

**INSTALLATION NOTES:**

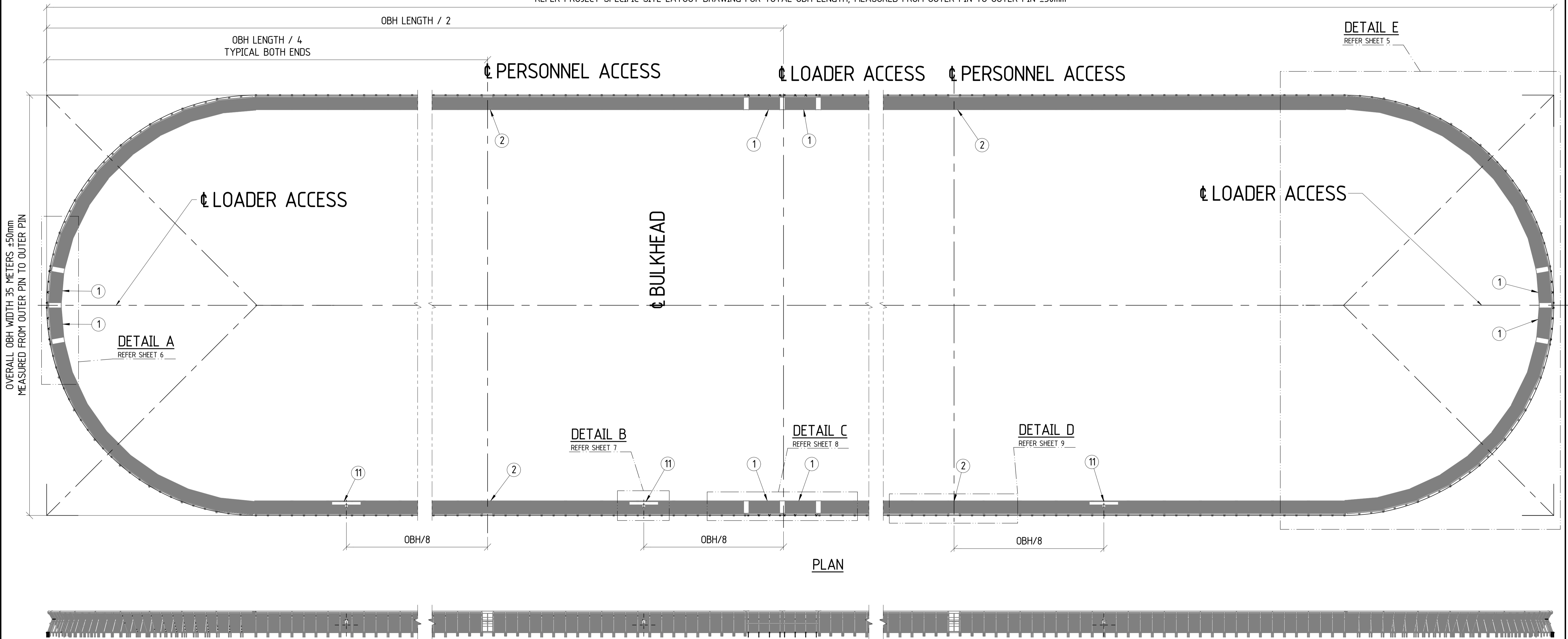
- OBH LENGTH AND WIDTH DIMENSIONS ARE SPECIFIED FROM REAR PIN TO THE OPPOSITE REAR PIN. REFER PROJECT SPECIFIC SITE LAYOUT DRAWING FOR DIMENSIONS.
- TOLERANCE FOR OVERALL OBH WIDTH AND LENGTH ARE +/- 50MM. TOLERANCE FOR FRAME SPACING +/- 10mm.
- NOTE DIFFERENT ANCHORING DETAILS FOR DOOR/GATES AND FRAMES EITHER SIDE OF BULKHEAD OPENINGS. REFER ANCHORING DETAILS ON SHEETS 2 AND 3.
- NOTE ADDITIONAL Z-CAPPING, WOOD AND CLADDING TRIMMING REQUIRED AT GATE JOINS. REFER SHEETS 6 AND 8 FOR DETAILS.
- TYPICAL CLADDING OVERLAP IS 200mm, CENTERED OVER THE CENTERLINE OF THE STRUT, FOR ALL JOINS EXCEPT AT GATE AND DOOR JOINS. REFER SHEETS 6 - 9.
- ALL Z-CAPPING MUST BE ALIGNED AS ACCURATELY AS POSSIBLE. ANY MISALIGNMENT IN Z-CAPPING WILL TEAR THE OBH TARP. REFER NOTES ON SHEETS 6, 8 AND 9 FOR TOLERANCES.
- FOUR PERSONNEL ACCESS DOORS TO BE INSTALLED AS SHOWN. TWO INSTALLED EACH SIDE AT MIDPOINTS BETWEEN END OF OBH AND CENTRE BULKHEAD OPENING.
- THREE FUMIGATION T-PIECES TO BE INSTALLED ON SAME SIDE AS ELECTRICAL CONNECTION. REFER SHEETS 1 AND 7 FOR INSTALLATION DETAILS. REFER CBH DRAWING S119-ENG-ME-DER-0001 FOR VENDOR DRAWING OF T-PIECE.
- DRAWING DEPICTS TYPICAL OBH SIZE OF 35M WIDE BY 300M LONG AND ASSOCIATED STANDARDISED REQUIRED QUANTITIES OF FUMIGATION TEES, PERSONAL ACCESS DOORS AND FRONT END LOADER ACCESS GATES. SITE SPECIFIC OBH REQUIREMENTS SHALL BE CONFIRMED WITH THE NOMINATED CBH REPRESENTATIVE PRIOR TO CONSTRUCTION.
- BULKHEAD CONTENTS ARE INTENDED TO BE FUMIGATED IN A SEALED ENVIRONMENT BY USE OF WALL CANVICON AND OVER STACK TARP - THE CONTRACTOR SHALL MINIMISE ANY MEANS WHICH COULD DETRIMENTALLY AFFECT THE SEALING CAPABILITY, SUCH AS SHARP EDGES THAT COULD CUT TARP.

**PARTS LIST (PER UNIT)**

ITEM No	DESCRIPTION	WIDTH	LENGTH	QTY	CBH OR SUPPLIER PART No	PROCESS	SAP Code	MASS Kg	TO DETAIL
1	FRONT END LOADER ACCESS GATE			REFER NOTE	S119-ENG-ST-ASY-0034	FIELD FIT	N/A	184.4	Yes
2	PERSONNEL ACCESS DOOR			REFER NOTE	S119-ENG-ST-ASY-0017	FITTING	N/A	17.1	Yes
3	STRAIGHT PIN STRUT ASSEMBLY			REFER NOTE	S119-ENG-ST-ASY-0004	FITTING	N/A	36.4	Yes
4	SPIRAL PIN STRUT ASSEMBLY			REFER NOTE	S119-ENG-ST-ASY-0005	FITTING	N/A	36.2	Yes
5	CUSTOM ORB ZINC ALUME 0.42mm BMT 550 MPa MIN. (YIELD)	762	3200	REFER NOTE	S119-ENG-ST-PRT-0010	FITTING	DREQ	1.3	No
6	DIA 20 STRAIGHT PIN ANCHOR		420	REFER NOTE	S-014-A0000	FIELD KIT	DREQ	1.1	Yes
7	SPIRAL PIN ANCHOR		300	REFER NOTE	S119-ENG-ST-DER-0052	FITTING	DREQ	0.8	Yes
8	Z CAPPING 1.6PL PGI	300	3000	REFER NOTE	S119-ENG-ST-PRT-0011	FAB SHEET	108015	11.4	Yes
9	TIMBER SAWN KARRI STRUC3 75mmx50mmx3m	75	3000	REFER NOTE	S119-ENG-ST-PRT-0014	FITTING	108594	6.2	No
10	TARP CLAMP 6PL	130	257	REFER NOTE	S119-ENG-ST-PRT-0012	FAB PROFILE	107901	1.6	Yes
11	FUMIGATION TEE PIECE			REFER NOTE	S119-ENG-ME-DER-0001	FITTING	N/A		Yes
12	RUBBER STRIP 450mm WIDE, 8mm THICK	450	2050	REFER NOTE	S119-ENG-ST-PRT-0048	FIELD KIT	DREQ	6.9	No
13	M10 x 120 GALV BOLT GR8.8 (50mm THREAD Min.)			REFER NOTE		FIELD KIT	DREQ	0.1	No
14	M10 GALV. NUT			REFER NOTE		FIELD KIT	DREQ	0.0	No
15	M10 GALV FW			REFER NOTE		FIELD KIT	DREQ	0.0	No
16	METAL TEK SCREW, HEX HEAD, 14g-20x22mm, CLASS 4, WITH SEAL			REFER NOTE		FIELD KIT	DREQ	0.0	No
17	METAL TEK SCREW, HEX HEAD, 14g-20x45mm, CLASS 4, WITH SEAL			REFER NOTE		FIELD KIT	DREQ		No
18	NOVALAST LTM 151			REFER NOTE		FIELD KIT	DREQ		No
19	BOSTIK SEAL AND FLEX 1			REFER NOTE		FIELD KIT	DREQ		No

