Lincolnshire County Council

Grantham Transport Study

Technical Note 8: Further Option Appraisal

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Lincolnshire County Council

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Lincolnshire County Council
Grantham Transport Study
Technical Note 8: Further Option Appraisal

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1.0 Introduction

1.1 Study Background

1.1.1 The Grantham Transport Study is currently being undertaken to identify a Transport Strategy for future implementation in Grantham. The aim of the study is to understand and quantify (as appropriate) transport problems, and then develop a Transport Strategy, consisting of desirable outcomes and a programme of short-term and longer term improvements.

1.1.2 The aims of the Transport Strategy are:

- To provide a framework for the better management of movements into and through Grantham in both the short-term (up to 2010) and in the longer term (2011 to 2021 and beyond);
- To address the problems associated with existing and future levels of congestion in Grantham;
- To address the environmental impacts of existing and future traffic movements in Grantham, in particular with regard to air quality;
- To support the sustainable economic growth of the town and its surrounding area.

1.2 Phase 1 Option Appraisal

1.2.1 Phase 1 of the Grantham Transport Study included a number of different activities which were reported in the following Technical Notes:

- TN1: Policy Review, January 2006
- TN2: Stakeholder Reference Group Event Summary, January 2006
- TN3: Problems & Issues, January 2006
- TN4: Option Appraisal, July 2006
- TN5: Emerging Strategy, July 2006

1.2.2 The Option Appraisal process within Phase 1 of the study comprised a similar process to that reported here. However, during Phase 1, this centred on the appraisal of packages of initial Options with similar themes, for example measures to change behaviour or measures to better connect rail and bus services.

1.2.3 Each package was assessed qualitatively against the study's Strategy Outcomes, Problem Themes, Policy Objectives and National Objectives, to ensure that each Option package would contribute towards meeting objectives (the 'top down' approach) and solving problems (the 'bottom up' approach), in line with current best practice. This process is fully reported in Technical Note 4.

1.3 Document Purpose

1.3.1 Following the Option appraisal process undertaken in Phase 1, further refinement of the Options was undertaken during the development of the Emerging Strategy in Phase 1. This

ongoing process of Option development continued within Phase 2. These Options are now in need of a more detailed qualitative assessment.

1.3.2 The development of the Emerging Strategy into a Preferred Strategy will involve decisions to prioritise each of the Options in order to produce a feasible implementation plan for the short and longer terms. These decisions will be based primarily upon the results from the following tasks within the study process:

- Traffic modelling work (reported in Technical Note 7)
- Option appraisal (as reported here)
- Public consultation (reported in Technical Note 9)

1.3.3 The Option appraisal process will therefore have a key influence on the development of the Preferred Strategy. The purpose of this Technical Note is therefore to fully report that process in order to inform the prioritisation decision-making process.

2.0 Methodology

2.1 Introduction

2.1.1 The Phase 2 Option appraisal process reported here was an entirely qualitative appraisal process, with each Option appraised against the study's Strategy Outcomes, Problem Themes, Policy Objectives and National Objectives.

2.2 Options

2.2.1 The Options assessed within this appraisal process are as follows, all of which are outlined in more detail in the Option Description Sheets in Appendix A:

- A2: High Street shuttle working & footway widening
- A6: Further town centre traffic management
- A7: Further junction improvements
- B1: Minimal bus station enhancements for DDA (disability) compliance
- B3: New bus station
- C2: Introduce residents' parking schemes
- C3: Improve town centre parking quality & management
- D1: Improve pedestrian route between rail station and town centre
- D3: Encourage bus operators to serve the rail station
- D4: Redevelop area around rail station
- D6: Support improvements to Poacher Line Community Rail Partnership
- E1: Pennine Way link
- E3: Inner Relief Road
- E4: Lower road under rail bridge
- E5: Improve signing in and around Grantham
- E6: Introduce further bridge protection systems
- E7: East-West bypass
- E8: Control centre to support intelligent transport systems
- F1: Further encourage modal shift on 'school run'
- F2: Increase promotion of sustainable travel
- G1: Create high quality pedestrian routes & crossing facilities
- G2: Create comprehensive cross-town cycle network
- H1: Improve quality of bus stops
- H2: Improve quality of bus services
- H3: Improve level of evening & weekend services
- I1: Ensure all development results in an improved transport system

2.2.2 Each Option was appraised against the Outcomes, Themes and Objectives listed below. A qualitative comment was given for each, together with a score on a five-point scale:

- Significant positive impact (score +2)
- Slight positive impact (score +1)
- Mixed impact or no impact (score 0)
- Slight negative impact (score -1)
- Significant negative impact (score -2)

2.2.3 The scores were then totalled for each Option to give an overall appraisal score, as reported in Section 3.

2.3 Strategy Outcomes

2.3.1 The Strategy Outcomes are the specific results that the Transport Strategy should aim to achieve and are as listed below. These were identified during Phase 1 of the study process (see Technical Note 4) and were revised by the JOG during Phase 2.

