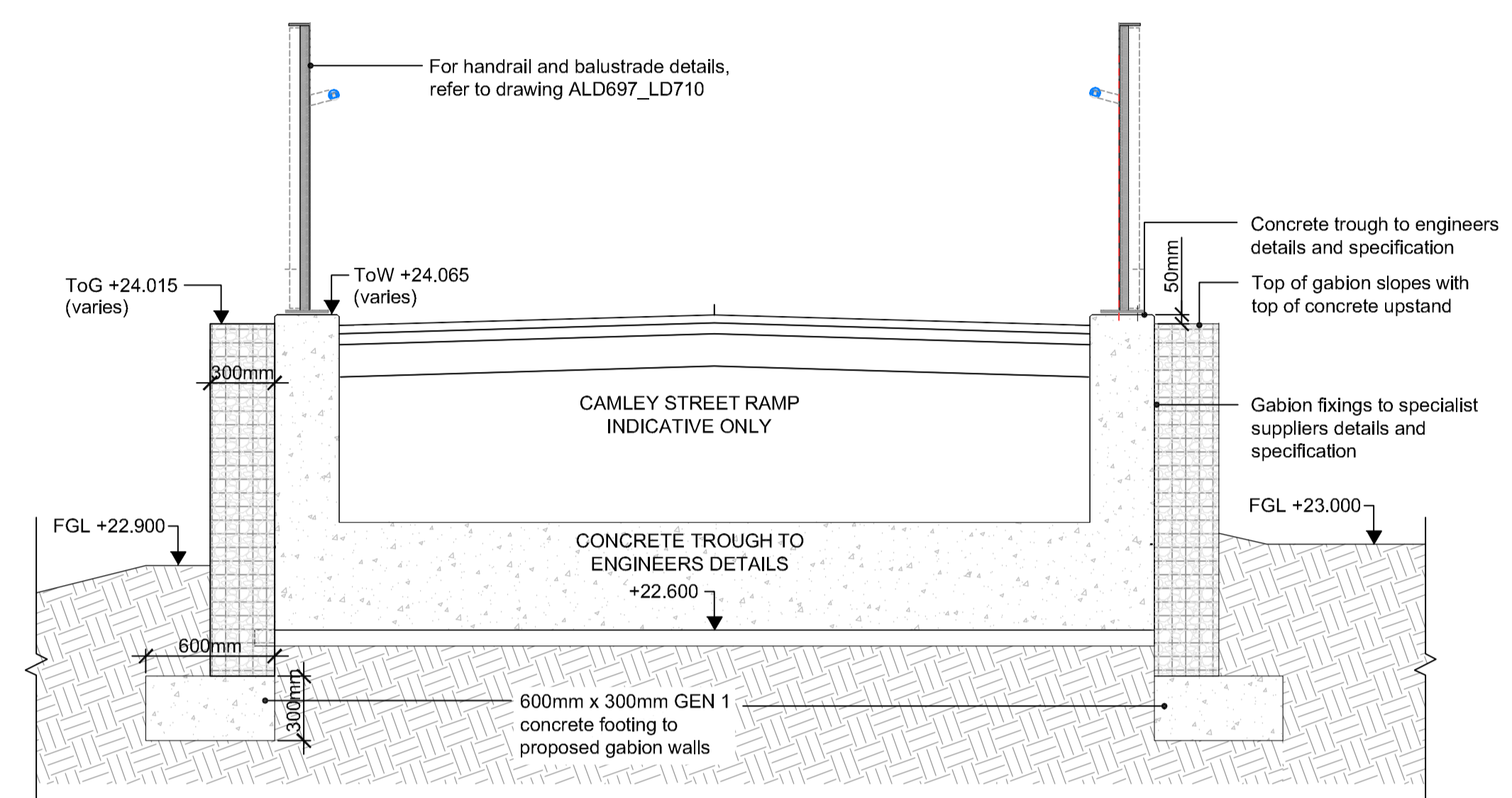
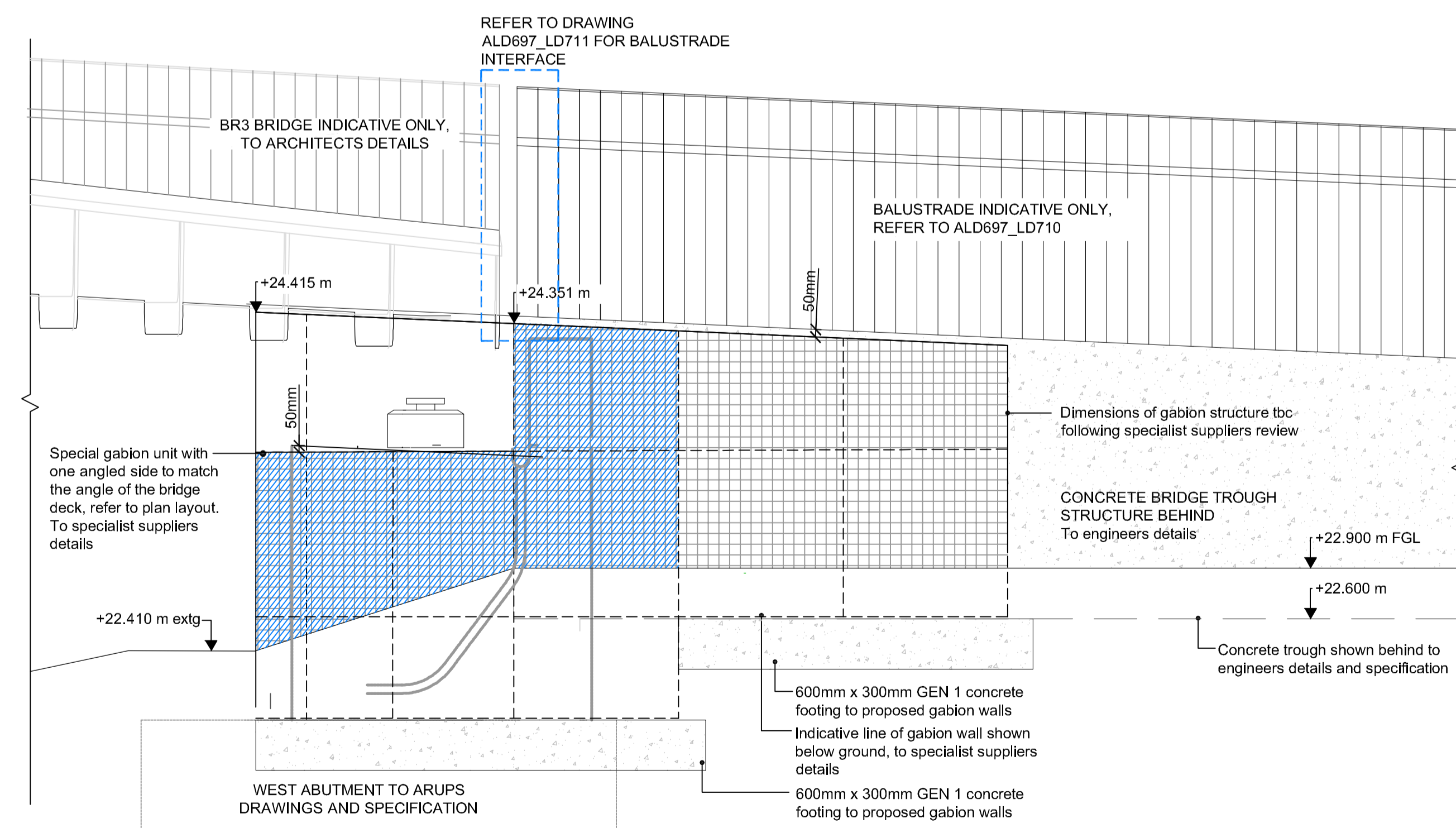


