

Magnitude	Definition for: Objectives, Constraints and Critical Issues
Large positive (+ve)	Significant positive effect
Moderate positive (+ve)	More than minor positive effect
Slight positive (+ve)	Minor positive effect
Neutral	No impact or no discernible difference
Slight negative (-ve)	Minor adverse effect
Moderate negative (-ve)	More than minor adverse effect
Large negative (-ve)	Significant adverse effect
Fatal Flaw	Technical fatal flaw
Not scored	

Magnitude derived from comparson with status quo

Decision

Progress

Discount

Longlist Assessment															
Criteria	SME Lead	Objective	Appropriate method for Measurement @ the detail available at the long stage of the assessment	Do Min (Base Case)	OPTION 01A: Aligned Platforms, upgraded Underpass	OPTION 01A: Aligned Platforms, upgraded Underpass	OPTION 01B: Aligned & Upgraded Platforms, Bus Interchange, underpass	Option 01B: Aligned & Upgraded Platforms, Bus Interchange, Short Underpass below rail corridor and Pedestrian Crossing at Cambridge Terrace	OPTION 02: upgrade platforms, underpass – new lifts and stairs, improved East West connection ramps	OPTION 03: upgraded platforms – reduced underpass – new pedestrian crossing	OPTION 04: upgrade platforms – upgrade underpass ramps & stairs & entry, sunk in plaza	OPTION 05: upgrade platforms – underpass removed – new overpass stairs and lifts	OPTION 05A: Aligned & upgraded platforms – underpass removed – new overpass stair, lifts and ramps	OPTION 5B - OVERPASS with Aligned & upgraded platforms & Consolidated Bus Interchange in SE	Option 17: Aligned Platforms, Bus Interchange, new overbridge over rail corridor, on grade Ped Xing Cambridge Tce
Fatal Flows	Grimshaw Aurecon (Transport)	Identify those options that have technical fatal flaws and are excluded from further assessment	Achieves technical requirements of platform & track alignment and geometry	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral
			Avoids the buffer area around the Water Treatment Plant	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral
			Closure of the rail corridor for unacceptable lengths of time or peak periods of use	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral
			Avoids impacts on the existing road infrastructure	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral
Community Connections	Grimshaw Boffa Miskell Tonkin & Taylor Dunning	Maintains a safe walkable community connection across rail the rail corridor at Waterloo Station and Cambridge Terrace at all times, including during construction, for the community particularly school children walking to and from school.	Maintain the safe community connection from East to West (across rail corridor and Cambridge Terrace)	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Moderate negative (-ve)	Slight negative (-ve)	Neutral	Neutral	Neutral	Neutral
			Ability to achieve step free access for the community connection from East to West (across rail corridor and Cambridge Terrace)	Neutral	Neutral	Neutral	Neutral	Slight positive (+ve)	Moderate positive (+ve)	Slight positive (+ve)	Moderate positive (+ve)	Slight positive (+ve)	Slight positive (+ve)	Slight positive (+ve)	Moderate positive (+ve)
Transport Interchange	Aurecon (Transport) Boffa Miskell Grimshaw	Provides a transport interchange for a range of transport modes that delivers minimum walking distances between modes and minimum connection times between scheduled services (e.g. bus to rail) that is consistent with the station hierarchy	Shortest walking distance route measured in minutes between transport modes.	Neutral	Neutral	Slight negative (-ve)	Slight positive (+ve)	Slight positive (+ve)	Slight positive (+ve)	Slight negative (-ve)	Slight positive (+ve)	Slight positive (+ve)	Moderate negative (-ve)	Slight positive (+ve)	Moderate positive (+ve)
			Minimum number of level and direction changes required to traverse between transport modes e.g. bus to rail.	Neutral	Neutral	Neutral	Neutral	Slight positive (+ve)	Slight positive (+ve)	Moderate positive (+ve)	Moderate positive (+ve)	Slight positive (+ve)	Slight negative (-ve)	Slight positive (+ve)	Moderate positive (+ve)
Enabling Commercial Development	Grimshaw Boffa Miskell	Has the smallest possible footprint (area and geometry) and avoids the need to use property in the immediate precinct (including property not under control of GW) for station operations so that it occupies a minimum land holding (having regard to forecast growth requirements), is decoupled from property not under control of GW and maximises the area of the land immediately adjoining the station for TOD related commercial and community uses.	The Station including bus interchange occupies the smallest possible area measured in sqm.	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Large negative (-ve)	Slight negative (-ve)	Moderate negative (-ve)	Neutral	Neutral
			The Station including bus interchange has a geometry that is compact and minimises disturbance to land holdings and assets	Neutral	Neutral	Slight positive (+ve)	Slight positive (+ve)	Slight positive (+ve)	Neutral	Neutral	Neutral	Neutral	Slight negative (-ve)	Slight positive (+ve)	Slight positive (+ve)
			The station and bus interchange is decoupled from the use of property not under control of GW	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Moderate negative (-ve)	Large negative (-ve)	Moderate negative (-ve)	Moderate negative (-ve)	Moderate negative (-ve)	Slight negative (-ve)
Stageable and Adaptable	Aurecon (Transport) Grimshaw	Is demand led so that provides sufficient capacity, targeting a Level C level of service for rail passengers in the peak 15 minutes in the representative week in the busiest month (excluding disruptions) in 2025 and forecast passenger demand in its planned opening year of 2030 and by 2045 and 2060.	Ability for rail station capacity to be staged to match demand in 2030, 2045 & 2060	Insufficient detail and information available to assess long list option against criteria											0
			Provision of sufficient rail station capacity to achieve Level Service C for 2030, 2045 & 2060												0
Construction and Delivery	RCP	Has a construction methodology that is simple and can be completed in the least number of months, therefore has a lower construction cost, and minimises the length of time that the rail network and users will be subject to construction impacts and disruptions	Complexity of construction and staging for delivery	Neutral	Moderate negative (-ve)	Moderate negative (-ve)	Moderate negative (-ve)	Moderate negative (-ve)	Moderate negative (-ve)	Moderate negative (-ve)	Large negative (-ve)	Slight negative (-ve)	Slight negative (-ve)	Slight negative (-ve)	Slight negative (-ve)
			minimum number of months to complete construction	Insufficient detail and information available to assess long list option against criteria											Moderate negative (-ve)
			least number and shortest duration of rail corridor closures for construction												Slight negative (-ve)
			least number and shortest duration of road corridor closures for construction												0
			minimum number of months for station closure												0
Technical requirements	Aurecon (Civil) Aurecon (Building Services) Boffa Miskell T&T Grimshaw	Meets technical requirement necessary for the construction, operation and consenting of the rail station, bus interchange and ancillary infrastructure and services	Criteria to come for the assessing the impact of the technical requirements on the environment, consenting, existing infrastructure and land	Insufficient detail and information available to assess long list option against criteria											0
Sustainability	RCP T&T Dunnings Aurecon (Civil) Aurecon (Building Services)	Minimises or avoids environmental impacts and additional greenhouse gas emissions during construction and operation by maximising the reuse of existing infrastructure and building elements, disturbing or removing the least amount of earth needing disposal, achieving stormwater neutrality, using energy efficient building services and the use of PV panels for power generation.	Greatest amount of existing infrastructure that can be reused	Neutral	Slight negative (-ve)	Slight negative (-ve)	Slight negative (-ve)	Slight negative (-ve)	Slight negative (-ve)	Slight negative (-ve)	Large negative (-ve)	Moderate negative (-ve)	Moderate negative (-ve)	Moderate negative (-ve)	Moderate negative (-ve)
			Minimum area of soil disturbance and amount of earth needing disposal	Neutral	Slight negative (-ve)	Slight negative (-ve)	Moderate negative (-ve)	Moderate negative (-ve)	Moderate negative (-ve)	Moderate negative (-ve)	Large negative (-ve)	Slight negative (-ve)	Slight negative (-ve)	Slight negative (-ve)	Slight negative (-ve)
Decision (Progress or Discount)				Progress	Discount	Discount	Progress	Progress	Progress	Discount	Discount	Discount	Discount	Discount	Progress
Reason(s)	All			0	option outcome is not sufficiently different from base case	option outcome is not sufficiently different from base case	-3	-1	-1	-7	-12	-3	-11	-2	2

Objective	Appropriate method for Measurement @ the detail available at the long stage of the assessment	Magnitude Score	Commentary
Identify those options that have techincal fatal flaws and are excluded from further assessment	Achieves technical requirements of platform & track alignment and geometry	Neutral	
	Avoids the buffer area surround the Water Treatment Plant	Neutral	
	Closure of the rail corridor for unacceptable lengths of time or peak periods of use	Neutral	
	Avoids impacts on the existing road infrastructure	Neutral	
Maintains a safe walkable community connection across rail the rail corridor at Waterloo Station and Cambridge Terrace at all times, including during construction, for the community particularly school children walking to and from school.	Maintain the community connection from East to West (across rail corridor and Cambridge Terrace)	Neutral	minor upgrades required
	Ability to achieve step free access for the community connection from East to West (across rail corridor and Cambridge Terrace)	Neutral	
Provides a transport interchange for a range of transport modes that delivers minimum walking distances between modes and minimum connection times between scheduled services (e.g. bus to rail) that is consistent with the station hierarchy	How well does the station option protect the ability to integrate greatest number of bus interchange options.	Neutral	Bus interchange changes are part of the do minimum option.
	Minimum number of level and direction changes required to traverse between transport modes e.g. bus to rail.	Neutral	
Has the smallest possible footprint (area and geometry) and avoids the need to use property in the immediate precinct (including property not under control of GW) for station operations so that it occupies a minimum land holding (having regard to forecast growth requirements), is decoupled from property not under control of GW and maximises the area of the land immediately adjoining the station for TOD related commercial and community uses.	The Station including bus interchange occupies the smallest possible area measured in sqm.	Neutral	
	The Station including bus interchange has a geometry that is compact and minimises disturbance to land holdings and assets	Neutral	
	The station and bus interchange is decoupled from the use of property not under control of GW	Neutral	
Has a construction methodology that is simple and can be completed in the least number of months, therefore has a lower construction cost, and minimises the length of time that the rail network and users will be subject to construction impacts and disruptions	least complex construction and staging method for delivery	Neutral	Consideration remains for the viability of retaining and upgrading the existing underpass, including for temporary works. Assumption for comparison against the base case allows for substantial works to the existing underpass. Further exploration and detail around measures for length of time and complexity etc. for closures to these in shortlist.
Minimises or avoids environmental impacts and additional greenhouse gas emissions during construction and operation by maximising the reuse of existing infrastructure and building elements, disturbing or removing the least amount of earth needing disposal, achieving stormwater neutrality, using energy efficient building services and the use of PV panels for power generation.	Greatest amount of existing infrastructure that can be reused	Neutral	
	Minimum area of soil disturbance and amount of earth needing disposal	Neutral	

