

TRANSPORT FOR LONDON

RAIL AND UNDERGROUND PANEL

SUBJECT: CIRCLE, HAMMERSMITH AND CITY, DISTRICT AND METROPOLITAN LINES – PROPOSED SERVICE CHANGES

DATE: 26 FEBRUARY 2009

1 PURPOSE AND DECISION REQUIRED

1.1 The purpose of this paper and associated presentation is to provide an overview of proposed service changes to the Circle, Hammersmith and City, District and Metropolitan Lines.

2 BACKGROUND

2.1 The presentation provides:

- (a) the current issues on these lines – capacity, reliability and the line upgrade;
- (b) the proposed service changes; and
- (c) implications for customers.

3 RECOMMENDATION

3.1 The Panel is asked to NOTE the report.

4 CONTACT

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Circle, Hammersmith and City, District and Metropolitan lines

Proposed Service Changes

February 2009

A series of horizontal lines in various colors (blue, green, yellow, red, purple, grey) running across the bottom of the slide.

Contents



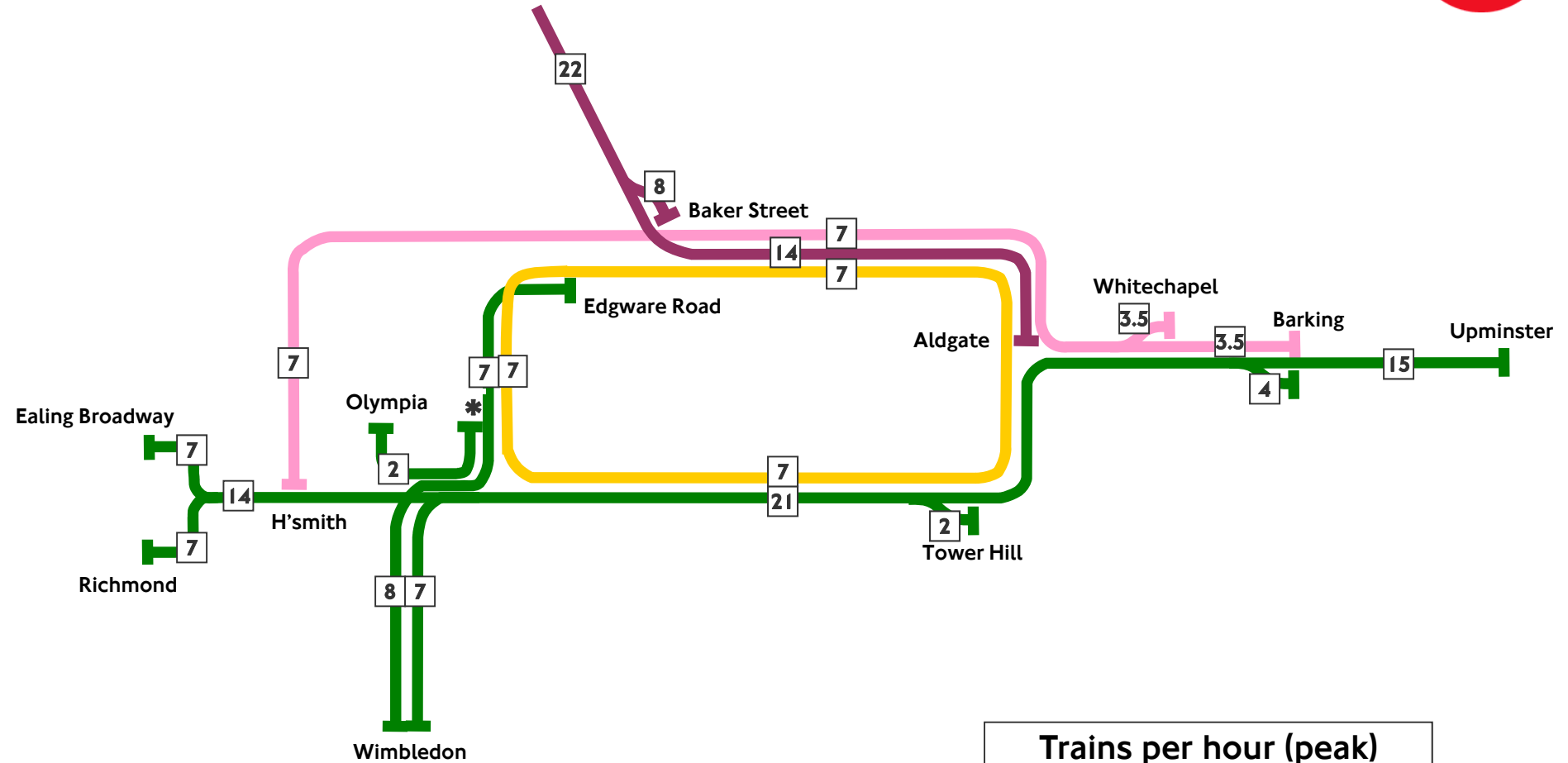
1. Introduction
2. Current issues on the Circle, District, H&C and Metropolitan lines
 - Capacity
 - Reliability
 - Line upgrade
3. Proposed train service changes
4. Implications for customers

