



# Cottam Parkway Railway Station

## Environmental Statement

Volume 2: Main Statement

Chapter 3: Description of the Scheme

Document Reference Number 07-ES-02-03-08

[www.lancashire.gov.uk](http://www.lancashire.gov.uk)

## ES Chapter Document Control

**Project Title:** Cottam Parkway

**Document Reference Number:** 07-ES-02-03-08

**Chapter Title:** Description of Scheme

**Version No:** 8

	<b>Created By</b>	<b>Checked By</b>	<b>Date Comments provided</b>
<b>Version 1</b> <i>June 2020</i>	Victoria Walmsley	Robert Taylor Niamh O'Sullivan	14/07/2020
<b>Version 2</b> <b>July 2020</b>	Victoria Walmsley		
<b>Version 3</b> <b>October 2020</b>	Victoria Walmsley		
<b>Version 4</b> <b>July 2021</b>	Victoria Walmsley	Niamh O'Sullivan	16/08/2021
<b>Version 5</b> <b>August 2021</b>	Victoria Walmsley	Niamh O'Sullivan	19/08/2021
<b>Version 6</b> <b>April 2022</b>	Victoria Walmsley	Niamh O'Sullivan	25/05/2022
<b>Version 7</b> <b>June 2022</b>	Grace Wilson	Niamh O'Sullivan	08/06/2022
<b>Version 8</b> <b>June 2022</b>	Grace Wilson	Niamh O'Sullivan	13/06/2022
<b>Document Status</b>	Final		

### 3 Description of the Scheme

ES Chapter Number	Environmental Topic	Relevant documents / drawings
3	Description of the Scheme	Appendix 1-3.1: Options Report  Appendix 1-3.2: Planning Policy Reference Document  Design and Access Statement  Site Plan CLM07-LCC-DEV-0000-002  Station Building GA CLM07-JAC-DR-0100-2801  Platform Details CLM07-JAC-DR-0130-2001  Footbridge GA CLM07-JAC-DR-2500-1000  Station Building Elevations CLM07-JAC-DR-0130-2805

#### 3.1 Introduction

3.1.1 This chapter provides a detailed description of the site, the Scheme and consideration of the assumed construction activities. The technical assessments, information and supporting plans in each chapter of the Environmental Statement (ES) are based on the description of the Scheme referred as follows.

## 3.2 Site Location

### Site Description

- 3.2.1 The site is located within the administrative district of Preston City Council and within the ward of Ingol and Cottam in North West Preston with a site area of approximately 14.5 hectares.
- 3.2.2 The site lies within open countryside and is currently in agricultural use. The railway station fronts two highways, Sidgreaves Lane to the west and Lea Road to the east. The site boundary extends as far as the Cottam Link Road to the north, as the point of access. The access road crosses the Lancaster Canal which is a designated Biological Heritage Site and wildlife corridor. The location of the railway station platforms would partially be on the site of the former Lea Road railway station that was situated on the west side of Lea Road. The site extends to include a Secondary Means of Escape (SME) to the south of the railway line.
- 3.2.3 Within Lancashire's Landscape Character Assessment, the area has been categorised as 'Coastal Plain', which has been described as: *'gently undulating or flat lowland farmland, divided by ditches in West Lancashire and low clipped hedges elsewhere'*.
- 3.2.4 There are several properties and their curtilages that surround the site but are not situated within the application site boundary.
- 3.2.5 The Lancaster Canal runs through the approximate centre of the site area, and the canal together with its banks and boundaries is a designated Biological Heritage Site (BHS). There are three nearby designated Biological Heritage Sites 'Cottam Hall Brick Works' to the east and 'BNFL Springfields Works Ponds' and 'Deepdale Wood' to the west.
- 3.2.6 There are several listed buildings surrounding the site. One of the listed features, Quaker's Bridge, is located within the application boundary.

## Site History

- 3.2.7 In 1840, 'Lea Road Station' occupied the eastern end of the site just to the west of where the Preston Fylde Junction to Blackpool North Line railway crosses Lea Road. The station closed in 1938 and there is some evidence of its existence on the ground evidenced by some remaining railway structures.
- 3.2.8 A review of historical mapping has shown that the remainder of the site has continued to be used as agricultural land since the earliest available mapping, dated 1884.

## Planning History

- 3.2.9 The site has not been the subject of any site-specific planning applications, however, there have been planning applications that are of relevance to this site, including the following:

**Table 3.1: Planning History within and around the Scheme boundary:**

Planning Application Number	Location	Description	Status
LCC/2016/0046	Preston Western Distributor Road and East West Link Road	Development of new highways including Preston Western Distributor, Cottam Link Road and East West Link Road.	Planning Permission Approved and construction started 2019

- 3.2.10 More details of the relevant planning applications on land in the wider surroundings and their details can be found within Chapter 17 Cumulative Impacts.