OPTION 01: upgraded platforms and underpass ramps & stairs ASSESSMENT					
Criteria	SME Lead	Objective	Appropriate method for Measurement @ the detail available at the long stage of the assessment	Magnitude Score	Commentary
Community Connections	Grimshaw Boffa Miskell Tonkin & Talyor Dunning	Maintains a safe walkable community connection across rail the rail corridor at Waterloo Station and Cambridge Terrace at all times, including during construction, for the community particularly school children walking to and from school.	Maintain the community connection from East to West (across rail corridor and Cambridge Terrace).	Neutral	Retains community connection, does not require adjustment of user habits.
			Ability to achieve step free access for the community connection from East to West (across rail corridor and Cambridge Terrace)	Neutral	(Note: Ability to maintain step free connection during construction is not acheivable and not measured as part of this criteria) Option introduces accessible ramps. Same as base case
Transport Interchange	Aurecon (Transport) Boffa Miskell Grimshaw	Provides a transport interchange for a range of transport modes that delivers minimum walking distances between modes and minimum connection times between scheduled services (e.g. bus to rail) that is consistent with the station hierarchy	How well does the station option protect the ability to integrate greatest number of bus interchange options.	Neutral	No change from do min. Compatible with all bus interchange options.
			Shortest walking distance route measured in minutes between transport modes.	Neutral	
			Minimum number of level and direction changes required to traverse between transport modes e.g. bus to rail.	Neutral	No change from do min.
Enabling Commercial Development	Grimshaw Boffa Miskell	Has the smallest possible footprint (area and geometry) and avoids the need to use property in the immediate precinct (including property not under control of GW) for station operations so that it occupies a minimum land holding (having regard to forecast growth requirements), is decoupled from property not under control of GW and maximises the area of the land immediately adjoining the station for TOD related commercial and community uses.	The Station including bus interchange occupies the smallest possible area measured in sqm.	Neutral	No change to base case - except minor extension of ramps.
			The Station including bus interchange has a geometry that is compact and minimises disturbance to land holdings and assets	Neutral	Similar to base case.
			The station and bus interchange is decoupled from the use of property not under control of GW	Neutral	Similar to base case.
Construction and Delivery	RCP	Has a construction methodology that is simple and can be completed in the least number of months, therefore has a lower construction cost, and minimises the length of time that the rail network and users will be subject to construction impacts and disruptions	least complex construction and staging method for delivery	Moderate negative (-ve)	
Sustainability	RCP T&T Dunnings Aurecon (Civil) Aurecon (Building Services)	Minimises or avoids environmental impacts and additional greenhouse gas emissions during construction and operation by maximising the reuse of existing infrastructure and building elements, disturbing or removing the least amount of earth needing disposal, achieving stormwater neutrality, using energy efficient building services and the use of PV panels for power generation.	Greatest amount of existing infrastructure that can be reused	Slight negative (-ve)	Retaining existing platform has a lesser impact from a sustainability perspective. No disruption to services inside of station footprint, assumed not impact mains infrastructure network. Minimal changes to basecase from a structural and geotech perspective.
			Minimum area of soil disturbance and amount of earth needing disposal	Slight negative (-ve)	Minor adjustment to the basecase for upgrade. This is on the assumption that the existing underpass is viable for upgrade.

OPTION 01A: Aligned Platforms, upgraded Underpass ASSESSMENT					
Criteria	SME Lead	Objective	Appropriate method for Measurement @ the detail available at the long stage of the assessment	Magnitude Score	Commentary
Community Connections	Grimshaw Boffa Miskell Tonkin & Talyor Dunning	Maintains a safe walkable community connection across rail the rail corridor at Waterloo Station and Cambridge Terrace at all times, including during construction, for the community particularly school children walking to and from school.	Maintain the community connection from East to West (across rail corridor and Cambridge Terrace).	Neutral	Retains community connection, does not require adjustment of user habits.
			Ability to achieve step free access for the community connection from East to West (across rail corridor and Cambridge Terrace)	Neutral	Option introduces accessible ramps. Same as base case
Transport Interchange	Aurecon (Transport) Boffa Miskell Grimshaw	Provides a transport interchange for a range of transport modes that delivers minimum walking distances between modes and minimum connection times between scheduled services (e.g. bus to rail) that is consistent with the station hierarchy	How well does the station option protect the ability to integrate greatest number of bus interchange options.	Slight negative (-ve)	Longer walking distance between bus stops and platform 2
			Shortest walking distance route measured in minutes between transport modes.	Slight negative (-ve)	
			Minimum number of level and direction changes required to traverse between transport modes e.g. bus to rail.	Neutral	Slight increase in walking distrances.
Enabling Commercial Development	Grimshaw Boffa Miskell	Has the smallest possible footprint (area and geometry) and avoids the need to use property in the immediate precinct (including property not under control of GW) for station operations so that it occupies a minimum land holding (having regard to forecast growth requirements), is decoupled from property not under control of GW and maximises the area of the land immediately adjoining the station for TOD related commercial and community uses.	The Station including bus interchange occupies the smallest possible area measured in sqm.	Neutral	Similar to base case.
			The Station including bus interchange has a geometry that is compact and minimises disturbance to land holdings and assets	Slight positive (+ve)	Efficiencies gained from alignment of the platform.
			The station and bus interchange is decoupled from the use of property not under control of GW	Neutral	Similar to base case.
Construction and Delivery	RCP	Has a construction methodology that is simple and can be completed in the least number of months, therefore has a lower construction cost, and minimises the length of time that the rail network and users will be subject to construction impacts and disruptions	least complex construction and staging method for delivery	Moderate negative (-ve)	Enables staging with the platform alignmment which reduced complexity for retaining access during construction. Works to upgrade existing underpass retains complexity element.
Sustainability	RCP T&T Dunnings Aurecon (Civil) Aurecon (Building Services)	Minimises or avoids environmental impacts and additional greenhouse gas emissions during construction and operation by maximising the reuse of existing infrastructure and building elements, disturbing or removing the least amount of earth needing disposal, achieving stormwater neutrality, using energy efficient building services and the use of PV panels for power generation.	Greatest amount of existing infrastructure that can be reused	Slight negative (-ve)	Retaining existing platform has a lesser impact from a sustainability perspective. No disruption to services inside of station footprint, assumed not impact mains infrastructure network. Minimal changes to basecase from a structural and geotech perspective.
			Minimum area of soil disturbance and amount of earth needing disposal	Slight negative (-ve)	Minor adjustment to the basecase for upgrade. This is on the assumption that the existing underpass is viable for upgrade.

OPTION 1B -Aligned Platforms, Bus interchange, underpass

Criteria	SME Lead	Objective	Appropriate method for Measurement @ the detail available at the long stage of the assessment	Magnitude Score	Commentary
Fatal Flaws	Grimshaw Aurecon (Transport)	Identify those options that have techincal fatal flaws and are excluded from further assessment	Achieves technical requirements of platform & track alignment and geometry	Neutral	
			Avoids the buffer area surround the Water Treatment Plant	Neutral	
			Closure of the rail corridor for unacceptable lengths of time or peak periods of use	Neutral	
			Avoids impacts on the existing road infrastructure	Neutral	
Community Connections	Grimshaw Boffa Miskell Tonkin & Talyor Dunning	Maintains a safe walkable community connection across rail the rail corridor at Waterloo Station and Cambridge Terrace at all times, including during construction, for the community particularly school children walking to and from school.	Maintain the safe community connection from East to West (across rail corridor and Cambridge Terrace).	Neutral	No change from do min. Compatible with all bus interchange options.
			Ability to achieve step free access for the community connection from East to West (across rail corridor and Cambridge Terrace)	Neutral	Lifts provide for grade change
Transport Interchange	Aurecon (Transport) Boffa Miskell Grimshaw	Provides a transport interchange for a range of transport modes that delivers minimum walking distances between modes and minimum connection times between scheduled services (e.g. bus to rail) that is consistent with the station hierarchy	Shortest walking distance route measured in minutes between transport modes.	Slight positive (+ve)	Better connection between bus interchange and Platform 2, Lift provides quicker connection to interchange compared to the ramps
			Minimum number of level and direction changes required to traverse between transport modes e.g. bus to rail.	Neutral	Same as base case
Enabling Commercial Development	Grimshaw Boffa Miskell	Has the smallest possible footprint (area and geometry) and avoids the need to use property in the immediate precinct (including property not under control of GW) for station operations so that it occupies a minimum land holding (having regard to forecast growth requirements), is decoupled from property not under control of GW and maximises the area of the land immediately adjoining the station for TOD related commercial and community uses.	The Station including bus interchange occupies the smallest possible area measured in sqm.	Neutral	Same as base case
			The Station including bus interchange has a geometry that is compact and minimises disturbance to land holdings and assets	Slight positive (+ve)	Aligned platforms and bus interchange geometry more efficient
			The station and bus interchange is decoupled from the use of property not under control of GW	Neutral	Same as base case, easy to convert south eastern car park to bus interchange
Construction and Delivery	RCP	Has a construction methodology that is simple and can be completed in the least number of months, therefore has a lower construction cost, and minimises the length of time that the rail network and users will be subject to construction impacts and disruptions	least complex construction and staging method for delivery	Moderate negative (-ve)	Enables staging with the platform alignmnent which reduced complexity for retaining access during construction. Works to upgrade existing underpass retains complexity element.
Sustainability	RCP T&T Dunnings Aurecon (Civil) Aurecon (Building Services)	Minimises or avoids environmental impacts and additional greenhouse gas emissions during construction and operation by maximising the reuse of existing infrastructure and building elements, disturbing or removing the least amount of earth needing disposal, achieving stormwater neutrality, using energy efficient building services and the use of PV panels for power generation.	Greatest amount of existing infrastructure that can be reused	Slight negative (-ve)	Retaining existing platform has a lesser impact from a sustainability perspective. No disruption to services inside of station footprint, assumed not impact mains infrastructure network. Minimal changes to basecase from a structural and geotech perspective.
			Minimum area of soil disturbance and amount of earth needing disposal	Moderate negative (-ve)	Lift pits for the underpass and proximity to rail corridor will have a greater impact than base case. Platforms moved requiring more earthworks.

