



Coventry Station Masterplan Report





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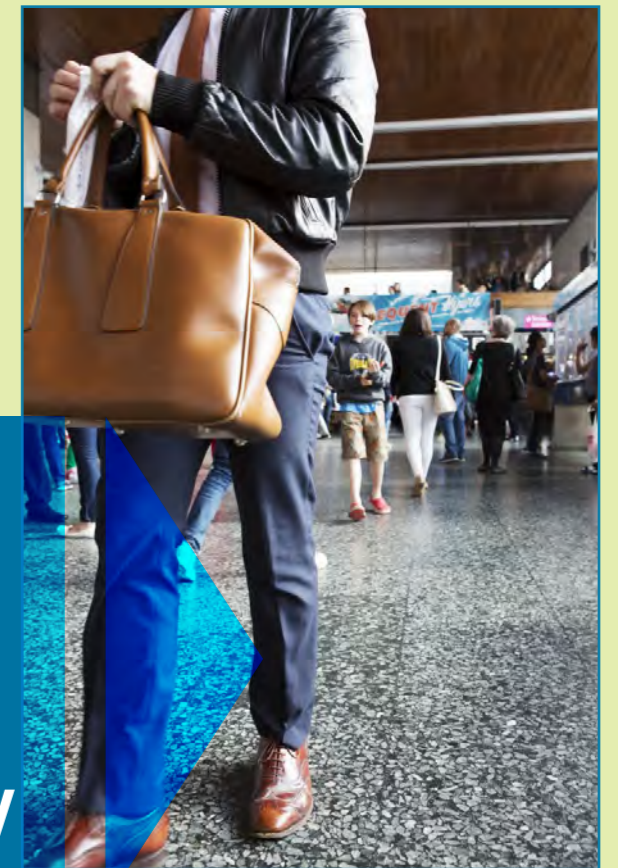
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Coventry Station Masterplan
Report



Passenger
Growth
&
Increased
Rail Capacity



Vision
Ambition
Identity
Quality Experience



1. Introduction

WSP and its subconsultants Oxford Architects and SLC Rail were appointed by Coventry City Council on 4th October 2013 to provide a Master Plan for Coventry Station. The work was tendered under the West Midlands Highway Alliance professional Services Contact – Framework Agreement.

2. Scope

The City Council seeks a Master Plan setting out evidenced, programmed and costed and prioritised options for the structured and co-ordinated regeneration of Coventry Station meeting the requirements of Stage 1 Output Definition and Stage 2 Pre-Feasibility Network Rail's Governance of Railway Investment projects process (GRIP)

Six Deliverables

- A) Committed scheme analysis
- B) Prospective scheme analysis
- C) Coventry Station Regeneration
- D) Coventry Station Infrastructure Capacity
- E) Integrated Master Plan
- F) Priority Assessment

The final report should provide a free-standing evidence source and input to the rail industry planning processes and lobbying which includes high-quality plans and an illustrated executive summary for consumption by Elected members, MPs and developers.

Strategic Case

Coventry is the 13th largest city in the UK, with a population of 317,000. By 2021 this will grow by 15%, nearly 50,000 people, faster than any other part of the West Midlands.

Since the decline of manufacturing in the 1970s, Coventry has significantly developed its service, health, technology and knowledge economy and 2 universities, but continues to have higher unemployment and lower economic output than the UK average.

One key to an expanding economic future for Coventry is continued growth of employment, with over 30,000 new jobs expected by 2028. 14,500 of these will be located in the ambitious Friargate development set to transform the area adjacent to Coventry Station and its relationship to the City Centre.

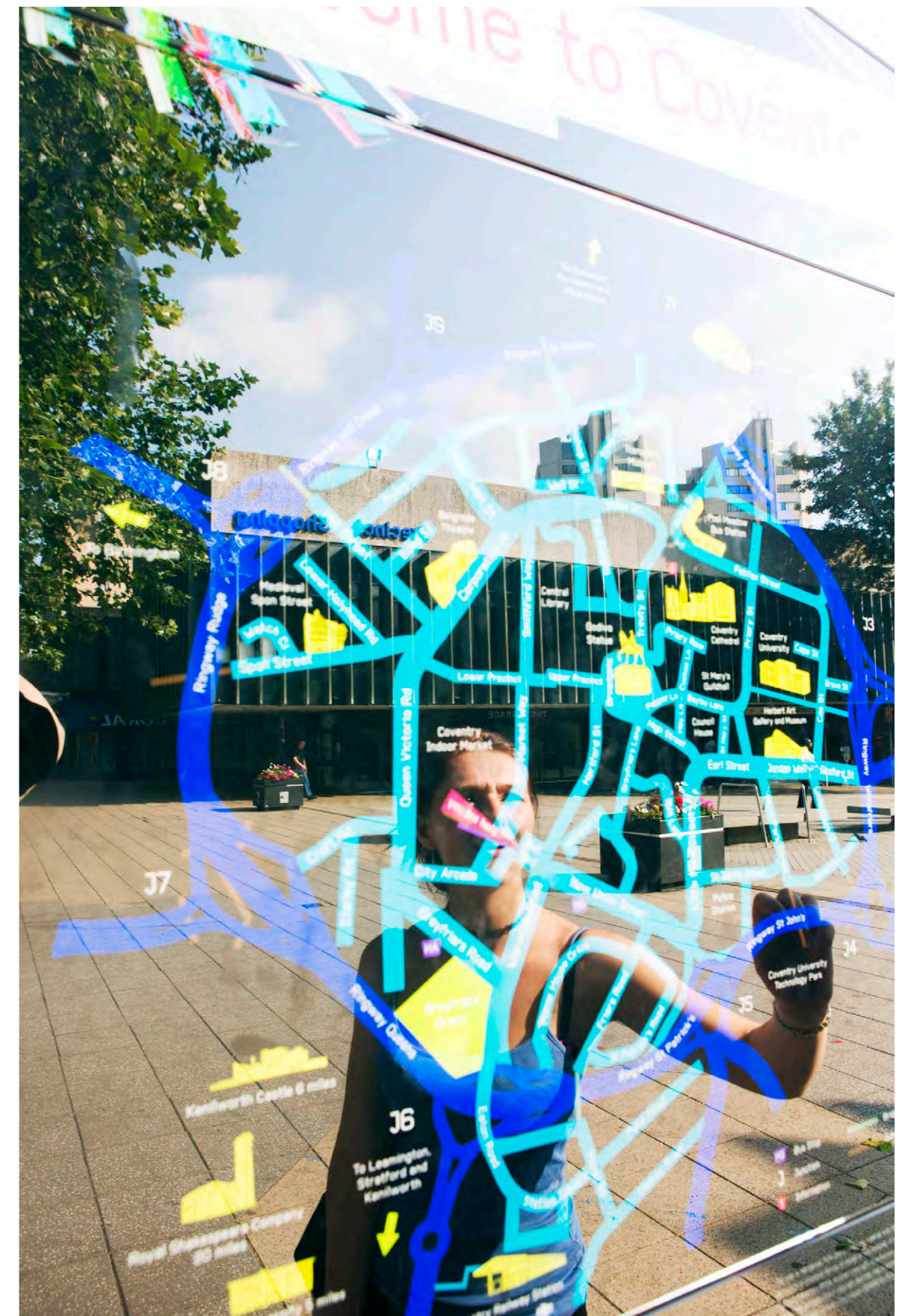
A second is the city's connectivity at the heart of the UK transport network, immediately accessible to the national M1, M6 and M40 motorway corridors, only 1 hour from London Euston following the West Coast Main Line upgrade completed in 2008, and on the UK-wide Cross Country rail network.

Growth of Coventry Station has been exceptional, up by 80% to 5.4 million passengers between 2008 and 2012, the highest in the UK outside of London. Further growth of nearly 40% is anticipated by 2024 and 100% by 2043.

Coventry's local rail network is being regenerated with new 3 new stations due to open in the next 3 years on the routes to Nuneaton and Leamington Spa, whilst the government's committed investment in electrification from Southampton and Oxford to Coventry and Nuneaton by 2019 opens up opportunities for new cross country and regional services, further enhancing the city's connectivity across the UK.

In 2013 Coventry City Council prepared a 'Rail Story' setting out an evidenced vision for the City's rail network supporting economic growth and competitiveness, looking at ways to best manage growth and to prepare for the prospective High Speed 2 project.

One core ambition articulated in the Rail Story was the re-generation of Coventry Station to match the remarkable past and projected growth in rail use, the Friargate project and the City's wider ambition for the quality and aesthetics of its primary gateway.



Vision

Coventry Station was extensively re-built in the 1960s electrification of the West Coast Main Line. Its innovative, light, open and airy design has been recognised via Grade II listing, and it has accommodated significant growth in passenger footfall, almost doubling in the past 10 years.

However it is now tired, with limited passenger facilities, poor integration with other forms of transport, restricted in its rail capacity for growth, and neither a good gateway for Coventry nor delivering as much commercial benefit to the City as it could.

Coventry's vision for transformation of the station reflected and developed in this Masterplan is made up of 10 core aspirations :-

1. **Growth** - a station able to accommodate major growth predicted in passenger numbers
2. **Passengers** - facilities of quality and easy to use, making rail a highly attractive choice
3. **Integrated** - a new and transformative multi-modal transport interchange
4. **Easy to get to** - an accessible station for all
5. **Attractive** - a stylish, aesthetic and visible gateway to a proud city
6. **Heritage** - a celebrated, well-conserved 1960s Grade II listed building
7. **Friargate** - a station matching the quality, scale and ambition of the Friargate development
8. **Place** - a place in its own right, working well with the new place created by Friargate
9. **Retail** - eating, drinking and shopping for rail passenger and citizen alike
10. **Commercial** - a commercially viable station, supporting the wider Coventry economy

Station Capacity

The scale of historic and projected growth in rail use at Coventry is a major capacity challenge for the station in 4 principal areas :-

On-track

The West Coast Main Line through Coventry is close to maximum capacity, with limited scope for more train paths through the station, or across on the Leamington Spa to Nuneaton routes. High Speed 2 will allow a significant revision of the use of capacity, potentially supporting more regional and local services. The NUCKLE 1 Nuneaton Line upgrade offers a future 5th platform, easing but not resolving pressure on existing platforms.

On-station

Re-built in the 1960s, Coventry Station was not designed for 21st century passenger volumes. Catering for 7,000 passengers per day in 2001, today it manages 17,000 per day, which will rise to nearly 24,000 by 2023 and 34,000 by 2043. Overcrowding, is evident on platforms, the single footbridge and staircases, particularly in morning and evening peaks when around 2,000 people use the station each hour. By 2043 this would reach nearly 4,500 per hour, contrasting starkly with 7,000 per day in 2001.

Car Parking

Coventry is a principal sub-regional access point to long distance National Rail services. With 800 car park spaces, often at capacity by the close of the morning peak, 1 in 10 passengers can access a parking space in 2014. Without capacity growth this would reduce to 1 in 15 by 2023 and 1 in 40 by 2043. Positive development of public transport may generate some modal shift from cars but it is unlikely that this will alone support sub-regional access to Coventry Station.

Public transport

Existing bus, taxi, cycle and pedestrian routes to the station are poor, with limited capacity to accommodate current or future growth. The Friargate development will deliver a step-change in the public realm around the station, facilitating a comprehensive re-design of bus/rail interchange, pick up/set down routes, taxi capacity, cycle facilities and safer and attractive pedestrian routes.

In each case this Masterplan represents Coventry's ambitions to ensure the station's capacity, design, functioning and aesthetics is actively planned to accommodate growth.



There are X principal committed or planned rail projects that interface with Coventry Station

High Speed 2 (HS2)

HS2 does not directly impact upon the design or layout of Coventry Station; its delivery from 2026 provides opportunities for major recasts of West Coast Main Line, Cross Country, regional and local services. This Masterplan supports the enhancement of Coventry Station to be ready for prospective strategic service changes, even at a distance of 13 years.

NUCKLE - Nuneaton-Coventry-Kenilworth-Leamington Spa

NUCKLE 1 will provide new local stations between Coventry and Nuneaton and an enhanced frequency of trains between 2014 and 2019, together with a new 5th platform at Coventry Station. This is a committed scheme, although the delivery date for the 5th platform is to be determined. This Masterplan assumes delivery of the scheme

NUCKLE 2 - will provide a new station at Kenilworth. This is a committed scheme, funded by DfT and Warwickshire County Council, due to open in December 2016. This Masterplan assumes delivery of the scheme.

NUCKLE 3 - addresses connectivity between Coventry, Nuneaton and Leicester, with a prospective new crossing across the WCML at Nuneaton. This is in development stage only.

Electric Spine

The DfT has committed to electrification of Southampton-Oxford-Leamington Spa-Coventry-Nuneaton within or soon after 2019. This will support a prospective Leamington-Kenilworth, Coventry to Birmingham electric train service, new Cross Country services and more freight paths across Coventry. Network Rail is preparing a GRIP 3 'Option Selection' study of the detailed plans for the Electric Spine for March 2015.

Control Period 5 train services

The DfT seeks to divert the Reading-Newcastle Cross Country service from the Solihull route to travel via Coventry; this will transform Coventry's connectivity, with 2 Cross Country serviced per hour. This Masterplan assumes delivery of the scheme.

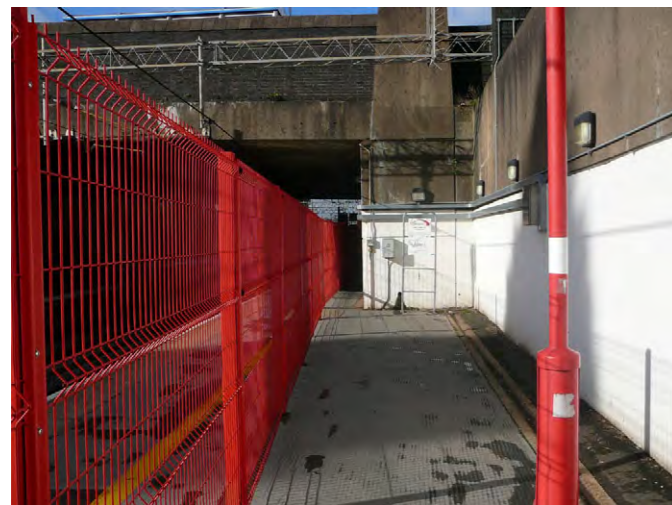
Virgin NSIP Works

Virgin Trains are the current holder of the franchise at Coventry Station, and as such have a number of short and medium term plans that will have interfaces with the master plan scheme. At this time Virgin are still exploring options with their architects (Studio MAD), but the two teams have been working together to ensure that the works are compatible in the longer term of the station.

