

Aberdeen Access from the South Appendix B

**Aberdeen City Council, Aberdeenshire Council,
Nestrans**

Options for Consideration



OPTIONS FOR CONSIDERATION

Description:

Aberdeen Access from the South Appendix B

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OPTIONS FOR CONSIDERATION

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OPTIONS FOR CONSIDERATION

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1 WORKSHOP ATTENDEES AND OPTION GENERATION SIFTING AND SCORING

Table 1.1 : Workshop Invitees List

Access to Aberdeen from the South

Councillor James Kiddie - ACC
Patricia Frazer ACC Neighbourhood Community Planning Officer (NCPO)
David Fryer ACC NCPO
Sharon McNutt ACC NCPO
Andrew Brownrigg - ACC Planning
Peter McRae AC Local Plan Team
Kevin Thurlow, AC Structure Plan Team
Alasdair MacDonald, AC roads
Willie Munro Area Manager Kincardine and Mearns
John Wilson AWPR
Les Wiseman - Grampian Police
Ben Gilligan First Aberdeen Ltd
C Mullen, J Gardner Stagecoach Bluebird
Colin Mitchell, Scottish Enterprise Grampian
Joanna Beveridge - ACC
Tom Rogers - ACC
Ken Neil - ACC
Jennifer Anderson - ACC
Peter MacCallum - AC
Mark Peters - AC
Ben Kerfoot - Nestrans
Rab Dickson - Nestrans
Hugh Gillies - Transport Scotland
Bob Nicol - Sias
Peter Stewart - Sias
Julie Sey - Sias
Councillor Ian Yuill ACC
Councillor Kate Dean ACC
Councillor George Urquhart
Andrew Stokes, ACC Public Transport
Andy Smith, ACC Roads
Grampian Fire Brigade
Scottish Ambulance Service
Derek Williams Cycle Forum
Neil Stewart, AC Public Transport
Roddy Matheson, AC Economic Dev
Councillor David Clyne
Councillor Yvonne Allan
Councillor Scott Cassie
Councillor David Falconer
Councillor Irene Cormack
Councillor Paul Melling, AC
Councillor Sheila Thomson AC
Councillor Sandy Wallace AC
Councillor Carl Nelson AC
Jean Higgins Disability Advisory Group
Christine Lavery FTA
Philip Flanders RHA
Geoff Runcie AGCC
Mr Andrew Willox Fed of Small Bsness
Aberdeen Taxi Group



These tables provide a list of the options and ideas arising from the workshop sessions. Additional options proposed by the Freight Transport Partnership, in the original JMP report and proposed by Nestrans are not included in these tables but were brought in during the option sifting and scoring stage.

Table 1.2 : Option Generation

Scheme / Idea
A General Considerations
1 Public Transport Subsidy at Peaks
2 A956 could be main route into Aberdeen as opposed to A90
3 Local charging schemes
4 Heavy rail options
5 QBC, partnerships with bus operators
6 Cross rail stations at Altens and Cove
7 Park and Ride at Schoolhill linking with the Stonehaven Buses
8 QBC to Portlethen and Stonehaven
9 Improved Coastal Route East of A956 for development access
10 Protect Coastal Route
11 Stop Torry Rat Running
12 More trains at Portlethen
B Garthdee, Bridge of Dee
1 New pedestrian footbridge options
2 New HGV and public transport bridge
3 Larger roundabout at A90 / Holburn Street
4 New bridge to replace existing Bridge of Dee
5 Widen existing Bridge of Dee
6 Segregated Lanes on Roundabouts, left slip lanes
7 Additional bridge upstream of Bridge of Dee to connect RGU (could be pedestrian)
8 New bridge upstream and change Bridge of Dee to footbridge or one N/bnd and one S/Bnd
9 Grade separate A90 (Stonehaven Rd) to A90 (Anderson Dv) up and over on additional bridge
10 Signalise four junctions and link with SCOOT
11 One-way gyratory with King George VI bridge could include for public transport priority
12 Divert Leggart Terrace directly onto A90 (Stonehaven Road)
13 Part Signalisation of Roundabouts
14 Remove at level pedestrian crossings at Bridge of Dee (overbridges / underpasses)
15 Offset junctions at end of both bridges
C King George VI Bridge
1 HOV Lane / Bus Priority Lane
2 Tidal Flow Lane allocations
3 3rd lane from Gt Southern Rd to Stonehave Rd and vice versa (Could be PT or HOV lane)
4 Larger Roundabout on North side of Bridge, needs to be more HGV friendly
5 Segregated left turn lanes from Stonehaven Rd to King George VI Bridge
6 Separate HGV movement into Left turn segregation to Riverside Drive
7 3rd Lane Grt Southern Rd N/bnd to connect with Bridge giving public transport and HGV a smoother run
D QEII Bridge
1 Wider Rail Bridge on South College St
2 Allow dualling of College St to roundabout
3 Raise height under Wellington suspension Bridge (Riverside Drive at College St)
4 Dual adjacent to prison or tidal flow
5 Stop up Craigie Place and make South Esplanade 2-way
6 Tie in with regeneration area
7 Complete dualling past prison
8 Need to release capacity at Riverside / N Esp West



