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THE NATIONAL ARMY MUSEUM, CHELSEA

STRUCTURAL DRAWINGS, CONSTRUCTION INFORMATION, AND SPECIFICATION

for

TANK DISPLAY PLINTH

Client:
THE NATIONAL ARMY MUSEUM
ROYAL HOSPITAL ROAD
CHELSEA
LONDON
SW3 4HT

Engineer:
WARD MORGAN LTD

Architect:
CHAPLIN FARRANT WILTSHIRE
BANK CHAMBERS
69 HIGH STREET
WINCHESTER
SO23 9DA

Date: November 2019

STRUCTURAL DRAWINGS

WARD MORGAN Ltd
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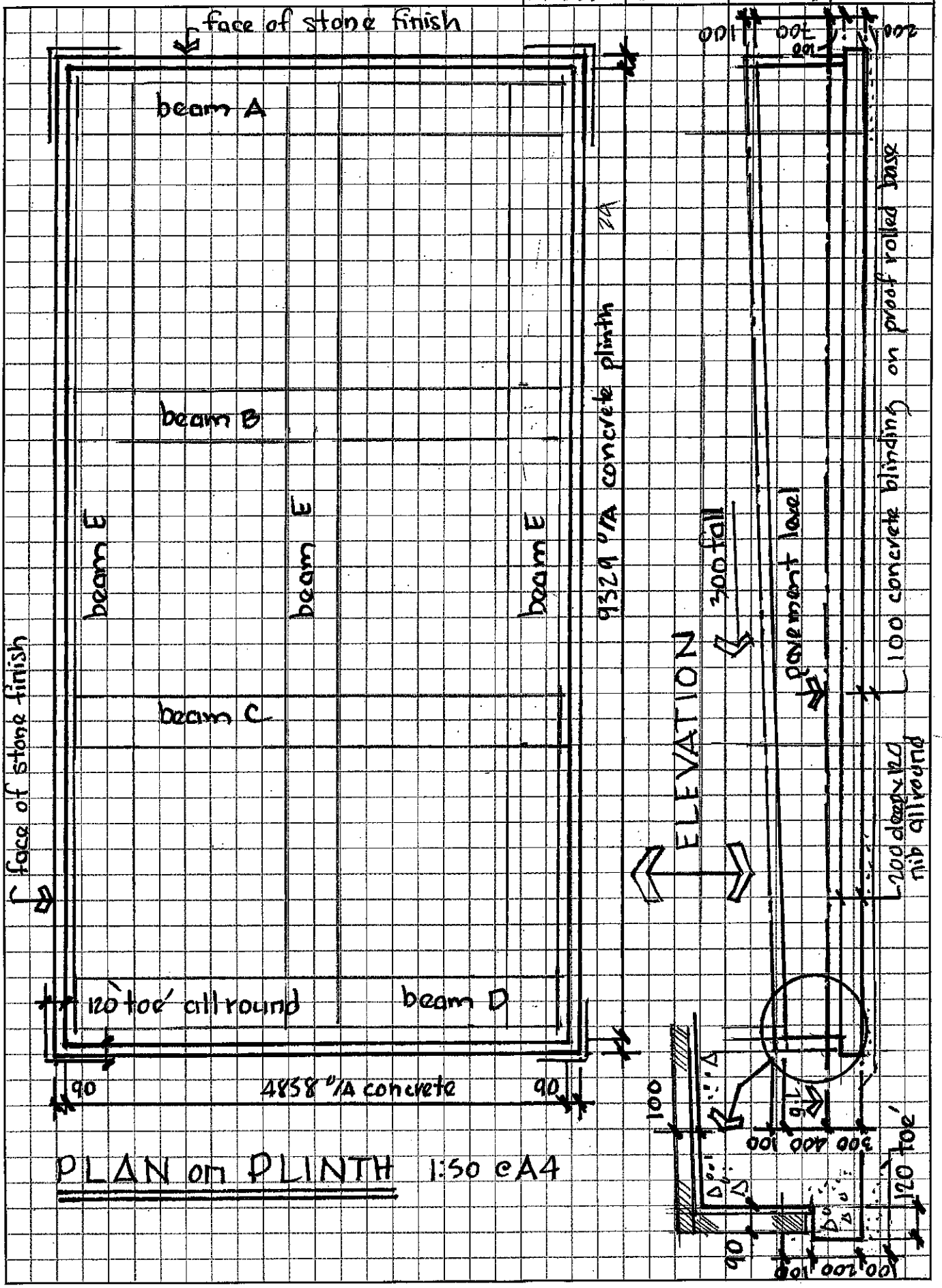
Project: NAM - Chelsea/TANK PLINTH

Project No: WM/31

Element: CONCRETE G.A.