Warwick Road Subway

The Warwick Road Subway project grew out of the NUCKLE 1 scheme to provide a fifth platform to Coventry Station. Platform 5 is to be located west of Warwick Road and south of the existing at grade car park. The natural connection between the new platform and Platform 1 is the existing route at the end of Platform 1 that goes under Warwick Road (see photograph below).

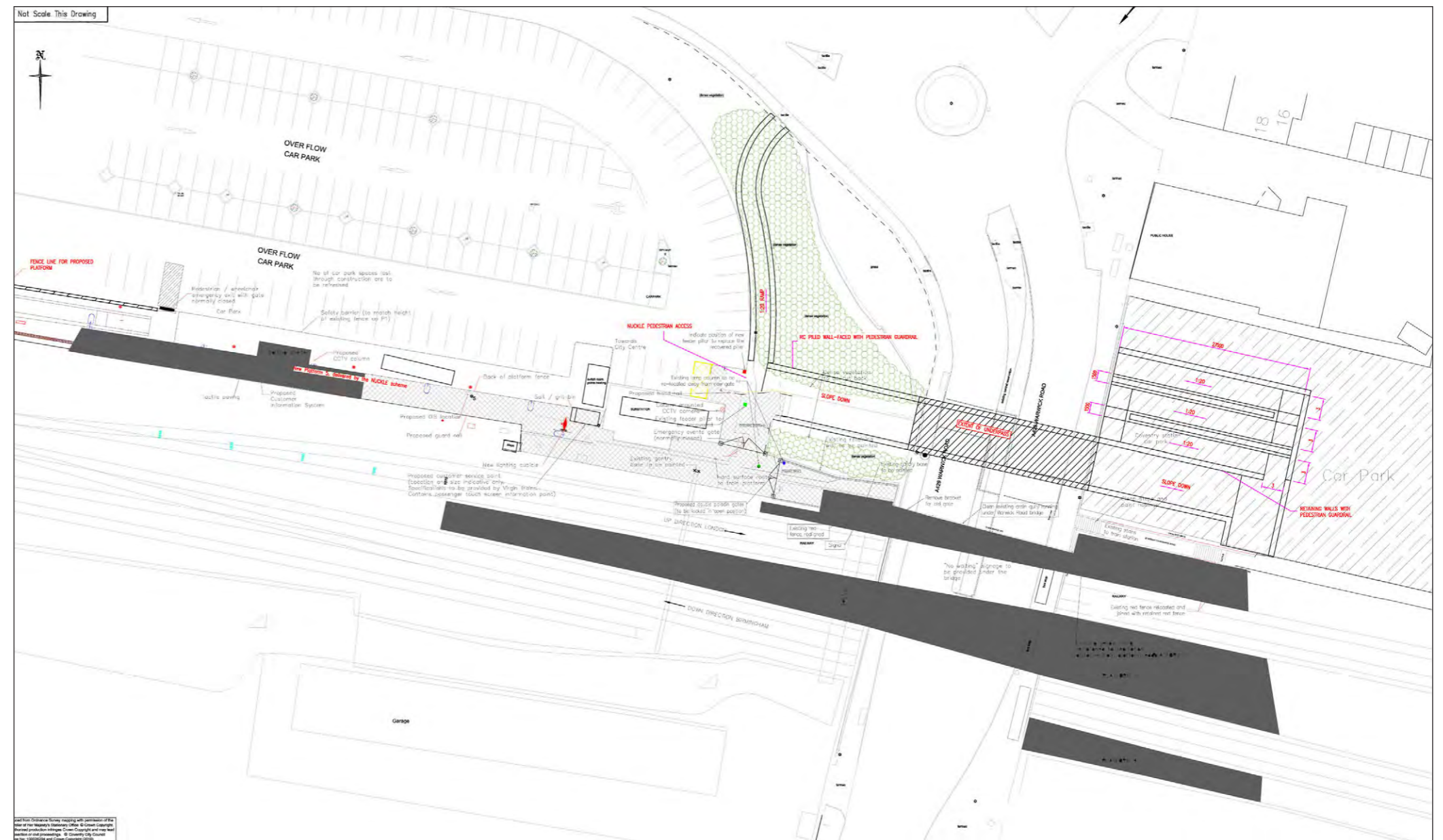
The width of the proposed subway has been assessed against TfL's Pedestrian Comfort Guide to demonstrate that it will cope with existing and projected pedestrian flows. The master plan has been designed to work with the proposed location of the subway, and does not add any requirements or variations to this project.



In order to connect the new platform to the station it will be necessary to move the public right of way (on the right of the image) and give the whole width of the route to rail passengers.

Following an option study it was proposed to provide a new public subway under the Warwick Road connecting the car parks and retail park (Central 6) on the west, with the station on the east. The proposed location of the subway is defined by: the location of the existing stepped access up to Warwick Road; a construction and foundation zone sufficient to keep construction works from disrupting rail services; and to allow the inclusion of at grade paths and ramps on either side of the subway, as required.

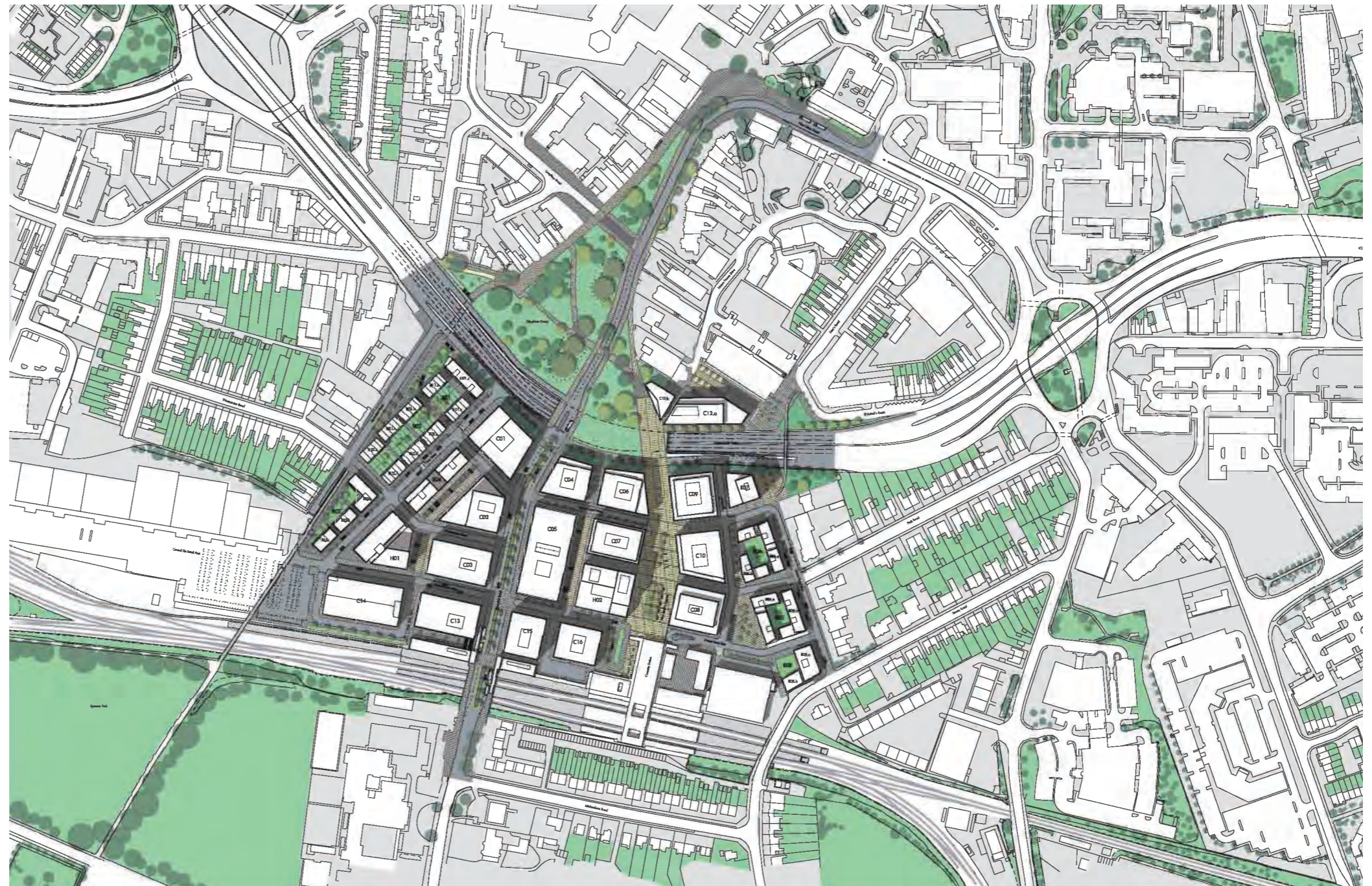
The master plan and subway teams have discussed the interfacing of the subway and the masterplan to ensure that abortive works can be avoided as much as possible.

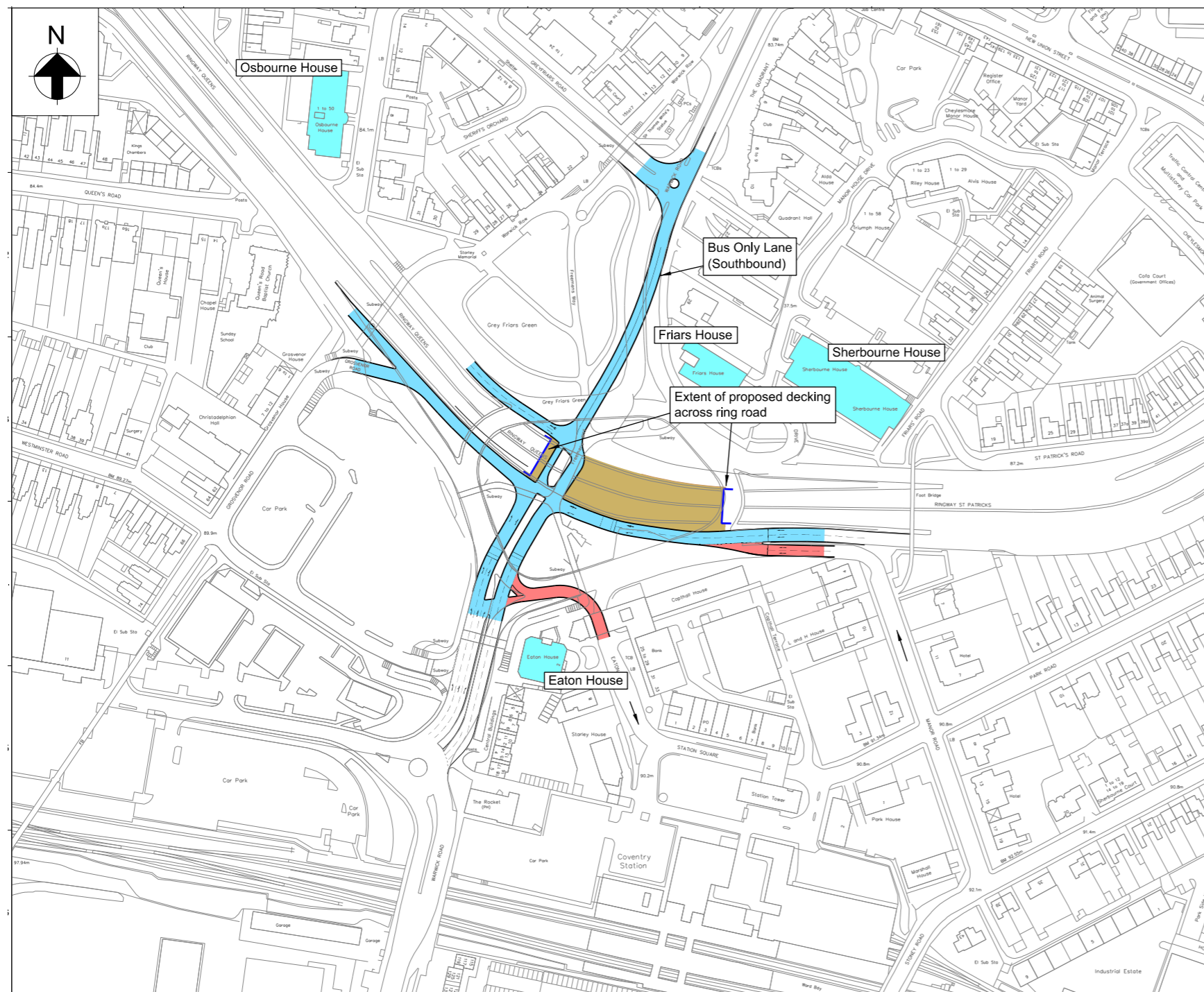


Friargate

Friargate is master plan proposal for a new city quarter in Coventry, directly north of the Coventry Station site. It will be a mixed used development, predominately office accomodation with supporting residential, retail, hotel, leisure and community uses. The scheme will provide 14,500 jobs to the area through the proposed office space. Friargate obtained outline planning permission in 2011, and construction begins in 2014.

There is an overlap between the land owned by Network Rail which forms the basis of this master plan and extents of the Friargate scheme. Thus the team has approached the station master plan as both a development to and an integral part of the Friargate proposal.





Key:

- New Roads
- Interim Station Access / Egress

02	08/07/13	LS	PS	PS
Layout Changes				
01	15/04/13	NS	CM	PS
First Issue				
Issue	Date	By	Chkd	Appd

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Client
 Friargate Coventry LLP

Job Title
 Friargate Coventry

Drawing Title
 Proposed Junction 6 Scheme

Scale at A3
 1:2000

Plot ID

Drawing Status

Information

Job No	Drawing No	Issue
122200-00	Figure 4	02

Junction 6 Works

The restructuring of Junction 6 of Coventry's inner ring road is the first part of the Friargate development. The existing roundabout will be reconfigured as a slip road exit junction, in order to discourage use of the Warwick Road by through traffic. Once the junction is rationalised the pedestrian route into the city can be improved, with a wide green bridge over the roadway, providing an at grade pedestrian route from the station to the city centre and a new public park.



