

**Platform Y**

**King's Cross  
Re-development  
Programme**

Listed building consent submission

**Service Trench – Eastern Range  
Building**

## **Contents**

- 1) Letter of Appointment**
- 2) Method statement**
- 3) Scope of works**
- 4) Drawings**

# **Letter of Appointment**



Network Rail  
Kings Cross Station  
Redvelopment  
Programme  
Cubitt House  
1 Battle Bridge Road  
London  
NW1 2AH

Carillion Construction Limited  
5<sup>th</sup> Floor,  
Birch Street  
Wolverhampton  
WV1 4HY

Tel: 0207 147 5909  
Fax: 0207 164 2295

16<sup>th</sup> February 2009

Dear Sirs,

**Contract: 102962 Platform Y - Main Works**  
**Project: Kings Cross Station Redevelopment Programme**  
Invitation to tender dated 19<sup>th</sup> September 2008

I refer to the recent tender for the above contract. The tender evaluation process has now been completed and I am pleased to inform you that Network Rail has made the decision to award the contract to you, however, this letter does not create a contract between us. Network Rail must now inform the unsuccessful tenderers of the outcome of the tender in accordance with the Utilities Contract Regulations 2006. We shall forward you two copies of the contract for execution at the end of the standstill period.

Network Rail would like to thank you for your participation in the competition and the time and effort in compiling your tender.

Yours faithfully,  
For and on behalf of  
Network Rail Infrastructure Limited

**P. R Morgan**  
Procurement Manager

# **Method statement**

## **METHODOLOGY**

### **Construction of Concrete base slab**

There is only a further 300-400mm excavation required as the ground level has already been reduced for the track slab blinding. Following the excavation, 50mm of

#### **Stage 1 – Excavation for Slab**

The excavation of the London clay will be carried out with an excavator and dumper as per the methodology in ENG-WPP-CAR-PLY-CSTR-00001-0.3 - Work Package Plan, Civils Work for Earthworks.

#### **Stage 2 – Concrete Pour**

The top of concrete level will then be set out by a Carillion engineer. 40mm concrete lintels will then be placed at the bottom of the dig and a layer of mesh will then be placed on top of them. The concrete will then be poured into the base and 50mm below the finished level the second layer of mesh will be placed in the dig and concrete brought up to the finished level.

#### **Stage 3 – Protection of English Heritage Arches**

Prior to any block work the arches will be propped up and supported to ensure a safe working area for the brick layers and to prevent any additional collapses of the arches. As per contract drawings PLY-CSD-3209.05 and PLY-CSD-3210.04 the exposed brick arches will be blocked up using 440x215x140 concrete blocks in stretcher bond. The block work will be cut to suit the arched area and just prior to the last courses being laid any props within the arch area will be removed.

In areas where the arches have collapsed shuttering will be installed to line up with the existing line of the arched wall and using a letter box shutter concrete will be mass poured into these areas. For safety reasons and to prevent any additional collapse it may be necessary to cast the props in place with the concrete rather than remove them prior to shuttering and the concrete pour.

Where the service trench spurs off at gridlines 27.5 and 28.5 excavation shall commence as follows:

- Carefully remove tarmac from the top of the York stone. Only a thin layer of tarmac is on top of the York Stone – approx 50mm and this can be easily scrapped off using a machines blading bucket.
- Expose the edges of the affected York Stone and if necessary carefully hand break any mortar joints between the York Stone.
- A machine will then lift out the York Stone and place it on a pallet ready for transport the NWR's Cricklewood storage depot.
- Careful excavation will then take place in-between the bricked arched walls – hand digging when required to the required formation level.
- Prior to concreting the base any additional propping required to the existing arches will installed.

#### **Stage 4 – Construct 440mm thick block work walls**

The line of the block walls will be set out by a Carillion engineer prior to any block work taking place. All block work will be of English bond constructed with 440x215x140 concrete blocks. The service trench spurs at grid lines 27.5 and 28.5 will take place first to minimise working in a confined space. Once these walls are constructed the main eastern wall will be built. Once the walls have been constructed all step irons and cable trays will be marked out, drilled and resined into position.

