

Heuston West Station STATION DESIGN OPTIONS

CAF Parameters	Sub-Criteria	Basis for Comparative Analysis	Option A Assessment	Option B Assessment	Option C Assessment	Option D Assessment	Option E Assessment
1. Economy - The impacts of a transport investment on economic growth and competitiveness.	Capital Expenditure (CAPEX): construction, land acquisition, temporary works.	This sub-criteria considered cost of construction, land cost and temporary works cost of each option. A high-level cost estimate was prepared for each option (including potential land acquisitions (permanent and temporary, zoned or un-zoned land). The lowest cost option was preferable to higher cost options.	Construction Costs - Significant Comparative Disadvantage over the Other Options	Construction Costs - Some Comparative Disadvantage over the Other Options	Construction Costs - Some Comparative Disadvantage over the Other Options	Construction Costs - Significant Comparative Advantage over the Other Options	Construction Costs - Some Comparative Advantage over the Other Options
			Some Comparative Advantage over the Option All options are located in an area already belonging IÉ.	Some Comparative Advantage over the Options All Options are located in an area already belonging IÉ.	Some Comparative Disadvantage over the Other Options All Options are located in an area already belonging IÉ, but significant works required adjacent to the river embankment.	Some Comparative Disadvantage over the Other Options All Options are located in an area already belonging IÉ, but significant works required adjacent to the river embankment.	Some Comparative Disadvantage over the Other Options All Options are located in an area already belonging IÉ, but significant works required adjacent to the river embankment.
	OPEX: maintenance costs, operational costs (IE or other entities), Technology advancement and future proofing / obsolescence	This sub-criteria considered long term maintenance costs. The Options with less risk for long term maintenance issues (and hence cost) was preferable Options with greater risk of long-term maintenance issues.	Some Comparative Disadvantage over the Other Options Lifts operation and maintenance costs	Some Comparative Advantage over the Other Options	Some Comparative Disadvantage over the Other Options Lifts operation and maintenance costs	Some Comparative Advantage over the Other Options	Some Comparative Disadvantage over the Other Options Lifts operation and maintenance costs
	Train Operations Functionality/Economic Benefit	The Options which resulted in a lower risk of interruption was preferable to Options with a higher risk on operations.	Comparable to the other Options / Neutral	Comparable to the other Options / Neutral	Comparable to the other Options / Neutral	Comparable to the other Options / Neutral	Comparable to the other Options / Neutral
	Traffic functionality: Potential impacts for vehicular traffic and associated economic activities and opportunities.	The Options with shorter traffic disruption/diversions was preferable to Options with longer disruption/diversions.	Comparable to the Other Options / Neutral	Comparable to the Other Options / Neutral	Comparable to the Other Options / Neutral	Comparable to the Other Options / Neutral	Comparable to the Other Options / Neutral
	Urban regeneration	The option with greater potential to contribute to future urban regeneration was preferable.	Some Comparative Advantage over the Other Options All options improve pedestrian and bike connection from Clancy Quay to the east area of Heuston West Station. The designs are flexible so that they could be adapted to future developments.	Some Comparative Advantage over the Other Options All options improve pedestrian and bike connection from Clancy Quay to the east area of Heuston West Station. The designs are flexible so that they could be adapted to future developments.	Some Comparative Disadvantage over the Other Options All options improve pedestrian and bike connection from Clancy Quay to the east area of Heuston West Station. The designs are flexible so that they could be adapted to future developments. Impact on the impact, slightly longer route for pedestrians.	Some Comparative Disadvantage over the Other Options All options improve pedestrian and bike connection from Clancy Quay to the east area of Heuston West Station. The designs are flexible so that they could be adapted to future developments. Impact on the impact, slightly longer route for pedestrians.	Some Comparative Disadvantage over the Other Options All options improve pedestrian and bike connection from Clancy Quay to the east area of Heuston West Station. The designs are flexible so that they could be adapted to future developments. Impact on the impact, slightly longer route for pedestrians.
