

Appendix 5-1 – Do Minimum

Details of the infrastructure interventions included in TMfS:18 are provided below.

Road

Road infrastructure improvements included in the Do Minimum scenario is provided in the table below.

Intervention	Model Year	Comment
A737 Dalry Bypass	2022	Opened 30th May 2019
A77 Maybole Bypass	2022	Opened January 2022
Aberdeen Western Peripheral Route (Full Route)	2022	June 2018 – Parkhill to Blackdog opened. August 2018 – Balmeddie to Tipperty opened. February 2019 - Final section opened.
Greenhills Road / A726 Strathaven Corridor Improvements	2022	Opened March 2022
Haudagain Roundabout	2022	Opened May 2022
Inverness West Link	2022	Opened April 2021
Laurencekirk Junction Improvement	2022	Scottish Government policy and funding approval. Project delayed by need to publish supplementary draft Orders to ensure continued access to Oatychill.
M8 J29a Bishopton Junction	2022	Opened December 2019.
Viewforth Link Road	2027	Included in Adopted Stirling Local Development Plan. Planning consent narrowly given by Council in 2019 although has since been met with significant public opposition. No funding commitment.
Clyde Waterfront & Renfrew Riverside Including Renfrew Yoker Bridge and Renfrew North Development Road	2027	The new Renfrew Bridge opened for public use on Friday 9 May 2025.

Public Transport

Network Interventions

Rail network interventions included in the Do Minimum scenario are provided in the table below.

Intervention	Model Year	Comment
Robroyston Station	2022	Operational as of December 2019 with service specification taken from December 2019 Network Rail Schedule data.
Reston Station*	2022	The new station was opened on 23 May 2022, although at time of coding, the service levels were not committed.
East Linton Station*	2022	The new station was opened on 13 December 2023, although at time of coding, the service levels were not committed.
Dalcross Station	2022	The new station was opened on 2 February 2023.
Kintore Station	2022	The new station was opened on 15 October 2020.
Edinburgh Tram Newhaven Extension Phase	2027	The tram extension was operational from 7 June 2023.

*Note: Station included in Do Minimum, but services do not stop there as service levels are not committed.

Rail Service Changes

Base year modelled rail service lines coding is from Network Rail Schedule data for August 2018. The updated rail service lines coding for the Do Minimum forecasts was taken from Network Rail Schedule data for December 2019, which includes rail service enhancements such as Robroyston Station. Future year (beyond 2019) rail interventions were coded based on the previous Do Minimum specification. Data on changes in strategic rail service provision between 2014 and 2022 was received from Network Rail on 16 November 2018. Network Rail confirmed that there were no further commitments beyond 2022 at that time.

The Rail Do Minimum assumptions for subsequent years are therefore identical to the 2022 assumptions listed in the table below.

Additional information was extracted from publicly available sources as follows:

- Information on journey times from the ScotRail Franchise Service Level Commitment;
- Information on car parking spaces from the ScotRail Franchise Agreement; and
- December 2019 ScotRail timetable taken from Network Rail Schedule data.

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Information on changes in the service provision on the strategic network was provided by Network Rail. Base year rolling stock allocations were modelled based on the May 2018 train plan provided by Transport Scotland / ScotRail. The updated lines coding was based on the December 2019 train plan provided by Transport Scotland / ScotRail, which incorporate additional capacity provided at that time. Future year capacity changes were modelled based on rolling stock allocations indicated as part of the service specifications (overleaf), with seated and crush capacities based on the train plan information.

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Service Level Changes from 2018

LINE	MODEL YEAR	SERVICE LEVEL CHANGE	MODEL CODING
EDINBURGH - GLASGOW VIA FALKIRK HIGH	2022	<ul style="list-style-type: none"> Rolling stock upgrade to 8 car class 385s Croy stopping pattern achieves 42.5 minute journey time with three intermediate stops (Croy, Falkirk High*, Haymarket*, Linlithgow, Polmont). 	<ul style="list-style-type: none"> No changes made to December 2019 schedule or stopping pattern All end to end journey times amended to 42.5 minutes.
EDINBURGH - GLASGOW VIA FALKIRK GRAHAMSTON	2022	<ul style="list-style-type: none"> Hourly Glasgow Queen Street High Level to Falkirk Grahamston, via Cumbernauld changes to a half hourly frequency with all trains running through to Edinburgh calling at all stations until early evening. Trains call at all stations between Springburn and Cumbernauld. Rolling stock upgraded to 4 car class 385 Standard journey times to Cumbernauld reduced by 13 minutes. 	<ul style="list-style-type: none"> Scheme incorporated in December 2019 timetable with no further changes Includes new Robroyston station with all services stopping at Robroyston.
DUNBLANE - EDINBURGH	2022	<ul style="list-style-type: none"> Edinburgh to Dunblane services no longer call at Polmont and Linlithgow Services timed on faster electric SRTs, with journey times reduced by up to 12 minutes 	<ul style="list-style-type: none"> Scheme incorporated in December 2019 timetable with no further changes.