By	Sheet No	Date	Revision
AWW	1.01	Nov 19	/



PLAN on PLINTH 1:50 @A4

STRUCTURAL DRAWINGS

WARD MORGAN Ltd
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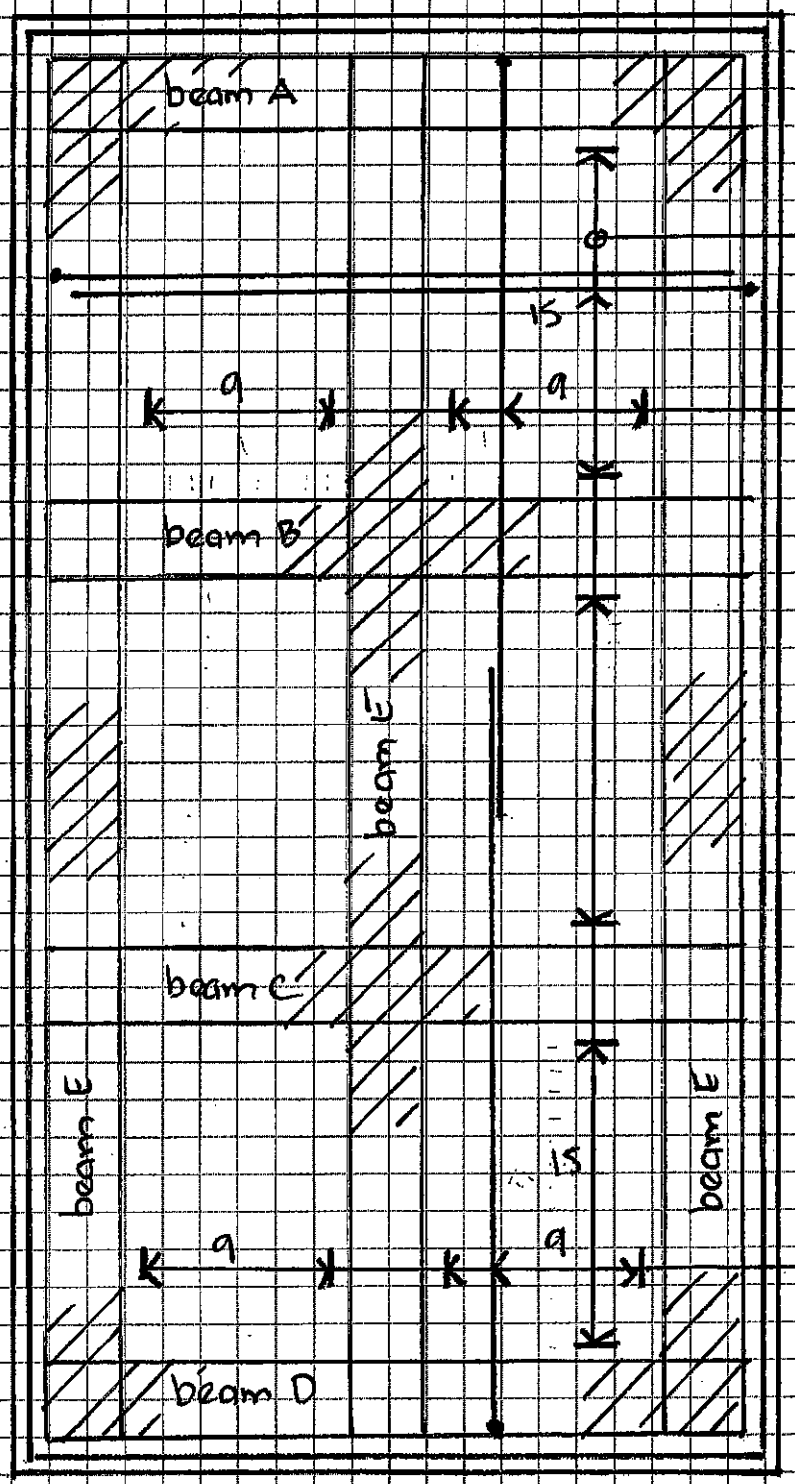
Email: ward.tony25@gmail.com