	Summary Evaluation		Some Comparative Disadvantage over the Other Options	Some Comparative Advantage over the Other Options	Some Comparative Disadvantage over the Other Options	Some Comparative Advantage over the Other Options	Some Comparative Advantage over the Other Options

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2. Integration - Integration considers the extent to which the options being evaluated promotes integration with other transportation networks and infrastructure and is compatible with Government policies, including national spatial and local planning policy	Transport integration	The option which maximises integration with other existing and proposed transportation networks, infrastructure and services was preferable to other options.	Comparable to the other Options / Neutral	Comparable to the other Options / Neutral	Comparable to the other Options / Neutral	Comparable to the other Options / Neutral	Comparable to the other Options / Neutral
			Some Comparative Advantage over the Other Option	Some Comparative Advantage over the Other Option	Some Comparative Disadvantage over the Other Option Bridge underpass connection has longer travel routes.	Some Comparative Disadvantage over the Other Option Bridge underpass connection has longer travel routes.	Some Comparative Disadvantage over the Other Option Bridge underpass connection has longer travel routes.
			Comparable to the other Options / Neutral	Comparable to the other Options / Neutral	Comparable to the other Options / Neutral	Comparable to the other Options / Neutral	Comparable to the other Options / Neutral
			Comparable to the other Options / Neutral	Comparable to the other Options / Neutral	Comparable to the other Options / Neutral	Comparable to the other Options / Neutral	Comparable to the other Options / Neutral
	Land use integration	The option with greater consistency and compliance with planning policy was preferable to others.	Some Comparative Advantage over the Other Options Reduced impact in Conservation Area of DCC	Some Comparative Advantage over the Other Options Reduced impact in Conservation Area of DCC	Some Comparative Disadvantage over the Other Options Impact on DCC Conservation Area and River Liffey embankment	Some Comparative Disadvantage over the Other Options Impact on DCC Conservation Area and River Liffey embankment	Some Comparative Disadvantage over the Other Options Impact on DCC Conservation Area and River Liffey embankment
	Geographical Integration	The option which minimises disruption and accessibility during construction was preferable.	Comparable to the other Options / Neutral None of the options disrupt accessibility, since currently there is no connection between Clancy Quay and the east side. This connection will be provided when the construction is completed.	Comparable to the other Options / Neutral None of the options disrupt accessibility, since currently there is no connection between Clancy Quay and the east side. This connection will be provided when the construction is completed.	Comparable to the other Options / Neutral None of the options disrupt accessibility, since currently there is no connection between Clancy Quay and the east side. This connection will be provided when the construction is completed.	Comparable to the other Options / Neutral None of the options disrupt accessibility, since currently there is no connection between Clancy Quay and the east side. This connection will be provided when the construction is completed.	Comparable to the other Options / Neutral None of the options disrupt accessibility, since currently there is no connection between Clancy Quay and the east side. This connection will be provided when the construction is completed.
	Other government policy	The option with greater consistency and compliance with other government policy was preferable to others.	Comparable to the other Options / Neutral	Comparable to the other Options / Neutral	Comparable to the other Options / Neutral	Comparable to the other Options / Neutral	Comparable to the other Options / Neutral
	Adaptability in the future (robustness in the solution)	The option with greater adaptability for the future was preferable to others.	Comparable to the other Options / Neutral All options could be adapted to future developments, though it depends on the design of the forthcoming masterplan.	Comparable to the other Options / Neutral All options could be adapted to future developments, though it depends on the design of the forthcoming masterplan.	Comparable to the other Options / Neutral All options could be adapted to future developments, though it depends on the design of the forthcoming masterplan.	Comparable to the other Options / Neutral All options could be adapted to future developments, though it depends on the design of the forthcoming masterplan.	Comparable to the other Options / Neutral All options could be adapted to future developments, though it depends on the design of the forthcoming masterplan.