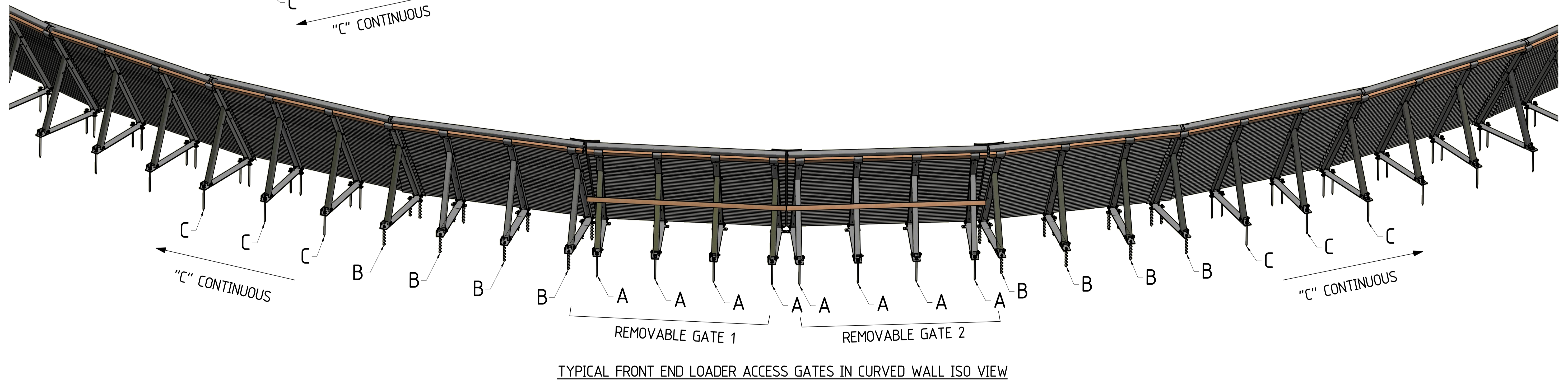
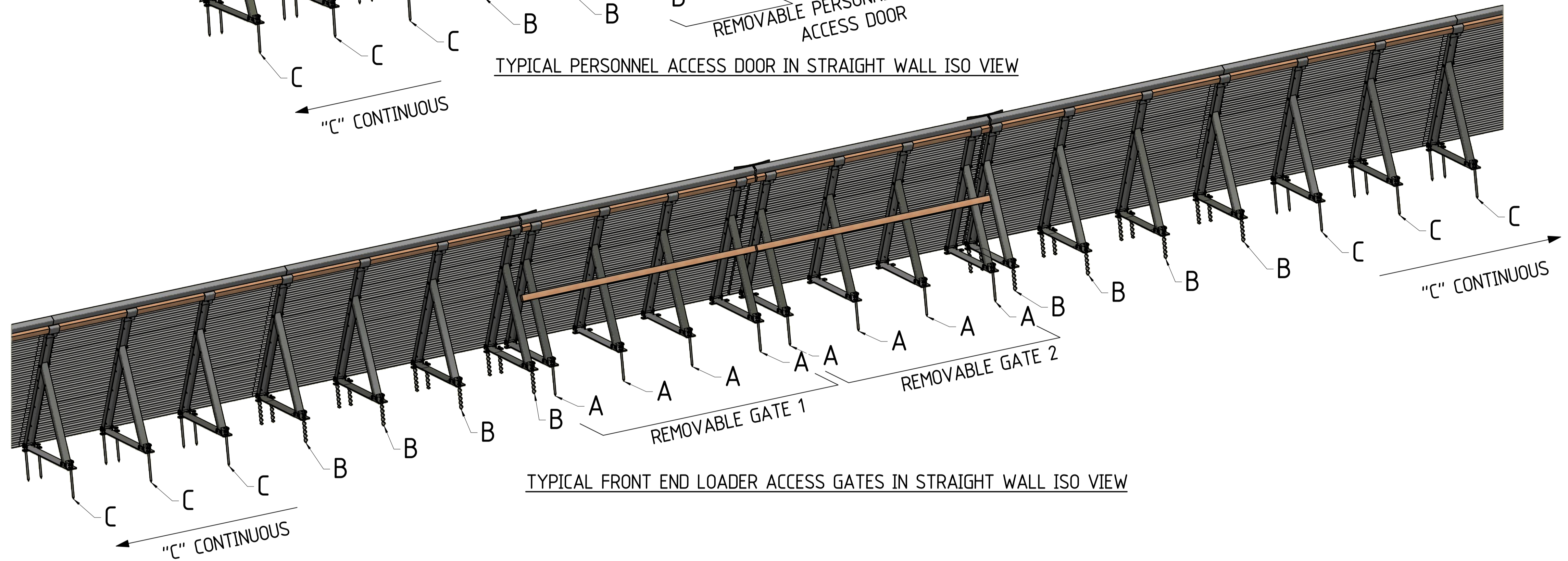
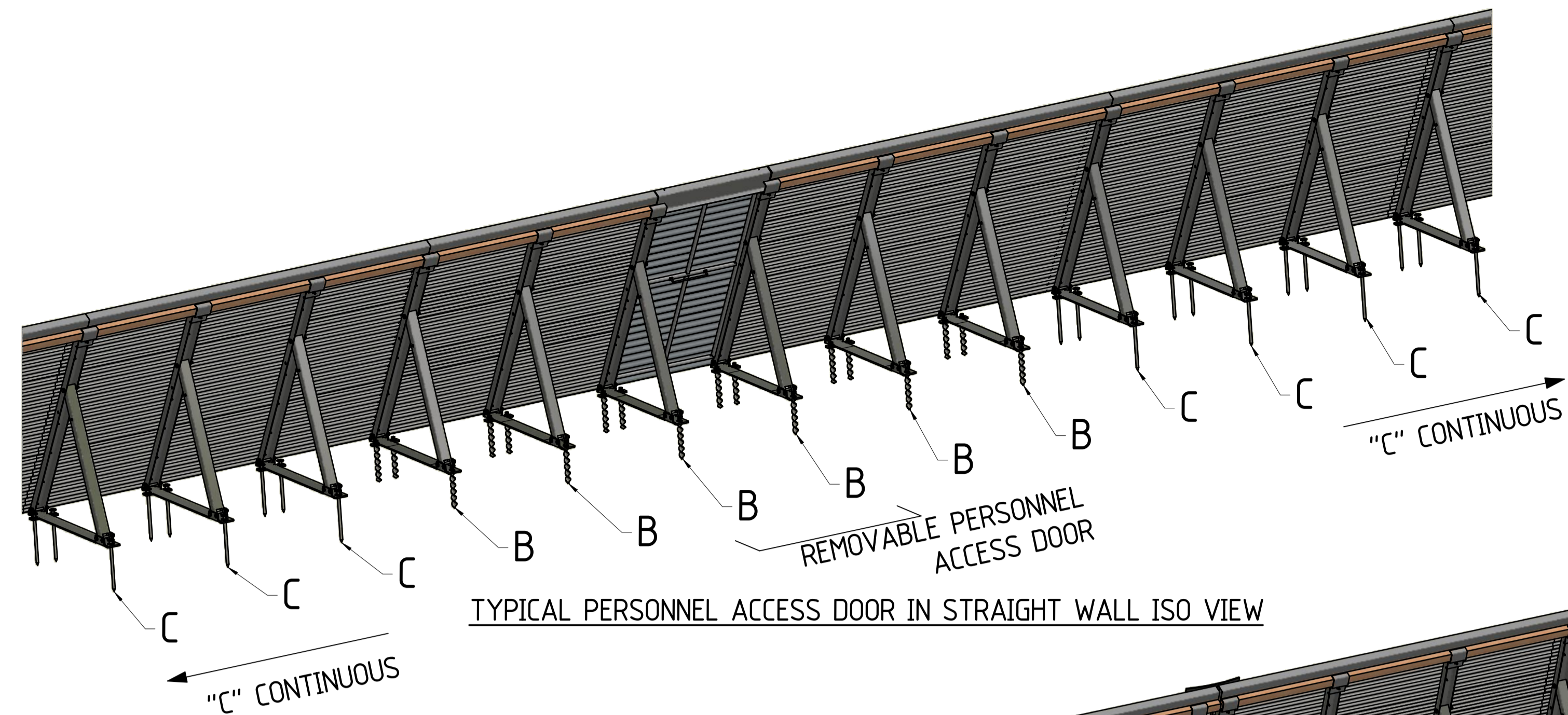
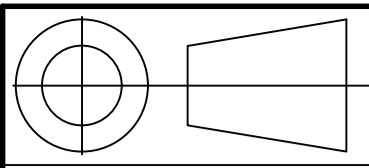
**\*\* QTY NOTE: TO CALCULATE EXACT ORDER QUANTITIES, REFER TO THE 'CBH OBH PROCUREMENT CALCULATOR'-S119-ENG-ST-CAL-0001**