1. Existing Site Parameters

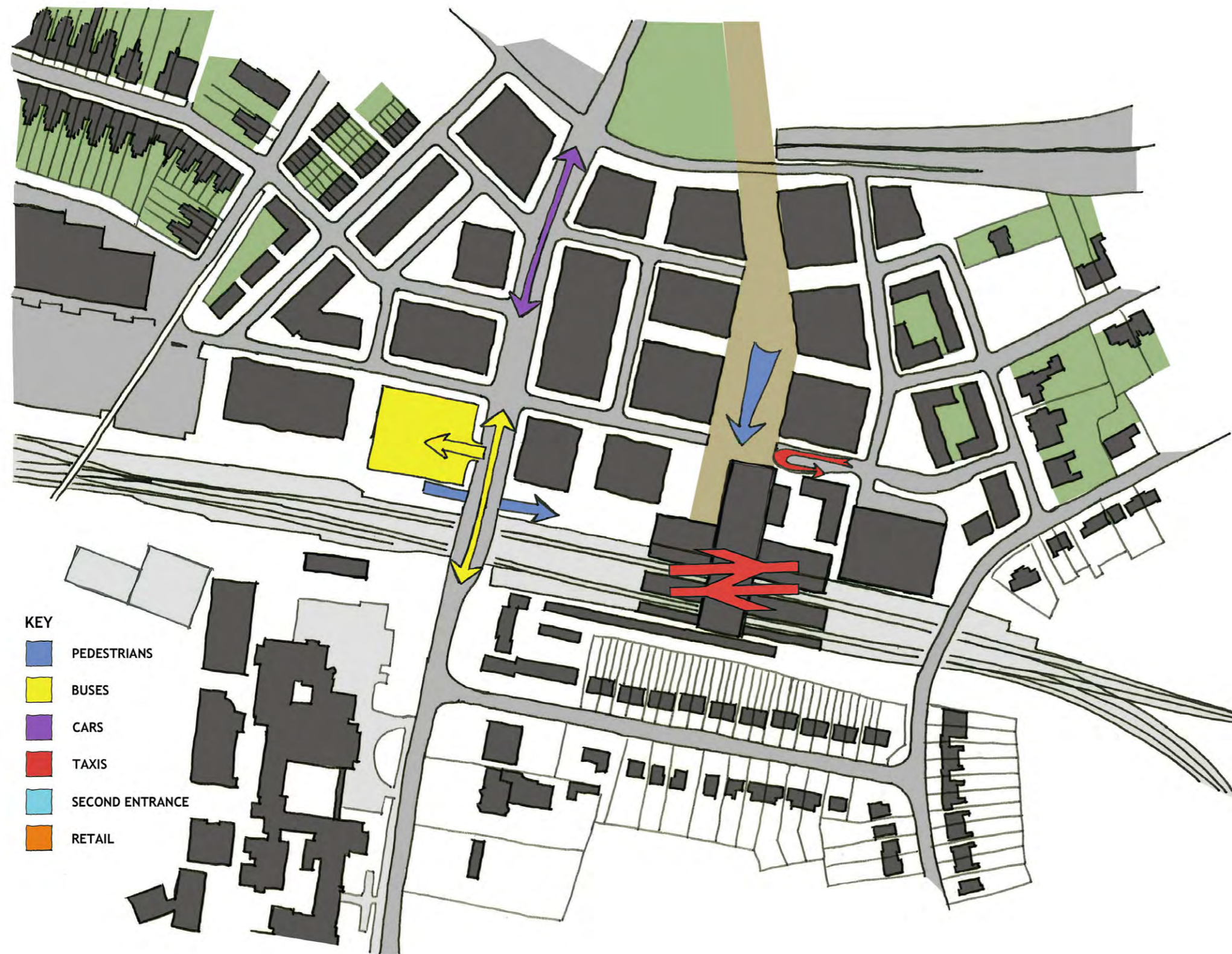
This master plan addresses the station site (defined by the Marlin plan boundary) in the knowledge of the site as it will stand on the completion of the Friargate master plan. The proposed master plan takes these schemes as a starting point for the site and aims to work with their principals to create an integrated master plan proposal for the station. Here follows a series of early development sketches that explore the found context of the site and explain the proposed distribution of functions over the station site in response.

2. Existing Transport Network

There are two main pedestrian flows into the station under the existing proposed schemes. Warwick Road Pedestrian Arcade links to the car parking facilities to the west of the site and pedestrianized main boulevard of the Friargate development links to the city centre to the north.

The Friargate transport plan makes a series of proposals in relation to road traffic. All bus traffic is routed along Warwick Road, with parallel stops off the main carriageway. Warwick Road is also the main private car route connecting the station to the city centre and junction 6 of Coventry's inner ring road. A new taxi rank is proposed to the west of the existing station; entry will be from the junction 6 clockwise slip road and exit will be at junction 5 via Park Road.





3. Transport Interchange

There are three main routes for bus services that connect to the existing station: services that terminate in front of the station building, using Station Square as a turning facility to return to the city centre; through services that stop on Warwick Road; and services that stop at Station Square before continuing towards the south-east of the city. The current provision of bus stops is four stops on Warwick Road positioned on the bridge over the rail tracks (2 for each direction) and three in Station Square.

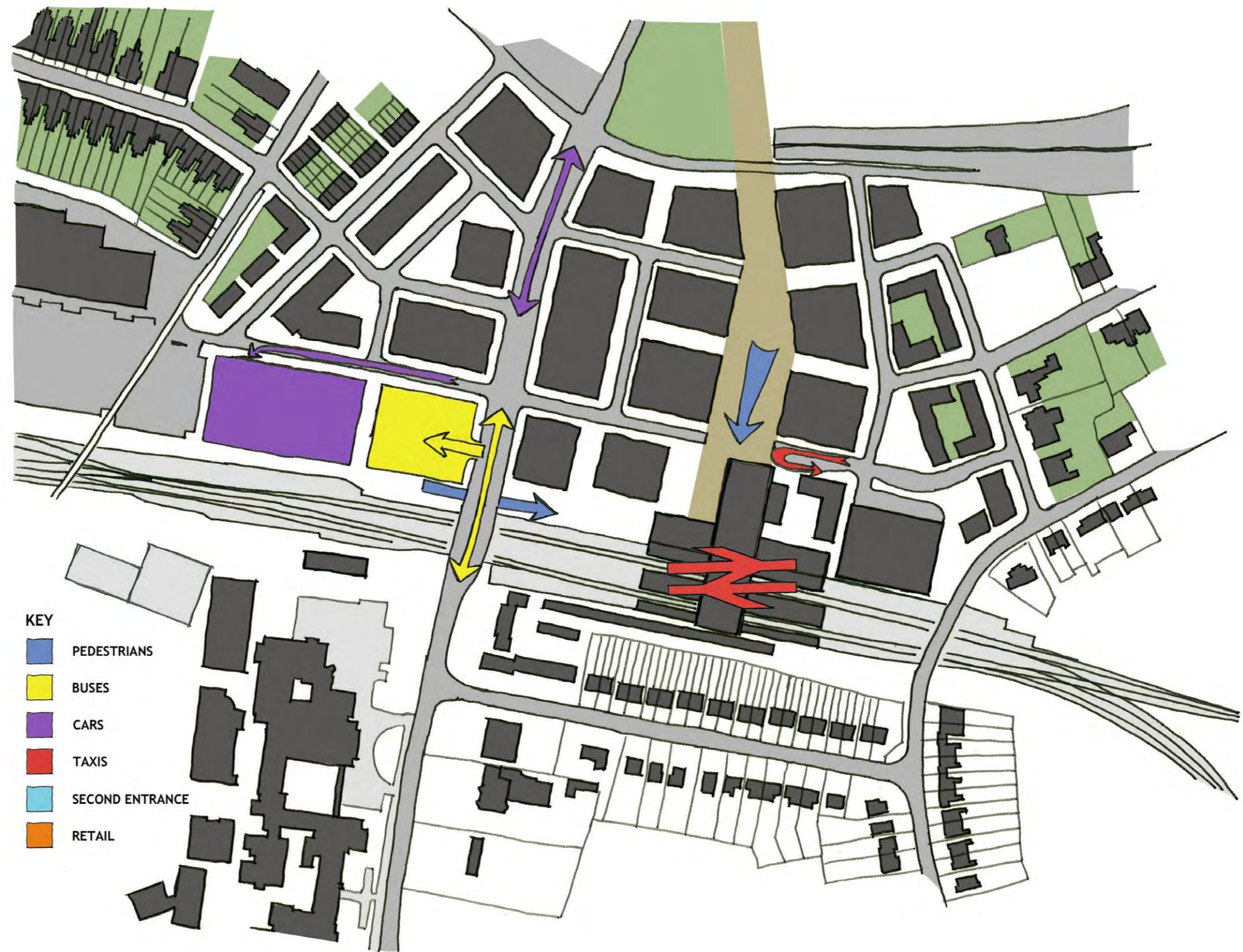
There was concern within the master plan team that the existing stands on Warwick Road would not be able to accommodate additional bus services on the removal of the Station Square stands, as proposed by the Friargate transport plan. The proposed street grid to the north of the railway tracks on Warwick Road does not provide many opportunities for safe provision of additional stands. Furthermore, it is likely that the number and frequency of bus services connecting to Coventry Station will increase in future, with the forecast growth in rail use and the advent of HS2. Thus the team concluded a transport interchange would be required to replace and augment the stand numbers currently provided on Station Square.

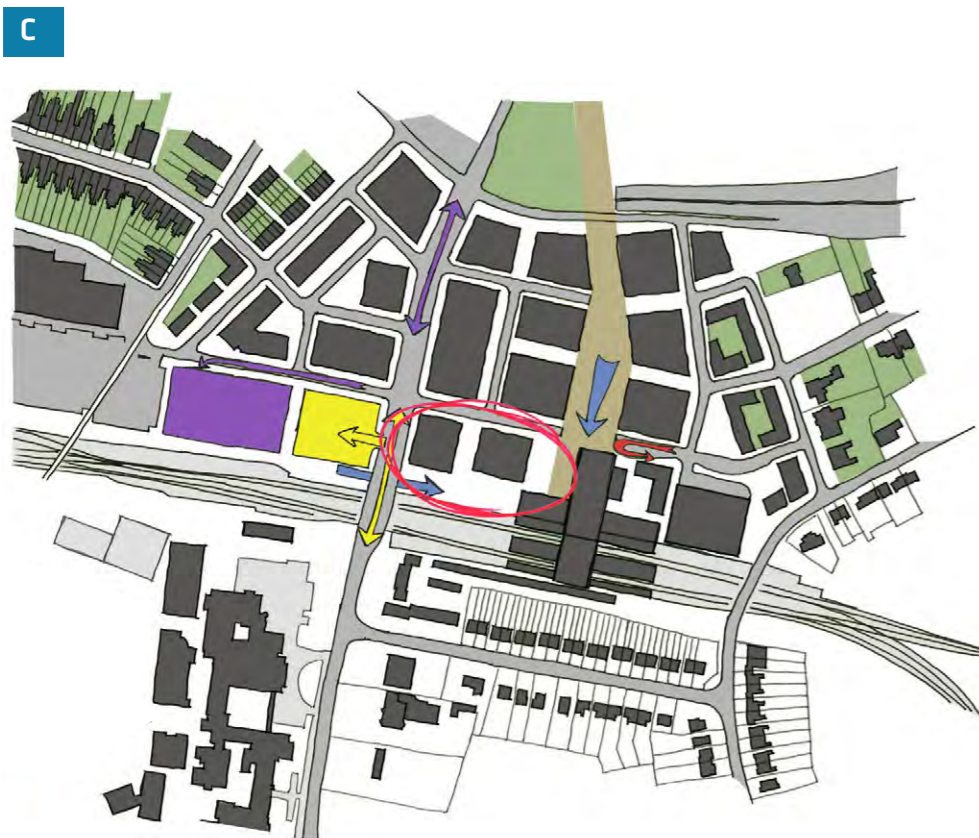
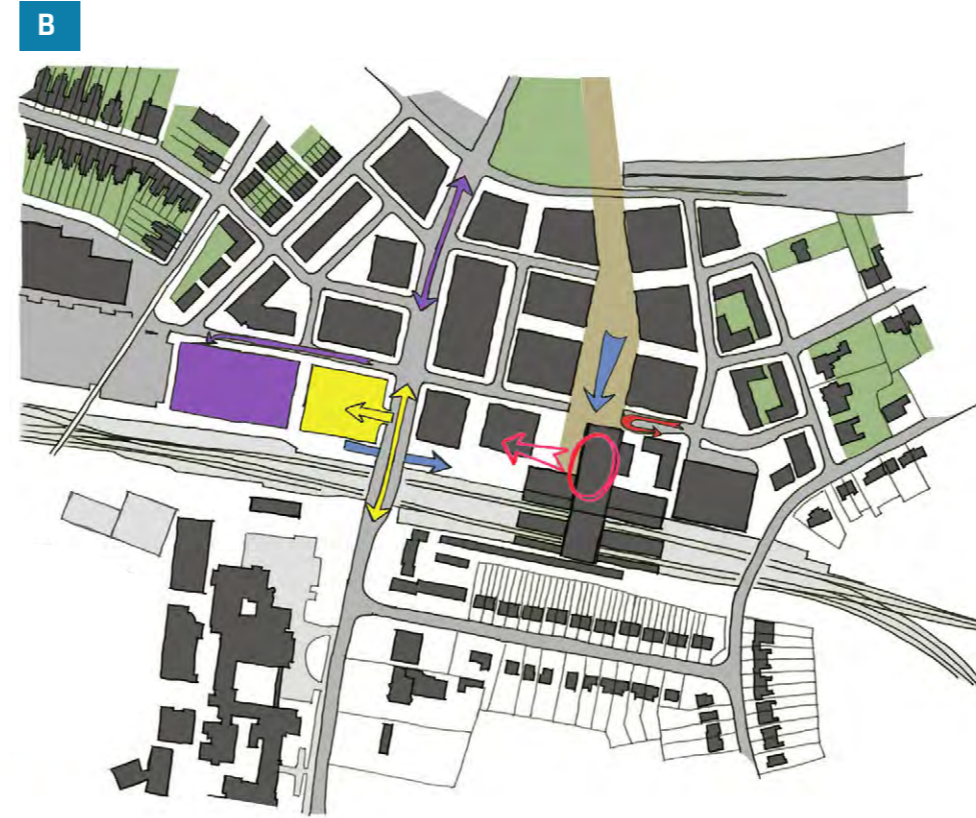
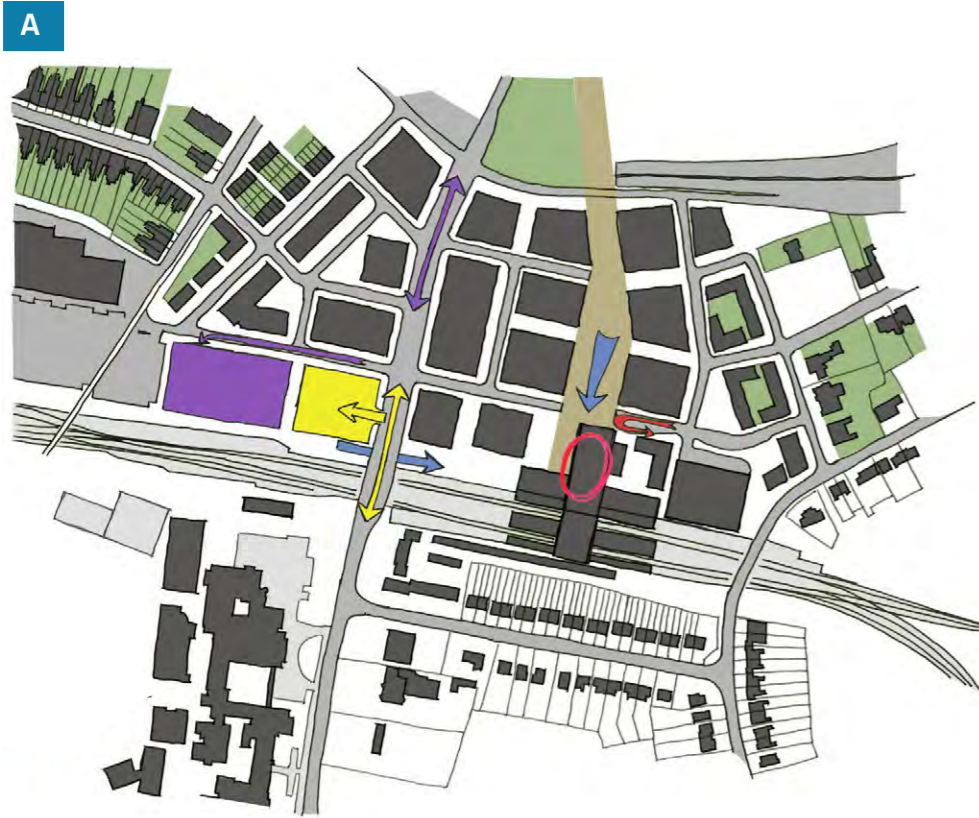
The preferred location for the interchange is the area west and directly adjacent to the Warwick Road, where there is sufficient space and the option to link to both the new pedestrian arcade at station platform level and also to Warwick Road through some form of passenger service building. From discussions with the various transport stakeholders the base requirements for the new interchange were defined as being between 7 and 10 stands, within easy walking distance of the station and there was a preference to avoid reversing manoeuvres. A number of options were explored during design development and the preferred option presented below fulfils these criteria.

