

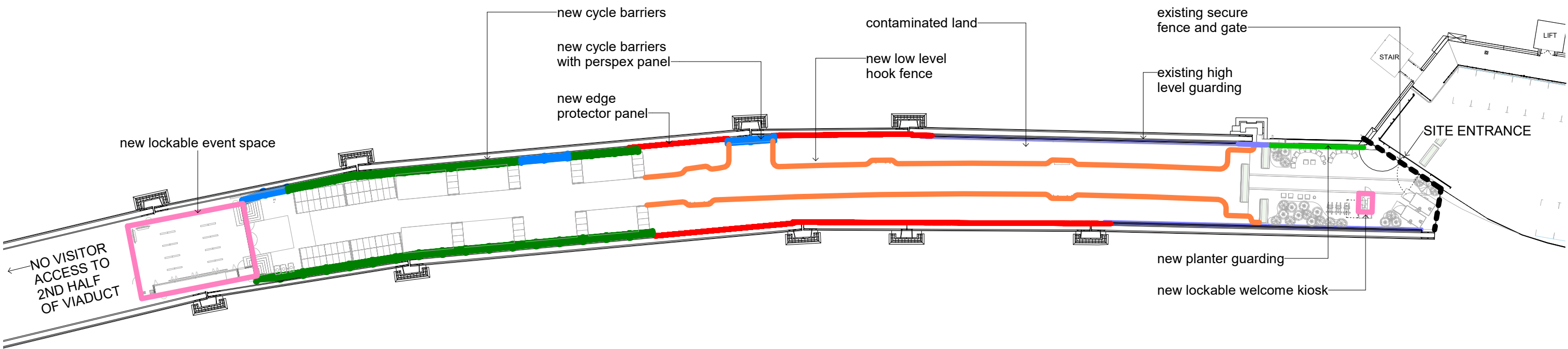
8

LOCKABLE BUILDING ENCLOSURES

The central events building will have lockable doors, meaning visitors cannot pass through from the Secret Garden to the second, Western half of the viaduct. The cycle barriers will run all the way up to the building edges.

Access behind the barriers and to the second half of the viaduct will be for maintenance personnel only, who will be detaching the barriers from the existing scaffolding to gain access.

- KEY**
- 1. Existing Secure Fence and Gate
 - 2. Existing High Level Guarding
 - 3. Edge Protector Panel
 - 4. Cycle Barrier
 - 5. Cycle Barrier with Perspex Panel
 - 6. New Planter Guarding
 - 7. Low Level Hook Fence
 - 8. Lockable Building Enclosures



9

FENCE AT WEST END OF VIADUCT

At the West end of the second half of the viaduct, there is an existing, high level palisade fence which prevents access to the live Metrolink infrastructure - see photo on the right. This fence will be retained.



10 LOADING REQUIREMENT

File Note



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Project title	Castlefield Viaduct	Job number	282210-00
cc		File reference	4-05-06
Prepared by	Arup Team	Date	10 December 2021
Subject	Planning Conditions response		

1 Planning Conditions Reponses

Condition 3

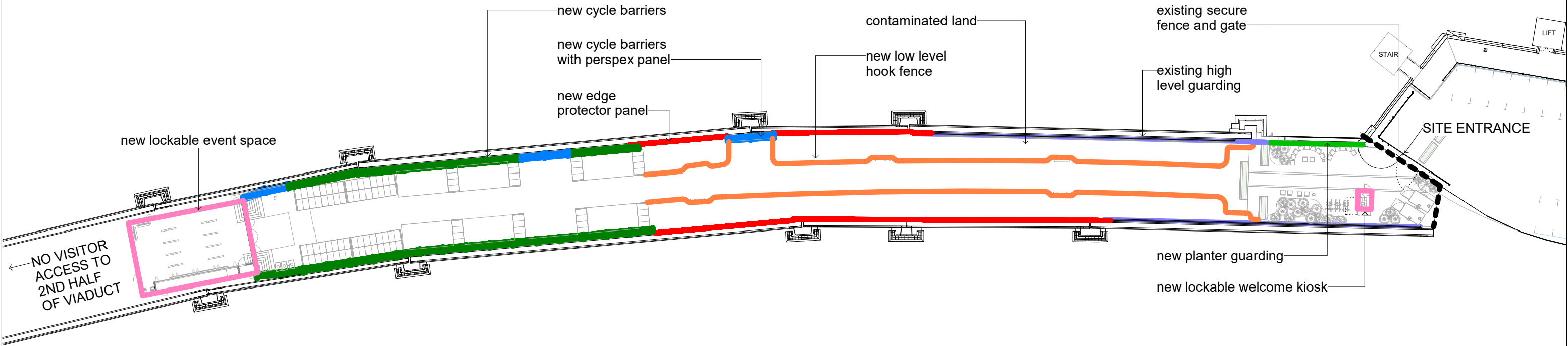
Item	Comments
High Level Guarding	Table 2 in BS7818:1995, outlines the Horizontal Imposed Loads on pedestrian restraint systems in metal. For Class 2 occupancy, normal duty where crowd loading is not anticipated, a horizontal design load of 0.7kN/m is recommended. Horizontal displacement of the restraint system should not be greater than 50mm as set out in Table 4.

APPENDIX

DRAWINGS

KEY

- 1. Existing Secure Fence and Gate
- 2. Existing High Level Guarding
- 3. Edge Protector Panel
- 4. Cycle Barrier
- 5. Cycle Barrier with Perspex Panel
- 6. New Planter Guarding
- 7. Low Level Hook Fence
- 8. Lockable Building Enclosures



CDM Issues - Significant/Residual Hazards:

All designers involved in this drawing are to ensure that all foreseeable Significant Hazards relating to this drawing are indicated below.

Significant Hazards are not necessarily those that result in the greatest risks, but those that are:

- Unlikely to be obvious to a competent contractor or other designers;
- Unusual;
- Likely to be difficult to manage effectively.