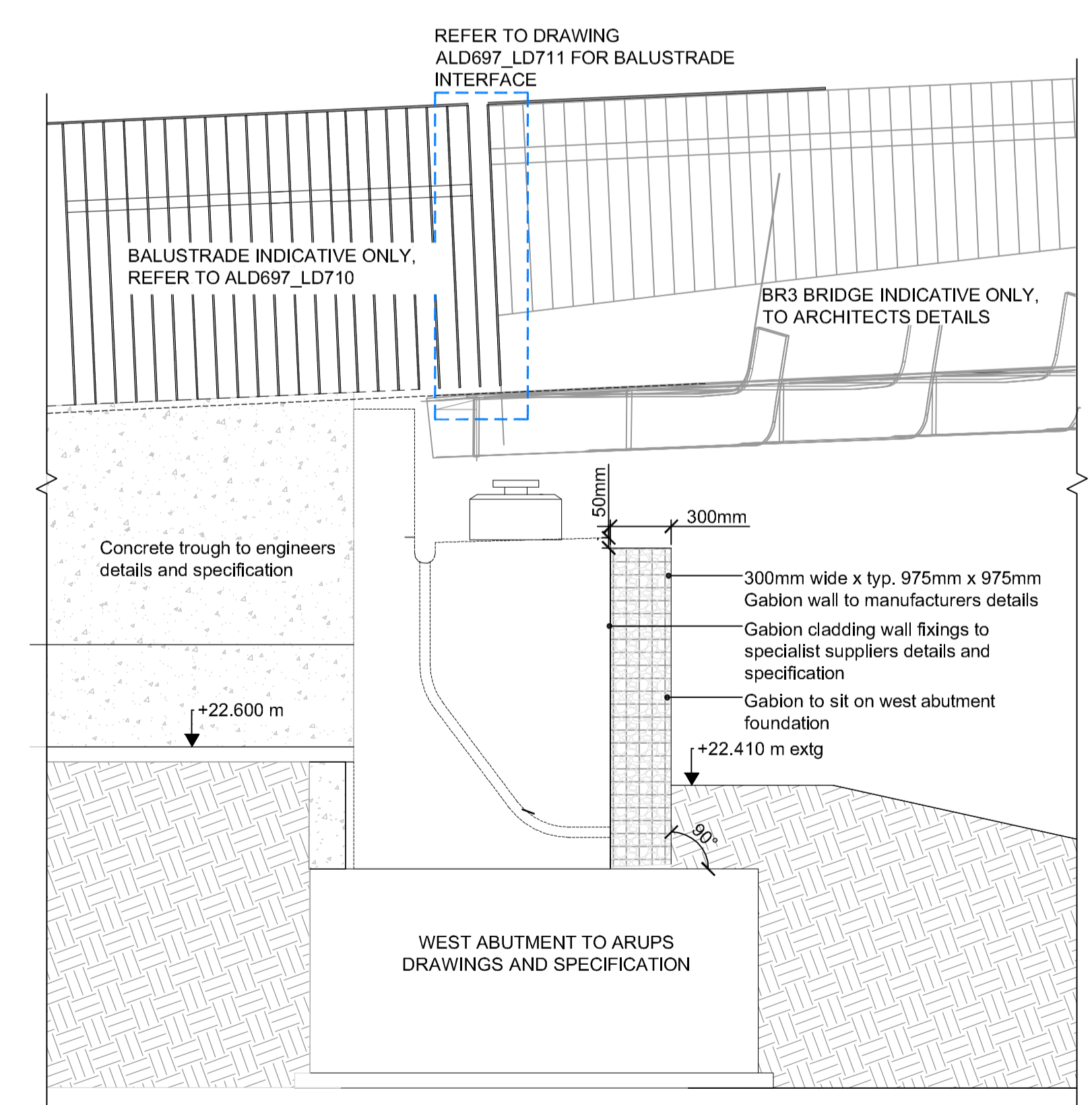
G03 SECTION ELEVATION SHOWING WEST ABUTMENT & GABION WALL
1:20 @ A1



G05 SECTION ELEVATION SHOWING WEST ABUTMENT & GABION WALL
1:20 @ A1



G04 ELEVATION SHOWING GABION WALL TO NORTH OF CAMLEY STREET RAMP
1:20 @ A1



G06 DETAILED SECTION THROUGH WEST ABUTMENT SHOWING GABION WALL
1:20 @ A1

- NOTE:**
- All gabion basket dimensions indicative only, to be confirmed / developed by specialist supplier
 - gabion baskets to be filled with Kent Ragstone as per enviromesh details
 - All levels to be reviewed on site once bridge structure and abutments are constructed, levels shown indicative only.
 - Soft landscape and earthworks details not shown for clarity
 - Balustrades shown indicative only, refer to ALD697_LD710 - LD711

All dimensions to be verified on site. Figured dimensions to take precedence to those scaled. Any areas indicated on this drawing are for guidance only, no responsibility is taken for their accuracy.
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CDM/H&S:
The works illustrated on this drawing have been reviewed against the Design CDM Risk Register and significant risks are noted as:
Construction:
• Handling heavy materials
• Working at height / risk of falls
• Working adjacent to canal
Maintenance:
• Working adjacent to canal
Demolition:

NOTES / KEY:
Drawing issued for Gabion wall specialist manufactures details and review only, all finished ground levels indicative and subject to further design development.
Gabion wall specialist supplier to provide specification and fabrication drawings

REFERENCE DRAWINGS/DOCUMENTS

ALD697_HL101	Hard Landscape Layout, Camley Street Ramp
ALD697_HL102	Hard Landscape Layout, Bridge Deck
ALD697_HL120	Fence and Enclosure Layout

REVISIONS

no.	issued	date
C01	First Issue for Construction	26.08.2016
P01	First Issue for comment / review	25.02.2016

CLIENT:

LANDSCAPE ARCHITECT:

The Threshing Barn
Bignell Park Barns
Cheshamilton, Nr. Bicester
Oxfordshire, OX26 1TD
Tel: 01865 249776
Email: mail@appliedlandscape.co.uk

PROJECT:
CAMLEY STREET BRIDGE
KINGS CROSS CENTRAL

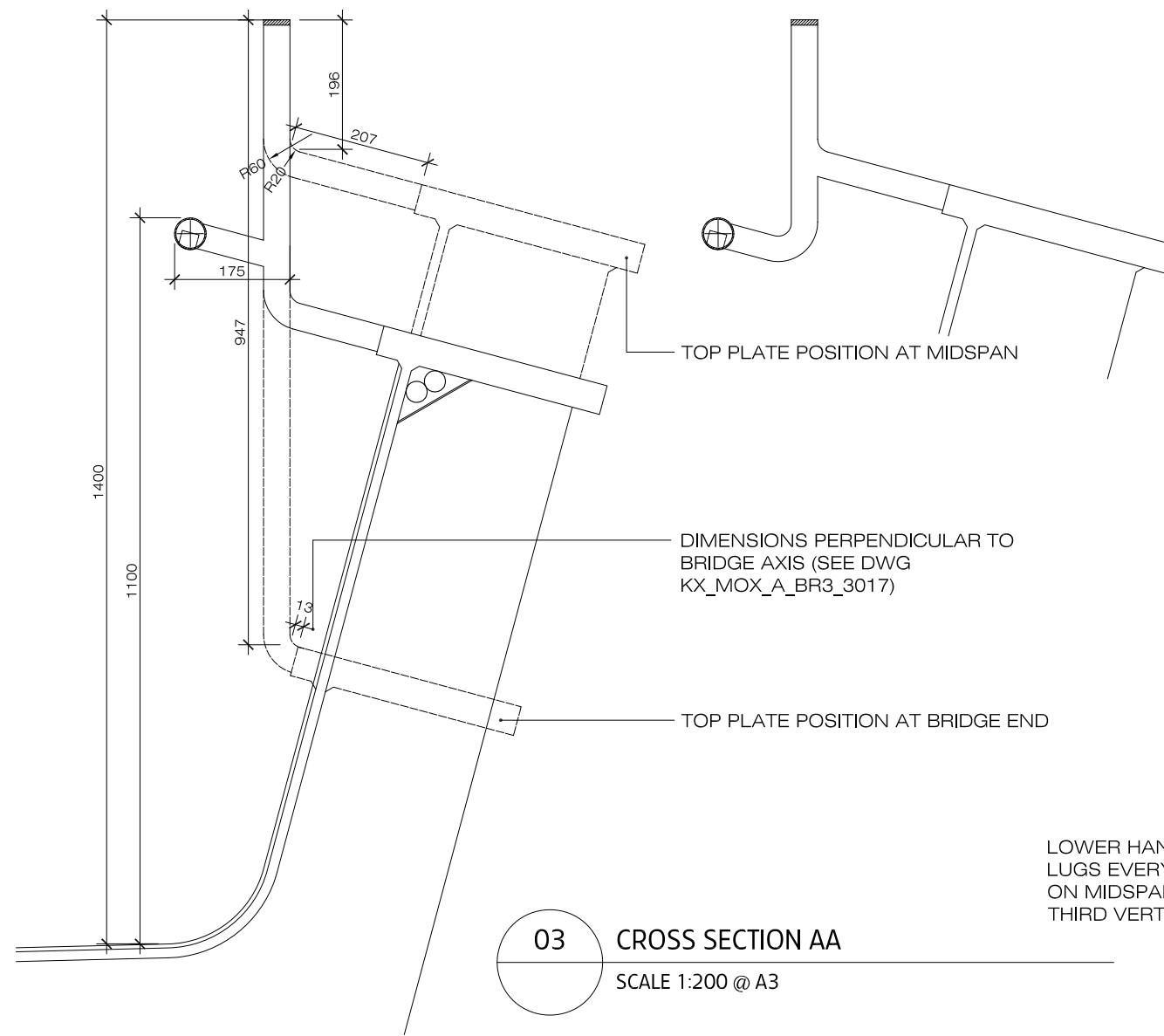
DRAWING TITLE:
WEST ABUTMENT GABION WALL
ELEVATIONS & SECTIONS

drawn: CW	scale: 1:20 @ A1
checked: KmJ	status: Construction
date: 15.11.2015	xref file ref: ALD697_LDbase
PROJECT NO. ALD697	DRAWING NUMBER: LD721
	REVISION: C01