Project: NAM - Chelsea / Tank Plinth

Project No: WM / 31

Element: RC DETAILS

By	Sheet No	Date	Revision
AWW	1.02	Nov 19	—



2x45/T1603C 150% abr
(3 sets of 15)
45 top 45 bottom

2x18/T1604C 150%
18 top 18 bottom

2x18/T1604C 150%
18 top 18 bottom

PLAN on PLINTH 1:50 @ A4

STRUCTURAL DRAWINGS

WARD MORGAN Ltd
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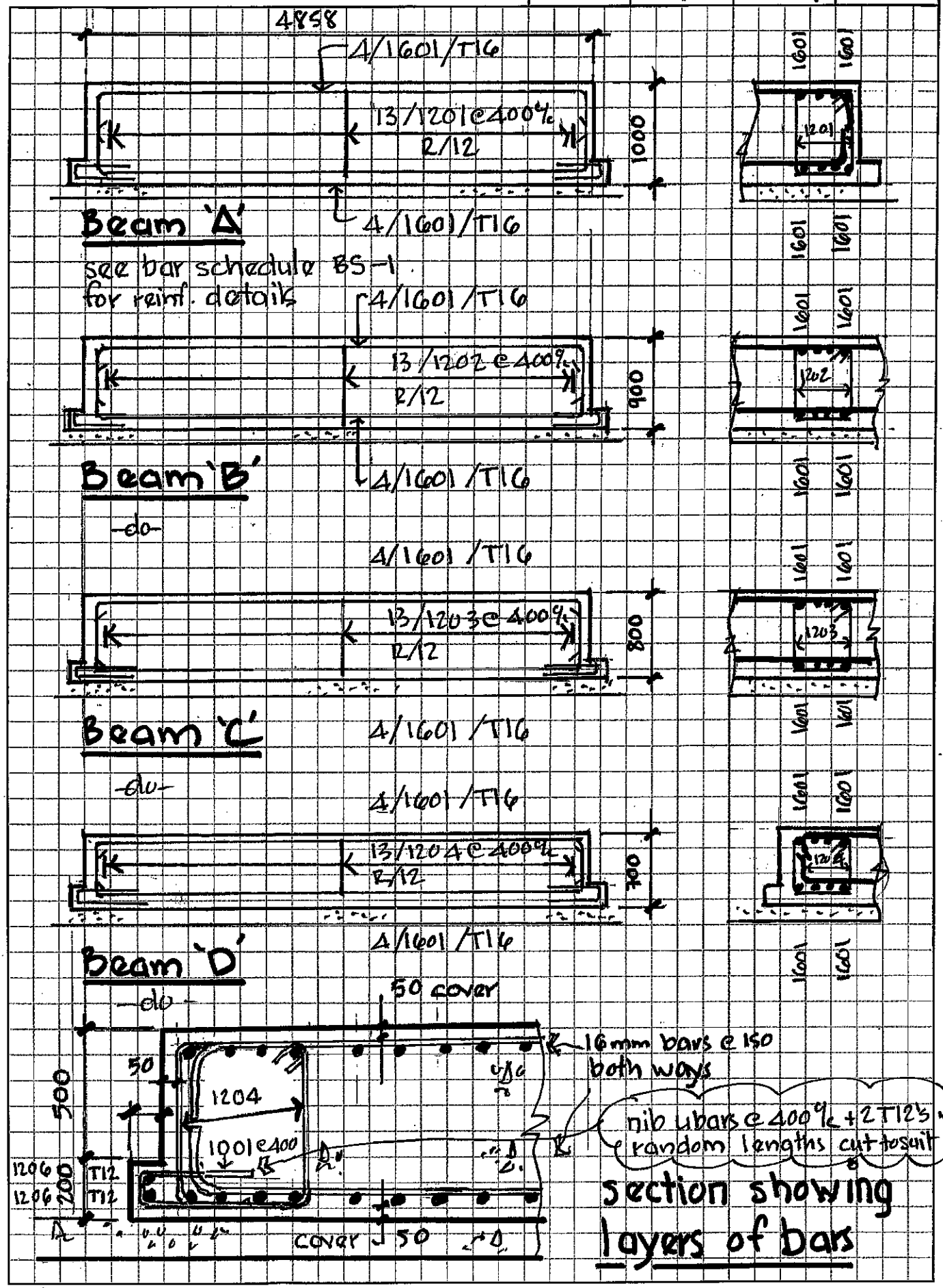
Email: ward.tony25@gmail.com

