

**Oxford Humanities**  
**Operation & Maintenance Manual**  

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**PIT ACCESS TREADS**

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Project Code : 4334

**J&C Joel** 

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# 1. Document Control

## 1.1. Identification

Client: Laing O'Rourke

Project Name: Oxford Humanities

J&C Joel Project Reference: 4334

Document Name: Pit Access Treads Operation & Maintenance Manual

Document Reference: 4334-09-OM-0001

## 1.2. Document History

Rev	Date	Description	Author	Checked
A	13/08/2025	First Issue	JC	SS
B	27/10/2025	Updated as per consultant comments	JC	SS

## 1.3. Contact Details

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## 1.4. Warranty

Limited warranty is valid for twelve (12) months from the date of practical completion and handover to the client or clients representative (whichever occurs first.)

1. The warranty shall be limited to the free supply of replacement materials and workmanship for the faulty materials or workmanship and shall not cover other damage or defects how so ever caused.
2. It shall be the client's responsibility to notify J&C Joel Ltd for any defects in the machinery and the warranty shall be void if repairs or other works were carried out by third parties.
3. This warranty shall only apply to the areas where J&C Joel Ltd have been applied and completed the works.
4. The supply of replacement materials and workmanship under this warranty shall in no event exceed the quantity specified and supplied and shall only be applied to proven defective areas by checking and tests conducted under the control of the owner, the consultant or its representative and J&C Joel Ltd or its representatives.
5. This warrantee shall be interpreted according to the laws of the United Kingdom.

## 1.5. Copyright

This document contains material that is proprietary to J&C Joel Ltd. This information is provided on the understanding that it is used solely for the purpose of information, installing and maintaining the equipment described, and that it will not be revealed to third parties or otherwise disposed of without the prior written consent of J&C Joel Ltd.

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## 2. How To Use This Manual

Read the instructions carefully before use and follow them accordingly. Keep this document safe for future reference. Non-observance of these instructions may lead to hazardous situations and / or malfunctions or to failure of the equipment, resulting in damage or injury.

The user is advised not to operate or undertake any work on the system without first reading and understanding the contents of this manual.

All maintenance should be carried out strictly in accordance with the instructions contained in this and the manufacturer's reference manuals attached and undertaken by suitably trained and qualified personnel.

This manual describes the J&C Joel supplied pit access treads at the Oxford Humanities building. Servicing or repairs of main fault conditions is not covered; in such cases please contact J&C Joel immediately.

This document is intended to provide the user with sufficient information to allow maintenance of the equipment described.

If in doubt about anything contained in this manual please contact the Projects Department at J&C Joel Ltd. T: +44 (0)1422 833835 – E: [ukprojects@jcioel.com](mailto:ukprojects@jcioel.com)

### 3. General

The pit access steps are supplied to allow for easy access from stage level into the pit. The steps consist of a rolling metal and timber structure that is pitched at 180mm rise with 250mm step.

The handrails are demountable to allow the unit to pass through a standard doorway.

#### 3.1. List of Drawings

DRAWING NO.	TITLE
UOONHB-JCJ-CH-B1-DR-OT-050007	Concert Hall - Large Orchestra Lift - Proposal - Access Steps

## 4. Step Unit & Trolley

Below is an image of the access steps when fully assembled.



If required, the handrails can be removed from the unit to aid with mobility. Below is an image of the access steps when the rails are removed.



## 4.1. Assembly / Disassembly

It is advised that protective gloves are worn when using the access steps moving trolley. Consideration for the use of a bump cap or hard hat is recommended when working under the stairs.

It is advised that prior to first use of the access steps by new people, training should be offered to ensure they are comfortable and confident in using both the access steps and the moving trolley.

The handrails can be removed and re-fitted for storage / ease of use.



When fitting the handrails, it is advisable that two people should undertake this action. One to hold and take the weight of the handrail, one to fit the fixings.

It is advised that the upper handrail is fitted first, the middle section second and the lower handrail is fitted last.



The fixing for the handrail consists of a locating pin welded to the stair unit that the handrail drops into, and the handrail sections are then bolted together using two 6mm allen keys.



Do not overtighten the bolt as damage can occur to the thread. Maximum torque is 26Nm although a good rule of thumb is tighten the bolt by hand, and then further tighten by half a turn with an allen key.



Removal of the handrail is the reverse of the above fitting instructions.

To secure the whole step unit in place, a set of locking castors are fitted to the units. These are locked into place by turning the orange captive knob. The pads must be in full contact with the floor prior to using the stairs. Ensure a final check is done before putting into general use.





## 5. Positioning and Usage

To safely use the access steps, first start by bringing the units into the stage area through the stage right access doors. Ensuring that the lifts are safe to move as detailed in 4334-05-OM-0001, raise both the orchestra pit lifts to stage height. Once the lifts are safely motionless, position the access steps onto the large orchestra lift.