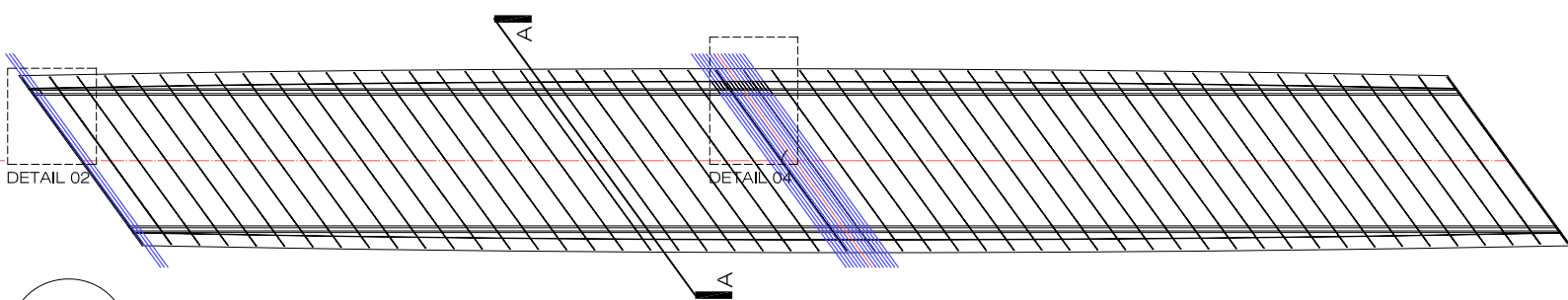
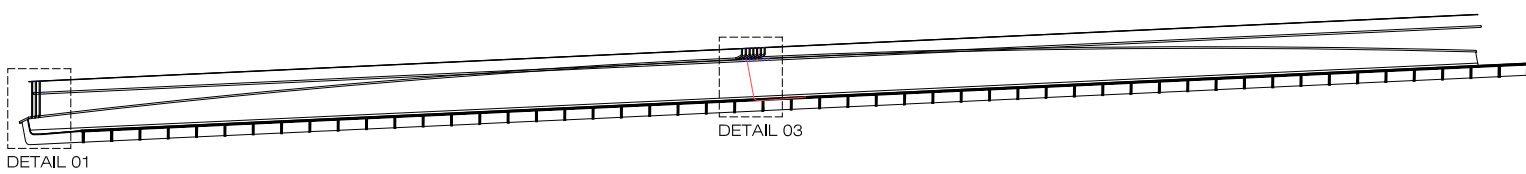
NOTES

Moxon Architects Limited

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Do not scale from this drawing: work from figured dimensions only.

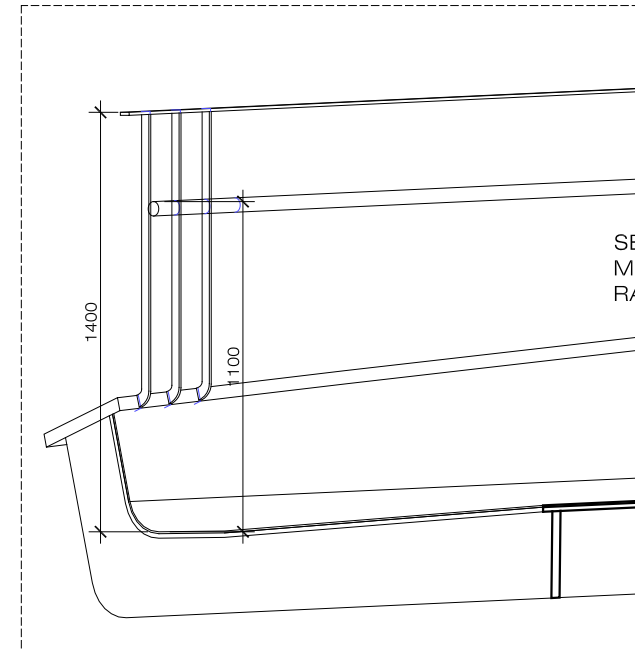


01 LONG SECTION THROUGH CENTRELINE
SCALE 1:200 @ A3

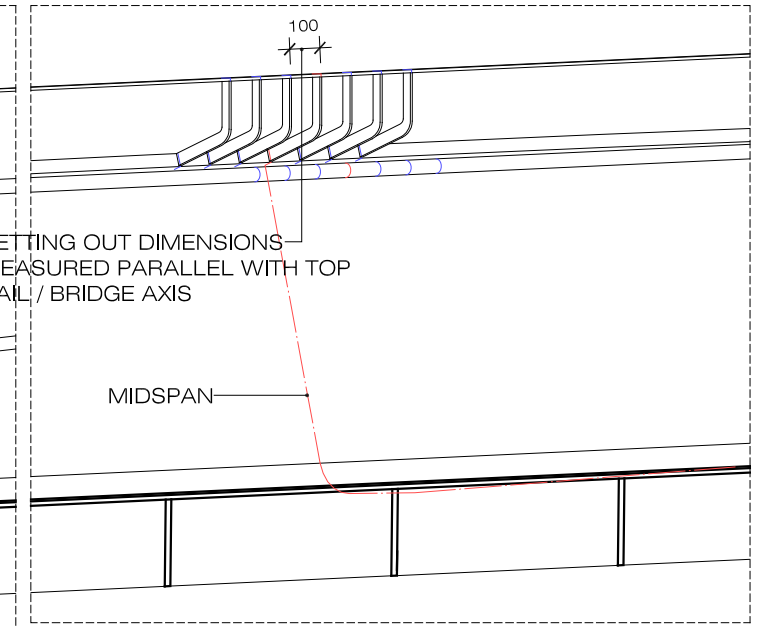


02 DECK PLAN
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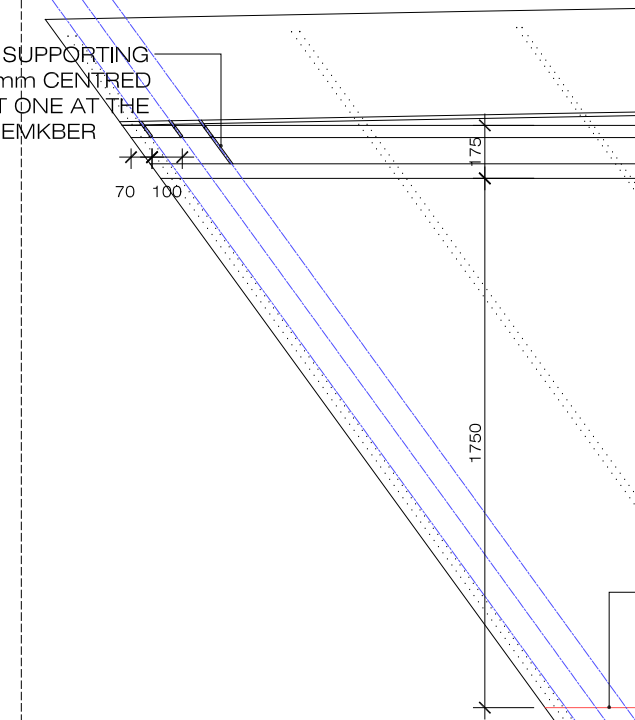
DETAIL 01
SCALE 1:25



