#### ABERDEEN CITY COUNCIL

COMMITTEE	Operational Delivery
DATE	14 March 2019
REPORT TITLE	Additional Revenue and Capital Budget Cost associated with the Detrunking of the A92 & A96
REPORT NUMBER	OPE/19/191
DIRECTOR	Rob Polkinghorne
REPORT AUTHOR	Doug Ritchie
TERMS OF REFERENCE	1 & 3

#### 1. PURPOSE OF THE REPORT

This report brings together the estimated costs that will have to be met by this Council to continue the maintenance operations of the de-trunked A92 (previously A90) and A96. Currently negotiations are ongoing with Transport Scotland re the state of the asset and recompense for outstanding work at transfer.

#### 2. **RECOMMENDATIONS**

That the Committee

- 2.1 instructs the Chief Officer of Operations and Protective Services to,
  - 2.1.1 include the de-trunked lengths in the Councils list of Adopted Roads:
  - 2.1.2 update the Roads Asset Management Plan: and
  - 2.1.3 include any future works to the de-trunked sections within the annual Roads Capital Programme

all in accordance with the Traffic orders made by Transport Scotland in 2010, copy contained in Appendix F

- 2.2 approves the expenditure required to maintain the de-trunked roads, as described in The A90 Trunk Road (Charleston to Blackdog) Detrunking Order 2010, in accordance with the Council's relevant policies and procedures;
- 2.3 notes that Revenue and Capital expenditures for the maintenance of the de-trunked road will be an annual requirement;

- authorises the Chief Officer of Operations and Protective Services to implement the required maintenance programme;
- 2.5 approves that appropriate officers may award contracts for the repair and maintenance of the de-trunked sections of road on receipt of a valid tender submission and subject to the necessary funding being in place, such monies to come from either Transport Scotland or the approved revenue and capital budgets.

#### 3. BACKGROUND

- 3.1 With the completion of the Aberdeen Western Peripheral Route on the 19<sup>th</sup> February 2019, this report has been completed to assess the condition, and identify the financial implications, of the assets that will be adopted by the Council on the de-trunking routes the current A92 and A96 on 1st April 2019.
- The A92 Trunk Road (Charleston to Blackdog) Detrunking Order 2010 set out proposed de-trunking routes which includes Stonehaven Road, South Anderson Drive, Anderson Drive, North Anderson Drive, The Parkway, Ellon Road to Blackdog, Auchmill Road and Inverurie Road covering approximately 40 Kilometres. It should be noted that at this time the section of A92 between Manor Drive and Haudagain Roundabout and Haudagain Roundabout and Manor Avenue are excluded from the de-trunking order until such times as the Haudagain improvements have been completed.
- 3.3 The transfer of the asset to the Council will incur immediate annual maintenance costs that will need to be met from the Revenue Budget or monies from Transport Scotland. (Appendix A sets out the possible budget pressure costs that may be incurred) along with the longer term maintenance costs from a Capital Budget Appendix B). It should be noted that the levels of inspection, response times winter maintenance etc. will not be carried out to current Trunk Road standards but will revert to the current Council policies and procedures.
- 3.4 The Councils Road Asset Management Plan (RAMP) will require to be updated to include all assets being transferred along with their current condition. Consideration will then need to be given to when the asset would need to be refurbished/replaced and what the likely costs would be based on current market rates.
- 3.5 Site visits were carried out by the Council along with Transport Scotland's representatives, Jacobs, to determine the current state of the asset. Jacob's carried out a full walk through producing site photographs and measurements which they have added to the road condition surveys. This is currently being checked by our own staff. Negotiations are currently under way with Transport Scotland to determine an agreed figure for repairs and outstanding maintenance issues that will require to be carried out by the Council after the 1st April 2019.

- 3.6 A calculation based on market rates for repairs has been employed to determine the cost of outstanding works required to bring the standard of the road up to what they consider an average condition with respect to the other trunk roads in the North East. A full asset plan has not been yet been received from Transport Scotland.
- 3.7 The inspection of the asset was checked against the standards that were in place for the year the asset was installed, the standards detailed were valid for all installations and along with an inspection of the existing road condition, was used to compile the expected costs and probable future work.
- 3.8 Currently Transport Scotland have not supplied the council with an asset plan indicating current condition and asset life for the de-trunked section of the roads thus making it difficult to estimate any required future planned maintenance. Figures quoted are extrapolated from the actual costs incurred in maintaining the existing road network.

#### 4. FINANCIAL IMPLICATIONS

Expenditure will be in accordance with the Council's approved Revenue and Capital budgets for 2019 – 2020 but the Committee should be aware of the budget pressures of maintaining approx. 17km dual Carriageway, 2km of double carriageway and 5km of single carriageway. Figures quoted are extrapolated from the actual costs incurred in maintaining the existing road network.

**Appendix A: Anticipated Revenue Expenditure** sets out the expected annual Revenue Budget Costs, it should be noted that any increase in the 2020-2021 Grant Aided Expenditure (GAE) will not cover all of these costs. The majority of costs are associated with energy consumption of £165K. (see Appendix D)

Appendix B: Additional De-trunked Assets sets out the Assets that will become part of the adopted road network and possible increased Capital Maintenance Costs that will be incurred on the network once de-trunking is finalised. The detrunking of the A92 and A96 will see the inclusion of 31 additional traffic signal/pedestrian crossing sites to Aberdeen City Councils RAMP. The average age of the assets, as of April 2019, will be 12.8 years and it is considered reasonable that all assets 13.5 years or older should be refurbished when required rather than works being carried out to bring them up to an acceptable standard. Average age of Traffic Lights is 13 years, 7 are over the age of replacement in accordance with15-year refurbishment policy which was agreed at the National Traffic Signal User Group (NTSUG) and subsequently adopted by Aberdeen City Council as part of its Road Asset Management Plan (RAMP).