Context



- Line Upgrade programme:
 - New trains will be delivered between 2010-2015
 - Signalling will be complete around 2017/18
- A number of other issues are also pressing:
 - Need to improve Circle line reliability – poor at present
 - Demand growth of 17% in last three years
 - Need to target capacity increases at key parts of network
 - Preparation for Crossrail works at Whitechapel District Line station

Current Service



Trains per hour (peak)

*1 tph from Wimbledon to High Street Kensington only



Inadequate run times

- Increased demand causes longer run times
 - More people boarding and alighting – longer dwell times
 - Trains take longer to complete a trip
 - Need to lengthen schedules to match
- Loss of Whitechapel reversing facility for H&C trains
 - Necessary for construction of Crossrail station
 - All H&C line trains will run to Plaistow or Barking – longer trips
- Longer trips with existing fleet size requires slightly lower scheduled frequencies on parts of the network
- However, frequencies delivered today often lower than scheduled because of inadequate scheduled running time

Capacity



- Demand rising everywhere, but some parts of network stand out...
- District line: Wimbledon branch
 - Service currently balanced between City and Edgware Road trains
 - But City trains are 50% busier during the morning peak (14,000 users)
- H&C line: Hammersmith branch (21,000 users in AM peak)
 - Currently 7tph peak service – lowest in zone 2
 - Westfield development estimated to attract 21 million people per year (22,000 arrivals via Tube each weekday)
 - Serves key areas of regeneration
- Met line: Baker Street – Aldgate (19,000 users in AM peak)
 - Customer feedback tells us these services are highly valued

Circle line reliability

- Need to improve reliability (230,000 users a day)
- Many characteristics make providing a consistently reliable service difficult for example:
 - Shares track with several other lines no tracks of its own
 - Continuous circling compounds delays – no terminus/end of the line recovery time if the service starts to run late
 - These difficulties are reflected in performance (see following graphs)