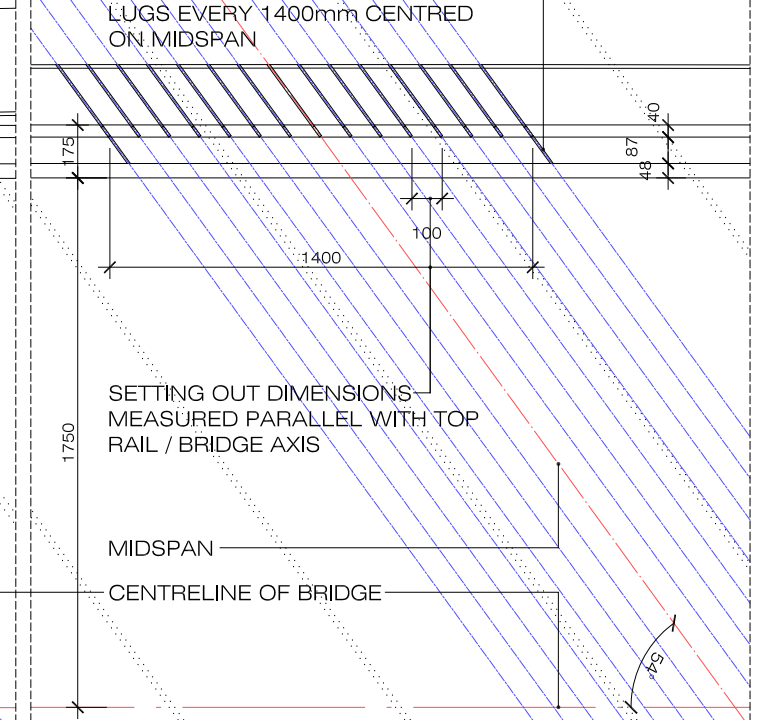
DETAIL 03
SCALE 1:25



DETAIL 02
SCALE 1:25



DETAIL 04
SCALE 1:25

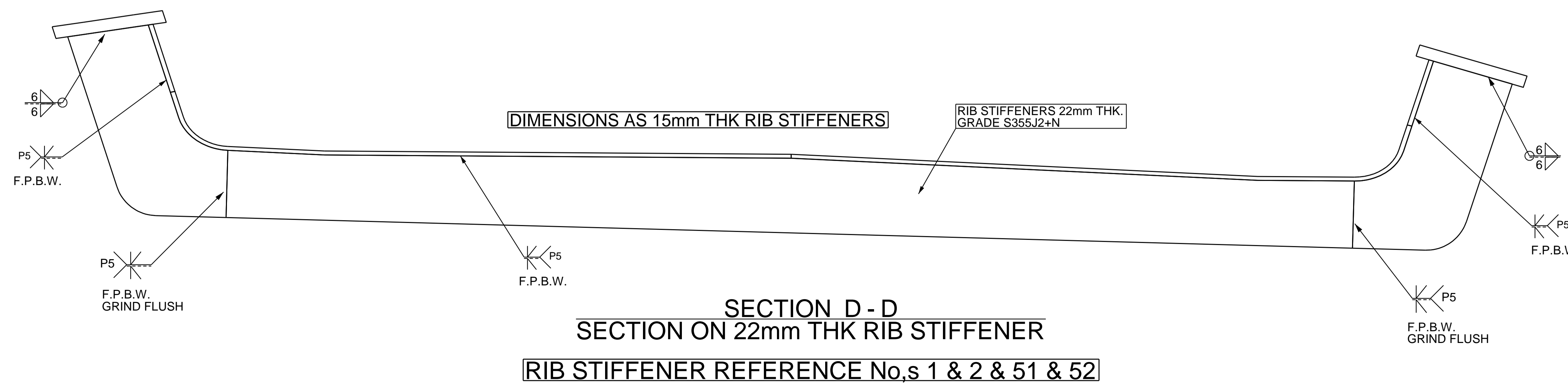
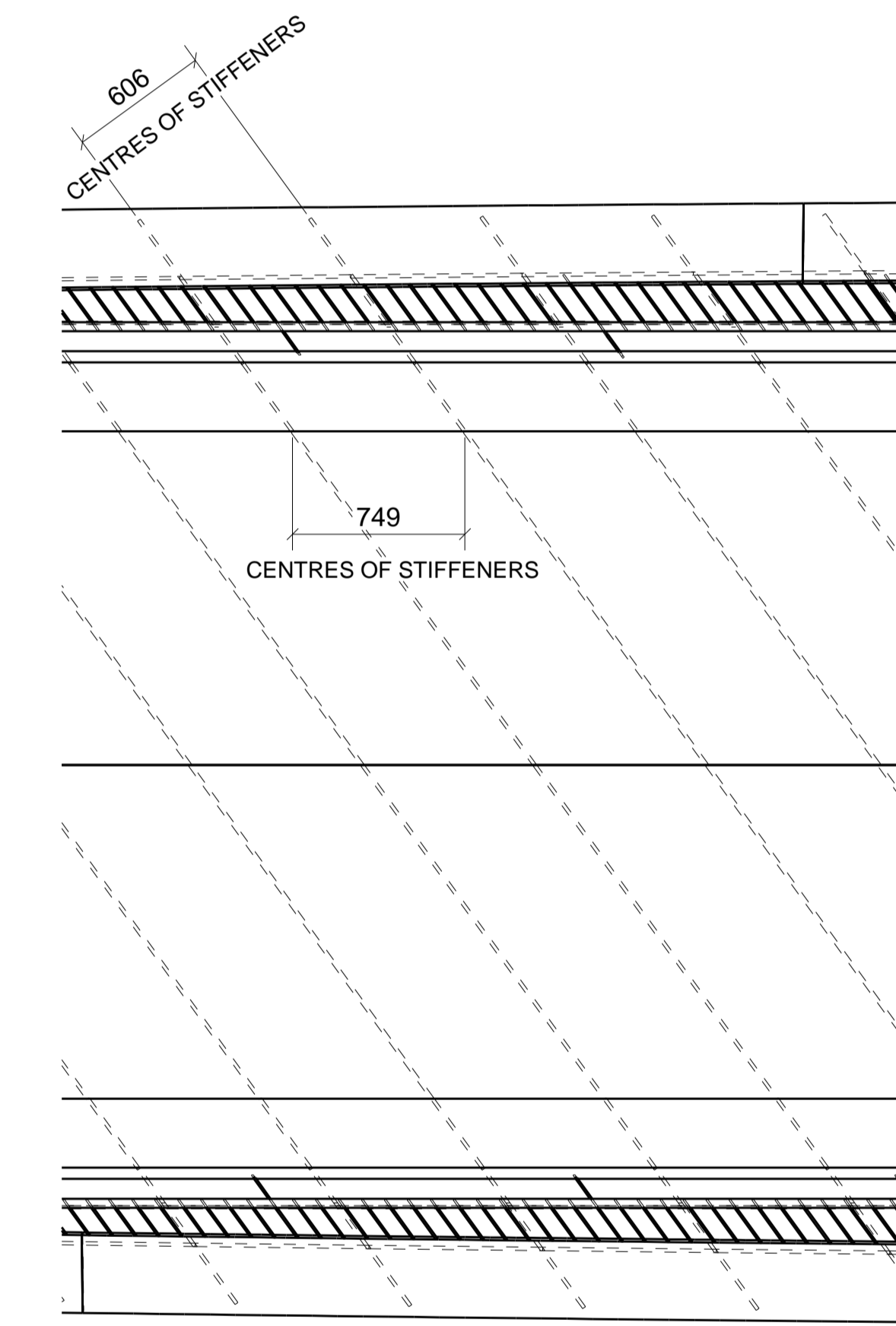
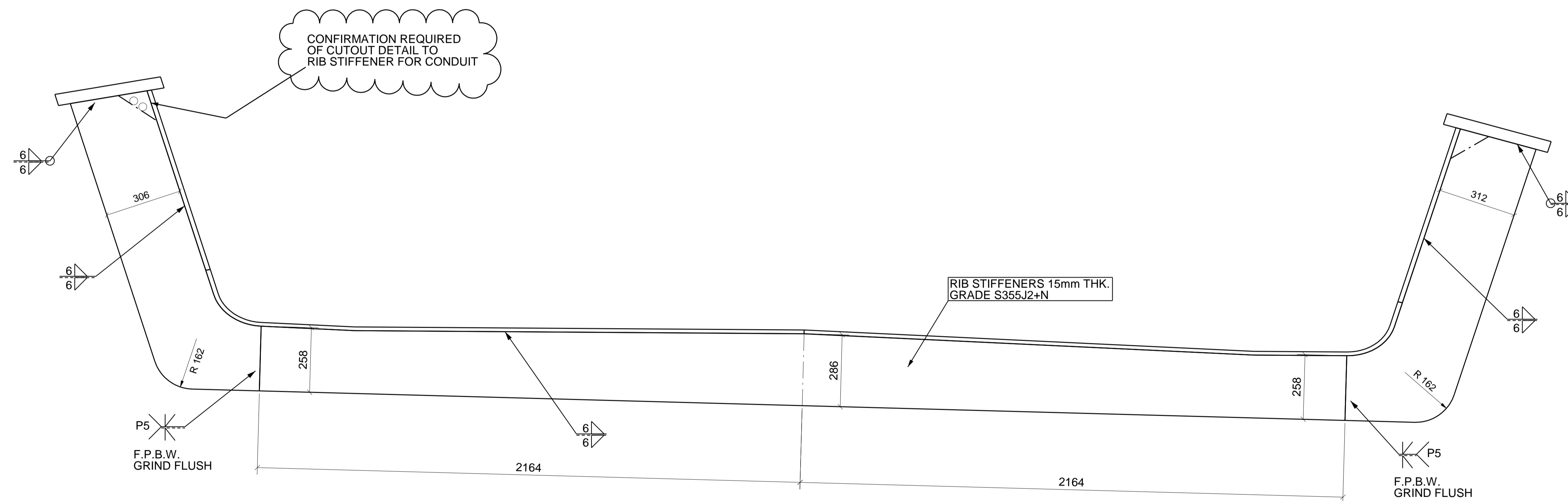