A: Reduced private vehicle levels in the town centre area
The high volume of traffic on streets within the town centre area causes safety implications for pedestrians as well as making it a much less attractive area than it could be. This is a particular issue on High Street, where a significant of amount of traffic, including large heavy goods vehicles (HGVs), uses this busy but narrow town centre street.

B: Safer environment with increased pedestrian space and facilities
There is an unacceptable number of vulnerable road user casualties each year within the town, and many of the town's streets are dominated by traffic. There is a need to give more attention to the needs of pedestrians, thereby improving the safety of all non-motorised users (which includes cyclists, people in wheelchairs or with pushchairs, blind people, etc) and creating a more attractive place in which to spend time.

C: Improved management of on and off-street parking
Parking issues easily become topics of great contention, but parking management is a vital tool in influencing travel behaviour. Improving that process is vital in order to keep the town working and make the best use of existing infrastructure.

D: Sufficient parking provided to aid the economic success of the town centre
A difficult balance always needs to be struck between the competing objectives of economic growth and the discouragement of trips by private car. However, the economic success of Grantham town centre is of key importance to the town, particularly in the context of its competitiveness with similar neighbouring towns, and the level of parking supply must support this.

E: Improved reliability of bus services
It is no surprise that the unreliability of bus services caused by operator disruption in the last few years has resulted in a large drop in patronage. Restoring public confidence in local public transport is vital and reliable bus services are a fundamental part of that process.

F: Improved levels of bus services accessible to all users
The buses in Grantham could be much more accessible to the people of the town, both in terms of having more of them, and in having fully accessible buses on at least the main routes. This is needed for public transport to be seen as a suitable alternative to the car.

G: Improved connectivity between bus and rail
The bus and train stations are located at completely separate sites and there is no obvious connection between them. To create an integrated local transport system, there needs to be a much better link between buses and trains in the town.

H: Improved waiting environment for public transport users at key locations
The improvement of waiting areas at key locations such as the bus station and the rail station would benefit people who regularly use public transport and encourage other people to use public transport services more often.

I: Clear and attractive links between public transport services and town centre
For public transport to be an attractive alternative to the car, it must take people where they want to go. The town centre is the biggest destination within the town, and public transport services must provide a good connection to core town centre areas such as High Street, the Isaac Newton Shopping Centre and Market Place.

J: Reduced number & severity of bridge hits
The numerous low railway bridges in Grantham often get hit by tall vehicles which cause disruption to the road and rail networks. It is therefore important to work towards reducing the frequency of these events and the impact of them when they occur.

K: Maximised efficiency of all junctions
A number of key junctions within Grantham get very congested during peak periods. This has negative economic impacts on the town, as well as creating a large amount of driver frustration. However, it is not often possible to increase traffic capacity through junctions, and the needs of all transport users at junctions need to be considered.

L: Increased level of walking & cycling trips throughout the town
It isn't always appropriate to walk or cycle to somewhere you would normally drive to, but when it is, people need to be encouraged to do so by the provision of high quality routes throughout the town, along which they will feel safe and secure and able to make their journey along a reasonably direct route.

M: Reduced proportion of car trips to all new developments
Grantham is a growing town and more houses, business and shops generally result in more traffic. However, this is an unsustainable situation. New developments need to be built, but with reduced car trips associated with them.

N: Economic growth achieved alongside an increase in sustainable travel
Grantham needs to develop and expand, and it is important that it does. However, unrestrained growth in car trips cannot be accommodated on the road network and more sustainable travel patterns need to be established.

O: Improved air quality within AQMA
Wharf Road is currently designated an Air Quality Management Area (AQMA), mainly because of air pollution resulting from high levels of traffic on it. This needs to change in order to protect the environment within the town and ensure a healthy place for people to live.

2.3.2 As part of the assessment process, each Option was assessed to see what contribution (positive, negative, neutral or mixed) it would have towards the above Outcomes.

2.4 Policy Objectives

2.4.1 The Policy Objectives were identified during Phase 1 of the study following a review of the relevant national, regional and local policy documents, such as Planning Policy Guidance Note 13 (Transport) and the Lincolnshire Local Transport Plan.

2.4.2 During Phase 2 of the study, a further review was carried out to determine the extent of changes to policy documents since the original policy review was carried out. All revised and newly adopted documents were reviewed to ensure that the original Policy Objectives remain aligned with current policies, as reported in the updated TN1 (revision 1).

2.4.3 The Policy Objectives are numbered PO1, PO2, etc and are as follows:

PO1: To improve sustainable transport in order to reduce dependence on the private car
Policy Objective 1 understands that in order to reduce dependency on the private car, there must be greater encouragement to use alternative modes of transport such as public transport, walking and cycling combined with reducing the need to make trips.

PO2: To improve traffic management and reduce congestion in Grantham
Policy Objective 2 acknowledges that certain parts of the network are currently congested, leading to poor journey time reliability which impacts on the vitality of the town. It acknowledges the need to make better use of the existing network in advance of building new infrastructure.

PO3: To improve accessibility for all
Policy Objective 3 recognises that the peripheral parts of the study area suffer in terms of accessibility into and out of Grantham. It acknowledges that in order to improve accessibility there is a need to increase the range of travel Options for those without access to the private car.