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Hazard	Description	Measure/Location/Reference
Fall from height	☐	
Falling objects	☐	
Hazardous materials	☐	
Uncontrolled substances	☐	
Site transport	☐	
Crushing/entanglement	☐	
Hazardous operations	☐	
Confined spaces	☐	
Noise	☐	
Dust	☐	
Vibration (HAV)	☐	
Manual handling	☐	
Asbestos	☐	
Others	☐	

Notes:

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2. Dimensions are in millimetres (mm) unless otherwise stated.
3. This drawing is to be read in conjunction with all relevant Architectural, Civil, Structural and Service Engineer's drawings, schedules and specifications.

Key:

Rev.	Date	Description	Dm.	Chkd	Appd
A	16/11/21	Minor revisions following physical survey results	IA	MC	IA
B	30/11/21	Detail added to clarify barrier types	IA	MC	IA
C	08/12/21	Camomile lawn viewing platform changed to perspex as well	IA	MC	IA

Key Plan:

Issue Status:

PLANNING

The National Trust
Castlefield Viaduct
Security Measures Diagram

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Scale @ A1:	Date:	Drawn:	Checked:	Approved:	Job No.:	Drawing No.:	Revision:
1:300	25/05/21	IA	MC	MC	122019	(DIA)004	C

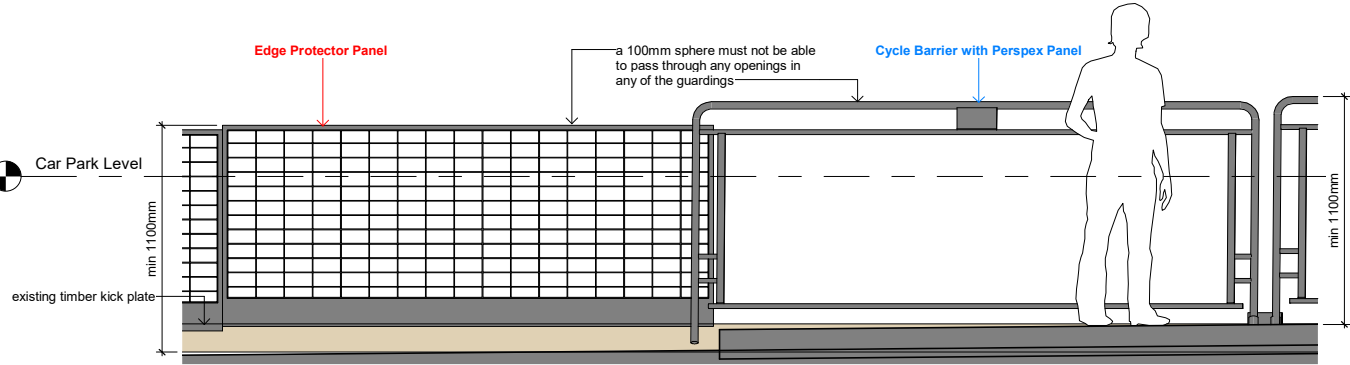
KEY

Edge Protector Panel (97m)
fixed to existing scaffolding
RAL 7016 Anthracite Grey

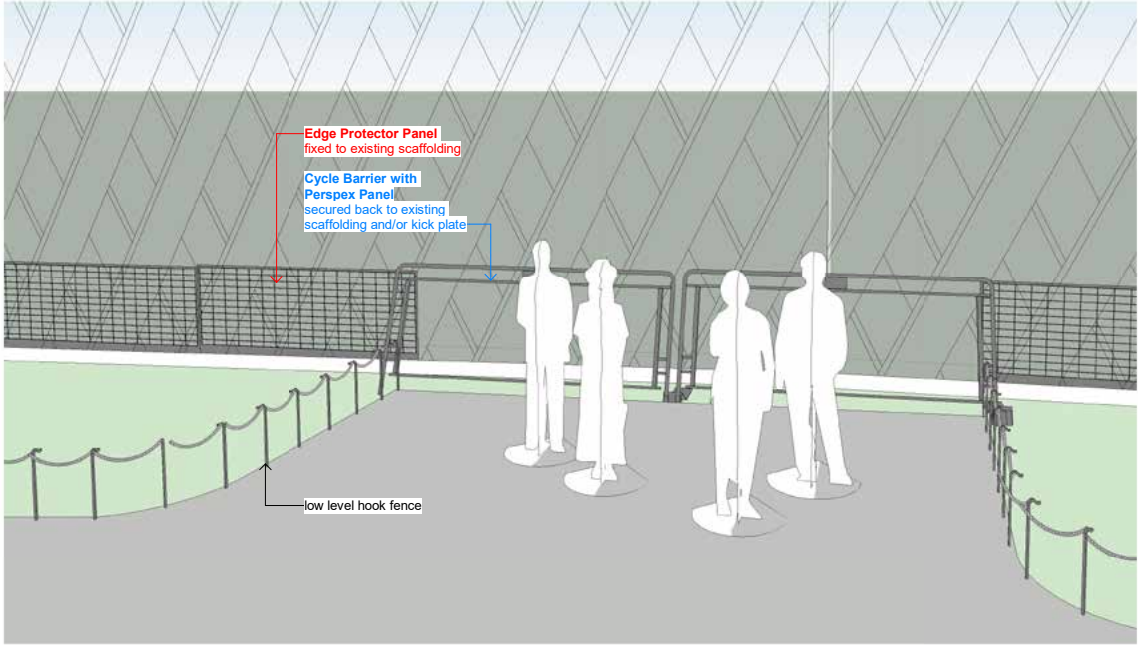
Cycle Barrier (93m)
secured back to existing scaffolding and/or kick plate
RAL 7016 Anthracite Grey

Cycle Barrier with Perspex Panel (19m)
secured back to existing scaffolding and/or kick plate
RAL 7016 Anthracite Grey