### 3.3 Description of the Scheme

3.3.1 For ease of reading, the description of the Scheme runs from a north to south direction, as follows:

- A roundabout from the associated development of 'Cottam Link Road' which includes the provision of an attenuation pond and access roads for neighbouring land owners;
- An access road which originates from the aforementioned roundabout which also has associated earthworks or embankments;
- An access road bridge over the Lancaster Canal which includes associated earthworks and embankments;
- A car park which serves the railway station with associated features such as cycle parking, signage, lighting and barriers;
- Alterations to the existing road network, including Sidgreaves Lane and Lea Road which also provides a segregated footway / cycle track along the existing Sidgreaves Lane, the creation of a bus gate onto Lea Road and the provision a new 'T-junction' to the east of Railway Cottages;
- A railway station building and platforms including a footbridge over the railway and associated works; and,
- Secondary means of escape in relation to the south platform and emergency access road on to Lea Road.

#### **Roundabout**

3.3.2 The access road for the Scheme would originate at the associated development of Cottam Link Road (under construction). The Cottam Link Road would be single carriageway link road that would be approximately 0.8km in length and 15m in width.

- 3.3.3 As part of this Scheme, a roundabout junction would be introduced to connect the railway station with Cottam Link Road. The roundabout junction would be located on the southern side of Cottam Link Road at approximately 250m south of 'Quaker Lodge' and approximately 100m west of 'Clock House Farm'.

### **Access Road Bridge**

- 3.3.4 There is an existing canal bridge known as Quakers Bridge that traverses the Lancaster Canal, which Sidgreaves Lane crosses. This existing bridge would be retained and used for pedestrians, cyclists and horse-riders to include a footway and cycle track.
- 3.3.5 The access road bridge would be a three-span design. The central span would span the Lancaster Canal with a minimum headroom from the canal to soffit of the structure of 3.5m, with a 2.7m headroom clearance on the towpath. The width of this central span would be a total of 23.2m. A sheet pile wall would be extended along the canal for the full width of the bridge. The sheet pile is required to reinforce the bank for a new engineered bank side on the northern side. The northern and southern span would span over non-vehicular access tracks with a 3m clear headroom, the spans would be 12.8m wide each.
- 3.3.6 The carriageway carried by the structure would comprise of a 1m hardened verge with two 3.25m wide lanes. There would also be a high vehicle parapet.

### **Access Road**

- 3.3.7 From the roundabout junction at Cottam Link Road, the access road would continue southwards, on embankment to cross Lancaster Canal. At this point, the alignment would be approximately 35m west of Sidgreaves Lane and Quakers Bridge.
- 3.3.8 Once the alignment crosses Lancaster Canal, the alignment curves in a south easterly direction where it would align to run parallel with Sidgreaves Lane.

The alignment sits alongside Sidgreaves Lane until it curves eastwards approximately 50m north of 'Railway Cottages', towards to the car park.

3.3.9 Some 40m north east of 'Railway Cottages', there would be a new 'T-junction' where traffic to and from the railway station would have priority and traffic from Sidgreaves Lane would give way.

3.3.10 The alignment then continues eastwards towards the car park for approximately 300m. At this point the alignment would curve slightly eastwards where it would meet Lea Road and a new junction and bus gate would be introduced.

3.3.11 Overall, the access in and out of the station forecourt would be one way (clockwise) in order to minimise any directional conflict and to ensure that it is wide enough to manage any potential larger vehicles, such as buses or heavy good vehicles.

#### Cycle, Equestrian and Pedestrian Access

3.3.12 The remainder of Sidgreaves Lane over Quakers Bridge, towards Cottam Link Road would become a cycling, equestrian and pedestrian only access route. This part of Sidgreaves Lane is to provide a segregated two-way cycle track and pedestrian footway which links the Cottam Link Road, the station access road and Lea Road. A signalised cycle crossing facility will also be proposed on Lea Road which will allow cyclists and pedestrians to access and egress from Lea Road safely. The local farmer would also have access to the cattle creeps.

#### **Car Park**

3.3.13 The car park would be located north of the railway line, to the east of Sidgreaves Lane and west of Lea Road and would be split into two sections, known as the 'West Car Park' and the 'East Car Park'.

#### West Car Park



3.3.14 The west car park is designed as per the Department for Transport Design Standards for Accessible Railway Stations (DfT, 2020) document and would include the following:

- 146 standard parking spaces at 4.8m x 2.4m, with 6.0m spacing between rows;
- 9 no. designated disabled parking spaces (4.8m x 6.0m including 1.2m safety zone);
- 9 no. enlarged standard spaces that could be adapted to be designated parking spaces to reflect future changes in population needs (3.6m x 6.0m);
- 1 no. large designated disabled parking space for side or rear access using hoists or ramps (4.8m wide by 8.0m).

3.3.15 A total of 165 spaces would be available in the west car park.

3.3.16 A 2.0m wide footway and 0.5m wide verge has been proposed for the western and southern edges of the car park to provide safer routes for pedestrians through to the railway station building.