	Summary Evaluation		Some Comparative Advantage over the Other Options	Some Comparative Advantage over the Other Options	Some Comparative Disadvantage over the Other Options	Some Comparative Disadvantage over the Other Options	Some Comparative Disadvantage over the Other Options

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3. Environment - considers impacts, such as emissions to air, noise, and ecological and architectural impacts.	Noise and vibration	The Option which minimises potential impact on the environmental factor under consideration was preferable to other options.	Comparable to the other Options / Neutral The platforms' location is the same in all options. The different footbridge locations or bridge underpass options do not affect in a significantly different way in terms of noise and vibration.	Comparable to the other Options / Neutral The platforms' location is the same in all options. The different footbridge locations or bridge underpass options do not affect in a significantly different way in terms of noise and vibration.	Comparable to the other Options / Neutral The platforms' location is the same in all options. The different footbridge locations or bridge underpass options do not affect in a significantly different way in terms of noise and vibration.	Comparable to the other Options / Neutral The platforms' location is the same in all options. The different footbridge locations or bridge underpass options do not affect in a significantly different way in terms of noise and vibration.	Comparable to the other Options / Neutral The platforms' location is the same in all options. The different footbridge locations or bridge underpass options do not affect in a significantly different way in terms of noise and vibration.
	Air quality and Climate		Comparable to the other Options / Neutral There will be the same number of platforms, located in the same position. It is not expected a difference in terms of air quality and climate between the options	Comparable to the other Options / Neutral There will be the same number of platforms, located in the same position. It is not expected a difference in terms of air quality and climate between the options.	Comparable to the other Options / Neutral There will be the same number of platforms, located in the same position. It is not expected a difference in terms of air quality and climate between the options.	Comparable to the other Options / Neutral There will be the same number of platforms, located in the same position. It is not expected a difference in terms of air quality and climate between the options.	Comparable to the other Options / Neutral There will be the same number of platforms, located in the same position. It is not expected a difference in terms of air quality and climate between the options.
	Landscape and Visual		Some Comparative Advantage over the Other Options Reduced impact on DCC Conservation Area	Some Comparative Advantage over the Other Options Reduced impact on DCC Conservation Area	Some Comparative Disadvantage over the Other Options Impact on DCC Conservation Area and River Liffey embankment	Some Comparative Disadvantage over the Other Options Impact on DCC Conservation Area and River Liffey embankment	Some Comparative Disadvantage over the Other Options Impact on DCC Conservation Area and River Liffey embankment
	Biodiversity (flora and fauna)		Some Comparative Advantage over the Other Options Reduced impact on DCC Conservation Area	Some Comparative Advantage over the Other Options Reduced impact on DCC Conservation Area	Some Comparative Disadvantage over the Other Options Impact on DCC Conservation Area and River Liffey embankment	Some Comparative Disadvantage over the Other Options Impact on DCC Conservation Area and River Liffey embankment	Some Comparative Disadvantage over the Other Options Impact on DCC Conservation Area and River Liffey embankment
	Cultural, archaeological and architectural heritage		Comparable to the Other Options / Neutral There is a NIAH listed sentry box in the north-eastern corner of the Clancy Quay development. Though the station will be built in the proximities, the turret is preserved and left visible in all cases.	Comparable to the Other Options / Neutral There is a NIAH listed sentry box in the north-eastern corner of the Clancy Quay development. Though the station will be built in the proximities, the turret is preserved and left visible in all cases.	Comparable to the Other Options / Neutral There is a NIAH listed sentry box in the north-eastern corner of the Clancy Quay development. Though the station will be built in the proximities, the turret is preserved and left visible in all cases.	Comparable to the Other Options / Neutral There is a NIAH listed sentry box in the north-eastern corner of the Clancy Quay development. Though the station will be built in the proximities, the turret is preserved and left visible in all cases.	Comparable to the Other Options / Neutral There is a NIAH listed sentry box in the north-eastern corner of the Clancy Quay development. Though the station will be built in the proximities, the turret is preserved and left visible in all cases.
