

ABERDEEN CITY COUNCIL

COMMITTEE Aberdeen City Council

DATE 6 March 2013

DIRECTOR Gordon McIntosh

TITLE OF REPORT Progression of the Access from the North Proposals
("Third Don Crossing") and A96 Park and Choose/Dyce Drive Link Road

REPORT NUMBER: EPI/13/022

1. PURPOSE OF REPORT

- 1.1 In accordance with the instruction of the Council on 19th December 2012, this report sets out the most efficient options to deliver the Third Don Crossing as quickly as possible. It also advises on the progression of the A96 Park and Choose/Dyce Drive Link Road and advises the best option for its delivery.

2. RECOMMENDATION(S)

- 2.1 It is recommended that the Council authorises officers to:
- a) progress construction of the Access from the North Proposals ("Third Don Crossing") on a "works only" approach outwith the arrangements for the Aberdeen Western Peripheral Route \Balmedie to Tipperty (AWPR\B-T); and
 - b) progress construction of the A96 Park and Choose/Dyce Drive Link Road on a "works only" approach outwith the arrangements for the Aberdeen Western Peripheral Route\Balmedie to Tipperty (AWPR\B-T), and
 - c) take all necessary actions to progress the projects including discussing budget provision with appropriate officers.

3. FINANCIAL IMPLICATIONS

- 3.1 The following capital funding has been allocated to progress the Third Don Crossing and the A96 Park and Choose/Dyce Drive Link Road:

Third Don Crossing: £15.36M

A96 Park and Choose/
Dyce Drive Link Road: £15.2M

The currently approved five year capital budget profiles for the two projects are:

Third Don Crossing

2013/14	2014/15	2015/16	2016/17	Total
£5.18M	£5.23M	£3.28M	£1.67M	£15.36M

A96 Park & Ride/Link Road

2013/14	2014/15	2015/16	2016/17	Total
£0.1M	£2.6M	£7.5M	£5.0M	£15.2M

Dependant upon the decision of Council there may be a need to re-profile this expenditure.

- 3.2 Progressing both schemes as standalone projects should reduce their delivery cost to the Council. However, it will require the Council to take a greater share of both projects' financial risk than would be case if they were incorporated into the AWPR\B-T Main Works Contract whereby the successful contractor(s) will carry the greater share of project delivery risk and its associated costs.
- 3.3 Both projects will increase the length of road that needs to be maintained from the Council's revenue budget and will increase the settlement received from the Scottish Government under the normally applied formula.
- 3.4 Council Members should note that there is a separate report in the Council papers relating to the Council's funding of the AWPR.

4. OTHER IMPLICATIONS

- 4.1 Progressing the Third Don Crossing will require the making of a General Vesting Declaration and serving notice of its making on all affected landowners, tenants and occupiers. It will also require the Scottish Government's permission to transfer land from the Council's housing revenue account. Progressing the A 96 Park and Choose/Dyce Drive Link Road will require taking title to the necessary land by way of a statutory conveyance and the serving of notices on affected landowners to obtain entry.
- 4.2 The planning approvals for both projects require various environmental requirements to be incorporated into their design and construction.

- 4.3 Progressing either project will require the use of both Council staff resources and those of specialist consultants.
- 4.4 The delivery of both projects will include the performance of road safety audits.
- 4.5 There may be a need to conclude agreements with owners to allow necessary accommodation works to be built.
- 4.6 Further reports will be submitted to relevant Council Committees seeking their approval prior to the issue of tender documents.

5. BACKGROUND/MAIN ISSUES

ACCESS FROM THE NORTH PROPOSALS ("THIRD DON CROSSING")

Background

- 5.1 During 2003 and 2004 options were investigated to resolve congestion problems in the north of the City. This resulted in the Council selecting a preferred line for the Third Don Crossing at its meeting on 30th June 2004 with a preferred design agreed on 26th October 2005. As a result of these decisions a land survey has been carried out, further traffic modelling and environmental assessments performed, further design work progressed, site investigations carried out, planning approval obtained and a compulsory purchase order progressed.
- 5.2 At its meeting of 10th February 2011 the Council instructed officers to enter into negotiations with the Scottish Government with a view to having the Third Don Crossing delivered as part of the Aberdeen Western Peripheral Route (AWPR) contract, although still funded 100% by the Council. The AWPR project now includes the delivery of the A90 Balmedie to Tippetty dualling improvement (located to the north of Aberdeen) and the project is to be procured via a Non Profit Distributing (NPD) model contract. It is now referred to as the AWPR\B-T project.
- 5.3 Since that time discussions have been held with the Scottish Government, Transport Scotland and the AWPR Managing Agent to consider the inclusion of the Third Don Crossing in the AWPR/B-T contract. Preparation work for the AWPR\B-T contract has continued to progress, however, a final decision has still to be made as to whether or not to include the Third Don Crossing as part of it.