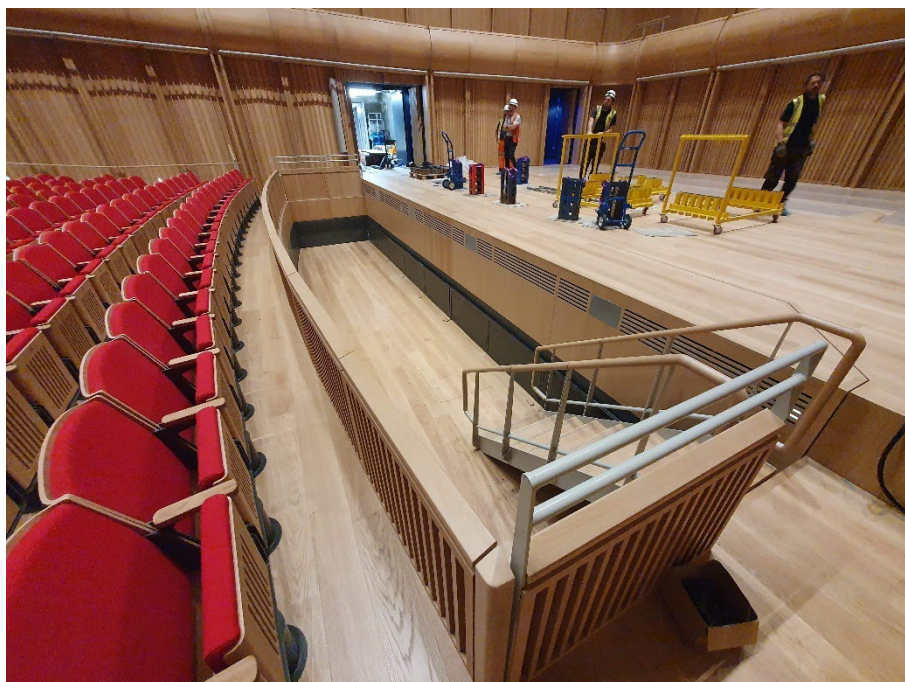
The steps should be positioned so that the top tread unit is less than 50mm away from the fixed edge of the stalls at either the stage left or stage right position. Take care that the steps will not clash with the fixed edge of the stalls when the lift is in motion.

Lower a minimum of two of the locking castors into position and ensure that the step unit is stable and will not move if used. Ensure that all demountable handrails are in position around the lift. Lower the large orchestra lift into the “pit” position.

Once the lift is lowered, use the stairs to gain access into the pit. Do not ride the elevator, it is not designed for the movement of passengers.

Raise the locking castors and fine-tune the position of the step unit. Ensure that the gap between the fixed edge and the top tread is under 5mm. Lower the castors again, and once again check that the stairs are rigid and stable. It is important that the lift does not move at this stage as if too close, the treads could scrape the fixed edge of the pit, causing damage.

To remove the steps, perform the above steps in reverse.





## 6.2. ML01 Check Sheet

### Pit access treads

		Pass	Fail	Rectified	N/A
<b>1</b>	<b>Appearance</b>				
1.1	Check access treads are free from obvious damage, including major finish loss	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.2	Check handrails (if removed) are plumb and square	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2</b>	<b>General</b>				
2.1	Check the access treads moving trolley moves freely and is undamaged	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.2	Check access treads for signs of any other damage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3</b>	<b>Mechanical</b>				
3.1	Inspect treads for any sign of damage or misuse, especially from goods or services being carried up the treads and against the handrail	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.2	Check that the castors are undamaged and run freely	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.3	Check that the access treads moving trolley castors are free moving and undamaged	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.4	Check that all fixings have good threads and are easy to loosen and tighten	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.5	Check for obvious damage to the treads	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.6	Check the locking castor captive knob moves freely and engages to prevent movement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## 7. Referenced Drawings

Drawing is shown overleaf.

REVISIONS			
REV.	BY	DESCRIPTION	DATE
P01	SC	FIRST ISSUE	25/10/2023
P02	SC	REDESIGNED TO ARCHITECT REQUEST	10/04/2024
C01	SC	MODIFIED TO ARCH. COMMENTS - FOR CONSTR.	21/11/2024
C02	SC	MODIFIED TO ARCH. COMMENTS	16/12/2024
C03	SH	For Record	28/04/2025
-	-	-	-
-	-	-	-
-	-	-	-

**Notes:**

STEPS DESIGNED FOR 5kN/m<sup>2</sup> UDL

HANDRAILS DESIGNED FOR 1.5kN/m AT TOP RAIL.

STEELWORK PAINTED TO ARCHITECT SPEC. RAL 7044 

MOVING FORCES OVER SMOOTH LEVEL SURFACE.

**Status:**

A -  B -  C -

All dimensions in mm unless otherwise stated. Do not scale.

