TAY ROAD BRIDGE JOINT BOARD

Asset Management Lifecycle Plan

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Approved for Issue:	**G Brady (Engineer to Board)**
Date: 15 November 2021	Bridge Manager

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1. Current Status

1.1 Current Issues

There are no current issues.

1.2 Current Asset Management Strategy

In keeping with the need to demonstrate best value and a structured approach to inspection and maintenance, the Tay Road Bridge Joint Board (TRBJB) is implementing a full Asset Management Plan, using guidance from SCOTS (Society of Chief Officers of Transportation in Scotland).The regime will involve inspections in accordance with the Well-Managed Highway Infrastructure – A Code of Practice to record the condition of the structure. This information will be used to plan works to maintain or improve the condition of the bridge.

2. The Asset

2.1 Summary

The main Assets owned by the Tay Road Bridge Joint Board are as follows:-

a) Main Structure
42 span twin box girder bridge with composite Reinforced Concrete (RC) deck supported on RC columns and piers, and RC cellular abutments

b) Approach Spans

Earth embankments and elevated reinforced concrete structure comprising:

- Westbound Off ramp
- Eastbound Off ramp
- On ramp

c) Fife Underpass
Single span Reinforced Concrete box structure

d) Soil Nailed Slope, Newport Road
Engineered slope (Soil Nails) approximately 40m in length supporting the Fife Abutment access road above the B946 Newport Road.

e) Buildings
Bridge Office and Workshops – Marine Parade, Dundee
Kiosk and Toilet Block in the Fife Car Park

f) Fife Car Park
Surfaced car park and footways/cycle path with associated street furniture

2.2 Asset Register

Asset Description	Sub Elements
Tay Road Bridge – Main Structure	Carriageway including joints and road markings
	Superstructure – Deck
	Substructure – Piers and Abutments
	Central Walkway
	Parapets
	Self-propelled access gantries and runway beams
Tay Road Bridge – On/Off Ramps	Carriageway including joints and road markings
	Superstructure – Deck
	Substructure – Piers and Abutments
	Earth embankments
	Parapets
Pier protection (completed 2012)	Concrete aprons at Navigation Spans
Fife Underpass	Single Span Reinforced Concrete Box Structure
Ancillary Equipment	Street lighting columns, high mast columns lamps, cabling, feeder pillars
	Traffic signals, Wig-Wags, controllers, cabling
	Variable Message Signs, control cabinets, cabling
	Close Circuit Television Cameras, control cabinets, cabling
	Navigation lights, fog horn control cabinets, cabling
	Impressed Current Cathodic Protection System

Tay Road Bridge – Bridge Administration Office Building	Fabric of building and workshops
	Electrical systems
	Drainage
Tay Road Bridge – Fife Car Park	Surfacing including road markings
	Street furniture
	Street lighting
	Drainage
Tay Road Bridge – Kiosk and Toilet Building	Fabric of buildings
	Extraction/Ventilation System
	Electrical systems
	Drainage
Telford Beacon - Monument	

Asset Description	Quantity	Unit
Main Deck	44900	sq m
Pier Protection Measures	3	No
North On/Off Ramps	7300	sq m
Carriageway Surfacing – Main Deck	30000	sq m
Fife Car Park - surfaced car parking area	3700	sq m
Fife Car Park – surfaced footways	620	sq m
Soil nailed slope, Newport Road	40	Lin m
Self propelled access gantries	2	No.
Street Lighting Columns and Heads	179	No.
CCTV Cameras	31	No.
Variable Message Signs (VMS)	16	No.
Navigation Lights	12	No.
Bridge Administration Building	1	No
Fife Kiosk & Toilet Building	1	No
Tay Road Bridge Administration Car Park	800	sq m
Telford Beacon	1	No

The Asset details are held in a mix of hard and electronic copy. It is the future intention of the TRBJB to utilise an appropriate electronic Structures Management System to store all data relating to the Asset.