Table 1.3 : Option Generation (continued)

All Options
Scheme / Idea (cont)
E Wellington Road
1 Remove some junctions
2 Would some be better as roundabouts?
3 Weaving is an issue
4 Ban selected right turns e.g. into Girdleness
5 Widen Wellington Road to allow for an extra lane for buses /. Cyclists (HOV?)
6 New lane southbound as a climbing lane
7 Major parking restrictions in the town
8 Continual bus routes (lanes) that don't come to an end and then travel back empty
9 Crossrail with two stops, one at South, one at North
10 Shuttle buses travelling around Aberdeen South between rail stops
11 Bus priority on Wellington Road
12 Include coastal route in S-Paramics model and consider upgrading
13 Isolate the two corridors Wellington Road and Gt Southern Rd e.g. take out Abbotswell Link
14 Rail stops at West Tullos and Altens
15 Dedicated Bus Route Redmoss Road
16 Integrated bus service to station and integrated ticketing
17 Park and Ride as close as possible to AWPR intersection
18 Improve public transport to East and West Tullos Industrial Estate
19 Introduce transport management scheme e.g. Dyce
F Hareness
1 West Tullos / Hareness segregated left turns
2 Review junction, is roundabout correct option? Try signals
3 Part time traffic signals
4 Bus priority on Redmoss Road
5 Abbotswell Cres left in / left out from Wellington Road and West Tullos Rd
6 Left slips at Wellington Road to West Tullos (consider at other roundabout junctions where possible)
G Souterhead Roundabout
1 Overbridge for North / South traffic
2 Increase signalisation
3 Bus lane for Park and Ride on Wellington Road approach (short bit on Langdykes for Cove Buses)
4 Cycle ped crossing on Wellington Road, Langdykes and Souterhead
5 Complete dualling from Charleston to Souterhead, could include bus priority
6 Cove traffic new lane left towards AWPR
7 Close Langdykes Road and access via a new junction being constructed further south
8 Extra lane out from Souterhead Road
9 TMO for whole of Altens, Tullos and Cove areas
H A90 Corridor / Charleston
1 Charleston attractive for Park and Ride
2 Provides a link for public transport between Stonehaven Road and Wellington Road
3 Link to industrial estates from Schoolhill, Cairnrobin and provide infrastructure to give link to Altens
4 Viewing platforms for police required for safety
5 Underpass / priority measures to get buses to / from park and ride



The following Tables provide a summary of the options identified as suitable for consideration in the short, medium and long term traffic modelling.

The options have been rated against the key planning objectives and implementability criteria. The following denotes the agreed local planning objectives.

- **Economy** - To reduce congestion and unreliability, and have effective journey times particularly where it impacts on the efficient movement of goods
- **Safety** - To reduce the incidence of and potential for collisions and all transport related collisions especially vulnerable users, such as cyclists, pedestrians and motorcyclists
- **Social Inclusion & Accessibility (1)** - To encourage socially-inclusive and healthy transport modes other than single car occupancy.
- **Social Inclusion & Accessibility (2)** - To improve the accessibility between residential and employment areas
- **Environment** - To improve the local environment by reducing air pollution problems
- **Integration** - To integrate transport with land use planning to ensure that transport networks serve development in an efficient, effective and sustainable way

Table 1.4 : Short Term Modelling - Options for Consideration

	Objectives								Implementability				Explanatory Comment on Objective and Implementability Scoring	Objectives	Implementability	Score
	Economy	Safety	Social Inclusion & Accessibility (1)	Social Inclusion & Accessibility (2)	Environment	Integration	Technical Issues	Operational Issues	Financial Issues	Public Issues						
Short Term Suggestions																
B Garthdee, Bridge of Dee																
B6	Segregated Lanes on Roundabouts, left slip lanes	1	0	0	0	0	0	0	-1	-1	0	Left slips may provide some relief. They will however only provide benefits so long as adequate slip lane length is provided on approach otherwise there will be limited effect. Providing adequate lane length is likely to be expensive	1	-1	1	
B13	Part Signalisation of Roundabouts	-1	0	0	0	-1	0	-1	0	0	0	No benefit observed from introduction at the southern roundabout. Although signals assisted the southbound flow of traffic from South Anderson Dr, significant congestion was caused on G'thdee Rd and Holburn St.	-1	-1	-1	
C King George VI Bridge																
C4	Larger Roundabout on North side of Bridge, needs to be more HGV friendly	-1	0	0	0	0	0	-2	0	-1	-1	Will assist HGV's diverting from the A90 due to the width restriction on Bridge of Dee. Will be expensive and difficult to design within constraints of Bridge and would require land from Cemetery and Duthie Park.	-1	-2	-2	
C5	Segregated left turn lanes from Stonehaven Rd to King George VI Bridge	1	0	0	0	0	0	-1	0	-1	0	This left turn lane could be accommodated in the available space. The left turn lane would join the bridge at a give way in order to keep a two lane exit onto the bridge.	1	-1	1	
E Wellington Road																
E2	Would some be better as roundabouts?	0	-1	0	-1	0	0	-1	-1	-1	0	Would detract from accessibility as provision for vulnerable users becomes difficult. The necessary land take to achieve design standards (eg entry deflection angles and necessary turning radii bearing in mind the HGV flow) will be hard to achieve at most.	-1	-1	-1	
E4	Ban selected right turns e.g. into Girdleness	1	1	0	-2	0	-1	0	0	0	-1	Likely to provide some localised benefits, but will raise problems for accessibility.	0	-1	-1	