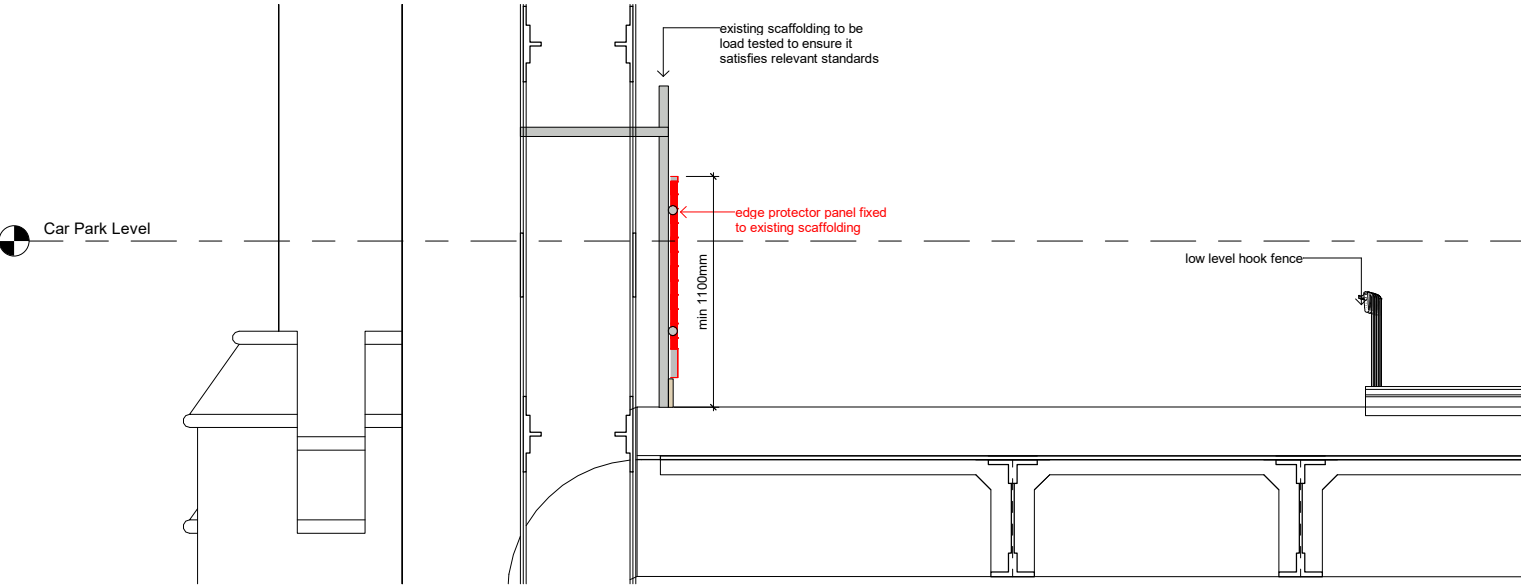
(34) Extent of high level guarding
1 : 250



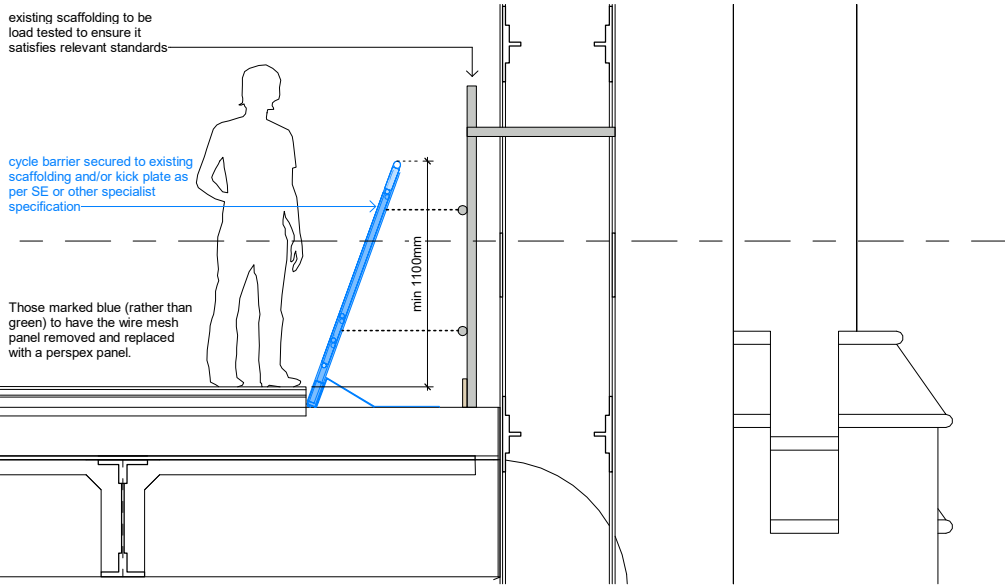
(34) Guarding Elevation
1 : 20



(34) 3D View



(34) Guarding Section
1 : 20



CDM Issues - Significant/Residual Hazards:

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Hazard	Description	Measure/Location/Reference
Fall from height	☐	
Falling objects	☐	
Hazardous materials	☐	
Uncontrolled substances	☐	
Site transport	☐	
Crushing/entrapment	☐	
Hazardous operations	☐	
Confined spaces	☐	
Noise	☐	
Dust	☐	
Vibration (HAV)	☐	
Manual handling	☐	
Asbestos	☐	
Others	☐	

Notes:

- Do not scale from this drawing.
- Dimensions are in millimetres (mm) unless otherwise stated.
- This drawing is to be read in conjunction with all relevant Architectural, Civil, Structural and Service Engineer's drawings, schedules and specifications.

Key:

Rev.	Date	Description	Dm.	Chkd	Appd
A	29/11/21	Viewing Platform Barriers changed to have Perspex Infill	IA	MC	IA
B	08/12/21	Camomile lawn viewing platform changed to perspex wall	IA	MC	IA

Key Plan:

Issue Status:

STAGE 4

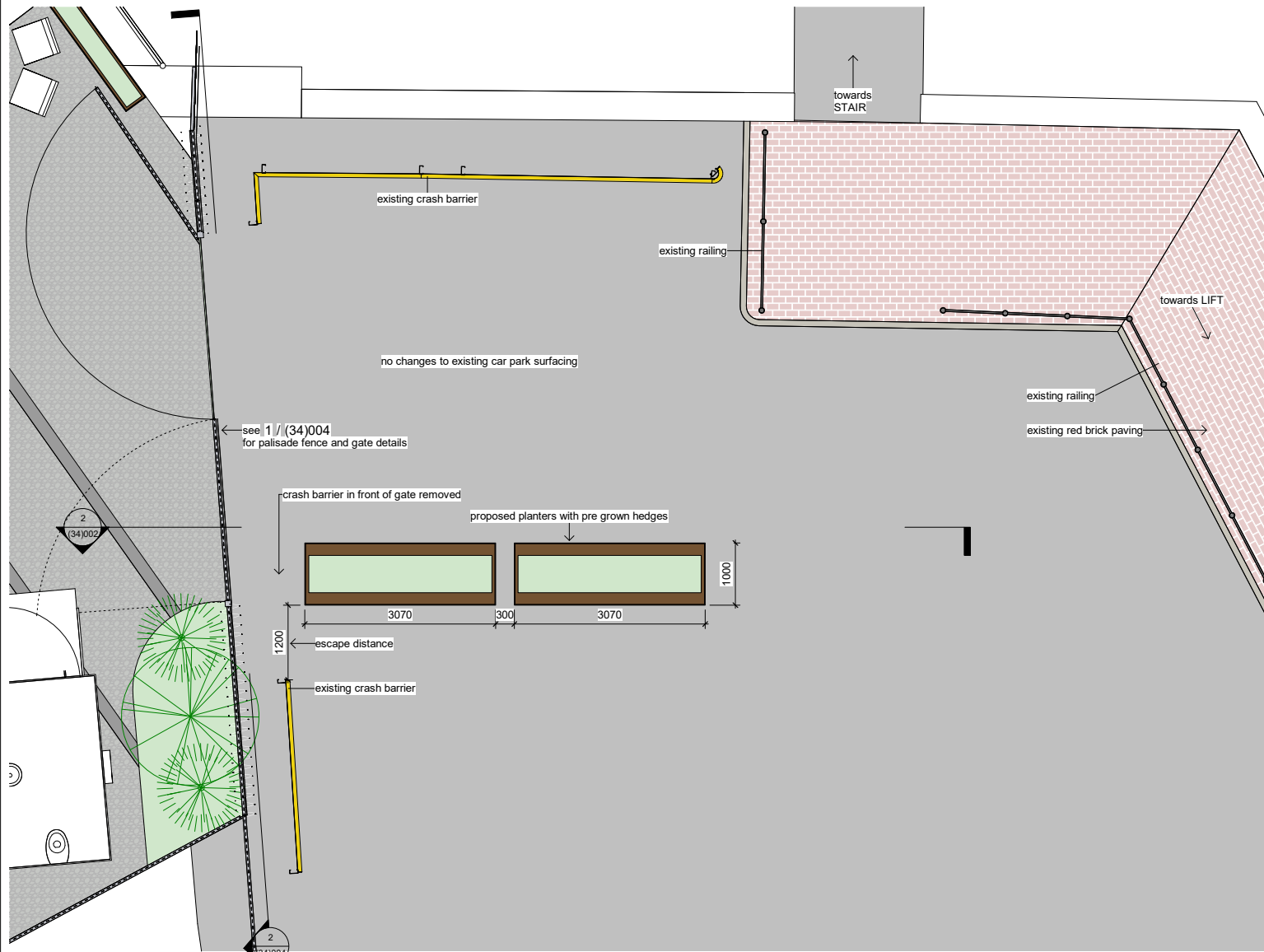
Project Title:
**The National Trust
Castlefield Viaduct**
Drawing Title:
High Level Guarding Details

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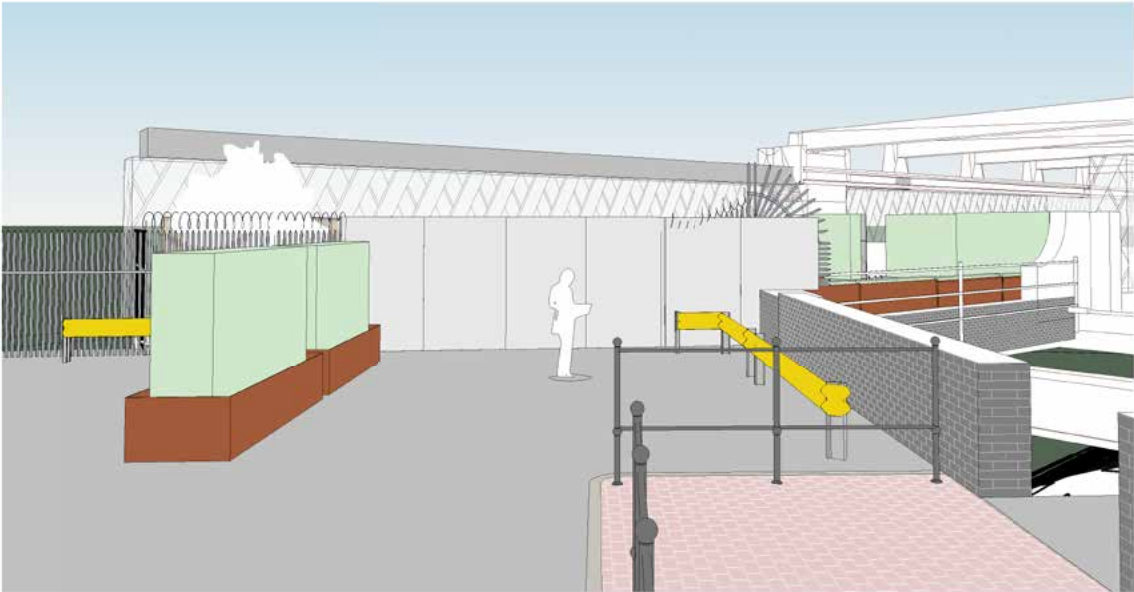
Scale @ A1:	Date:	Drawn:	Checked:	Approved:	Job No.:	Drawing No.:	Revision:
varies	29/11/21	IA	MC	IA	122019	(34)001	B