REFER PROJECT SPECIFIC SITE LAYOUT DRAWING FOR TOTAL OBH LENGTH, MEASURED FROM OUTER PIN TO OUTER PIN ±50mm



S119-ENG-ST-DGA-0003

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																				1.8m OPEN BULK HEAD GENERAL ARRANGEMENT OVERALL LAYOUT	VARIOUS	STANDARD	S119-ENG-ST-DGA-0003	1 OF 9



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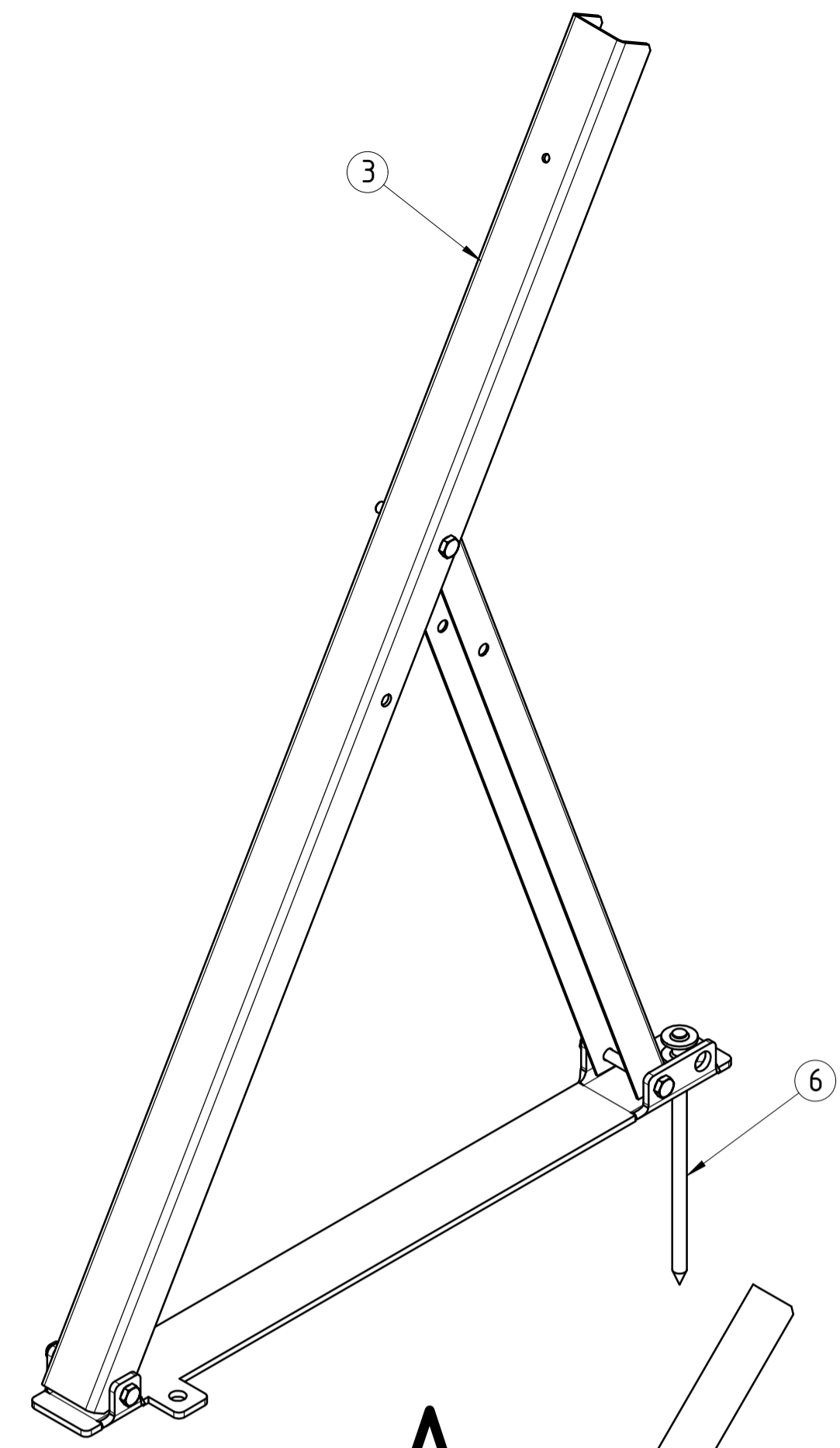
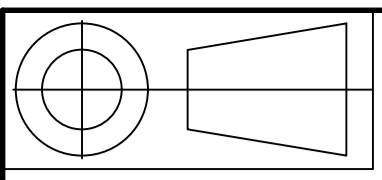