PO4: To improve safety and security for all transport users
Policy Objective 4 identifies the need to improve safety and security for all transport users as a priority. It acknowledges that this applies to all users of all transport modes and that competition for road space and the provision of appropriate facilities for alternative modes to the private car can support this aspiration.

PO5: To improve air quality and reduce noise impact
Policy Objective 5 recognises that existing levels of traffic in Grantham directly affect the noise and air quality levels. It acknowledges the need to reduce the number of trips made by the private car and the need to reduce the number of HGV trips within the urban area.

PO6: To encourage sustainable inward investment in Grantham
Policy Objective 6 recognises the economic importance of Grantham to the South Kesteven District. It acknowledges the need for sustainable growth and that this needs to be supported by the provision of appropriate transport infrastructure.

PO7: To support the regeneration of Grantham as a Sub-Regional Centre
Policy Objective 7 acknowledges the importance of Grantham, both within the County and the East Midlands region as a whole. It recognises that a vibrant and attractive town centre is essential to support that role through economic growth and tourism.

PO8: To protect and enhance the built and natural environment
Policy Objective 8 recognises the impact that high levels of traffic have on the natural and built environment within the study area.

2.4.4 During the Option appraisal process, each Option was assessed against each Policy Objective to see what contribution (positive, negative, neutral or mixed) it would have towards achieving the objective.

2.5 Problems and Issues

2.5.1 The various problem themes summarise the main areas of identified problems and issues relating to transport in Grantham. They are numbered PT1, PT2, etc and are summarised below.

PT1: Safety Issues
Issues:
- High level of HGVs within urban area
- HGVs passing through narrow streets and junctions in the town centre
- Narrow footways in town centre carry high pedestrian flows
- Lack of pedestrian-only areas in town centre increases potential for collisions
- Collisions between vehicles and non-motorised users

Effects:
- High accident numbers at many busy junctions in town centre area
- High number of pedestrians and cyclists involved in collisions with traffic
- High numbers of accidents along High Street corridor

PT2: Parking
Issues:
- Perception of lack of parking supply
- Aspiration for parking in immediate location of destination
- Residential parking issues in areas close to the town centre
- Parking demand on residential streets close to rail station
- Growing parking demand at rail station, possible capacity increases limited

Effects:
- Popular car parks over capacity
- Unpopular town centre parking locations underused
- Drivers travelling around the town centre ‘hunting’ for spaces
- Drivers parking in more than one location for a single town centre visit
- Rail travellers parking on residential streets

PT3: Public Transport Services
Issues:
- Recent bus operator disruption in the town

- Increasing level of revenue funding required to support bus and rail services
- Traffic congestion affecting bus services, particularly on High Street
- Limited number of bus stops fully accessible
- Limited number of bus services operated with DDA-compliant vehicles
- Future of existing east-west rail service patterns is threatened by re-franchising
- Uncertain future for Nottingham to Skegness rail line

Effects:

- Low bus and rail service frequencies
- Limited evening and Sunday bus and rail service provision
- Low bus patronage

PT4: Public Transport Interchange

Issues:

- Poor quality bus station not DDA compliant and under pressure from development aspirations
- Rail station severed from town centre with poor pedestrian access in all directions
- Lack of direct or good quality connection between bus and rail stations

Effects:

- Poor accessibility to rail station
- Poor interchange between bus and rail

PT5: Low Bridges

Issues:

- Low bridges west of town centre frequently struck by HGVs
- Lack of alternative east-west route through Grantham, particularly a 'full-height avoidance' route

Effects:

- Disruption to rail services caused by bridge hits
- Disruption to local highway network caused by bridge hits

PT6: Connectivity within Grantham

Issues:

- Transfer between radial routes only possible in town centre
- Road network constrained by railway lines, River Witham and historic areas of town which limits number of east-west connections
- Incomplete cycle network
- Cycle provision in town centre in need of improvement

Effects:

- Traffic congestion at key junctions on routes into and within Grantham
- Eastern side severed from rest of town
- Significant congestion connected with the 'school run'
- 'Pinch points' at key junctions which cannot be easily addressed
- Weekend congestion
- Seasonal traffic increases congestion levels
- HGVs passing through narrow streets and junctions
- Low levels of cycling

PT7: Demand for Movement

Issues:

- Increasing travel demand, traffic levels forecast to continue increasing
- Extent of forecast development within the town
- Rising car ownership

Effects:

- Traffic congestion on routes into and within Grantham
- Significant congestion connected with the 'school run'
- Weekend congestion
- Seasonal traffic increases congestion levels
- AQMA along Wharf Road
- Negative impacts on noise, landscape/townscape, biodiversity, and water environment will result from increasing traffic levels

2.5.2 During the Option appraisal process, each Option was assessed against each problem theme to see what contribution (positive, negative, neutral or mixed) it would have towards solving the problems.