Currently we have not been provided with an asset list indicating pole condition and asset life, these will be re-assessed once the information has been received, currently Transport Scotland have made an allowance for 47 out of 936 lighting columns to be replaced and a provision for a bulk change of 1015 lamps

Approx. 35 km of footways and 25km of carriageways are added to the adopted road network all of which will require future maintenance.

There are approx. 1115 gullies and 4500m of drainage pipe to be added to the existing asset.

A joint principal inspection will be carried out on the 24 structures and any agreed additional monies will be added to the proposed payment.

Appendix C: Savings to be made on Energy by Changing to LED's shows the makeup of the expected energy costs and the possible savings that could be achieved by the installation of LED's. It should be noted that no design work has been carried out to date for the replacement LED's and rates are based on a like for like replacement.

#### 5. LEGAL IMPLICATIONS

The Council is required to include the de-trunked sections of the road network to its list of adopted roads. The Council will become responsible for the maintenance of these newly adopted roads.

#### MANAGEMENT OF RISK.

This addition of the de-trunked section of the roads to the adopted road network represents a potential Hazard and Financial Risk to the Council.

	Risk	Low (L), Medium (M), High (H)	Mitigation
Financial	Existing Revenue Budget will not be sufficient to cover the cost of increased maintenance operations.	Н	This will be minimised by the use of high-quality design and installation materials taking into account whole life costs of the new asset. Integration of the work patterns between the old and new adopted road network will assist in reducing some costs
	Increase in insurance claims	Н	Include the new sections of roads within the existing Inspection regime
Legal	Increase in insurance claims through the large section of road being adopted	M	Ensure adequate safety inspections take place within the prescribed timescale
Employee	Staff resources: The addition of A92 & A96 to the current maintained system will increase the road lengths by approx. 5% and the length of A class roads	Н	Revised inspection regimes and required response times will assist, but not negate the additional resources required to manage the additional workload

	by approx. 72%. Increase of phone calls, emails etc. to the Contact Centre due to the adoption of this section of road.		especially in inspections and winter operations.
Customer	Possible confusion to the travelling public about who they should be contacting re defects on the de-trunked section of the road	Н	Press and Radio updates at the point of de-trunking.
Environment	The risks of inaction (not improving and increasing pedestrian and cycle infrastructure) are also significant in terms of a poor quality environment, poor reputation for Aberdeen and a decline in active travel which would have significant implications for the health and wellbeing of the citizens of Aberdeen	M	"Locking in the Benefits" of the new network will assist in improving the environment,
Technology	Lack of Asset Management information to deliver annual work programme	L	Carry out a digital asset survey of the City Roads Infrastructure in order to manage the spend over several years to continue to optimise our use of resources to continue to provide best value
Reputational	Lack of maintenance and/or Investment in the de- trunked roads will increase claims against the council and press involvement	Н	Continue to prioritise spend in order to repair higher used/ higher damaged roads and footpaths

#### 7. OUTCOMES

Local Outcome Improvement Plan Themes		
	Impact of Report	
Prosperous Economy	The Council aims to support improvement in the local economy to ensure a high quality of life for all people in Aberdeen. This report considers the required Investment in infrastructure which will be required to ensure economic activity within the City and actions to be taken by the Council to support such activity	
Prosperous People	The Council is committed to improving the key life outcomes of all people in Aberdeen. The maintenance of this key section of infrastructure will assist in continuing the prosperity of the Citizens.	
Prosperous Place	The Council is committed to ensuring that Aberdeen is a welcoming place to invest, live and visit, operating to the highest environmental standards. The maintenance of this key section of infrastructure will assist in continuing the prosperity of the City	
Enabling Technology	The Council recognises that enabling technology is central to innovative, integrated and transformed public services.	

Design Principles of Target Operating Model		
	Impact of Report	
Customer Service Design	Improved Customer Experience City Voice, the panel of Aberdeen residents who are contacted on a regular basis and asked for their views on a range of issues, is used to develop a statistically analysed pattern of response to basic aspects of asset management.	
	The views of affected residents and road users are sought on our performance on specific schemes. Records held in the Confirm (Roads Maintenance Management) System and records of Claims by road users against alleged defects can be analysed to indicate areas of concern. Specific surveys may be carried out from time to time to address specific areas of concern. Results of these various analyses can be used in conjunction with inspection data to establish customers' areas of concern and expectations of the maintenance of the roads network.	
Organisational Design	City wide operations will need to be re-thought in order to provide a practical and financially viable integration of the existing adopted road network and the newly adopted roads	
Governance	The additional roads will be added to the Asset Management Plan which will be used to manage the whole city spend over several years to continue to optimise our use of resources to continue to provide best value.	
Workforce	The workforce require to be sufficient to deliver the	

	maintenance of the cities adopted road network whilst managing to deliver the work within the approved Revenue and Capital Budgets	
Process Design	As the structure embeds, development and integration of process design will be influenced by continual evaluation of the performance and outcome measures applied to service provision.	
Technology	Incorporate new technologies in the management of the new City Road Network	
Partnerships and Alliances	Continue to work with new(Aberdeen Roads Limited) and existing partners (BEAR Scotland, NESTRANS etc) to deliver an integrated package for maintenance operations	