Table 1.5 : Short Term Modelling - Options for Consideration (continued)

	Objectives										Explanatory Comment on Objective and Implementability Scoring	Objectives	Implementability	Score	
	Economy	Safety	Social Inclusion & Accessibility (1)	Social Inclusion & Accessibility (2)	Environment	Integration	Technical Issues	Operational Issues	Financial Issues	Public Issues					
Short Term Suggestions															
F Hareness															
F1	West Tullos / Hareness segregated left turns	1	0	0	0	0	0	0	0	-1	0	This will ease queuing so long as the extent of the left turn lane is sufficient to get past the end of queuing vehicles.	1	-1	1
F3	Part time traffic signals	0	0	0	1	0	0	-2	-2	-1	0	Unlikely to ease much of the congestion as the existing roundabout would not provide sufficient circulating stacking capacity to apply signals.	1	-3	-2
F5	Abbotswell Cres left in / left out from Wellington Road and West Tullos Rd	1	1	0	0	0	0	-1	0	-1	-1	More of a local traffic management scheme to allow easier public transport egress and avoid safety issues and blocking of carriageway that currently occurs when buses cross central reserve on West Tullos Rd.	1	-1	0
G Souterhead Roundabout															
G2	Increase signalisation	-1	0	0	1	0	0	-1	0	-1	0	Resulted in increased queuing being observed.	0	-1	-1
G4	Cycle ped crossing on Wellington Road, Langdykes and Souterhead	0	1	1	1	0	0	0	0	0	1	Good pedestrian links can help promote sustainable travel. These measures are unlikely to change much other than in the immediate locality but could be considered as a package of other measures.	1	1	1
Freight Quality Partnership															
FQP1	Southbound lane of South Anderson Drive at Holburn Street to be amended to left turn only and straight and R/T in other	-1	0	0	0	0	0	0	0	0	-1	Would cause congestion back along South Anderson Drive resulting in further delays upstream which will discount any benefits over lane change at this location.	-1	-1	-1
FQP10	Establish a HGV/Bus only lane on Gt Southern Rd between Bridge of Dee and George VI Bridge eastbound	-1	0	0	0	0	0	0	0	0	-1	Observed to increase congestion due to eastbound traffic from Stonehaven Road and Bridge of Dee that can not use the HGV/Bus only lane being restricted to one lane.	-1	-1	-1
FQP2	Westbound lane of Grt Stn Rd amend left lane to left-turn only, restrict southern leg of Bridge of Dee to a single lane to allow easier egress for HGV's avoiding bridge restriction	-1	-1	0	0	0	0	0	-2	0	-1	Likely to have significant upstream impact across Bridge of Dee. Will affect South Anderson Drive in PM peak	-1	-2	-2
FQP7	Re-mark QEII bridge southern rndbt to be dedicated left and right turn lanes across bridge thus allowing Menzies Rd easier egress (dedicated lane onto Wellington Rd South. This will improve flow including HGV's from Torry	-1	-1	0	0	0	0	0	-1	0	-1	Resulted in significant increased queuing on North Esplanade West and South College Street.	-1	-1	-1