#### **Stage 5 – Cap off with a series of precast slabs and beams incorporating 4 manholes**

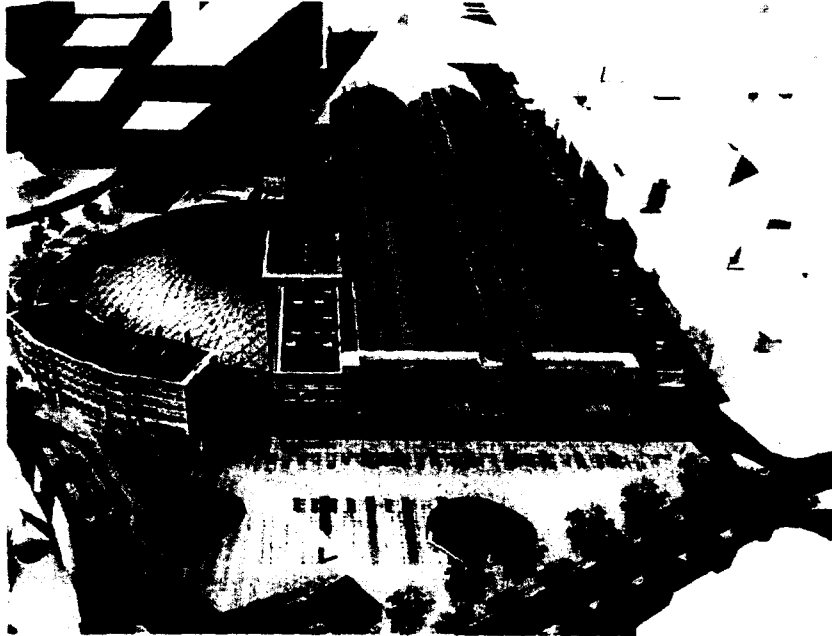
Once the walls have been constructed either precast concrete or steel lids will be placed over the block work and at manhole openings precast RC slabs will be installed to allow the lids to sit at finished level. For safety reasons the lids will then be placed on top of the openings and only mortared into position just prior to the surfacing of the platform.

# **Scope of works**



**KING'S CROSS STATION REDEVELOPMENT PROGRAMME**

**IMPLEMENTATION PLATFORM Y CONTRACT  
REQUIREMENTS - TECHNICAL WORK SCOPE**



**DOCUMENT No. 7445440**

Revision	Date	Originator	Reason for Issue
1	02/09/08	K. Moverley	First Issue

Reviewed		Reviewed		Authorised	
Signed	Date	Signed	Date	Signed	Date
Alan Atkins (Project Manager)		Peter Morgan (Procurement Manager)		Tom Hyland (Programme Engineering Manager)	

This document is the property of Network Rail.  
It shall not be reproduced in whole or in part, nor disclosed to a third party, without the written permission of the Author.

© Copyright 2007 Network Rail

## 1.0 INTRODUCTION.

As part of the King's Cross Station Redevelopment Programme (KXRP), Network Rail wishes to procure the construction of the infrastructure associated with a new platform at King's Cross Station, known as King's Cross Station Platform Y.

This document describes the scope of work associated with the above and describes various specific requirements imposed by Network Rail on the construction of this package of work. This document should be read in conjunction with the other contract requirements which are mutually explanatory.

King's Cross Station is a Grade 1 listed building. All works will be subject to the requirements of English Heritage in general, and specifically conditions associated with Listed Building Consent(s) for King's Cross Station. Network Rail expects that the successful contractor will be experienced in working within and around a Grade 1 listed building.

