Moving large numbers of passengers in a dynamic and fast-paced environment is a complex challenge, but keeping people moving when that environment is constantly evolving poses an even greater challenge. Wayfinding and signage provided an extremely important role in the smooth operation of the station and the overall passenger experience for both the temporary and final station condition.

Maynard’s original commission was to produce a wayfinding system for the final station design. The temporary wayfinding was not part of the scope. However, it quickly became clear to the project team that the temporary signage was extremely important and required a dedicated resource.

This case study looks at how to approach wayfinding for a complex environment, with multiple stakeholders not only for the final station but during a phased construction period. It looks to answer the question – How do you keep passengers moving and provide a good experience during a long period of disruption and how can you take advantage of the phased opening to develop and test solutions for the final wayfinding system?
WHAT WE DID

Temporary Wayfinding
In a station that experiences a high volume of regular commuters, the initial challenge was to get people who have routine patterns of use to adapt to change. This was achieved by setting up a project team dedicated to interim works, including a separate temporary wayfinding workstream.

As part of the interim team, Maynard carried out an audit of existing signage in the station to be used as a base. We carefully studied each construction phase, gaining a comprehensive understanding of how the station physically changed and how the operations of the station and passenger routes would become affected over time. This detailed knowledge allowed the team to identify changes required to the wayfinding system during each stage and ensure passengers were routed smoothly through the station with minimal disruption to their journeys.

For each construction stage a report was created containing a summary of physical changes, agreed pedestrian routing and an overall strategy for addressing the changes. This included visual examples, sign placement plans and schedules indicating the removal of signs, updating of existing sign content and installation of new temporary signage. The team worked with engineers to establish how new signs could be mounted and installed on hoardings and existing structures. We also worked with the construction team to determine which new signs (as part of the final wayfinding system) would be installed upon the opening of each stage and how we could update the content so that they would work with the temporary routing without having to clutter the station with additional signage.

Additional support to the signage system was provided during the initial opening of each new stage. Staff and project volunteers were placed on the ground ready to help the huge volumes of passengers passing through the station during AM and PM peaks. Maynard staff volunteered as ‘travel champions’ during the early construction phases. This involved locating in key areas of the station to provide verbal directions and answer any queries. This was extremely important in informing the wide variety of user groups of new routes and helping regular passengers adapt to a new routine. This first-hand experience also helped Maynard to better understand the challenges and questions that passengers faced during the disruption which then informed the approach to temporary signage in latter stages.

In the later construction stages the routing around the station was changing on a daily basis, with peak and off-peak flows differing. This was a huge challenge for the wayfinding. In such a dynamic environment we had to create a flexible and innovative response. Large format screens were installed at the main thresholds between the rail station and the Underground to allow flexibility in the messaging. However, flexibility in where the signs were placed was also required. In response to this we proposed a series of moveable digital poster boards called WiSI screens that could be used to support wayfinding at different times of the day. The screens needed to be used both internally and externally and with limited access to services. The fully weatherproof solution meant the displays could be situated externally and the units could be charged overnight so that no power connection was required during operating hours. Wi-Fi enabled the content displayed on the screen to be updated remotely and instantly using bespoke software which accompanied the screens. Due to their success and positive feedback from stakeholders these digital applications were subsequently designed into the final solution for the wayfinding.
WHAT WE DID

Final Wayfinding
The wayfinding for the final station design at London Bridge was a thorough process ensuring that passenger needs and the requirements of multiple stakeholders including Network Rail, train operating companies, station operations and local groups were satisfied.

The process began by collating project documentation on the station layout, pedestrian flow, operations and user profiles. This enabled the team to create a detailed understanding of the station and its complexities. Workshops with Network Rail and project architects were held to agree passenger routing through the station and discuss passengers requirements. Passenger types were identified and grouped into four categories; commuters who use the network everyday, tourists who may be new to the network, families with young children and buggies, and passengers of reduced mobility (PRM) who are visually or physically impaired and may require extra assistance.

Maynard undertook research to understand how London Bridge Station connected with the surrounding areas. The team surveyed signage schemes in the area including Legible London and gathered data on where passengers were coming from and going to at different times of the day.

The team used all the information gathered to create an overarching strategy for the station, including static and digital systems. Passenger needs and decision points were mapped and a hierarchy of information was used to agree what information went where. Signage proposals were presented to stakeholders and tested by creating typical journeys. Snapshots from the architectural model at each stage of the journey were used to demonstrate how the wayfinding system would work, and feedback was recorded and fed into the strategy.

Network Rail already had a wayfinding standard containing graphic elements and products. Upon review the team found that some of the design and products principles were not relevant to the unique challenges faced by London Bridge. Maynard created a new set of products and graphic templates to be used specifically at London Bridge to create a sign family that was relevant to the station, its architecture and the unique design issues. To gain confidence in the new sign elements they were further tested by placing 1:1 scale graphics in-situ on the existing station platform and concourse areas.

Some of the key graphic and product innovations included a heavy focus on incorporating dynamic information into the main signage scheme, creating a clear signage hierarchy and encouraging the use the lifts for people with luggage or with pushchairs.

At the gateline digital screens displaying large green arrows and red crosses were integrated into the overhead signage boom. Traditionally the flow of the gateline is shown on the gateline equipment at a much smaller scale. This new product was designed to aid flows through the gateline and make the gateline visible across the large concourse. A similar approach was taken on the escalator booms where digital screens were incorporated to quickly and clearly show the flow of the escalators. These screens avoided using green and red graphics to avoid confusion with signals at platform level, but also to create a clear differentiation between the gateline product and the escalator product at concourse level.