3.3.17 The pavement specification for the west car park has been designed using permeable block paving to accommodate the drainage strategy for the car park, as follows:

- Permeable Block Paving
- Marshalls Piora Permeable Paving Blocks (200 x 100 x 80)
- Sub-base 350mm thick

3.3.18 The footway area to the western and southern edges of the car park specification is as follows:

- Footway and paved area (Flexible Surfacing)

- Surface course 30mm thick
- Binder course 70mm thick
- Sub-base 150mm thick

### East Car Park

3.3.19 The east car park would be designed to be narrower to avoid removal of trees along the southern boundary of the rail corridor. However, there are still large tree roots that encroach the south of the east car park and therefore a geotextile solution has been proposed at these locations for tree root protection.

3.3.20 The narrower shape of the available car park area means that there are fewer car parking spaces (in comparison to the west car park), but there would be sufficient space to construct a wide footway (3.0m) along the length of the car park that enables pedestrian access but also provides the opportunity to contain electric vehicle (EV) charging points.

3.3.21 The layout provides for up to 83 spaces including disabled parking bays and the potential for EV charging bays and follows a one-way flow system. An area for motorcycle parking would be provided.

3.3.22 The east car park is expected to have:

- 75 standard car park spaces at 4.8m x 2.4m, with 6.0m spacing between rows which also includes 38.no spaces for electric vehicles (15% provision);
- 4 no. designated disabled parking spaces (4.8m x 6.0m including 1.2m safety zone);
- 4 enlarged standard spaces that could be adapted to be designated parking spaces to reflect future changes in population needs (3.6m x 6.0m), and,
- 10 motorcycle bays (1.4m x 2.1m);

3.3.23 There would be a total of 83 spaces in the east car park.

3.3.24 The design would allow space at the western edge of the car park for a dedicated two-lane cycle track (3.0m) to guide and connect cyclists directly to the cycle parking area from the cycle track on the north side of the access road. The cycle parking area is positioned adjacent to the railway station building in the east car park and is designed to have direct and coherent access from the proposed cycleway. The cycle parking and storage facilities would provide capacity for 50 cycles; including 10 bike storage lockers (1.0m x 2.0m) and 20 'Sheffield' type bike stands which has capacity for 40 bikes.

3.3.25 The pavement specification for the east car park has been designed using permeable block paving to accommodate the drainage strategy for the car park.

### **Bus Gate**

3.3.26 Buses would gain access to the site from Sidgreaves Lane via a access road, and also Lea Road. A bus gate is to be introduced at this access point to ensure that private vehicles would not have access or egress onto Lea Road.

### **Railway Station Building and Forecourt**

3.3.27 The railway station forecourt would be located between the two car parks (west and east) and to the south of the forecourt would be the railway station building. The railway station forecourt would provide two bus stops, together with passenger drop off and a taxi drop off/collection bay.

3.3.28 The railway station building would be located between the station forecourt and the western end of the northern platform. For convenience and ease of access, the finished floor level of the railway station building would closely align with the proposed platform level (i.e. between approximately 1.1 to 1.6m above existing ground levels).

3.3.29 Due to ground level differences, the railway station building would require steps and a ramp for access and therefore places the railway station building on a

raised terrace of 600mm height. This terrace is effectively a local northern projecting extension to the platform, upon which the railway station building would be sited.

3.3.30 The railway station building would have a rectangular footprint with dimensions of 33m in length x 9.45m in width. A flight of 4 steps would connect the forecourt to the railway station terrace.

3.3.31 A second ramp perpendicular to the track would also be provided as an alternative and more direct route to the platform (for when entry via the railway station building is not required or available).

### **Railway Station Building Internal Layout**

3.3.32 The ticket hall would be located within the railway station building and would be a simple rectangular space. It would have automatic glazed doors facing the railway station forecourt and doors on the opposite elevation opening on to the platform. The volume of the pitched roof is included within the ticket hall to add appropriate proportion to the space.

3.3.33 The 'back of house' and ticket office would be located to the west of the ticket hall, providing two dual height accessible ticket counters, together with ticket vending machines. Also, to the west would be the entrance door to the staff accommodation and the cleaner's cupboard. The staff WC, which is wheelchair accessible, would be accessed from the staff corridor. A staff break area and server room would be accessed from the ticket office.

3.3.34 To the east of the ticket hall, there would be a wheelchair accessible public WC and a baby changing room. Double doors lead from the ticket hall to the waiting room.

3.3.35 The plant room and electrical switch room, with external access, would be located to the west of the railway station building from a gated secure area. The

refuse compound would also be accessed from this gated secure area and would be at the lower level (i.e. 600mm below railway station terrace level).