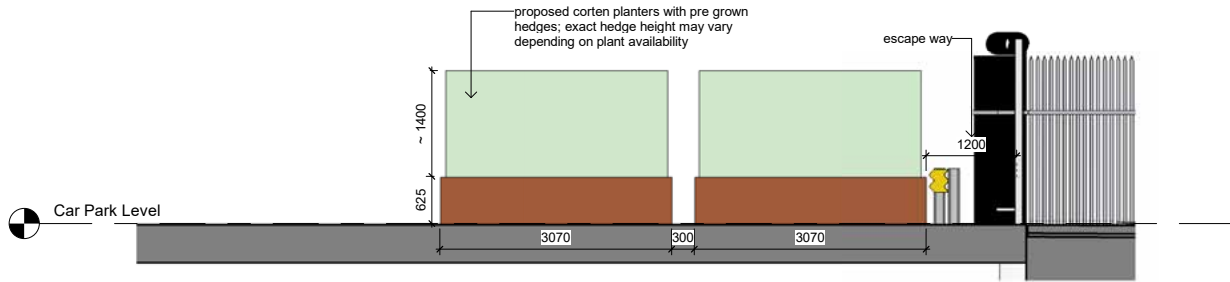
1 (34) Entrance Planters Plan
1 : 50



4 (34) Sketch 3D View - Gate Open

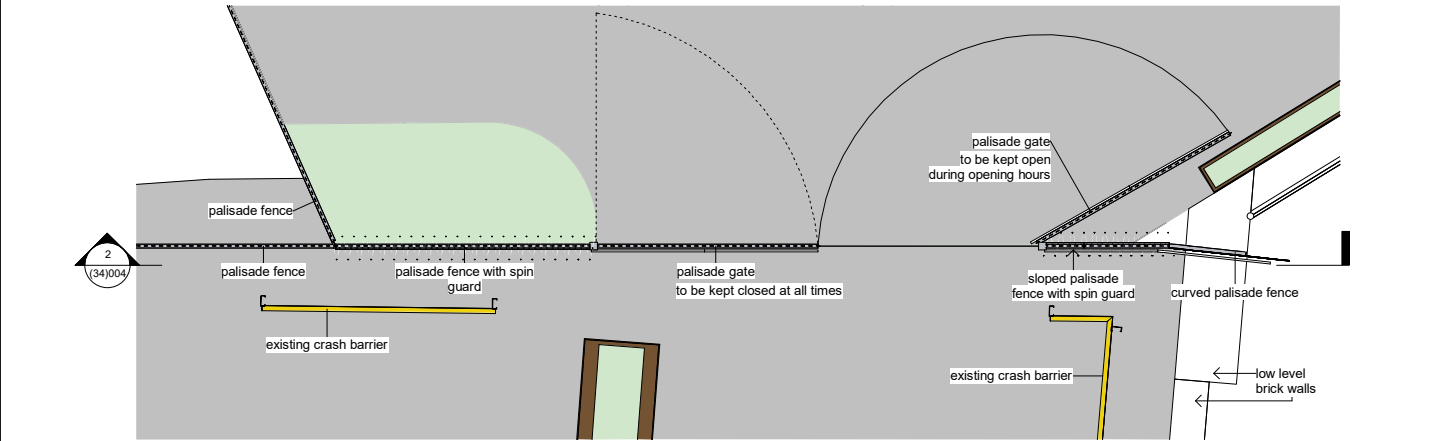


5 (34) Sketch 3D View - Gate Closed

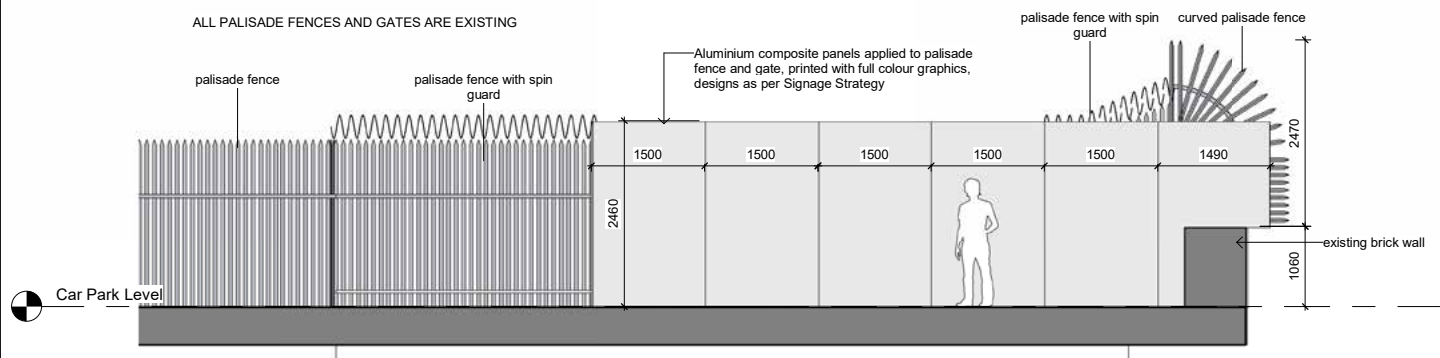


2 (34) Entrance Planters Elevation
1 : 50

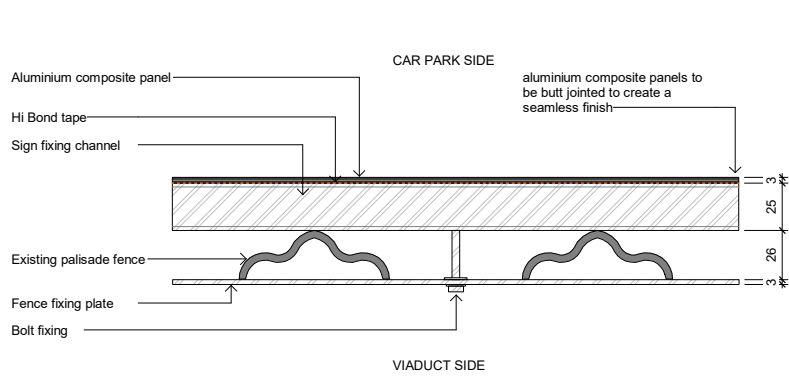
CDM Issues - Significant/Residual Hazards:				Notes:				Key:				Rev. Date Description Dm Chkd Appd				Key Plan:				Issue Status:				Project Title:				twelve			
All designers involved in this drawing are to ensure that all foreseeable Significant Hazards relating to this drawing are indicated below.				1. Do not scale from this drawing.				1A MC IA				A 30/11/21 Dimensions added				0 1 2 3 4 5 m				STAGE 4				The National Trust				architects & masterplanners			
Significant Hazards are not necessarily those that result in the greatest risks, but those that are:				2. Dimensions are in millimetres (mm) unless otherwise stated.				IA MC IA				B 08/12/21 Entrance fence details moved to (34)004								Fence Cover and Entrance Screening				1202019				(34)002			
• Unlikely to be obvious to a competent contractor or other designers;				3. This drawing is to be read in conjunction with all relevant Architectural, Civil, Structural and Service Engineer's drawings, schedules and specifications.																Scale @ A1: 1:50				Date: 17/11/21				Drawn: IA			
• Unusual;																				Checked: MC				Approved: IA				Job No.: 122019			