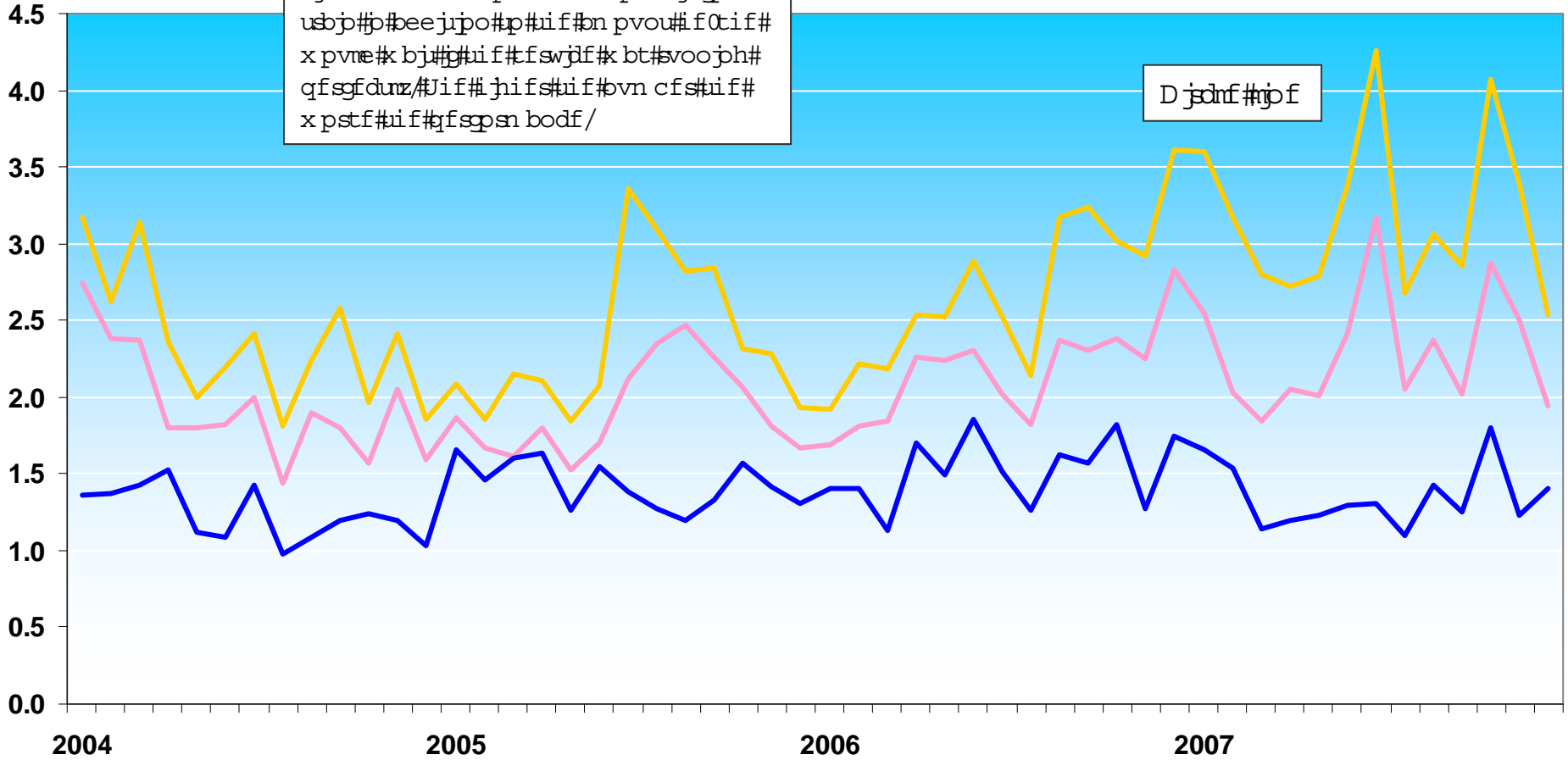
Average excess platform wait time



Minutes

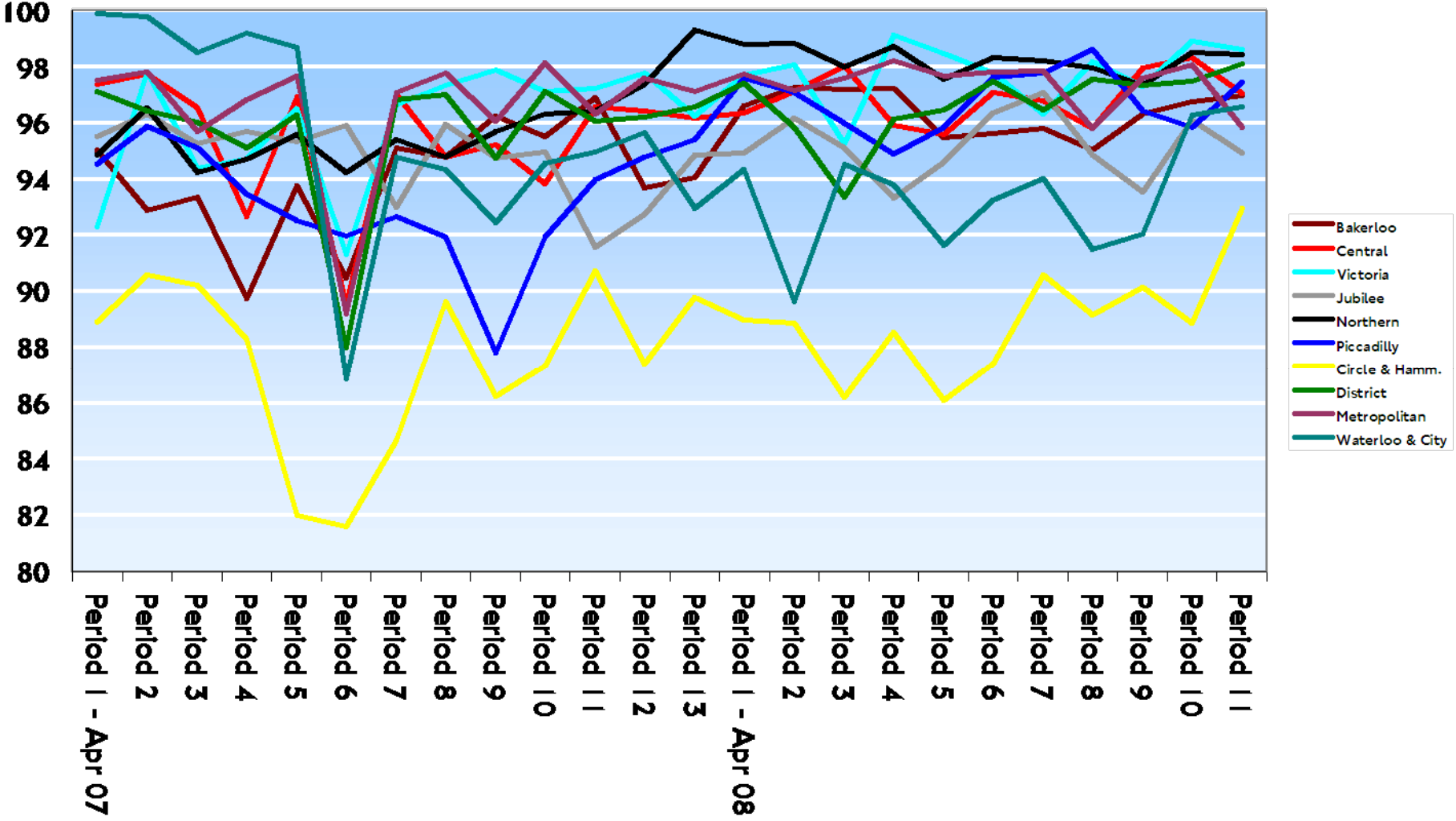
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— Circle
 — Hammersmith & City
 — Average of Metropolitan and District