## 2.0 SCOPE.

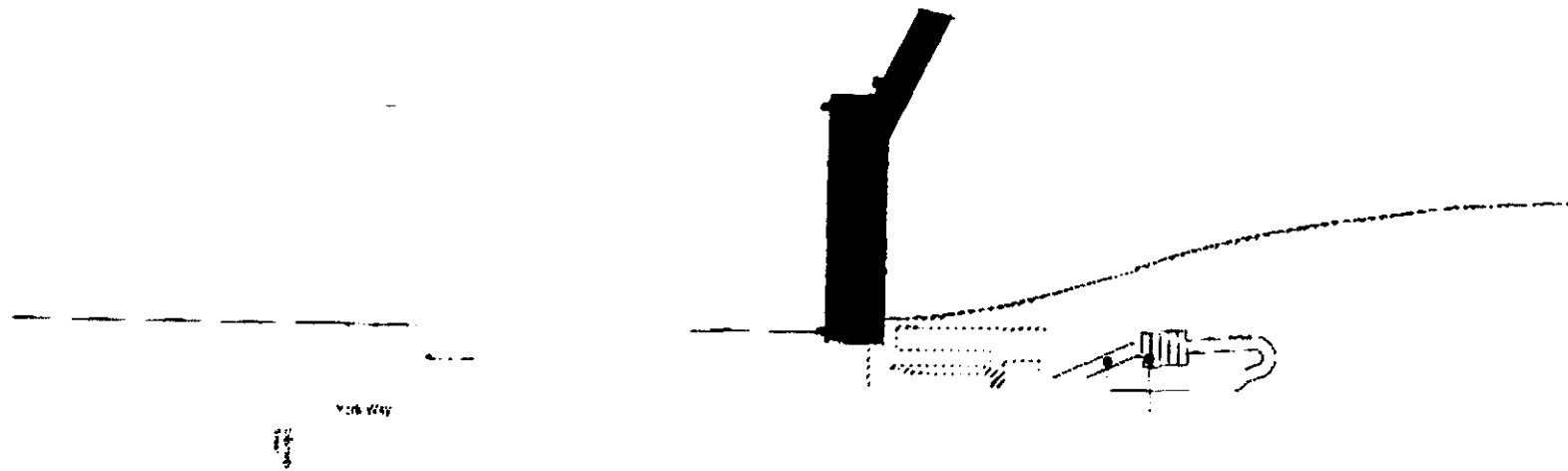
The Technical Work Scope is described within the tender documents which include Corus Railway Infrastructure Services design drawings and specifications as listed in Appendix A of this section.

The principal items of work are as follows:

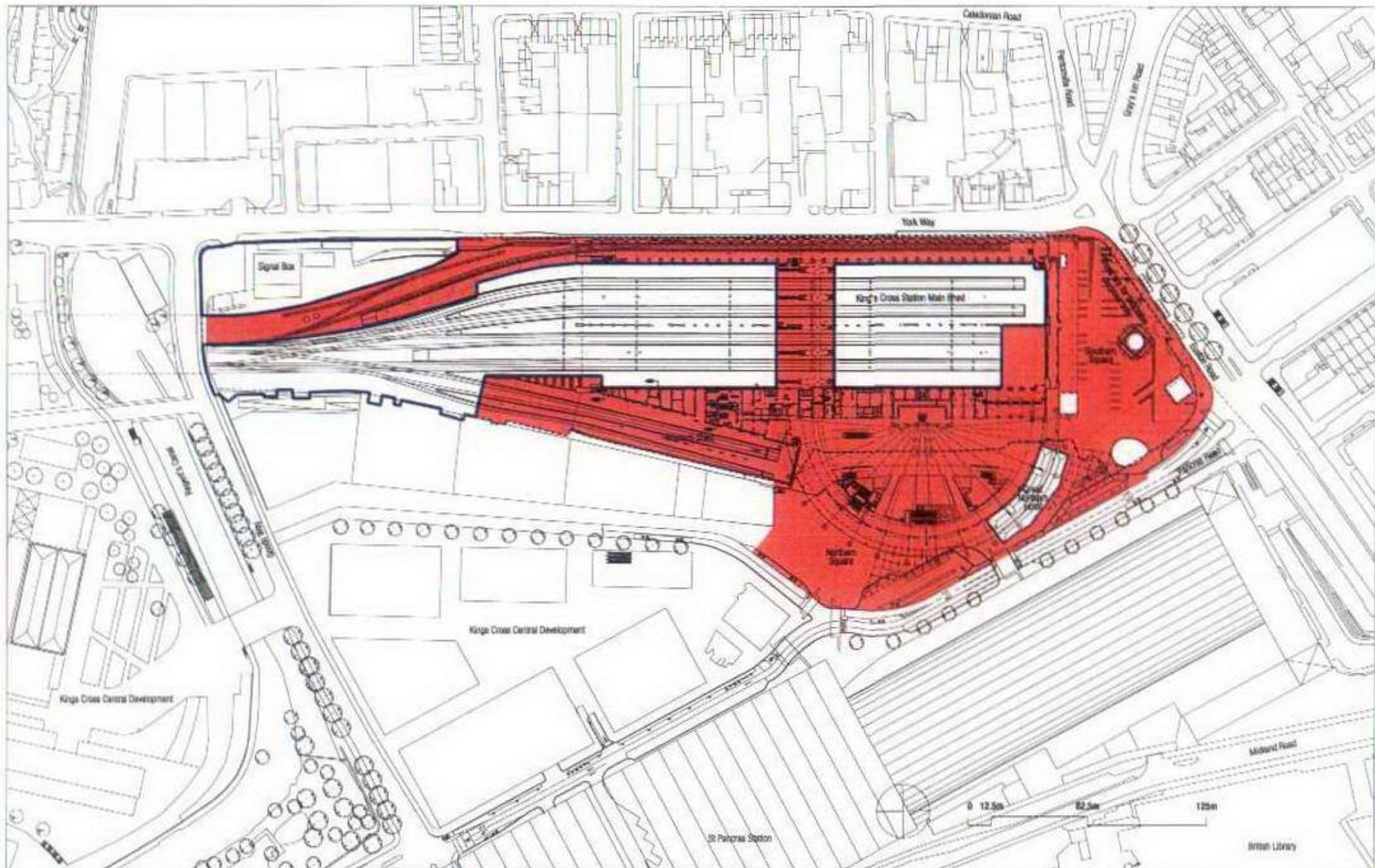
- Construction of a new platform to include the following:
  - Provision and installation of new platform communication system
  - Provision and installation of new platform walls
  - Provision and installation of new coper stones
  - Provision and installation of new platform granite surface finishes
  - Provision and installation of new tactile surfaces
  - Provision and installation of new platform drainage system
  - Provision and installation of a new train watering system
  - Provision and installation of new platform E&M services
- Provision and Installation of a new set of points into the main line via road 1 into King's Cross Station to create new turn-out into Platform Y
- Modification to the points heating system
- Provision and Installation of a new track system from these points to the buffer stops
- Provision and Installation of new conventional track installation between the new connection installed into Road 1 and the slab track
- Provision and Installation of a slab track system
- Provision and Installation of two new sidings
- Provision of new buffer stops including lighting
- Modifications to the signalling system
- Extension of an existing signalling gantry
- New and modifications to the existing drainage system
- Modification works to the Camden Sewer ventilation shafts
- Modification to the existing Gabion Wall adjacent Site 1
- Provision and Installation of new Collision and Impact walls
- Overhead Line modifications to the existing OLE system
- Provision and Installation of new Overhead Line equipment under the Eastern Range Buildings
- Modifications, including piling to the existing ramp down from York Way to create a new retaining wall

- Modifications to the drainage system on York Way Ramp and underneath the Eastern Range Building
- Demolition of an existing block work building beneath the Eastern Range Building.
- Provision and installation of new COMMS equipment including CCTV, PAVA, telephones and Customer Information Systems
- Provision and installation of new fire detection/alarm system under the Eastern Range Buildings
- Architectural finishes to the walls, soffit and steel work underneath the Eastern Range Building
- Provision and Installation of new Lighting installation down the length of platform
- Provision and Installation of wall wash Lighting system underneath and along the length of the Eastern Range Building
- Modifications to the existing H.V cable route running between the Eastern Range Sub-Station and King's Cross Signal Box
- Provision and Installation of all Electrical bonding
- Provision and installation of new and temporary signage equipment
- Testing and Commissioning
- Provision of As-Constructed documents/drawings, O&M Manuals, asset data, training and the like.

# Drawings



**Position of Service Trench in relation to King's Cross Station**



Do not scale from this drawing.  
 All dimensions are to be checked on site and any discrepancies noted in writing to J&P.  
 All dimensions are in millimetres unless noted otherwise.  
 If in doubt ask the Contract Administrator.