• Likely to be difficult to manage effectively;																				Revision: B											
As a design and building project, the Main Contractor is deemed to be a designer under the CDM Regulations as well as the Client, Architect, Engineer or subcontractors. This risk schedule is not a design risk assessment of a full and complete risk schedule and should not be deemed as such. Copies of the designer's risk assessment along with risk schedules are to be available from the Main Contractor's site office upon request.																															
Hazard				Description				Measure/Location/Reference																							
				Fall from height																											
				Falling objects																											
				Hazardous materials																											
				Uncontrolled substances																											
				Site transport/plant																											
				Crushing/entrapment																											
				Hazardous operations																											
				Confined spaces																											
				Noise																											
				Dust																											
				Vibration (HAV)																											
				Manual handling																											
				Asbestos																											
				Others																											



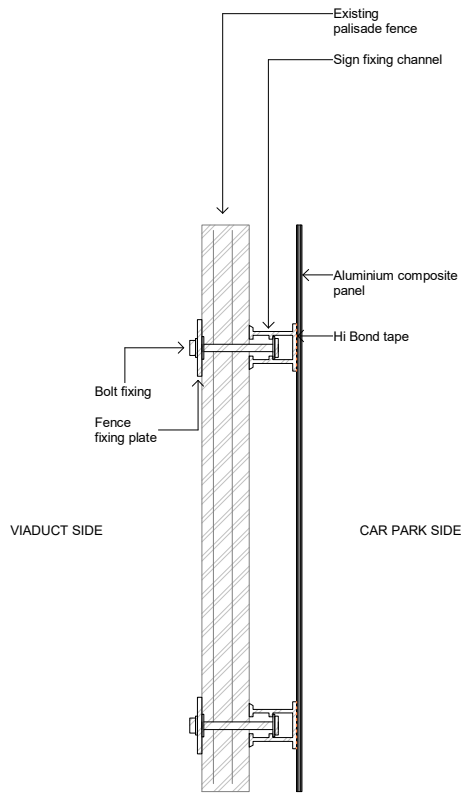
1 (34) Entrance Fence Plan
1 : 50



2 (34) Fence Dressing Elevation (Gate Closed)
1 : 50



3 (34) Fence Fixing - Plan Detail
1 : 2

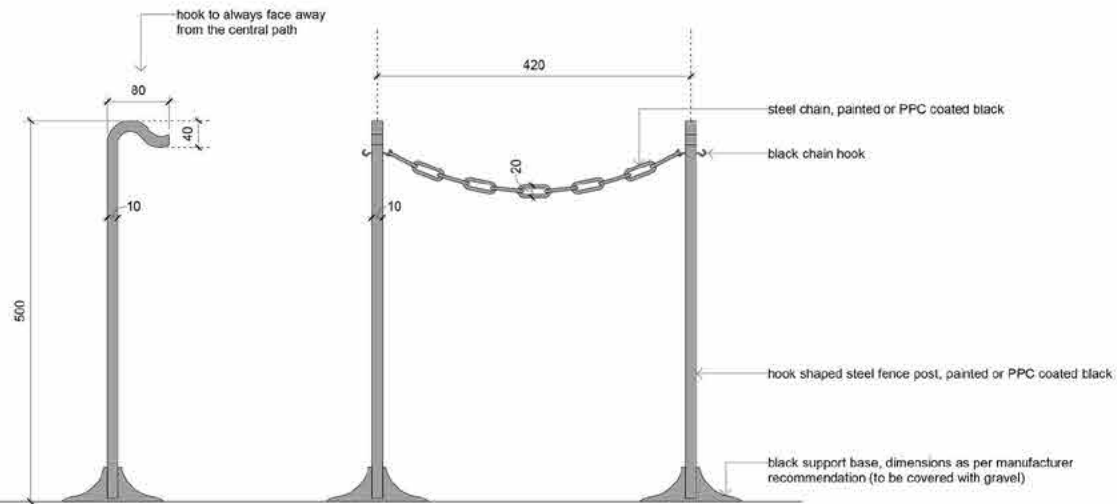
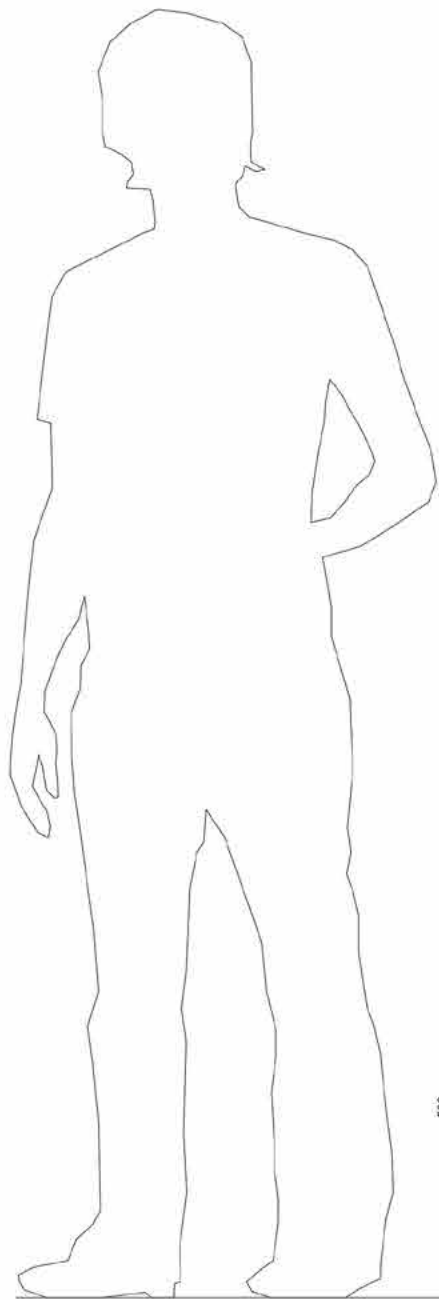