% scheduled km operated

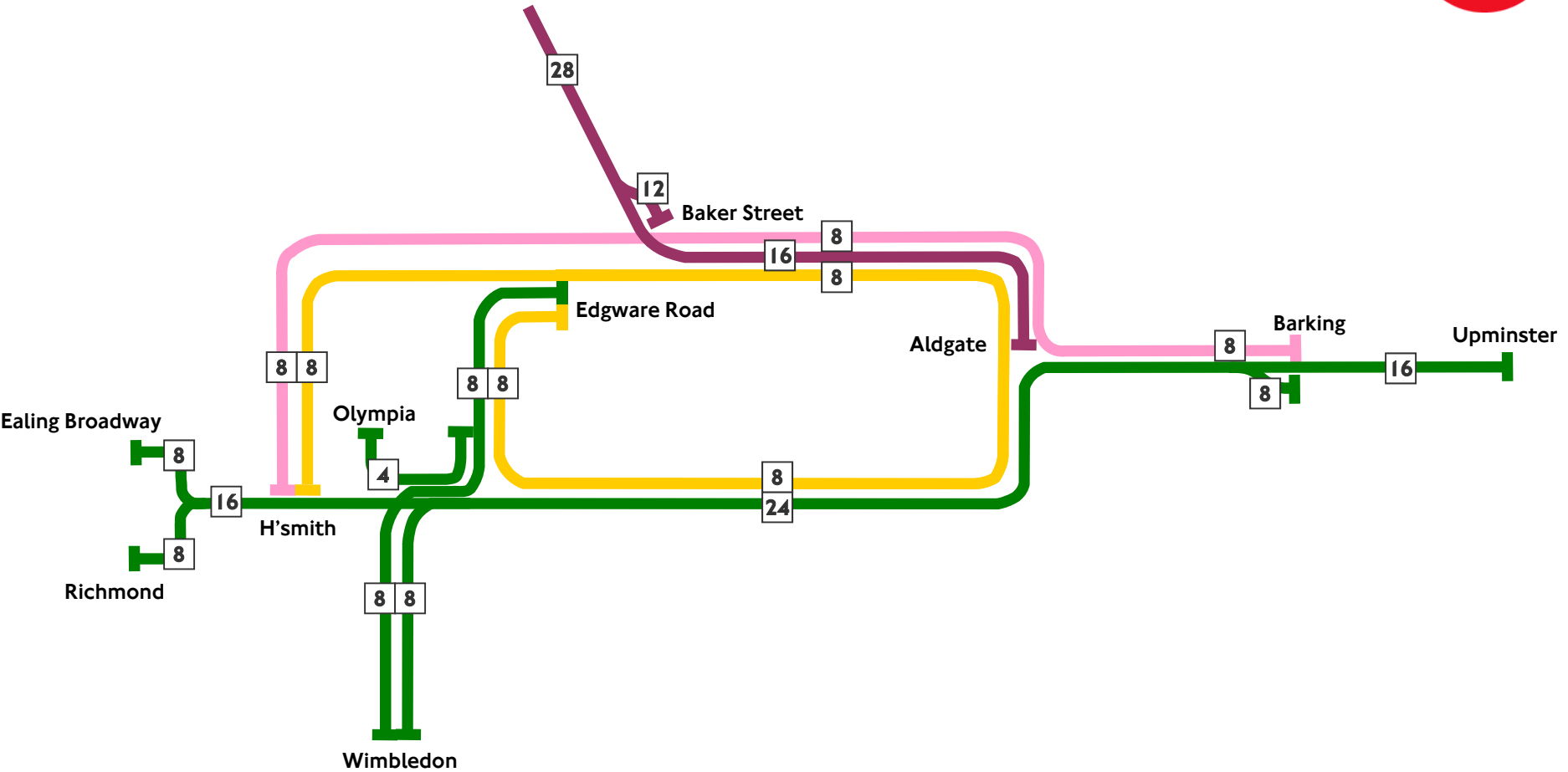


SSR upgrade



- Will deliver 45% capacity increase across SSR in the Central area
- Double the service on Hammersmith & City Branch from 7 to 16 tph in busy zone 2 area
- Removes dilemma of split service at Paddington to Kings Cross & City
- Branch still busy post Crossrail