Table 1.6 : Medium Term Modelling - Options for Consideration

Medium Term Suggestions	Objectives								Implementability				Explanatory Comment on Objective and Implementability Scoring	Objectives	Implementability	Score
	Economy	Safety	Social Inclusion & Accessibility (1)	Social Inclusion & Accessibility (2)	Environment	Integration	Technical Issues	Operational Issues	Financial Issues	Public Issues						
B Garthdee, Bridge of Dee																
B10	Signalise four junctions and link with SCOOT	-2	1	0	0	-1	0	-1	0	-1	0	Possible opportunities to introduce better pedestrian facilities but design on each of the bridge ends will be difficult. The single lane Bridge of Dee gives insufficient stacking capacity between signalised junctions at either end. Analysis indicates that most of the junctions would be operating well over capacity.	-2	-1	-2	
B11	One-way gyratory with King George VI bridge could include for public transport priority	-3	-1	-1	-1	-1	-1	-1	-1	-1	-2	Complex Scheme requiring alteration of junctions and significant additional journey distances for some routes resulting in increased congestion and delay.	-3	-2	-3	
B15	Offset junctions at end of both bridges	0	0	0	0	0	0	-3	-2	-2	-1	Will still be constrained by the Bridge of Dee. Land take will be a problem requiring CPO. Unlikely to meet objectives.	0	-2	-2	
B16	Remove footways on Bridge of Dee to allow HGV access and provide alternative ped/cycle bridge	1	2	1	0	1	1	-1	0	-1	1	Current footways are well below current acceptable design standards and passing places are required. Ped/cycle bridge has safety benefits and allows width restriction for vehs using bridge to be removed, thus avoiding diversion via King George VI bridge.	1	0	1	
B17	Bus lane/High Occupancy Vehicle on Stonehaven Road on approach to Bridge of Dee	1	0	2	1	1	1	-1	-1	-1	0	Journey times for vehicles using the HOV/bus lane indicate greater benefit to average travel time statistics in comparison with that of general traffic.	1	-1	1	
C King George VI Bridge																
C2	Tidal Flow Lane allocations	1	0	0	0	0	0	-3	-2	-1	-1	Would require alteration to the terminal junctions to permit tidal working and limited benefit of tidal lanes on bridge likely to be offset by junction constraints at either end .	1	-2	-2	
C6	Separate HGV movement into Left turn segregation to Riverside Drive	0	0	0	0	0	0	-2	-1	-1	-1	Wouldn't be physically implementable without a revision to the Riverside Dr roundabout which would be expensive and difficult to design within constraints of Bridge and would require land from Cemetery and Duthie Park..	0	-1	-1	
D QEII Bridge																
D4	Dual adjacent to prison or tidal flow	1	0	0	1	0	0	-3	0	-3	0	Whilst there would be benefit in completing the dualling over this section it is constrained by prison wall on one side and embankment on the other making this physically difficult to implement.	1	-3	-2	
D5	Stop up Craig Place and make South Esplanade 2-way	-1	-1	-1	-1	0	-1	0	-1	0	-2	Will have implications outwith model area and divert public transport routes giving less access to residential area. South Esplanade is a less suitable route with poorer entry to QE2 bridge roundabout should it become 2-way.	-1	-2	-2	



Table 1.7 : Medium Term Modelling - Options for Consideration (continued)

Medium Term Suggestions	Objectives										Explanatory Comment on Objective and Implementability Scoring	Objectives	Implementability	Score	
	Economy	Safety	Social Inclusion & Accessibility (1)	Social Inclusion & Accessibility (2)	Environment	Integration	Technical Issues	Operational Issues	Financial Issues	Public Issues					
E Wellington Road															
E1	Remove some junctions	1	1	0	-2	0	0	-1	0	-1	-1	If any are considered it may improve local congestion issues, but will raise accessibility problems and increase journey distances for vehicles that have to divert.	1	-1	-1
E11	Bus priority on Wellington Road	-1	0	1	0	0	0	0	-1	0	-1	Difficult to implement on a heavily used route for HGVs and general traffic. Could enhance the travel to employment on public transport but any benefits are likely to be countered by delays to other vehicles which could delay buses from reaching areas where priority given.	1	-1	0
E13	Isolate the two corridors Wellington Road and Gt Southern Rd e.g. take out Abbotswell Link	-1	0	0	-1	0	-1	0	0	0	-2	Could free up movements on Wellington Road if junction removed, but would give accessibility problems to the residences, sports, business and commercial facilities on Abbotswell Road and increase journey distances for diverting vehicles.	-1	-1	-2
E5	Widen Wellington Road to allow for an extra lane for buses /. Cyclists (HOV?)	1	1	2	1	0	1	-2	0	-3	0	Could provide benefits for most objectives through linking employment with sustainable transport solutions which provide priority. Land take will be an issue if it is road widening.	2	-2	0
E6	New lane southbound as a climbing lane	1	0	0	0	0	0	-2	0	-2	0	HGVs tend to be in both lanes to turn into industrial areas and have varying acceleration rates depending on size and load so crawler lane may not provide a significant benefit. Land take could be an issue to provide a new lane.	1	-2	-1
F Hareness															
F2	Review junction, is roundabout correct option? Try signals	1	1	0	1	0	0	-1	0	-1	0	Would increase accessibility for vulnerable users through providing pedestrian crossing facilities and is preferable for cyclists. Could rebalance the queuing to free Hareness in the PM peak.	1	-1	1
F4	Bus priority on Redmoss Road	0	0	1	1	0	0	-2	0	-2	0	Redmoss Road is not currently suitable for 2-way buses and would be expensive to widen along its length. A suitable tie back into Wellington Road may be difficult to achieve. Bus priority would only give benefit if faster and more reliable journey times could be gained. Access to adjacent land by other modes would have to be maintained.	1	-2	-1
G Souterhead Roundabout															
G3	Bus lane for Park and Ride on Wellington Road approach (short bit on Langdykes for Cove Buses)	-1	0	2	0	0	1	0	0	0	0	Would need to stop short of the roundabout entry lanes but could provide benefits to bypass AM queuing if it doesn't take away capacity for other users.	1	0	1
G6	Cove traffic new lane left towards AWPR	1	0	0	1	0	0	-1	0	-1	0	May reduce delays on this approach, not a long term solution and on it's own wouldn't make a lot of difference overall.	1	-1	0
G8	Extra lane out from Souterhead Road	1	0	0	1	0	0	-1	0	-1	0	May reduce delays on this approach, but not a long term solution and on its own wouldn't make a lot of difference overall.	1	-1	0
H A90 Corridor / Charleston															
H2	Provides a link for public transport between Stonehaven Road and Wellington Road	0	0	1	1	0	1	0	0	0	0	A number of public transport services do route from Stonehaven Road via Wellington Road, but additional buses (incl. possible new P&R service) may encourage use of public transport.	1	0	0
Freight Quality Partnership															
FQP4	Souterhead Rd allow for two lanes and adjust peak hour signals to give more time to flow westbound	1	0	0	1	0	0	-1	0	-1	0	May reduce delays on this approach, but not a long term solution and on it's own wouldn't make a lot of difference overall.	1	-1	0