Revisions	Rev.	Date	Description	Drawn	Checked
	01	14.07.2006	Issued for Planning / Listed Building Application	J&P	NR

**PLANNING APPLICATION - SITE AREA**

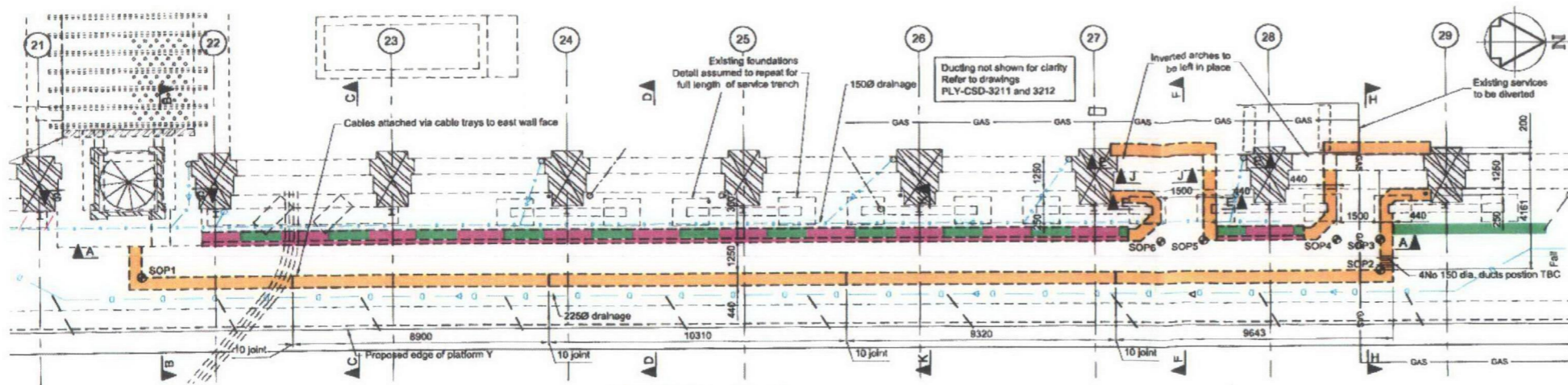
STATION ENHANCEMENT	22,800 sq.m
PLATFORM Y	6,210 sq.m
<b>TOTAL</b>	<b>40,750 sq.m</b>

--- NETWORK RAIL  
 --- PREHOLD BOUNDARY

**King's Cross Station Enhancement PA  
 Application Site Plan**

scale 1:1250 at A2	sheet 1163
date 12.07.2006	checked by KM
working status Planning / Listed Building Application	checked by NR
drawing no. AL-601	revision 01

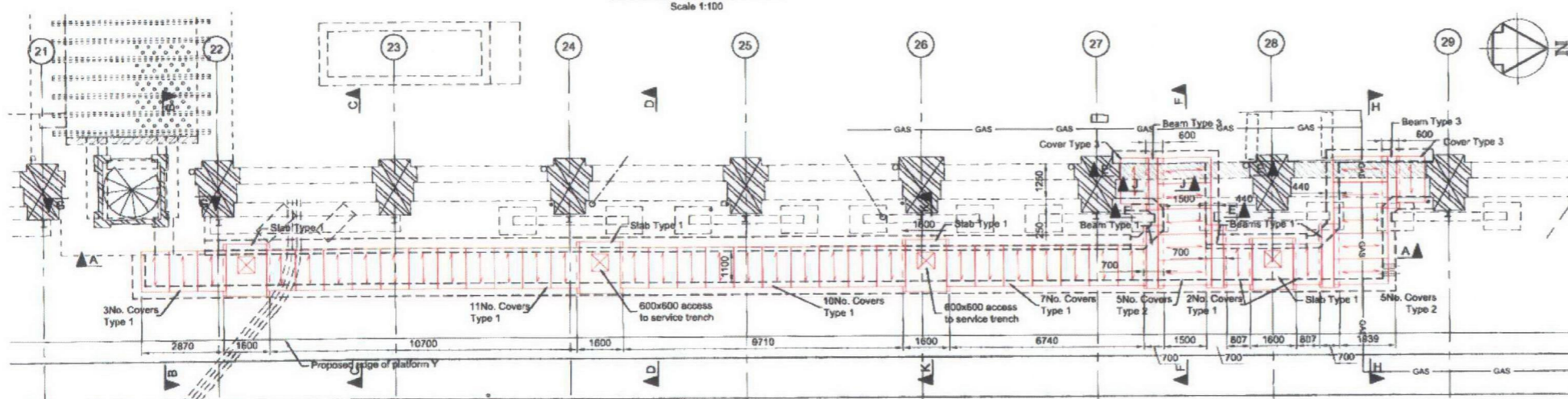
**John McAalan + Partners**  
 40 Princes Street  
 London W1J 0BA  
 Telephone: 020 7747 8800  
 Facsimile: 020 721 8870  
 www.mcaalan.com