OPTION 1B -Aligned Platforms, Bus interchange, underpass

Criteria	SME Lead	Objective	Appropriate method for Measurement @ the detail available at the long stage of the assessment	Magnitude Score	Commentary
Fatal Flaws	Grimshaw Aurecon (Transport)	Identify those options that have techincal fatal flaws and are excluded from further assessment	Achieves technical requirements of platform & track alignment and geometry	Neutral	
			Avoids the buffer area surround the Water Treatment Plant	Neutral	
			Closure of the rail corridor for unacceptable lengths of time or peak periods of use	Neutral	
			Avoids impacts on the existing road infrastructure	Neutral	
Community Connections	Grimshaw Boffa Miskell Tonkin & Talyor Dunning	Maintains a safe walkable community connection across rail the rail corridor at Waterloo Station and Cambridge Terrace at all times, including during construction, for the community particularly school children walking to and from school.	Maintain the safe community connection from East to West (across rail corridor and Cambridge Terrace).	Neutral	No change from do min. Compatible with all bus interchange options.
			Ability to achieve step free access for the community connection from East to West (across rail corridor and Cambridge Terrace)	Slight positive (+ve)	Lifts provide for grade change, improved line of sight from Cambridge, better access for bus users.
Transport Interchange	Aurecon (Transport) Boffa Miskell Grimshaw	Provides a transport interchange for a range of transport modes that delivers minimum walking distances between modes and minimum connection times between scheduled services (e.g. bus to rail) that is consistent with the station hierarchy	Shortest walking distance route measured in minutes between transport modes.	Slight positive (+ve)	Better connection between bus interchange and Platform 2, Lift provides quicker connection to interchange compared to the ramps
			Minimum number of level and direction changes required to traverse between transport modes e.g. bus to rail.	Slight positive (+ve)	Level change via lift and stairs. Significant improvement to the pedestrian connection on the east of the station and bus interchange with Cambridge Terrace and Trafalgar Square
Enabling Commercial Development	Grimshaw Boffa Miskell	Has the smallest possible footprint (area and geometry) and avoids the need to use property in the immediate precinct (including property not under control of GW) for station operations so that it occupies a minimum land holding (having regard to forecast growth requirements), is decoupled from property not under control of GW and maximises the area of the land immediately adjoining the station for TOD related commercial and community uses.	The Station including bus interchange occupies the smallest possible area measured in sqm.	Neutral	Same as base case
			The Station including bus interchange has a geometry that is compact and minimises disturbance to land holdings and assets	Slight positive (+ve)	Aligned platforms and bus interchange geometry more efficient
			The station and bus interchange is decoupled from the use of property not under control of GW	Neutral	Same as base case, easy to convert south eastern car park to bus interchange. Level crossing of Cambridge Terrace removes underpass ramps on Trafalgar Square
Construction and Delivery	RCP	Has a construction methodology that is simple and can be completed in the least number of months, therefore has a lower construction cost, and minimises the length of time that the rail network and users will be subject to construction impacts and disruptions	least complex construction and staging method for delivery	Moderate negative (-ve)	Enables staging with the platform alignmnent which reduced complexity for retaining access during construction. Works to upgrade existing underpass retains complexity element.
Sustainability	RCP T&T Dunnings Aurecon (Civil) Aurecon (Building Services)	Minimises or avoids environmental impacts and additional greenhouse gas emissions during construction and operation by maximising the reuse of existing infrastructure and building elements, disturbing or removing the least amount of earth needing disposal, achieving stormwater neutrality, using energy efficient building services and the use of PV panels for power generation.	Greatest amount of existing infrastructure that can be reused	Slight negative (-ve)	Retaining existing platform has a lesser impact from a sustainability perspective. No disruption to services inside of station footprint, assumed not impact mains infrastructure network. Minimal changes to basecase from a structural and geotech perspective.
			Minimum area of soil disturbance and amount of earth needing disposal	Moderate negative (-ve)	Lift pits for the underpass and proximity to rail corridor will have a greater impact than base case. Platforms moved requiring more earthworks.

OPTION 02: upgrade platforms, underpass – new lifts and stairs ASSESSMENT					
Criteria	SME Lead	Objective	Appropriate method for Measurement @ the detail available at the long stage of the assessment	Magnitude Score	Commentary
Community Connections	Grimshaw Boffa Miskell Tonkin & Talyor Dunning	Maintains a safe walkable community connection across rail the rail corridor at Waterloo Station and Cambridge Terrace at all times, including during construction, for the community particularly school children walking to and from school.	Maintain the community connection from East to West (across rail corridor and Cambridge Terrace).	Neutral	Retains community connection, does not require adjustment of user habits.
			Ability to achieve step free access for the community connection from East to West (across rail corridor and Cambridge Terrace)	Moderate positive (+ve)	Option introduces accessible ramps and vertical transport (to the platforms only) which is considered more beneficial for accessible connection (eg. Wheelchair users).
Transport Interchange			Shortest walking dsitance route measured in minutes between transport modes	Slight positive (+ve)	
			Minimum number of level and direction changes required to traverse between transport modes e.g. bus to rail.	Slight positive (+ve)	Improvement from do min base case.
Enabling Commercial Development	Grimshaw Boffa Miskell	Has the smallest possible footprint (area and geometry) and avoids the need to use property in the immediate precinct (including property not under control of GW) for station operations so that it occupies a minimum land holding (having regard to forecast growth requirements), is decoupled from property not under control of GW and maximises the area of the land immediately adjoining the station for TOD related commercial and community uses.	The Station including bus interchange occupies the smallest possible area measured in sqm.	Neutral	No change to base case - except minor extension of ramps.
			The Station including bus interchange has a geometry that is compact and minimises disturbance to land holdings and assets	Neutral	Similar to base case.
			The station and bus interchange is decoupled from the use of property not under control of GW	Neutral	Similar to base case.
Construction and Delivery	RCP	Has a construction methodology that is simple and can be completed in the least number of months, therefore has a lower construction cost, and minimises the length of time that the rail network and users will be subject to construction impacts and disruptions	least complex construction and staging method for delivery	Moderate negative (-ve)	Upgrade the underpass and upgrade platform.
Sustainability	RCP T&T Dunnings Aurecon (Civil) Aurecon (Building Services)	Minimises or avoids environmental impacts and additional greenhouse gas emissions during construction and operation by maximising the reuse of existing infrastructure and building elements, disturbing or removing the least amount of earth needing disposal, achieving stormwater neutrality, using energy efficient building services and the use of PV panels for power generation.	Greatest amount of existing infrastructure that can be reused	Slight negative (-ve)	Retaining existing platform has a lesser impact from a sustainability perspective. No disruption to services inside of station footprint, assumed not impact mains infrastructure network. Minimal changes to basecase from a structural and geotech perspective.
			Minimum area of soil disturbance and amount of earth needing disposal	Moderate negative (-ve)	Lift pits for the underpass and proximity to rail corridor will have a greater impact than base case.

OPTION 03: upgraded platforms - reduced underpass – new pedestrian crossing ASSESSMENT					
Criteria	SME Lead	Objective	Appropriate method for Measurement @ the detail available at the long stage of the assessment	Magnitude Score	Commentary
Community Connections	Grimshaw Boffa Miskell Tonkin & Talyor Dunning	Maintains a safe walkable community connection across rail the rail corridor at Waterloo Station and Cambridge Terrace at all times, including during construction, for the community particularly school children walking to and from school.	Maintain the safe community connection from East to West (across rail corridor and Cambridge Terrace).	Moderate negative (-ve)	Behaviour change for pedestrian and road users (potential impact to road speeds and subsequently to bus network timeframes). Users cross at grade at Cambridge Terrace without a crossing. Signalling may be required which will increase length of time to cross, and encourage unlawful crossing. Most obvious and legible route to cross is at grade.
			Ability to achieve step free access for the community connection from East to West (across rail corridor and Cambridge Terrace)	Slight positive (+ve)	Introduced level crossing, further investigation required of the existing levels and spatial arrangement of ticket lines.
Transport Interchange	Aurecon (Transport) Boffa Miskell Grimshaw	Provides a transport interchange for a range of transport modes that delivers minimum walking distances between modes and minimum connection times between scheduled services (e.g. bus to rail) that is consistent with the station hierarchy	How well does the station option protect the ability to integrate greatest number of bus interchange options.	Slight negative (-ve)	Potential impact on bus operations.
			Length of the walk on the East West connections for minimum walking distance.	Slight negative (-ve)	
			Minimum number of level and direction changes required to traverse between transport modes e.g. bus to rail.	Moderate positive (+ve)	On grade access improved interchange between different transport modes.
Enabling Commercial Development	Grimshaw Boffa Miskell	Has the smallest possible footprint (area and geometry) and avoids the need to use property in the immediate precinct (including property not under control of GW) for station operations so that it occupies a minimum land holding (having regard to forecast growth requirements), is decoupled from property not under control of GW and maximises the area of the land immediately adjoining the station for TOD related commercial and community uses.	The Station including bus interchange occupies the smallest possible area measured in sqm.	Neutral	
			The Station including bus interchange has a geometry that is compact and minimises disturbance to land holdings and assets	Neutral	
			The station and bus interchange is decoupled from the use of property not under control of GW	Moderate negative (-ve)	Requires HCC approvals for the grade level crossing.
Construction and Delivery	RCP	Has a construction methodology that is simple and can be completed in the least number of months, therefore has a lower construction cost, and minimises the length of time that the rail network and users will be subject to construction impacts and disruptions	least complex construction and staging method for delivery	Moderate negative (-ve)	Pedestrian cross is easier. Less works to the underpass reduce level of complexity. Ability to stage during construction and maintaining access during construction considered more complex.
Sustainability	RCP T&T Dunnings Aurecon (Civil) Aurecon (Building Services)	Minimises or avoids environmental impacts and additional greenhouse gas emissions during construction and operation by maximising the reuse of existing infrastructure and building elements, disturbing or removing the least amount of earth needing disposal, achieving stormwater neutrality, using energy efficient building services and the use of PV panels for power generation.	Greatest amount of existing infrastructure that can be reused	Slight negative (-ve)	Reduction of underpass being re-used. New road crossing infrastructure and integration with underpass below rail tracks.
			Minimum area of soil disturbance and amount of earth needing disposal	Moderate negative (-ve)	Blocking / infill of the underpass, and lift pits for the underpass and proximity to rail corridor will have a greater impact than base case.