Table 1.8 : Long Term Modelling - Options for Consideration

Long Term Suggestions	Objectives										Explanatory Comment on Objective and Implementability Scoring	Objectives	Implementability	Score	
	Economy	Safety	Social Inclusion & Accessibility (1)	Social Inclusion & Accessibility (2)	Environment	Integration	Technical Issues	Operational Issues	Financial Issues	Public Issues					
A General Considerations															
A2	A956 could be main route into Aberdeen as opposed to A90	-1	-1	0	-1	-2	-1	0	-2	0	-1	Will effect the movement of HGV traffic and would sign them and other vehs through Wellington Rd and via the Harbour thus through a declared Air Quality Management Area. Could have a significant impact on the public transport routes in the centre of Aberdeen and will not complement city centre schemes such as Union Street pedestrianisation.	-2	-2	-3
B Garthdee, Bridge of Dee															
B12	Divert Leggart Terrace directly onto A90 (Stonehaven Road)	1	0	0	0	0	0	-1	0	-2	-1	May improve operation of Bridge of Dee (S) roundabout but diversion via a new junction on Stonehaven Road would increase some journey distances and introduce a new junction onto the Trunk Road.	1	-2	-1
B14	Remove at level pedestrian crossings at Bridge of Dee (overbridges / underpasses)	0	0	0	0	0	0	-1	-1	-1	-1	Soft measure with limited impact. Expensive and visually intrusive and likely to be unpopular with many pedestrians who may then try to cross at road level.	0	-1	-1
B2	New HGV and public transport bridge	0	0	1	0	0	0	-2	-2	-3	2	Could provide benefits if it can be implemented. Likely to be very expensive and will still be difficult to tie back into the main routes with new junctions required making implementation almost unfeasible. Number of HGVs and buses that would use a dedicated bridge are unlikely to be sufficient to provide value for money in constructing the bridge.	1	-3	-2
B3	Larger roundabout at A90 / Holburn Street	0	0	0	0	0	0	-2	-1	-2	1	On its own won't make a significant difference as its still constrained by the width on the Bridge of Dee and would require Compulsory Purchase Orders for land. Would need a package of supporting measures i.e. Widen Bridge of Dee/New Bridge.	0	-2	-2
B4	Widened bridge to replace existing Bridge of Dee	3	2	0	1	1	2	-2	0	-2	-1	Will provide most benefits in providing direct linkage between Stonehaven Rd and Anderson Drive, provides opportunity to reconsider bridge junctions. Is expensive and difficult to implement due to listed status of existing structure.	3	-2	2
B8	New bridge upstream and change Bridge of Dee to footbridge or one N/bnd and one S/Bnd	2	2	0	1	1	1	-2	-1	-2	-1	Likely to be expensive but if done well could be an alternative to replacing the Bridge of Dee. Real problem in tying into terminal junctions as with the HGV/PT bridge though this could be easier with the one way options.	2	-2	1
B9	Grade separate A90 (Stonehaven Rd) to A90 (Anderson Dv) up and over on additional bridge	3	2	0	1	1	1	-3	0	-3	-3	If implemented well it could provide benefits. Implementation would be extremely difficult and with real financial and environmental concerns. Tie back to main routes will require significant land take and demolition. Expensive and visually intrusive on gateway entrance to City.	2	-3	-3