DRAWN: SH DATE: 28/04/2025

CHECKED: JC DATE: 28/04/2025

APPROVED: OS DATE: 28/04/2025

SCALE: ON SHEET PAPER SIZE: A1

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PROJECT 4334 - Oxford Humanities

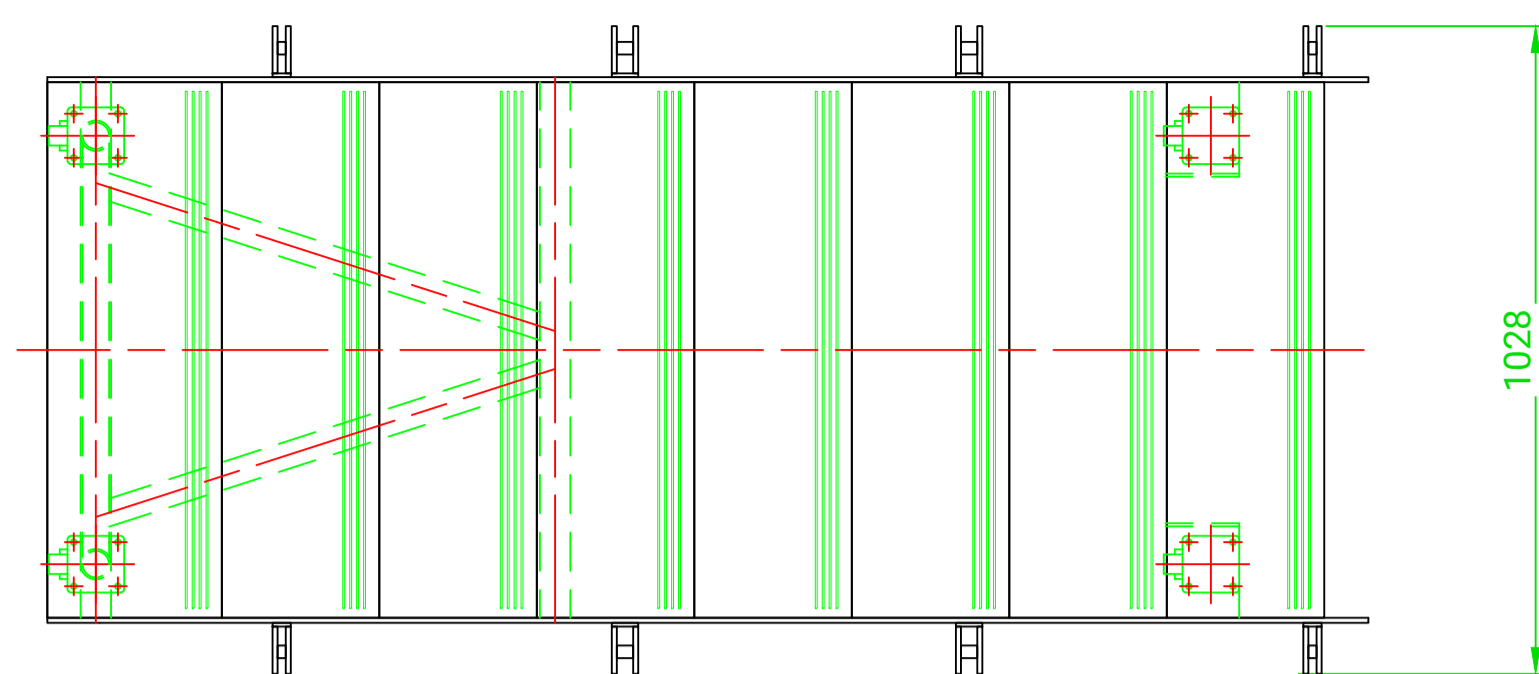
JCJ NO. 4334-GA-05-0007

DRG NO. U00NB-JCJ-CH-B1-DR-OT-050007

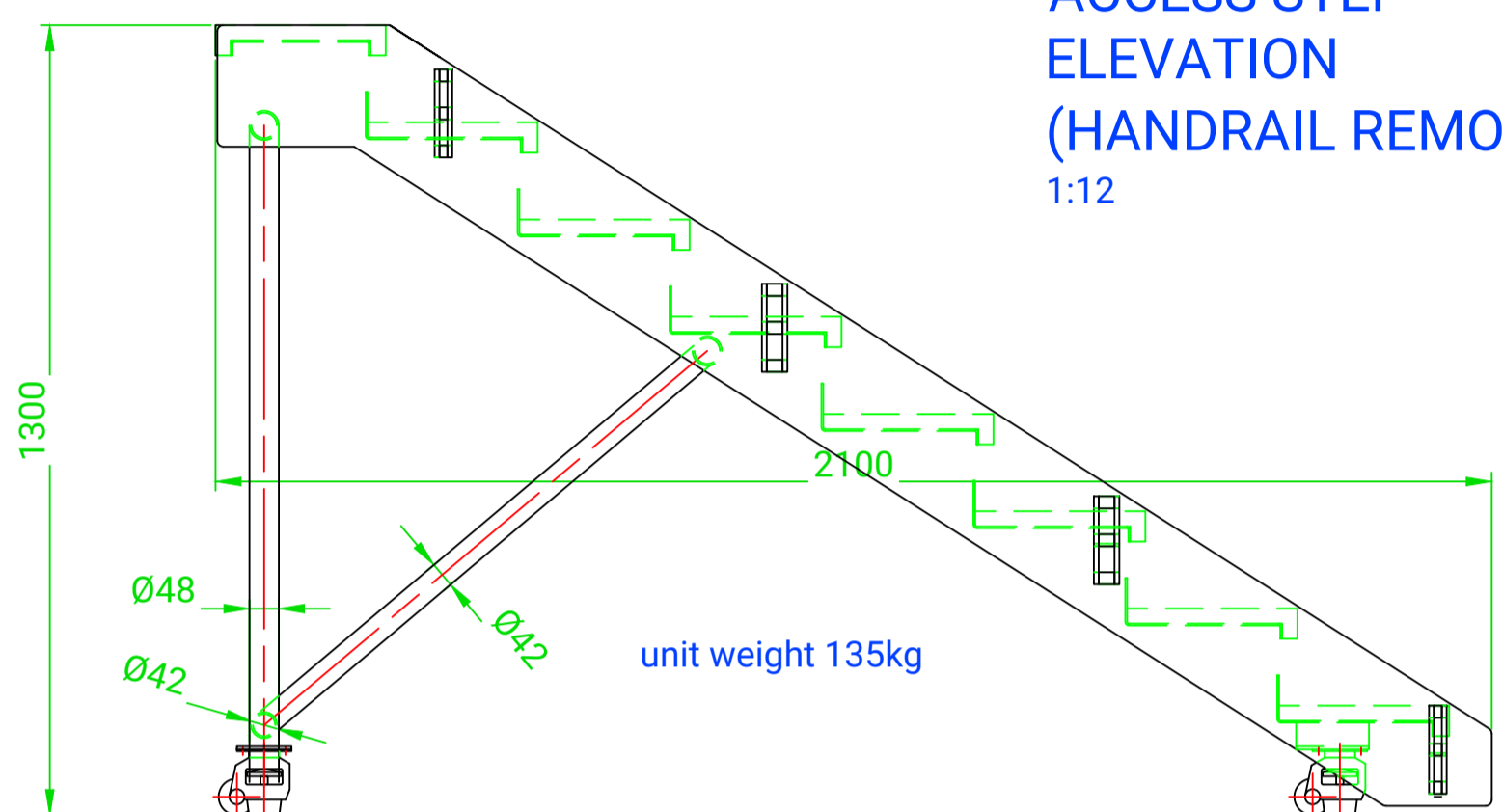
TITLE  
CONCERT HALL  
LARGE ORCHESTRA LIFT  
PROPOSAL  