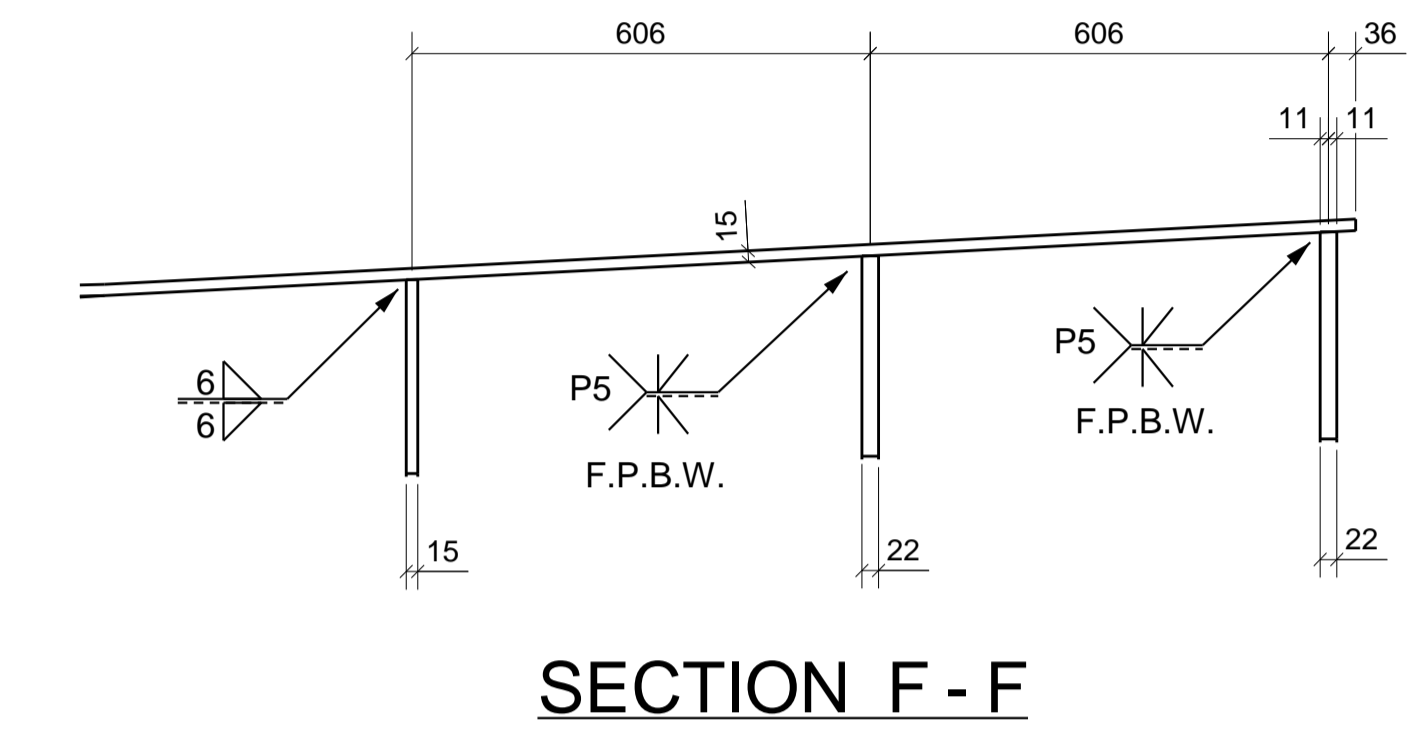
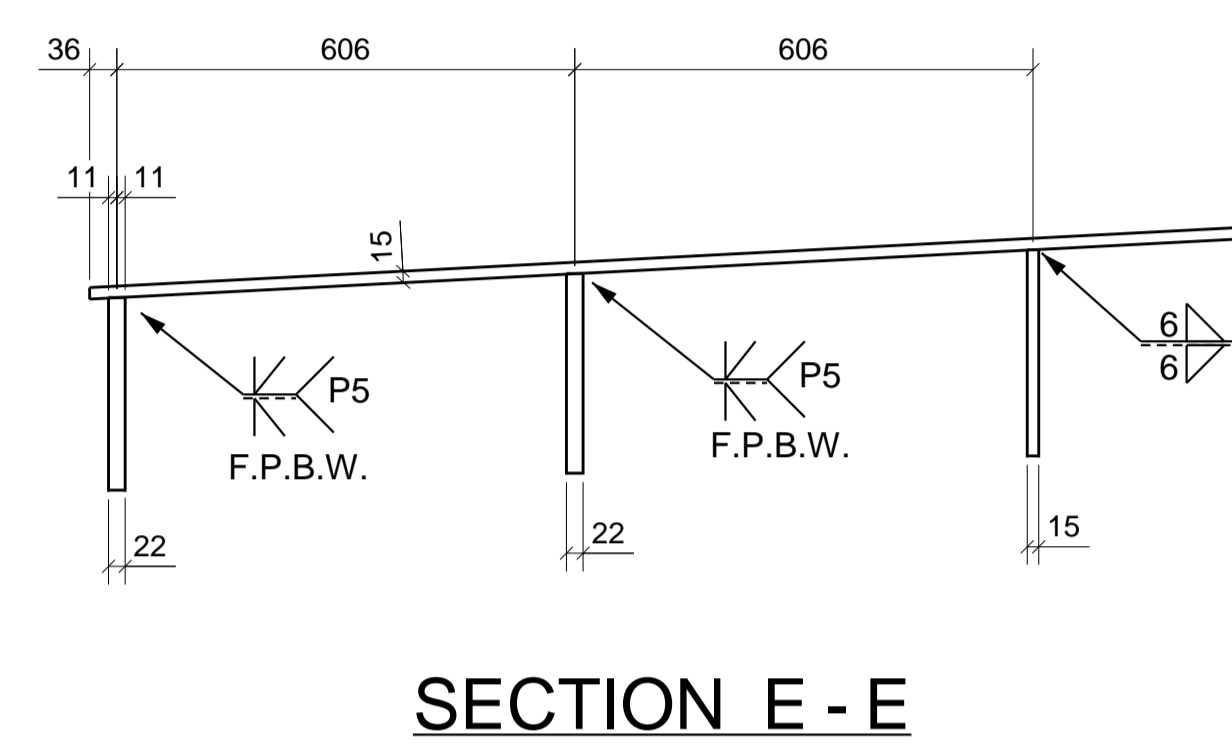
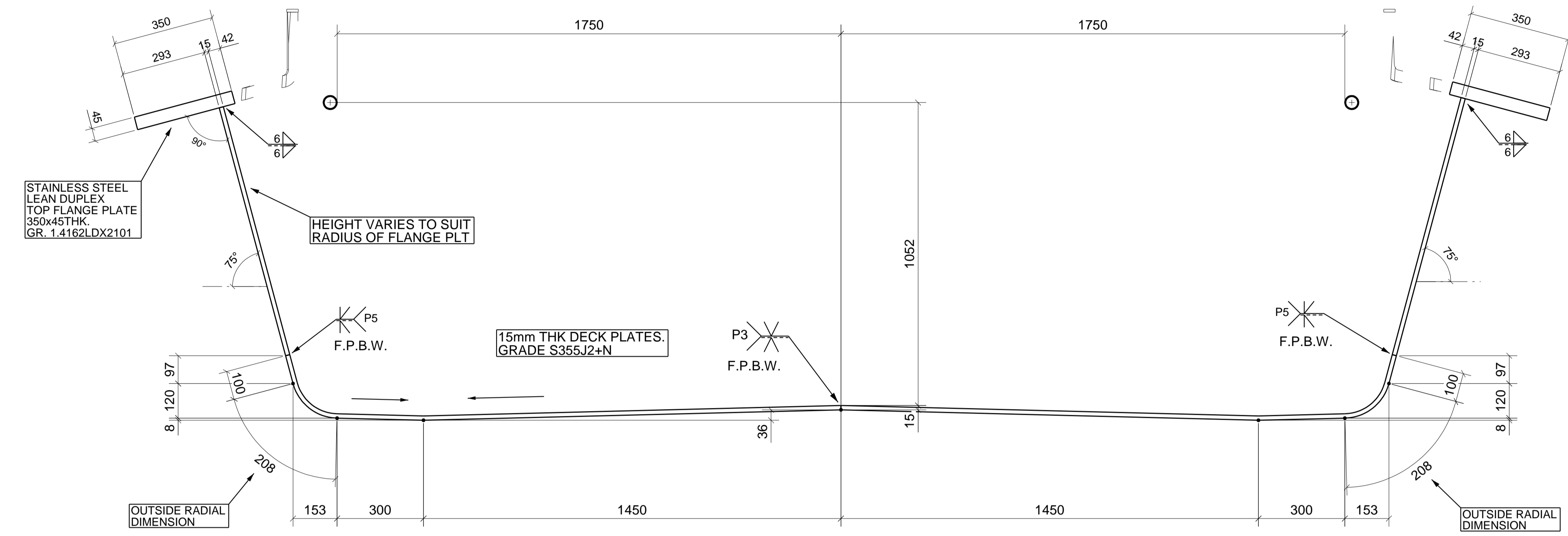
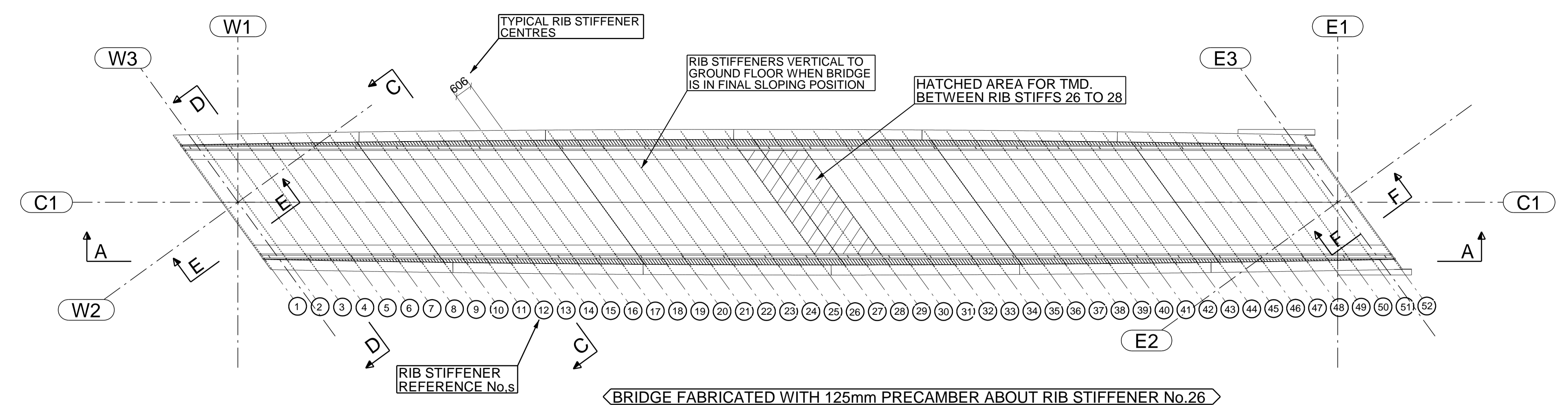
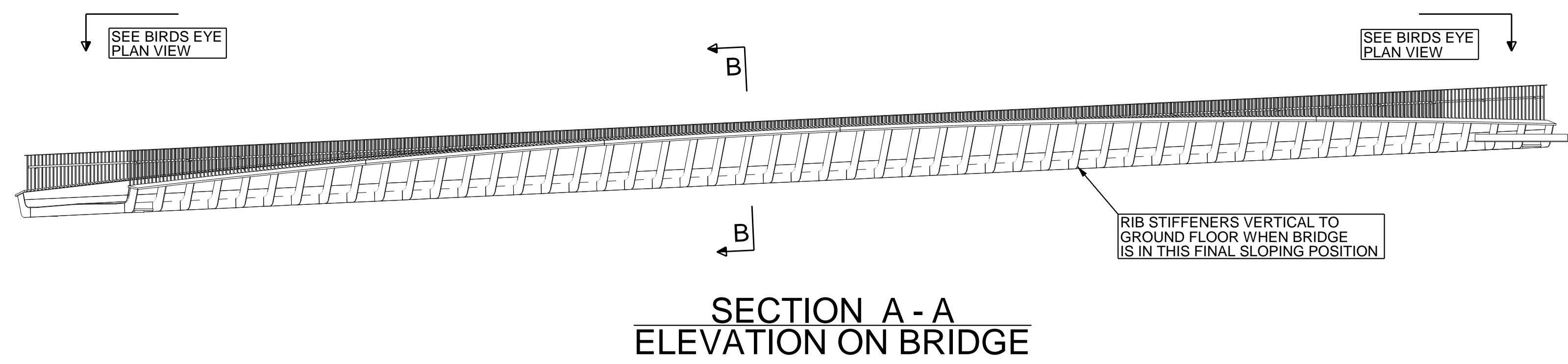