End State (2018) Service



Trains per hour (peak)



Implementing Extended Circle Early



- Mitigates upgrade risk by separating phases of change
- More reliable service in place when new trains are introduced
- Circle line's current reliability problems mean any difficulties with the new trains would be compounded
- Service could be severely affected as a result

- Net benefit for customers is positive
- Service frequency will be enhanced in key areas:
 - Many more trains Hammersmith – Edgware Road
 - More services between Wimbledon and the City
 - Higher Metropolitan line frequency on the trunk route and to Aldgate
 - Customers travelling east from Paddington will no longer face the dilemma over whether to use the H&C line or District and Circle line station – all trains beyond Edgware Road will depart from the H&C line station, with a more frequent service
- Day to day reliability will improve:
 - More realistic run times will improve service reliability
 - Recovery time at ends of Circle line route absorb small delays; continuous circling currently compounds them
 - Helps prevent bunches and gaps in Circle line service
 - Provides faster recovery from major service disruption – currently morning disruption can often last into the evening peak

Outcomes for customers cont...

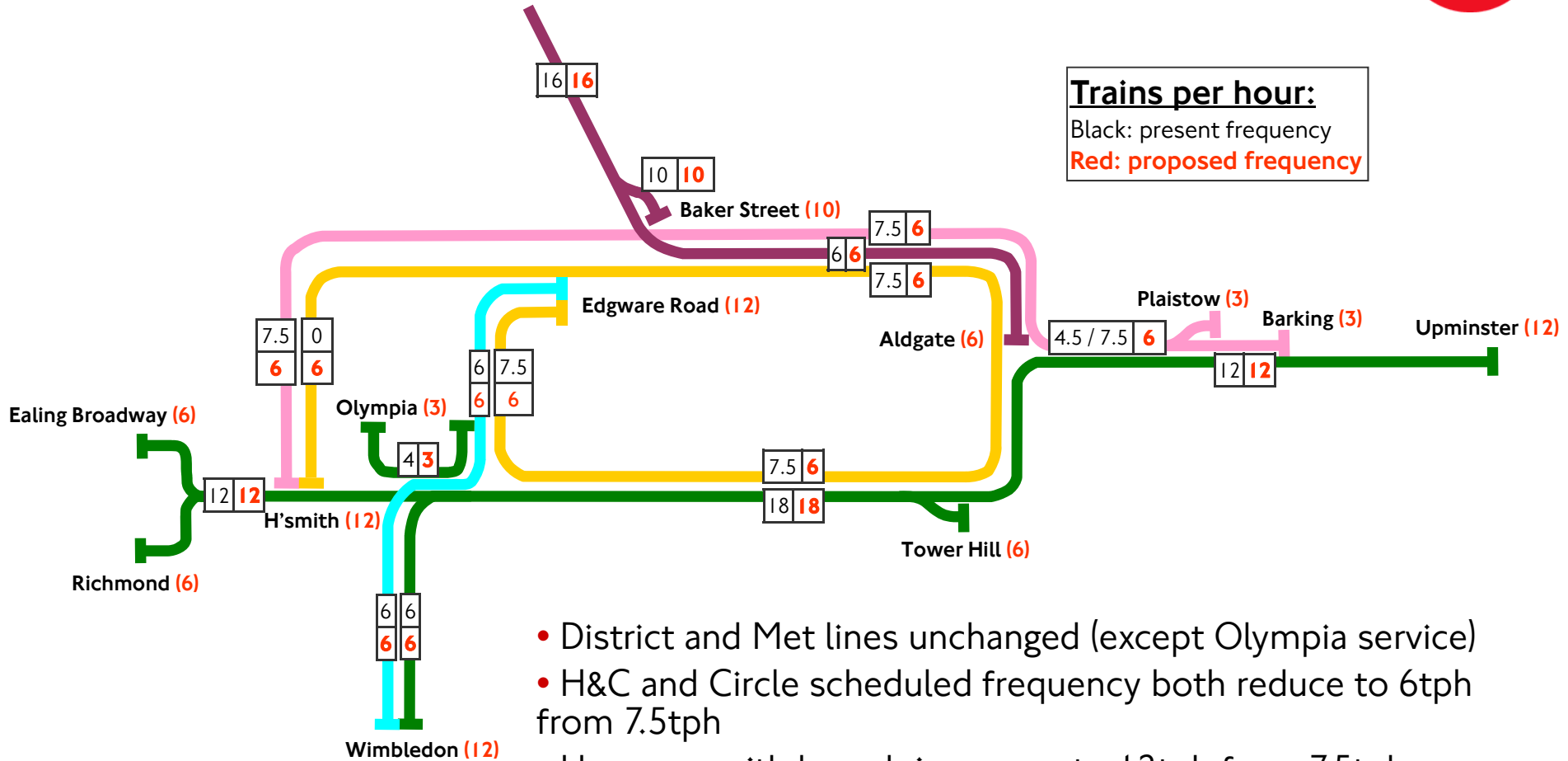


- Reduces risk of severe disruption during upgrade by separating out different phases and ensuring a more reliable service framework for introducing new stock
- Some areas see a reduction in scheduled service frequencies
 - Necessary to provide increases elsewhere
 - Some current scheduled frequencies are rarely achieved because run times are unrealistic – new scheduled frequencies will be closer to the ones that are currently actually operated
- Circle line customers who travel through Edgware Road will need to change trains (small in number)