- 5.4 At its meeting of 19th December 2012, Aberdeen City Council reaffirmed its existing commitment to the Third Don Crossing on the previously identified site and route and called for a report to the next Council meeting on the most efficient options to deliver this as quickly as possible.

Alternative Methods of Delivery

- 5.5 The Council has traditionally delivered road improvement projects by progressing their detailed design prior to the award of a construction works only contract (works only approach). The AWPR\B-T will be delivered by a different mechanism whereby a single contract will incorporate the detailed design, construction, operation and maintenance of the required work for a 30 year period post opening.
- 5.6 If the Third Don Crossing were to be included within the AWPR\B-T project, it will be treated as a stand-alone element, paid for in its entirety by the Council and will only include the detailed design and construction of the scheme - it will not include operation and maintenance. Payments will be made as key construction milestones are delivered (design and build approach).
- 5.7 Table 5.1 and the following paragraphs outline the relative benefits of these two different approaches. A Third Don Crossing layout plan and indicative design can be found in Appendix 1. A risk assessment can be found in Appendix 3.

<u>Factor</u>	<u>Most Advantageous Option</u>
Lowest Cost (paras 5.9, 5.10, 5.11, 5.14 and 5.15)	Works Only
Lowest Risk to the Council (para 5.10)	Design and Build
Maintainability (para 5.11)	Works Only
Mitigating Impact During the Works (para 5.12)	Works Only
Earliest Opening Date (paras 5.18 and 5.19)	Works Only
Scope for use of medium sized contractors (para 5.16)	Works Only
Potential loss of specialist consultancy support (para 5.17)	Works Only

Table 5.1

- 5.8 The works only and the design & build approaches will both require the Third Don Crossing to be funded from the Council's Capital budget and will require the draw down of capital funds as work progresses.
- 5.9 Under a 'works only' approach typically six to eight contractors will be invited to tender with the contract normally being awarded to the contractor returning the lowest tender; a mixture of medium sized and large contractors will typically be invited to tender. As part of the AWPR\B-T tendering process, the design and build approach will

involve a two stage tendering arrangement with an initial four bidders being reduced to a final two who will submit a price for the project. Giving consideration to the scale of the respective projects it is clear that the award of the AWPR\B-T contract will be based upon the needs of the AWPR\B-T rather than the Third Don Crossing. There is, therefore, no guarantee that the successful bidder will be the one that offers the most economically advantageous tender for the Third Don Crossing. Indeed it is conceivable that the prices received from only two bidders will be less competitive than the price received from the lowest of six to eight tenders under the works only approach.

- 5.10 In design and build contracts the contractor is commissioned to carry out both the detailed design and the construction of a project. This form of contract seeks to transfer much of the risk to the contractor. This risk transfer includes many risks associated with unforeseen events/circumstances that could lead to increased costs during the construction of a 'works only' contract. By reducing the risk to the Council it is probable that the design and build approach will indeed offer increased surety of cost. However, as a result of the increased transfer of risk to the Contractor it is inevitable that the design and build approach will lead to a higher initial tender price since the winning consortium will wish to cover their increased risk. The design and build approach also incurs other additional costs. For instance not only does the winning consortium have to employ a design consultant but the Council will also have to appoint a designer/consultant to check the contractor's design. There is also a need to have two groups of designers/consultants involved at the construction stage. When all costs are taken into account, it is probable that the delivery cost of a works only approach will be lower than that of a design and build approach for this particular project. It is therefore considered that a works only approach will represent better value for money.
- 5.11 The Council will have greater input into the maintainability of the project under a works only approach. In this scenario the designer will either be the Council itself or a consultant employed directly by the Council and it is probable that greater emphasis will be placed on medium and longer term maintenance requirements. Under a design and build contract the contractor's designer may have less interest in maintainability of the project over its whole lifespan since the contractor will only have to repair construction defects for a period of five years after completion of the project.
- 5.12 Although it will be impossible to completely avoid adverse impacts, any additional instruction to provide further mitigation measures should they be identified as being necessary as the works progress, will probably incur less costs under a works only approach. Under a design and build option the Council will probably pay a premium should it require the contractor to take additional mitigation action as the works progress.