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LINE	MODEL YEAR	SERVICE LEVEL CHANGE	MODEL CODING
		<ul style="list-style-type: none"> Rolling stock upgrades to 6 car class 385s. 	
DUNBLANE/PERTH - GLASGOW	2022	<ul style="list-style-type: none"> Additional hourly semi-fast diesel service to Dundee commences calling at all stations from Stirling, through extending the Glasgow Queen Street to Dunblane service (calling at Bridge of Allan, Stirling, Larbert, Croy, Lenzie, Bishopbriggs) to Dundee and Arbroath and removing halts between Glasgow Queen Street and Stirling. Rolling stock upgraded to 3 car class 170s Commuter services between Lenzie and Glasgow Queen Street extended to Stirling Half hourly diesel service between Glasgow and Dunblane/ Alloa converts to an electric stopping service, running to Stirling with one per hour extending to Alloa. Journey times for the hourly Stirling service 33 minutes and for the hourly Alloa service 43.5 minutes. 	<ul style="list-style-type: none"> Based on the December 2019 timetable, amendments made to services between Dunblane and Glasgow, with Dunblane services extended to start/terminate at Arbroath. Services call at Dundee, Invergowrie, Perth, Gleneagles, Dunblane, Bridge of Allan and Stirling. All stops between Stirling and Glasgow Queen Street removed, journey time updated based on existing services. Frequencies updated to provide hourly provision Based on the December 2019 timetable, amendments made to revise frequencies to minimum hourly: <ul style="list-style-type: none"> Glasgow Queen Street to/from Stirling with run time of 33 minutes; and Glasgow Queen Street to/from Alloa with run time of 43.5 minutes.

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LINE	MODEL YEAR	SERVICE LEVEL CHANGE	MODEL CODING
		<ul style="list-style-type: none"> Rolling stock upgrades to 6 car class 385s. 	
TWEEDBANK - FIFE CIRCLE	2022	<ul style="list-style-type: none"> Journey times reduce by 1 minute Rolling stock upgraded to 4 car class 158s 	<ul style="list-style-type: none"> Journey time reductions modelled between Gorebridge and Stow No further change to December 2019 timetable.
EDINBURGH - GLASGOW VIA SHOTTS	2022	<ul style="list-style-type: none"> Half-hourly Shotts services call at Breich. Rolling stock upgraded to 4 car class 385s. 	<ul style="list-style-type: none"> Based on the December 2019 timetable, all services updated to call at Breich No changes to run times due to the extra Breich stop, with call time subsumed within existing run time.
INVERURIE - MONTROSE	2022	<ul style="list-style-type: none"> New hourly Montrose to Aberdeen stopping service introduced Rolling stock consists of 2 car class 158s Frequency on the Aberdeen to Inverurie section increased to half hourly, utilising the Montrose to Inverurie services to provide cross city opportunities. 	<ul style="list-style-type: none"> Service level provision between Montrose and Aberdeen in both direction for all three time periods already at specified levels in December 2019 timetable, therefore no changes Two extra Aberdeen - Inverurie services modelled in morning peak. Remaining periods for Northbound and Southbound in the December 2019 timetable include the specified service provision, therefore no further changes.

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LINE	MODEL YEAR	SERVICE LEVEL CHANGE	MODEL CODING
INVERNESS - ABERDEEN	2022	<ul style="list-style-type: none"> Kintore Station and Dalcross Station open by 2022. Frequency increases between Inverness and Aberdeen resulting in one train per hour between Inverness and Elgin, one train every two hours between Inverurie and Aberdeen and one train per hour between Inverurie and Montrose. Rolling stock provided by a mix of class 158s, class 170s and 5 car High Speed Train (HST) sets (to be modelled as an average 4 car class 158). 	<ul style="list-style-type: none"> Kintore Station served by all Inverness – Aberdeen and Inverurie – Aberdeen/Montrose services Dalcross Station served by all Inverness – Aberdeen and Inverness – Elgin services Where service call at either Dalcross or Kintore, run times extended by three minutes, if service calls at both stations, run time extended by six minutes To provide hourly service between Inverness and Elgin, an additional service is provided in the morning peak from Inverness and in the evening peak to Inverness Service provision between Inverurie/Aberdeen/Montrose captured by Inverurie – Montrose interventions above.
ABERDEEN - GLASGOW	2022	<ul style="list-style-type: none"> Glasgow to Aberdeen Intercity services no longer call at Portlethen and Stonehaven 	<ul style="list-style-type: none"> Services that call at either Portlethen or Stonehaven, no longer do so, with journey time benefits on that section.

