/or other non IE-owned facilities / properties.	Some Comparative Advantage over Other Options This site is located away from residential and/or other non IE-owned facilities / properties.
	Summary Evaluation		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

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5. Safety - Safety is concerned with the impact of the investment on the number of transport related accidents.	Rail Safety	The option which provides the best rail safety solution was preferable.	Comparable to Other Options / Neutral All options satisfy rail safety aspects / requirements	Comparable to Other Options / Neutral All options satisfy rail safety aspects / requirements	Comparable to Other Options / Neutral All options satisfy rail safety aspects / requirements	Comparable to Other Options / Neutral All options satisfy rail safety aspects / requirements	Comparable to Other Options / Neutral All options satisfy rail safety aspects / requirements
	Reliability, Availability and Maintainability	The option which provides the best performance in terms of Reliability, Availability and Maintainability of the option	Comparable to Other Options / Neutral All options satisfy RAM requirements.	Comparable to Other Options / Neutral All options satisfy RAM requirements.	Comparable to Other Options / Neutral All options satisfy RAM requirements.	Comparable to Other Options / Neutral All options satisfy RAM requirements.	Comparable to Other Options / Neutral All options satisfy RAM requirements.
	User / Operator and Public Safety	The option which provides the best safety solution for maintenance staff and passer byes. The focus is on operational phase not construction.	Comparable to Other Options / Neutral All options satisfy requirements.	Comparable to Other Options / Neutral All options satisfy requirements.	Comparable to Other Options / Neutral All options satisfy requirements.	Comparable to Other Options / Neutral All options satisfy requirements.	Comparable to Other Options / Neutral All options satisfy requirements.
			Comparable to Other Options / Neutral All options satisfy requirements.	Comparable to Other Options / Neutral All options satisfy requirements.	Comparable to Other Options / Neutral All options satisfy requirements.	Comparable to Other Options / Neutral All options satisfy requirements.	Comparable to Other Options / Neutral All options satisfy requirements.
	Summary Evaluation		Comparable to Other Options / Neutral				
6. Physical Activity - (where applicable) This relates to the health benefits derived from using different transport modes	Health Benefits	The option that provided better connectivity between trip generators (green areas / key attractions) and that promoted physical activity was preferable.	Comparable to Other Options / Neutral This criterion is not applicable to proposed sub stations	Comparable to Other Options / Neutral This criterion is not applicable to proposed sub stations	Comparable to Other Options / Neutral This criterion is not applicable to proposed sub stations	Comparable to Other Options / Neutral This criterion is not applicable to proposed sub stations	Comparable to Other Options / Neutral This criterion is not applicable to proposed sub stations
	Summary Evaluation		Comparable to Other Options / Neutral				

**Islandbridge Substation MCA CAF - Summary Table**

CAF Parameters	Option 1 Assessment	Option 2 Assessment	Option 3 Assessment	Option 4 Assessment	Option 5 Assessment
<b>1. Economy</b>	Significant Comparative Disadvantage over Other Options	Some Comparative Disadvantage over Other Options	Some Comparative Disadvantage over Other Options	Significant Comparative Advantage over Other Options	Some Comparative Advantage over Other Options
<b>2. Integration</b>	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 Disadvantage over Other Options
<b>3. Environment</b>	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 Disadvantage over Other Options
<b>4. Accessibility and Social Inclusion</b>	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
<b>5. Safety</b>	Comparable to Other Options / Neutral	Comparable to Other Options / Neutral	Comparable to Other Options / Neutral	Comparable to Other Options / Neutral	Comparable to Other Options / Neutral
<b>6. Physical Activity</b>	Comparable to Other Options / Neutral	Comparable to Other Options / Neutral	Comparable to Other Options / Neutral	Comparable to Other Options / Neutral	Comparable to Other Options / Neutral
<b>Conclusion</b>				<b>Preferred Option</b>	