### Materials

3.3.36 Within the surrounding area, many of the existing buildings are historically constructed from red brick and timber boarding. A similar pallet of materials has been selected for the railway station building, with the predominant elevation material being red brick, with dark stained timber boarding at a higher level, protected from the weather by overhanging eaves. The ramps and retaining walls of the railway station terrace are of the same coloured red brick.

3.3.37 Table 3.2 outlines a summary of the railway station building fabric, finishes and fittings:

**Table 3.2: Railway Station building materials, finishes and fittings**

Building specification	Description of materials/specification
<b>Building fabric</b>	
Structural frame	Hot rolled steel frame (External covered areas and perimeter eaves. Painted circular hollow section columns and structural “T” section roof rafters / eaves extensions).
External wall	Cavity wall construction - External facing brickwork outer leaf with stained vertical timber boarding to upper portion. Insulated studwork inner leaf.
Roof	Aluminium standing seam outer sheet. Northern pitch - Sedum green roof. Southern pitch - photovoltaic cells. insulation and steel inner liner. Cold rolled steel cladding

	rails and hot rolled steel angle roof cladding rails where exposed.
Fascia	Cold formed polyester powder coated aluminium
Rainwater goods	Polyester coated extruded aluminium gutters and down pipes.
Windows	Toughened & laminated double glazing in polyester powder coated aluminium frames.
Glazed external doors and screens	Polyester powder coated aluminium frames with automatic operation to the ticket hall
Louvre doors	Polyester coated steel door and frame
<b>Finishes and fittings</b>	
Floor finishes	Public Areas and Staff Toilets: ceramic tiles with door mats to entrances.  Ticket Office: carpet.  Plantroom and Server Room: painted concrete
Wall finishes	Painted plasterboard. Toilets & Baby Change: Ceramic tiles & laminate faced integrated panelling system.
Ceiling finishes	Gyproc MF Plasterboard to roof pitch. Plant Room: Roof cladding inner liner. All other areas: Suspended ceilings

Internal doors	Glazed aluminium between Ticket Hall & Waiting Area. All other doors: Laminate faced solid core
Ticket sales	Dual height ticket counters, Ticket vending & Ticket Validation Machines
Seating	Fixed seating. Waiting Room / Multi-use Room: Loose Tables & Chairs.

### **Railway Station Roof**

3.3.38 The railway station building would have a longitudinal central ridge and would be pitched to the north / south. The roof would extend on columns to the east providing an external covered area and would have generous eaves overhanging to the north.

3.3.39 The roof pitch would be 20° to be in keeping with nearby agricultural barns. The northern pitch would be a green sedum roof and the southern roof would have photo-voltaic cells (solar panels).

### **Cycle Parking**

3.3.40 Cycle parking and storage facilities are to be with the facilities sited to the east of the station building and with direct and coherent access from the proposed cycleway (3.0m wide) into the site connecting to the main cycle network. 10 bike storage lockers (1.0m x 2.0m) and 20 'Sheffield' Type bike stands at 1.0m spacing which has capacity for 40 bikes have been provided giving a total of 50 bike spaces for those travellers that may not want to take cycles with them for an onward journey. The proposed cycle parking is 10% of the car parking provision and would have weather protection.

## **Railway Station Platforms and Footbridge**

- 3.3.41 Access to the northern platform would be through the railway station building or around the eastern end of the railway station building, through a designated gate (which can be locked when there are no operational services).
- 3.3.42 Immediately to the east of the platform access gate would be the footbridge, with the lift doors facing west. The footbridge would have a straight flight staircase ascending in a westerly direction towards the footbridge deck.
- 3.3.43 A single square span footbridge with lift shafts at each end of the deck is proposed to span over the 'Up Fylde' and 'Down Fylde' railway tracks to provide safe pedestrian access route between each platform.
- 3.3.44 The footbridge is proposed to be composed of painted steelwork. Footbridge supports and lift shafts would be located within the boundaries of the railway station area just north of the northern (Up Fylde) platform, and the southern (Down Fylde) embankment.
- 3.3.45 The footbridge would be a Network Rail standard 'LM-type', with staircases at 90 degrees at each end of the main deck, leading from the deck down towards the east, onto the platforms.
- 3.3.46 The proposed staircases would have a clear width between handrails of 2m. Staircase landings between the flights would be 2m long.
- 3.3.47 The lift and staircase layout are the same for each platform. The lifts would be the Network Rail standard accessible lift, with a car of size 1600x1600mm, 16 person and 1200kg capacity. The lift shafts would be clad in red facing brickwork with upper timber boarding and with a pitched standing seam roof, to match the railway station building. The footbridge staircases and footbridge deck would be constructed of painted steel.



## **Secondary Means of Escape (SME)**

3.3.48 A SME is to be located to the south of the railway line, with access from the platforms / railway station building from the southern platform via a designated path. The SME would be accessed by fire engines from Lea Road, south of the railway bridge. A single track of approximately 120m is proposed, with a slight turning head at its western point. The designated path would then meet this turning head and single track. The single track would be constructed out of 'grasscrete' to be in keeping with the existing area. The SME would benefit from a 1 in 20 exit ramp/secure pathway. The construction of the SME would require 2 additional new culvert extensions to facilitate the designated path and the single track.