2.6 Government's Five Key Objectives for Transport

2.6.1 The New Approach to Appraisal (NATA), the Government's policy framework for the appraisal of transport schemes as outlined within WebTAG (web-based Transport Appraisal Guidance), outlines the objectives for transport against which all transport schemes must be assessed. These consist of a number of sub-objectives which are used within the Appraisal Summary Table (AST), with five key overarching objectives as follows:

ENV: Environment

This objective involves reducing the direct and indirect impacts of transport facilities on the environment of transport users and non-users. It can be divided into a number of sub-objectives including noise, atmospheric pollution of differing kinds, impacts on countryside, wildlife, ancient monuments and historic buildings.

SAF: Safety

This objective is concerned with reducing the loss of life, injuries and damage to property resulting from transport incidents and crime. The objective seeks to reduce accidents and improve security.

ECN: Economy

This objective involves improving the economic efficiency of transport and the benefits that transport brings to the wider economy. This covers improving economic efficiency for transport users and providers of transport, improving the reliability of transport, and providing transport improvements which deliver good value for money.

ACC: Accessibility

This objective is concerned with the ability and ease with which people can reach different locations and facilities by different modes of transport, particularly for those without access to a private car. This includes issues such as traffic making it difficult for pedestrians to cross the road and the value people place on having different travel options available to them.

INT: Integration
This objective aims to ensure that all decisions are taken in the context of the Government's integrated transport and land-use policies. It also addresses issues of transport interchange.

2.6.2 During the Option appraisal process, each Option was assessed against each of the above objectives to see what contribution (positive, negative, neutral or mixed) it would make towards achieving the objectives.

3.0 Option Appraisal

3.1 Introduction

3.1.1 Following the identification of Option Packages in Phase 1 of the study process (see TN4), individual Options were developed further to produce the Options appraised here and as outlined in the Option Description Sheets (ODSs) in Appendix A. This appraisal process included consideration of issues relating to cost, funding source, timescale, relationship to other Options, feasibility and acceptability, all of which are summarised in the ODS.

3.1.2 The results of the Option appraisal process are contained in the Option Appraisal Sheets (OASs) in Appendix A. Each OAS contains a brief qualitative comment relating to the impact of the Option on each outcome, objective and theme, together with the score that was given.

3.2 Results

3.2.1 Table 3.1 below summarises the results of the Option appraisal scoring process.

Option	Outcomes	Policy Objectives	Problem Themes	National Objectives	Total Score
A2	1	2	2	3	**8**
A6	7	7	3	4	**21**
A7	4	5	5	5	**19**
B1	4	3	4	3	**14**
B3	8	6	4	3	**21**
C2	4	3	3	1	**11**
C3	6	7	1	2	**16**
D1	7	6	4	2	**19**
D3	5	5	3	3	**16**
D4	5	3	1	3	**12**
D6	2	6	2	4	**14**
E1	2	2	2	0	**6**
E3	6	6	3	1	**16**
E4	2	1	2	4	**9**
E5	4	1	3	1	**9**
E6	4	5	4	4	**17**
E7	6	7	4	4	**21**
E8	7	4	2	3	**16**
F1	6	4	6	4	**20**
F2	5	5	3	4	**17**
G1	7	7	3	4	**21**
G2	3	7	4	4	**18**
H1	3	3	1	2	**9**
H2	8	7	3	5	**23**
H3	6	5	3	4	**18**
I1	5	5	2	3	**15**