- 5.13 The Third Don Crossing is not contiguous with the AWPR\B-T and therefore inclusion within the AWPR\B-T main works contract will provide only limited benefit with regard to the ability to transfer earthworks and carriageway materials between the two projects. Indeed the manner in which bidders price the use of earthworks and carriageway materials could offset costs attributable to the AWPR\B-T to the Third Don Crossing.
- 5.14 The purchasing power of the AWPR\B-T will be such that an AWPR\B-T approach will provide scope for a reduction in the price of some propriety products used within the Third Don Crossing. However, due to the urban nature of the Third Don Crossing and the rural nature of the AWPR\B-T this benefit may only apply to a limited number of products.
- 5.15 Delaying the tender process of a works only Third Don Crossing approach until after the AWPR\B-T is awarded could lead to an increase in the cost of a works only contract. This is due to the increased demand for contracting resources that may result from the AWPR\B-T award and further inflation cost.
- 5.16 A Works only approach will increase the possibility that the Third Don Crossing contract will be won by a medium sized contractor. Given the scale of the AWPR\B-T contract, its main contractor will almost certainly be a major company or companies (joint venture) operating on an international scale. While a major company may sub-contract some of the construction work to small and medium sized contractors there is no guarantee that this will happen.
- 5.17 The major bridges within the Third Don Crossing are being designed by a specialist consultant. If the Third Don Crossing is included within the AWPR\B-T bundle of projects this specialist consultant has indicated that they will cease to be available to support preparation of the Third Don Crossing because it is anticipated that they will form part of a consortium bidding for the AWPR\B-T contract. The loss of this consultant's support will make it extremely difficult for the Council's to deliver the required documentation for inclusion of the project within the AWPR\B-T.

Timetable

- 5.18 The earliest delivery of the Third Don Crossing would be obtained under a works only approach and the following timetable should be achievable:

Spring 2013: issue required European notification advertising for prospective tenderers;
progress general vesting declaration to obtain land entry;
obtain Scottish Government approval to transfer housing account land to the roads account;

Late Summer

2013: complete detailed design;
issue works tenders to between 6 and 8 tenderers;

Autumn 2013: award works contract
commence construction;

Autumn 2015: substantial completion of project and Third Don Crossing
open to traffic.

Notes: 1. the general vesting declaration is part of the land
purchase procedure.

2. although the project would be opened to traffic in
2015, it may be 2017 before the final financial account is
settled.

5.19 The timetable under the design and build approach as part of the
AWPR\B-T contract will be:

March 2013: complete preparation of draft tender documentation for
inclusion in AWPR\B-T procurement process

Spring 2013: progress general vesting declaration to obtain land entry;
obtain Scottish Government approval to transfer housing
account land to the roads account

Spring 2013: begin tender process

Early 2014: number of bidders reduced from four to two

Autumn 2014: AWPR\B-T contract awarded

Spring 2018: The completion date of the Third Don Crossing will be
subject to negotiation but will be at late 2016 for its
earliest and no later than Spring 2018.

Notes: 1. it may be difficult to meet the required date for
completion of preparation of draft AWPR\B-T tender
documentation given that this date is only two weeks after
the date of this Council meeting.

2. the general vesting declaration is part of the land
purchase procedure.

Budget Requirements

- 5.20 The following allowance has been made in the Council's Capital Budget for the Third Don Crossing:

2013/14	2014/15	2015/16	2016/17	Total
£5.18M	£5.23M	£3.28M	£1.67M	£15.36M

- 5.21 If a works only approach is used and the works contract is awarded in October 2013, the Capital Budget requirement will be:

2013/14	2014/15	2015/16	2016/17	Total
£5.18M	£5.23M	£3.28M	£1.67M	£15.36M

- 5.22 If a design and build approach is used the Capital Budget requirement will be:

2013/14	2014/15	2015/16	2016/17	2017/18	Total
£0.1M	£3.3M	£8.3M	£5.1M	£0.1M	£16.9M

- 5.23 The estimates for all of the above scenarios allow for all project costs including land, design, supervision, construction, and an allowance for cost increases during construction.