4. Multi-Storey Car Park

To minimise the impact on the surrounding residential areas the proposed principal route for car access to the station is also along Warwick Road. However, the new Friargate boulevard isolates the existing multi-story car park in the east of the site from this route. Further, given the expected expansion of passenger numbers it will be necessary to provide more car parking spaces than currently available at Coventry Station to maintain the current ratio of passengers to parking. Thus the master plan proposes the existing at grade car park to the west of the site is redeveloped as a second multi-story facility.

The existing multi-story will also be retained to contribute to the parking required for expansion. Although it is less obviously accessible, anecdotal evidence suggests it is predominately used by regular commuters who would be familiar with the local road layouts and thus this shouldn't cause any drop in demand for parking in that facility.





- KEY**
- PEDESTRIANS
 - BUSES
 - CARS
 - TAXIS
 - SECOND ENTRANCE
 - RETAIL

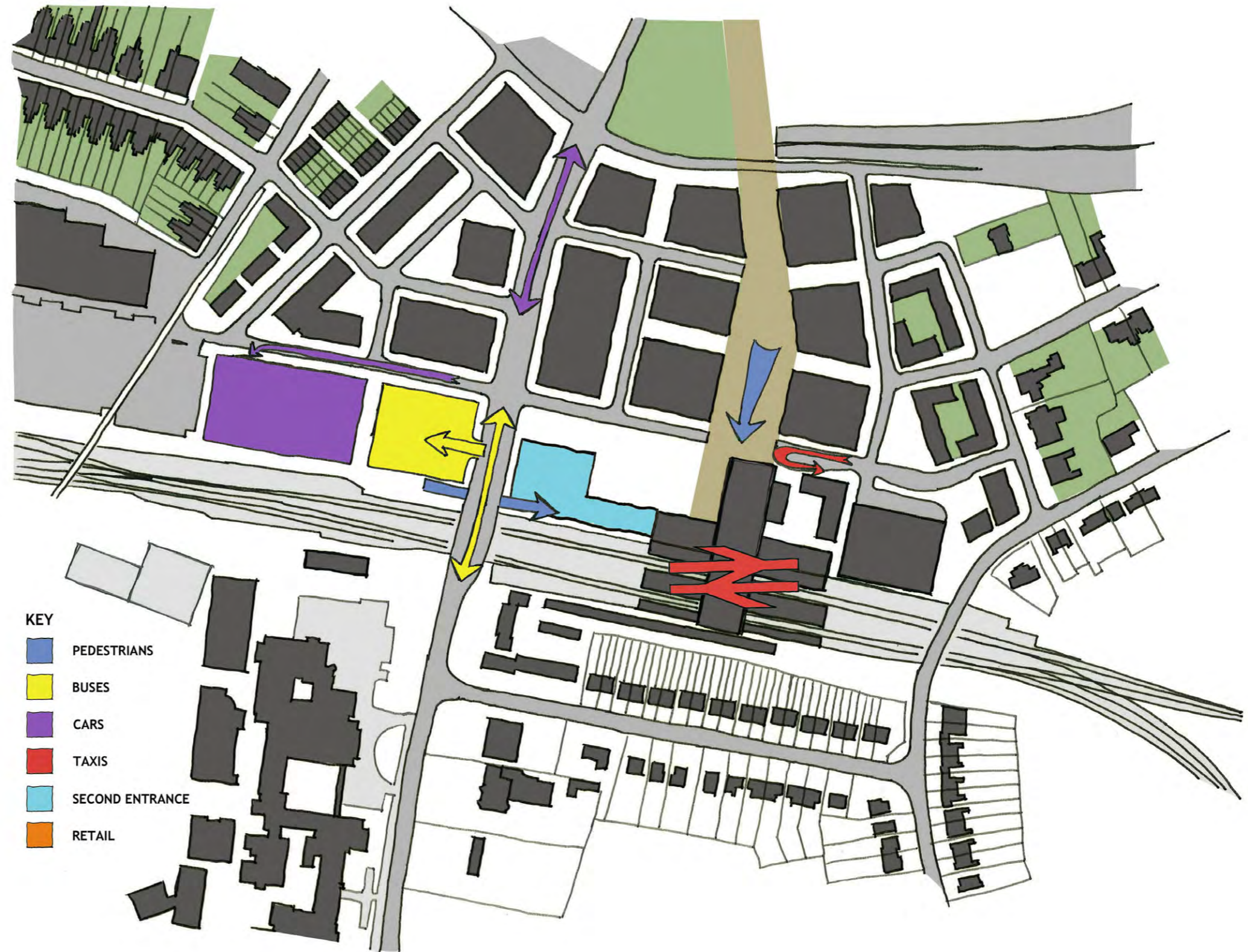
5. Station's New Centre of Gravity

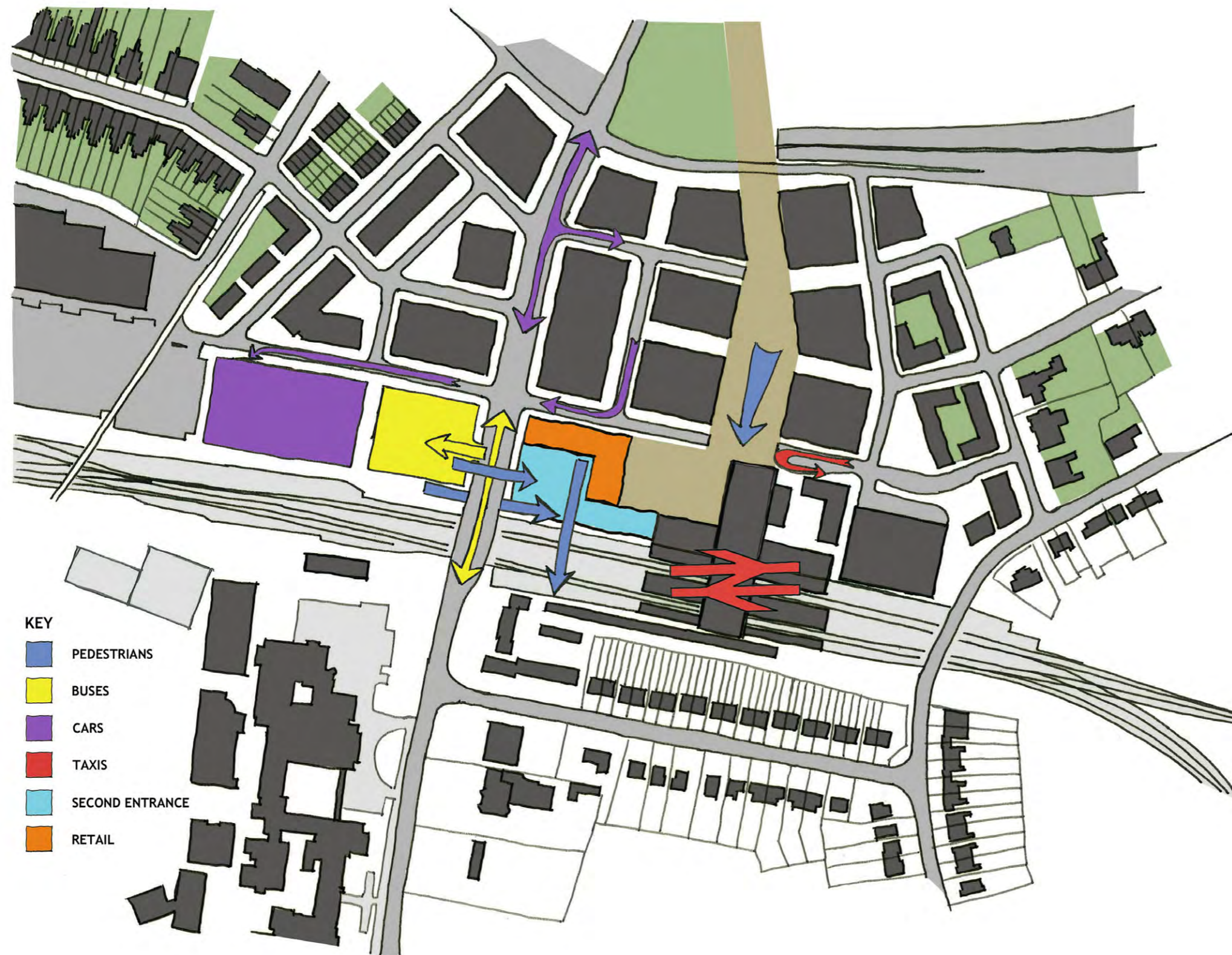
Due to these proposed functions to the west of the Warwick Road, in combination with the major pedestrian route from the city centre, the centre of gravity of the station is caused to shift towards the west and expand in area of influence.

6. New Secondary Station Entrance

The shift in the station's effective centre, combined with a desire to link the existing station to the new interchange and car park, and the expected expanding demand for rail travel all point towards the requirement for an additional station building. This proposal recommends a secondary entrance for the station to be created to the east of Warwick Road. This building would be two stories high to allow direct links to the pedestrian arcade and Platform 1 at ground level, and Warwick Road and a new footbridge at first floor.

The proposal presented here retains the existing concourse as the main part of the station including the fully staffed ticket office. The secondary entrance would have automated ticket machines and access barriers to provide ticketing facilities without a high staffing requirement. There is however, sufficient space allocated in the secondary entrance to provide a ticket office if such was desired by the franchise holder in the future.





7. Retail, Offices, New Station Square, Drop off

Although the new station entrance is secondary to the main concourse, given the forecast expansion of passenger numbers the services available at the station will need to increase in response to this. Thus a number of retail units are proposed around the second entrance to provide the best passenger experience possible. An additional benefit of this approach is that if a passenger arrives to the station from the west (by car park or bus interchange) they are not obliged to transfer through the existing station, while still having access to all the station's service provisions.

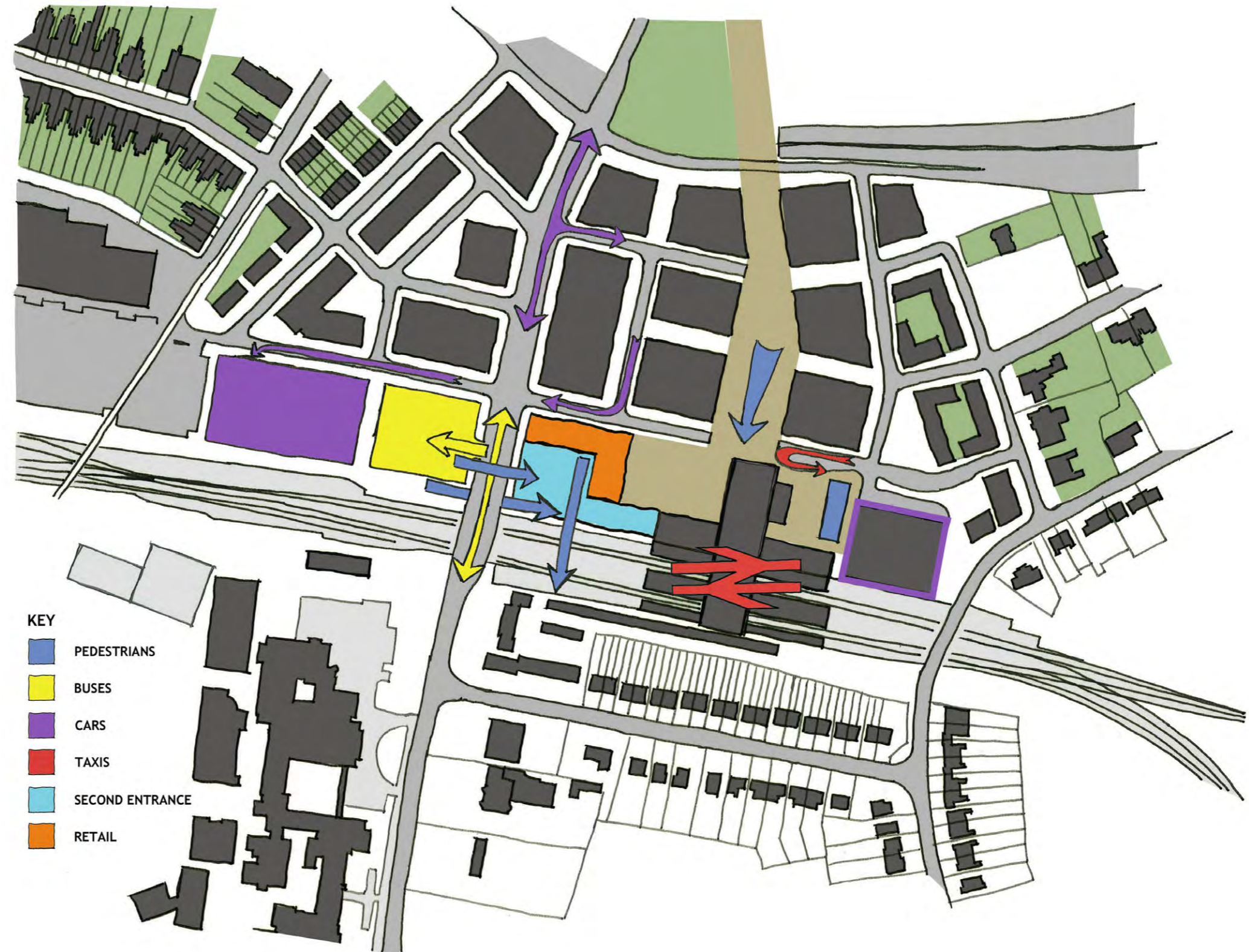
To integrate the new station building into the Friargate scheme it is proposed that office space could be accommodated in further floors above the station. These floors do not need to be built at the same time as the station, but the station structure would be designed that these could be added at a later date, while keeping the new station entrance full operational.