3.3.49 Were an emergency to arise on the northern platform (Up Fylde), the railway station car park would serve as the emergency muster area.

## **Substation**

3.3.50 A substation is proposed to the east of the east car park which would provide the electricity needed for the Scheme, including the platform lighting, CCTV, ticket vending machines and barriers, car park lighting, electric vehicle charging, lift supplies and a drainage pump.

3.3.51 The substation would be brick built to align with the other railway station features. The brick exterior would also give the building longevity, however, a steel substation may need to be considered if there are potential power issues. Material to be decided in detail design stage.

## **Drainage**

3.3.52 Drainage from the road surface would be collected by a combination of road gullies and filter drains.

- 3.3.53 The drainage on the eastern and western approaches to the roundabout would be collected and discharged into the existing Cottam Link Road drainage system.
- 3.3.54 The contribution of this drainage equates to a net decrease in the existing contribution over the same area.
- 3.3.55 The twin cattle creeps under the minor arch spans of the Canal Bridge would be collected through filter drains containing filter material to remove animal effluent and piped independently to the local flood authority (LFA) common watercourse.
- 3.3.56 The drainage of the roundabout circulatory, southern approach and station access link up to the apex of the access road canal bridge would drain to a newly created attenuation pond and would be piped west to discharge in the LFA common watercourse.
- 3.3.57 The highway drainage for the remaining length of the access road, from the apex of the bridge to its junction with Lea Road, would be attenuated online through system surcharge and an offline detention tank located in land to the west of the carpark and east of Sidgreaves Lane. The highway drainage discharges into a replacement culvert under the proposed car park associated with another LFA common watercourse.
- 3.3.58 The car park, railway station building and platforms would be attenuated online with attenuation tank and discharges into a manhole on the culvert extension. The details are provided on the Drainage Strategy drawing reference CLM07-LCC-DEV-0500-0001 and CLM07 Drainage Strategy Catchment Tables (50% Climate Change - Q1 Runoff).

**Table 3.3: Drainage catchment areas and attenuation methods**

<b>Catchment</b>	<b>Description of assumed catchment</b>	<b>Attenuation method</b>	<b>Catchment area</b>
1	Section of Cottam Link Road – eastern and western roundabout approaches	Approved existing PWDR attenuation pond and existing culvert.	0.287ha
2	Proposed roundabout and southern approach to apex of the bridge.	Proposed attenuation pond piped to LFA watercourse.	0.409ha
3	Twin non-vehicular access cattle creeps under canal bridge	Piped to fitter catch pit and discharged into common watercourse	0.093ha
4	Access road from apex of new canal bridge to its junction with Lea Road (not including car park)	Piped and attenuated online with attenuation tanks or oversized pipes and discharges into manhole on culvert extension	1.305ha

5	Southern section of the proposed station platform.	Piped and stored in oversize pipes and discharged into manhole on culvert extension	0.081ha
6	Secondary means of escape, muster area and access road	Piped and stored in oversize pipes and discharged into common watercourse	0.227ha
7	Secondary means of escape,	Piped and discharged into headwall	0.066ha
8	Proposed car park, station building and northern section of the proposed station platform.	Piped and attenuated online with attenuation tank and discharges into manhole on culvert extension	1.221ha

3.3.59 The characteristics within Table 3.3 are further described in Chapter 11 'The Water Environment' of this ES.

3.3.60 All construction works would be undertaken in adherence to Pollution Prevention Guidelines (PPGs) which set out good practice advice for works which may have the potential to cause water pollution. The contractor would be required to comply with a Construction Environmental Management Plan

(CEMP) which would be adopted in the light of good practice and the planning conditions attached to any future planning permission.

#### Railway Station Building Wastewater

3.3.61 There are currently no existing foul utilities within the likely construction area. The closest foul sewer connection point is owned by United Utilities approximately 170m west of the Scheme.

3.3.62 An initial desktop study has determined a gravity solution would not be possible, as the expected depth of the existing drainage connection is approximately 1.4m (according to United Utility records). However, this would require further clarification during the detailed design process (i.e., post-planning).

3.3.63 Therefore, a wastewater treatment tank has been proposed as the primary solution. The waste produced by the railway station building would be treated locally and discharged into the nearby brook.

3.3.64 The wastewater treatment system proposed at planning is the 'Klargester BioDisc BH-BL Large Sewage Treatment Plant' to provide a safe, quiet, and odourless solution with minimal maintenance. The approximate size of the tank would be 8x3x2.6m.

3.3.65 The use of a settlement tank significantly reduces required excavation and construction time, whilst providing flexibility for any future works within the area.