Summary

- 5.24 Adopting a design and build approach for the Third Don Crossing will provide the Council with greater certainty of the project's outturn cost. However, it is probable that the cost of delivering the Third Don Crossing via a works only approach will be lower than that of delivery by the AWPR\B-T mechanism. The design and build approach also raises maintenance concerns and may lead to cost premiums for any scope changes to the works. The Council's officers therefore consider that the reduced risk under the design and build approach does not justify its probable higher cost overall. It is therefore recommended that the Third Don Crossing is procured via a works only approach.

A96 PARK AND CHOOSE/DYCE DRIVE LINK ROAD

Background

- 5.25 The Council's Policy and Strategy Committee selected the preferred option for the A96 Park and Choose Car Park at its meeting on 29th April 2008.
- 5.26 At its meeting on 5th February 2009, the Resources Management Committee, as part of its consideration of a report on the Dyce Drive Strategic Infrastructure Masterplan, instructed that the entire length of a

proposed link road between the AWPR and Argyll Road should be progressed in conjunction with the A96 Park and Choose proposals. This link road provides the primary access/egress to the Park and Choose site.

- 5.27 Planning approval for the A96 Park and Choose/Dyce Drive Link Road was sought on 7 May 2010 (reference 100771) and was subsequently granted by Elected Members of the Development Management Sub-Committee meeting on 19 August 2010 (Article 5 refers).

Alternative Methods of Delivery

- 5.28 As stated in paragraph 5.5, the Council has traditionally delivered road improvement projects by progressing their detailed design prior to the award of a construction works contract (works only approach). However, officers have been asked to enter into negotiations with the Scottish Government with a view to having the A96 Park and Choose/Dyce Drive Link Road delivered as part of the Aberdeen Western Peripheral Route contract, although again funded by the Council.
- 5.29 If the A96 Park and Choose/Dyce Drive Link Road were to be included within the AWPR\B-T project, it will be treated as a stand-alone element, paid for in its entirety by the Council and will only include the detailed design and construction of the scheme - it will not include operation and maintenance. Payments will be made as key construction milestones are delivered (design and build approach).
- 5.30 Table 5.2 and the following paragraphs outline the relative benefits of these two different approaches. A layout plan and indicative design can be found in Appendix 2. A risk assessment can be found in Appendix 4.

<u>Factor</u>	<u>Most Advantageous Option</u>
Lowest Cost (paras 5.9, 5.10, 5.11, 5.14, 5.15 and 5.34)	Works Only
Lowest Risk to the Council (paras 5.11 and 5.12)	Design and Build
Maintainability (para 5.13)	Works Only
Earliest Opening Date (paras 5.35 and 5.36)	Works Only
Scope for use of medium sized contractors (para 5.16)	Works Only
Potential Interface Issues between an A96 Park & Choose/Link Road Works Only Contract and the AWPR\B-T) Contract (para 5.33)	Design and Build

Table 5.2

- 5.31 With regard to funding both approaches will require the project to be funded from the Council's Capital budget and will require the draw down of capital funds as work progresses.
- 5.32 The issues discussed in paragraphs 5.9 to 5.11 and 5.14 are also relevant to the choice of delivery method for the A96 Park and Choose/Dyce Drive Link Road.

- 5.33 Under a works only approach the Council may well appoint a different contractor to that constructing the AWPR\B-T. If both sets of works were carried out within the same timeframe this could lead to construction related programming issues at the interface of the two projects. However, these matters should be resolvable and should not lead to significant cost increases.
- 5.34 Unlike the Third Don Crossing, the A96 Park and Choose/Dyce Drive Link Road is contiguous with the AWPR and therefore a design and build approach as part of the AWPR/B-T contract will provide the ability to transfer earthworks and carriageway materials between the two projects. It is still the case that the manner in which AWPR\B-T bidders price the use of earthworks and carriageway materials could offset costs attributable to the AWPR\B-T to the Third Don Crossing. However, on balance, the proximity of the projects makes this less likely and there is an increased probability that there may be a saving to the Council.

Timetable

- 5.35 A potential timetable for a works only approach is:

Spring 2013: issue required European notification advertising for prospective tenderers

Autumn 2013: complete detailed design
issue works tenders to between 6 and 8 tenderers

Winter 2013/14: award works contract
commence construction

Spring 2015 earliest potential opening date of the link road (see Notes 2 and 3)

Autumn 2015: substantial completion of the entire project and open to traffic. (However, the full benefits of the project will not be obtained until the AWPR/A96 Craibstone Junction is open)

Notes: 1. Although the project will be opened to traffic in 2015, it may be 2017 before the final financial account is settled.