#### 8. IMPACT ASSESSMENTS

Assessment	Outcome		
Equality & Human Rights Impact Assessment	This report has no direct implications in relation to Equalities and Human Rights Impact Assessment.		
Privacy Impact Assessment	Not required		
Children's Rights Impact Assessment/Duty of Due Regard	Not applicable		

#### 9. BACKGROUND PAPERS

There have been no reports on this subject

#### 10. APPENDICES (if applicable)

Appendix A: Anticipated Revenue Expenditure Appendix B: Additional De-trunked Assets

Appendix C: Savings to be made on Energy by Changing to LED's

Appendix D: Road Condition Index Appendix E: Detrunking Order

#### 11. REPORT AUTHOR CONTACT DETAILS

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#### Appendix A:

#### **Anticipated Annual Revenue Expenditure**

Below are the expected increased annual revenue budgetary pressures for providing maintenance of the de-trunked A92 and A96. Figures quoted are extrapolated from the actual costs incurred in maintaining the existing road network.

•	Traffic Lights and Pedestrian Crossing Increased annual maintenance costs Increased Energy and Carbon Reduction Commitment (CRC) costs Increased Communication costs	£45,000 £17,000 £ 5,000 £67,000
•	Lighting Improvements Increased annual maintenance costs Increased Energy and Carbon Reduction Commitment (CRC) costs Column knock downs should be recoverable from driver	£ 35,000 £165,500 £ 0 £200,500
•	Winter Maintenance (based on 60 runs per winter + 6 Snot Additional gritter cost per year Additional maintenance, diesel, insurance etc. of vehicle Additional salt Additional labour	£30,000 £13,900 £22,000 £9,500 £75,400
•	Ice Detection and Weather Stations  Maintenance & Contract costs of 3 additional stations	£10,000
•	Footway Patching Assume per annum.	£20,000
•	Carriageway Patching Assume per annum	£60,000
•	Drainage and Gully Cleaning Gully cleaning 1115 gullies @ £35 Filter drainage 6000m @ £20/m every 5 years Beany blocks drainage	£39,000 £24,000 £ 4,000 £67,000
•	Bridge Repairs & Inspection Assume per annum Annual Inspections Principal Inspections every 6 years (£20,000)	£ 5,000 £ 9,000 £ 3,600 £17,600

•	Road Sign.  Accident Damage should be recoverable from driver Annual Maintenance	£ 2,000
•	Safety Fence Accident Damage: majority should be recoverable from drive Annual Maintenance	er £ 4,000
•	Landscaping Annual Maintenance	£143,000
•	Traffic Management Assume 100 hours of work on road +20hrs overtime Cost of Traffic Management per hour £315 Total cost	£ 40,000
•	Inspections Safety Inspections, increase public responses	£ 15,000
•	Depot Overheads Staff, Personal Protective Equipment (PPE), holidays, Sickness	£ 50,000
Es	timated total budget pressure	£770,600

#### Appendix B:

#### **Additional Assets**

The adopted assets will be added to the Road Asset Management Plan (RAMP) and will be added to future Capital Works Programme; the inclusion of these additional assets would put further budgetary pressures on the maintenance of the overall network. These figures are based on handover on 1/04/2019.

#### Traffic Lights and Pedestrian Crossing.

SITE ADDRESS	Age At Detrunking	Calculated Replacement Costs on De- trunking
Full Refurbishment Cost Group 1		
A92 Anderson Drive / Hill of Rubilslaw	17.8	£62,910.18
A92 The Parkway / Whitestripes Avenue	16.6	£17,901.20
A92 North Anderson Drive / Provost Fraser Drive North	15.3	£39,451.28
A96 Great Northern Road / North Anderson Drive	15.2	£39,451.28
A92 Bridge of Dee / Holburn Roundabout	15.1	£39,451.28
A92 North Anderson Drive / King's Gate	14.9	£39,451.28
A92 Stonehaven Road / Bridge of Dee	14.9	£39,451.28
14/15 Refurbishment Costs (93%) Group 2		
A92 South Anderson Drive / Holburn		
Roundabout	14.2	£36,821.19
A92 Anderson Drive / Cromwell Road	14.2	£36,821.19
A96 Auchmill Road / Auchmill Terrace	14.2	£58,716.17
A92 South Anderson Drive / Broomhill Road	14.2	£16,707.79
A92 North Anderson Drive / Provost Fraser Drive South	14.1	£36,821.19
A92 North Anderson Drive / Ashgrove Road West	14.1	£58,716.17
A92 North Anderson Drive / Provost Rust Drive	14.1	£36,821.19
A92 North Anderson Drive / Middlefield Place	14.1	£36,821.19
42/45 Deferming the control (970/ ) Charles 2		
13/15 Refurbishment Costs (87%) Group 3 A92 South Anderson Drive / Great Western		
Road	13.8	£54,522.16
A92 North Anderson Drive / Clifton Road	13.7	£34,191.11
A92 North Andrerson Drive / Great Northern	10.7	201,101.11
Road	13.7	£34,191.11
A92 North Anderson Drive / Mid Socket Road	13.5	£54,522.16
Assentable Standard Cost Suscess 4		
Acceptable Standard Cost Group 4	40.0	046 222 00
A92 Anderson Drive / Queen's Road	13.3	£16,332.06
A92 North Anderson Drive / Lang Stracht	13.2	£10,628.20
A92 North Anderson Drive / Hilton Drive	12.5	£15,718.32
uchmill Road / Newton Terrace	12.4	£14,620.46

	Total	£879,236.55
A92 The Parkway / Ellon Road	0.0	£0.00
A96 Dyce Dr	2.7	£0.00
A96 Inverurie Road / Bankhead Avenue	6.1	£8,806.40
A92 North Anderson Drive / Fire Station	10.4	£2,161.10
A92 The Parkway / Scotstown Road East	12.2	£8,243.30
A92 The Parkway / Scotstown Road West	12.3	£8,243.30
A96 Inverurie Road / Old Meldrum Road	12.3	£8,242.26
A96 Auchmill Road / Manor Drive	12.4	£12,500.74

#### Street Lighting and Road Signs

Currently we have not been provided with an asset list indicating pole condition and asset life, these will be re-assessed once the information has been received, currently Transport Scotland have made an allowance for 47 lighting columns to be replaced and all lamps to be renewed.