### **Lighting**

#### Access Road

3.3.66 Road lighting is provided as a safety measure. The Scheme would use L.E.D lighting which would give good light output as well as being energy saving. Sensitive lighting such as light cowls and reflectors within the light units would be employed to reduce sky glow and minimise upward light spillage. The use of cowls would be fitted on all permanent lighting which would avoid direct light

spillage on key bat habitats along the scheme (known and potential roosts, foraging and commuting habitat). A total of 48 lighting columns would be erected, these would vary in height from 5m to 10m and would all have a maximum of 10 lux. All light columns would be preprogrammed to dim 50% between the hours of 19:00 and 07:00. The Lighting Plan CLM07-LCC-DR-1300-0001 shows the proposed lighting design for the Scheme.

3.3.67 It is expected that the access road would be lit similarly to Cottam Link Road as part of PWDR. The lighting would typically comprise of 5m, 8m and 10m lighting columns.

#### Car Park

3.3.68 The car park would be illuminated at an average of 30 lux.

3.3.69 The control of the lighting would be separate from the railway station platform lighting to allow the public to park at any time. However, if the car park was to be closed with gated barriers, the control can be altered to switch on only when the car park is in use.

#### Railway Station Building

3.3.70 The railway station building would be lit and would comply with British standards and regulations.

3.3.71 An initial light sensitive model has been produced to factor in light pollution and to ensure that any spill should be kept to a minimum. Neighbouring properties would be subjected to no more than 1lux from the railway station area. Directional LED fittings are proposed to ensure downward lighting and minimise any light pollution.

3.3.72 The lighting would be controlled by a photocell and a time switch, which would activate when daylight levels drop below 70 lux. The time switch would be set to operate during the hours of darkness and hours of service of the railway station.

3.3.73 Emergency lighting would be installed throughout the railway station to direct the public and staff to muster stations or exits of the railway station. Emergency lighting would be controlled through a central battery system to ensure that it would only be operational when the railway station has an outage or an emergency.

### **Footpaths and Cycleways that Intersect with the Scheme**

3.3.74 There are several cycleways and footpaths that surround the Scheme and are included within the site area.

3.3.75 There is one main cycle route that travels through the site location, known as Cycleway 62, which is an 'on-road' route. This route originates at the left arm of Lea Road / Cottam Way roundabout, travelling west to the junction of Sidgreaves Lane where it then travels south. The route continues over Quakers Bridge and further south to 'Railway Cottages' where it continues west towards Lytham and Blackpool.

3.3.76 This cycleway would remain as part of the Scheme. Quakers Bridge would exist as a segregated cycle track and pedestrian footway and only the access road bridge as part of this Scheme would be suitable for motorised vehicles.

3.3.77 There is one other cycleway to the east of the Scheme known as 'Cycleway 622', however this does not intersect the site or the surrounding area.

3.3.78 There is one public right of way (PRoW) between Lea Road and Darkinson Lane that runs parallel to and immediately north of the railway line. A permanent diversion has been proposed to accommodate the railway station building and platforms.

3.3.79 This PRoW would be stopped up at Darkinson Lane and diverted outside the perimeter of the west car park and across the footway adjacent to the access road and then rediverted to the south of the east car park to the existing PRoW towards Lea Road.

## Landscaping

- 1.1.1 The Environmental Management Plan (Appendix 18.1 in volume 3 of this ES) states that lengths of hedgerow and individual trees would be removed along the access road to the station via Sidgreaves Lane and to the north of the railway line. There would also be a pond created to the north of Lancaster Canal that would retain runoff from the road and provide a habitat for ecology.
- 1.1.2 A selection of native tree and shrub planting, hedgerows, bulbs, grasslands, wildflower meadows and ponds would be created to help the scheme achieve biodiversity net gain and mitigate any adverse environmental impacts caused by the Scheme.

## 3.4 Description of Construction

- 3.4.1 Construction is anticipated to last for approximately 24 months and commence in 2023. Construction staging would be determined by the Contractor in detail, however, the following presents possible arrangements during construction.

### Access Road and Bridge Construction Activities:

- 3.4.2 The activities that would be undertaken during the construction of the access road and bridge would comprise of:
  - Site set-up, including establishing access routes, working area boundaries, site administration locations, and material-storage locations;
  - Advance accommodation works, Statutory Utility service diversions;
  - Site clearance, including necessary tree clearance;
  - Installation of kerbs and concrete edging on footways;
  - Excavation of the existing topsoil and temporary stockpiling of the material for subsequent re-use in verges or landscape features;
  - Earthworks operations;



- Construction of the surface water drainage features, including pollution control measures, storm water drainage, culverts, open channels, and outfalls;
- Construction of the subsequent highway pavement layers;
- Erection of street lighting;
- Construction of landscape and other environmental mitigation measures;
- Construction of temporary compounds for approximately 24 months.

3.4.3 Some of the likely activities mentioned may run concurrently with each other. The typical plant assumed for construction activities for the purposes of the assessment is provided in Table 3.4. This would need to be determined by the contractor.