Table 3.1: Option Appraisal Scoring Summary

3.2.2 Figure 3.1 below shows a graphical plot of these results.

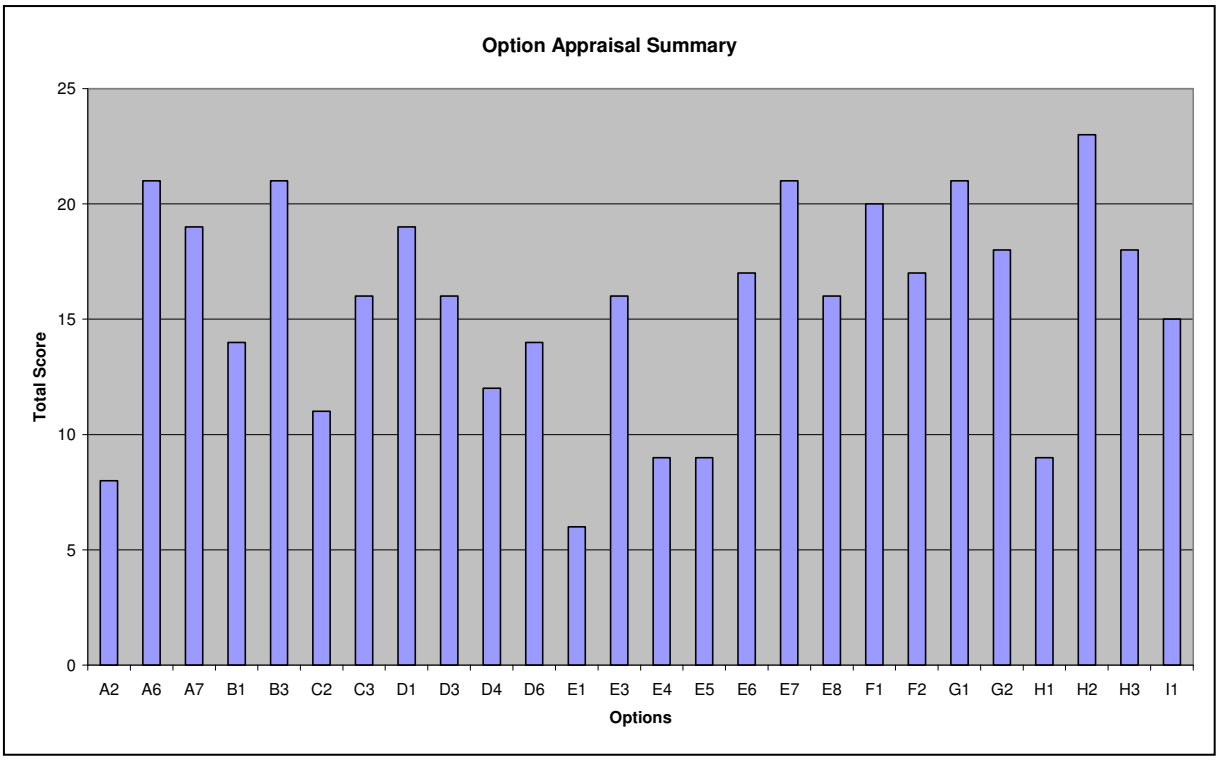


Figure 3.1: Option Appraisal Scoring Summary

3.2.3 The top five ranking Options are as follows:

- H2: Improve quality of bus services (23 points)
- A6: Further town centre traffic management (21 points)
- B3: New bus station (21 points)
- E7: East-West bypass (21 points)
- G1: Create high quality pedestrian routes & crossing facilities (21 points)

3.2.4 It can be seen that there is a large spread of scores across the different Options. The highest scoring Option had 23 points (H2: Improve quality of bus services), and the lowest scoring Option (E1: Pennine Way link) had 6 points.

3.2.5 Figure 3.2 overleaf shows a graphical representation of the results of the appraisal of each Option against each Strategy Outcome, representing each score with a coloured box. This demonstrates the extent to which each Strategy Outcome is achieved by the various proposed Options.

	Strategy Outcomes	Options																										
		A2	A6	A7	B1	B3	C2	C3	D1	D3	D4	D6	E1	E3	E4	E5	E6	E7	E8	F1	F2	G1	G2	H1	H2	H3	I1
A	Reduced private vehicle levels in the town centre area																										
B	Safer environment with increased pedestrian space and facilities																										
C	Improved management of on and off-street parking																										
D	Sufficient parking provided to aid the economic success of the town centre																										
E	Improved reliability of bus services																										
F	Improved levels of bus services accessible to all users																										
G	Improved connectivity between bus and rail																										
H	Improved waiting environment for public transport users at key locations																										
I	Clear and attractive links between public transport services and town centre																										
J	Reduced number and severity of bridge hits																										
K	Maximised efficiency of all junctions																										
L	Increased level of walking & cycling trips throughout the town																										
M	Reduced proportion of car trips to all new developments																										
N	Economic growth achieved alongside an increase in sustainable travel																										
O	Improved air quality within the Air Quality Management Area																										

Key: Significant Positive Impact; Slight Positive Impact; No Effect/Mixed Impact; Slight Negative Impact; Significant Negative Impact

Figure 3.2: Result of Appraisal Against Strategy Outcomes

3.3 Sensitivity Testing

3.3.1 In order to confirm the reliability of the results discussed above, a sensitivity test was carried out on the results of the Option appraisal process. This was deemed necessary due to the natural weighting implicit within the scoring system used, which was in favour of Strategy Outcomes (as there are 15 of these which each present an equal scoring opportunity) and against the National Objectives (as there are only 5 of these).

3.3.2 A spreadsheet was set up to enable different weightings to be applied to the subtotals. Five tests were applied to the results, each with the particular weighting shown (where the numbers in brackets represent the relative weighting of Strategy Outcomes, Policy Objectives, Problem Themes, National Objectives) as follows:

- **Existing weighting (15, 8, 7, 5)** – this used the same weighting as in the simple totals shown above, based on the fifteen Strategy Outcomes, eight Policy Objectives, seven Problem Themes and five National Objectives. This was used as the reference indicator against which to measure the impact of the other weighting tests.
- **Equally weighted (1, 1, 1, 1)** – this test used the percentage overall score for each scoring set and applied an equal weighting to it. Thus the overall performance of the Option is measured with an equal proportion of the score derived from each scoring set.
- **Outcome-weighted (3, 1, 1, 1)** – this test used the percentage overall score for each scoring set and applied a weighting to it, giving half of the score from the results of the Strategy Outcomes and the other half to the other three scoring sets.
- **Objective-weighted (1, 3, 1, 1)** – this test used the percentage overall score for each scoring set and applied a weighting to it, giving half of the score from the results of the Policy Objectives and the other half to the other three scoring sets.
- **Problem-weighted (1, 1, 3, 1)** – this test used the percentage overall score for each scoring set and applied a weighting to it, giving half of the score from the results of the Problem Themes and the other half to the other three scoring sets.