2.3 Asset Growth

Due to the nature of the Asset, there has been no effective growth since construction in 1966. Modifications to the north approach ramps were completed in 2014 as part of the Dundee Central Waterfront Development.

A major addition to the asset was the construction of pier collision protection measures completed in 2012.

The CCTV system covering the bridge and environs was renewed in 2017 to incorporate 31 digital cameras and a new recording system.

Six new Variable Message Signs (VMS) were installed on the Dundee Plaza (2 No.), bottom of the A92 (2 No.), and top of the B946 (2 No.) in 2017, along with the

installation of four new signs to replace obsolete signs on the bridge. Two VMS were installed on the Dundee approaches (Custom House and Slessor Gardens) in 2016.

A new passenger lift was installed in December 2018.

The Administration Office Car Park was surfaced with asphalt in November 2017, and perimeter fences installed.

LED lighting heads (Electrical) were installed on the bridge in 2019.

New Switch Gear (Electrical) was installed in the Dundee and Fife Abutments in 2019.

The Administration Office compound was partially resurfaced with asphalt in 2021.

3 Service Expectations

3.1 Public expectations

The Tay Road Bridge is a vital asset in the national road network, and it is crucial that a sustained long term programme of investment and maintenance is provided in order to ensure that the bridge is safe to use and fit for purpose and that it meets the demands and expectations highlighted below: -

- The capability of the bridge and approaches carry traffic loading as prescribed in current national standards
- Assess, maintain and replace as necessary road safety elements of the bridge e.g. parapets, safety fencing, road markings, signs and lighting, etc.
- Repair damage caused by bridge strikes, vehicle impact and vandalism
- Undertake reactive maintenance to prevent hazards and to minimise potential for third party claims against the TRBJB
- Management of works is carried out at a time and in a manner to minimise disruption to bridge users

Public expectation in terms of the ability to use the road network with the minimum delay to travel times is high, particularly as the Tay Road Bridge is a major commuter link between Dundee and northeast Fife.

The main area of correspondence with the public does not relate to the condition of the asset but to restrictions imposed during periods of high winds and bridge closures due to Police incidents.

3.2 Use

Approximate composition of traffic using the bridge since bridge counters were reintroduced in 2016 is as follows:-

Vehicle Type	% Traffic
Cars/Light Vans	95.7%
Heavy Goods Vehicles (7.5 tonnes and above)	2.6%
Public Transport Vehicles	1.7%

Average daily traffic crossings of approximately 27,000 vehicles are recorded, approximating to 9,855,000 vehicles a year. The composition of Cars /Light Vans is 96%.

The daily crossing during 2020 were reduced by approximately 35% following a “lock-down” by the Scottish Government that saw a “stay-at-home” order for all workers apart from those seen as “essential” or “key” workers because of the Covid-19 pandemic. Traffic figures returned to approximately 95 % of pre-pandemic levels by the last quarter in 2021.

3.3 Safety Considerations

- Historically there are few road traffic accidents associated with the condition of the Tay Road Bridge
- Ongoing maintenance of the carriageway and lighting and signage will contribute to the ongoing safety of bridge users.
- The walkway was covered with anti-slip GRP sheeting by the end of 2015. This is an improvement to the asset. Ongoing maintenance of this by the in-house maintenance team is required to ensure GRP sheets remain secure.

3.4 Utility Activity

The Tay Road Bridge does not carry any buried Public utilities which could lead to a deterioration of condition of the bridge surfacing or cause delays and disruption generally associated with Utilities Works. A Fibre Optic Cable owned by City Fibre Ltd runs below the walkway on a cable tray. Access to this cable is via the bridge inspection

gantries and as such works to this cable would not significantly affect public use of the bridge.

3.5 Third Party Claims (to 31 December 2020)

The number of Third party claims received over the past 14 years is 28
The number of claims paid over the past 14 years is 5
The cost of Third party claims paid over the past 14 years was £20,227.91
The general pattern of claims relate to alleged damage to vehicles caused by minor carriageway defects and debris.