ACCESS STEPS

PURPOSE  
A5 - Accepted as  
Suitable for Record

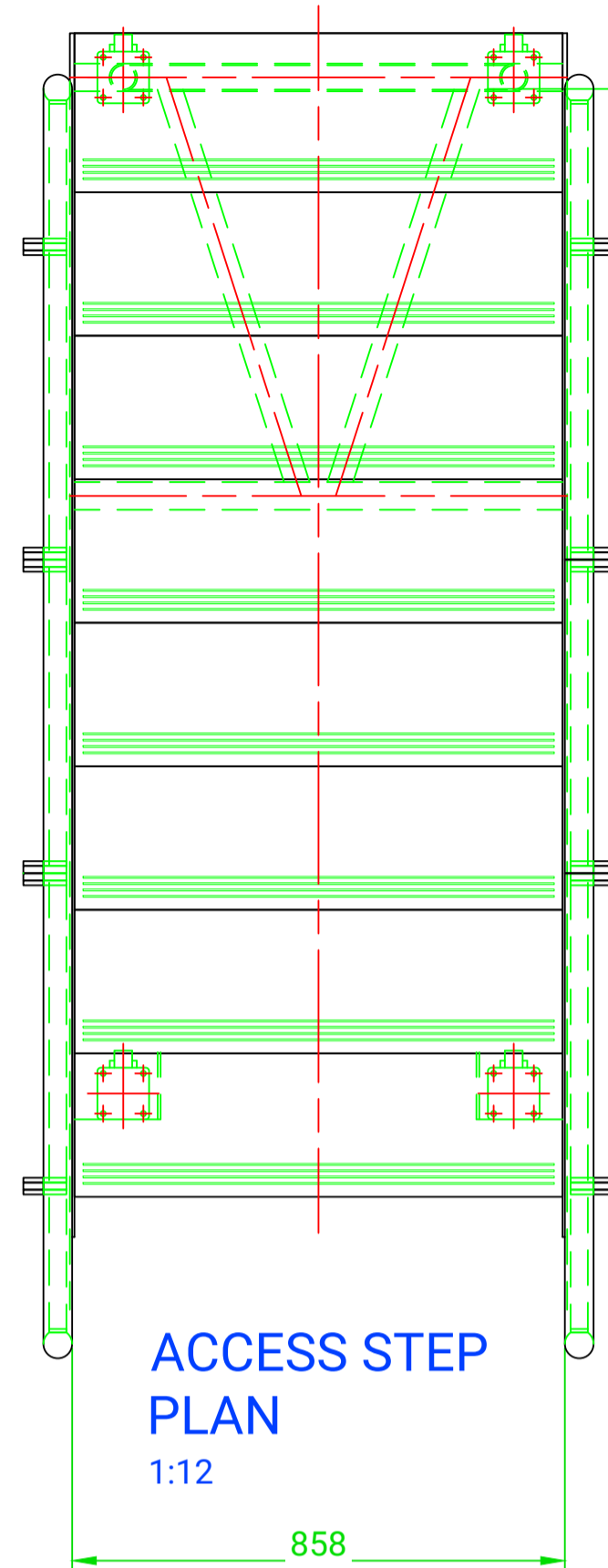
REV C03



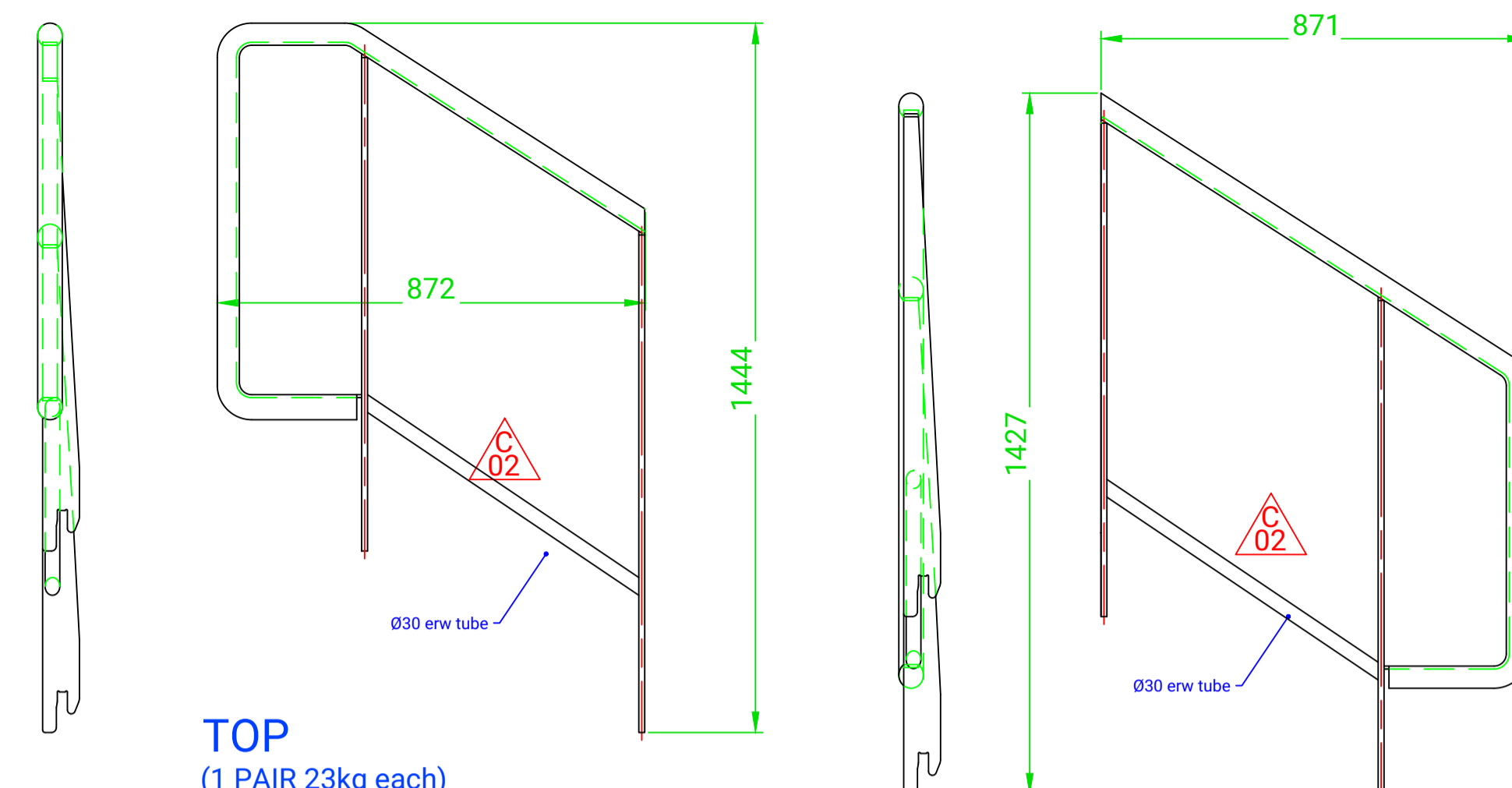
**ACCESS STEP ELEVATION (HANDRAIL REMOVED)**  
1:12



