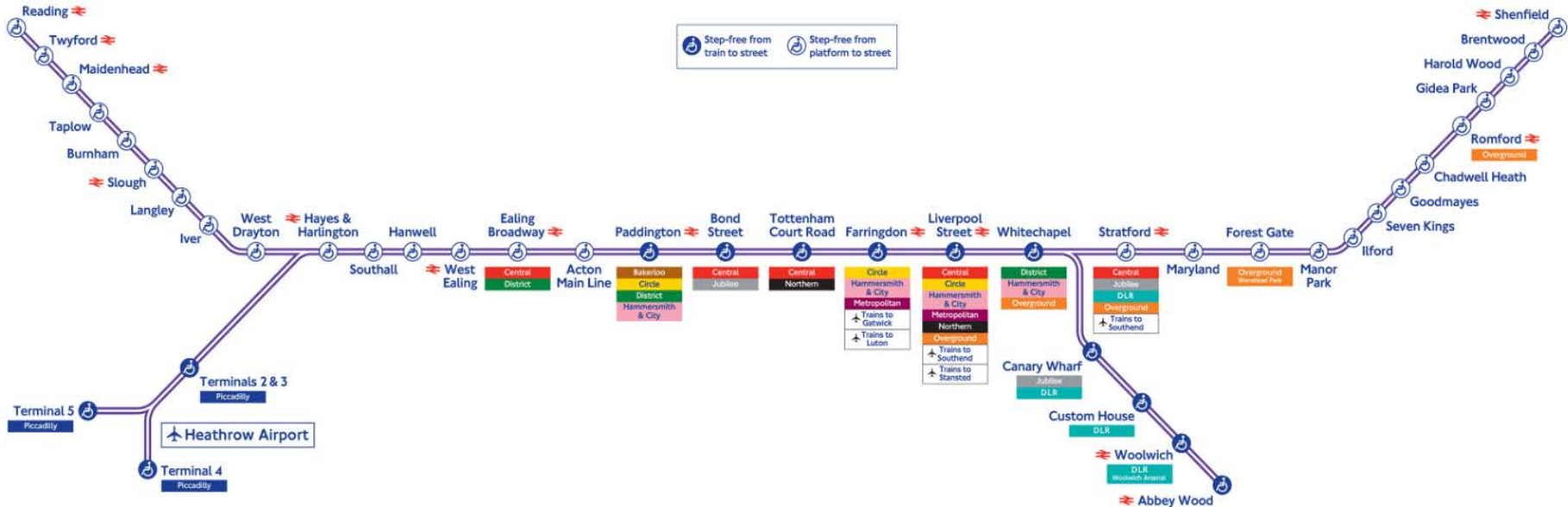


Elizabeth line readiness

- **Stage 1:** Operational service - **22 June 2017:** First new Class 345 train in passenger service between Liverpool Street and Shenfield – Completed
- **Stage 2:** **20 May 2018** - New class 345 rolling stock introduced on TfL Rail services Paddington – Heathrow
- **Stage 3:** **9 December 2018:** Elizabeth line opens. Services run Liverpool Street – Shenfield; Paddington – Heathrow; Paddington - Abbey Wood
- **Stage 4:** **May 2019:** Shenfield service extends to Paddington. Customers can travel directly from Shenfield all the way through central London
- **Stage 5:** **December 2019:** Elizabeth line fully open. Services run from Reading and Heathrow in the west to Shenfield and Abbey Wood in the east

Elizabeth line



Dynamic Testing Critical Path for Stage 5

2018

2019

Jan Feb Mar Apr May Jun July Aug Sept Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sept Oct Nov Dec

Finish Routeway Install

Test

Risk

← Not on critical path for 5/2 Dynamic Test

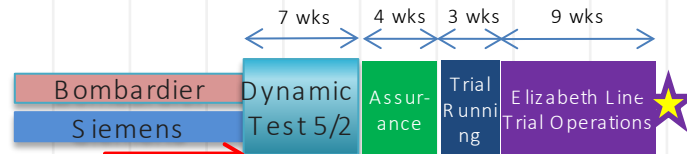
P20
Schedule Risk
Assessment Milestone

Assumptions

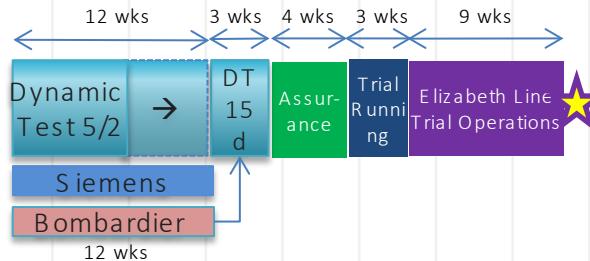
- Construction completed mid Oct 2018
- Use 7 weeks (35 days) as base assumption for DT in the 5/2 cycle