MOXON

LONDON
Great Western Studios, 65 Alfred Road, London W2 5EU
t: 0207 034 0088 | f: 0207 034 0099

SCOTLAND
Ardoch, Crathie, Aberdeenshire AB35 5UN
m: 0774 061 9198
mail@moxonarchitects.com | www.moxonarchitects.com

PROJECT TITLE		CAMLEY BRIDGE	
DRAWING TITLE		HANDRAIL SETTING OUT DETAILS FOR INFORMATION	
DRAWN		FILE	DATE
AH	545	28.04.16	
CHECKED	JOB NO.	SCALE	
BMA	545	1:25, 1:10 @ A3	
DWG NO.	KX_MOX_A_BR3_3016_A		



REV	DATE	BY	CHKD	04/10/2016	04/10/2016
A	FIRST ISSUE FOR APPROVAL	KH			
Moor Lane Trading Estate Sherburn-in-Elmet North Yorkshire, LS25 6ES Tel: 01977 681931 Fax: 01977 681930 E-mail: mail@shstructures.com Web: www.shstructures.com					
CLIENT: Carillion					
PROJECT: Camley Street Bridge					
DRAWING TITLE: Bridge Arrangement Sections					
DRAWN	KH	DATE	03-10-16	SCALE	
CHECKED		DATE			1:100@ A0
DRAWING No: 4686 \ G3				REV: A	
CLIENT DRAWING No: KXC-SHS-BR3-4686-G3					

- GENERAL NOTES**
1. ALL ROLLED STEEL SECTIONS TO BE BS EN 10025
 2. ALL HOLLOW SECTIONS TO BE TO BS EN 10210
 3. ALL OPEN ENDERS TO BE CONTINUOUSLY REAL WELDED UNDO
 4. ALL NOTCHES TO HAVE CORNER RADIUS
 5. ALL BURRS & SHARP EDGES ETC. TO BE REMOVED
 6. ALL BOLDS FOR RIBS BELTS MUST BE DRILLED NOT FRAMED
 7. CONTACT FACES FOR BEG CONNECTIONS TO BE FREE FROM PAINT OIL & GRASS. LOOSE BURST OR SCALE AND BURRS
 8. ALL LENGTHS ON THIS DRAWING ARE DEAD LENGTHING. NO ALLOWANCE HAS BEEN MADE FOR WELD SHRINKAGE OR SECTION QUALITY
 9. STRUCTURAL STEELWORK TO BE MANUFACTURED IN ACCORDANCE WITH THE CONTRACT SPEC.
 10. UNDO: ALL FILLET WELD SIZES REFER TO LEG LENGTH
 11. UNDO: ALL PIPES ARE TO BE FULLY PREPARED WITH A MINIMUM OF 30mm PREPARED LENGTH
 12. ALL FPSH IN HOLLOW SECTIONS AND PLATED BOX GRADERS ARE TO BE BONDING PLATE
 13. UNDO: ALL STEELWORK COMPONENTS FABRICATED TO - EXCS

APPENDIX 2 - CCTV MAST

LIGHT DUTY

The path to safe, easy long-life maintenance

When it comes to manufacturing and supplying base hinged columns, Abacus Lighting is the world leader.

Our base hinged column has a proven track record of being safe and easy to maintain over a long time period. It was developed in response to a demand from the railway industry for a 5m column that could be maintained without a ladder, and is now installed worldwide in a multitude of business sectors.

Multiple applications

Because of the range's many practical advantages, it can be installed across a broad sweep of business sectors.

Health & safety

Safe, easy maintenance of lighting points is a key consideration for many companies. And the Abacus base hinged column is the ideal solution for locations that are often difficult or impossible to reach by more traditional means.

Simplicity of use

Ease of use is a big benefit of the Abacus base hinged column; the spring counterbalance unit means the column can be lowered for maintenance in less than one minute, in total safety.

Simplicity of engineering

Thanks to their robust design and longevity, our base hinged columns can be installed in all types of locations exposed to public traffic that can be difficult to reach.



LIGHT DUTY BASE HINGED COLUMNS & THE RAILWAY

The base hinged column is now a standard on international railway platforms. Its popularity is all down to quick, safe and easy operation, together with long term durability, often in harsh environments.



Flush Door Innovation

There's the choice of a flush door in the base of light and medium duty columns, giving easy access to any equipment in the column.

The flush door enables a locking device in the base of the column; as a result, the standard locking screw on the side of the column is not required.



Aluminium Model

The light duty column is also available in aluminium, with a bead blasted finish for an attractive contemporary look. The aluminium model has the advantage of being both lightweight and durable and offers the same ease of use as the standard base hinged column.

For more information see page 10.



AMENITY LIGHTING APPLICATIONS

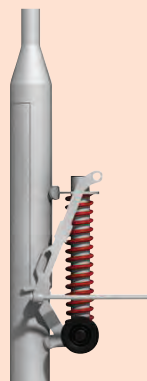
Ideally suited to often difficult access locations such as:

- Pathways
- Public parks
- Car parks
- Industrial areas

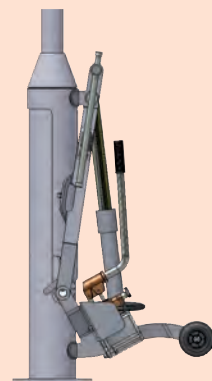


Counterbalance Units - RLS168 / RLH168

The column is lowered by means of a spring counterbalance unit, RLS168 (see right), available in a range of strengths based on column height and headload, or with a universal hydraulic unit, the RLH168 (see page 12 for full details).



RLS168



RLH168

To see the base hinged columns in operation visit our YouTube channel
www.youtube.com/AbacusLighting



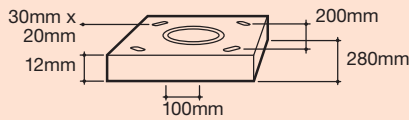
LIGHT DUTY

4-8M BASE HINGED COLUMN Patent No: 968113

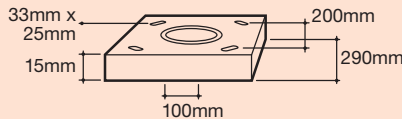
Designed to EN40. Hot dip galvanised to BS EN ISO 1461:2009. Manufactured in steel tube to EN10210

Flange Plate

Type 0 FA000G Bolts/cross brace M16 x 500mm
FC020 Template



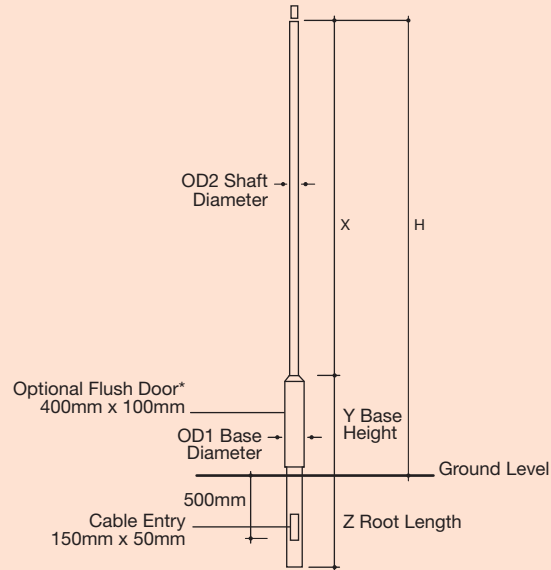
Type 1 FA001G Bolts/cross brace M20 x 500mm
FC021 Template



Accessories

- XXSC003F** Tamper resistant locking screw
- XXSC003F** Key for locking screw
- ELSAB1/6A** Single fuse cut-out, 6A, loop in/out (not fitted)
- ELSAB12/6A** Twin fuse cut-out, 6A, loop in/out (not fitted)

Column Dimensions



***Flush Door Option**
Flush door enables internal locking mechanism. Side fitted locking screw not required on this model. Add /FD suffix.