The new city block created by the new entrance, retail and office functions then frames an area between it and the existing station that naturally positions itself as a public square. The new Station Square connects into the Friargate boulevard providing continuous pedestrian space linking the two master plans together. To the northwest of the new square a drop off zone is provided, with excellent access to both parts of the proposed station.

Now that the auxiliary functions of the station have been provided with expanded facilities elsewhere, the Grade 2 listed station can be appreciated in this new urban space, uncluttered by bus stands and traffic signage.

8. East Square, Cycle Hub, Recladding existing MSCP

Finally to the east of the station the master plan proposes to demolish the existing British Transport Police building and re-clad the existing multi-story car park to improve the connection between the station and the car park, and creating a more welcoming environment for regular commuters. The shared surface public space will provide overflow parking for the adjacent taxi rank, and is the proposed location for a cycle hub including 300 bicycle spaces.



Proposed Plans

1. New MSCP

GF: 102 spaces, including 32 disabled spaces. FF & SF: 122 spaces each. 3rd, 4th & 5th: 184 spaces each. Total: 898 spaces.

2. Platform 5

Part of NUCKLE 1 works, as a separate project. Direct access to this platform could be provided from the MSCP and Bus Interchange by the provision of self-operated ticketing machines and automated barriers.

3. Transport Interchange

8 no. Stands, with two layover bays off Station Road West for rail replacement services. Island stands could be part of expansion phase rather than constructed immediately.

4. Covered walk way linking the car park to the pedestrian arcade**5. Passenger Building**

Providing passenger and driver facilities (WCs, rest areas etc.) and the opportunity for some small retail. A vertical connection to first floor level, Warwick Road and the bus stands located there. Possible location for an alternative or additional cycle hub by excavating the existing banking on the ground floor; excavation and retain works would be required for this to be achieved.

6. Pedestrian Subway

Completed as a separate project. Providing public right of way, open 24 hours.

7. New Secondary Entrance

Including retail units and passenger services. Layout designed so that station and retail functions can be shut down as suitable for station opening hours, while still allowing the pedestrian arcade to be used. North section of the retail areas can be built in a later stage, depending on when the vacancy of the existing Public House ("The Rocket" shown here dotted) is agreed.

8. Second Footbridge

Access to platforms 2, 3 & 4, relieving congestion on the existing footbridge.

9. Extended canopies to platforms**10. Drop-off Zone****11. Extension to west wing of existing Station**

For retail space, additional waiting rooms and WCs as required.

12. New Station Square

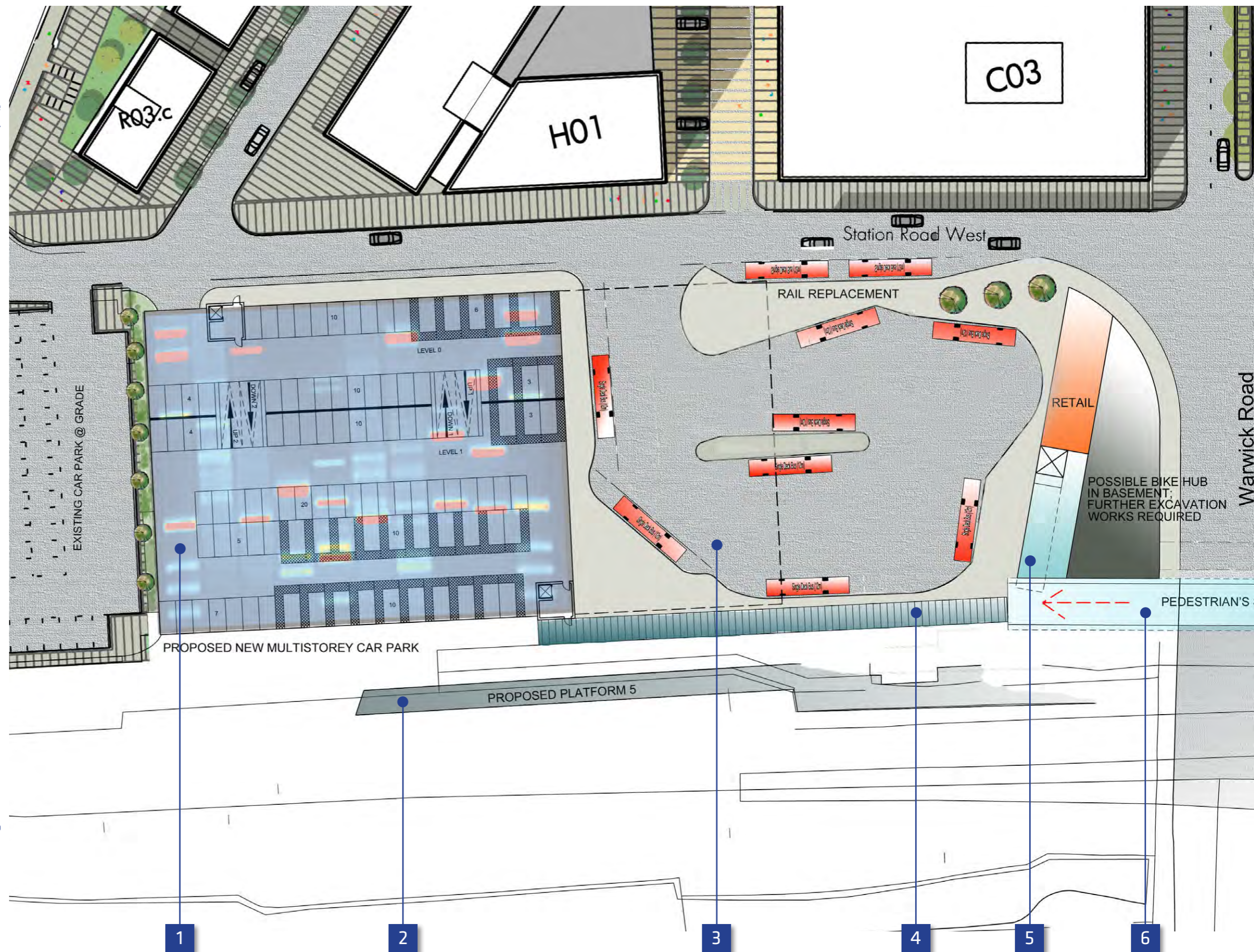
Including covered walkway to link pedestrian arcade to main station building.

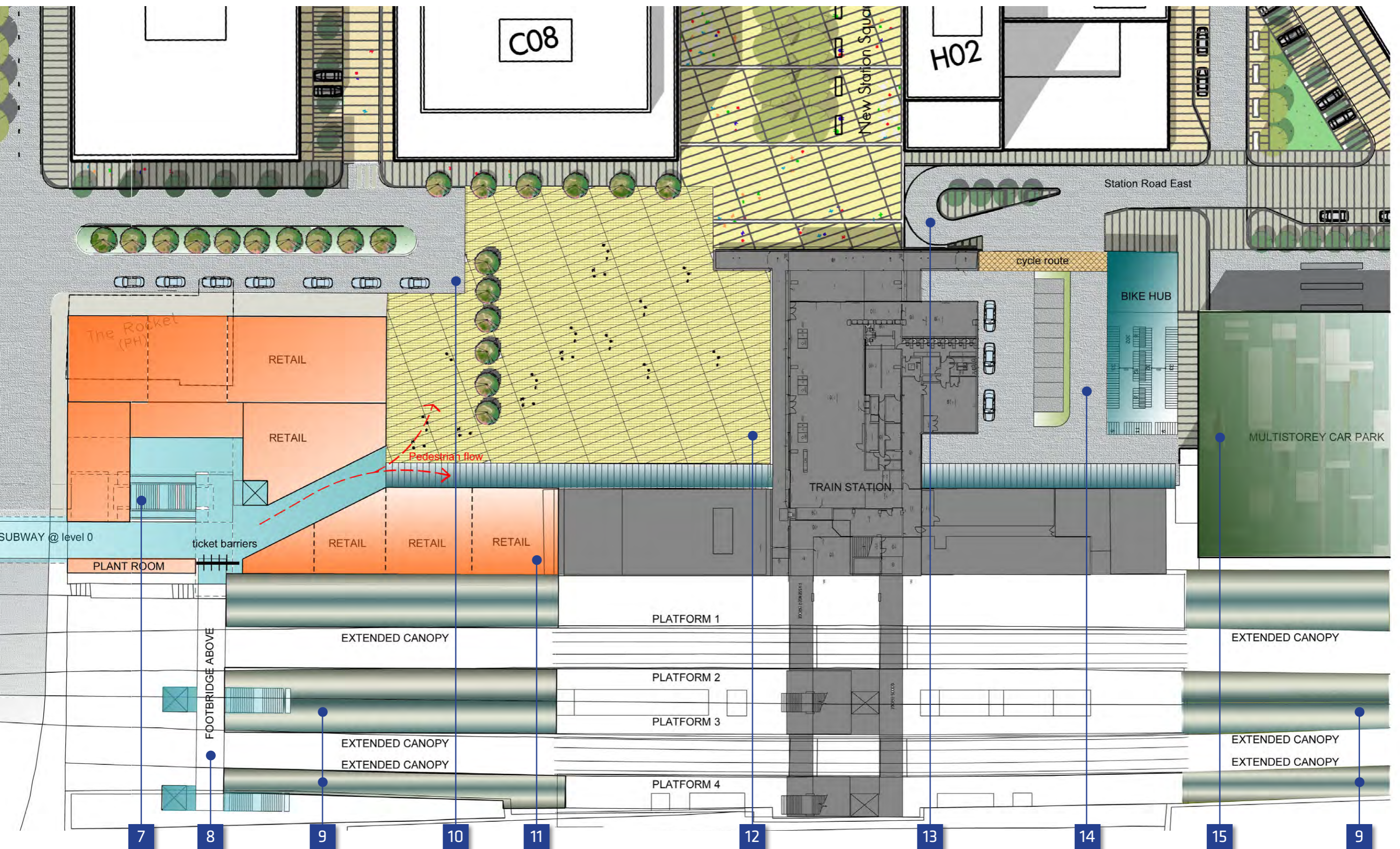
13. Taxi Rank**14. East Square**

Shared surface landscaping to provide overflow for taxi rank, cycle hub with 300 cycle spaces and covered walkway linking the existing MSCP and main station building.

15. Existing MSCP

Exterior to be re-clad to improve appearance, and ground floor bays to be revised to provide further disabled parking.





1. New MSCP

3rd, 4th & 5th floors: 184 spaces each.

MSCP to be built to 3rd floor initially, with structural capacity to extend to full 5 floors as and when required.

2. Transport Interchange Passenger Building

First floor has level access to Warwick Road and further passenger and driver facilities as required.

3. Pedestrian Crossing

At grade to Warwick Road, linking second station entrance and transport interchange building.