3.6 Environmental Considerations

There are few specific environmental issues associated with the management and operation of the Tay Road Bridge.

The bridge gullies are drained directly into the River Tay which would not be permitted under current legislation. In order to minimise the environmental effects of run-off from the bridge and to protect the bridge structure from degradation caused by road salts, an inert de-icing solution (potassium acetate) is used as a de-icing fluid.

3.7 Network Availability Considerations

Due to the pattern of usage, works programmed by the TRBJB or external contractors are limited to off peak periods. The period during which works are permitted are:-

Southbound – between 09:30 and 15:30
Northbound- no work prior to 09:30 but no evening restriction
Full Closures – limited to 01:00 and 04:00

3.8 Amenity Value Considerations

There are no specific amenity value considerations relating to the Tay Road Bridge.

4 Management Practices

4.1 Policies

Prior to the implementation of the Asset Management Plan, the Tay Road Bridge did not have any formal policies on the management of the Tay Road Bridge. However the bridge has been inspected and maintained in accordance with general custom and practice used nationally by the majority of bridge owners.

4.2 Inspection Regime

The inspection regime undertaken at the Tay Road Bridge has generally followed the recommended frequency for inspections, in accordance with the Code of Practice for the Management of Highway Structures is as follows:-

Inspection Type	**Frequency**	**Description**
General	2 years	Visual examination
Principal	6 years	All elements inspected within touching distance and physical testing as required
Special	As necessary	As required following damage, change of loading or deterioration of a structures condition
Assessment	As necessary	Inspection required prior to carrying out a load carrying capacity assessment

The majority of General and Principal Inspections are carried out by TRBJB staff augmented by resources from specialist consultants as and when required e.g inspection of columns by abseilers.

The majority of the main structural elements are in locations with difficult access and require the use of the self-propelled inspection gantries.

The current output of these inspections is generally in electronic report format.

The Tay Road Bridge Joint Board utilises an inspection regime which is compliant with the “Well-Managed Highway Infrastructure – A Code of Practice”.

4.3 Condition Assessment

In line with the “Well-Managed Highway Infrastructure – A Code of Practice”, either a Chartered Civil Engineer (the Bridge Manager) or Incorporated Highways and Transportation Engineer (the Deputy Bridge Manager) undertakes the inspections along with an in house appointed Bridge Inspector. The Bridge Manager is responsible for liaising with the Engineer to the Board to discuss asset condition and developing a forward 10-20 year programme of capital works.

4.4 Construction/Asset Acquisition

Given the nature of the Tay Road Bridge Joint Board there are no major assets acquired.

4.5 Routine Maintenance

Routine reactive repairs that are identified during the bridge inspection process are prioritised by the Engineer to the Board and the Bridge Manager. There is no formalised priority hierarchy or response times in place. It is not considered necessary to utilise such systems for a single asset such as the Tay Road Bridge.

4.6 Operational/Cyclic Maintenance

Cyclic maintenance such as gully emptying, carriageway cleaning is contracted out to Dundee City Council’s Environment Department. Ad hoc repairs to the carriageway to remove hazards to bridge users in the short term until permanent repairs are affected is completed by in-house staff or external contractors.

4.7 Planned Maintenance

Renewals

The main elements requiring regular renewal are:

Expansion Joints	20 years
Carriageway Surfacing	20 years
Bearings	30 years

The bridge bearings were replaced in 2007/08 and it is currently anticipated that replacement of the carriageway surfacing and bridge expansion joints will be completed by 2026. New gantries are also scheduled to be delivered and operational by 2026.

Major Maintenance

The main element requiring major maintenance is the paintwork to the steel box girders. The periods for painting maintenance are generally as follows:-

Intermediate maintenance	7 years
Repaint	15 years

Major renewal/maintenance works are contained in the TRBJB Capital Works Programme.

4.8 Disposal

The TRBJB does not have a formal policy on the disposal of major assets, but each case would be individually considered by the Board.