4 (34) Fence Fixing - Section Detail
1 : 2

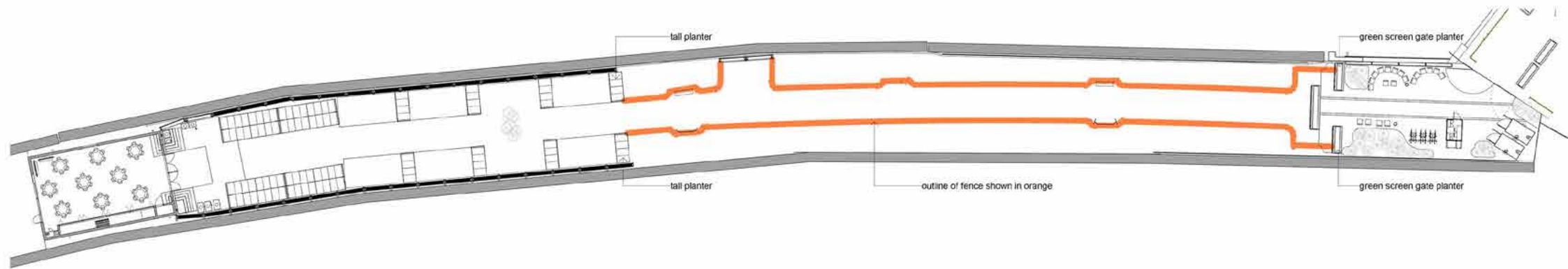
N.B.: Existing fence to be measured on site before manufacturing aluminium composite panels.

Fixing details to be checked and approved by specialist subcontractor.

CDM Issues - Significant/Residual Hazards:		Hazard	Description	Measure/Location/Reference	Notes: 1. Do not scale from this drawing. 2. Dimensions are in millimetres (mm) unless otherwise stated. 3. This drawing is to be read in conjunction with all relevant Architectural, Civil, Structural and Service Engineer's drawings, schedules and specifications.	Key:	Rev.	Date	Description	Dm.	Chkd	Appd.	Key Plan:	Issue Status: STAGE 4				 twelve architects & masterplanners 148 Tooley Street London SE1 2TU UK t: +44 (0) 207 846 2012 e: info@twelvearchitects.com w: www.twelvearchitects.com								
All designers involved in this drawing are to ensure that all foreseeable Significant Hazards relating to this drawing are indicated below. Significant Hazards are not necessarily those that result in the greatest risks, but those that are:		☐ Fall from height	☐											Project Title: The National Trust Castlefield Viaduct	Drawing Title: Entrance Fence Dressing Details				Scale @ A1: varies	Date: 13/12/21	Drawn: IA	Checked: MC	Approved: IA	Job No.: 122019	Drawing No.: (34)004	Revision: -
• Unlikely to be obvious to a competent contractor or other designers; • Unusual; • Likely to be difficult to manage effectively.		☐ Falling objects	☐																							
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		☐ Uncontrolled substances	☐																							
		☐ Site transportation	☐																							
		☐ Crushing/entanglement	☐																							
		☐ Hazardous operations	☐																							
		☐ Confined spaces	☐																							
		☐ Noise	☐																							
		☐ Dust	☐																							
		☐ Vibration (HAV)	☐																							
		☐ Manual handling	☐																							
		☐ Asbestos	☐																							
		☐ Others	☐																							