OPTION 04: upgrade platforms – upgrade underpass ramps & stairs & entry, sunk-in plaza					
Criteria	SME Lead	Objective	Appropriate method for Measurement @ the detail available at the long stage of the assessment	Magnitude Score	Commentary
Community Connections	Grimshaw Boffa Miskell Tonkin & Talyor Dunning	Maintains a safe walkable community connection across rail the rail corridor at Waterloo Station and Cambridge Terrace at all times, including during construction, for the community particularly school children walking to and from school.	Maintain safe the community connection from East to West (across rail corridor and Cambridge Terrace).	Slight negative (-ve)	at grade crossing. Considered more negative due to safety element (CEPTD) which may attract antisocial behaviour without high level of security / passive surveillance.
			Ability to achieve step free access for the community connection from East to West (across rail corridor and Cambridge Terrace)	Moderate positive (+ve)	Would enable step free access through ramped access, and vertical transport across the rail corridor.
Transport Interchange	Aurecon (Transport) Boffa Miskell Grimshaw	Provides a transport interchange for a range of transport modes that delivers minimum walking distances between modes and minimum connection times between scheduled services (e.g. bus to rail) that is consistent with the station hierarchy	How well does the station option protect the ability to integrate greatest number of bus interchange options.	Neutral	
			Length of the walk on the East West connections for minimum walking distance.	Slight positive (+ve)	
			Minimum number of level and direction changes required to traverse between transport modes e.g. bus to rail.	Moderate positive (+ve)	Reduces switchbacks from current arrangements.
Enabling Commercial Development	Grimshaw Boffa Miskell	Has the smallest possible footprint (area and geometry) and avoids the need to use property in the immediate precinct (including property not under control of GW) for station operations so that it occupies a minimum land holding (having regard to forecast growth requirements), is decoupled from property not under control of GW and maximises the area of the land immediately adjoining the station for TOD related commercial and community uses.	The Station including bus interchange occupies the smallest possible area measured in sqm.	Large negative (-ve)	Loss of commercial land to the West for sunken plaza.
			The Station including bus interchange has a geometry that is compact and minimises disturbance to land holdings and assets	Neutral	
			The station and bus interchange is decoupled from the use of property not under control of GW	Large negative (-ve)	Reliance on HCC approvals for land, and removal of community amenity building not owned by GW.
Construction and Delivery	RCP	Has a construction methodology that is simple and can be completed in the least number of months, therefore has a lower construction cost, and minimises the length of time that the rail network and users will be subject to construction impacts and disruptions	least complex construction and staging method for delivery	Large negative (-ve)	Large excavation required, complexity to negate services considered more complex. More temporary works required. Complexity for access to platforms and maintaining operations is similar to other options.
Sustainability	RCP T&T Dunnings Aurecon (Civil) Aurecon (Building Services)	Minimises or avoids environmental impacts and additional greenhouse gas emissions during construction and operation by maximising the reuse of existing infrastructure and building elements, disturbing or removing the least amount of earth needing disposal, achieving stormwater neutrality, using energy efficient building services and the use of PV panels for power generation.	Greatest amount of existing infrastructure that can be reused	Large negative (-ve)	Significant excavation and existing services to be negated. Clashes with main water pipework infrastructure.
			Minimum area of soil disturbance and amount of earth needing disposal	Large negative (-ve)	Significant soil disturbance and quantity of earth to be disposed of.

OPTION 05: upgrade platforms – underpass removed – new overpass stairs and lifts ASSESSMENT					
Criteria	SME Lead	Objective	Appropriate method for Measurement @ the detail available at the long stage of the assessment	Magnitude Score	Commentary
Community Connections	Grimshaw Boffa Miskell Tonkin & Talyor Dunning	Maintains a safe walkable community connection across rail the rail corridor at Waterloo Station and Cambridge Terrace at all times, including during construction, for the community particularly school children walking to and from school.	Maintain the safe community connection from East to West (across rail corridor and Cambridge Terrace).	Neutral	Underpass removed, stairs and vertical transport only. Could be affected by the height of the overpass as this will impact length of time to cross, and customer perception is a longer distance. Retains access at all hours - no difference to current usability.
			Ability to achieve step free access for the community connection from East to West (across rail corridor and Cambridge Terrace)	Slight positive (+ve)	Has vertical transport which enables step free access. No ramps therefor the introduction of lifts offsets the measure against addition of the vertical transport.
Transport Interchange	Aurecon (Transport) Boffa Miskell Grimshaw	Provides a transport interchange for a range of transport modes that delivers minimum walking distances between modes and minimum connection times between scheduled services (e.g. bus to rail) that is consistent with the station hierarchy	How well does the station option protect the ability to integrate greatest number of bus interchange options.	Neutral	Less distance compared to underpass ramps in the base case Lift provision offers benefit for the interchange.
			Length of the walk on the East West connections for minimum walking distance.	Slight positive (+ve)	
			Minimum number of level and direction changes required to traverse between transport modes e.g. bus to rail.	Slight positive (+ve)	
Enabling Commercial Development	Grimshaw Boffa Miskell	Has the smallest possible footprint (area and geometry) and avoids the need to use property in the immediate precinct (including property not under control of GW) for station operations so that it occupies a minimum land holding (having regard to forecast growth requirements), is decoupled from property not under control of GW and maximises the area of the land immediately adjoining the station for TOD related commercial and community uses.	The Station including bus interchange occupies the smallest possible area measured in sqm.	Slight negative (-ve)	Uses area to the West.
			The Station including bus interchange has a geometry that is compact and minimises disturbance to land holdings and assets	Neutral	Similar to basecase.
			The station and bus interchange is decoupled from the use of property not under control of GW	Moderate negative (-ve)	Over pass impact Hutt City Council land and impacts to existing building at Trafalgar Square
Construction and Delivery	RCP	Has a construction methodology that is simple and can be completed in the least number of months, therefore has a lower construction cost, and minimises the length of time that the rail network and users will be subject to construction impacts and disruptions	least complex construction and staging method for delivery	Slight negative (-ve)	Construction of a bridge is less complex. Can be staged and integrated with temporary works. Location of overpass would need to be further developed and assessed for efficiencies. Removal of underpass and how this is achieved would require further investigation of how this is achieved.
Sustainability	RCP T&T Dunnings Aurecon (Civil) Aurecon (Building Services)	Minimises or avoids environmental impacts and additional greenhouse gas emissions during construction and operation by maximising the reuse of existing infrastructure and building elements, disturbing or removing the least amount of earth needing disposal, achieving stormwater neutrality, using energy efficient building services and the use of PV panels for power generation.	Greatest amount of existing infrastructure that can be reused	Moderate negative (-ve)	Removal of underpass, new infrastructure to go over the road - less re-use of the existing in comparison to the basecase.
			Minimum area of soil disturbance and amount of earth needing disposal	Slight negative (-ve)	Lift pits and foundations limited to "shallow" excavation with out proximity to rail corridor. Ability to use underpass for spoil disposal