Off-peak service specification

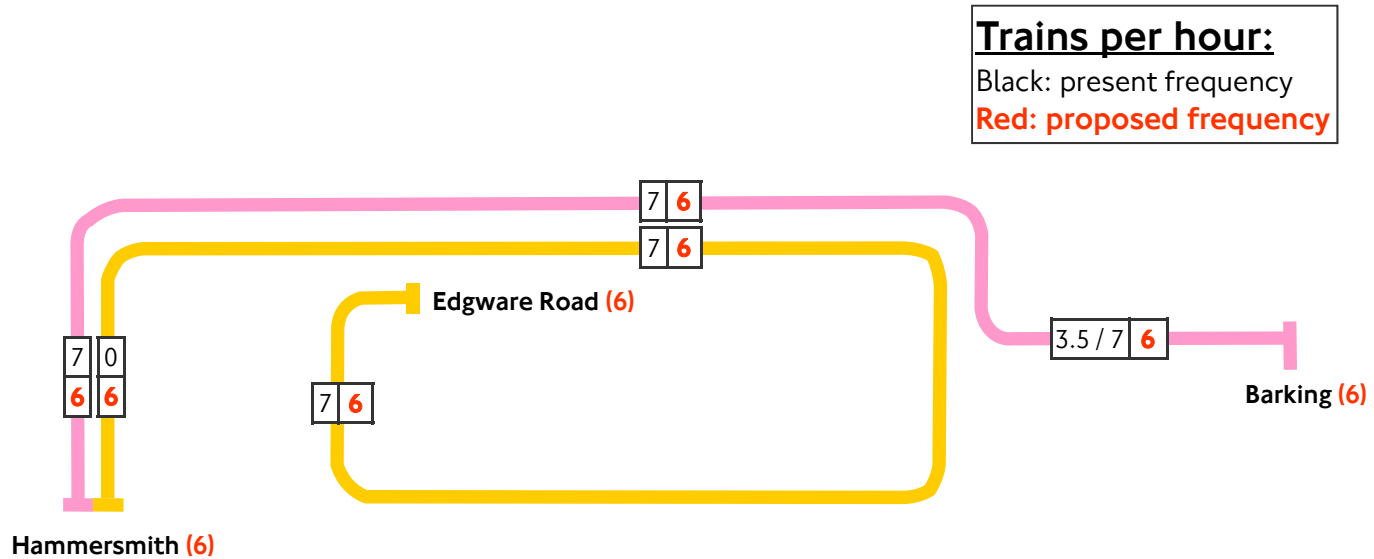


Trains per hour:
 Black: present frequency
 Red: proposed frequency



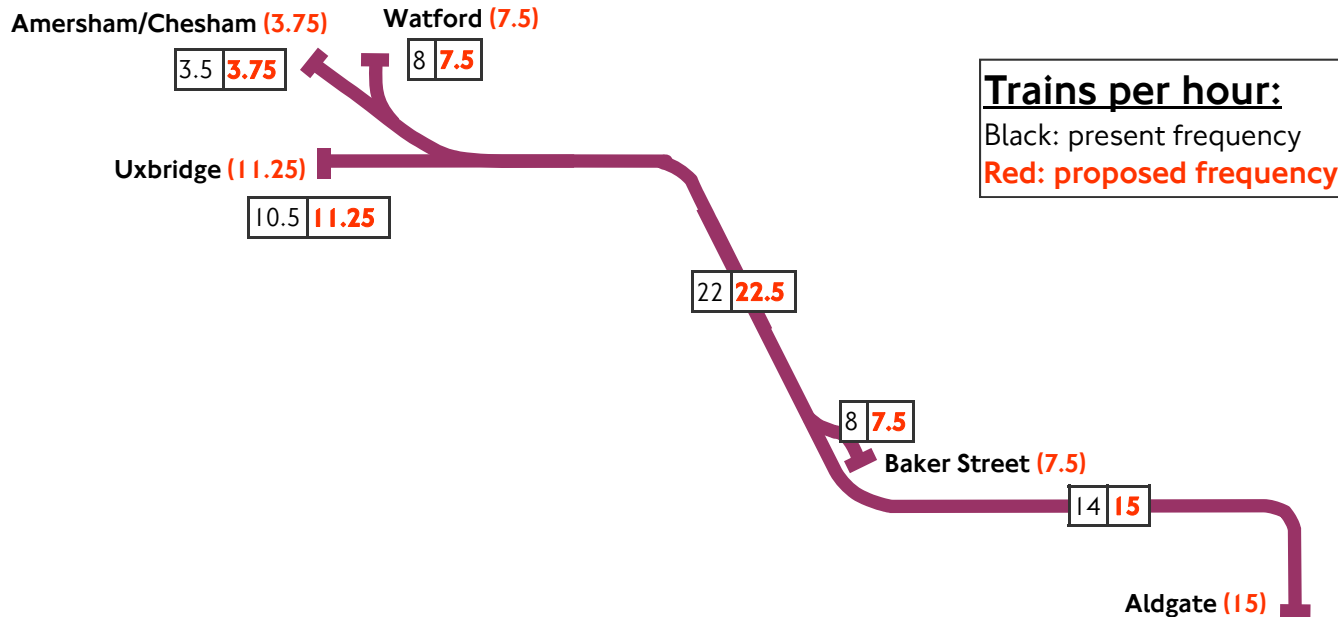
- District and Met lines unchanged (except Olympia service)
- H&C and Circle scheduled frequency both reduce to 6tph from 7.5tph
- Hammersmith branch increases to 12tph from 7.5tph