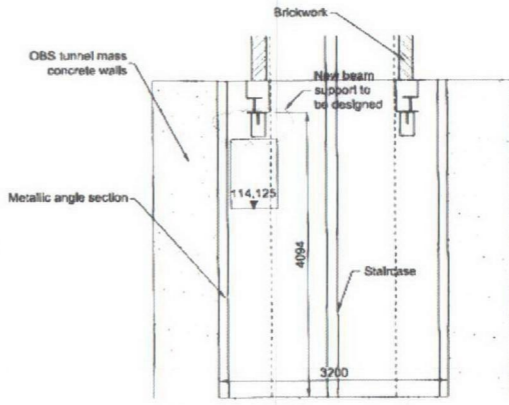
**Plan At Base Level**  
Scale 1:100

Setting Out		
SOP	Easting	Northing
1	80697.051	37894.402
2	80698.963	37937.356
3	80697.860	37937.405
4	80697.794	37935.907
5	80697.588	37931.297
6	80697.525	37929.799

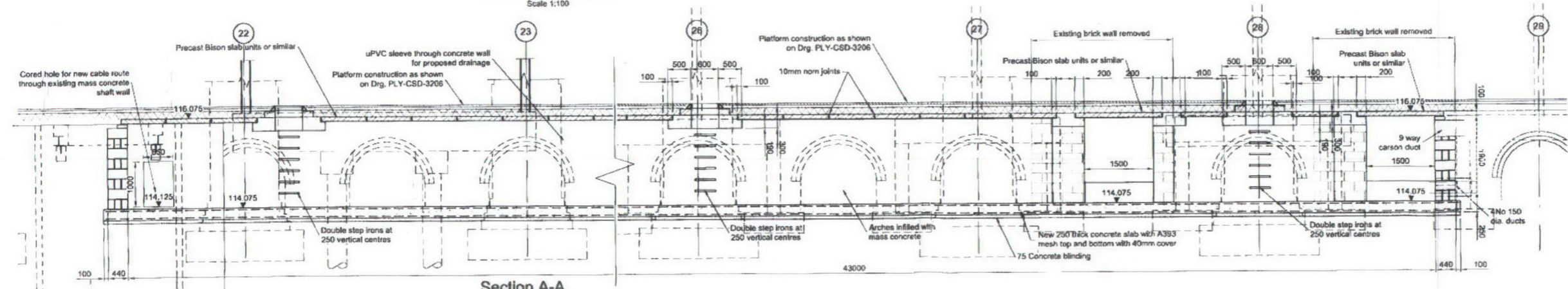
Note: SOP's 1 and 2 to be locally adjusted east (if required) to ensure 1100 wide trench construction