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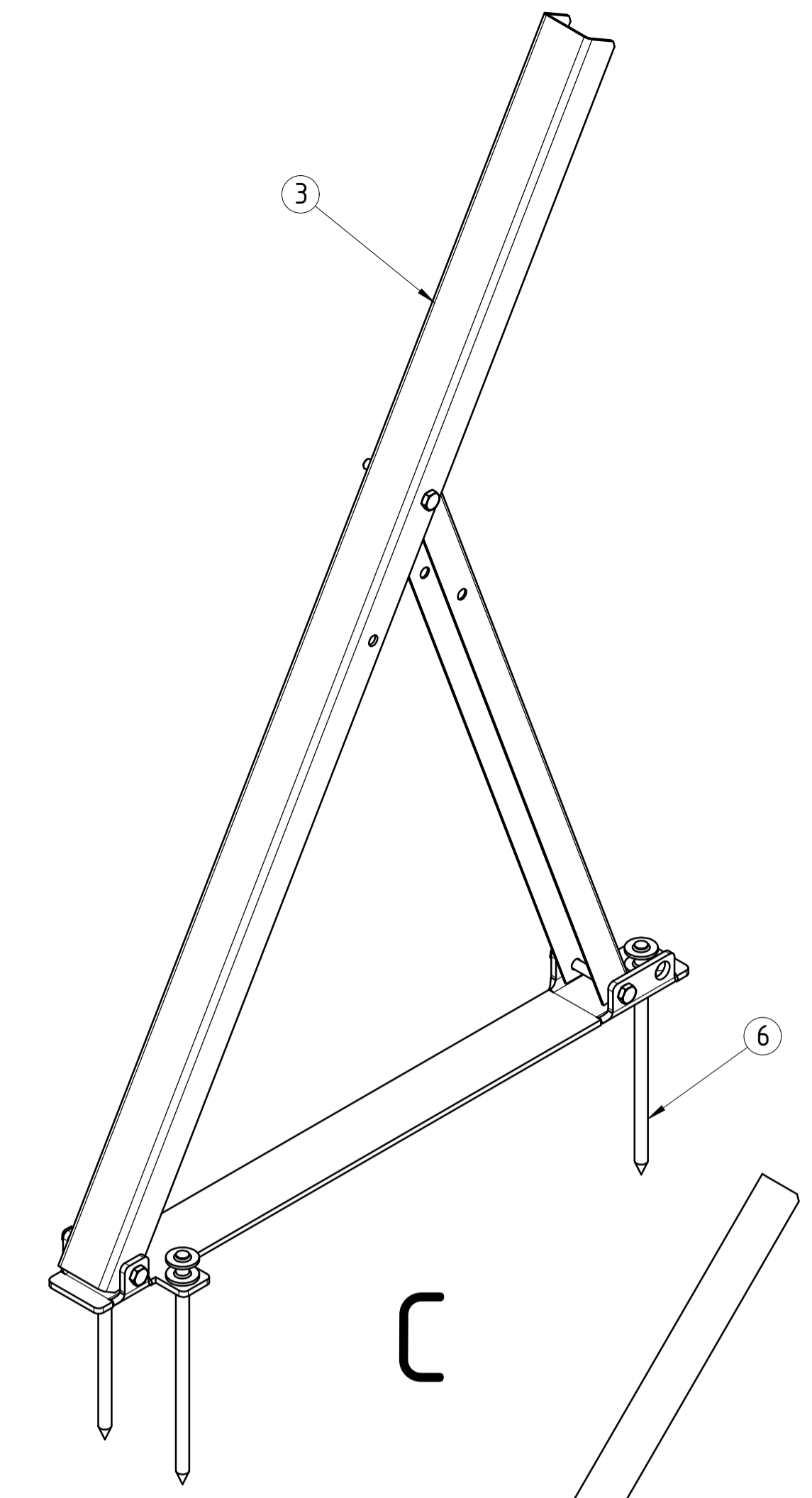
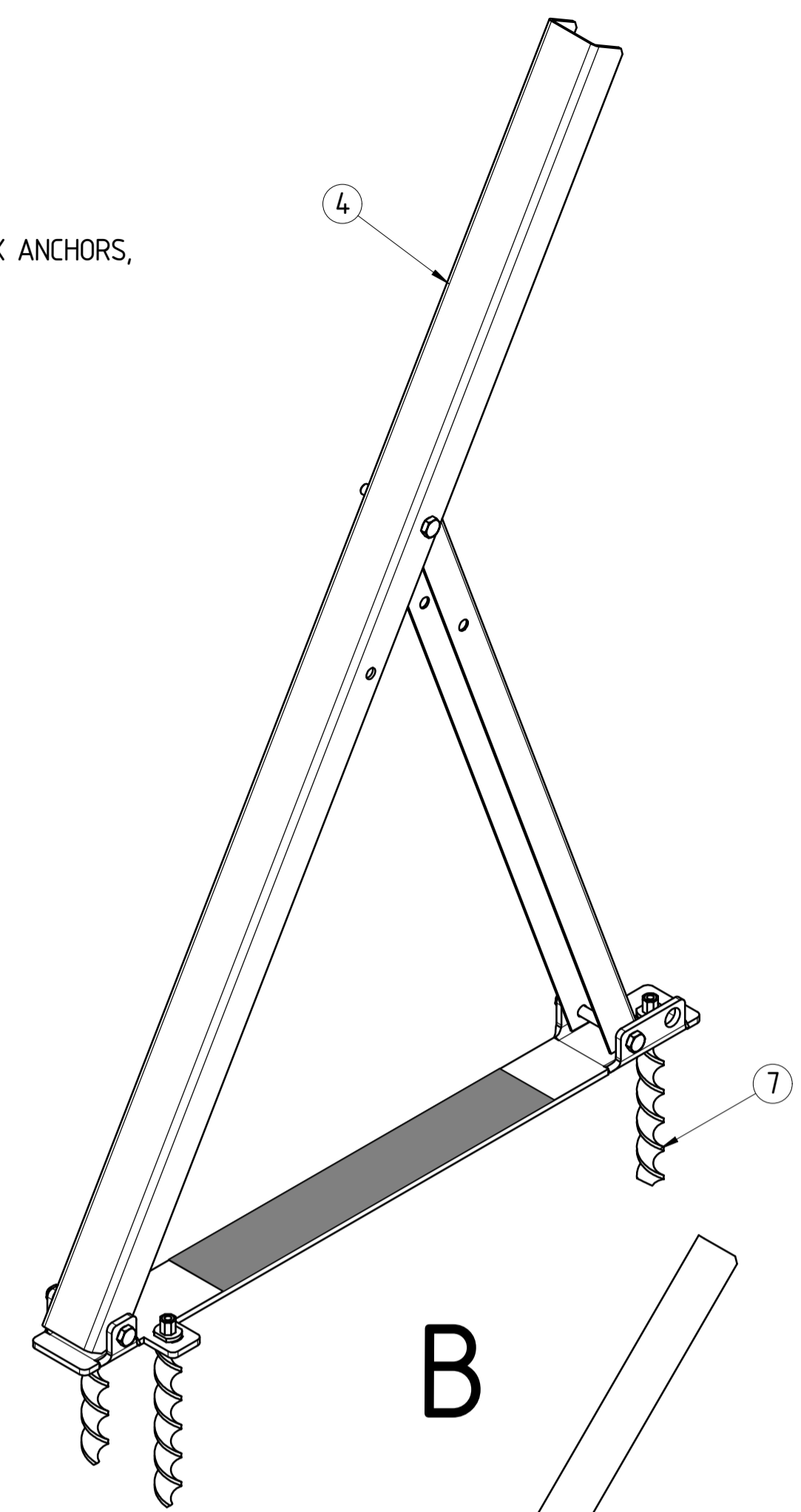
DRAWN	SCR 10/06/2020
CHECKED	LS 10/06/2020
ENGINEER	BC 11/06/2020
APPROVED	NH 11/06/2020