A92	A96	Number of Lanterns
Charleston to Bridge of Dee South		188
Bridge of Dee		29
Bridge of Dee North to Broomhill		34
Broomhill to Gt Western Road		32
Gt Western Road to Cromwell Road		28
Cromwell Road to Queens Road		24
Queens Road to Kings Gate		45
Kings Gate to Langstracht		44
Langstracht to Cairncry		60
Cairncry to Rosehill		32
Rosehill to Haudigain		62
Haudigain Roundabout		6
Haudigain Roundabout to Laural Driv	e	42
Laural Drive to Gordon Brae		51
Gordon Brae to Scotstown Road		54
Scotstown Road to Ellon Road		46
Ellon Road to Murcar		40
Murcar to Boundary		33
	Haudigain to Manor Drive Manor Drive to Auchmill	14
	Terrace Auchmill Terr to Cairnfield	14
	Place Cairnfield Place to A947	28
	R/about A947 R/about to Sclattie	64
	R/about Sclattie R/about to Dyce	28
	Drive	60
	Dyce Drive To Craibstone	26
		1084

#### Road Safety Schemes:

There are already some schemes being taken forward which will "lock in the benefits" of the AWPR, any future road safety schemes will require financial input from either the existing budget thus reducing the number of schemes that can be carried out across the city on an annual basis or additional support from capital investment plan. Currently the Capital budget does not finance many road safety schemes as these are mostly funded from the Cycling Walking Safer Streets (CWSS) ring fenced grant from the Scottish Government.

#### Footway Resurfacing.

An additional length of approx. 35 km of footway will be added to the Council's maintenance programme. This is a 1.75% increase in footpath maintenance

#### Carriageway Resurfacing.

Lengths of roads, in kilometres, to be adopted and taken forward for inclusion in the annual capital maintenance plan

	A92	A96	Total
Dual Carriageway	12.101	4.466	16.567
Double Carriageway	1.223	0.000	1.223
Single Carriageway	5.446	0.000	5.446
	18.770	4.466	23.236
Roundabouts	1.801	0.280	2.081
	20.571	4.746	25.317

#### Drainage.

Currently the council have no detailed drawings of the drainage system that we will be adopting; we are aware of the major culverts and have details of Scottish waters assets that run under the roads. There are approx. 1115 gullies that will transferred along with approx. 4500m of drainage connecting these to the existing foul systems.

#### Structures:

Existing Trunk Road Structures that will become part of the Adopted Road Network and will be required to be Managed and Maintained by the Council. A joint principal inspection will be carried out on the 24 structures and any agreed additional monies will be added to the proposed payment.

Structure	Route	De-Trunked
Bridge of Dee	A92	Yes
Bridge of Dee Flood Arches (Part a)	A92	Yes
Bridge of Dee Flood Arches (Part b)	A92	Yes
A92 Auchinyell Burn Culvert	A92	Yes
Ruthrieston Bridge	A92	Yes
A92 West Burn of Rubislaw Culvert	A92	Yes
A92 North Burn of Rubislaw Culvert	A92	Yes
Mugiemoss Road Railway Bridge	A92	Yes
Mugiemoss Road Scatterburn Culvert	A92	Yes
Persley Bridge	A92	Yes
Persley Pedestrian Underpass	A92	Yes
Mundurno Mill Culvert	A92	Yes
Mundurno Culvert	A92	Yes
Black Dog Culvert	A92	Yes
Auchmill Road Culvert	A96	Yes
Inverurie Road Culvert	A96	Yes
A96 Gilbert Road Underpass	A96	Yes
A96 Greenburn Drive Underpass	A96	Yes

A96 Green Burn Culvert East	A96	Yes
A96 Green Burn Culvert West	A96	Yes
A96 Rowett Underpass	A96	Yes
Forrit Brae Spring Culvert	A96	Yes
A96 Gough Burn Culvert	A96	Yes
A96 Craibstone Underpass (Mtd by SO)	A96	Yes

#### Road Sign Replacement:

It should be noted that Road Sign Replacement has only been considered on the sections of road network to be de-trunked. No consideration has been given to works that may be necessary on other parts of the road network, such as relating or replacement of signs on the local road network to reflect the operation of the AWPR/B-T project and associated changes in route numbering. An allowance of £145,694 has been provided by Transport Scotland only for the changes to signage on the de-trunked sections of the A92 and A96.