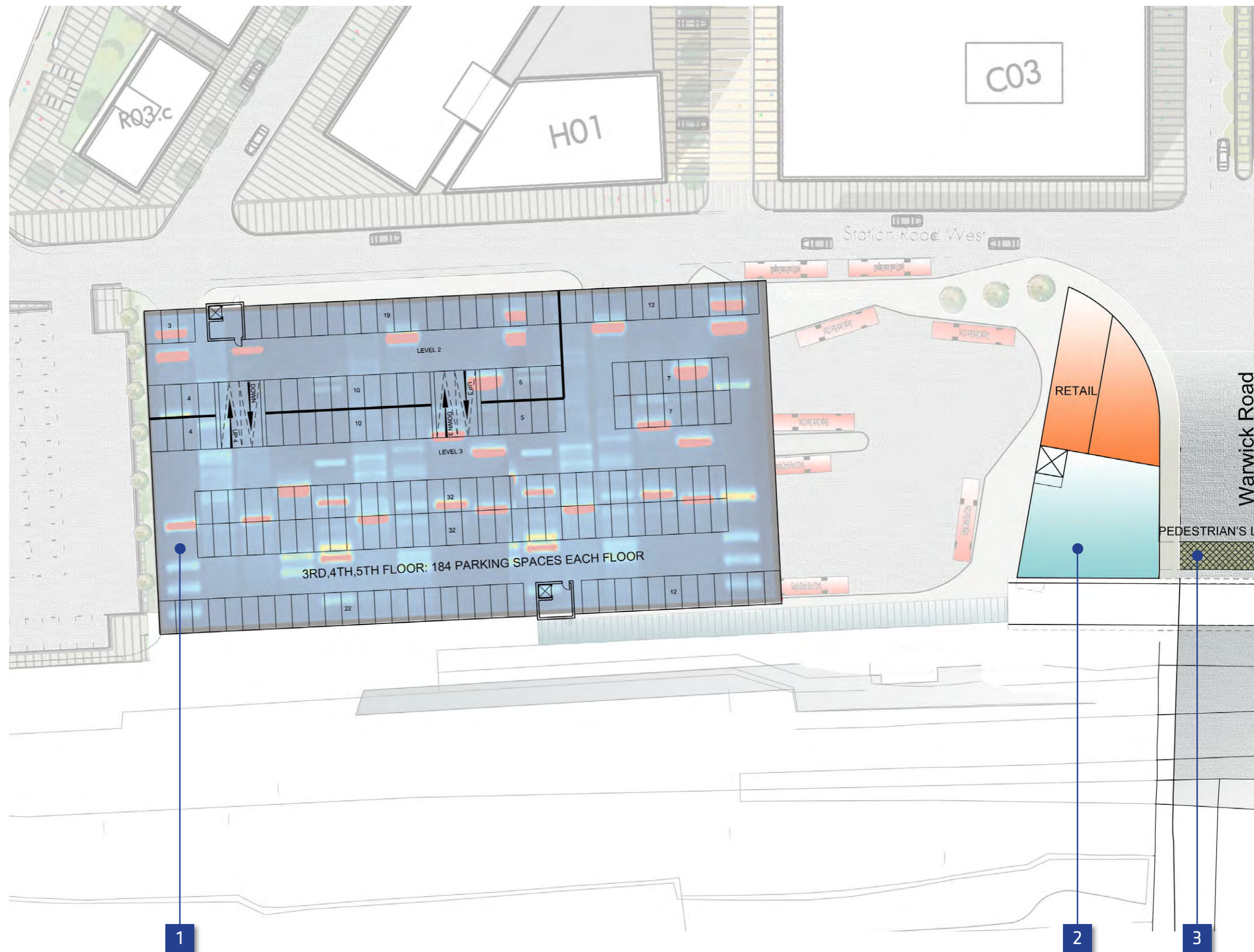
4. New Second Entrance

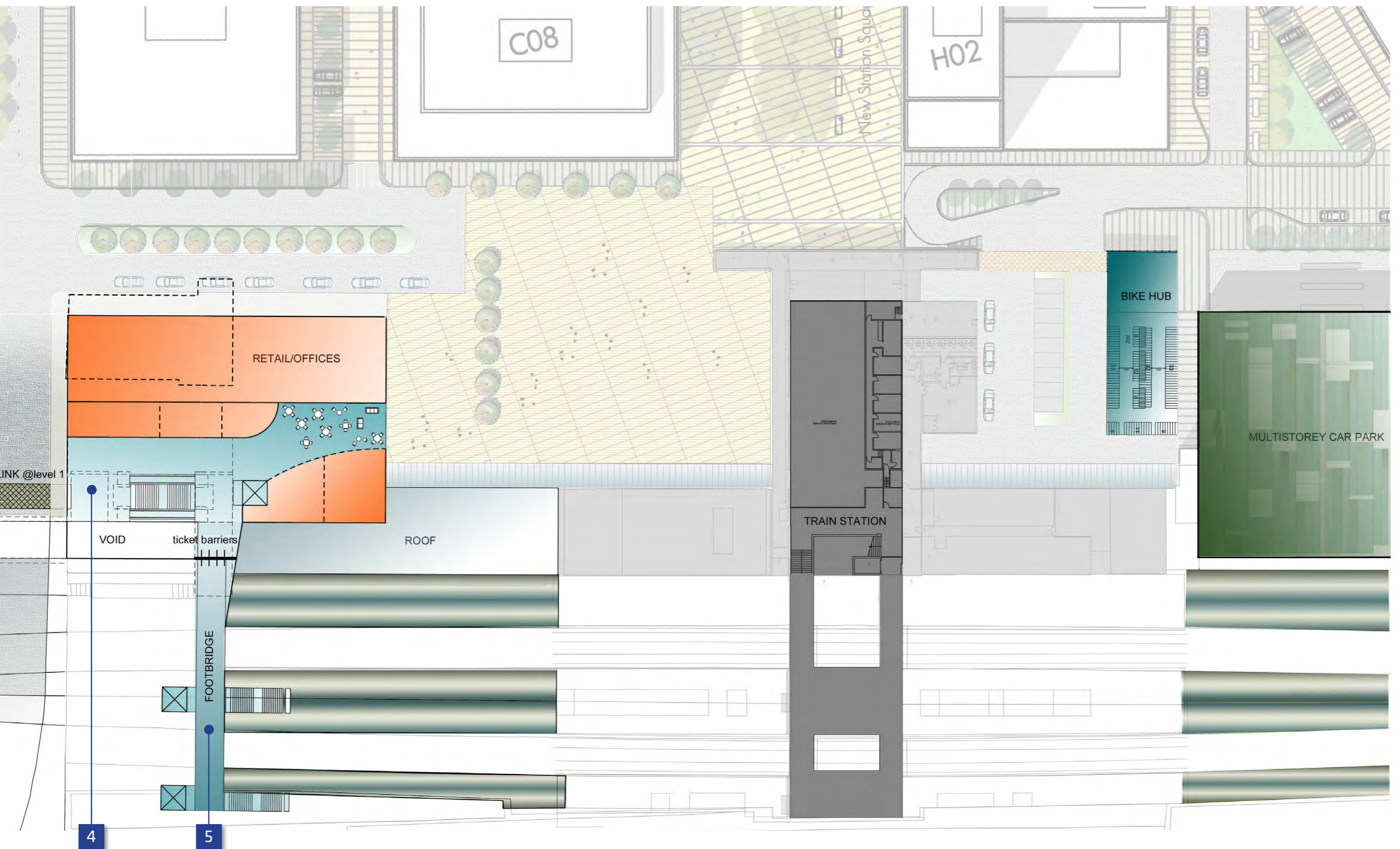
Automated ticketing or ticket office facilities provided at first floor and retail functions located off the passenger circulation routes

The north side of the block could be the first level of office space (further levels from second floor upwards) or more retail space as required.

5. Second Footbridge

Access to platforms 2, 3 & 4, relieving congestion on the existing footbridge.





Masterplan Viewed from the East

Showing new cycle hub in East Square, the existing station, new station building & commercial building, MSCP beyond.

(Similar view of existing, below)





Aerial View of Masterplan from South West

Left to right: MSCP, bus interchange, new secondary entrance, new station square, existing station building.

(Similar view of existing, below)



Aerial View of Masterplan from East

(Similar view of existing, below)





**New Second Entrance Retail & Office Buildings,
Viewed from Warwick Road.**

(Similar view of existing, below)



Bus Interchange Viewed from West

(Similar view of existing, below)





View of Central 6 Retail Park from Bus Interchange

(Similar view of existing, below)

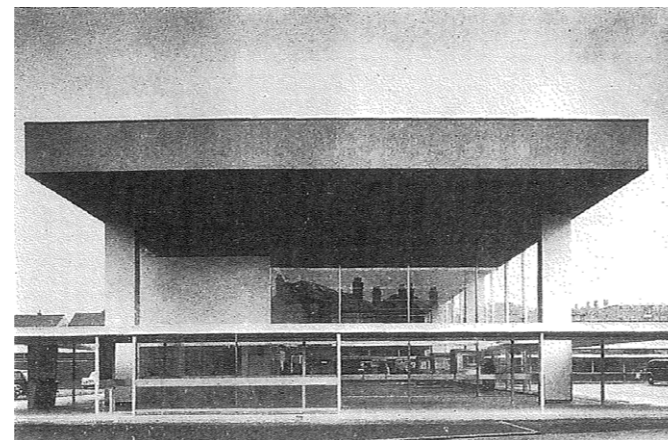


Coventry Station is a Grade 2 listed building, considered “outstanding architecturally, particularly for its spatial qualities and detailing.” The station is unique in the fact that it is the only significant and complete example of 1960s station architecture in the UK. There are number of smaller stations built at this time, but Coventry is the largest and best example. As such it represents a significant piece in the development of British railway architecture in the twentieth century.

As part of the development of the master plan research has been carried out at the Coventry History Centre to look at the development of the building since it’s completion in 1962. Various contemporary architectural journals and local newspaper articles were consulted, and the images from these evaluated against the existing station. From this we can deduce the station building has had relatively few alterations in the past forty years, although this is less true of the areas surrounding the station.

The most significant alteration was the addition of the Travel Centre extension in the 1970s. However this has been done with sympathy to the existing building, maintaining the fenestration rhythms and materials to match those in the original station. Elsewhere in the station the general form and many of the original details and materials are still in evidence

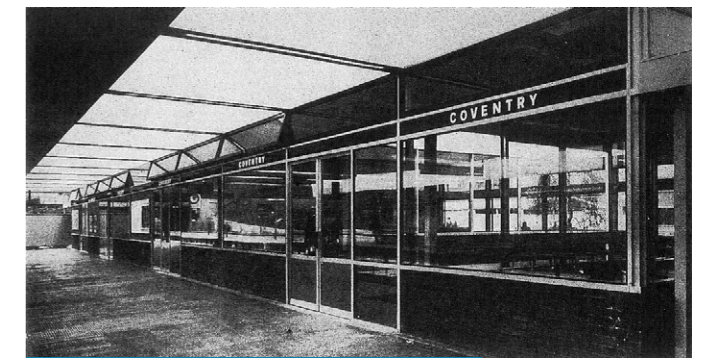
Discussions have been held with the Railway Heritage Trust, to begin to explore the heritage needs of the building going forward. The RHT recommended that a Conservation Management Plan is produced, including a survey of original features. The RHT has expressed interest in being consulted on the development of heritage statements going forward.



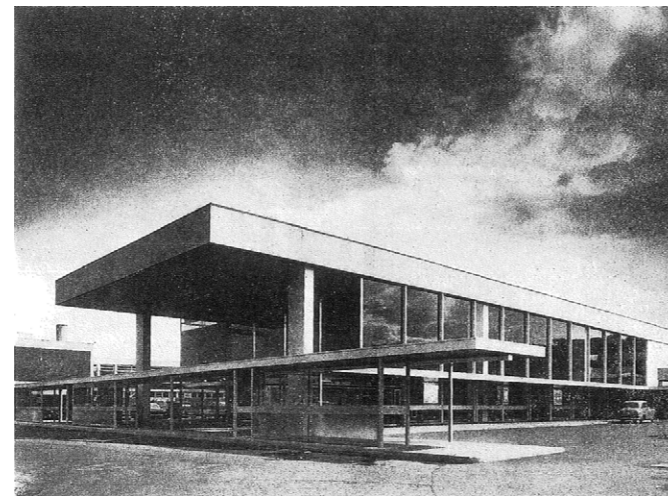
Architectural Design, July 1962, p.324



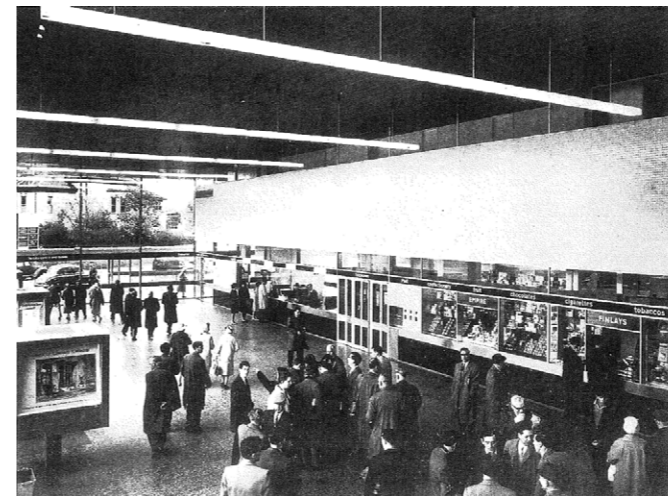
Architectural Design, July 1962, p.324



Architects Journal, 30 May 1962, p.1205



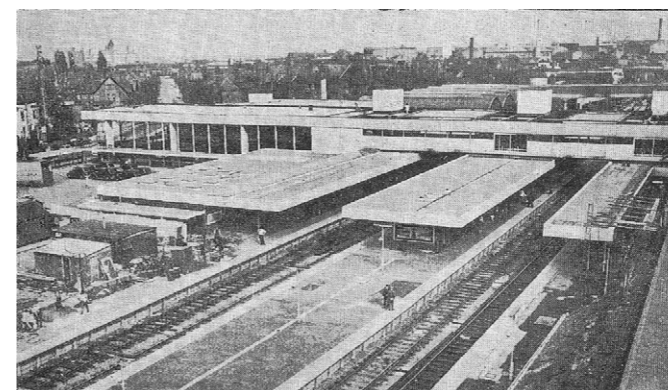
Architects Journal, 30 May 1962, p.1195



Architectural Design, July 1962, p.325



Architectural Design, July 1962, p.325



OET, 1 May 1962

Heritage Management Plan

The building does not at this time have a Conservation Management Plan in place, and this would be a valuable document not only to direct future works within the station (both for restoration and new interventions), but also to inform planning applications and support funding applications from various bodies. The Heritage Lottery Fund has published a guide on the commissioning and writing of conservation management plans. The HLF describes a conservation management plan as a way of “managing change carefully so as not to damage what is special” (p2) about a heritage asset. The HLF emphasises that it is important to preserve the particular significance of an asset, and as such the management plan should detail:

what is there, why it matters, what is happening to it and the principles by which you will manage it and then sets more detailed work programmes for maintenance, management, access, use or other issues. (pg.3)

The HLF recommends that a management plan should be established at the earliest possible time to have the greatest benefit of informing any proposed projects including the asset. However it is also accepted that a full management plan is a significant document requiring extensive research and consultation. Thus it is suggested that initially a Conservation Statement is produced, which begins to set up the structure of the management plan and initiates the engagement of stakeholders, while requiring a lesser level of detail in the body of the document. Whether Coventry Station is assessed for a full management plan or an interim statement the following is recommended as a structure for either document.

1. Background to the plan

- Scope and limitations
- Motivations for creating the plan
- Relationship to other plans, eg. Business plan
- Ownership and authorship

2. Stakeholders

3. Understand the site

- Description of the heritage assets
- History of the asset, including previous management regimes, repairs, alterations etc.
- Management and use
- Omissions in knowledge

4. Assess significance

- Of elements of the asset/building
- Chronological development of asset
- History
- Architecture
- Community
- Risks to significance
- Etc.

5. Management Issues

- Condition
- Use
- Constraints
- Wider Context
- How significance is vulnerable

6. Policy aims and objectives

- Vision for the site
- Conservation philosophy
- Prioritise repair
- Design and manage new developments
- Define appropriate uses
- Comply with other regulations
- Etc.

7. Maintenance Schedule

- Annual Inspections
- Short, medium and long term actions
- Funding and responsibility for on-going maintenance
- Etc.

