JACOBS

Gold Coast Highway Multi-Modal Corridor Study
MULTI-CRITERIA ASSESSMENT

DESIRED OUTCOME	CRITERIA	MEASURE	OPTIONS ASSESSMENT				
			Opt 1 (M1)	Opt 2 (Mallawa)	Opt 3 (Townson)	Opt 4 (Cypress)	Opt 5 (Gold Coast Highway)
GROWTH	Supports preferred urban growth pattern	Aligns with strategic land use plans (Shaping SEQ and City Plan)	Poor - bypasses all of the identified consolidation and infill areas along the coast. Option primarily services areas that have achieved their development potential (ie low density residential in low density zone).	Poor - bypasses all of the identified consolidation and infill areas along the coast. Option primarily services areas that have achieved their development potential (ie low density residential in low density zone).	Moderate - only partly serves the western edge of a large potential area of infill/ consolidation along coast Option primarily services areas that have achieved their development potential (ie low density residential in low density zone).	Good - serves the medium density infill/ consolidation area towards the coast	Good - provides best alignment with both local land use/ growth AS WELL AS wider land use connectivity aspirations to wider activity centres
	Supports strategic transport plans and policies	Aligns with adopted government or council policies	Poor - inconsistent with adopted transport strategies of heavy rail along M1 and LRT on coastal corridor	Poor - takes LRT away from key coastal destinations	Poor - not aligned with adopted plans and not able to successfully connect with Palm Beach activity centre	Good to moderate - not specifically ruled in or out in transport plans. Generally supports the intent of LRT along coastal corridor	Good - GCH option aligns with CoGC Transport Strategy 2031 and was most similar to the option recommended in the High Capacity PT options study.
PROSPERITY (Affordability)	Capital cost	Length of LRT, extent of structures	Poor - 14.4km alignment with at least three creek crossings and additional minor structures. Parts of M1 in cuttings between Southport Road and Tallebudgera Road.	Moderate - 9.9km with two creek crossings and three canal crossings. Burleigh and Currumbin Hills.	Good - 8.5km with two creek crossings. Burleigh and Currumbin Hills.	Good - second shortest route (8.3km) with two creek crossings. Burleigh and Currumbin Hills.	Good - shortest route (7.9km) with two creek crossings. Burleigh and Currumbin Hills.
	Property cost/ impact	Number of properties impacted, type of property impacted (assuming segregated right of way in all cases)	Poor -The corridor currently reserved for Heavy Rail. Either precludes heavy rail on this corridor in the future or if the intention is to have LRT in addition to heavy rail, will have impacts on properties.	Poor - over 200 properties. Impacts to residential properties.	Moderate - over 120 properties. Impacts to residential properties. Longer route than Cypress however wider road width as well as is not disconnected.	Moderate - over 120 properties. Impacts to residential properties. Existing road corridor width narrower than Townson or Mallawa as well as requires LRT to punch through the new development south of Nineteenth Avenue (as well as other properties) given the existing road is disconnected.	Moderate - approx. 50 properties. Less number of impacts but some bigger impacts. However, expected as on an arterial route. Impacts to Tallebudgera Tourist Park, new development between Tallebudgera Drive and Twenty Eighth Avenue, new development south of Nineteenth Avenue, service station at Palm Beach.
	Operating costs	Travel time for LRT and need for supplementary frequent bus services on GCH	Poor - LRT does not replace frequent bus routes along GCH which still need to operate	Poor - LRT unlikely to replace frequent bus routes along GCH which still need to operate	Poor to moderate - LRT may allow minor reduction in frequency of bus routes along GCH which still need to operate	Moderate - LRT may allow some reduction in buses on GCH but not likely to eliminate all routes	Good - LRT (at an assumed 8 per hour) replaces 12 buses per hour allowing for a reduction in bus operating costs to offset LRT operating costs
CONNECTIVITY	Transport network resilience	Resilience in extreme weather events (e.g. storm/ flooding)	Good - LRT along M1 can designed to provide 1%AEP.	Poor - within the 1% AEP flood area	Poor - within the 1% AEP flood area	Moderate - partly within the 1% AEP although depth likely to be minimal	Good - largely on fore dunes and outside of 1%AEP except across creek where structure would be designed to avoid most events
	Public transport patronage	LRT journey time	Moderate - 25 mins (assuming up to 80km/h running)	Poor - 30 mins	Moderate - 26 mins	Moderate - 25 mins	Good - 21 minutes
	Cycle network attractiveness - Integration of cyclists	Ability to deliver principal cycle network enhancements	Poor - while M1 is a PCN route is not currently a "prioritised route"	Good to Moderate - Mallawa is a PCN route and Priority A. LRT on Mallawa could deliver principal cycle facilities.	Poor - not on PCN route and too far removed from influencing other PCN routes.	Good to Moderate - could include new principal level cycle facility on Cypress in lieu of GCH which is the designated PCN route	Good to moderate - could deliver principal level cycle facilities either in GCH corridor (which is PCN route) or on coastal facility approx 100m east in lieu of GCH
SUSTAINABILITY (ENVIRONMENT / SOCIAL)	Natural environment and ecology	Minimise impacts on koalas and other fauna, water habitats and remnant vegetation	Primarily, environmental impacts are focused around the waterway and vegetation areas within and adjacent to Tallebudgera Creek and Currumbin Creek. Bypass Burleigh Heads National Park. However, potential impacts on Tallebudgera Creek Conservation Park.	Primarily, environmental impacts are focused around the waterway and vegetation areas within and adjacent to Tallebudgera Creek and Currumbin Creek. Includes clearing of protected vegetation (Burleigh Heads NP and Currumbin Hill CP) and disturbance to aquatic environments within waterways.	Primarily, environmental impacts are focused around the waterway and vegetation areas within and adjacent to Tallebudgera Creek and Currumbin Creek. Includes clearing of protected vegetation (Burleigh Heads NP and Currumbin Hill CP) and disturbance to aquatic environments within waterways.	Primarily, environmental impacts are focused around the waterway and vegetation areas within and adjacent to Tallebudgera Creek and Currumbin Creek. Includes clearing of protected vegetation (Burleigh Heads NP and Currumbin Hill CP) and disturbance to aquatic environments within waterways.	Primarily, environmental impacts are focused around the waterway and vegetation areas within and adjacent to Tallebudgera Creek and Currumbin Creek. Includes clearing of protected vegetation (Burleigh Heads NP and Currumbin Hill CP) and disturbance to aquatic environments within waterways.