#### Current Capital Budget and Potential Increases

The current Capital Budget spend approve by Committee is given below. Members should be aware that future Capital Budgets will be required to cover the works on the extended network,

Approved Capital Spend 2018-19	Current Value of Annual Capital	Potential Impact on Capital. Annual (A) One Off (O)
Traffic Signal Refurbishment Programme	£ 450,000	£100,000 (A)
Lighting Programme:	£2,159,000	£700,000 (O) £70,000 (A)
Cycling Walking Safer Streets Capital Grant: Road Safety Programme & 20mph signs:	£ 373,000	
Footway Resurfacing Programme:	£ 600,000	£30,000 (A)
Carriageway Resurfacing Programme:	£2,788,000	£150,000 (A)
Drainage Programme:	£ 127,000	£5,000 (A)
Major Bridge Repairs:	£ 50,000	£25,000 (A)
Road Sign Replacement:	£ 30,000	£1,000 (A)
Weak Bridge Repairs:	£ 70,000	£10,000 (A)
Flood Prevention:	£1,110,000	
Total	£7,757,000	£391,000 (A)
		£700,000 (O)

#### Appendix C

#### Savings to be made on Energy by Changing to LED's

#### **Energy Costs at Transfer**

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	Lantern Numbers	Total KW for A92 and A96	Yearly Lit Hours	Total Kwh	Cost/kwh	Annual Energy Costs
A92	852	23,0273	4130	951,027.49	0.123297	£117,258.83
A96	200	57,014	4130	235,467.82	0.123297	£ 29,032.48
Charleston	43	7,940	4130	32,792.20	0.123297	£ 4,043.18
	1095	295,227		1,219,287.51		£150,334.49

#### **Lit Signs and Bollards**

	Total KW for A92	Yearly Lit	Total		Annual Energy	
Numbers	and A96	Hours	Kwh	Cost/kwh	Costs	
248	7.658	4130	31.610.30	0.123297	£3.897.45	

Total Energy Costs: £154,231.94

#### **Carbon Reduction Commitment**

Cost Charged per Tonne CO<sup>2</sup> produced = £18.30: Conversion Factor 1 kwh = 0.5331kg carbon

Total KWH for A92 and A96	Tonnage CO <sup>2</sup>	Annual CO <sup>2</sup> Costs
1,219,288	650.00	£11,895.04

Total direct costs incurred for energy: £166,126.98

#### Possible Annual Savings by Replacing ExistingA92/A96 Street Lighting Lanterns with LED's.

#### **Expected Energy Costs**

Average Lantern	Total KW for	Yearly			Annual
Wattage	A92and A96	Lit Hours	Total Kwh	Cost/kwh	<b>Energy Costs</b>
144	157.700	4130	651301.0	0.123297	£80,303.46

Annual Energy Savings £70,031.03

#### **Carbon Reduction Commitment**

Cost Charged per Tonne CO<sup>2</sup> produced = £18.30: Conversion Factor 1 kwh = 0.5331kg carbon

Average Lantern	Total KW for		Total	Tonnage CO <sup>2</sup>	CO <sup>2</sup>
Wattage	A92 and A96	Lit Hours	Kwh	CO-	Costs
144	295071.048	4130	575205.75	320.28	£5,861.03

Annual CO<sup>2</sup> Savings £ 6,034.01

#### Summary

Existing Lighting Energy Cost: £150,334.49: Existing Lighting CRC Costs: £11,895.04 Expected LED Energy Costs: £ 80,303.46 Expected LED CRC Costs: £ 5,861.03 Annual CO<sup>2</sup> Savings £ 6,034.01

Total Savings per Annum £76,065.04

#### Replacement Costs for LED Lanterns

No design work has been carried out. It has been assumed that there will be a direct replacement of the existing lanterns for new ones.

From the purchase framework, a M2 class lantern should be suitable and 144W LED Lantern costs £433.46

Costs for fitting would range from £30 upward.

TM would be additional £320/hr for crash cushion.

Two teams changing lanterns should average 4 per hour thus reducing the Traffic Management costs: £320/hr divided by 4 lantern changes per hour

Lantern Instal		Installation	Traffic	
Replacement	Cost per Lantern	Cost	Management	<b>Total Costs</b>
1014	£433.46	£50.00	£80.00	£571,348.44

Payback Period 7.51 years

#### Appendix D

#### **Road Condition Index**

From 2004, a carriageway condition Statutory Performance Indicator (SPI) was introduced across Scotland. This indicator is:

### "The percentage of the road network that should be considered for maintenance treatment."

The Road Condition Index (RCI) is the figure reported for the SPI and is produced from a Scotland wide survey. The Scottish Roads Maintenance Condition Survey(SRMCS) information is collected and processed centrally by an independent contractor engaged by Society of Chief Officers of Transportation in Scotland (SCOTS). Surveys are undertaken annually by means of machine-based measurement on a specified sample of each council's road network. All survey vehicles are independently calibrated by the Transport Research Laboratory including periodic calibration checks during the survey season.

Survey coverage of the road network is detailed in the SPI and Audit Scotland has approved both the survey methodology and the agreed percentages of road surveyed to ensure a statistically reliable SPI. Survey coverage is carried out as follows:

- A Class Roads are surveyed in both directions every two years that is one direction in one year and the opposite direction the next year.
- **B and C Class Roads** in both directions over a four year period; that is 50% of the B and C Class network is surveyed in one direction in one year; 50% in one direction in year two; then the first 50% in the opposite direction in year three and so on.
- Unclassified Roads have a 10% random sample undertaken on an annual basis selected by the survey contractor. Short sections of such roads are excluded from the survey.

Following some refinements to the road condition assessment system a number of technical parameters were revised in 2008. While the surveys are undertaken on an annual basis, the Road Condition Index (RCI) is now calculated over a two year rolling period to minimise the effect of sampling errors on the results.

In relation to the Road Condition Index (RCI), 'considered for maintenance treatment' means there is likely to be some defect in the condition of the road, but authorities will need to carry out more detailed investigations and prioritisation of need in the development of their future road maintenance programmes.