5 Investment

Prior to February 2008, income from the collection of tolls was reinvested in the bridge by way of routine and major maintenance schemes. Since February 2008 funding has come directly from the Scottish Government, via liaison with Transport Scotland, and all items of major capital expenditure are subject to prioritisation and submission for funding. Meetings between Transport Scotland and TRBJB Officers take place twice a year and are recorded by Minutes.

5.1 Historical Investment

Revenue

Revenue expenditure has generally been maintained at a level whereby routine and minor reactive works can be accommodated. Unlike most structures, the Tay Road Bridge has a number of electronic systems, such as cathodic protection, which requires monitoring and management in addition to the normal routine maintenance areas such as surfacing etc.

Capital

The capital investment since 1985 is given below:

Year	Work	Cost
1985-89	Replacement of Gantries and Runway Beams	£2.5M
	Outer Parapet Refurbishment	
1985-91	Replacement of carriageway expansion joints	£1.5M
1987 - 94	Repairs to concrete columns and installation of cathodic protection system	£4.5M
1990-95	Major repainting works	£5.5M
1998	Refurbishment of central walkway	£4.5M
2002-03	Internal Box Girder Strengthening	£4M
2005 - 08	Bearing replacement	£18M
2009	Central Walkway Street Lighting Replacement	£0.25M
2010	Fife abutment bearing replacement	£0.7M
2010	Fife Car Park Slope Stabilisation	£0.1M
2012	Pier Collision Protection Works	£19M
2015	Walkway Surfacing	£0.5M
2016/17	CCTV	£0.16M
2017	VMS	£0.175M
2017	Administration Office Car Park	£0.06M
2018	Passenger Lift	£0.091M
2019	LED Lighting Heads	£0.218M
2019	Switch Gear	£0.071M
2020	Refurbished Control Tower & Mess Room	£0.75
	Total	£62.575M

5.2 Output From Investment

Investment will ensure that the Tay Road Bridge will continue to safely serve all bridge users throughout its life.

5.3 Forecasting Financial Needs

There is no documented process for establishing budgetary needs. All items of major Capital expenditure are prioritised and included in the TRBJB's 10–20-year capital plan. This information is used for submission to the Scottish Government for funding applications. The Bridge Manager, Engineer and Treasurer make grant applications monthly to meet Capital spend obligations. The TRBJB Officer's (or Officer's representatives) and the Bridge Manager meet with Transport Scotland bi-annually to discuss budgetary requirements and spend profiles.

In addition to the long-term capital plan the Engineer to the Board and the Bridge Manager prepare a rolling 3-year programme which is submitted to the TRBJB for approval on an annual basis.

The needs of a major structure such as the Tay Road Bridge vary compared to that of a Roads Authority who own a mixture of structures.. Given the scale of the structure most maintenance schemes will be of significant value and details are given in the draft 10–20-year capital plan.

5.4 Valuation

The most recent estimate of the cost of reconstruction of the main bridge structure is £130M. Currently the SCOTS Asset Management Group is looking at the valuation of structures and their guidance will be used for calculating the Total Depreciated Replacement Cost, which represents the estimate of the current book value of an asset. This reflects the fact that a proportion of the asset has been consumed/used up as a result of use and ageing.

Forward Works Programme

5.5 Existing Programmes

Capital Works

The Engineer to the Board and the Bridge Manager jointly produce long and medium-term programmes for Capital Works. The long-term programme covers works up to at least 10 years in the future while the medium-term programme covers a period of 3 years. The 3-year Capital Programme is subject to approval by the full Joint Board. The current approved 3-year Capital Plan is attached in Appendix A.

A five-year term multi-disciplinary engineering consultant, WSP Ltd based in Perth, was appointed by the TRBJB in 2019 to provide expertise and assist with the planning and design of future Capital Projects, including the resurfacing of the carriageway and expansion joint replacement, and new inspection gantries, expected to be delivered from 2023/24.

Revenue Works

The Bridge Manager, in conjunction with the Treasurer, prepares an annual budget for Revenue Works consisting of cyclic and routine maintenance, required for the general safety and operating efficiency of the bridge and includes the upkeep of all electronic equipment such as variable message signs, weather monitoring and lighting equipment.