**Table 3.4: Typical Plant for Construction Activities**

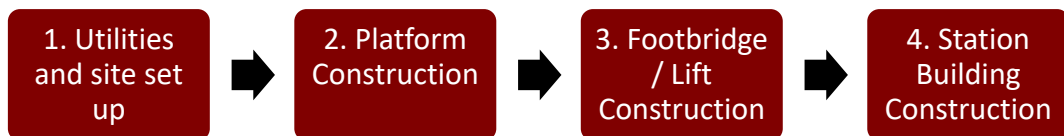
Activity	Plant
Initial top soil strip and stockpiling	Komatsu 350 Excavator
	Volvo A25 Dump trucks
	Cat D6/Kom 65 Dozers
	Cat 16G Grader
	Volvo A25 Water Bowser
Excavate cuttings and place in embankments or landscape areas - main bulk cuttings	Cat 385 Excavator
	Volvo A40 Dump truck
	Cat D6/Kom 65 Dozers
	Cat 16G Grader
	Volvo A25 Water Bowser
	Cat D8 Dozers
	Bomag 219 Roller
Excavate cuttings and place in embankments or landscape areas - smaller cuttings	Cat 320 Excavator
	Komatsu 450 Excavator
	Volvo A40 Dump truck
	Cat D6/Kom 65 Dozers
	Cat 16G Grader
	Volvo A25 Water Bowser
	Cat 320 Excavator
Place in embankments or landscape areas - by road wagon	Bomag 219 Roller
	Komatsu 350 Excavator
	Road Wagons (Delivery)
	Cat D6/Kom 65 Dozers

Activity	Plant
	Bomag 219 Roller
	Cat 16G Grader
	Volvo A25 Water Bowser
Placing of capping/stone	Cat D6/Kom 65 Dozers
	Bomag 219 Roller
	Road Wagons (Delivery)
Drainage	Cat 320 Excavator
	Volvo A40 dump trucks
Piling	Bored Piling Rig
Structures	Cat 320 Excavator

### Railway Station Area and Car Parks Construction Activities

3.4.4 The following represents the most likely construction sequence and programme for the railway station area and car parks.

**Figure 3.1: Flow diagram of the anticipated construction sequence of the railway station area and car parks**



#### 1. Utilities and site set up

3.4.5 The initial stage of construction would be to prepare the site for construction. Further trial holes and service detection may be required in the area to fully identify existing and required utility services.

3.4.6 The culvert that runs north-south through the Scheme would require upgrading or diverting. The current 975mm diameter culvert could be connected to the existing drainage network design.

3.4.7 Alterations to the road network and traffic management could also be completed in this period.

## 2. Platform construction

3.4.8 The current design proposal for the railway station platform would be to use a prefabricated steel decking solution like 'Systra Modular' Platforms. The initial process would require track services to be temporary diverted to allow for foundation construction.

3.4.9 For the northern platform, a mini pile solution may be required due to the embankment. For the southern platform, it may be possible to install a strip foundation which can be a simpler solution.

3.4.10 Following foundation installation, the steel framework and platform deck can be installed.

3.4.11 After the frame / deck installation, a temporary hoarding could be installed. This may enable works to be conducted during operational hours with no rail restrictions, however agreement with Network Rail would be required.

3.4.12 The remaining fit-out of the platform then can be conducted.

## 3. Footbridge / Lift Construction

3.4.13 Construction work on the railway station footbridge would start with the footbridge / lift foundations. However, foundations for the footbridge may be substantially bigger and therefore require a larger piling rig.

3.4.14 To limit disturbance to Preston Fylde Junction to Blackpool North line during construction, it would be advised to use a prefabricated structure which could limit the number of possessions / blockades required.

## 4. Railway Station Building Construction

3.4.15 The railway station building installation may need to start after the main structural installation of the railway station platform and footbridge in order to allow access into to these areas.

Proposed Railway Station Construction Programme:

3.4.16 Table 3.5 demonstrates the estimated duration of the railway station building and forecourt, car park and utilities. The table does not represent a timeline in which task would be undertaken. Several assumptions have been made to develop this programme, including:

- Disruptive possession is available – key weekend possession planned for footbridge installation and requirement for engineering hours for work on platforms;
- Land requirement for site compounds and access points are available;
- Use of mobile crane / piling rig restricted to non-operational hours;
- Location of crane set up is available and suitable;
- Works required on the platform to be conducted in non-operational hours;
- No delivery restrictions on the highway network; and,
- Works behind platform hoarding can be conducted during operational hours.

