3.3.2 Two station entrances - MSF proposal

To achieve the basic design concept of transferring passengers from the restricted subway to the overbridge, two new station entrances are proposed for local passengers at either end of the overbridge making these the principle points of entry to the station. The existing subway entrances are closed leaving the subway clear for platform to platform interchange passengers only.

The diagrams show that virtually all congestion is relieved in the subways and, importantly, no overloading occurs during either the am or pm peak travel periods.
3.3.3 Four station entrances

This option would retain the existing station entrances on either end of the subway in addition to providing two new entrances on either side of the overbridge.

The diagrams show that the resulting station performance would be similar to the three entrance model because again the subway is retained for entry and exit as well as platform interchange. For the same reasons this model fails now on current passenger levels and will only become worse with increased future demand.

The train operating company has raised significant concerns about the viability of the operating a station with four separate staffed entrances. To design the station in this way does not provide any performance benefit and leads to confusion for local passengers entering and leaving the station. All the facilities such as a staffed ticket office, ticket machines and automatic ticket gates would have to be provided at each entrance.
3.3.4 Entry/exit via overbridge plus exit only via subway

This option would provide two new ticket halls at either end of the overbridge and the current subway entrances would be retained for passengers exiting the station only.

The diagrams show that this option would significantly reduce congestion in the subway, however there is still greater use of the subway than compared with the two entrance model. With this option, overloading is forecast to occur before 2026 thereby being less resilient and future proof than two new station entrances on the overbridge.

As with the four entrance option, the exits would still need to be staffed, again increasing the operational costs of the station, and thus would be unacceptable to NR and SWT.
3.3.5 Retain existing station layout and widen subway

Widening the subway to provide sufficient capacity for all passengers entering and exiting the station is not feasible because:

- There are severe physical restraints to moving all the staircases to the platforms.
- There is significant engineering complexity and risk of undermining the tracks above.
- It would require partial demolition of the existing shopping centre to enlarge the existing St John's Hill ticket hall.
- It would not spread passengers away from the most congested parts of the station platforms.
- It would require the existing subway to be temporarily narrowed to facilitate construction, adding to existing congestion problems during any works.

For these reasons PEDROUTE modelling of this option has not been undertaken.
THE MSF NEW STATION PROPOSAL