In addition to planned maintenance reactive maintenance is carried out on an ad hoc basis by the Board's Maintenance staff.

These works are covered by the annual Revenue Grant supplied by the Scottish Government.

5.6 Programme Coordination

As a single asset entity there is no real requirement for programme coordination. Timing of the works is considered in terms of potential effects on delays and disruption

to bridge users and coordination with neighbouring Roads Authorities is carried out to avoid overlap of works.

5.7 Option Appraisal

There is no formal Option Appraisal process other than all major works schemes are taken to the TRBJB for approval. Any reports will include a range of options and a recommended course of action for approval by the TRBJB.

6 Risk

The TRBJB has adopted a Corporate Risk Management strategy that examines all risks associated with the TRBJB's management of the bridge. This strategy is subject to review on a regular basis and is approved by the Board. It is recognised that it is not possible to remove all risks, but the risk management strategy allows risks to be quantified and managed appropriately.

The Corporate Risk Strategy can be found on the TRBJB website at https://www.tayroadbridge.co.uk/index.php/board-business/board-documents (accessed 15 November 2021)

7 Works Delivery and Procurement

The TRBJB seek to achieve best value in all works carried out on the bridge for both revenue and capital works.

All works carried out by external Contractors are procured in accordance with the TRBJB's approved tender procedures.

Routine maintenance works are carried out by the TRBJB's in house Maintenance workforce wherever possible.

8 Performance Management

There are no Statutory Performance measures used by the TRBJB as the bridge is a single asset. A Strategic Plan covering 2019 to 2024 has been published on the Tay Road Bridge Joint Board (TRBJB) website, and as part of the annual accounts a

number of voluntary performance measures are reported to the TRBJB annually within the Bridge Manager commentary within the Annual Accounts report. The Annual Accounts are published on the TRBJB website.

Availability to traffic is measured and reported to the TRBJB on a quarterly basis.

9 Future Strategies

All Tay Road Bridge Inspectors are working towards obtaining the recently introduced (2018) Bridge Inspector Certification qualification, certified by Lantra on behalf of the UK Bridges Board and supported by Transport Scotland.

10 Service Improvement Actions

One area for Service Improvement is to improve the bridge inspection capabilities and reliability with the planned introduction of new bespoke and more efficient and reliable under carriageway inspection gantries in 2023/24. A term multi-disciplinary engineering consultant, WSP Ltd based out of Perth, was appointed by the TRBJB in 2019 to help provide the requisite expertise to drive this, and other capital projects forward.

APPENDIX A

PROPOSED CAPITAL EXPENDITURE PROGRAMME 2022/2023 - 2024/2025

	Strategic Objective	Projected Outturn 2021/22	2022/23	2023/24	2024/25
		£000	£000	£000	£000
Project Title					
Carriageway Resurfacing	1	315	100	3,600	3,600
CP Hardware	5	50	200	-	-
CP Replacement	5	-	-	25	2,000
Advanced Warning Signs	1	50	400	-	-
Inspection of Columns and Piers	5	24	-	-	-
Replacement of Expansion Joints	1	25	25	750	750
Parapet Refurbishment / Replacement	5	-	10	-	-
New Vehicles	5	-	-	30	-
New Gantries	5	100	100	2,000	50
Fife Landfall Improvements	5	-	150	-	-
Paintwork to Box Girders	5	-	25	-	-
Scour Protection	5	-	-	-	25
Gantry – Miscellaneous	5	25	25	25	25
Miscellaneous Projects	5	166	100	100	100
New Distribution Board	5	-	100	-	-
Winter Maintenance Equipment	1	-	75	-	-
Dundee Compound Resurfacing	5	50	-	-	-
		805	**1,310**	**6,530**	**6,550**
Funded by					
Capital Grant		805	1,310	tbc	tbc
		805	**1,310**	**-**	**-**