OPTION 05A: upgrade platforms – underpass removed – new overpass stair, lifts and ramps ASSESSMENT					
Criteria	SME Lead	Objective	Appropriate method for Measurement @ the detail available at the long stage of the assessment	Magnitude Score	Commentary
Community Connections	Grimshaw Boffa Miskell Tonkin & Talyor Dunning	Maintains a safe walkable community connection across rail the rail corridor at Waterloo Station and Cambridge Terrace at all times, including during construction, for the community particularly school children walking to and from school.	Maintain the safe community connection from East to West (across rail corridor and Cambridge Terrace).	Neutral	Underpass removed, stairs, ramps and vertical transport. Could be affected by the height of the overpass as this will impact length of time to cross, and customer perception is a longer distance. Retains access at all hours - no difference to current usability.
			Ability to achieve step free access for the community connection from East to West (across rail corridor and Cambridge Terrace)	Slight positive (+ve)	Has vertical transport which enables step free access. Ramps enables access for bikes and wheelchairs users.
Transport Interchange	Aurecon (Transport) Boffa Miskell Grimshaw	Provides a transport interchange for a range of transport modes that delivers minimum walking distances between modes and minimum connection times between scheduled services (e.g. bus to rail) that is consistent with the station hierarchy	How well does the safe station option protect the ability to integrate greatest number of bus interchange options.	Neutral	
			Length of the walk on the East West connections for minimum walking distance.	Moderate negative (-ve)	Ramps increase distance travelled
			Minimum number of level and direction changes required to traverse between transport modes e.g. bus to rail.	Slight negative (-ve)	Ramps however improved by inclusion of vertical transport.
Enabling Commercial Development	Grimshaw Boffa Miskell	Has the smallest possible footprint (area and geometry) and avoids the need to use property in the immediate precinct (including property not under control of GW) for station operations so that it occupies a minimum land holding (having regard to forecast growth requirements), is decoupled from property not under control of GW and maximises the area of the land immediately adjoining the station for TOD related commercial and community uses.	The Station including bus interchange occupies the smallest possible area measured in sqm.	Moderate negative (-ve)	
			The Station including bus interchange has a geometry that is compact and minimises disturbance to land holdings and assets	Slight negative (-ve)	Increase of ramps outside of GW land holdings is considered more negative that alignment of platforms for efficient station footprint.
			The station and bus interchange is decoupled from the use of property not under control of GW	Moderate negative (-ve)	Over pass impact Hutt City Council land and impacts to existing building at Trafalgar Square
Construction and Delivery	RCP	Has a construction methodology that is simple and can be completed in the least number of months, therefore has a lower construction cost, and minimises the length of time that the rail network and users will be subject to construction impacts and disruptions	least complex construction and staging method for delivery	Slight negative (-ve)	Construction of a bridge is less complex. Can be staged and integrated with temporary works. Location of overpass would need to be further developed and assessed for efficiencies. Removal of underpass and how this is achieved would require further investigation of how this is achieved.
Sustainability	RCP T&T Dunnings Aurecon (Civil) Aurecon (Building Services)	Minimises or avoids environmental impacts and additional greenhouse gas emissions during construction and operation by maximising the reuse of existing infrastructure and building elements, disturbing or removing the least amount of earth needing disposal, achieving stormwater neutrality, using energy efficient building services and the use of PV panels for power generation.	Greatest amount of existing infrastructure that can be reused	Moderate negative (-ve)	Location of ramps to be developed further.
			Minimum area of soil disturbance and amount of earth needing disposal	Slight negative (-ve)	Platforms moved requiring more earthworks. Lift pits and foundations limited to "shallow" excavation without proximity to rail corridor. Ability to use underpass for spoil disposal

OPTION 5B - OVERPASS with Alinged platforms & Consolidated Bus Interchange in SE

Criteria	SME Lead	Objective	Appropriate method for Measurement @ the detail available at the long stage of the assessment	Magnitude Score	Commentary
Fatal Flaws	Grimshaw Aurecon (Transport)	Identify those options that have techincal fatal flaws and are excluded from further assessment	Achieves technical requirements of platform & track alignment and geometry	Neutral	
			Avoids the buffer area surround the Water Treatment Plant	Neutral	
			Closure of the rail corridor for unacceptable lengths of time or peak periods of use	Neutral	
			Avoids impacts on the existing road infrastructure	Neutral	
Community Connections	Grimshaw Boffa Miskell Tonkin & Talyor Dunning	Maintains a safe walkable community connection across rail the rail corridor at Waterloo Station and Cambridge Terrace at all times, including during construction, for the community particularly school children walking to and from school.	Maintain the community connection from East to West (across rail corridor and Cambridge Terrace) at all times during construction	Neutral	Underpass removed, stairs and vertical transport only. Could be affected by the height of the overpass as this will impact length of time to cross, and customer perception is a longer distance. Retains access at all hours - no difference to current usability.
			Ability to achieve step free access for the community connection from East to West (across rail corridor and Cambridge Terrace)	Slight positive (+ve)	Has vertical transport which enables step free access. No ramps therefor the introduction of lifts offsets the measure against addition of the vertical transport.
Transport Interchange	Aurecon (Transport) Boffa Miskell Grimshaw	Provides a transport interchange for a range of transport modes that delivers minimum walking distances between modes and minimum connection times between scheduled services (e.g. bus to rail) that is consistent with the station hierarchy	Shortest walking distance route measured in minutes between transport modes.	Slight positive (+ve)	Less distance compared to underpass ramps in the base case
			Minimum number of level and direction changes required to traverse between transport modes e.g. bus to rail.	Slight positive (+ve)	Lifts for level change
Enabling Commercial Development	Grimshaw Boffa Miskell	Has the smallest possible footprint (area and geometry) and avoids the need to use property in the immediate precinct (including property not under control of GW) for station operations so that it occupies a minimum land holding (having regard to forecast growth requirements), is decoupled from property not under control of GW and maximises the area of the land immediately adjoining the station for TOD related commercial and community uses.	The Station including bus interchange occupies the smallest possible area measured in sqm.	Neutral	
			The Station including bus interchange has a geometry that is compact and minimises disturbance to land holdings and assets	Slight positive (+ve)	Aligned platforms and bus interchange geometry more efficient
			The station and bus interchange is decoupled from the use of property not under control of GW	Moderate negative (-ve)	Over pass impact Hutt City Council land and impacts to existing building at Trafalgar Square
Construction and Delivery	RCP	Has a construction methodology that is simple and can be completed in the least number of months, therefore has a lower construction cost, and minimises the length of time that the rail network and users will be subject to construction impacts and disruptions	least complex construction and staging method for delivery	Slight negative (-ve)	Construction of a bridge is less complex. Can be staged and integrated with temporary works. Location of overpass would need to be further developed and assessed for efficiencies. Removal of underpass and how this is achieved would require further investigation of how this is achieved.
Sustainability	RCP T&T Dunnings Aurecon (Civil) Aurecon (Building Services)	Minimises or avoids environmental impacts and additional greenhouse gas emissions during construction and operation by maximising the reuse of existing infrastructure and building elements, disturbing or removing the least amount of earth needing disposal, achieving stormwater neutrality, using energy efficient building services and the use of PV panels for power generation.	Greatest amount of existing infrastructure that can be reused	Moderate negative (-ve)	Removal of underpass, new infrastructure to go over the road - less re-use of the existing in comparison to the basecase.
			Minimum area of soil disturbance and amount of earth needing disposal	Slight negative (-ve)	Platforms moved requiring more earthworks. Lift pits and foundations limited to "shallow" excavation. Ability to use underpass for spoil disposal

OPTION 06: Platform move South – upgrade underpass – public and station ASSESSMENT					
Criteria	SME Lead	Objective	Appropriate method for Measurement @ the detail available at the long stage of the assessment	Magnitude Score	Commentary
Fatal Flaws	Grimshaw Aurecon (Transport)	Identify those options that have technical fatal flaws and are excluded from further assessment	Achieves technical requirements of platform & track alignment and geometry	Fatal Flaw	
			Avoids the buffer area surround the Water Treatment Plant	Neutral	
			Closure of the rail corridor for unacceptable lengths of time or peak periods of use	Neutral	
			Avoids impacts on the existing road infrastructure	Neutral	
Community Connections	Grimshaw Boffa Miskell Tonkin & Talyor Dunning	Maintains a safe walkable community connection across rail the rail corridor at Waterloo Station and Cambridge Terrace at all times, including during construction, for the community particularly school children walking to and from school.	Maintain the community connection from East to West (across rail corridor and Cambridge Terrace) at all times during construction		
			Ability to achieve step free access for the community connection from East to West (across rail corridor and Cambridge Terrace)		
Transport Interchange	Aurecon (Transport) Boffa Miskell Grimshaw	Provides a transport interchange for a range of transport modes that delivers minimum walking distances between modes and minimum connection times between scheduled services (e.g. bus to rail) that is consistent with the station hierarchy	Shortest walking distance route measured in minutes between transport modes.		
			Minimum number of level and direction changes required to traverse between transport modes e.g. bus to rail.		
Enabling Commercial Development	Grimshaw Boffa Miskell	Has the smallest possible footprint (area and geometry) and avoids the need to use property in the immediate precinct (including property not under control of GW) for station operations so that it occupies a minimum land holding (having regard to forecast growth requirements), is decoupled from property not under control of GW and maximises the area of the land immediately adjoining the station for TOD related commercial and community uses.	The Station including bus interchange occupies the smallest possible area measured in sqm.		
			The Station including bus interchange has a geometry that is compact and minimises disturbance to land holdings and assets		
			The station and bus interchange is decoupled from the use of property not under control of GW		
Construction and Delivery	RCP	Has a construction methodology that is simple and can be completed in the least number of months, therefore has a lower construction cost, and minimises the length of time that the rail network and users will be subject to construction impacts and disruptions	least complex construction and staging method for delivery		
Sustainability	RCP T&T Dunnings Aurecon (Civil) Aurecon (Building Services)	Minimises or avoids environmental impacts and additional greenhouse gas emissions during construction and operation by maximising the reuse of existing infrastructure and building elements, disturbing or removing the least amount of earth needing disposal, achieving stormwater neutrality, using energy efficient building services and the use of PV panels for power generation.	Greatest amount of existing infrastructure that can be reused		
			Minimum area of soil disturbance and amount of earth needing disposal		

OPTION 07: new overbridge –underpass retained ASSESSMENT					
Criteria	SME Lead	Objective	Appropriate method for Measurement @ the detail available at the long stage of the assessment	Magnitude Score	Commentary
Fatal Flaws	Grimshaw Aurecon (Transport)	Identify those options that have technical fatal flaws and are excluded from further assessment	Achieves technical requirements of platform & track alignment and geometry	Fatal Flaw	
			Avoids the buffer area surround the Water Treatment Plant	Neutral	
			Closure of the rail corridor for unacceptable lengths of time or peak periods of use	Neutral	
			Avoids impacts on the existing road infrastructure	Neutral	
Community Connections	Grimshaw Boffa Miskell Tonkin & Talyor Dunning	Maintains a safe walkable community connection across rail the rail corridor at Waterloo Station and Cambridge Terrace at all times, including during construction, for the community particularly school children walking to and from school.	Maintain the community connection from East to West (across rail corridor and Cambridge Terrace) at all times during construction		
			Ability to achieve step free access for the community connection from East to West (across rail corridor and Cambridge Terrace)		
Transport Interchange	Aurecon (Transport) Boffa Miskell Grimshaw	Provides a transport interchange for a range of transport modes that delivers minimum walking distances between modes and minimum connection times between scheduled services (e.g. bus to rail) that is consistent with the station hierarchy	Shortest walking distance route measured in minutes between transport modes.		
			Minimum number of level and direction changes required to traverse between transport modes e.g. bus to rail.		
Enabling Commercial Development	Grimshaw Boffa Miskell	Has the smallest possible footprint (area and geometry) and avoids the need to use property in the immediate precinct (including property not under control of GW) for station operations so that it occupies a minimum land holding (having regard to forecast growth requirements), is decoupled from property not under control of GW and maximises the area of the land immediately adjoining the station for TOD related commercial and community uses.	The Station including bus interchange occupies the smallest possible area measured in sqm.		
			The Station including bus interchange has a geometry that is compact and minimises disturbance to land holdings and assets		
			The station and bus interchange is decoupled from the use of property not under control of GW		
Construction and Delivery	RCP	Has a construction methodology that is simple and can be completed in the least number of months, therefore has a lower construction cost, and minimises the length of time that the rail network and users will be subject to construction impacts and disruptions	least complex construction and staging method for delivery		
Sustainability	RCP T&T Dunnings Aurecon (Civil) Aurecon (Building Services)	Minimises or avoids environmental impacts and additional greenhouse gas emissions during construction and operation by maximising the reuse of existing infrastructure and building elements, disturbing or removing the least amount of earth needing disposal, achieving stormwater neutrality, using energy efficient building services and the use of PV panels for power generation.	Greatest amount of existing infrastructure that can be reused		
			Minimum area of soil disturbance and amount of earth needing disposal		