Key Risks to start Dynamic Testing (DT)

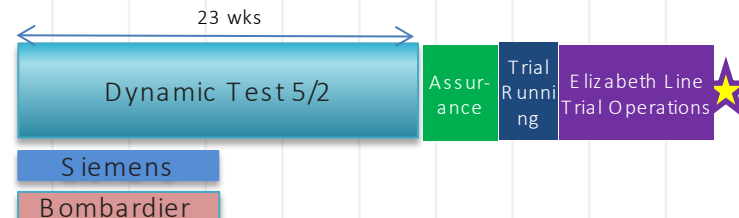
1. Train reliability to commence the 5/2 DT phase
2. Signalling installation and software
3. Routeway completion



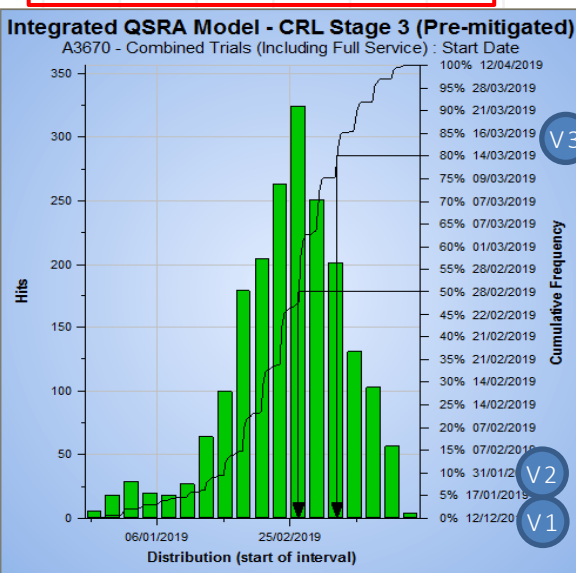
- V1
- 7 Wks DT – no re-testing
 - 4 weeks assurance
 - 3 Wks Trial Running
 - 9 Wks Trial Ops



- V2
- Similar duration for DT as (“original”) schedule
 - Additional software cycle needed for Trial Running
 - 4 weeks assurance
 - 3 Wks Trial Running
 - 9 Wks Trial Ops