APPENDIX B 10 Year Capital Plan (as issued to Transport Scotland September 2021)

TAY ROAD BRIDGE JOINT BOARD
10 YEAR PROGRAMME
UPDATED 14 SEPTEMBER 2021

Project Title	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028	2028/2029	2029/2030	2030/2031	2031/2032	Comments
CAPITAL																
CP Replacement							25,000	2,000,000	2,000,000	2,000,000	2,000,000	50,000				Potential CP replacement based on 30 year design life. CP Installed from 1991 to 1995 and Nav Spans in 2000.
CP Hardware					50,000	200,000										Allowance for refurbishment to CP hardware. CP Corrosion specialists currently (in 2021) reviewing system performance following installation of new monitoring equipment to advise if any hardware is required. This will then form if CP full replacement is required or not.
CP Monitoring Equipment		39,019	123,735													New CP Monitoring Equipment installed 2019. Complete.
Advanced Warning Signs					50,000	400,000										Fairel communication system will no longer be supported from March 31 2022. Requirement to install 4G connection to maintain and improve communication with signs (2021/22 £50k for switch to 4G). Allowance for £400k in 2022/23 to replace two older signs at StMichaels and A92 SLFort and liaise with Transport Scotland regarding installation of new sign at Parbroath, Fife, to communicate effectively with public particularly important given major carriageway resurfacing project in 2023/24 and 2024/25.
North Approach Viaducts Remedial Works																Works to hall joints on the North Approach Viaducts completed 2015.
Carriageway Resurfacing		2,958	16,818	75,497	255,000	100,000	3,600,000	3,600,000	75,000							WSP Consulting reports (2021) confirms carriageway beyond life. Programmed to be carried out in 2023/24 and 2024/25 at same time as expansion joint replacement.
Replacement of Expansion Joints	3,728	5,294	27,790	22,305	35,000	25,000	750,000	750,000	50,000							Replacement of beyond life expansion joints. First set installed in 1969. Programmed to be carried out at same time as carriageway resurfacing.
Parapet refurbishment/replacement						10,000			150,000	1,500,000	1,500,000	25,000				Outer parapets refurbished in 1988. Inner parapets renewed in 1998. PI Testing of parapet to be undertaken 2022/23.
Central Walkway Surfacing Replacement																GRP panels installed in 2015.
Bearing Replacement																Piers 2 to 29 and 35 to 41. Completed in May 2008. 30 year design life.
Runway Beam Bracket Replacements																Remedial Works to runway beam expansion joint brackets. Works completed in Aug 2010.
Major Paintwork to Box Girders						25,000			100,000	4,000,000	4,000,000	4,000,000	4,000,000	4,000,000	60,000	External surfaces fully repainted from 1990 to 1995 with Acrylated Rubber system requiring major maintenance after 12 years. Painting Maintenance Strategy Report completed Dec 2009. Recommended removal of AR system starting in summer 2022. Independent specialist paint inspection carried out in summer 2016 noted paint still in very good condition given exposure and noted 7 to 9 year expected lifespan. Paint to be retested 2022/23 to check condition as GI in 2020 noted visual inspection paint work still appeared generally sound. Allowance for £25k for testing. Repainting to be phased over 5 years and to avoid resurfacing contract.
Inspection of Columns and Piers			777.43	182,668	39,000					300,000						Abseil inspections within defined inspection frequencies and subsequent repairs.
New Gantries			0	40,537	100,000	100,000	2,000,000	50,000								Existing gantries fully operational in 1992. Major upgrade completed in 2011/12 and repairs 2019. In 2021 replacement required as beyond 30 year design life and maintenance burden impeding use. Replacement planned to coincide with carriageway resurfacing and expansion joint replacement.
Weather Monitoring Equipment etc											30,000					Upgrading/replacing weather monitoring equipment on bridge (installed 2017).