STARTING FORCE 11N  
ROLLING FORCE 7N  
(handrails removed, straight line, smooth floor)



**ACCESS STEP PLAN**  
1:12

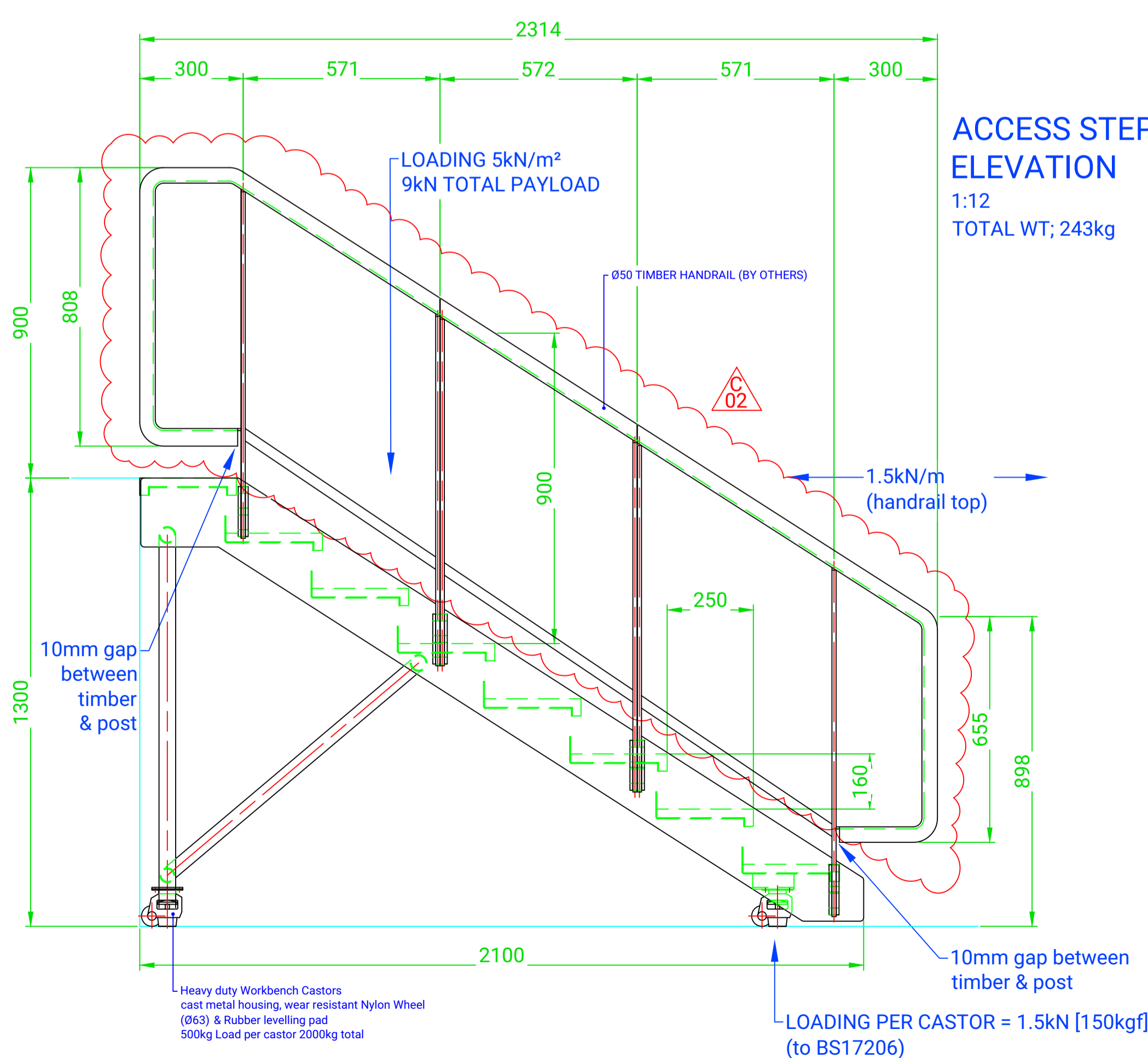


**TOP**  
(1 PAIR 23kg each)  
1:12