**Table 3.5: Assumed railway station construction programme duration**

<b>Task</b>	<b>Assumed duration (days)</b>
<b>Site Establishment</b>	
Site Handover	0
Utility Diversions	60
Install below ground drainage/attenuation	30
Installation of ducting	20
Install sub-base for car park	30
Site compound installation	20

Rail/Road access	20
<b>Platform installation</b>	
Excavation	60
Piling	45
Foundations	40
Drainage	30
Installation of platform	30
Installation of platform hoarding	20
Installation of ducting	20
Installation of lighting columns	10
Installation of shelters	30
Surface works	30
Fit-out	90
<b>Secondary Means of Escape</b>	
Earthworks	30
Surface works	10
Lighting/CCTV installation	20
<b>Footbridge installation</b>	
Excavation	20
Piling	10
Pile Cap	60
Crane Mat installation	5
Bridge installation	2
Fit-Out	90
<b>Lift Installation</b>	100
<b>Railway Station Installation</b>	
Excavation	20
Foundations	30
Installation of raised deck	20
Installation of station building	20
Fit-out of building	60
<b>Car Park</b>	
Piled foundation	20
Tarmac Installation	30

Lighting/CCTV Installation	20
White Lines	20
E-charging	10
<b>OLE</b>	
Installation of foundation	10
Installation of steel work	8
OLE Installation	30

### Temporary Working Areas

3.4.17 The temporary working areas are shown in Figure 3.1 and Table

**Table 3.6 Temporary Working Areas**

No.	Location	Area
1	West of Sidgreaves Lane, North of the Lancaster Canal	2.9ha
2	West of Sidgreaves Lane, South of the Lancaster Canal	1.2ha
3	East of Sidgreaves Lane, North of the station car park location.	1.9ha
4	East of Sidgreaves Lane, South of the railway line.	2.3ha

3.4.18 Temporary working areas (drawing reference CLM07-LCC-DEV-0000-003) would be for the provision of offices, welfare facilities, storage of containers, main stores / servicing yard. Including provision of small buildings to facilitate utilities supplies and temporarily sleeping accommodation units. Storage and treatment of soils, access and / or temporarily store plant materials to facilitate roadworks, structure and building construction.

3.4.19 The setup of the compounds would comprise of:

- Site Offices;
- Welfare facilities;
- Changing facilities;
- Suitable (reduced) parking for site vehicles;
- Secure storage areas, including hazardous substances (COSHH);
- Delivery areas;
- Material lay down areas;
- Routine cleaning; and,
- Plant storage and refuelling zones.

3.4.20 The construction working hours are shown in Table 3.7.

**Table 3.7: Proposed Working Hours**

Works	Proposed hours	Reason
Standard site hours (GMT) Mon – Fri Sat Sun/ BHol	07:30 – 18:00 08:30 – 13:00 By approval of EHO only	
Network Rail interface works	Sat 20:00 – Sun 10:00 Or 24 hour working during blockade	
Roadworks tie ins (local network, not HE)	20:00 – 10:00 (7 days) And or full weekend closures	To complete reconstruction works, tie in works or resurfacing whilst minimising the disruption to the travelling public. Works may include full closure or significant restriction.

Works	Proposed hours	Reason
Ecological surveys and or management	24 hours 7 days	As dictated by the Ecology Officer for methods appropriate to the species.
Statutory Undertakers diversions	24 hours 7 days	To complete disruptive works minimising impacts (either to the travelling public or to align works with the Undertakers' network supply restrictions).
Installation, maintenance and or removal of traffic management	24 hours 7 days	Safety requirement to carry out traffic management works when there is minimal traffic flow.
Emergency works / response	24 hours 7 days	To respond to any emergency flagged by site security, police, members of the public etc.

3.4.21 Sustainable construction methods would be utilised, including the re-use of excavated topsoil and subsoil as part of the Scheme development. The construction works would follow best site practices with regards to storage of chemicals and waste management practices. The contractor would set out their proposed approach in more detail within the Construction Environmental Management Plan.

## 3.5 Summary

3.5.1 In summary the outline concept design of the Scheme has been developed on the basis of the following known requirements:

- A design in accordance with the required 'Accessibility for All' standards
- Layout designed to help the visually impaired



- Good pedestrian and cycle routes linking the segregated pedestrian footway / cycle track on northern side of access road
- Good public transport links
- Parking for 248 spaces
- Minimum 5% of parking spaces for disabled spaces – with step free access from the parking areas
- Areas accommodating wheelchairs and prams with links to station ramps
- Cycle parking and cycle storage
- Separated (non-public) access for delivery vehicles, staff and British Transport Police
- Bus stop for minimum 1 bus, with shelter
- Taxi pick up / drop off
- General customer pick-up and drop off spaces
- Access to refuse collection area
- Sheltered motorcycle parking near to the drop off zone
- Forecourt area with one way (clockwise) system to minimise directional conflicts and wide enough with no height restriction to allow access for buses and the largest lorries.
- Railway station site to be lit, with wayfinding signage, help points, rest facilities, pedestrian shelters, colour contrasting surfaces
- Bus gate at Lea Road access
- Provision for EV charging
- Secondary means of escape for southern platform connecting to Lea Road