OPTION 08: new over bridge – underpass removed ASSESSMENT					
Criteria	SME Lead	Objective	Appropriate method for Measurement @ the detail available at the long stage of the assessment	Magnitude Score	Commentary
Fatal Flaws	Grimshaw Aurecon (Transport)	Identify those options that have technical fatal flaws and are excluded from further assessment	Achieves technical requirements of platform & track alignment and geometry	Fatal Flaw	
			Avoids the buffer area surround the Water Treatment Plant	Neutral	
			Closure of the rail corridor for unacceptable lengths of time or peak periods of use	Neutral	
			Avoids impacts on the existing road infrastructure	Neutral	
Community Connections	Grimshaw Boffa Miskell Tonkin & Talyor Dunning	Maintains a safe walkable community connection across rail the rail corridor at Waterloo Station and Cambridge Terrace at all times, including during construction, for the community particularly school children walking to and from school.	Maintain the community connection from East to West (across rail corridor and Cambridge Terrace) at all times during construction		
			Ability to achieve step free access for the community connection from East to West (across rail corridor and Cambridge Terrace)		
Transport Interchange	Aurecon (Transport) Boffa Miskell Grimshaw	Provides a transport interchange for a range of transport modes that delivers minimum walking distances between modes and minimum connection times between scheduled services (e.g. bus to rail) that is consistent with the station hierarchy	Shortest walking distance route measured in minutes between transport modes.		
			Minimum number of level and direction changes required to traverse between transport modes e.g. bus to rail.		
Enabling Commercial Development	Grimshaw Boffa Miskell	Has the smallest possible footprint (area and geometry) and avoids the need to use property in the immediate precinct (including property not under control of GW) for station operations so that it occupies a minimum land holding (having regard to forecast growth requirements), is decoupled from property not under control of GW and maximises the area of the land immediately adjoining the station for TOD related commercial and community uses.	The Station including bus interchange occupies the smallest possible area measured in sqm.		
			The Station including bus interchange has a geometry that is compact and minimises disturbance to land holdings and assets		
			The station and bus interchange is decoupled from the use of property not under control of GW		
Construction and Delivery	RCP	Has a construction methodology that is simple and can be completed in the least number of months, therefore has a lower construction cost, and minimises the length of time that the rail network and users will be subject to construction impacts and disruptions	least complex construction and staging method for delivery		
Sustainability	RCP T&T Dunnings Aurecon (Civil) Aurecon (Building Services)	Minimises or avoids environmental impacts and additional greenhouse gas emissions during construction and operation by maximising the reuse of existing infrastructure and building elements, disturbing or removing the least amount of earth needing disposal, achieving stormwater neutrality, using energy efficient building services and the use of PV panels for power generation.	Greatest amount of existing infrastructure that can be reused		
			Minimum area of soil disturbance and amount of earth needing disposal		

OPTION 09: Platform move North, upgrade Underpass. New overpass access public and station ASSESSMENT					
Criteria	SME Lead	Objective	Appropriate method for Measurement @ the detail available at the long stage of the assessment	Magnitude Score	Commentary
Fatal Flaws	Grimshaw Aurecon (Transport)	Identify those options that have technical fatal flaws and are excluded from further assessment	Achieves technical requirements of platform & track alignment and geometry	Fatal Flaw	
			Avoids the buffer area surround the Water Treatment Plant	Neutral	
			Closure of the rail corridor for unacceptable lengths of time or peak periods of use	Neutral	
			Avoids impacts on the existing road infrastructure	Neutral	
Community Connections	Grimshaw Boffa Miskell Tonkin & Talyor Dunning	Maintains a safe walkable community connection across rail the rail corridor at Waterloo Station and Cambridge Terrace at all times, including during construction, for the community particularly school children walking to and from school.	Maintain the community connection from East to West (across rail corridor and Cambridge Terrace) at all times during construction		
			Ability to achieve step free access for the community connection from East to West (across rail corridor and Cambridge Terrace)		
Transport Interchange	Aurecon (Transport) Boffa Miskell Grimshaw	Provides a transport interchange for a range of transport modes that delivers minimum walking distances between modes and minimum connection times between scheduled services (e.g. bus to rail) that is consistent with the station hierarchy	Shortest walking distance route measured in minutes between transport modes.		
			Minimum number of level and direction changes required to traverse between transport modes e.g. bus to rail.		
Enabling Commercial Development	Grimshaw Boffa Miskell	Has the smallest possible footprint (area and geometry) and avoids the need to use property in the immediate precinct (including property not under control of GW) for station operations so that it occupies a minimum land holding (having regard to forecast growth requirements), is decoupled from property not under control of GW and maximises the area of the land immediately adjoining the station for TOD related commercial and community uses.	The Station including bus interchange occupies the smallest possible area measured in sqm.		
			The Station including bus interchange has a geometry that is compact and minimises disturbance to land holdings and assets		
			The station and bus interchange is decoupled from the use of property not under control of GW		
Construction and Delivery	RCP	Has a construction methodology that is simple and can be completed in the least number of months, therefore has a lower construction cost, and minimises the length of time that the rail network and users will be subject to construction impacts and disruptions	least complex construction and staging method for delivery		
Sustainability	RCP T&T Dunnings Aurecon (Civil) Aurecon (Building Services)	Minimises or avoids environmental impacts and additional greenhouse gas emissions during construction and operation by maximising the reuse of existing infrastructure and building elements, disturbing or removing the least amount of earth needing disposal, achieving stormwater neutrality, using energy efficient building services and the use of PV panels for power generation.	Greatest amount of existing infrastructure that can be reused		
			Minimum area of soil disturbance and amount of earth needing disposal		

OPTION 10: New island platform – underpass retained					
Criteria	SME Lead	Objective	Appropriate method for Measurement @ the detail available at the long stage of the assessment	Magnitude Score	Commentary
Community Connections	Grimshaw Boffa Miskell Tonkin & Talyor Dunning	Maintains a safe walkable community connection across rail the rail corridor at Waterloo Station and Cambridge Terrace at all times, including during construction, for the community particularly school children walking to and from school.	Maintain the safe community connection from East to West (across rail corridor and Cambridge Terrace).	Neutral	Maintains ability in line with the base case.
			Ability to achieve step free access for the community connection from East to West (across rail corridor and Cambridge Terrace)	Neutral	Maintains ability in line with the base case.
Transport Interchange	Aurecon (Transport) Boffa Miskell Grimshaw	Provides a transport interchange for a range of transport modes that delivers minimum walking distances between modes and minimum connection times between scheduled services (e.g. bus to rail) that is consistent with the station hierarchy	How well does the station option protect the ability to integrate greatest number of bus interchange options.	Neutral	
			Minimum number of level and direction changes required to traverse between transport modes e.g. bus to rail.	Neutral	
Enabling Commercial Development	Grimshaw Boffa Miskell	Has the smallest possible footprint (area and geometry) and avoids the need to use property in the immediate precinct (including property not under control of GW) for station operations so that it occupies a minimum land holding (having regard to forecast growth requirements), is decoupled from property not under control of GW and maximises the area of the land immediately adjoining the station for TOD related commercial and community uses.	The Station including bus interchange occupies the smallest possible area measured in sqm.	Neutral	
			The Station including bus interchange has a geometry that is compact and minimises disturbance to land holdings and assets	Neutral	
			The station and bus interchange is decoupled from the use of property not under control of GW	Neutral	
Construction and Delivery	RCP	Has a construction methodology that is simple and can be completed in the least number of months, therefore has a lower construction cost, and minimises the length of time that the rail network and users will be subject to construction impacts and disruptions	least complex construction and staging method for delivery	Fatal Flaw	Most complex options due to approvals, staging, maintaining operations (reduced capacity on track) and reconfiguration of railway track network.
Sustainability	RCP T&T Dunnings Aurecon (Civil) Aurecon (Building Services)	Minimises or avoids environmental impacts and additional greenhouse gas emissions during construction and operation by maximising the reuse of existing infrastructure and building elements, disturbing or removing the least amount of earth needing disposal, achieving stormwater neutrality, using energy efficient building services and the use of PV panels for power generation.	Greatest amount of existing infrastructure that can be reused	Neutral	
			Minimum area of soil disturbance and amount of earth needing disposal	Neutral	