Table 1.9 : Long Term Modelling - Options for Consideration (continued)

Long Term Suggestions	Objectives							Implementability			Explanatory Comment on Objective and Implementability Scoring	Objectives	Implementability	Score		
	Economy	Safety	Social Inclusion & Accessibility (1)	Social Inclusion & Accessibility (2)	Environment	Integration	Technical Issues	Operational Issues	Financial Issues	Public Issues						
C King George VI Bridge																
C3 3rd lane from Gt Southern Rd to Stonehaven Rd and vice versa (Could be PT or HOV lane)	1	0	1	0	0	0	-1	0	-1	0	Would help encourage other transport modes, but would be expensive and require enforcement and affect junctions at either end of the widened link.	1	-1	0		
G Souterhead Roundabout																
G5 Complete dualling from Charleston to Souterhead, could include bus priority	2	1	1	1	1	1	-1	0	-1	0	Dualling would give the ability to make PT provision. This won't assist freight movement unless it can remove private cars from the roads.	2	-1	1		
G7 Close Langdykes Road and access via a new junction being constructed further south	1	1	0	0	0	0	-1	0	-1	0	Could provide local benefits and simplify the movements to enable some priority to be given over to vulnerable users.	1	-1	0		

The following Tables provide a summary of the options identified for consideration in the short, medium and long term but considered inappropriate for traffic modelling.

As with the traffic modelling options, these options have been rated against the key planning objectives and implementability criteria. The following denotes the agreed local planning objectives.

- **Economy** - To reduce congestion and unreliability, and have effective journey times particularly where it impacts on the efficient movement of goods
- **Safety** - To reduce the incidence of and potential for collisions and all transport related collisions especially vulnerable users, such as cyclists, pedestrians and motorcyclists
- **Social Inclusion & Accessibility (1)** - To encourage socially-inclusive and healthy transport modes other than single car occupancy.
- **Social Inclusion & Accessibility (2)** - To improve the accessibility between residential and employment areas
- **Environment** - To improve the local environment by reducing air pollution problems
- **Integration** - To integrate transport with land use planning to ensure that transport networks serve development in an efficient, effective and sustainable way



Table 1.10 : Short Term Non Modelling - Options for Consideration

		Objectives								Implementability		Explanatory Comment on Objective and Implementability Scoring	Objectives	Implementability	Score
		Economy	Safety	Social Inclusion & Accessibility (1)	Social Inclusion & Accessibility (2)	Environment	Integration	Technical Issues	Operational Issues	Financial Issues	Public Issues				
Further Suggestions outwith Study (SHORT TERM)															
A General Considerations															
1	Public Transport Subsidy at Peaks	1	0	1	0	1	0	0	0	-2	1	Subsidy will reduce fare and may encourage use of PT. Meeting the other objectives can only really be gauged, dependent on the increased PT patronage.	1	-1	0
10	Protect Coastal Route											Point of note rather than a test to be considered this time around.			
11	Stop Torry Rat Running														
E Wellington Road															
18	Improve public transport to East and West Tullos Industrial Estate	1	0	1	1	0	1	0	0	-1	1	Will provide good links and accessibility between residential and employment areas and encourage sustainable mode.	1	0	1
G Souterhead Roundabout															
9	TMO for whole of Altens, Tullos and Cove areas	1	0	1	1	0	1	0	-1	-1	0	Should companies within the industrial estates form a Travel Management Organisation to implement Green Travel Plan initiatives this could help provide travel alternatives to the area and encourage modal shift from single occupancy vehicles.	1	-1	1
Freight Transport Measures															
FQP3	Westbound Trinity Quay, traffic signals. Maintain Trinity Quay southbound phase even when Guild Street has green											Outwith Access from South Study area. Significant rephasing would be required to incorporate this.			
FQP6	Wellington Rd Southbound. Adjust signals to allow for speed and acceleration of loaded HGVs	-1	0	0	0	0	0	-2	0	-1	-1	No gradient coded in S-Paramics model, so not a model test. Giving Wellington Rd S/bound greater greentime could affect HGVs wishing to exit the industrial estates via the side roads onto Wellington Road.	-1	-1	-1
FQP8	Anderson Drive/Grt Western Rd junction restrict right turn movements and enable north and south movements to operate at same time											Outwith Access from South Study area. Part of Trunk Road network and likely to cause rat-running through residential areas. Any benefits at this junction would likely be negated by resultant delays at upstream/downstream locations.			