DRAWING TITLE  
1.8m OPEN BULK HEAD  
GENERAL ARRANGEMENT  
ANCHORINGS LAYOUT

SITE	VARIOUS	SIZE	A1
PROJECT	STANDARD		
DRAWING No	S119-ENG-ST-DGA-0003	SHEET	2 OF 9
REV.	0		



**NOTES:**  
 REMOVAL TOOL REQUIRED FOR SPIRAFIX ANCHORS,  
 M22 SPANNER/SOCKET,  
 HANDLE LENGTH TO SUIT CONDITIONS.



**A**

**B**

**C**

**ARRANGEMENT 'A' NOTES:**

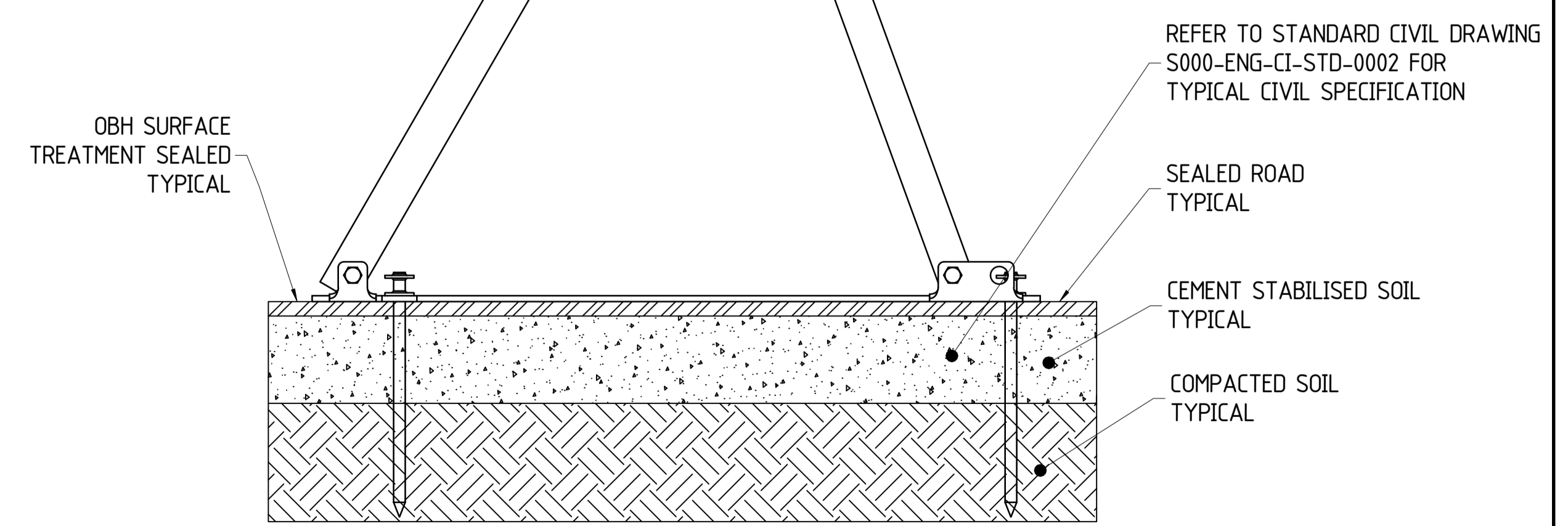
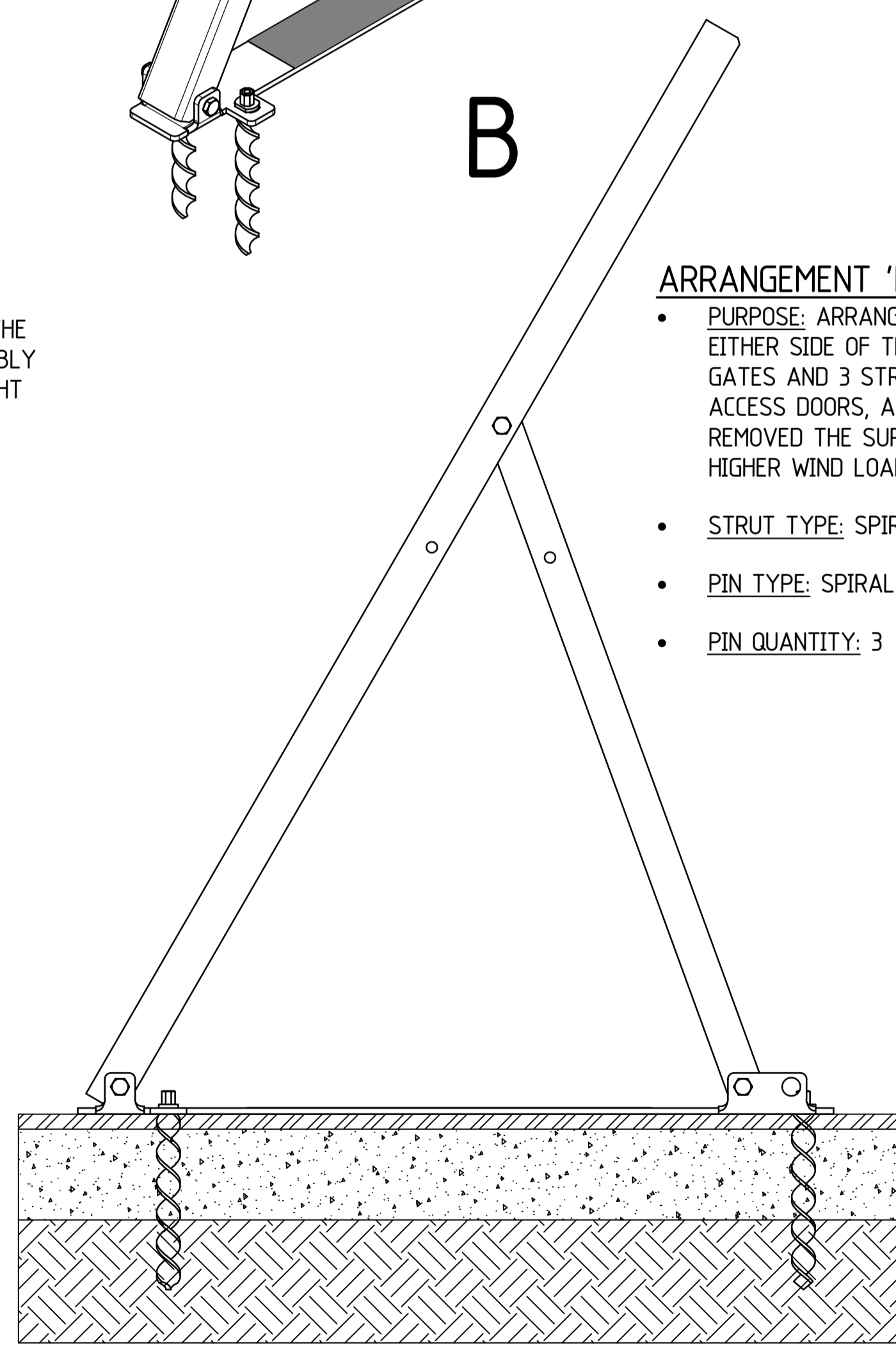
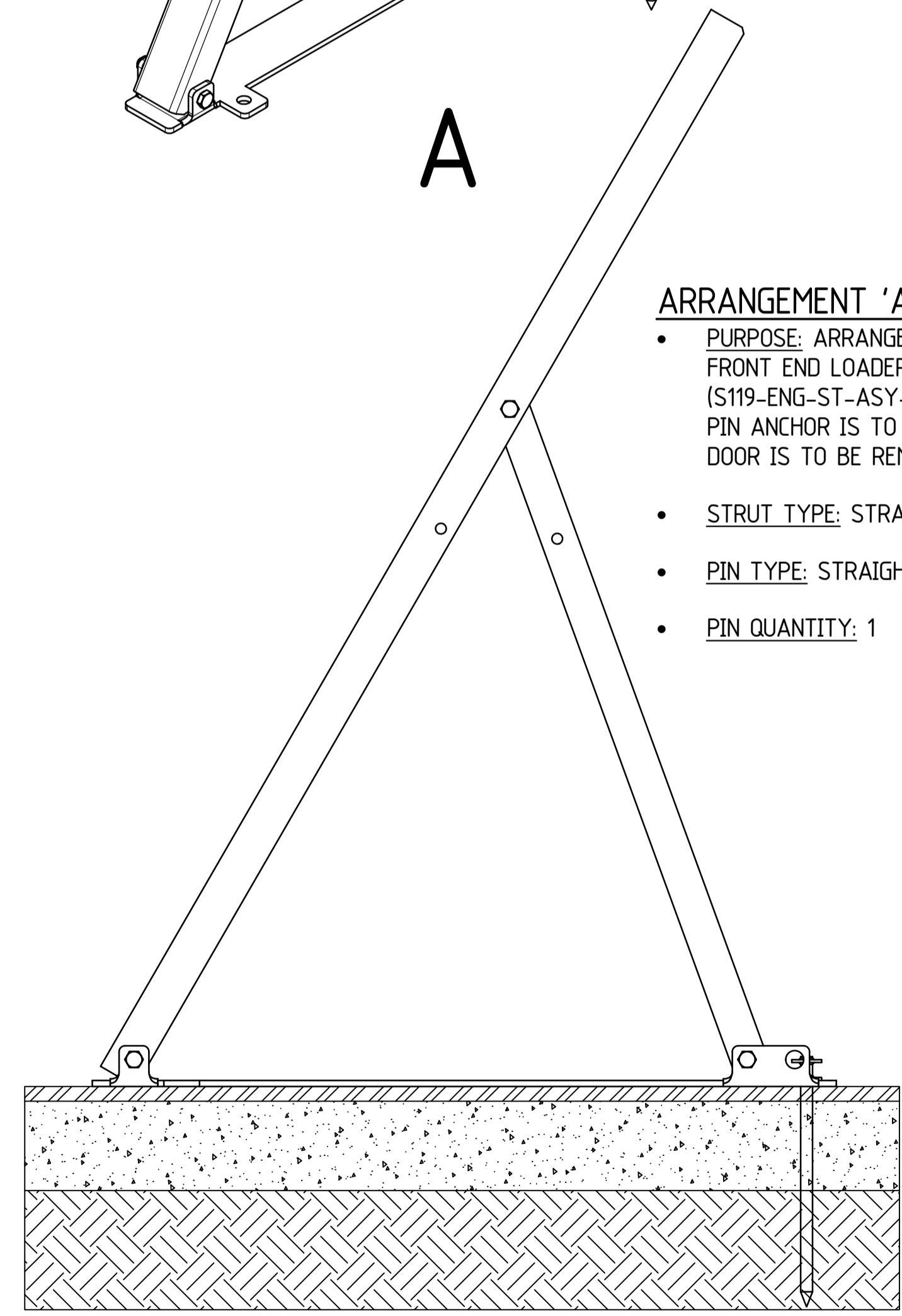
- **PURPOSE:** ARRANGEMENT 'A' IS USED IN THE FRONT END LOADER ACCESS GATE ASSEMBLY (S119-ENG-ST-ASY-0034). ONLY 1 STRAIGHT PIN ANCHOR IS TO BE INSTALLED AS THE DOOR IS TO BE REMOVABLE.
- **STRUT TYPE:** STRAIGHT PIN STRUT
- **PIN TYPE:** STRAIGHT PIN ANCHOR
- **PIN QUANTITY:** 1

**ARRANGEMENT 'B' NOTES:**

- **PURPOSE:** ARRANGEMENT 'B' IS USED 4 STRUTS EITHER SIDE OF THE FRONT END LOADER ACCESS GATES AND 3 STRUTS EITHER SIDE OF PERSONNEL ACCESS DOORS, AS WHEN THE GATES/DOORS ARE REMOVED THE SURROUNDING STRUTS EXPERIENCE HIGHER WIND LOADS.
- **STRUT TYPE:** SPIRAL PIN STRUT
- **PIN TYPE:** SPIRAL PIN ANCHOR
- **PIN QUANTITY:** 3