The results are categorised into Green, Amber and Red condition bands where:

- **Green** indicates the carriageway is generally in a good state of repair.
- **Amber** indicates the carriageway has some deterioration which should be investigated to determine the optimum time for planned maintenance treatment.
- **Red** indicates the carriageway has lengths in poor overall condition which are likely to require planned maintenance soon.

The RCI figure includes both the Amber and Red categories. An increase in the figure indicates deterioration and a decrease indicates improvement.

	% of Road Network in Red and Amber
Current Road Condition Index for Aberdeen City:	30.4
Road Condition Index for North East Trunk Roads	34.37
Road Condition Index for De-trunked Roads	32.00

It should be noted that the Road Condition Index index for Aberdeen roads is from surveys carried out in 2018, Trunk Road Surveys were carried out in June 2016 and there is general agreement that the road condition, of the Trunk Road, has deteriorated since the survey was carried out, Jacobs have tried to take this deterioration into consideration by carrying out onsite inspections and taking these into consideration in their calculations for areas that require repairs.

#### Appendix E

#### SCOTTISH STATUTORY INSTRUMENTS

# 2010 No. 101 ROADS AND BRIDGES The A90 Trunk Road (Charleston to Blackdog) Detrunking Order 2010

Made 11th March 2010

Coming into force -31st March 2010

The Scottish Ministers make the following Order in exercise of the powers conferred by sections 5(2) and (6) and 143(1) of the Roads (Scotland) Act 1984(a) and all other powers enabling them to do so.

In accordance with section 5(2) of that Act, they have taken into consideration the requirements of local and national planning, including the requirements of agriculture and industry, and are satisfied as to expediency.

This Order is made in accordance with the provisions of Part I and III of Schedule I(b) to that Act.

#### Citation and commencement

1. This Order may be cited as the A90 Trunk Road (Charleston to Blackdog)
Detrunking Order 20 I0 and comes into force on the 28th day after the day
on which the A90 (Aberdeen Western Peripheral Route) Special Road
Scheme 201 o(c) is approved by resolution of the Scottish Parliament.

#### Road ceasing to be trunk road – Aberdeen

- 2.- (1) On 1st April next after the date on which the new special roads and trunk roads are all open-
  - (a) for use as special roads; or
  - (b) (in the case of the new lengths of trunk road which are not a special road), for the purposes of through traffic
- (a) 1984 c.54. Section 143 was amended by the Local Government etc. (Scotland) Act 1994 (c.39), Schedule 13, paragraph 135; the New Roads and Street Works Act 1991 (c.22), Schedule 8, paragraph 93 and by the Transport (Scotland) Act 2005 (asp 12), section 37. The functions of the Secretary of State were transferred to the Scotlish Ministers by virtue of section 53 of the Scotland Act 1998 (<:.46)..</p>
- (b) Part I of Schedule 1 was relevantly amended by the Local Government etc. (Scotland) Act 1994 (c.39), Schedule 13, paragraph 135; the Water Industry (Scotland) Act 2002 (asp 3), schedule 7, paragraph 14; the Transport and Works (Scotland) Act 2007 (asp 8), section 24, schedule 2, paragraph 3 and schedule 3, and also by S.S.I. 1999/1 and 2006/614.
- (c) S.S.I.201O/79.

the lengths of road along the routes described in Schedule 1 shall cease to be trunk road and Aberdeen City Council(a) shall become the roads authority for those lengths of road and shall enter those lengths of road in their list of public roads.

(2) In paragraph (1) "the new special roads and trunk roads" means the new special

- (2) In paragraph (1) "the new special roads and trunk roads" means the new special roads to be provided and the roads becoming trunk roads, as the case may be, by virtue of-
  - (a) the A90 (Aberdeen Western Peripheral Route) Special Road Scheme 2010;
  - (b) the A956 (Aberdeen Western Peripheral Route) Special Road Scheme 2010(b);
  - (c) . the A90 (Aberdeen Western Peripheral Route) (Craibstone Junction) Special RoadScheme 20IO(c);
  - (d) the A90 (Aberdeen Western Peripheral Route) Trunk Road Order

201O(d);

- (e) the A956 (Aberdeen Western Peripheral Route) Trunk Road Order 20IO(e); and
- (f) the A96 (Aberdeen Western Peripheral Route) Trunk Road Order 2010(1)

#### Road ceasing to be trunk road - Aberdeenshire

- 3.-{I) On 1st April next after the date on which the new special roads and trunk roads are all open-
- (a) for use as special roads; or
- (b) (in the case of the new lengths of trunk road which are not a special road), for the purposes of through traffic, the length of road along the route described in Schedule 2 shall cease to be trunk road and

Aberdeenshire Council (g) shall become the roads authority for that length of road and shall enter that length of road in their list of public roads.

(2) In paragraph (1) "the new special roads and trunk roads" has the same meaning as in article 2(2).

A member of the staff of the Scottish Ministers

Transport Scotland
Buchanan House
58 Port Dundas Road
Glasgow
G40HF
11th March 2010

(a) A council constituted under section 2 of the Local Government etc. (Scotland) Act 1994 (c.39). Aberdeen Council changed the name. of their area from "Aberdeen" to "Aberdeen City" by resolution under section 23(1) of the Local Government (Scotland) Act 1973 (c.65) on 9th May 1995.

(b) S.S.I.2010/83.

- (c) S.S.1.2010/81.
- (d) S.S.I.2010/80.
- (e) S.S.I.2010/84.
- (1) S.S.1.2010/82.
- (g) A council constituted under section 2 of the Local Government etc. (Scotland) Act 1994 (c.39).