The integration of CIS into the signage was also a key strategy. Not only did this avoid clutter and duplication of products, but by combining the platform number and the CIS we created a product that aided easy recognition of the trains operating from each platform at the key points passengers required information.

A typical product found in a large Network Rail station is ‘the cube’. A four sided sign with multiple directions to various destinations. These products often result in long list of information that take passengers time to digest. The strategy for London Bridge was to bring the most important information to the forefront and then provide the more detailed information at a more human scale.

We designed large overhead signage to display key information of interchanges, exits and primary facilities such as toilets and the ticket office. These signs were limited to 9 destinations and where mounted from the
Network Rail has witnessed an increase of accidents on their escalators and were keen to promote the location of the lifts and the message that they were not just for wheelchair users, but for anyone who may have reduced mobility. For example, passengers with luggage or pushchairs. Our solution included a change in the pictograms used to depict the lift. We proposed to omit the use of the lift symbols, instead using a combination of the wheelchair, pushchair and suitcase to better depict the functions the lift served and the people we wanted to use the lift. To highlight the location or the lift we designed large supergraphics that were applied to the lift glazing and could be viewed across long distances across the concourse and on platforms.

A station wide set of location plans, sign schedules and product drawings were produced. This allowed the client to sign off the overall scheme, however due to the staging of the construction the procurement of the wayfinding was done in stages. At each stage detailed coordination with the products, architecture and building systems took place and schedules and drawings were produced for construction.

This staged approach provided a unique opportunity to test and evaluate proposed solutions in a live environment before installing the final signage scheme. For example, when the first half of the new concourse opened we used the opportunity to test how we could better utilize the reverse side of the escalator booms. The original design had avoided placing content on the back of the booms that are viewed as you come down the escalator. During stakeholder feedback and review there were requests to add content to these sign faces. Temporary graphics were mocked up and applied to the booms and we found that the directions provided were easily understood by passengers and were receiving positive feedback. These signs were subsequently installed as permanent additions to the wayfinding scheme.
WHAT WE DID

Exit Guides

Following the delivery of the main wayfinding package Maynard were commissioned to carry out additional works including the design of a set of Exit Guides.

The design of the Exit Guide was an integral piece in completing the strategy developed for the station. The hierarchy developed for the main wayfinding placed an emphasis on progressive disclosure and avoiding an overload of information on the primary level signage. The Exit Guide’s purpose was to provide an extra level of detailed information for those passengers who wanted additional information on how to get to specific destinations in the surrounding area and strongly linked back to the four numbered exits within the station.

By going on site and observing how the current exit guides were being used and talking to passengers and staff we quickly built a picture of what was not working and what passengers were actually looking for.

One of the first issues we addressed was to make sure the Exit Guide felt part of the wider wayfinding system by using the Network Rail signage colour palette and typeface. We created a level of consistency with third party external mapping such as Legible London by using similar terminology and key destinations, however Network Rail wanted a map that they were in control of and could update when future iterations were required.

We produced different maps for the upper and lower station levels to provide passengers with contextual information. This was further supported by the use of a 3D representation of the station and how the two levels connected and a destinations index that was also level specific.
KEY LESSONS

Acknowledge the importance of the temporary construction stages and the requirements for wayfinding during these periods of disruption.

– The temporary wayfinding may not be long term, but is just as important to the passenger. When the station is changing it is essential that passengers have the information they need. This not only includes updates to the wayfinding signage, but marketing communications before the changes and additional staff on the ground during the changes.

– Extra reassurance is required during these transitional stages. Opportunities on hoardings and other temporary structures should be utilised to provide information to passengers to support their journey through the station.

– Flexibility is important during periods of change. Where possible utilise solutions that allow sign messaging to change. This can be through digital screens or poster boards or signage that can easily be covered up or moved when routing changes. Digital screens can also be utilised in the final wayfinding design to assist during periods of perturbation.

– The changes to passenger routing and operations during each stage needs to be well understood and the signage must respond to these needs. This can be achieved by setting up a separate wayfinding workstream as part of the temporary works package.

Understand that the final wayfinding is an evolving process.

– Despite the research, workshops, 3D modelling and data analysis it is not always possible to know for sure how passengers will react to an environment. Factor into the programme a period of testing and evaluation.

– At the start of the project visuals/models can be used to demonstrate the key principles, but as parts of the station open take the opportunity to test signage in-situ. This includes testing wayfinding strategies for the permanent before locking in final wayfinding signage placement and content. It is easier if signage is not installed in its permanent state straight away. Have a budget that allows for the use of temporary graphics to test strategies, before the final signage is printed and installed.

– Evaluate the wayfinding post installation. Learn what has worked well and what isn’t as successful and make sure the lessons learnt are shared.

Design in context, not just through standards and requirements.

– It’s easy to get caught up in standards and requirements or to just do what has been done before, but every environment is different and whilst a level of consistency is important, the wayfinding should be considered against the specific challenges and requirements of each environment.

– The wayfinding standards dictate minimum type sizes for specific reading distances and provide proposed sign sizes and types, but it is important to remember that these are minimum requirements. The signs need to be sized appropriate to the context. They must be easily visible within the busy environment and not just ‘legible’ or ‘readable’. Understanding the difference between legibility vs conspicuity is key.

– Digital screens should not be approached purely from a comms and rail systems perspective. Consider the digital and static wayfinding strategy together. All information provided to the passenger needs to be considered as a whole. This includes exploring where digital and static wayfinding could be combined to reduce visual clutter.