	Cultural heritage	Minimising cultural heritage impacts and maximising opportunities	Moderate - No real opportunities to enhance. Possible impacts on heritage values present within and adjacent to Tallebudgera and Currumbin Creeks. Assessment would be required to confirm.	Good to Moderate - Opportunity to enhance NP and Jellurgal heritage values. Potential bridge impacts on fish traps. No impact on Palm Beach pines	Good to Moderate - Opportunity to enhance NP and Jellurgal heritage values. Potential bridge impacts on fish traps. No impact on Palm Beach pines	Good to Moderate - Opportunity to enhance NP and Jellurgal heritage values. Potential bridge impacts on fish traps. No impact on Palm Beach pines	Moderate - Opportunity to enhance NP and Jellurgal. Potential bridge impacts on fish traps. Potential impact on Palm Beach pines (12th Ave) but opportunity to enhance/ celebrate Palm Beach culture and character
	Sustainability	Sustainable use of resources	Poor - longest route, most resources required to construct. Likely to generate low patronage so minimal mode shift	Poor - second longest route, highest travel time and therefore operating resources (electricity etc). Likely to experience poor patronage so minimal mode shift. Would require the resumption of a large number of properties (waste generation).	Moderate - Would require the resumption of a large number of properties (waste generation).	Moderate - Would require the resumption of a large number of properties (waste generation).	Good - Shortest possible route (likely lowest construction materials) and lowest property resumptions other than option 1 (lowest demolition requirements).
	Social impacts and benefits	Social return on investment, community impacts and benefits including connecting social infrastructure, conforming to community expectations	Moderate - not likely to have significant social impacts, but neither is it likely to deliver benefits for many passengers	Poor - likely to involve significant disruptions and impact while not providing connectivity to key social infrastructure	Poor - likely to involve significant disruptions and impact while not providing connectivity to key social infrastructure	Moderate - provides benefits re connectivity to social infrastructure but suffers from impacts to existing communities and lack of a community expectation about this route	GCH option as far south as Palm Beach Ave (Idea 5) received 70% community support (18% opposition) in CoGC's consultation in 2016
LIVEABILITY	Amenity	Noise and visual impacts	Low impacts - already in a high noise and highly modified environment	High - LRT infrastructure inc stations as well as noise from LRT operations in residential area with minimal existing transport infrastructure intrusion. Overhead lines would be prominent features in a street primarily occupied by single-storey dwellings.	High - LRT infrastructure inc stations as well as noise from LRT operations in residential area with minimal existing transport infrastructure intrusion. Overhead lines would be prominent features in a street primarily occupied by single-storey dwelling	Moderate - LRT infrastructure inc stations as well as noise from LRT operations in residential area with minimal existing transport infrastructure intrusion	Low - already in a high noise and highly modified environment
	Safety, health, well being	Ability to improve safety and convenience for pedestrians, cyclists and PT users (barriers to crossings)	Poor - stations located in largely "pedestrian hostile" motorway type environments. Waiting at platforms in a high noise, high emission environment	Moderate - may create additional barriers to ped and cycle movement across this existing residential corridor	Moderate - may create additional barriers to ped and cycle movement across this existing residential corridor	Moderate - may create additional barriers to ped and cycle movement across this existing residential corridor	Good - potential to improve E-W connectivity across existing transport barrier
	Placemaking and city shaping	Opportunities to stimulate realistic and positive change in land use and urban form, within walking distance to beach, regenerate GCH, spreading land use uplift further west	Poor - very limited potential to change underlying density land use form adjacent to motorway and industrial areas	Poor - very limited potential to change underlying density land use form while bypassing the key Palm Beach centre	Moderate - could have a minor influence on uplift/ placemaking at the western edge of current medium density zoning/ Palm Beach centre, but too remote from main activity focal points inc beach	Good to Moderate - Would support the intended development uplift along this corridor. However, the Gold Coast Highway in its current form would remain, presenting an impediment to effective placemaking and potentially diluting the focus for the Palm Beach and emerging Palm Beach North centres	Good - Opportunity to support the establishment of a Gold Coast 'boulevard' and improve pedestrian and cycle connectivity between Palm Beach residential areas and major local attractor (beach) through the provision of a safer environment (lower traffic speeds). Would support the intended development uplift along this corridor.