2. Bearing in mind the congestion reduction and development opportunities that the new Link Road will provide, Members may wish to require the link road to be given priority within the project's construction programme. However, achieving this accelerated programme might require a contract award date in early winter 2013/14 which would require the availability of

increased staff resources and the timeous supply of information and approvals from 3rd parties such as utilities.

3. It should be borne in mind that to get the full benefit of the Link Road its delivery will need to closely aligned to the delivery of the new AWPR\B-T A96 Junction along with the improvements to the existing Dyce Drive/A96 junction.

5.36 The timetable under the design and build approach will be:

- March 2013: complete preparation of draft tender documentation for inclusion in AWPR\B-T tender
- Spring 2013: begin tender process
- Early 2014: number of bidders reduced from four to two
- Autumn 2014: AWPR\B-T contract awarded
Commence construction
- Late 2015: earliest date on which project will be open to traffic.

Notes: 1. it may be difficult to meet the required date for completion of preparation of draft AWPR\B-T tender documentation given that this date is only two weeks after the date of this Council meeting.

Budget Requirements

5.37 The following allowance has been made in the Council's Capital Budget for the A96 Park and Choose/Dyce Drive Link Road:

2013/14	2014/15	2015/16	2016/17	Total
£0.1M	£2.6M	£7.5M	£5.0M	£15.2M

This would equate to a contract award date of November 2014 under a works only approach.

5.38 If a works only approach is used and the works contract is awarded in winter 2013, the Capital Budget requirement will be:

2013/14	2014/15	2015/16	2016/17	Total
£5.18M	£5.31M	£3.2M	£1.51M	£15.2M

This represents the scenario for the earliest possible delivery of the link road.

- 5.39 If a design and build approach is used the Capital Budget requirement will be:

2013/14	2014/15	2015/16	2016/17	Total
£0.1M	£8.2M	£8.1M	£0.1M	£16.5M

- 5.40 The estimates for all of the above scenarios allow for all project costs including land, design, supervision, construction, and an allowance for cost increases during construction.

Summary

- 5.41 The argument for a works only approach to be used for the A96 Park and Choose/Dyce Drive Link Road is weaker than it is for the Third Don Crossing. There clearly is potential for reduced costs arising from the transfer of materials etc. between the AWPR\B-T and the Park & Choose/Dyce Drive Link Road projects. It is also the case that a single contractor building both projects will remove the need for two independent contractors to jointly agree the programming of works at their interface. Nonetheless, it is still probable that the cost of delivering the Park and Choose/Dyce Drive Link Road via a works only approach will be lower than that of delivery by the design and build mechanism. A works only approach is also capable of delivering the project at an earlier date, although it is recognised that this delivery has to be phased with localised AWPR\B-T works (A96) to achieve its full benefits. Therefore, on balance officers consider that the reduced risk under the design and build approach does not justify its probable higher cost. It is therefore recommended that the A96 Park and Choose/Dyce Drive Link Road is procured via a works only approach.

6. IMPACT

- 6.1 The contents of this report link to the Community Plan vision of creating a "sustainable City with an integrated transport system that is accessible to all".
- 6.2 The projects will contribute to delivery of the Smarter Mobility aims of *Aberdeen – The Smarter City*: "We will develop, maintain and promote road, rail, ferry and air links from the city to the UK and the rest of the world. We will encourage cycling and walking", and "We will provide and promote a sustainable transport system, including cycling, which reduces our carbon emissions."
- 6.3 The projects are identified within the Local Transport Strategy (LTS) and Regional Transport Strategy (RTS).

- 6.4 The projects identified in this report will also assist in the delivery of actions identified in the Single Outcome Agreement (SOA), in particular the delivery of elements of both the Local and Regional Transport Strategies which will contribute directly and indirectly to outcomes 10, 12 and 14.
- 6.5 The projects supports the 5 year Corporate Business Plan which includes an aim of delivering of a fully integrated transport network to support movement and economic growth which the proposals support.

7. BACKGROUND PAPERS

Access from the North Proposals ("Third Don Crossing"):

Aberdeen City Council Minutes - 30th June 2004

Aberdeen City Council Minutes - 10th February 2011

Aberdeen City Council Minutes - 19th December 2012

A96 Park and Choose / Dyce Drive Link Road:

Policy and Strategy Committee Minutes - 29th April 2008

Resources Management Committee Minutes - 5th February 2009

Development Management Sub-Committee Minutes - 19 August 2010

8. REPORT AUTHOR DETAILS

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