	Water resources		Comparable to the other Options / Neutral	Comparable to the other Options / Neutral	Comparable to the other Options / Neutral	Comparable to the other Options / Neutral	Comparable to the other Options / Neutral
	Agricultural and non-agricultural		Comparable to the other Options / Neutral No private properties are affected in any of the options.	Comparable to the other Options / Neutral No private properties are affected in any of the options.	Comparable to the other Options / Neutral No private properties are affected in any of the options.	Comparable to the other Options / Neutral No private properties are affected in any of the options.	Comparable to the other Options / Neutral No private properties are affected in any of the options.

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CAF Parameters	Sub-Criteria	Basis for Comparative Analysis	Option A Assessment	Option B Assessment	Option C Assessment	Option D Assessment	Option E Assessment	
	Geology and soils (include waste)		Some Comparative Advantage over the Other Options All options require earthworks. Options A and B require earthworks to provide the pedestrian connection with Clancy Quay.	Some Comparative Advantage over the Other Options All options require earthworks. Options A and B require earthworks to provide the pedestrian connection with Clancy Quay.	Some Comparative Disadvantage over the Other Options All options require earthworks, Options C, D and E require earthworks along the embankment.	Some Comparative Disadvantage over the Other Options All options require earthworks, Options C, D and E require earthworks along the embankment.	Some Comparative Disadvantage over the Other Options All options require earthworks, Options C, D and E require earthworks along the embankment.	
	Summary Evaluation		Some Comparative Advantage over the Other Options	Some Comparative Advantage over the Other Options	Some Comparative Disadvantage over the Other Options	Some Comparative Disadvantage over the Other Options	Some Comparative Disadvantage over the Other Options	
4. Accessibility and Social Inclusion - considers social deprivation, geographic isolation and mobility and sensory deprivation	Impact on Vulnerable Groups / Local Residents	The option which provides a higher degree of accessibility and safety for vulnerable groups was preferable.	Some Comparative Advantage over the Other Options All options provide a urban connection between Clancy Quay and the Heuston area. All are adapted for vulnerable groups.	Some Comparative Advantage over the Other Options All options provide a urban connection between Clancy Quay and the Heuston area. All are adapted for vulnerable groups.	Some Comparative Disadvantage over the Other Options All options provide a urban connection between Clancy Quay and the Heuston area. All are adapted for vulnerable groups. Underpass crossing is a less direct and longer route.	Some Comparative Disadvantage over the Other Options All options provide a urban connection between Clancy Quay and the Heuston area. All are adapted for vulnerable groups. Underpass crossing is a less direct and longer route.	Some Comparative Disadvantage over the Other Options All options provide a urban connection between Clancy Quay and the Heuston area. All are adapted for vulnerable groups. Underpass crossing is a less direct and longer route.	
	Accessibility (stations)	The option which provided the best accessibility to the station was preferable.	Some Comparative Disadvantage over the Other Options All options provide connection adapted to vulnerable users. Lifts might be considered preferable for some users, but ramps are more flexible for cyclists and general public, providing a higher level of service in capacity. Besides a 24-hours lifts service open to the public would be problematic to maintain.	Some Comparative Advantage over the Other Options All options provide connection adapted to vulnerable users. Lifts might be considered preferable for some users, but ramps are more flexible for cyclists and general public, providing a higher level of service in capacity. Besides a 24-hours lifts service open to the public would be problematic to maintain.	Some Comparative Disadvantage over the Other Options All options provide connection adapted to vulnerable users. Lifts might be considered preferable for some users, but ramps are more flexible for cyclists and general public, providing a higher level of service in capacity. Besides a 24-hours lifts service open to the public would be problematic to maintain.	Some Comparative Advantage over the Other Options All options provide connection adapted to vulnerable users. Lifts might be considered preferable for some users, but ramps are more flexible for cyclists and general public, providing a higher level of service in capacity. Besides a 24-hours lifts service open to the public would be problematic to maintain.	Some Comparative Advantage over the Other Options All options provide connection adapted to vulnerable users. Lifts might be considered preferable for some users, but ramps are more flexible for cyclists and general public, providing a higher level of service in capacity. Besides a 24-hours lifts service open to the public would be problematic to maintain.	