Root Mounted

Product Code	Dimensions (mm)						Weight (kg)	OTM (kNm)	Shear (kN)	Min. Concrete Diameter*	Counterbalance Type & Max. Weight
	Height	OD1	OD2	x	y	z					
T041RLS	4m	168	76	2875	1050	800	50	4.9	1.4	1389	RLS168 - Yellow 18kg RLS168 - White 28kg RLS168 - Red 38kg RLS168 - Blue 53kg RLH168 - 53kg
T051RLS	5m	168	76	3875	1050	800	59	4.7	1.2	569	RLS168 - Yellow 11kg RLS168 - White 19kg RLS168 - Red 28kg RLS168 - Blue 40kg RLH168 - 40kg
T061RLS	6m	168	76	4860	1050	1000	67	4.6	1.1	291	RLS168 - White 11kg RLS168 - Red 19kg RLS168 - Blue 29kg RLH168 - 29kg
T081RLS	8m	168	89	6830	1050	1200	87	5.3	1.2	198	RLS168 - Blue 11kg RLS168 - Green 17kg RLH168 - 17kg

*Root concrete diameter based on poor soil or better, min. 230kN/m² per m

Flange Plate Mounted

Product Code	Dimensions (mm)					Flange Plate	Weight (kg)	OTM (kNm)	Shear (kN)	Concrete Dimension*	Counterbalance Type & Max. Weight
	Height	OD1	OD2	x	y						
T041RLS /FP	4m	168	76	2875	1050	Type 0	47	4.9	1.4	750 x 800	RLS168 - Yellow 18kg RLS168 - White 28kg RLS168 - Red 38kg RLS168 - Blue 53kg RLH168 - 53kg
T051RLS /FP	5m	168	76	3875	1050	Type 0	52	4.7	1.2	750 x 800	RLS168 - Yellow 11kg RLS168 - White 19kg RLS168 - Red 28kg RLS168 - Blue 40kg RLH168 - 40kg
T061RLS /FP	6m	168	76	4860	1050	Type 0	57	4.6	1.1	750 x 800	RLS168 - White 11kg RLS168 - Red 19kg RLS168 - Blue 29kg RLH168 - 29kg
T081RLS /FP	8m	168	89	6830	1050	Type 1	72	5.3	1.2	750 x 900	RLS168 - Blue 11kg RLS168 - Green 17kg RLH168 - 17kg

*Concrete dimension based on a minimum ground bearing pressure of 150kN/m² (Passive concrete design). (S = square dimension, H = depth)

Outreach & Floodlight Brackets

Height	Projection Length	Outreach Brackets		Spigot Lengths /SP 230mm /SP1 100mm	Floodlight Brackets	
		Single (S)	Double (D)		Overlap Fit on Shaft	Flush Fit on Spigot
4m		T041RLS	T041RLS/SP+/SP1*		T041RLS	T041RLS/SP
	0.30m	PR2-03/S or /D	PR1-03/S or /D*	Single	FL1/1	FL0/1
	0.50m	PR2-05/S or /D	PR1-05/S or /D*	Double (600)	FL1/2	FL0/2
5m		T051RLS	T051RLS/SP+/SP1*		T051RLS	T051RLS/SP
	0.30m	PR2-03/S or /D	PR1-03/S or /D*	Single	FL1/1	FL0/1
	0.50m	PR2-05/S or /D	PR1-05/S or /D*	Double (600)	FL1/2	FL0/2
6m		T061RLS	T061RLS/SP+/SP1*		T061RLS	T061RLS/SP
	0.30m	PR2-03/S or /D	PR1-03/S or /D*	Single	FL1/1	FL0/1
	0.50m	PR2-05/S or /D	PR1-05/S or /D*	Double (800)	FL1/3	FL0/3
8m		Post top lanterns only			T081RLS	T081RLS/SP
				Single	FL2/1	FL1/1
				Double (800)	Post top floodlight only	

*Outreach brackets series PR1 & PR2 below 0.50m projection fit onto 100mm spigot (/SP1), 0.50m + on standard 230mm spigot (/SP). Please refer to pages 35-37.

Column Headload Capacity (m²)

Based on UK rationalised wind loading factors for EN40

Product Code	Lantern Mounting/ Projection	Max. Headload (kg)	Light 396	Medium 429	Heavy 466	Very Heavy 576
T041RLS	Post Top	53	1.161	1.062	0.969	0.763
	0.25m Single Outreach	15	0.305	0.279	0.254	0.2
	0.50m Single Outreach	10	0.225	0.206	0.187	0.145
T051RLS	Post Top	38	0.787	0.714	0.645	0.493
	0.25m Single Outreach	15	0.25	0.227	0.205	0.157
	0.50m Single Outreach	10	0.257	0.233	0.211	0.162
T061RLS	Post Top	28	0.543	0.485	0.43	0.312
	0.25m Single Outreach	10	0.204	0.183	0.163	0.12
	0.50m Single Outreach	10	0.147	0.131	0.116	0.083
T081RLS	Post Top	17	0.16	0.133	0.109	0.06
	0.25m Single Outreach	8	0.06	0.05	-	-


For complete information on foundation options please refer to www.abacuslighting.com/base-hinged-fixed-columns.asp

APPENDIX 3 - LIGHTING

Camley Street Bridge – BR3

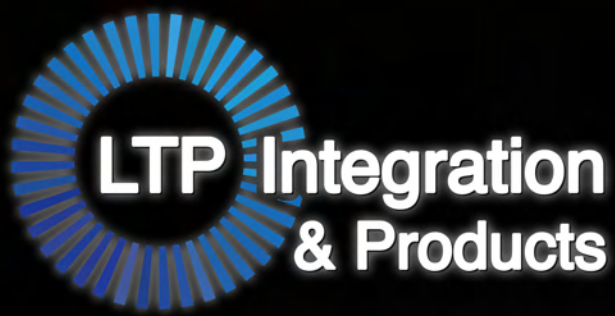


Luminaire Schedule

	Description	Manufacturer / Product	Area	Photo
FOR HANDRAIL LIGHTING REFER TO SEPERATE DATA SHEET				
B	Bollard LED Luminaire – IP 54	TOPA 100	Camley Street Road entrance	

Notes:

- 1) All luminaires shall be equipped with high frequency dimmable DALI control gear compatible with lighting control system unless noted otherwise.



PictorLED



PictorLED - Crafted Handrail Lighting System

A beautiful 316 marine grade stainless steel illuminated handrail solution for the modern urban environment

- Key Attributes -

PictorLED

- Marine Grade Alluminium Construction
- AA25 Anodized Finish
- Range of colour finishes
- Extruded Polycarbonate Lens Cover
- Colour Temperature: 3000K, 4000K, 5000K, RGBW and RGBWe (includes Emergency Element)
- Dimmable via 1-10, Dali, DMX or TE
- Proximity activation
- Light sensor control
- Unique Galvanic Isolation Design

PictorRAIL

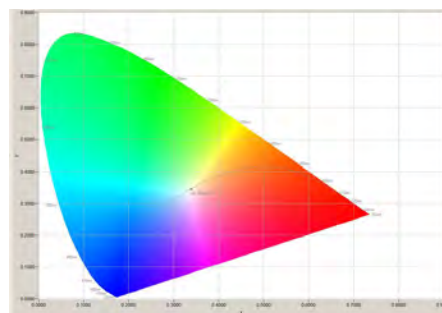
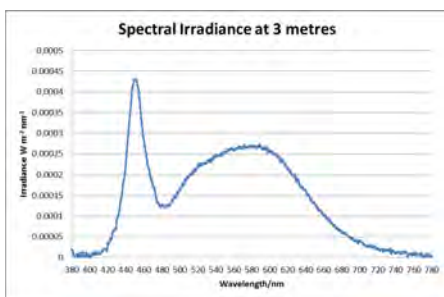
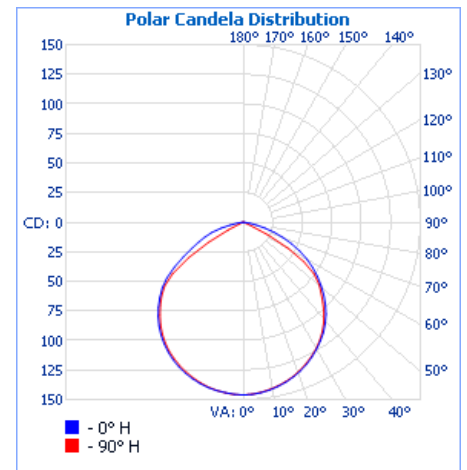
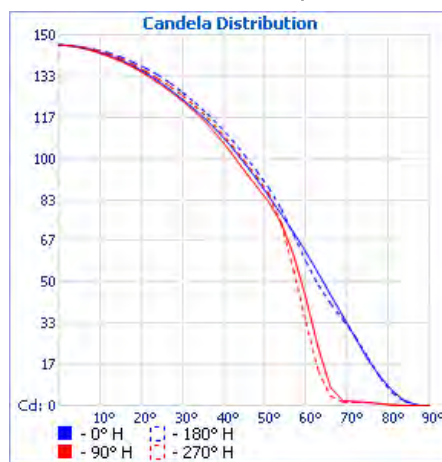
- Modular Simple Installation
- Fully Bespoke Options
- Marine Grade 316 Stainless Steel Construction
- GRP Moulded Option
- Warm To Touch finish, Galvanized Steel Tube Option
- With or Without LED
- Wide Variety of Fixing Solutions