3.3.3 Whilst these weightings altered the results of each of the Option's scores, the overall picture did not materially change under any of the tests. The average variation in scores for each test, when compared with the reference test (with the existing weightings) was as follows:

- Equally weighted: 10% average variation, 31% maximum;
- Outcome-weighted: 3% average variation, 9% maximum;
- Objective-weighted: 17% average variation, 45% maximum;
- Problem-weighted: 12% average variation, 25% maximum.

3.3.4 The higher variation in the objective-weighted test is due to the higher average score gained for each Option within the Policy Objectives. The graph of all test results is shown in Appendix B. It is considered that the sensitivity testing carried out reinforces the overall results of the Option appraisal process.

4.0 Option Prioritisation

4.1.1 The results of this Option appraisal process have been used in the development of the Transport Strategy for Grantham during the prioritisation of the various Options. This process was also informed by the results from the traffic modelling work carried out using the specialist software packages VISSIM and SATURN (see Technical Note 7) and the public consultation process (see Technical Note 9).

4.1.2 At the JOG Workshop on 19th April 2007, all of the Options appraised here were discussed in more detail. The summary sheet of all of the information used in this workshop is contained in Appendix C.

4.1.3 Following discussions at the workshop, the Options were re-ordered based on the priorities discussed at the meeting. Groupings were revised to reflect the different funding and delivery mechanisms that would apply to different Options. The summary sheet showing the revised Option groupings is shown in Appendix D. This will form the basis of the Transport Strategy for Grantham.

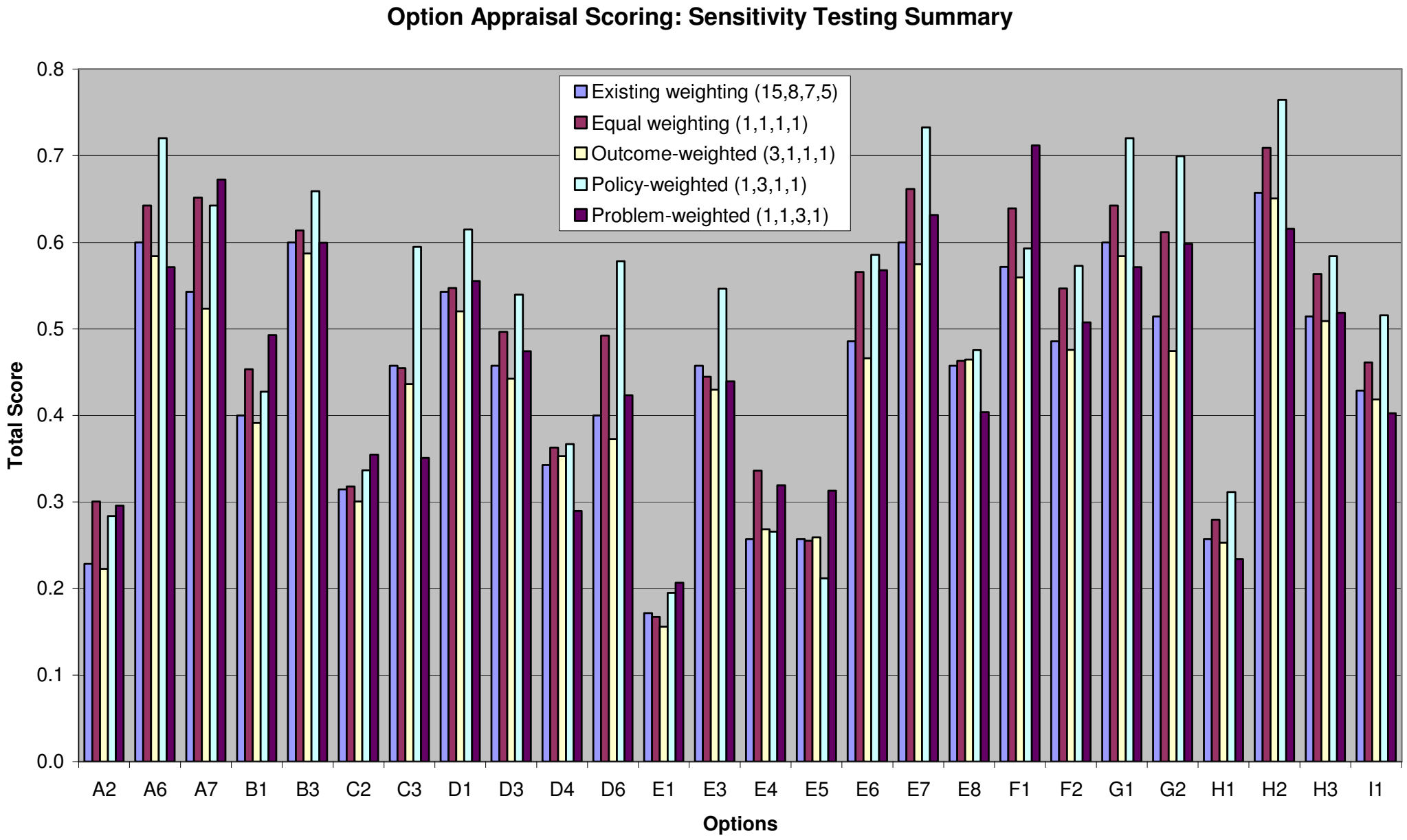
4.1.4 It is currently intended that the Strategy will be presented to District and County Councillors during 2007 for approval.