Project: NAM - Chelsea / Tank Plinth

Project No: WM/31

Element: RC Beam Details

By	Sheet No	Date	Revision
AWW	1.03	Nov 19	—



STRUCTURAL DRAWINGS

WARD MORGAN Ltd
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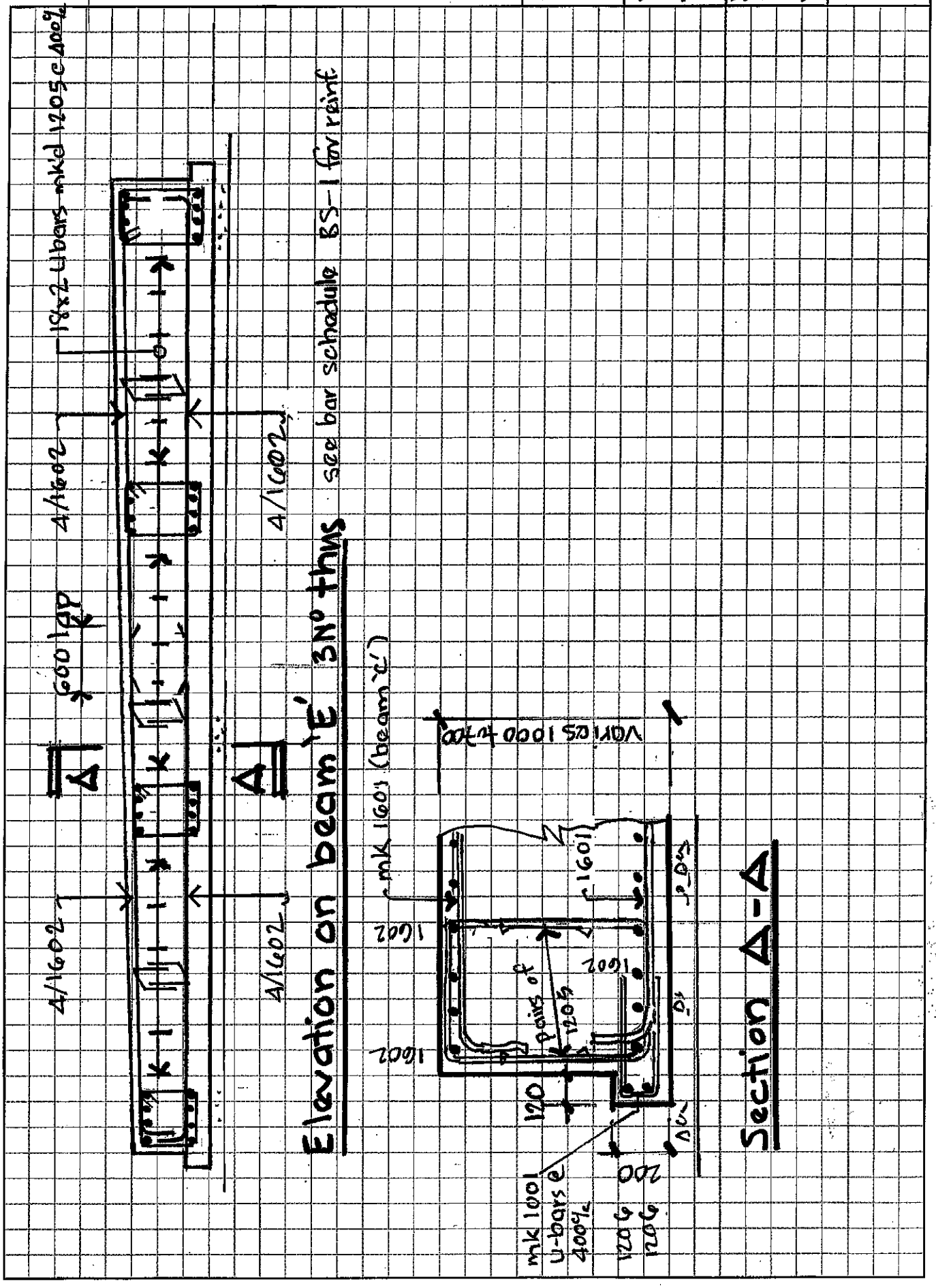
Email: ward.tony25@gmail.com

Project: NAM - Chelsea / Tank Plinth

Project No: WM/31

Element: RC beam details

By	Sheet No	Date	Revision
AMW	1.04	Nov '19	—



WARD MORGAN LTD
CONSTRUCTION CONSULTANTS
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Project: NAM Chelsea

Drawing No:	WM31/1.03
Sheet No:	BS-1
Revision:	
Date:	Nov. 2019
Last Revised:	—
Job No:	WM/31
Prepared By:	AWW
Checked By:	AWW

Section: Bar Bending Schedule
Location: Beams A, B, C, D to Raft
Beams E and Plinth