8. Appendix

- Detailed survey and assessment of individual parts (fixtures and fitting, signage typography etc.)

Costs

A full Conservation Statement is imperative to move forward with the master plan, and will no doubt highlight a number of items in need of maintenance and restoration. However for the purposes of the business case we believe the following works should be anticipated:

Item	Description	Cost
Cleaning	The station should be carefully cleaned.	£250,000
Rooflights	The existing roof lights along Platform 1 are in need of replacement	£100,000
Signage	The existing signage displays a variety of forms and typefaces. The original typeface was designed specifically for the station and all signage should be renewed and designed honouring this unique heritage.	£100,000
Furniture	Fixed furniture, such as benches, should be renewed with a unified style appropriate to the station.	£100,000
Ticket Hall	Revising unsympathetic adaptations so that modern services (car parking tickets, automatic ticketing machines etc.) integrated to the original design.	£250,000
	Revising news agents stand under the main stair to be more in keeping with the original design.	£250,000
Courtyard	New landscaping of the existing courtyard	£50,000
Café	Interior design in keeping with the original scheme	£150,000
Ironmongery	Bespoke reproduction ironmongery to match existing	£50,000
Services	Remove, re-route and replace with sympathetic installation	£250,000
Lighting	Replacement of unsympathetic installations	£150,000
General	Local repairs and restorations	£250,000
Total		£1,950,000

Introduction

Currently there is no proposal to alter the retail provision in the existing station although it has been mentioned in general discussion that it would be desirable to remove or amend the small unit (WH Smith) that is within the concourse so that this space could be returned to its original design.

There is a large area proposed off the east wing of the existing station that could provide a retail use. This area can be arranged in a number of ways to provide multiple units (including in combination with the adjacent existing building by restructuring the existing retail provision) and these units could face either platform side (platform 1) or onto the new Station Square.

The large area of retail and offices that is proposed to wrap around the proposed secondary entrance is sized at approximately 1750 sqm per floor. There is an existing pub on the site which will need to be demolished to make way for these new retail facilities in the development. Under the current proposals almost the whole of the ground floor will be retail with just a small area required on the ground floor to give entrance access to the office floors above.

Proposed Retail Units

The proposed ground floor retail is sufficient to allow for five good sized units. With the demolition of the existing pub the development could accommodate a new pub/wine bar or restaurant requiring an estimated floor space of c 600 sqm, to include back of house and storage area. Typical annual rent for this type of unit is c £250,000 pa with a combination of both minimum guaranteed rent (MGR) and a percentage of turnover. Coventry has an excellent university attracting thousands of students each year who travel by train. A pub such as Wetherspoon would trade very well in this type of environment. The drinks and meals are reasonably priced and would be affordable to students.

The growing footfall predicted at Coventry would provide an ideal location for an M&S Simply Foods or other small supermarket such as Tesco Express. This type of unit would need c 350 sqm with back of house and storage and could attract a rental of c £200,000 pa (MGR & Turnover).

There is also space for a small café selling hot and cold food/ refreshments with a small seating area both inside and out. This will attract not only people waiting for trains but could provide a meet and greet facility. The total space required is c150 sqm and will provide a rent in the region of £75,000 pa (MGR & Turnover).

The new development will provide a busy second entrance to the station for commuters in the peak especially given that the majority of station parking will be on that side of the building. A newsagent such as WHSmith could provide newspapers and confectionary to busy commuters avoiding the need for them to have to go to the main concourse. The unit would attract a rental of £60,000 pa with a total space of c 225 sqm.

A 'Grab and Go' facility for refreshments would work very well for those commuters who will want to by-pass the main station concourse and use the new footbridge to access their platform. Starbucks, Costa and Caffé Nero all trade well in this sort of environment and are used to operating on stations where there is a peak surge. Typical rental levels are c £35,000 with an allocated space of 50sqm.

An allocation for two ATM's could also be made available in the new development. These would attract a rent of c £10,000 each.



Based on the considerations, left, the table below provides a summary of the split of proposed retail businesses, along with unit size and potential revenue:

Type of Business	Unit Total (Sqm)	Type of Agreement	Rent
M&S Simply Foods	350	Lease	£210,000.00
Café - Patisserie Valerie, Paul	150	Lease	£75,000.00
Newsagent - WH Smith	225	Lease	£60,000.00
Wine bar, pub restaurant - Wetherspoon	600	Lease	£250,000.00
Coffee Shop - Costa, Starbucks, Caffé Nero	50	Lease	£35,000.00
Nat West - ATM		Licence	£10,000.00
RBS - ATM		Licence	£10,000.00
Total:	1375		£650,000.00



Retail Strategy

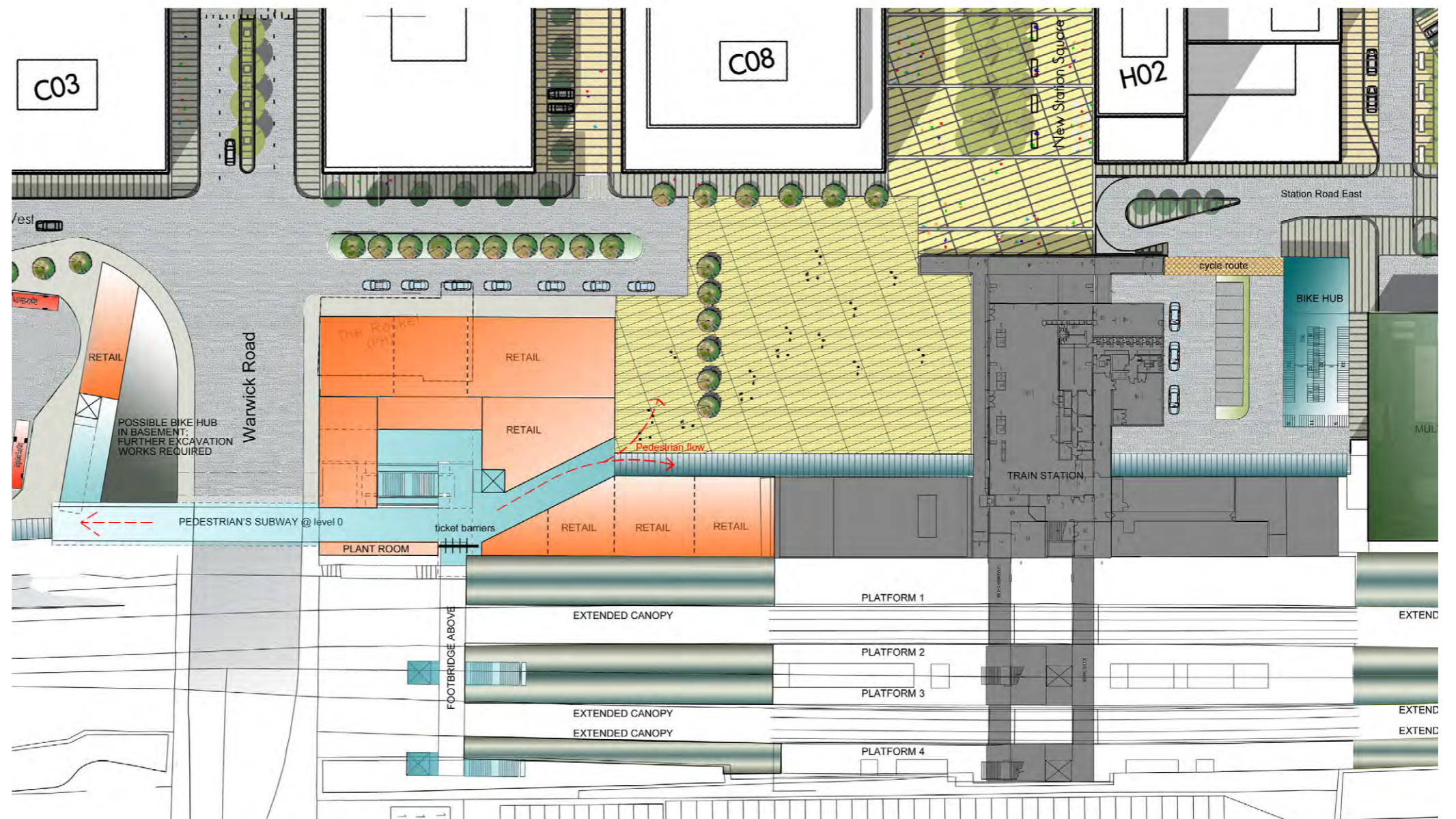
It is recommended that as the scheme progresses, a retail strategy for not only the new second entrance but also the existing station concourse and platforms is developed in order to provide a fully considered retail experience for rail passengers.

Such retail strategy would detail the following:

- size of retail portfolio required;
- tenant mix,
- location of units;
- potential rental income;
- other sources of income such as vending machines, advertising, click & collect

Passive provision for the implementation of new barriers and how this will affect both passenger flow through the station and the accessibility to retail units will also need to be considered.

The retail strategy will also need to address the new retail provision in terms of planning policy, in line with parameters set out by the National Planning Policy Framework. Our initial discussions with Coventry City Council planning officers have indicated that any retail included in the station master plan would not impact on the retail limits already agreed in the outline planning permission for the Friargate development. The retail provision for the station would be considered on its own merits, and in the context of serving a specific group of people, namely rail passengers, rather than the wider population of Coventry city.



Estimate

The estimated construction costs for the key elements are as given below. The costs base is 4th quarter 2013. A more detailed breakdown with assumptions is given in Appendix 4.

These are anticipated costs for works contract sums and do not include for the following key items;

- Services diversions.
- Network Rail Possession / TOC Compensation Costs.
- Ground Investigation and unforeseen ground conditions.
- Contingency.

The Multi Story Car Park cost is based upon a cost per space of £12,000. The park cost included is for 500 spaces which will compensate for the loss of 350 spaces from the existing car park between the station and Warwick Road and provide an additional spaces for future demand. It is assumed that the foundations will be designed for future increase in car park increase as demand requires. This will depend on the development of Friar Gate and the increase in use of the station. The car park is anticipated to be 3 levels with a single level above part of the bus interchange on completion of the master plan works.

Description	Quantity	Unit	Rate	Cost £s
MSCP West	500	Car Space	12.000	6,000,000
Bus Interchange	3000	Sq m	325	975,000
Bus Interchange (Building)	1300	Sq m	1708	2,221,000
Secondary Entrance	1743	Sq m	1893	3,300,000
Retail/Commercial Office- Phase 1	975	Sq m	1,333	1,300,000
Retail / Passenger Service	355	Sq m	1,690	600,000
Covered Walkway West	250	Sq m	800	200,000
New footbridge	300	Sq m	10,000	3,000,000
New canopies to platforms	1395	Sq m	501	250,000
Widening to platform 1	45	Sq m	4444	200,000
Station square	3350	Sq m	268	900,000
Covered Walkway Station Square	250	Sq m	800	200,000
Retail / Commercial Phase 2	1500	Sq m	1,333	2,000,000
Demolish Rocket Pub		Item		50,000
Demolish BTP Building		Item		100,000
Covered Walkway East	125	Sq m	800	100,000
East square	2140	Sq m	280	600,000
Cycle Hub	Cycle space	Unit	300	156,000
Reclad Existing MSCP	10145	Sq m	69	700,000
Total				£22,602,000
Conservation works to existing building.		Sq m		£1,950,000
Grand Total				£24,552,000

The following phasing is proposed.

Item	Package	Cost Estimate £s
Warwick Rd Pedestrian Underpass	0	£3,000,000
MSCP	1	6,000,000
Transport Interchange	2	3,196,000
Secondary Entrance	2	3,300,000
Retail/Commercial (1st Phase)	2	1,300,000
Retail Passenger	2	600,000
Covered Walkway West	2	200,000
New Footbridge	3	3,000,000
Platform Canopies	3	250,000
Widening To Platform 1	3	200,000
Staton Square Including Walkway	4	1,100,000
Retail/Commercial (2nd Phase)	4	2,000,000
Drop Off Zone	4	500,000
Demolish Rocket Pub	4	50,000
Demolish BTP Building	5	100,000
Covered Walkway East	5	100,000
East Square	5	600,000
Cycle Hub	5	156,000
Relcad Existing Car Park	5	700,000
Total		£25,602,000
Conservation Of Existing Station Building		Allow £1,950,000
Total		£27,552,000

Package 1 – Cost £6,000,000

Following completion of the Warwick Road subway which will provide safe access across Warwick Road the construction of the a new multi storey car park (MSCP) to the west of Warwick Rd is critical to allow transfer of the existing car parking spaces between the station and Warwick Road. The loss of spaces to the east car park during construction can be compensated by increased use of the linear car park between the retail six car park and the railway.

Package 2 – Cost £8,596,000

Completion of the MSCP will allow the land between the existing station and Warwick Road to be cleared for the construction of the 2nd entrance . Construction of the MSCP will also provide sufficient car parking capacity to allow removal of the remaining car space to the west of Warwick Rd space and construction of the transport interchange.

The package 2 works will provide the 2nd entrance to the station and make the Warwick Rd pedestrian underpass and integral part. It is proposed to construct the ground floor of the retail space.

Package 3 – Cost £ 3,450,000

Package 3 includes all work requiring access to Network Rail infrastructure. Ideally the construction of the new footbridge should coincide with the construction of the 2nd entrance to allow direct access to the platforms from the 2nd entrance without requiring people to walk to the existing station building. However this work will require work on Network Rail Infrastructure and will be dependent upon possession booking and availability.

Package 4 – Cost £3,150,000

Package 4 is primarily related to demolition of the rocket public house and completion of the 2nd package of retail. Prior to demolition of the pub it is proposed that the drop off zone will be on the road adjacent to the pub. This work is proposed to be in package 4 to allow completion of the property negotiations with Network Rail for the removal of the public house.

Package 5 – Cost £,1656,000

Package 5 is the completion of the all the works to the east of the existing station to improve the environment and accessibility from the existing east car park.

Conservation Works – Cost £1,950,000

Once the Friargate Boulevard is complete the existing station building will much more visible. The building is grade 2 listed and considered to be of high heritage value. The building is in need to repair and conservation and it is considered that that works to restore the building should be undertaken at the same time as the phase 4 works.

Friargate

The phasing for this development is dependent upon the take up of office space however a key element is the pedestrian boulevard which will change both the access and visibility of the station. Integration of the above works with the Friargate development is desirable where possible particularly in relation to the 2nd entrance.