	Accessibility (bridge)	The option which minimised severance across bridges was preferable.	Comparable to the other Options / Neutral	Comparable to the other Options / Neutral	Comparable to the other Options / Neutral	Comparable to the other Options / Neutral	Comparable to the other Options / Neutral	Comparable to the other Options / Neutral
	Social inclusion	The option which provided a higher degree of accessibility and connectivity for vulnerable groups was preferable.	Comparable with the other Options / Neutral All options have similar accessibility decree for all vulnerable users.	Comparable with the other Options / Neutral All options have similar accessibility decree for all vulnerable users.	Comparable with the other Options / Neutral All options have similar accessibility decree for all vulnerable users.	Comparable with the other Options / Neutral All options have similar accessibility decree for all vulnerable users.	Comparable with the other Options / Neutral All options have similar accessibility decree for all vulnerable users.	Comparable with the other Options / Neutral All options have similar accessibility decree for all vulnerable users.
	Summary Evaluation		Some Comparative Disadvantage over the Other Options	Some Comparative Advantage over the Other Options	Some Comparative Disadvantage over the Other Options	Some Comparative Disadvantage over the Other Options	Some Comparative Disadvantage over the Other Options	Some Comparative Disadvantage over the Other Options

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CAF Parameters	Sub-Criteria	Basis for Comparative Analysis	Option A Assessment	Option B Assessment	Option C Assessment	Option D Assessment	Option E Assessment
5. Safety - Safety is concerned with the impact of the investment on the number of transport related accidents.	Rail Safety	The option which provided the best rail safety solution was preferable.	Comparable to the Other Options / Neutral Track alignment is the same for all options as well platforms' position.	Comparable to the Other Options / Neutral Track alignment is the same for all options as well platforms' position.	Comparable to the Other Options / Neutral Track alignment is the same for all options as well platforms' position.	Comparable to the Other Options / Neutral Track alignment is the same for all options as well platforms' position.	Comparable to the Other Options / Neutral Track alignment is the same for all options as well platforms' position.
	Vehicular Traffic Safety	The option which provides the best vehicular safety solution was preferable.	Comparable to the Other Options / Neutral Road network is not affected. This will be dealt separately within the passengers' transfer section.	Comparable to the Other Options / Neutral Road network is not affected. This will be dealt separately within the passengers' transfer section.	Comparable to the Other Options / Neutral Road network is not affected. This will be dealt separately within the passengers' transfer section.	Comparable to the Other Options / Neutral Road network is not affected. This will be dealt separately within the passengers' transfer section.	Comparable to the Other Options / Neutral Road network is not affected. This will be dealt separately within the passengers' transfer section.