**ARRANGEMENT 'C' NOTES:**

- **PURPOSE:** ARRANGEMENT 'C' IS USED IN ALL LOCATIONS, OTHER THAN WHERE ARRANGEMENT 'A' AND 'B' ARE USED
- **STRUT TYPE:** STRAIGHT PIN STRUT
- **PIN TYPE:** STRAIGHT PIN ANCHOR
- **PIN QUANTITY:** 3



**A**

**B**

**C**

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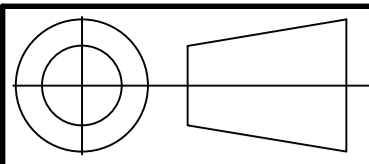


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DRAWING TITLE	1.8m OPEN BULK HEAD GENERAL ARRANGEMENT TYPICAL ANCHORINGS
SITE	VARIOUS
PROJECT	STANDARD
DRAWING No	S119-ENG-ST-DGA-0003
SHEET	3 OF 9
REV.	0

SIZE  
A1



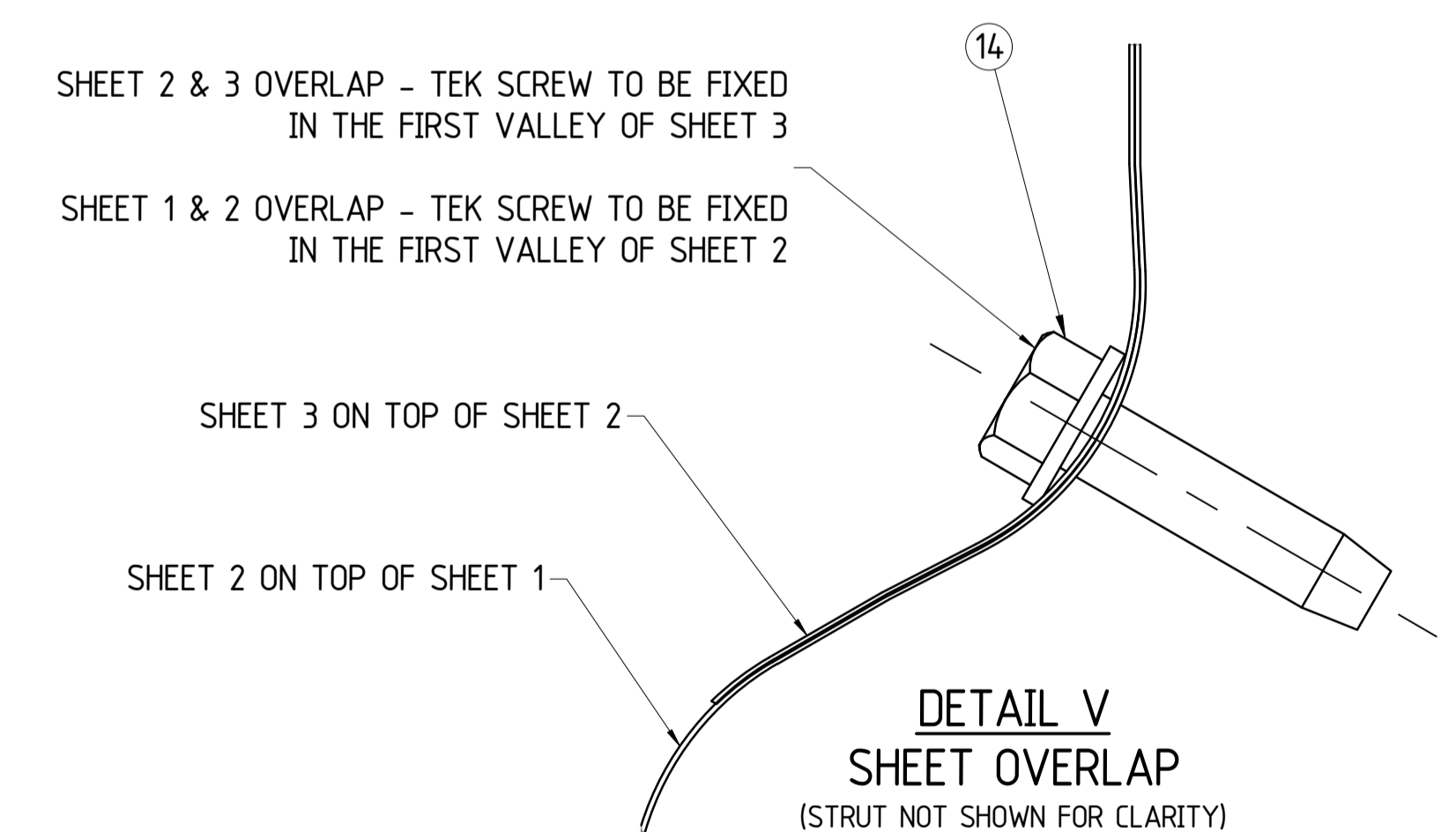
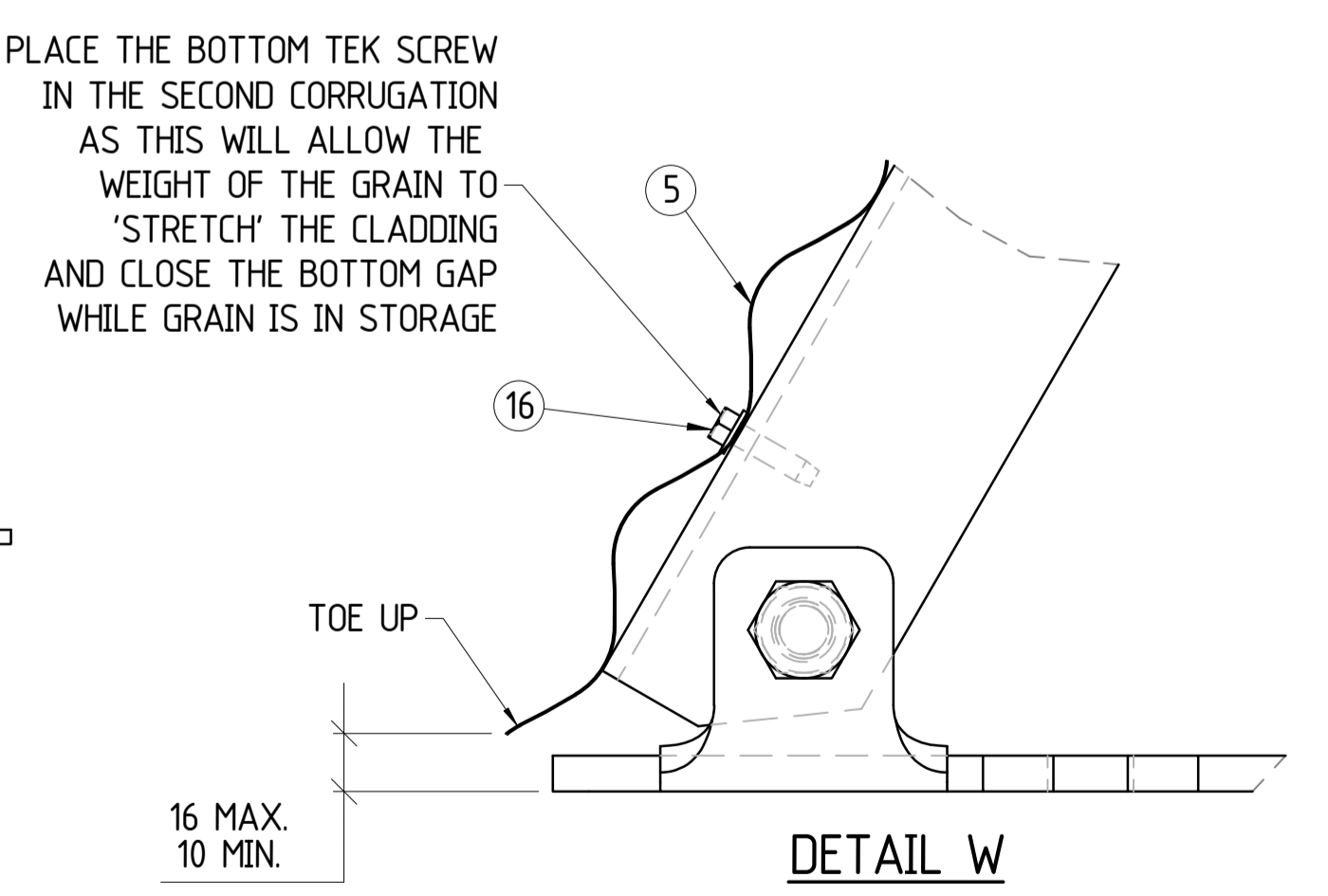
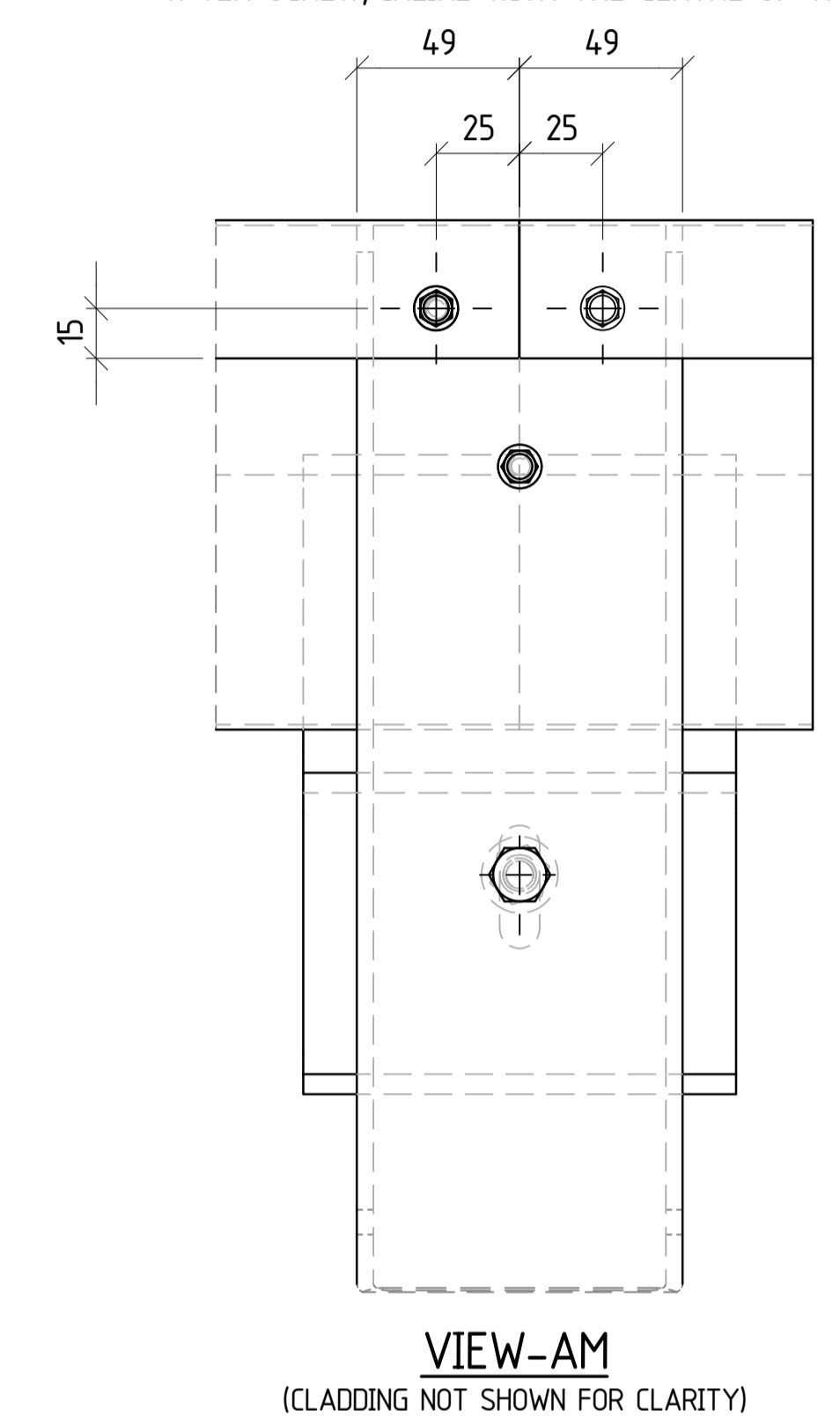
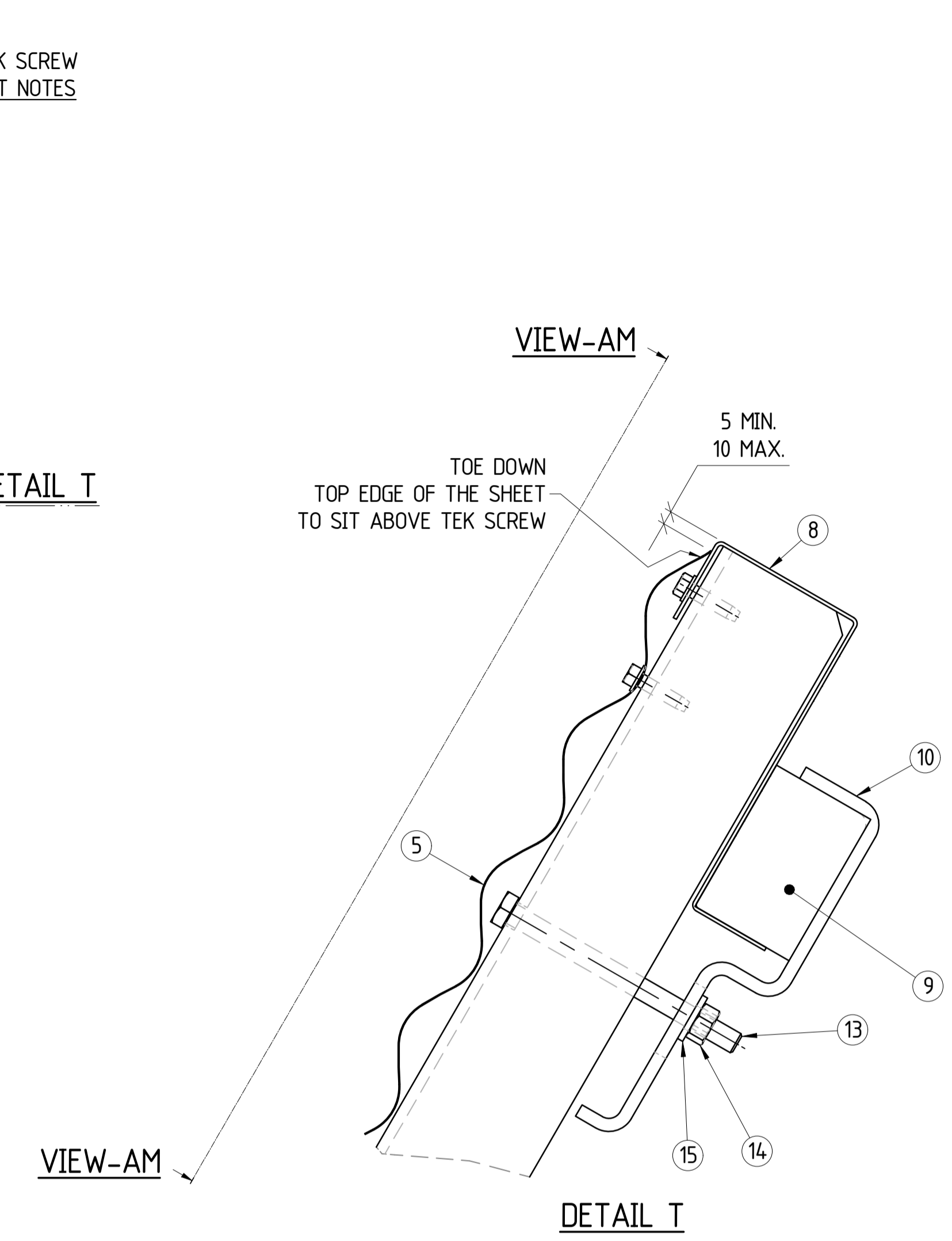
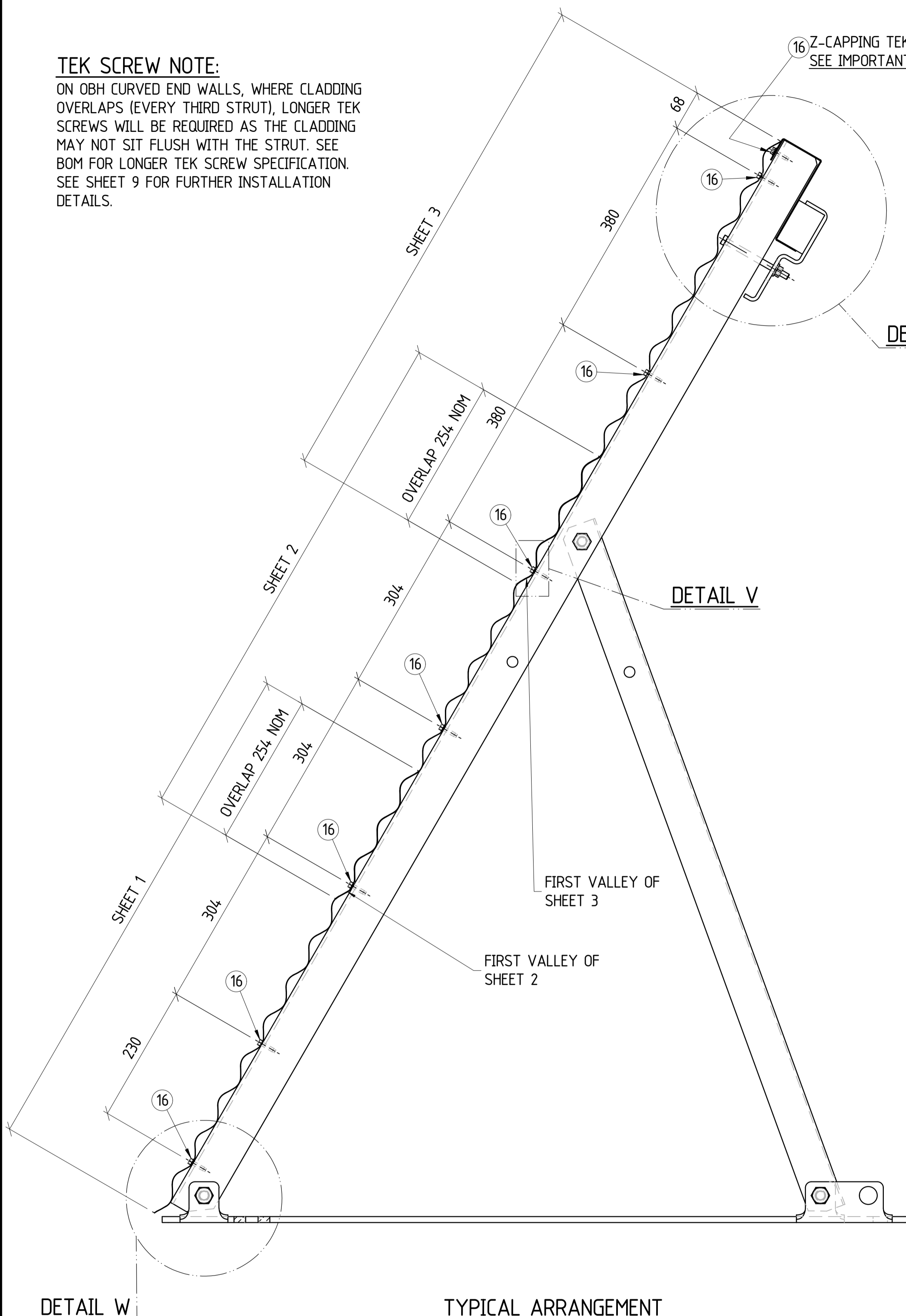
**TEK SCREW NOTE:**