OPTION 11: New island platform – shifted South underpass retained					
Criteria	SME Lead	Objective	Appropriate method for Measurement @ the detail available at the long stage of the assessment	Magnitude Score	Commentary
Fatal Flaws	Grimshaw Aurecon (Transport)	Identify those options that have techincal fatal flaws and are excluded from further assessment	Achieves technical requirements of platform & track alignment and geometry	Fatal Flaw	
			Avoids the buffer area surround the Water Treatment Plant	Neutral	
			Closure of the rail corridor for unacceptable lengths of time or peak periods of use	Neutral	
			Avoids impacts on the existing road infrastructure	Neutral	
Community Connections	Grimshaw Boffa Miskell Tonkin & Talyor Dunning	Maintains a safe walkable community connection across rail the rail corridor at Waterloo Station and Cambridge Terrace at all times, including during construction, for the community particularly school children walking to and from school.	Maintain the community connection from East to West (across rail corridor and Cambridge Terrace) at all times during construction		
			Ability to achieve step free access for the community connection from East to West (across rail corridor and Cambridge Terrace)		
Transport Interchange	Aurecon (Transport) Boffa Miskell Grimshaw	Provides a transport interchange for a range of transport modes that delivers minimum walking distances between modes and minimum connection times between scheduled services (e.g. bus to rail) that is consistent with the station hierarchy	Shortest walking distance route measured in minutes between transport modes.		
			Minimum number of level and direction changes required to traverse between transport modes e.g. bus to rail.		
Enabling Commercial Development	Grimshaw Boffa Miskell	Has the smallest possible footprint (area and geometry) and avoids the need to use property in the immediate precinct (including property not under control of GW) for station operations so that it occupies a minimum land holding (having regard to forecast growth requirements), is decoupled from property not under control of GW and maximises the area of the land immediately adjoining the station for TOD related commercial and community uses.	The Station including bus interchange occupies the smallest possible area measured in sqm.		
			The Station including bus interchange has a geometry that is compact and minimises disturbance to land holdings and assets		
			The station and bus interchange is decoupled from the use of property not under control of GW		
Construction and Delivery	RCP	Has a construction methodology that is simple and can be completed in the least number of months, therefore has a lower construction cost, and minimises the length of time that the rail network and users will be subject to construction impacts and disruptions	least complex construction and staging method for delivery		
Sustainability	RCP T&T Dunnings Aurecon (Civil) Aurecon (Building Services)	Minimises or avoids environmental impacts and additional greenhouse gas emissions during construction and operation by maximising the reuse of existing infrastructure and building elements, disturbing or removing the least amount of earth needing disposal, achieving stormwater neutrality, using energy efficient building services and the use of PV panels for power generation.	Greatest amount of existing infrastructure that can be reused		
			Minimum area of soil disturbance and amount of earth needing disposal		

OPTION 12: New island platform – shifted South, public underpass retained, new overbridge station access

Criteria	SME Lead	Objective	Appropriate method for Measurement @ the detail available at the long stage of the assessment	Magnitude Score	Commentary
Fatal Flaws	Grimshaw Aurecon (Transport)	Identify those options that have techincal fatal flaws and are excluded from further assessment	Achieves technical requirements of platform & track alignment and geometry	Fatal Flaw	
			Avoids the buffer area surround the Water Treatment Plant	Neutral	
			Closure of the rail corridor for unacceptable lengths of time or peak periods of use	Neutral	
			Avoids impacts on the existing road infrastructure	Neutral	
Community Connections	Grimshaw Boffa Miskell Tonkin & Talyor Dunning	Maintains a safe walkable community connection across rail the rail corridor at Waterloo Station and Cambridge Terrace at all times, including during construction, for the community particularly school children walking to and from school.	Maintain the community connection from East to West (across rail corridor and Cambridge Terrace) at all times during construction		
			Ability to achieve step free access for the community connection from East to West (across rail corridor and Cambridge Terrace)		
Transport Interchange	Aurecon (Transport) Boffa Miskell Grimshaw	Provides a transport interchange for a range of transport modes that delivers minimum walking distances between modes and minimum connection times between scheduled services (e.g. bus to rail) that is consistent with the station hierarchy	Shortest walking distance route measured in minutes between transport modes.		
			Minimum number of level and direction changes required to traverse between transport modes e.g. bus to rail.		
Enabling Commercial Development	Grimshaw Boffa Miskell	Has the smallest possible footprint (area and geometry) and avoids the need to use property in the immediate precinct (including property not under control of GW) for station operations so that it occupies a minimum land holding (having regard to forecast growth requirements), is decoupled from property not under control of GW and maximises the area of the land immediately adjoining the station for TOD related commercial and community uses.	The Station including bus interchange occupies the smallest possible area measured in sqm.		
			The Station including bus interchange has a geometry that is compact and minimises disturbance to land holdings and assets		
			The station and bus interchange is decoupled from the use of property not under control of GW		
Construction and Delivery	RCP	Has a construction methodology that is simple and can be completed in the least number of months, therefore has a lower construction cost, and minimises the length of time that the rail network and users will be subject to construction impacts and disruptions	least complex construction and staging method for delivery		
Sustainability	RCP T&T Dunnings Aurecon (Civil) Aurecon (Building Services)	Minimises or avoids environmental impacts and additional greenhouse gas emissions during construction and operation by maximising the reuse of existing infrastructure and building elements, disturbing or removing the least amount of earth needing disposal, achieving stormwater neutrality, using energy efficient building services and the use of PV panels for power generation.	Greatest amount of existing infrastructure that can be reused		
			Minimum area of soil disturbance and amount of earth needing disposal		

OPTION 13: New island platform – shifted South, new overbridge station access, public underpass removed

Criteria	SME Lead	Objective	Appropriate method for Measurement @ the detail available at the long stage of the assessment	Magnitude Score	Commentary
Fatal Flaws	Grimshaw Aurecon (Transport)	Identify those options that have techincal fatal flaws and are excluded from further assessment	Achieves technical requirements of platform & track alignment and geometry	Fatal Flaw	
			Avoids the buffer area surround the Water Treatment Plant	Neutral	
			Closure of the rail corridor for unacceptable lengths of time or peak periods of use	Neutral	
			Avoids impacts on the existing road infrastructure	Neutral	
Community Connections	Grimshaw Boffa Miskell Tonkin & Talyor Dunning	Maintains a safe walkable community connection across rail the rail corridor at Waterloo Station and Cambridge Terrace at all times, including during construction, for the community particularly school children walking to and from school.	Maintain the community connection from East to West (across rail corridor and Cambridge Terrace) at all times during construction		
			Ability to achieve step free access for the community connection from East to West (across rail corridor and Cambridge Terrace)		
Transport Interchange	Aurecon (Transport) Boffa Miskell Grimshaw	Provides a transport interchange for a range of transport modes that delivers minimum walking distances between modes and minimum connection times between scheduled services (e.g. bus to rail) that is consistent with the station hierarchy	Shortest walking distance route measured in minutes between transport modes.		
			Minimum number of level and direction changes required to traverse between transport modes e.g. bus to rail.		
Enabling Commercial Development	Grimshaw Boffa Miskell	Has the smallest possible footprint (area and geometry) and avoids the need to use property in the immediate precinct (including property not under control of GW) for station operations so that it occupies a minimum land holding (having regard to forecast growth requirements), is decoupled from property not under control of GW and maximises the area of the land immediately adjoining the station for TOD related commercial and community uses.	The Station including bus interchange occupies the smallest possible area measured in sqm.		
			The Station including bus interchange has a geometry that is compact and minimises disturbance to land holdings and assets		
			The station and bus interchange is decoupled from the use of property not under control of GW		
Construction and Delivery	RCP	Has a construction methodology that is simple and can be completed in the least number of months, therefore has a lower construction cost, and minimises the length of time that the rail network and users will be subject to construction impacts and disruptions	least complex construction and staging method for delivery		
Sustainability	RCP T&T Dunnings Aurecon (Civil) Aurecon (Building Services)	Minimises or avoids environmental impacts and additional greenhouse gas emissions during construction and operation by maximising the reuse of existing infrastructure and building elements, disturbing or removing the least amount of earth needing disposal, achieving stormwater neutrality, using energy efficient building services and the use of PV panels for power generation.	Greatest amount of existing infrastructure that can be reused		
			Minimum area of soil disturbance and amount of earth needing disposal		

OPTION 14: New island platform – rail under					
Criteria	SME Lead	Objective	Appropriate method for Measurement @ the detail available at the long stage of the assessment	Magnitude Score	Commentary
Fatal Flaws	Grimshaw Aurecon (Transport)	Identify those options that have techincal fatal flaws and are excluded from further assessment	Achieves technical requirements of platform & track alignment and geometry	Fatal Flaw	
			Avoids the buffer area surround the Water Treatment Plant	Neutral	
			Closure of the rail corridor for unacceptable lengths of time or peak periods of use	Neutral	
			Avoids impacts on the existing road infrastructure	Neutral	
Community Connections	Grimshaw Boffa Miskell Tonkin & Talyor Dunning	Maintains a safe walkable community connection across rail the rail corridor at Waterloo Station and Cambridge Terrace at all times, including during construction, for the community particularly school children walking to and from school.	Maintain the community connection from East to West (across rail corridor and Cambridge Terrace) at all times during construction		
			Ability to achieve step free access for the community connection from East to West (across rail corridor and Cambridge Terrace)		
Transport Interchange	Aurecon (Transport) Boffa Miskell Grimshaw	Provides a transport interchange for a range of transport modes that delivers minimum walking distances between modes and minimum connection times between scheduled services (e.g. bus to rail) that is consistent with the station hierarchy	Shortest walking distance route measured in minutes between transport modes.		
			Minimum number of level and direction changes required to traverse between transport modes e.g. bus to rail.		
Enabling Commercial Development	Grimshaw Boffa Miskell	Has the smallest possible footprint (area and geometry) and avoids the need to use property in the immediate precinct (including property not under control of GW) for station operations so that it occupies a minimum land holding (having regard to forecast growth requirements), is decoupled from property not under control of GW and maximises the area of the land immediately adjoining the station for TOD related commercial and community uses.	The Station including bus interchange occupies the smallest possible area measured in sqm.		
			The Station including bus interchange has a geometry that is compact and minimises disturbance to land holdings and assets		
			The station and bus interchange is decoupled from the use of property not under control of GW		
Construction and Delivery	RCP	Has a construction methodology that is simple and can be completed in the least number of months, therefore has a lower construction cost, and minimises the length of time that the rail network and users will be subject to construction impacts and disruptions	least complex construction and staging method for delivery		
Sustainability	RCP T&T Dunnings Aurecon (Civil) Aurecon (Building Services)	Minimises or avoids environmental impacts and additional greenhouse gas emissions during construction and operation by maximising the reuse of existing infrastructure and building elements, disturbing or removing the least amount of earth needing disposal, achieving stormwater neutrality, using energy efficient building services and the use of PV panels for power generation.	Greatest amount of existing infrastructure that can be reused		
			Minimum area of soil disturbance and amount of earth needing disposal		