- Whitechapel reversers extended to Plaistow
- Olympia service reduces to 3tph from 4tph

AM peak hour: Circle and H&C lines



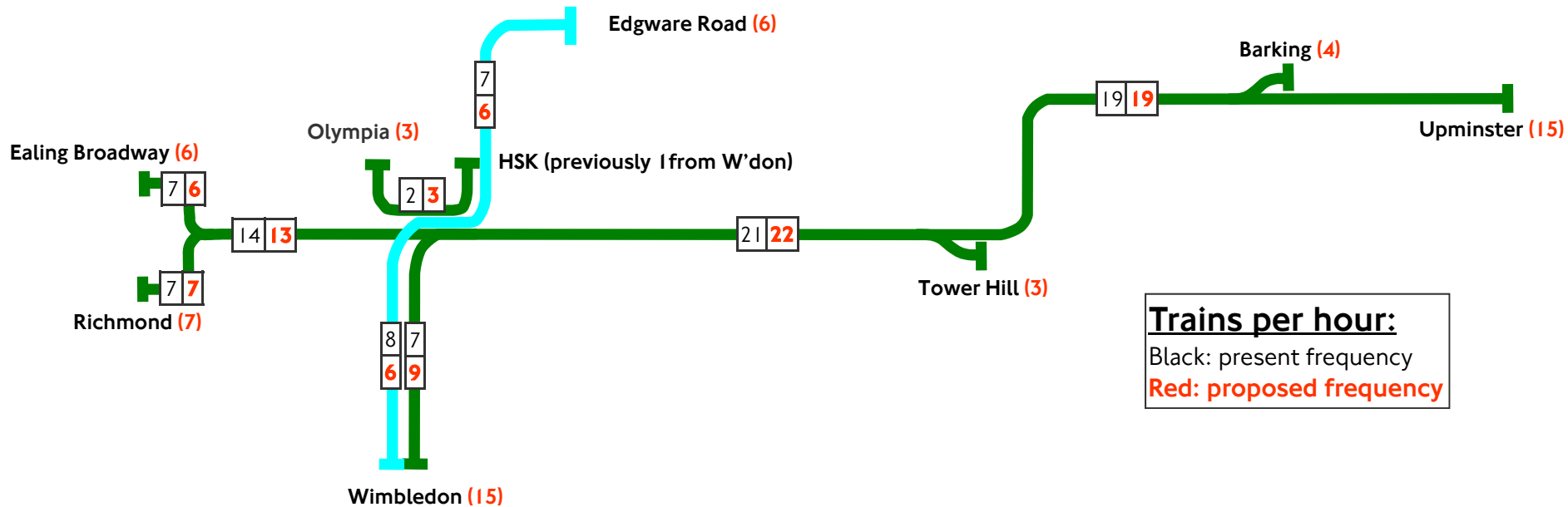
- H&C and Circle scheduled frequency both reduce to 6tph from 7tph (closer to currently actually operated service)
- Hammersmith branch increases to 12tph from 7tph
- All H&C trains terminate at Barking rather than half at Plaistow