	Pedestrians, cyclists, road users and neighbours safety	The option which provides the best safety solution for different road users was preferable.	Comparable to the Other Options / Neutral	Comparable to the Other Options / Neutral	Comparable to the Other Options / Neutral	Comparable to the Other Options / Neutral	Comparable to the Other Options / Neutral
	Summary Evaluation		Comparable to the Other Options / Neutral	Comparable to the Other Options / Neutral	Comparable to the Other Options / Neutral	Comparable to the Other Options / Neutral	Comparable to the Other Options / Neutral
6. Physical Activity - (where applicable) This relates to the health benefits derived from using different transport modes	Connectivity to adjoining cycle facilities	The option that provided better connectivity between trip generators (green areas / key attractions) and that promoted physical activity was preferable.	Comparable to the Other Options / Neutral All options consider connection with existing / new (i.e. passengers' transfer) cycle facilities. The passengers' transfer, which is to be dealt separately, considers the pedestrian connection.	Comparable to the Other Options / Neutral All options consider connection with existing / new (i.e. passengers' transfer) cycle facilities. The passengers' transfer, which is to be dealt separately, considers the pedestrian connection.	Comparable to the Other Options / Neutral All options consider connection with existing / new (i.e. passengers' transfer) cycle facilities. The passengers' transfer, which is to be dealt separately, considers the pedestrian connection.	Comparable to the Other Options / Neutral All options consider connection with existing / new (i.e. passengers' transfer) cycle facilities. The passengers' transfer, which is to be dealt separately, considers the pedestrian connection.	Comparable to the Other Options / Neutral All options consider connection with existing / new (i.e. passengers' transfer) cycle facilities. The passengers' transfer, which is to be dealt separately, considers the pedestrian connection.
	Permeability and local connectivity	The option that provided better connectivity between trip generators and that promoted physical activity was preferable.	Some Comparative Advantage over the Other Options More direct connection between Clancy Quay and the east side of Heuston West.	Some Comparative Advantage over the Other Options More direct connection between Clancy Quay and the east side of Heuston West.	Some Comparative Disadvantage over the Other Options Travel routes are longer, since it is required to descend to bridge underpass level.	Some Comparative Disadvantage over the Other Options Travel routes are longer, since it is required to descend to bridge underpass level.	Some Comparative Disadvantage over the Other Options Travel routes are longer, since it is required to descend to bridge underpass level.
	Summary Evaluation		Some Comparative Advantage over the Other Options	Some Comparative Advantage over the Other Options	Some Comparative Disadvantage over the Other Options	Some Comparative Disadvantage over the Other Options	Some Comparative Disadvantage over the Other Options

Heuston West Station STATION DESIGN OPTIONS							
CAF Parameters	Sub-Criteria	Basis for Comparative Analysis	Option A Assessment	Option B Assessment	Option C Assessment	Option D Assessment	Option E Assessment

Heuston West Station - CAF Summary Table

CAF Parameters	Option A	Option B	Option C	Option D	Option E
1. Economy	Some Comparative Disadvantage over the Other Options	Some Comparative Advantage over the Other Options	Some Comparative Disadvantage over the Other Options	Some Comparative Advantage over the Other Options	Some Comparative Advantage over the Other Options
2. Integration	Some Comparative Advantage over the Other Options	Some Comparative Advantage over the Other Options	Some Comparative Disadvantage over the Other Options	Some Comparative Disadvantage over the Other Options	Some Comparative Disadvantage over the Other Options
3. Environment	Some Comparative Advantage over the Other Options	Some Comparative Advantage over the Other Options	Some Comparative Disadvantage over the Other Options	Some Comparative Disadvantage over the Other Options	Some Comparative Disadvantage over the Other Options
4. Accessibility and Social Inclusion	Some Comparative Disadvantage over the Other Options	Some Comparative Advantage over the Other Options	Some Comparative Disadvantage over the Other Options	Some Comparative Disadvantage over the Other Options	Some Comparative Disadvantage over the Other Options
5. Safety	Comparable to the Other Options / Neutral	Comparable to the Other Options / Neutral	Comparable to the Other Options / Neutral	Comparable to the Other Options / Neutral	Comparable to the Other Options / Neutral
6. Physical Activity	Some Comparative Advantage over the Other Options	Some Comparative Advantage over the Other Options	Some Comparative Disadvantage over the Other Options	Some Comparative Disadvantage over the Other Options	Some Comparative Disadvantage over the Other Options
Conclusion	Some Comparative Disadvantage over the Other Option	Some Comparative Advantage over the Other Option	Some Comparative Disadvantage over the Other Option	Some Comparative Disadvantage over the Other Option	Some Comparative Disadvantage over the Other Option