Appendix A: Option Description & Appraisal Sheets (ODSs & OASs)

The following terms and abbreviations are used within Appendix A:

CRP	Community Rail Partnership
DDA	The Disability and Discrimination Act (1995)
DfT	The Department for Transport
ECML	The East Coast Main Line
GNER	The current train operating company on the ECML
HGV	Heavy goods vehicle
JOG	Joint Officer Group
LCC	Lincolnshire County Council
LTP	Local Transport Plan; also funding made available through the LTP process, known at the Integrated Transport Block
LTP1	The first Lincolnshire Local Transport Plan, 2001-2006
LTP2	The second Lincolnshire Local Transport Plan, 2006-2011
PT	Public transport
S106	Section 106, a legal planning agreement made between the Local Authority and a developer that as part of the development, funds will be contributed for the LA to use for improving infrastructure
SCOOT	Signal Cycle Offset Optimisation, a system that controls many of Grantham's traffic lights
SKDC	South Kesteven District Council
TIF	Transport Innovation Fund
TM	Traffic management

Appendix B: Sensitivity Testing Summary Graph


Option Appraisal Scoring: Sensitivity Testing Summary
Existing weighting (15,8,7,5)
Equal weighting (1,1,1,1)
Outcome-weighted (3,1,1,1)
Policy-weighted (1,3,1,1)
Problem-weighted (1,1,3,1)
Total Score
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
A2
A6
A7
B1
B3
C2
C3
D1
D3
D4
D6
E1
E3
E4
E5
E6
E7
E8
F1
F2
G1
G2
H1
H2
H3
I1
Options

Appendix C: Option Summary Table

	Information					Results		Decision
		Option	Timescale	Outline Cost	Funding Source	Public Consultation	Option Appraisal	For Completion at Workshop
Making Grantham a better place in which to live, work and shop	**Town Centre Traffic Management/Junc Improvements**							
	A2	High Street shuttle working & footway widening	Short Term	£250k-£1m	LTP	Short: 15%	8	
	A6	Further town centre traffic management	Long Term	£250k-£1m	Developer/LTP	Long: 34%	21	
	A7	Further junction improvements	Long Term	Unknown	Developer	-	19	
	Bus Station							
	B1	Minimal bus station enhancements for DDA compliance	Short Term	£50k-£250k	SKDC	-	14	
	B3	New bus station	Long Term	>£1m	Developer/SKDC	Long: 28%	21	
	Parking							
	C2	Introduce residents' parking schemes	Short Term	Revenue	SKDC	Short: 17%	11	
	C3	Improve town centre parking quality & management	Ongoing	Rev/Cap	SKDC	Short: 55%	16	
Making the most of the rail station	**Rail Station Access/Connectivity**							
	D1	Improve pedestrian route between rail station and town centre	Short Term	<£50k	LTP/SKDC	-	19	
	D3	Extend bus routes to rail station	Short Term	Revenue	Uncertain	Short: 17%	16	
	D4	Redevelop area around rail station	Short Term	>£1m	Developer/SKDC	Short: 25%	12	
	D6	Support improvements to Poacher Line CRP	Ongoing	Unknown	Various	Long: 18%	14	
Relieving constraints to movement	**Infrastructure Investment**							
	E1	Pennine Way link	Long Term	>£1m	Developer	Long: 57%	6	
	E3	Inner Relief Road	Long Term	>£1m	Developer	Long: 41%	16	
	E4	Lower road under rail bridge	Short Term	£250k-£500k	LTP	Short: 34%	9	
	E5	Improve signing in and around Grantham	Ongoing	None	LCC Highways	-	9	
	E6	Introduce further bridge protection systems	Short Term	Unknown	LTP/NR	-	17	
	E7	East-West bypass	Long Term	>£5m	Developer	Long: 80%	21	
	E8	Control centre to support intelligent transport systems	Long Term	>£5m	Central gov	Short: 18%	16	
Providing alternative travel options	**Influencing Travel Behaviour**							
	F1	Further encourage modal shift on 'school run'	Short Term	Revenue	LTP/SKDC	-	20	
	F2	Increase promotion of sustainable travel	Ongoing	Unknown	LTP/SKDC	-	17	
	Pedestrian and Cycle Routes							
	G1	Create high quality pedestrian routes and crossing facilities	Short Term	>£1m	LTP	Short: 36%	21	
	G2	Create comprehensive cross-town cycle network	Short Term	£50k-£250k	LTP	Short: 17%	18	
	Bus Services							
	H1	Improve quality of bus stops	Short Term	Unknown	LTP	Short: 4%	9	
	H2	Improve quality of bus services	Short Term	Rev/Cap	LTP/Dev	Short: 46%	23	
	H3	Improve level of evening & weekend services	Long Term	Revenue	Operator/Other	Long: 30%	18	
	Development Control							
	I1	Ensure all development results in an improved transport system	Ongoing	None	Not Applicable	-	15	