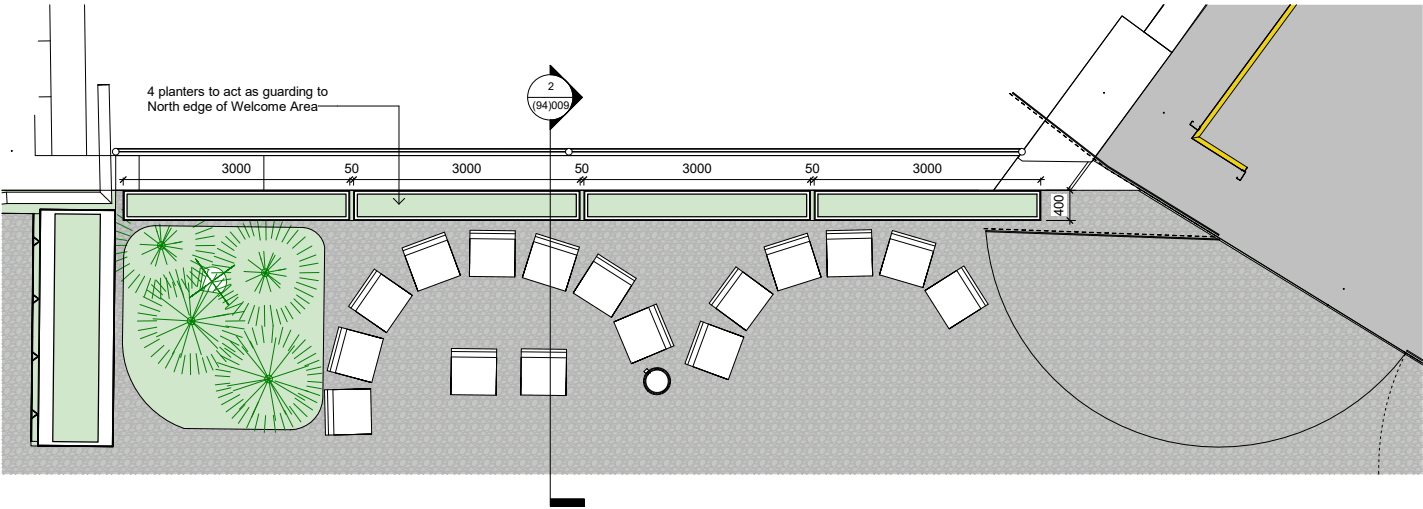


1 (34) Hook Fence Detail
1 : 5

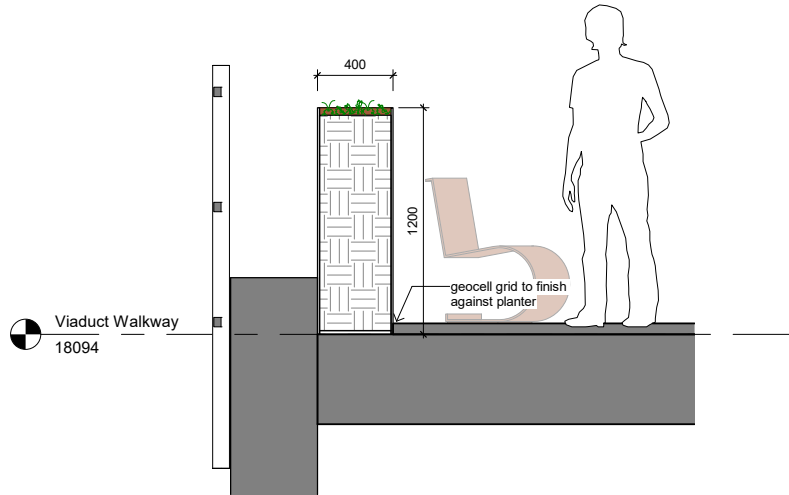


2 (34) Extent of hook fence
1 : 300

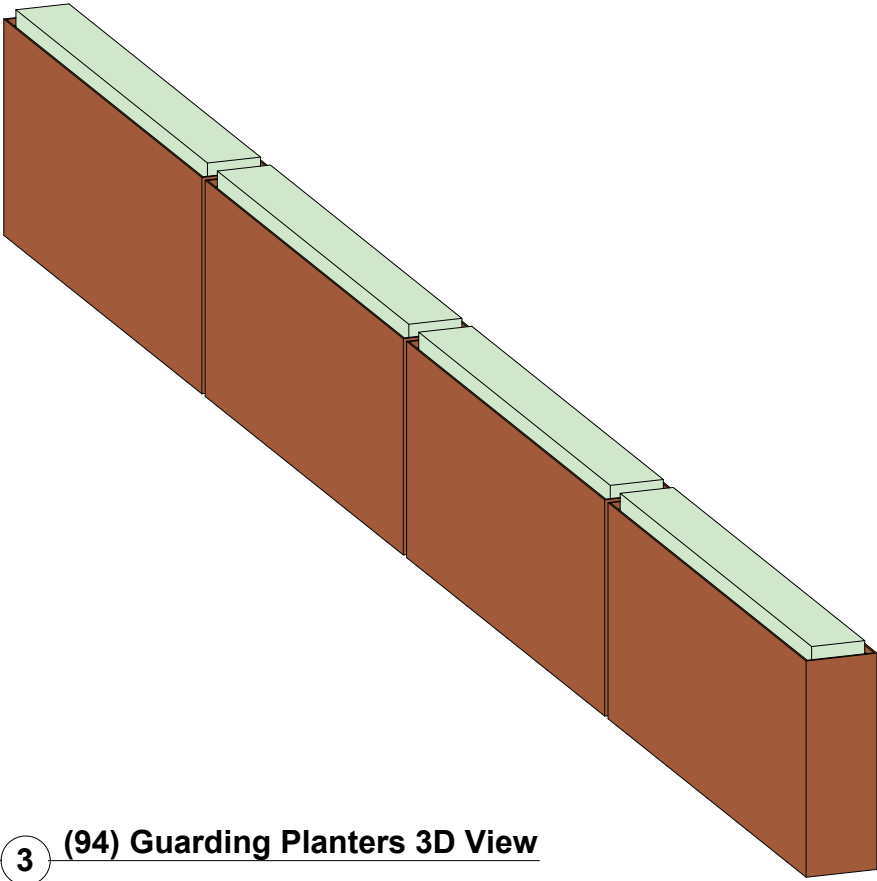
CDM Issues - Significant/Residual Hazards:		Hazard		Description		Measure/Location/Reference		Notes:		Key:		Rev.		Date		Description		Dn.		Chkd/ Appd.		Key Plan:		Issue Status:		STAGE 4					
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								1. Do not scale from this drawing. 2. Dimensions are in millimetres (mm) unless otherwise stated. 3. This drawing is to be read in conjunction with all relevant Architectural, Civil, Structural and Service Engineer's drawings, schedules and specifications.						30/11/21		minor annotation revisions		IA		MC		IA									



1 (94) Guarding Planters Plan
1 : 50



2 (94) Guarding Planter Section
1 : 20



3 (94) Guarding Planters 3D View

CDM Issues - Significant/Residual Hazards:				Hazard	Description	Measure/Location/Reference	Notes: 1. Do not scale from this drawing. 2. Dimensions are in millimetres (mm) unless otherwise stated. 3. This drawing is to be read in conjunction with all relevant Architectural, Civil, Structural and Service Engineer's drawings, schedules and specifications.	Key:	Rev.	Date	Description	Dm.	Chkd	Appd	Key Plan:	Issue Status: STAGE 4			
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				☐	Fall from height											twelve architects & masterplanners			
				☐	Falling objects											twelve architects & masterplanners 148 Tooley Street London SE1 2TU UK t: +44 (0) 207 846 2012 e: info@twelvearchitects.com w: www.twelvearchitects.com			
				☐	Hazardous materials														
				☐	Uncontrolled substances														
				☐	Site transport/plant														
				☐	Crushing/entrapment														
				☐	Hazardous operations														
				☐	Confined spaces														
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				☐	Manual handling														
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				☐	Others														

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