### SCHEDULE 1 Article 2 ROAD CEASING TO BE A TRUNK ROAD - ABERDEEN INTERPRETATION

In this Schedule-

"the existing A90 Trunk Road" means the existing A901M90 Inverkeithing – Fraserburgh Trunk Road between Charleston and Blackdog including all lay-bys and bus lay-bys;

"the existing RI roundabout" means the existing roundabout at the junction of the existing A90 Trunk Road and the existing Holbum Street, Aberdeen and the existing Garthdee Road, Aberdeen shown marked "RI" on plan DT2in the plan folio;

"the existing R2 roundabout" means the existing roundabout at the junction of the existing A90 Trunk Road and the existing Broomhill Road, Aberdeen shown marked "R2~' on plan DT2 in the plan folio;

"the existing R3 roundabout" means the existing roundabout at the junction of the existing A90 Trunk Road and the existing Seafield Road, Aberdeen and the existing Cromwell Road, Aberdeen shown marked-"R3" on plan DT2 in the plan folio;

"the existing R4 roundabout" means the existing roundabout at the junction of the existing A90 Trunk Road and the existing Queen's Road, Aberdeen shown marked "R4" on plan DT2 in the plan folio;

"the existing R5 roundabout" means the existing roundabout at the junction of the existing A90 Trunk Road and the existing King's Gate, Aberdeen shown marked "RS" on plan DT2 in the plan folio;

"the existing R6 roundabout" means the existing roundabout at the junction of the existing A90 Trunk Road and the existing Provost Fraser Drive, Aberdeen and the existing Cairncry Road, Aberdeen shown marked "R6" on plan DT2 in the plan folio;

"the existing R7 roundabout" means the existing roundabout at the junction of the existing A90 Trunk Road and the existing Provost Rust Drive, Aberdeen and the existing A9012 Rosehill Drive, Aberdeen shown marked "R7" on plan DT2 in the plan folio;

"the existing R8 roundabout" means the existing roundabout at the junction of the existing A90 Trunk Road and the existing A96 Aberdeen - Inverness Trunk Road shown marked "R8" on plan DT2 in the plan folio;

"the existing R9 roundabout" means the existing roundabout at the junction of the existing A90 Trunk Road and the existing Mugiemoss Road, Aberdeen shown marked "R9" on plan DT2 in the plan folio;

"the existing RIO roundabout" means the existing roundabout at the junction of the existing A90 Trunk Road and the existing Laurel Drive, Aberdeen shown marked "RI0" on plan DT2 in the plan folio;

"the existing RII roundabout" means the existing roundabout at the junction of the existing A90 Trunk Road and the existing Whitestripes Avenue, Bridge of Don, Aberdeen and the existing Fairview Street, Daneston, Aberdeen shown marked "RII" on plan DTJ in the plan folio:

"the existing RI2 roundabout" means the existing roundabout at the junction of the existing A90 Trunk Road and the existing Scotstown Road, Bridge of Don, Aberdeen shown marked "R12" on plan DT3 in the plan folio;

"the existing R13 roundabout" means the existing roundabout at the junction of the existing A90 Trunk Road and the existing A956 Ellon Road, Bridge of Don, Aberdeen and the existing Parkway East, Aberdeen shown marked "R13" on plan DT3 in the plan folio;

"the plan folio" means the plan folio numbered RYC/GI09/13/0721 and entitled "The A90 (Charleston to Blackdog) Detrunking Order 2010", signed with reference to this Order and deposited at the offices of Transport Scotland, Buchanan House, 58 Port Dundas Road, Glasgow, G4 OHF;

"point 1" means the centre of the existing Bridge of Dee South roundabout, Aberdeen at the junction of the existing A90 Trunk Road and the existing B9077 Leggart Terrace, Aberdeen and the existing B9077 Great Southern Road, Aberdeen shown marked "point 1" on plan DTI and on plan DT2 in the plan folio;

"point 2" means the centre of the existing RIO roundabout, shown marked "point 2" on plan DT2 and on plan DT3 in the plan folio; and

"point 3" means the centre of the existing Mill of Mundurno roundabout, Aberdeen at the junction of the existing A90 Trunk Road and the existing B999 Aberdeen - Tarves Road shown marked "point 3" on plan on and on plan DT4 in the plan folio.

#### LENGTHS OF ROAD CEASING TO BE A TRUNK. ROAD

- 1. That length of the existing A90 Trunk Road from a point 3.47 kilometres or thereby south of point 1 in a generally northerly then north, north-easterly direction for a distance of 3.58 kilometres or thereby including the existing Bridge of Dee South roundabout, Aberdeen to a point 25 metres or thereby north-west of point 1 as shown by black and white hatching between the points marked "point A" and "point B" on plan DTI in the plan folio.
- 2.That length of the existing A90 Trunk Road from a point 25 metres or thereby north-west of point 1 in a generally west, north-westerly direction for a distance of 355 metres or thereby including the existing R1 roundabout to a point 370 metres or thereby west, north-west of point 1 as shown by black and white hatching between the points marked "point B" and "point C" on plan DT2 in the plan folio
- 3. That length of the existing A90 Trunk Road from a point 370 metres or thereby west, northwest of point 1 in a generally northerly then north-westerly direction for a distance of 685 metres or thereby including the existing R2 roundabout to a point 990 metres or thereby north, north-west of point 1 as shown by black and white hatching between the points marked "point C" and "point D" on plan DT2 in the plan folio.
- 4. That length of the existing A90 Trunk Road from a point 990 metres or thereby north, northwest of point 1 in a generally north-westerly direction for a distance of 1.11 kilometres or thereby including the existing R3 roundabout to a point 2.09 kilometres or thereby northwest of point 1 as shown by black and' white hatching between the points marked "point D" and "point E" on plan DT2 in the plan folio.