Programme

The aspiration is for delivery by 2019. To achieve this the following programme phasing is suggested:

- Package 1 2016**
- Package 2 2017**
- Package 3 2018**
- Package 4 2018**
- Package 5 2019**

As noted package 3 requires works on Network Rail Infrastructure and booking of track possessions. Early work will be required with Network Rail to identify a construction methodology and possession requirements. Possessions which require closure of the line within normal periods of train operation require long lead times of about 80 weeks.

A contracting and procurement strategy will require development, ie whether each phase will be separately tendered, if the Network Rail works are to be procured through Network Rail to deliver .

There will be significant legal and regulatory matters to be considered, station lease change, station access condition changes, future ownership and maintenance.

Outline programme for planning and package 1

Actions	Dates
GRIP 3 study - all elements	Feb 2014 - June 2014
Consultation on whole scheme	July - Sept 2014
Planning - whole scheme	Oct 2014 - Dec 2014
GRIP 4 (Package 1 only)	Oct 2014 - Dec 2014
PQQ	Oct 2014 - Nov 2014
ITT	Nov 2014 - Jan 2015
Tender Award - D&B contract.	March 2015
Works complete.	2016

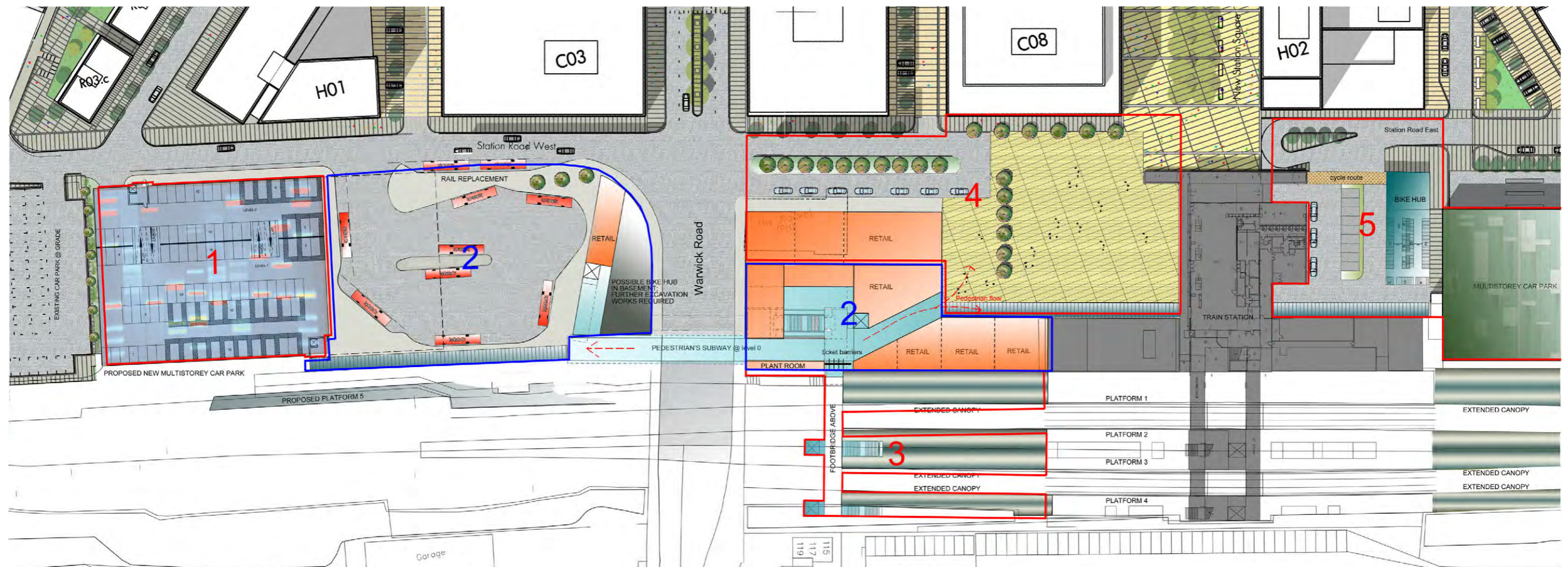
Planning to be based on preferred option from GRIP 3 . GRIP 4 design work to run in parallel with Planning on the basis of assumed planning approval. Pre qualification of contractors to take place during planning and the Invitation to tender will also require to be issued in advance of planning approval.

Funding

The following funding has been currently identified

1. NSIP funding to improve the existing ticket hall and concourse.....£2m
2. ERDF funding for the Warwick Rd pedestrian access.....£1.8m
3. ERDF funding for improved pedestrian access to existing ticket hall..£0.73m
4. Growth Fund.....£17.25m

£4.35m is secured with delivery to be complete during 2015.



Introduction

Under the umbrella of the Coventry Rail Station Masterplan project, WSP Infrastructure has developed an outline business case for a potential rail station enhancement scheme. The purpose of the business case is to determine the potential Benefit Cost Ratio (BCR) of such a scheme. The BCR is an indicator that attempts to summarise the overall value for money of a project and is the ratio of the benefits of a project or proposal, expressed in monetary terms, relative to its costs, also expressed in monetary terms. General rule of thumb is that the higher the BCR the better the investment.

Once an indicative BCR for the scheme has been determined we can understand the viability of developing the outline business case to full business case, or series of cases. These can then be submitted to the relevant bodies and groups so as to seek funding for all or elements of the scheme.

Business Case Assumptions

A number of assumptions were developed for the purposes of formulating benefits and costs for the outline business case. These are outlined below. Full explanation as to how these assumptions were developed and the monetary values they produced are included in the relevant appendices:

Demand for rail services from Coventry will increase by 100%. However this demand will be suppressed due to the existing capacity of the station being surpassed.

For the purposes of the outline business case we have assumed that the existing rail station building has a finite capacity for passengers that can use the existing station facilities to access rail services. At such a point that this capacity is reached and without the intervention of the station enhancement scheme, demand for rail services will begin to be suppressed. The ability to state with confidence that there will be some form of uplift in demand at the station because of our upgrades is vital to this business case.

Rail service demand up to 2043 has been developed by slc rail as part of a suite of documents commissioned by CCiC. These documents highlight that demand for rail services (due to a number of factors including, but not limited to, the introduction of KnUCKle services, HS2, additional rail

stations at the Ricoh Arena, Kenilworth and Bermuda Park) will increase by 60% and 100% by 2023 and 2043 respectively.

We have determined current passenger demand for the AM, PM and Interpeak periods. We have then taken the projected increase in demand and based on our current station demand profiles for our three time periods attributed the annual demand for services that this growth this will deliver up to 2043.

We have then taken the current PM peak hour demand as our baseline demand as this period generates the highest demand across our three time periods. We then applied incremental percentage increases to this demand to act as points in the future where the carrying capacity of the station building will be exceeded and at which point access to the station is 'capped'. At this point demand for rail services begins to be suppressed.

These points are as follows:

10% above current PM peak demand;

25% above current PM peak demand;

50% above current PM Peak demand; and

75% above current PM peak demand.

By applying these caps we quickly determine the points in the future when demand for rail services across our three time periods becomes suppressed. We can then begin to attribute annual 'costs' of this demand being suppressed in terms of the numbers of passengers who can no longer access the station to board rail services. For each of our scenarios demand begins to be suppressed as follows:

10% above current PM peak demand – demand will begin to be suppressed from 2016;

25% above current PM peak demand – demand will begin to be suppressed from 2020;

50% above current PM Peak demand – demand will begin to be suppressed from 2028; and

75% above current PM peak demand – demand will begin to be suppressed from 2036.

A detailed technical note describing this assessment is included as Appendix A

Commercial / Financial Benefits of rail station enhancement scheme

We have assumed three areas where commercial or financial benefits will be realised by the station enhancement scheme:

1. Suppressed rail ticket revenue;

To arrive at a cost in terms of ticket revenue 'lost' from suppressed demand at Coventry Rail Station we have applied the current destination share for services from Coventry Rail Station (taken from the Jacobs Coventry Station Market Assessment, July 2012) and an average ticket cost for these journeys (based on current average return cost) to our suppressed demand to produce a profile for suppressed train ticket revenue. This is from the date our cap begins to suppress demand for each of our scenarios (10%, 25%, 50% and 75%) for both of our opening years for our three time periods.

The suppressed revenue is then discounted to current present value and the 'rule of half' is applied as per DfT WebTAG unit 3.5. All benefits and costs are expressed in discounted present values for the purposes of developing a BCR. This is a future amount of money that has been discounted to reflect its current value, as if it existed today. This is done as costs expressed in current values will be worth incrementally less than the future assessment years across our thirty year appraisal period.

The 'rule of half' is the standard application in measuring user benefits in transport scheme appraisal in the UK. The rule of one half applies where when demand is linear (as in our incremental demand increases up to 2043) so as not to overestimate the potential scheme benefits.

2. Suppressed car parking ticket revenue;

We have taken the suppressed demand that each cap scenario creates and applied the current mode share of people who drive and park at the station (8%) to these figures to generate suppressed parking ticket revenue across our three time periods across our 30 year assessment periods. We have also included those groups that currently drive to the station but park elsewhere (3%) to these assessments as we believe that with the Friargate development and via a programme of controlled parking schemes that are proposed in the vicinity of the rail station

these groups will soon have little alternative but to park within the confines of the rail station car parks.

We have then applied the current peak and off peak car parking charges (£8 and £4 respectively) to all suppressed demand across our 30 year assessment periods. This produces a conservative estimate of the potential value of suppressed car park ticket revenue as no allowance for indexation of charges is allowed for and the value of car park charges as of 2013 is extrapolated over our assessment period. These figures are then discounted and have the rule of half applied.

3. Commercial opportunities at the station (i.e. shops / cafes within the station site)

The new rail station building will have an area of retail use. This has been estimated to generate approximately £650,000 per annum in terms of revenue (estimated as rents, appropriate business rates) based on the atypical type of retail or commercial use such units would generate at a train station location. These figures have been extrapolated across our thirty year assessment period with no uplift for indexation, discounted and had the rule of half applied.

Transport user benefits of rail enhancement scheme

Alongside the commercial and financial benefits the scheme could deliver we have also provided an assessment of the type of benefits that would be sought via the DfT Major scheme Business case process.

The transport system exists to facilitate a range of activities in the economy and in society at large. Those who use the transport system do so because the inconvenience of having to travel from one location to another is outweighed by the opportunities and potential benefits which arise at the destination. For the purposes of appraisal, use of the transport system is assumed to be the result of a balanced consideration of pros and cons by each individual decision-maker, subject to all the various constraints which exist.

Changes in the transport system give rise to changes in the perceived cost of personal travel and movement from certain points of origin to certain destinations. This perceived cost is a broadly defined measure of the inconvenience to the user of moving between two points, and includes changes in money costs.

For the purposes of our assessment we have the following groups (both existing and proposed) where benefits and disbenefits will be felt by the proposed enhancement scheme:

1. Bus Users
2. Pedestrians
3. Drivers – Driving time impacts (for both existing and suppressed station users)
4. Drivers – Walking time impacts
5. Drivers – Fuel Costs (for both existing and suppressed station users)
6. Cyclists

7. Highways Decongestion Benefits

We have generated the benefits and disbenefits for each group and produced cumulative totals for both transport users and decongestion benefits. Similar to all scheme costs, all benefits have been discounted and had the rule of one half applied.

A technical note detailing how we have appraised benefits and disbenefits for each of these groups and the monetary values we have generated for each is included as Appendix B (existing station users) and C (suppressed station users)

Scheme opening year and costs

For the purposes of our outline business case we have developed two prospective opening years based on construction commencing in 2014:

2019 - The aspirational opening year for the scheme provided by CCiC; and

2023 – As a sensitivity test and based on WSP engineering judgment and our work on similar business case and rail station development enhancement schemes we have also assessed an opening year of 2023.

Capital and revenue costs for the schemes for both of these opening years for a period up to thirty years plus from the relevant opening years (2048 and 2052 respectively) have been developed with an appropriate allowance for optimism bias (at 51% as per DfT guidance and risk (assumed @10%) These costs have then been appraised to provide a present value of scheme costs.

This gives us two net present costs for the scheme:

2019: **£ 35,466,774**

2023: **£ 31,890,821**

The differences in scheme costs are due to the earlier opening year for our scheme in 2019. This means our capital construction costs are discounted more as they are spent in a collapsed timescale of 5 years (2014 – 2018) as opposed to a nine year construction phase (2014 – 2022) for our potential opening year of 2023. With a later opening year of

2023 we also have increased future years where although our costs are discounted more greatly the potential benefit is greater than earlier years. This is due to the amount of annual suppressed demand generated in these later years.

In terms of scheme phasing we have assumed all elements of the enhanced rail station scheme will come on line in the opening year. In reality elements of the scheme will come on line incrementally between 2014 and the prospective opening year.

Benefit Cost Ratio

The table below presents our assessment work in terms of the generated BCR for our prospective rail station enhancement scheme. This is the present value of our benefits divided by the present value of costs for each of our prospective cap scenarios in each of our prospective opening years:

	10%		25%		50%		75%	
Benefits	2019	2023	2019	2023	2019	2023	2019	2023
Rail ticket revenue	33,709,304.26	35,877,419.05	23,196,591.55	26,097,362.48	10,658,686.13	12,896,161	3,274,984.41	4,363,506.90
Car park revenue	3,210,742.57	3,409,983.56	2,221,416.91	2,500,419.23	1,018,869.12	1,233,178	311,669.64	415,568.52
Commercial rates	8,687,255.93	8,725,648.70	8,687,255.93	8,725,648.70	8,687,255.93	8,725,649	8,687,255.93	8,725,648.70
Decongestion	27,620,616.57	31,131,051.39	19,849,971.96	22,950,573.21	10,023,818.74	12,216,452.32	3,236,181.48	4,307,706.23
Transport User Benefits	21,799,618.12	24,281,454.49	16,873,205.08	19,451,466.03	10,106,380.66	12,048,435.54	5,727,656.08	6,821,675.31
Present value benefits (£)	95,027,537	103,425,557	70,828,441	79,725,470	40,495,011	47,119,875	21,237,748	24,634,106
Present Value costs (scheme costs) (£)	35,466,774	31,890,821	35,466,774	31,890,821	35,466,774	31,890,821	35,466,774	31,890,821
BCR	2.68	3.24	2.00	2.50	1.14	1.48	0.60	0.77

According to DfT criteria, BCR scores can be classified thus:

- Poor Value for money (VfM) if the BCR is less than 1.0;
- Low VfM if the BCR is between 1.0 and 1.5;
- Medium VfM if the BCR is between 1.5 and 2.0;
- High VfM if the BCR is between 2.0 and 4.0; and
- Very High VfM if the BCR is above 4.