Appendix D: Revised Option Summary Table

Information					Results		Decision
	Option	Timescale	Outline Cost	Funding Source	Public Consultation	Option Appraisal	For Completion at Workshop
Audit of Transport Provision (Signing, NMU) - SHORT TERM, LTP FUNDED							
C3	Improve signing for town centre parking	Ongoing	Unknown	LTP	Short: 55%	16	Scale dependent on outcome of audit
D1	Improve pedestrian route between rail station and town centre	Short Term	Unknown	LTP	-	19	Scale dependent on outcome of audit
E5	Improve signing in and around Grantham	Ongoing	Unknown	LTP	-	9	Scale dependent on outcome of audit
G1	Create high quality pedestrian routes and crossing facilities	Short Term	Unknown	LTP	Short: 36%	21	Scale dependent on outcome of audit
G2	Create comprehensive cross-town cycle network	Short Term	Unknown	LTP	Short: 17%	18	Scale dependent on outcome of audit
Improve Quality of Bus Services - SHORT TERM, LTP FUNDED							
H2	Improve quality of bus services	Short Term	Revenue	LTP/Developer	Short: 46%	23	Could include LTP-funded 'IntoTown'-type service
F1	Further encourage modal shift on 'school run'	Short Term	Revenue	Unclear	-	20	Follow-on measure from the above once implemented
H3	Improve level of evening & weekend services	Long Term	Revenue	Operator/Other	Long: 30%	18	Follow-on measure from the above once implemented
F2	Increase promotion of sustainable travel	Ongoing	Unknown	Unclear	-	17	Follow-on measure from the above once implemented
H1	Improve quality of bus stops	Short Term	Unknown	LTP	Short: 4%	9	To be included within the above as appropriate
Town Centre Traffic Management - SHORT TERM, LTP FUNDED							
A1	Market Place scheme	Short Term		LTP/SKDC	-	-	SKDC to continue to pursue
A6	Further town centre traffic management	Long Term	£250k-£1m	LTP/SKDC	Long: 34%	21	Extent of Option unclear, could involve HGV restrictions etc
Bridge Protection Measures - SHORT TERM, LTP FUNDED							
-	Network Rail intelligent signing scheme	Short Term		Network Rail	-	-	To be implemented shortly
E6	Introduce further bridge protection systems	Short Term	Unknown	LTP	-	17	To be considered if the above proves ineffective
E4	Lower road under rail bridge	Short Term	£250k-£500k	LTP	Short: 34%	9	To be considered if the above proves ineffective
Highway Infrastructure Schemes - LONG TERM, DEVELOPER FUNDED							
E1	Pennine Way link	Long Term	>£1m	Developer	Long: 57%	6	Funding to be pursued
E7	East-West bypass	Long Term	>£5m	Developer	Long: 80%	21	Funding to be pursued
A7	Further junction improvements	Long Term	Unknown	Developer	-	19	Lower priority for funding at this stage
New Development to Include Transport Scheme - LONG TERM, DEVELOPER FUNDED							
B3	New bus station	Long Term	>£1m	Developer/SKDC	Long: 28%	21	Scheme to be pursued in due course
D4	Redevelop area around rail station	Long Term	>£1m	Developer/SKDC	Short: 25%	12	Scheme to be pursued in due course
Ongoing Influence of Public Transport Operators Where Possible - SUPPORTED BY THE STRATEGY							
D3	Encourage bus operators to serve rail station	Short Term	Unknown	Operator/Other	Short: 17%	16	Ongoing discussions required
D6	Support improvements to Poacher Line CRP	Ongoing	Unknown	Various	Long: 18%	14	Ongoing issue
H3	Improve level of evening & weekend services	Long Term	Revenue	Operator/Other	Long: 30%	18	Not appropriate to pursue at present due to funding issues
Ongoing Processes to be Continued as Appropriate - SUPPORTED BY THE STRATEGY							
C2	Introduce residents' parking schemes	Short Term	Revenue	SKDC	Short: 17%	11	To be considered once LCC DPE situation clarified
C3	Improve town centre parking quality & management	Ongoing	Revenue	SKDC	Short: 55%	16	Ongoing management issue for SKDC
I1	Ensure all development results in an improved transport system	Ongoing	None	Not Applicable	-	15	Ongoing management issue for LCC Dev Control
Long-term Aspirations with Insufficient Funding - VERY LONG TERM, UNKNOWN FUNDING							
E8	Control centre to support intelligent transport systems	Long Term	>£5m	Central gov	Short: 18%	16	Not feasible at present but remains an aspiration
F2	Personalised travel planning	Long Term	Unknown	Unclear	-	17	Not feasible at present but remains an aspiration
Schemes Considered Outside of the Strategy - NOT INCLUDED WITHIN STRATEGY							
A2	High Street shuttle working & footway widening	Short Term	£250k-£1m	LTP	Short: 15%	8	Little support from public and stakeholders
B1	Minimal bus station enhancements for DDA compliance	Short Term	£50k-£250k	SKDC	-	14	Legal requirement
E3	Inner Relief Road	Long Term	>£1m	Developer	Long: 41%	16	Not supported by results from traffic modelling work