- 5. That length of the existing A90 Trunk Road from a point 2.09 kilometres or thereby northwest of point 1 in a generally north, north-westerly direction for distance of 415 metres or thereby including the existing R4 roundabout to a point 2.50 kilometres or thereby north-west of point 1 as shown by black and white hatching between the points marked "point E" and "point F"on plan DT2 in the plan folio.
- 6. That length of the existing A90 Trunk Road from a point 2.50 kilometres or thereby northwest of point 1 in a generally north, north-westerly then westerly then north, north-westerly direction for a distance of 800 metres or thereby including the existing R5 roundabout to a point 3.24 kilometres or thereby north-west of point 1 as shown by black and white hatching between the points marked "point F" and "point G" on plan DT2 in the plan folio.
- 7. That length of the existing A90 Trunk Road from a point 3.24 kilometres or thereby northwest of point I in a generally northerly then north-easterly direction for a distance of 1.84 kilometres or thereby including the existing R6 roundabout to a point 2.08 kilometres or thereby south of point 2 as shown by black and white hatching between the points marked "point G" and "point H" on plan DT2 in the plan folio.
- 8. That length of the existing A90 Trunk Road from a point 2.08 kilometres or thereby south of point 2 in a generally north, north-easterly direction for a distance of 545 metres or thereby including the existing R7 roundabout to a point 1.74 kilometres or thereby south, south-east of 4 point 2 as shown by black and white hatching between the points marked "point H" and "point I" on plan DT2 in the plan folio.
- 9. That length of the existing A90 Trunk Road from a point 1.74 kilometres or thereby south, south-east of point 2 in a generally northerly then north, north-westerly direction for a distance of 1.01 kilometres or thereby including the existing R8 roundabout to a point 760 metres or thereby south, south-east of point 2 as shown by black and white hatching between the points marked "point I" and "point J" on plan DT2 in the plan folio.
- 10. That length of the existing A90 Trunk Road from a point 760 metres or thereby south, south east of point 2 in a generally northerly then westerly then west, north-westerly direction for a distance of 550 metres or thereby including the existing R9 roundabout to a point 390 metres or thereby south of point 2 as shown by black and white hatching between the points marked "point J" and "point K" on plan DT2 in the plan folio.
- 11. That length of the existing A90 Trunk Road from a point 390 metres or thereby south of point 2 in a generally northerly direction for a distance of 410 metres or thereby including the existing RIO roundabout to a point 20 metres or thereby north-east of point 2 as shown by black and white hatching between the points marked "point K" and "point L" on plan DT2 in the plan folio.
- 12. That length of the existing A90 Trunk Road from a point 20 metres or thereby northeast of point 2 in a generally north, north-easterly then east, north-easterly then easterly direction for a distance of 1.73 kilometres or thereby including. the existing R11 roundabout to a point 1.50 kilometres or thereby east, north-east of point 2 as shown by black and white hatching between the points marked "point L" and "point M" on plan DT3 in the plan folio.
- 13. That length of the existing A90 Trunk Road from a point 1.50 kilometres or thereby east, north-east of point 2 in a generally easterly then east, north-easterly direction for a distance of 1.57 kilometres or thereby including the existing RI2 roundabout to a point 1.70

kilometres or thereby south, south-west of point 3 as shown by black and white hatching between the points marked "point M" and "point N" on plan DT3 in the plan folio.

14. That length of the existing A90 Trunk: Road from a point 1.70 kilometres or thereby south, south-west of point 3 in a generally east, north-easterly then easterly then east south-easterly direction for a distance of 1.03 kilometres or thereby including the existing R13 roundabout to a point 1.62 kilometres or thereby south of point 3 as shown by black and white hatching between the points marked "point N" and "point 0" on plan DT3 in the plan folio.

- 15. That length of the existing A90 Trunk Road from a point 1.62 kilometres or thereby south of point 3 in a generally northerly then north, north-westerly then northerly direction for a distance of 1.67 kilometres or thereby including the existing Mill of Mundurno roundabout, Aberdeen to a point 30 metres or thereby north, north-east of point 3 as shown by black and white hatching between the points marked "point 0" and "point P" on plan DT3 in the plan folio.
- 16. That length of the existing A90 Trunk Road rrom a point 30 metres or thereby north, north-east of point 3 in a generally north, north-easterly then northerly direction for a distance of 1.98 kilometres or thereby to a point 1.96 kilometres or thereby north, northeast of point 3 as shown by black and white hatching between the points marked "point P" and "point Q" on plan DT4 in the plan folio 5

## SCHEDULE 2 Article 3 ROAD CEASING TO BE A TRUNK ROAD - ABERDEENSHIRE INTERPRETATION

In this Schedule-

"the existing A90 Trunk Road", "the plan folio" and "point 3" have the same meaning as they have in Schedule 1; and

"point 4" means the existing council boundary between Aberdeen City Council and Aberdeenshire Council where it crosses the existing A90 Trunk Road shown marked "point 4"on plan DT4 in the plan folio.

#### LENGTH OF ROAD CEASING TO BE A TRUNK ROAD

That length of the existing A90 Trunk Road from a point 1.96 kilometres or thereby north, north-east of point 3 in a generally north, north-easterly direction for a distance of 1.12 kilometres or thereby to a point 1.12 kilometres or thereby north, north-east of point 4 as shown by black and white hatching between the points marked "point Q" and "point R" on plan DT4 in the plan folio. 6