Member	Bar mark	Type and size	No. of mbrs	No. of bars in each	Total No.	Length of each bar † [mm]	Shape code	A* [mm]	B* [mm]	C* [mm]	D* [mm]	E/R* [mm]	Rev.	Weight [kg]
Beam A	1201	R12	1	13	13	2900	61	868	500					
A B C & D	1601	T16	4	8	32	5194	38	250	4750	250				
Beam B	1202	R12	1	13	13	2680	61	768	500					
Beam C	1203	R12	1	13	13	2480	61	668	500					
Beam D	1204	R12	1	13	13	2276	61	568	500					
Beam E	1602	T16	3	16	48	5100	34	4900	(200)					
Beam E	1205	R12	3	36	108	1525	38	550	500	(550)				
Plinth	1001	R10	1	78	78	1050	38	500	100					
Nib														
Plinth	1206	R12	Random Lengths				20	(4m	incl. 10%	for	laps			
Nib			(cut to suit on site)											
Plinth	1603	T16	1	90	90	4700	34	4500						
Plinth	1604	T16	1	72	72	5300	34	5000						

This schedule conforms to BS 8666:2005
Total weight on this page [kg] =
* Specified in multiples of 5mm
† Specified in multiples of 25mm

WARD MORGAN LTD
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SPECIFICATION FOR THE STRUCTURAL WORKS
for
THE TANK DISPLAY PLINTH
at
THE NATIONAL ARMY MUSEUM, CHELSEA

GENERAL

1) This project consists of the construction of a reinforced concrete plinth, clad with York Stone, situated in the forecourt paved area at the National Army Museum,Chelsea. The completed plinth is to display a 'Challenger Battle Tank', which is to be a 'Gateway' attraction to the museum.
2) The site is a generally flat, recently completed paved area in the forecourt of the Museum, and is close to the public entrance, which will require to be kept open during the works.
3) Noisy and dusty works are required to be kept to a minimum, and the cutting of the York Stone Paviours will require to be templated, and cut off site.
4) An area for the contractors compound will be agreed with the client prior to commencing the works, and this is provisionally indicated on the Architects Drawing.
5) Setting out will be in accordance with the Architects drawings.
6) The York Stone paving and cladding is to match the existing, and to be constructed and fixed in place in accordance with the Architects drawings and details and the specification.
7) The existing Granite planters, benches and the like are to be set aside for the clients decision on retention by the NAM. If required to be disposed of, this will be undertaken by the contractor at an agreed cost.
8) The York Stone Paviors that exist under the footprint of the plinth are to be carefully lifted to avoid damage, and are to be re-used to make good around the new plinth. Surplus whole pavings will be retained by the client, and all other debris and offcuts are to be disposed of by the contractor.
9) The highest standards of workmanship will be required, to match that of the existing recently completed works to the Museum and its surroundings.
10) The contractor is to have a competent resident foreman in charge of the works, who is experienced in the style and type of work, and the high standards of finishes required.

STRUCTURAL WORKS

11) Refer to Ward Morgan Ltd's drawings for the general arrangement of the reinforced concrete plinth. Drawings WM/31 1.01-1.04 and bar schedule BS-1 are relevant. Refer also to the architects drawings for general setting out and the Stone cladding specification and details.

12) The formation is to be excavated as shown on the drawings, and inspected by the engineer. Proof rolling using a Bomag or similar single drum pedestrian operated vibrating roller making at least three passes shall be used. The formation is to be blinded with a minimum of 100 mm Concrete Grade Gen1.The surface of the blinding shall be true and level, and have a wood float or equivalent finish.

13) Formwork shall be plywood faced, and robust in design to avoid any movement during concreting works. Refer in particular to the requirement for zero lateral tolerance and +or - 10 mm for the top (sloping) surface.

14) Reinforcement shall be wired tied to form a rigid cage, all in accordance with the details shown on the engineers drawings and schedules. Concrete spacers shall be used beneath the cage, and plastic type spacers used on the sides against the plywood shuttering.
The reinforcement shall be inspected by the engineer prior to concrete works commencing.

15) Concrete shall be ready mixed grade RC 40 designed mix, using OPC and a maximum aggregate size of 20 mm. It shall be pumped into place and mechanically vibrated to achieve full

and solid compaction.The sloping top surface shall first be be trowelled to achieve a smooth surface finish, then whilst still 'green,' have a light brush final finish to receive the subsequent York Stone paving bedding.

16) The finished surface shall be covered with polythene sheeting, and cured for at least 7 days before removal.The formwork shall be left in place for 7 days before removal.

YORK STONE CLADDING AND TOP SURFACE PAVING
This work shall be installed strictly in accordance with the drawings, specification, and illustrations shown on the architects drawings,

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November 2019
ref: AWW/ WM/31