PRODUCT: Pictor 4 Handrail Luminaire

Version	Pictor 4 DDA4Z	Voltage of luminaire	24VDC +/-10%
IP Rating	67	Luminaire power (Watts)	3.8
LED Type	Osram 5630	Array	Linear series
Efficacy	79Lm/Watt	Operating Temperature	-20 to +35 centigrade
Mechanical	160 x 30 x 25mm	Shipping weight	600 grammes



Photometric Report



Illuminance at a Distance

	Center Beam LUX	Beam Width	
1.0M	145.98 LUX	2.9 M	2.7 M
2.0M	36.49 LUX	5.9 M	5.5 M
3.0M	16.22 LUX	8.8 M	8.2 M
4.0M	9.12 LUX	11.8 M	11.0 M
5.0M	5.84 LUX	14.7 M	13.7 M
6.0M	4.05 LUX	17.7 M	16.5 M

■ Vert. Spread: 111.7°
 ■ Horiz. Spread: 107.9°

Figure 5: Cone diagram for mounting height of 6 metres

Photometric and Optical Testing Services Report POT5/DC15133

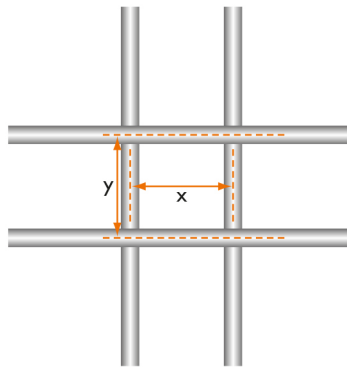


APPENDIX 4 - GABION



Gabion Design Specification : Bi-Axial Welded Mesh

GABION ENV-P38 (Polymer Powder Coated Grey)



SPECIFIED MESH BI-AXIAL WELDED

Nominal dimensions (x) and (y) : Gabions, 75mm Mattresses, 75mm

Gabions are to be manufactured and / or supplied by:

Enviromesh, Garner Street Business Park, Etruria, Stoke-on-Trent, Staffordshire, ST4 7BH.

Telephone +44 (0)845 136 0101 Fax +44 (0)845 136 0202 Email: enquiries@enviromeshgabions.co.uk Online: www.enviromeshgabions.co.uk

The certification, materials, manufacture, assembly and installation of the above-mentioned product shall comply with all of the following criteria:

Certification

1. All gabion materials and accessories must be certified in accordance with **British Board of Agrément (BBA)** certificate no. 05/4215. This is for current General Building Regulations.
2. All gabion products are manufactured in accordance with the requirements of BS EN 10223-8:2013 where the gabions are considered to have a life expectancy of **120 years**.
3. Evidence of current BBA certification and relevant certificates of conformity with respect to wire strength, weld strength and coating weights used in the manufacture of the mesh fabric and wire products are to be issued upon request.

Materials

The wire used in the manufacture of the gabions and installation accessories shall comply with the following:

Mesh Fabric

The mesh fabric shall be formed by electrically welding at each and every intersection, hard drawn steel line and cross wires into a dimensionally stable bi-axial square metric mesh of size **75mm x 75mm**.



The weld strength shall be **75%** of the minimum ultimate tensile strength of the wire.

The nominal wire diameter for the mesh fabric shall be **3.80mm** for the base, front, rear, end, diaphragm panels and lid, all within the tolerances specified in BS EN 10218-2:2012 and shall have a tensile strength that falls within a range of **540-770 N/mm²**.

Lacing Wire

The lacing wire used for site assembly shall be of a nominal **2.2mm** wire diameter in accordance with BS EN 10218-2:2012 and shall have a tensile strength that falls within a range of **350 to 550 N/mm²**.

Corrosion Resistance

All wire used in the mesh fabric or accessories shall be Zinc coated in accordance with BS EN 10244-2:2009 (Class A). An additional nominal thickness is applied of **0.25mm** organic polymer powder coating (grey) for the mesh fabric and a nominal **0.5mm** organic polymer powder coating (grey) for the lacing wire. This coating being in accordance with BS EN 10245-1:2011 and BS EN 10245-2:2011

Manufacture

Unit Formation

The gabion is to be formed from mesh panels such that the front, rear, ends and diaphragm panels are connected to the base panel with either **Stainless Steel CL35 clips** or **Stainless Steel CL50 'C' rings** at a maximum spacing of 225mm for all joints. This process must be undertaken in a factory-controlled environment. The lid may be supplied loose or fixed in the same manner to the rear or face panel. Diaphragm (partitioning panels) spacings should not exceed 1.050m on units oriented as stretchers and 1.65m oriented as headers.

Should units be required to be prefilled and lifted as opposed to filling in situ, additional clips, rings and mesh panels may be required. In such circumstances the manufacturer must be consulted prior to supply to ensure product is suitable for application.

Gabion Sizes

It should be noted that it is industry standard for gabions to be quoted as overall nominal sizes. The actual gabion sizing is dependant upon the physical mesh configuration.

Clarification should always be sought from the manufacturer in relation to gabion sizing.

Designation of sizes **length x width x height**

Gabion standard unit lengths: 975mm or 2025mm

Gabion standard unit widths: 450mm, 675mm, 975mm, 1350mm, 1500mm or 1650mm

Gabion standard unit heights: 300mm, 450mm or 975mm



Non-standard sizes available in multiples of 75mm on request.

Assembly and Installation

Note Please also refer to manufacturer's installation instructions, which are available upon request in either electronic or hard copy format.

Jointing

Gabions are supplied with lacing wire as standard for horizontal and vertical jointing of adjacent units whilst empty. Lacing is to be continuous along all joints using alternate single and double loops at a maximum spacing of 100mm ensuring that it forms a tight joint. Start or termination of lacing is formed by three turns ensuring the free end is turned into the unit.

If CL50 'C' rings are to be used for final jointing as an alternative to lacing then these must be installed at every other mesh opening to achieve the required joint strength.

Internal Bracing

Internal bracing is formed by creating a continuous windlass tie between the face and rear of the exposed cells within the structure.

For 1m high units, two internal windlass bracings are required at third widths and at each third height of the gabion.

In all cases the windlass tie is to span two or three mesh openings on the front and rear cells to spread the load. The exposed end gabions to the wall should also be braced in both directions to prevent end face deformation.

The same is required to the rear cell of each course (rear panel to side panels).

Geotextile Separators

Where a geotextile separator between the rear of the gabion and backfill is to be used, refer to the engineer's design proposal and specification.

Foundations

Reference to the engineer's design proposal must be made with respect to foundation requirement, wall inclination, face configuration (stepped, flush or combination thereof), drainage and backfilling requirements. Any soft areas in the sub grade should be excavated and replaced with a granular material to the engineer's requirements.

Filling

Units are to be filled with a hard, durable, non-frost susceptible rock, stone or clean crushed concrete as specified by design. The grading of the fill is to be 100 to 150mm or 100 to 200mm (6G). Where dual fills of the same grading are specified a separation panel is optional. Where the secondary fill grading is less than the mesh aperture size, it is necessary for the fills to be separated using pre-cut correx panels or geo-textile that is



inserted into the gabion on site. If this is the case then this will require the fitting of an additional longitudinal diaphragm set back from the face. In such instances it is important to refer to the engineer's design proposal with respect to additional drainage that may be required. It is also important to note that cohesive fills are not to be used as a secondary fill within gabions.

The units shall be filled in layers not exceeding 340mm, if large voids are present then the stone must be re-orientated to minimise voids. Where specified the gabions are to have a hand placed front face.

The units shall be filled such that the mesh lid bears down onto the gabion filling material. It may be beneficial to blind the top of the filled unit with a 20 to 50mm aggregate.

Filling should be staged so that no adjacent cells have more than a half difference in the level of filling for units of greater height than 500mm.

To assist in maintaining face alignment and reduce deformation, the use of external formwork i.e. timber or scaffold tubes can be tied onto the external face of the structure at third heights and then removed upon completion.