Table 1.11 : Medium Term Non Modelling - Options for Consideration

	Objectives										Implementability	Explanatory Comment on Objective and Implementability Scoring	Objectives	Implementability	Score	
	Economy	Safety	Social Inclusion & Accessibility (1)	Social Inclusion & Accessibility (2)	Environment	Integration	Technical Issues	Operational Issues	Financial Issues	Public Issues						
Further Suggestions outwith Study (MEDIUM TERM)																
A General Considerations																
5	1	0	1	1	1	1	-1	0	-1	0	Quality Partnership for public transport has existed in North East since 1998 and continues to implement measures to enhance public transport service and related facilities to increase patronage.	1	-1	1		
7	1	0	2	1	1	1	0	0	-1	0	Will enhance the attraction to PT if reliability can be improved during peak periods	2	-1	1		
8	1	0	1	1	1	1	-1	0	-1	0	Would help to enhance the attraction to Public Transport.	1	-1	1		
D QEII Bridge																
6											More of an objective than an 'Option' therefore no scoring undertaken	n/a	n/a	n/a		
8											More of an objective than an 'Option' therefore no scoring undertaken	n/a	n/a	n/a		
E Wellington Road																
7	1	0	2	0	1	0	0	-1	-1	-2	Will have an impact on retail which would need consideration. Will encourage other modes though. Won't affect private non residential parking.	1	-1	0		
10	1	0	1	1	1	1	0	0	-1	0	Could provide good links and accessibility between residential and employment areas although there are some existing services in these areas.	1	-1	1		
15	0	0	1	1	0	0	-2	0	-2	0	Redmoss Road is not currently suitable for 2-way buses and would be expensive to widen along its length. A suitable tie back into Wellington Road may be difficult to achieve. Bus priority would only give benefit if faster and more reliable journey times could be gained. Access to adjacent land by other modes would have to be maintained.	1	-2	-1		
16	1	0	1	0	0	0	0	-1	-1	1	Will provide good links and accessibility between residential and employment areas	1	-1	1		
17	1	0	2	1	1	1	0	0	-1	0	Will enhance the attraction to PT if reliability can be improved during peak periods	2	-1	1		
H A90 Corridor / Charleston																
1	1	0	2	1	1	1	-1	0	-1	0	Opportunity to provide a transport interchange before the main route choice via A90 or A956 is made by drivers.	2	-1	1		
3	1	0	0	1	0	1	-2	-1	-2	-1	Could provide increased access options to employment areas to and from residential areas but there would be engineering difficulties and expense to provide/improve route.	1	-2	-1		
4											Not a direct consideration at this stage. Require to be incorporated within final reporting.					
5	1	0	1	1	1	1	-1	0	-1	0	Will aid attraction to public transport if it can improve journey time and reliability of P&R site	1	-1	1		
Freight Transport Measures																
FQP5	-1	0	0	0	0	0	-2	-1	-1	-1	Would need sophisticated equipment and may not be feasible. Difficult to give HGVs from all directions priority and this may cause delays for other vehicles, affecting public transport timetable reliability.	-1	-1	-1		
FQP9											Outwith Access from South Study area. ACC has previously decided not to permit use of bus lanes and bus gates by HGVs on this corridor as this would affect the reliability of bus services (incl. P&R) and deter cyclists from using the bus lanes.					



Table 1.12 : Long Term Non Modelling - Options for Consideration

	Objectives										Explanatory Comment on Objective and Implementability Scoring	Objectives	Implementability	Score	
	Economy	Safety	Social Inclusion & Accessibility (1)	Social Inclusion & Accessibility (2)	Environment	Integration	Technical Issues	Operational Issues	Financial Issues	Public Issues					
Further Suggestions outwith Study (LONG TERM)															
A General Considerations															
3	Local charging schemes	1	1	1	0	1	0	2	-2	-2	-3	Significant amount of design consideration. Aberdeen has a medieval city centre streetscape which does not readily lend itself to sectoring.	1	-2	-2
4	Heavy rail options	1	1	1	0	1	1	-3	0	-3	0	Could help free road space and will aid movement of freight from congested corridors and assist movement to and from the harbour area but is extremely expensive to implement.	1	-3	-3
6	Cross rail stations at Altens and Cove	1	1	1	2	1	2	-3	-2	-3	-1	Extremely expensive to open new stations and would require links to/from station by all modes. Could impact on current intercity timetables .	2	-3	-1
9	Improved Coastal Route East of A956 for development access	1	0	0	1	0	1	-2	-1	-2	-1	May provide increased access options to employment areas to and from residential areas but there would be extensive engineering difficulties and expense to improve route over entire length and could lead to increased routing through residential areas	1	-2	-1
12	More trains at Portlethen	1	0	1	1	1	1	0	-1	-1	0	Need to be considered within existing rail infrastructure and timetables from a practical sense.	1	-1	0
B Garthdee, Bridge of Dee															
1	New pedestrian/cycle footbridge options	1	2	1	0	0	0	-2	0	-1	1	Would enhance pedestrian and cycle safety and attractiveness. Would open up space on Bridge of Dee for removal of width restriction.	2	-1	1
7	Additional bridge upstream of Bridge of Dee to connect RGU (could be pedestrian)	2	2	0	1	1	1	-2	-1	-2	-1	Would enhance pedestrian and cycle attractiveness if ped/cycle only. A vehicle bridge would require links to existing infrastructure to/from the A90 at either end increasing traffic flow in these areas.	2	-2	1
D QEII Bridge															
3	Raise height under Wellington suspension Bridge (Riverside Drive at College St)	1	1	0	0	0	0	-3	0	-3	0	Option for larger vehicles to route but extremely expensive and difficult to achieve in engineering terms.	1	-3	-3
D2	Allow dualling of College St to roundabout	1	1	0	1	1	0	-3	0	-3	0	Will improve the flow to and from South College St so long as the Riverside Dr roundabout can cater for demand. Railway Bridge makes this difficult and expensive to widen South College Street.	1	-3	-2
E Wellington Road															
9	Crossrail with two stops, one at South, one at North	1	1	1	2	1	2	-3	-2	-3	-1	Extremely expensive to open new stations and would require links to/from station by all modes. Could impact on current intercity timetables .	2	-3	-1
14	Rail stops at West Tullos and Altens	1	1	1	2	1	2	-3	-2	-3	-1	Extremely expensive to open new stations and would require links to/from station by all modes. Could impact on current intercity timetables .	2	-3	-1
G Souterhead Roundabout															