OPTION 15: New island platform – rail over					
Criteria	SME Lead	Objective	Appropriate method for Measurement @ the detail available at the long stage of the assessment	Magnitude Score	Commentary
Fatal Flaws	Grimshaw Aurecon (Transport)	Identify those options that have techincal fatal flaws and are excluded from further assessment	Achieves technical requirements of platform & track alignment and geometry	Fatal Flaw	
			Avoids the buffer area surround the Water Treatment Plant	Neutral	
			Closure of the rail corridor for unacceptable lengths of time or peak periods of use	Neutral	
			Avoids impacts on the existing road infrastructure	Neutral	
Community Connections	Grimshaw Boffa Miskell Tonkin & Talyor Dunning	Maintains a safe walkable community connection across rail the rail corridor at Waterloo Station and Cambridge Terrace at all times, including during construction, for the community particularly school children walking to and from school.	Maintain the community connection from East to West (across rail corridor and Cambridge Terrace) at all times during construction		
			Ability to achieve step free access for the community connection from East to West (across rail corridor and Cambridge Terrace)		
Transport Interchange	Aurecon (Transport) Boffa Miskell Grimshaw	Provides a transport interchange for a range of transport modes that delivers minimum walking distances between modes and minimum connection times between scheduled services (e.g. bus to rail) that is consistent with the station hierarchy	Shortest walking distance route measured in minutes between transport modes.		
			Minimum number of level and direction changes required to traverse between transport modes e.g. bus to rail.		
Enabling Commercial Development	Grimshaw Boffa Miskell	Has the smallest possible footprint (area and geometry) and avoids the need to use property in the immediate precinct (including property not under control of GW) for station operations so that it occupies a minimum land holding (having regard to forecast growth requirements), is decoupled from property not under control of GW and maximises the area of the land immediately adjoining the station for TOD related commercial and community uses.	The Station including bus interchange occupies the smallest possible area measured in sqm.		
			The Station including bus interchange has a geometry that is compact and minimises disturbance to land holdings and assets		
			The station and bus interchange is decoupled from the use of property not under control of GW		
Construction and Delivery	RCP	Has a construction methodology that is simple and can be completed in the least number of months, therefore has a lower construction cost, and minimises the length of time that the rail network and users will be subject to construction impacts and disruptions	least complex construction and staging method for delivery		
Sustainability	RCP T&T Dunnings Aurecon (Civil) Aurecon (Building Services)	Minimises or avoids environmental impacts and additional greenhouse gas emissions during construction and operation by maximising the reuse of existing infrastructure and building elements, disturbing or removing the least amount of earth needing disposal, achieving stormwater neutrality, using energy efficient building services and the use of PV panels for power generation.	Greatest amount of existing infrastructure that can be reused		
			Minimum area of soil disturbance and amount of earth needing disposal		

OPTION 16: New island platform – shifted North - new overbridge					
Criteria	SME Lead	Objective	Appropriate method for Measurement @ the detail available at the long stage of the assessment	Magnitude Score	Commentary
Fatal Flaws	Grimshaw Aurecon (Transport)	Identify those options that have techincal fatal flaws and are excluded from further assessment	Achieves technical requirements of platform & track alignment and geometry	Fatal Flaw	
			Avoids the buffer area surround the Water Treatment Plant	Neutral	
			Closure of the rail corridor for unacceptable lengths of time or peak periods of use	Neutral	
			Avoids impacts on the existing road infrastructure	Neutral	
Community Connections	Grimshaw Boffa Miskell Tonkin & Talyor Dunning	Maintains a safe walkable community connection across rail the rail corridor at Waterloo Station and Cambridge Terrace at all times, including during construction, for the community particularly school children walking to and from school.	Maintain the community connection from East to West (across rail corridor and Cambridge Terrace) at all times during construction		
			Ability to achieve step free access for the community connection from East to West (across rail corridor and Cambridge Terrace)		
Transport Interchange	Aurecon (Transport) Boffa Miskell Grimshaw	Provides a transport interchange for a range of transport modes that delivers minimum walking distances between modes and minimum connection times between scheduled services (e.g. bus to rail) that is consistent with the station hierarchy	Shortest walking distance route measured in minutes between transport modes.		
			Minimum number of level and direction changes required to traverse between transport modes e.g. bus to rail.		
Enabling Commercial Development	Grimshaw Boffa Miskell	Has the smallest possible footprint (area and geometry) and avoids the need to use property in the immediate precinct (including property not under control of GW) for station operations so that it occupies a minimum land holding (having regard to forecast growth requirements), is decoupled from property not under control of GW and maximises the area of the land immediately adjoining the station for TOD related commercial and community uses.	The Station including bus interchange occupies the smallest possible area measured in sqm.		
			The Station including bus interchange has a geometry that is compact and minimises disturbance to land holdings and assets		
			The station and bus interchange is decoupled from the use of property not under control of GW		
Construction and Delivery	RCP	Has a construction methodology that is simple and can be completed in the least number of months, therefore has a lower construction cost, and minimises the length of time that the rail network and users will be subject to construction impacts and disruptions	least complex construction and staging method for delivery		
Sustainability	RCP T&T Dunnings Aurecon (Civil) Aurecon (Building Services)	Minimises or avoids environmental impacts and additional greenhouse gas emissions during construction and operation by maximising the reuse of existing infrastructure and building elements, disturbing or removing the least amount of earth needing disposal, achieving stormwater neutrality, using energy efficient building services and the use of PV panels for power generation.	Greatest amount of existing infrastructure that can be reused		
			Minimum area of soil disturbance and amount of earth needing disposal		

OPTION 17: Aligned Platforms, Bus Interchange, new overbridge, on grade Ped Xing Cambridge Tce					
Criteria	SME Lead	Objective	Appropriate method for Measurement @ the detail available at the long stage of the assessment	Magnitude Score	Commentary
Fatal Flaws	Grimshaw Aurecon (Transport)	Identify those options that have techincal fatal flaws and are excluded from further assessment	Achieves technical requirements of platform & track alignment and geometry	Neutral	
			Avoids the buffer area surround the Water Treatment Plant	Neutral	
			Closure of the rail corridor for unacceptable lengths of time or peak periods of use	Neutral	
			Avoids impacts on the existing road infrastructure	Neutral	
Community Connections	Grimshaw Boffa Miskell Tonkin & Talyor Dunning	Maintains a safe walkable community connection across rail the rail corridor at Waterloo Station and Cambridge Terrace at all times, including during construction, for the community particularly school children walking to and from school.	Maintain the community connection from East to West (across rail corridor and Cambridge Terrace)	Neutral	Same as base case
			Ability to achieve step free access for the community connection from East to West (across rail corridor and Cambridge Terrace)	Moderate positive (+ve)	lifts for level change, improved line of sight from Cambridge, better access for bus users,
Transport Interchange	Aurecon (Transport) Boffa Miskell Grimshaw	Provides a transport interchange for a range of transport modes that delivers minimum walking distances between modes and minimum connection times between scheduled services (e.g. bus to rail) that is consistent with the station hierarchy	Shortest walking distance route measured in minutes between transport modes.	Moderate positive (+ve)	Significantly Less distance compared to underpass ramps in the base case
			Minimum number of level and direction changes required to traverse between transport modes e.g. bus to rail.	Moderate positive (+ve)	Direct line of sight and direction. Level change via lift and stairs. Significant improvement to the pedestrian connection on the east of the station and bus interchange with Cambridge Terrace and Trafalgar Square
Enabling Commercial Development	Grimshaw Boffa Miskell	Has the smallest possible footprint (area and geometry) and avoids the need to use property in the immediate precinct (including property not under control of GW) for station operations so that it occupies a minimum land holding (having regard to forecast growth requirements), is decoupled from property not under control of GW and maximises the area of the land immediately adjoining the station for TOD related commercial and community uses.	The Station including bus interchange occupies the smallest possible area measured in sqm.	Neutral	
			The Station including bus interchange has a geometry that is compact and minimises disturbance to land holdings and assets	Slight positive (+ve)	
			The station and bus interchange is decoupled from the use of property not under control of GW	Slight negative (-ve)	Level crossing of Cambridge Terrace. Option removes underpass ramps on Trafalgar Square
Construction and Delivery	RCP	Has a construction methodology that is simple and can be completed in the least number of months, therefore has a lower construction cost, and minimises the length of time that the rail network and users will be subject to construction impacts and disruptions	least complex construction and staging method for delivery	Slight negative (-ve)	Construction of a bridge and on grade pedestrian crossing is less complex. Can be staged and integrated with temporary works. Location of overpass would need to be further developed and assessed for efficiencies. Removal of underpass and how this is achieved would require further investigation of how this is achieved.
Sustainability	RCP T&T Dunnings Aurecon (Civil) Aurecon (Building Services)	Minimises or avoids environmental impacts and additional greenhouse gas emissions during construction and operation by maximising the reuse of existing infrastructure and building elements, disturbing or removing the least amount of earth needing disposal, achieving stormwater neutrality, using energy efficient building services and the use of PV panels for power generation.	Greatest amount of existing infrastructure that can be reused	Moderate negative (-ve)	Removal of underpass, new infrastructure to go over the road - less re-use of the existing in comparison to the basecase.
			Minimum area of soil disturbance and amount of earth needing disposal	Slight negative (-ve)	Platforms moved requiring more earthworks. Lift pits and foundations limited to "shallow" excavation without proximity to rail corridor. Ability to use underpass for spoil disposal