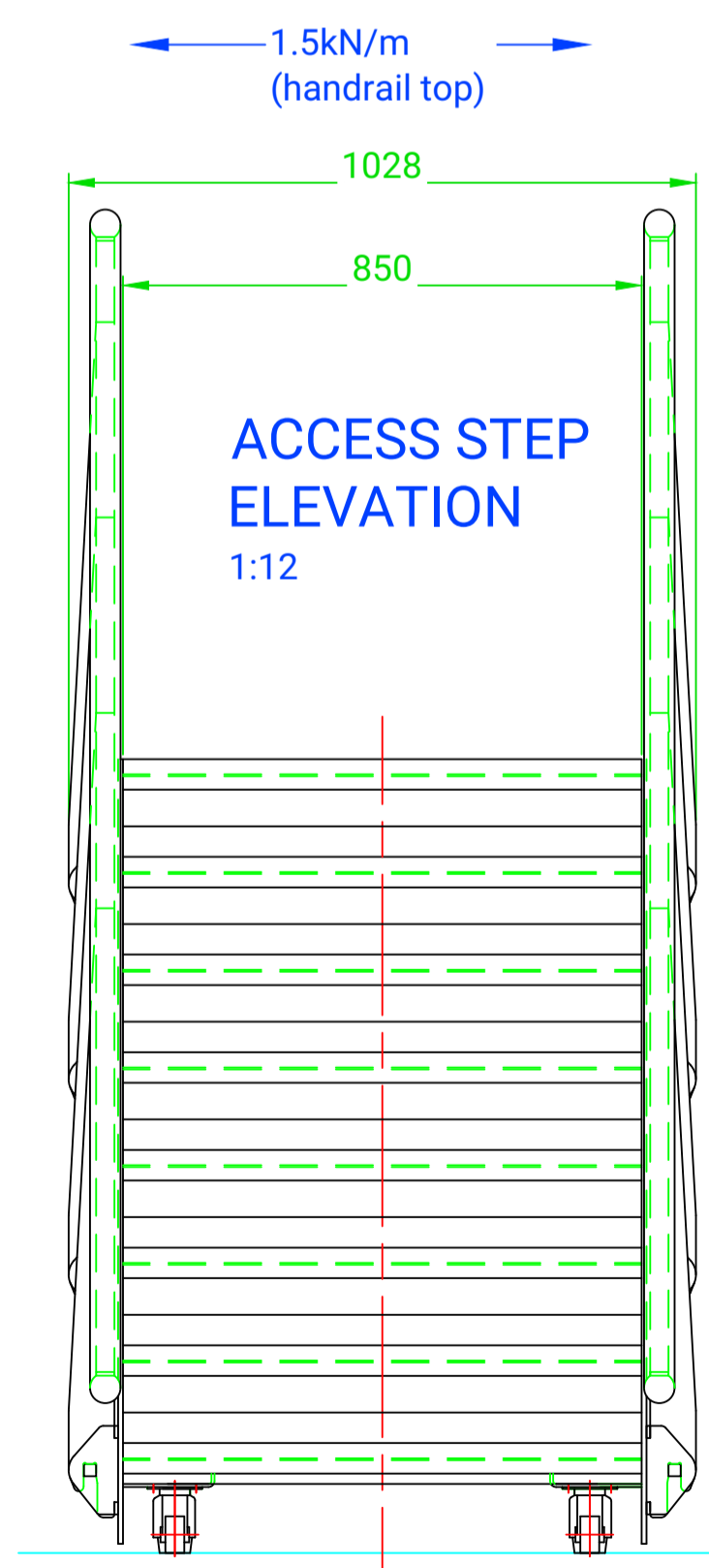
**BOTTOM**  
(1 PAIR 15kg each)  
1:12

**MID**  
(1 PAIR 16kg each)  
1:12

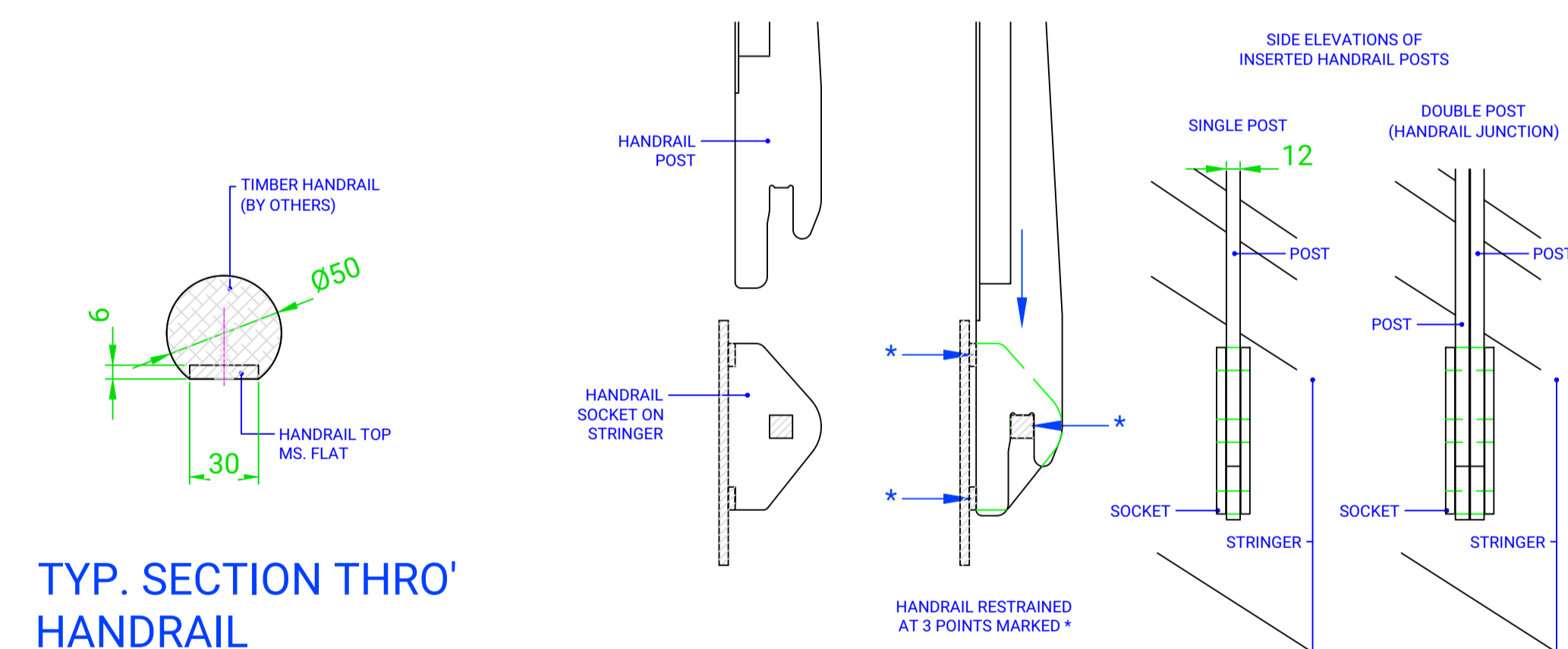
**HANDRAIL PANELS**  
1:12



**ACCESS STEP ELEVATION**  
1:12  