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LINE	MODEL YEAR	SERVICE LEVEL CHANGE	MODEL CODING
		<ul style="list-style-type: none"> • Most services are HST operated with journey times reduced by seven minutes • Rolling stock upgraded to 5 car HST. 	
EDINBURGH- ABERDEEN	2022	<ul style="list-style-type: none"> • Edinburgh to Aberdeen Intercity services no longer call at Portlethen and Stonehaven • Most services HST operated with journey times reduced by seven minutes • Rolling stock upgraded to 5 car HST. 	<ul style="list-style-type: none"> • Services that call at either Portlethen or Stonehaven, no longer do so, with journey time benefits on that section.
INVERNESS - GLASGOW	2022	<ul style="list-style-type: none"> • The Highland Mainline service improved to an hourly frequency north of Perth, with one train every two hours from Glasgow • Service operated almost exclusively by HST trains, with journey time savings of up to 10 minutes, averaged to 7 minutes per service • Rolling stock upgraded to 4 car HST. 	<ul style="list-style-type: none"> • Service frequency revised from 180 to 120-minute headway in the morning and evening peak in both directions. No changes required within the Inter Peak • Journey time saving of 7 minutes applied to all services spread along entire line.

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LINE	MODEL YEAR	SERVICE LEVEL CHANGE	MODEL CODING
INVERNESS - EDINBURGH	2022	<ul style="list-style-type: none"> The Highland Mainline service improved to an hourly frequency north of Perth, with one train every two hours from Edinburgh Service operated almost exclusively by HST trains, with average journey time savings of up to 10 minutes, averaged to 7 minutes Rolling stock upgraded to 4 car HST. Services no longer call at Ladybank and Edinburgh Gateway. 	<ul style="list-style-type: none"> Service frequency revised from 180 to 120-minute headway in the morning and evening peak in both directions. No changes required within the Inter Peak No services call at Ladybank or Edinburgh Gateway Journey time saving of 7 minutes applied to all services spread along entire line.
EAST KILBRIDE SERVICES	2022	<ul style="list-style-type: none"> Increased capacity to 6-car class 156s. 	<ul style="list-style-type: none"> No change to timetable, only capacity.
BALLOCH SERVICES	2022	<ul style="list-style-type: none"> Balloch services strengthened to 6 car class 320s. 	<ul style="list-style-type: none"> No change to timetable, only capacity.

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Tram

As noted above, the extension of Edinburgh Trams to Newhaven was represented in the 2027 Do Minimum model and subsequent years based on information available at the time of coding (December 2019).

Ferry and Subway

No changes are anticipated in terms of service pattern, frequency, or journey times for ferry and subway.

Bus

The future year coding for bus services was updated to take account of modifications to the Do-Minimum road network.

Where a service reaches capacity, it was assumed that the bus service provider responds by running more buses with a higher frequency. This assumption required no change to the Do Minimum coding, as capacity restraint is not modelled for bus services.

Public Transport Fares

Rail

Rail Fare changes are described in the ScotRail Franchise agreement (Schedule 5.1 para. 1.5).

- 2015 onwards (Peak Fare change) - RPI p.a.
- 2015-2021 (Inter Peak Fare change) - RPI -1% p.a.
- 2022 onwards (Inter Peak Fare change) - RPI p.a.

Rail fares in TMfS:18 are modelled using station-to-station matrices based on the Rail Delivery Group fares data feed. Fares are defined by period and purpose where ticket proportions vary by distance. Rail fare growth was applied uniformly to all fares, assuming that this would be broadly applicable to all journeys. Rail fares to/from new stations were estimated based on adjacent stations as shown below.

Adjacent Stations for New Rail Station Fares Matrix Values

NEW STATION	ADJACENT STATIONS USED FOR FARES MATRIX VALUES
ROBROYSTON	Springburn, Stepps
RESTON	Dunbar, Berwick-upon-Tweed
EAST LINTON	Drem, Dunbar
DALCROSS	Inverness, Nairn
KINTORE	Dyce, Inverurie

*Note: fare for new station determined based on average of adjacent stations

Ferry, Tram and Subway

In the absence of evidence to the contrary, fares were assumed to change in line with RPI.

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Tram fares on the Newhaven Extension were modelled as per the base model, with a flat fare between all stops except to/from Edinburgh Airport where a higher fare is applied.

Bus

Bus fares were assumed to change in line with RPI.

Park and Ride

New Park and Ride Sites

PARK AND RIDE SITE	MODEL YEAR	CAPACITY
KINTORE	2022	100
WALNUT GROVE	2022	240
DALCROSS	2022	150
FINDON JUNCTION, PORTLETHEN	2022	1,000

Future changes to existing rail station car parking spaces were extracted from the Franchise Agreement. This requires the provision of additional capacity as listed below by the end of Year 5 of the Franchise Agreement, i.e. by 31st March 2021. The additional capacity was fully included in the 2022 and subsequent forecast years.

Capacity Changes at Existing Sites

STATION	CURRENT SPACES	ADDITIONAL SPACES	TOTAL SPACES
EAST KILBRIDE	287	150	437
STIRLING	276	140	416
AIRDRIE	139	80	219
UDDINGSTON	228	120	348
LENZIE	149	100	249

Note: TMfS:18 base model includes the following site expansions that were included in the TMfS:14 Do Minimum forecasts: Falkirk High, Bathgate and Johnstone.

Parking Charges

Future year parking charges were assumed to increase in line with RPI.