**Plan At Roof Level**  
Scale 1:100



**Section G-G**  
Scale 1:50

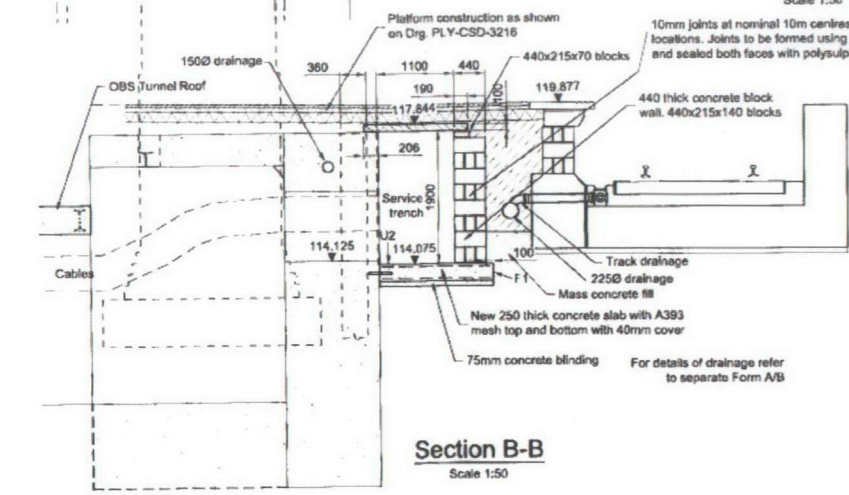


**Section A-A**  
Scale 1:50

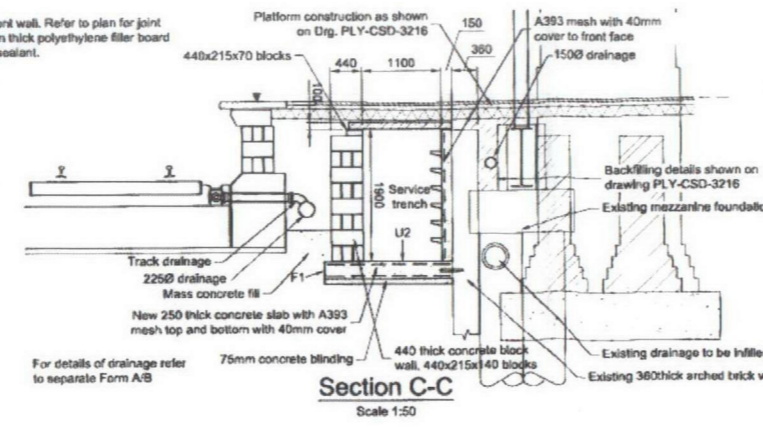
NOTE: Cover sections can be replaced by Bison precast concrete solid composite flooring 100mm thick (no topping) or similar approved. The cover slab is to be capable of supporting an imposed live load of 10kN/m<sup>2</sup> or a station vehicle equivalent point load of 12.5kN acting on a 300x300 area anywhere on the roof. The roof slab is to also support platform dead load of approximately 7.5kN/m<sup>2</sup>.

**Key**

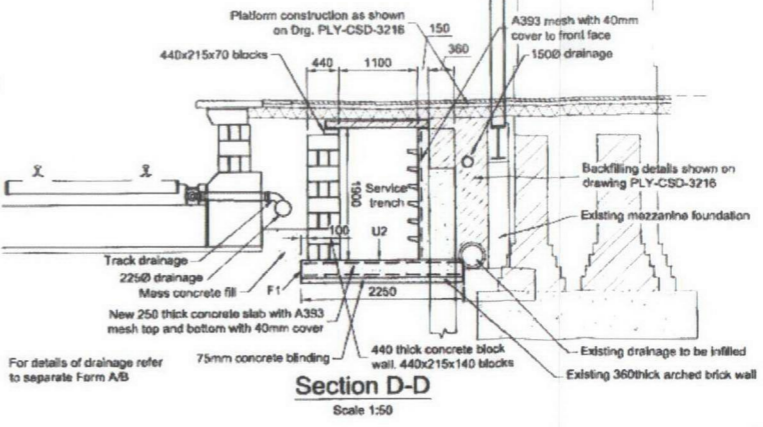
- New 440 thick concrete block wall
- Existing 360 thick arched brick wall
- Existing 360 thick arched brick wall. Arches infilled faced with 150 thick mass concrete used for new service trench
- Inverted arches between piers, arches to remain in place. New service trench walls to be built around arches



**Section B-B**  
Scale 1:50



**Section C-C**  
Scale 1:50



**Section D-D**  
Scale 1:50