- V3
- Similar duration for DT as MOHS 2015 schedule



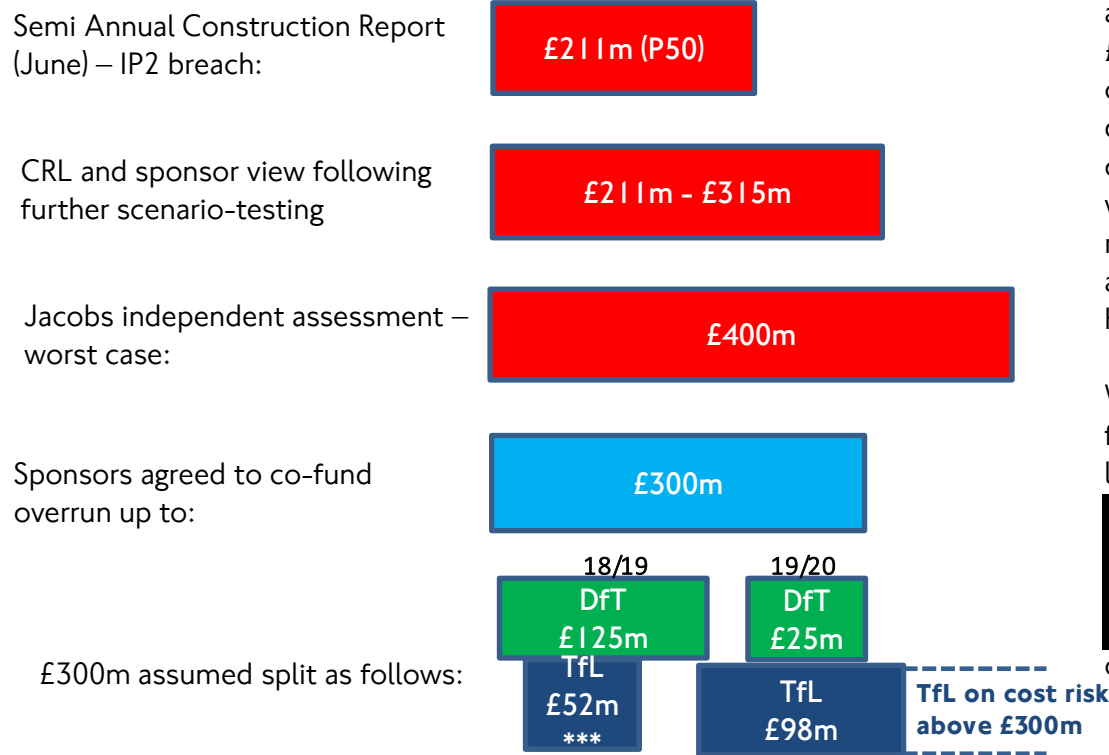
Impact on Stages 4 & 5

	Assumed Stage 3 date	Considerations	Stage 4	Stage 5	Risk	Notes
1	Dec 2018 / January 2019	<ul style="list-style-type: none"> Proximity to Stage 3 opening date could compromise May 2019 – operational “learning curve” Potential complications with Transitions / Train reliability 	May/ June 2019	Dec 2019	Not Possible	Dependent on reliability of transitions performance
2***	JUNE 2019	<ul style="list-style-type: none"> Overlapping Stage 3 Operational trials and with Stage 4 preparations 	SEPT 2019	DEC 2019	Medium	Aim for Sept for Stage 4 in order to protect Stage 5 service and revenue in Dec
3	Beyond July 2019	<ul style="list-style-type: none"> Can't open Stage 4 before Stage 3 	Dec 2019	June 2020	Low	Delays Stage 5 revenue by 5 months
3a	Beyond July 2019	<ul style="list-style-type: none"> Can't open Stage 4 before Stage 3 	Dec 2019	Dec 2019	Medium	Higher risk if Stage 4 and 5 are co-incident

***Currently assumed sequence for stage 3/4/5 opening – to be confirmed by CRL

Cost forecast – central section

Central section overrun above IP2



***In addition to the £125m funding from the DfT this year, and the £52m from TfL, Crossrail may require an additional £65m in cash this year which we will need to find based on current projection. Our cash balances are expected to decrease over the course of the financial year, meaning that our expenditure exceeds sources of funding this year and we will be spending a large part of our reserves. The remaining reserves, above the minimum prudent level, are already fully allocated to be spent on projects over the business plan horizon.

While the detail cash forecast for the remainder of this financial year needs to be confirmed, it is expected that a large portion [REDACTED] Our finance team are considering what our options are.

Heads of Terms covering these additional funding arrangements have been agreed between DfT and HMT officials (although the funding agreement itself is yet to be signed). The figures above exclude any costs for NR arising from On-Network Works for which DfT continues to be “on risk”.

Clearly, these draft funding arrangements were based on an understanding of risk exposure as described in (ii) above. Since then, the position in respect of schedule risk has clearly deteriorated significantly. The implications of this schedule slippage in terms of likely outturn cost is not yet understood. CRL have been asked to re-visit this as a matter of urgency.

Revenue Impact

£m	Delay	Delay Date	2018/19	2019/20	2020/21	2021/22	2022/23	Total 18/19 to 22/23
Fares income per Budget/Business Plan			146	431	817	862	913	3,169
Scenario One								
Stage 3	6 months	June 2019						
Stage 4	3 months	Sept 2019						
Stage 5	None	Dec 2019						
Revenue loss			(45)	(70)	-	-	-	(115)
less: TfL abstraction retention			23	26	-	-	-	48
Net risk			(23)	(44)	-	-	-	(66)
Scenario Two								
Stage 3	6 months	June 2019						
Stage 4	6 months	Dec 2019						
Stage 5	6 months	June 2020						
Revenue loss			(45)	(247)	(118)	-	-	(410)
less: TfL abstraction retention			23	66	24	-	-	112
Net risk			(23)	(181)	(94)	-	-	(298)

Additional NR costs – Western stations

Network Rail have recently received revised tenders for the Western Stations (Acton Mainline, Ealing Broadway, West Ealing, Southall, Hayes & Harlington and West Drayton). They have yet to conclude the evaluation process [REDACTED]

[REDACTED] Under the Heads of Terms [REDACTED] is to be provided by DfT.