AM peak hour: Metropolitan line



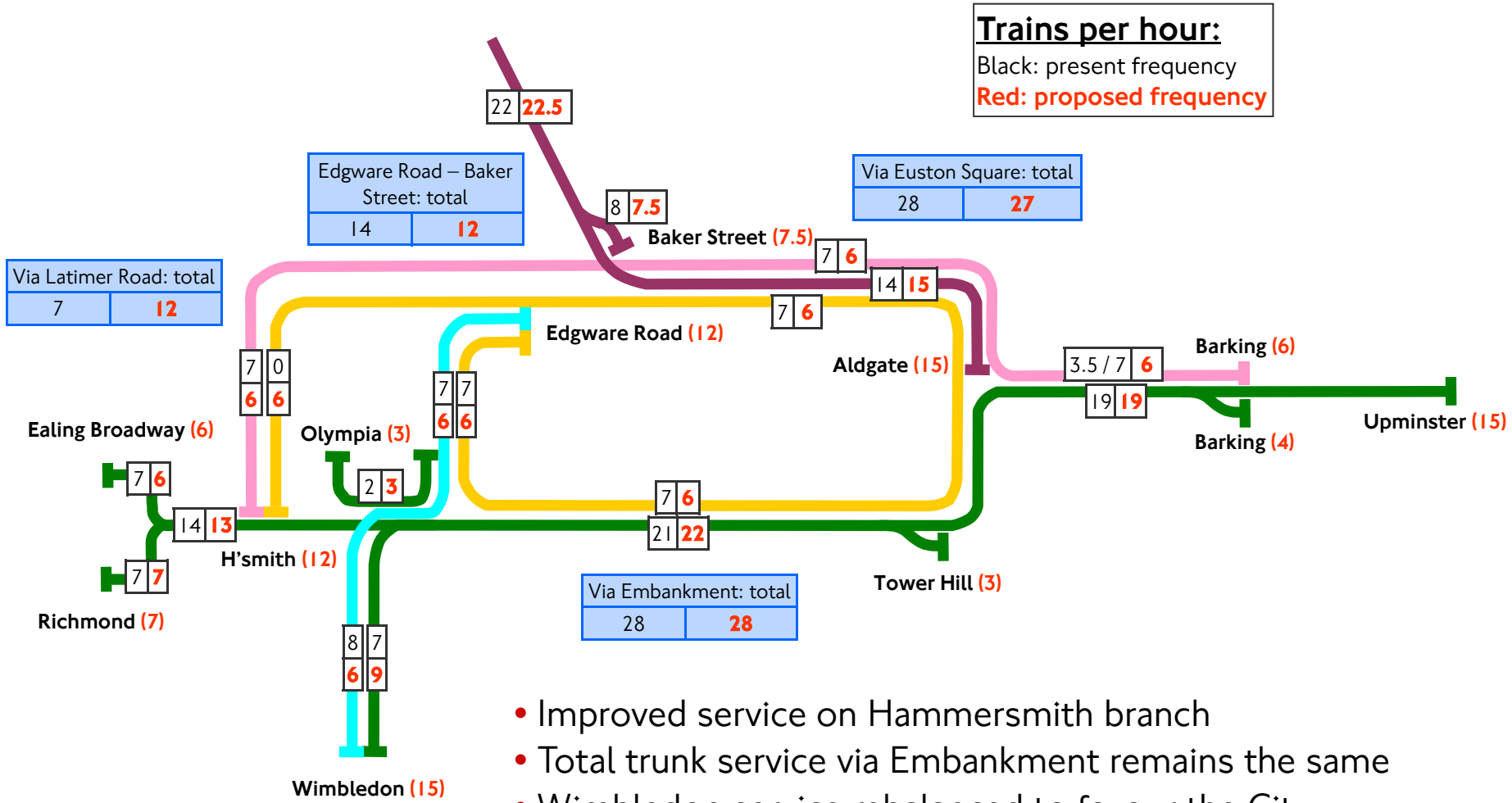
- Trunk frequency increases to 22.5tph from 22tph
- Frequency to Aldgate increases to 15tph from 14tph

AM peak hour: District line



- Wimbledon – Edgware Road scheduled frequency becomes 6tph from 7tph – to fit with new Circle line service
- More Wimbledon – City services: increases to 9tph from 7tph
- Trunk service through Embankment increases to 22tph from 21tph
- Small change at Ealing Broadway from 7tph to 6tph

Peak hour: SSR



- Improved service on Hammersmith branch
- Total trunk service via Embankment remains the same
- Wimbledon service rebalanced to favour the City
- Improved Metropolitan line frequency

Summary



- Previous sections set out background to LU proposals for SSR lines from December 2009 and details of the plan
- Benefits include:
 - Frequency between Hammersmith and Paddington almost doubled
 - Targeted capacity increases elsewhere
 - Improved day-to-day reliability for 230,000 Circle line customers
 - Allows introduction of new trains in a more reliable service environment – reduces risk of disruption