CCTV	159,000															New CCTV installed 2017. 15 year system design life.
Lift Replacement		89,508	0	3,000												New lift installed 2018. 20 year design life.
New Switch Gear (Dundee and Fife Ends)		162,778	33,815	4,572												Switch gear replaced in 2019. 20 -25 year design life.
Bridge Office Property Refurbishment	55,935	18,298	262,785	480,435												Control room, new flat roof and improved mess room completed 2020
New Vehicles	142,920		48,481		0		30,000		30,000		30,000		200,000			Maintaining fleet in good order by rotational programme of regular replacement of vehicles.£200k allowance 2029 for new IPV.
VMS	147,900															2017 – to replace 4x VMS on the bridge & 1 VMS at Fife Bridgehead. Complete
Scour Protection								25,000	225,000					25,000	225,000	This is a provisional allowance for protection works.
Pier Collision Protection to Navigation Spans (Piers 31 to 33)																Piers 31 to 33 protected by a sacrificial pier collision protection system. Complete 2012.
Fife Abutment Bearing Replacement																Works completed in March 2010. 30 year design life.
Bearing Replacement to Navigation Spans Piers 30 and 34																Works completed in November 2008. 30 year design life.
Lighting Column Replacement																Works completed in March 2009. 40 year design life.
Fife Retaining Wall																Retaining wall removed and soil stabilisation works carried out. Works completed in April 2010.
LED Lighting to Bridge Carriageway, Bridge Walkway and Fife Car Park			70,452													Switch to LED lighting across Bridge/Walkway and in Fife Car Park. Completed 2019.
Miscellaneous Projects				5,072	180,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000		Annual contingency and allowance for minor projects that will improve operational efficiency or safety of TRB operations
Gantry Miscellaneous				0	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000		Annual contingency for unexpected gantry repairs
Fife Landfall Improvements					0	150,000										Improvements to Fife vegetated slopes and tree management to maintain public safety.
Resurfacing Dundee Compound					75,000											Compound surfacing is uneven and broken up represents a trip hazard. Patching required to make safe.
New Distribution Board Administration Office						100,000										Advised by DCC Electrical Engineers that Distribution Board in Administration Building needs replacin as components are now obsolete.
Bridge Concrete Repairs										1,000,000						Allowance for concrete reapirs to top of piers and underside of cantilever road deck at expansion joint locations. Coincide with 2026 contract for inspection of piers and columns when access is available.
Winter Maintenance Equipment						75,000										De-icing fluid storage tank requires replacing with double skin and bunded arrangement. New de-icing bowser required.
TOTAL	509,513	298,848	555,456	815,174	806,000	1,310,000	6,530,000	6,550,000	2,755,000	8,925,000	7,585,000	4,200,000	4,325,000	4,150,000	285,000	
Budgeted Crane Funding	750,000	750,000	187,500	1,475,000	806,000	1,310,000	6,530,000	6,550,000	2,755,000	8,925,000	7,585,000	4,200,000	4,325,000	4,150,000	285,000	
In year revisions to Crane Required based on latest outturn figures				-659,826	0	0	0	0	0	0	0	0	0	0	0	
Capital Cranes carried forward from previous years	1,308,101	1,547,710	2,011,258	0	0	0	0	0	0	0	0	0	0	0	0	
Capital Receipts	7,125	12,380	6,661	0	0	0	0	0	0	0	0	0	0	0	0	
Repayment of Unspent Capital Cranes Carried Forward			-1,559,010	0	0	0	0	0	0	0	0	0	0	0	0	
Difference	1,547,710	2,011,258	0	0	0	0	0	0	0	0	0	0	0	0	0	
CFCR (from 2017/18 to 2019/20)																
Miscellaneous Projects	46,359	14,460	57,027	0	0											
Gantry Miscellaneous	40,160	76,104	10	0	0											
TOTAL	86,519	90,564	57,037	0	0	0	0	0	0	0	0	0	0	0	0	

Note: Costs based on present day values August 2016

KEY
Critical
Must Do
Desirable
Complete

T:\Finance\Capital Plan\2021\2021\0914-10 Year Prog (Prioritised)-AH 11.0/Capital 2010_31

15/11/2021