TOTAL WT; 243kg

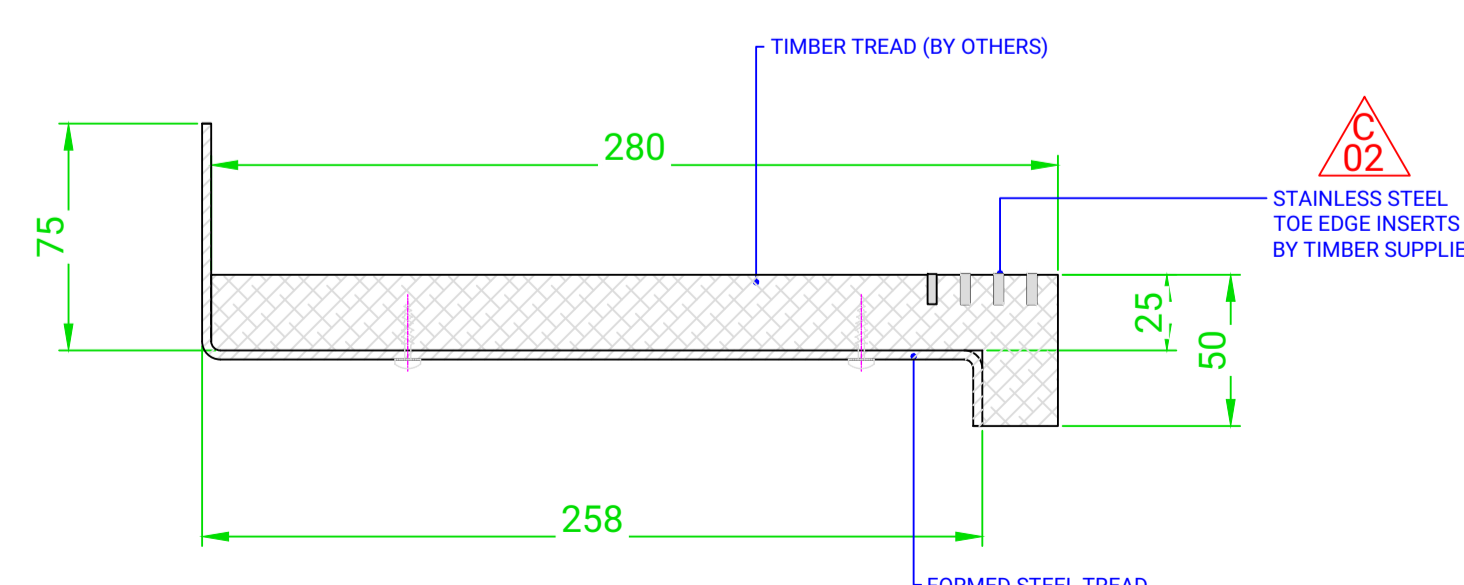


**ACCESS STEP ELEVATION**  
1:12



**TYP. SECTION THRO' HANDRAIL**  
1:2.5

**HANDRAIL INSERTION**  
1:10



**TYP. SECTION THRO' TREAD**  
1:2.5