Table 1.13 : Long Term Non Modelling - Options for Consideration (continued)

	Objectives								Implementability			Explanatory Comment on Objective and Implementability Scoring	Objectives	Implementability	Score	
	Economy	Safety	Social Inclusion & Accessibility (1)	Social Inclusion & Accessibility (2)	Environment	Integration	Technical Issues	Operational Issues	Financial Issues	Public Issues						
Further Suggestions outwith Study (LONG TERM)																
A General Considerations																
3	Local charging schemes	1	1	1	0	1	0	2	-2	-2	-3	Significant amount of design consideration. Aberdeen has a medieval city centre streetscape which does not readily lend itself to sectoring.	1	-2	-2	
4	Heavy rail options	1	1	1	0	1	1	-3	0	-3	0	Could help free road space and will aid movement of freight from congested corridors and assist movement to and from the harbour area but is extremely expensive to implement.	1	-3	-3	
6	Cross rail stations at Altens and Cove	1	1	1	2	1	2	-3	-2	-3	-1	Extremely expensive to open new stations and would require links to/from station by all modes. Could impact on current intercity timetables .	2	-3	-1	
9	Improved Coastal Route East of A956 for development access	1	0	0	1	0	1	-2	-1	-2	-1	May provide increased access options to employment areas to and from residential areas but there would be extensive engineering difficulties and expense to improve route over entire length and could lead to increased routeing through residential areas	1	-2	-1	
12	More trains at Portlethen	1	0	1	1	1	1	0	-1	-1	0	Need to be considered within existing rail infrastructure and timetables from a practical sense.	1	-1	0	
B Garthdee, Bridge of Dee																
1	New pedestrian/cycle footbridge options	1	2	1	0	0	0	-2	0	-1	1	Would enhance pedestrian and cycle safety and attractiveness. Would open up space on Bridge of Dee for removal of width restriction.	2	-1	1	
7	Additional bridge upstream of Bridge of Dee to connect RGU (could be pedestrian)	2	2	0	1	1	1	-2	-1	-2	-1	Would enhance pedestrian and cycle attractiveness if ped/cycle only. A vehicle bridge would require links to existing infrastructure to/from the A90 at either end increasing traffic flow in these areas.	2	-2	1	
D QEII Bridge																
3	Raise height under Wellington suspension Bridge (Riverside Drive at College St)	1	1	0	0	0	0	-3	0	-3	0	Option for larger vehicles to route but extremely expensive and difficult to achieve in engineering terms.	1	-3	-3	
D2	Allow dualling of College St to roundabout	1	1	0	1	1	0	-3	0	-3	0	Will improve the flow to and from South College St so long as the Riverside Dr roundabout can cater for demand. Railway Bridge makes this difficult and expensive to widen South College Street.	1	-3	-2	
E Wellington Road																
9	Crossrail with two stops, one at South, one at North	1	1	1	2	1	2	-3	-2	-3	-1	Extremely expensive to open new stations and would require links to/from station by all modes. Could impact on current intercity timetables .	2	-3	-1	
14	Rail stops at West Tullos and Altens	1	1	1	2	1	2	-3	-2	-3	-1	Extremely expensive to open new stations and would require links to/from station by all modes. Could impact on current intercity timetables .	2	-3	-1	
G Souterhead Roundabout																
G1	Overbridge for North / South traffic	2	2	0	2	1	1	-3	0	-2	1	Would provide journey time benefits at Souterhead but would be very expensive and visually intrusive and have a significant environmental impact.	2	-2	0	