ON OBH CURVED END WALLS, WHERE CLADDING OVERLAPS (EVERY THIRD STRUT), LONGER TEK SCREWS WILL BE REQUIRED AS THE CLADDING MAY NOT SIT FLUSH WITH THE STRUT. SEE BOM FOR LONGER TEK SCREW SPECIFICATION. SEE SHEET 9 FOR FURTHER INSTALLATION DETAILS.

**IMPORTANT NOTE:**

TYPICAL ALL JOINTS, EXCEPT DOOR/GATE JOINTS:

- 'Z' CAPPING SHALL BUTT JOIN TO THE CENTRE LINE OF THE STRUT.
- ALL Z CAPPING MUST BE ALIGNED AS ACCURATELY AS POSSIBLE. ANY MIS-ALIGNMENT IN THE 'Z' CAPPING WILL CREATE SHARP EDGES, WHICH MAY DAMAGE THE OBH TARP. MAXIMUM 'Z' CAPPING MISALIGNMENT TO BE 2mm IN ALL DIRECTIONS.
- WHERE 'Z' CAPPING BUTT JOINS OVER A STRUT, FIX 'Z' CAP WITH 2 x TEK SCREWS, ONE IN EACH 'Z' CAP (SHOWN BELOW)
- WHERE 'Z' CAPPING PASSES OVER A STRUT, FIX 'Z' CAP WITH 1 x TEK SCREW, INLINE WITH THE CENTRE OF THE STRUT.



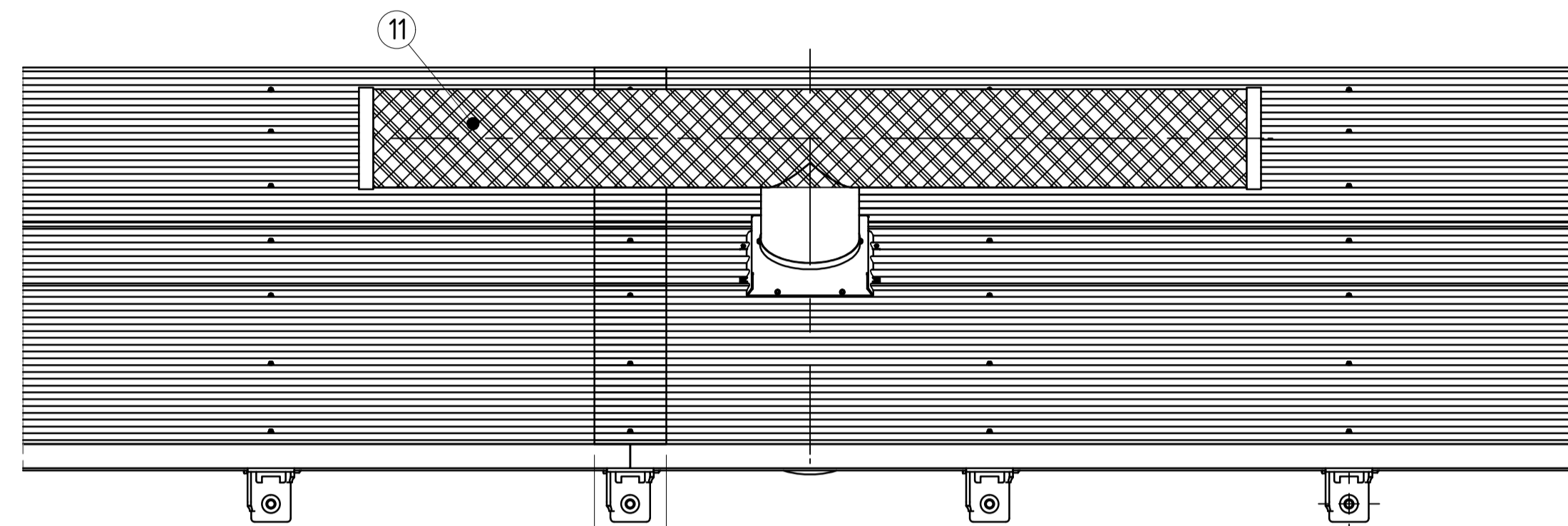
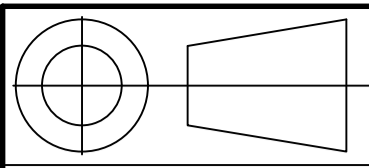
PLACE THE BOTTOM TEK SCREW IN THE SECOND CORRUGATION AS THIS WILL ALLOW THE WEIGHT OF THE GRAIN TO 'STRETCH' THE CLADDING AND CLOSE THE BOTTOM GAP WHILE GRAIN IS IN STORAGE

SHEET 2 & 3 OVERLAP - TEK SCREW TO BE FIXED IN THE FIRST VALLEY OF SHEET 3  
 SHEET 1 & 2 OVERLAP - TEK SCREW TO BE FIXED IN THE FIRST VALLEY OF SHEET 2

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		DRAWN SCR 10/06/2020	CHECKED LS 10/06/2020	ENGINEER BC 11/06/2020	0 10/06/2020 COPIED FROM S-119, ISSUED FOR CONSTRUCTION	SCR LS NH	APPROVED NH 11/06/2020	DRAWING TITLE <b>1.8m OPEN BULK HEAD GENERAL ARRANGEMENT TYPICAL WALL ASSEMBLY</b>	SITE <b>VARIOUS</b>	PROJECT <b>STANDARD</b>	SIZE <b>A1</b>									

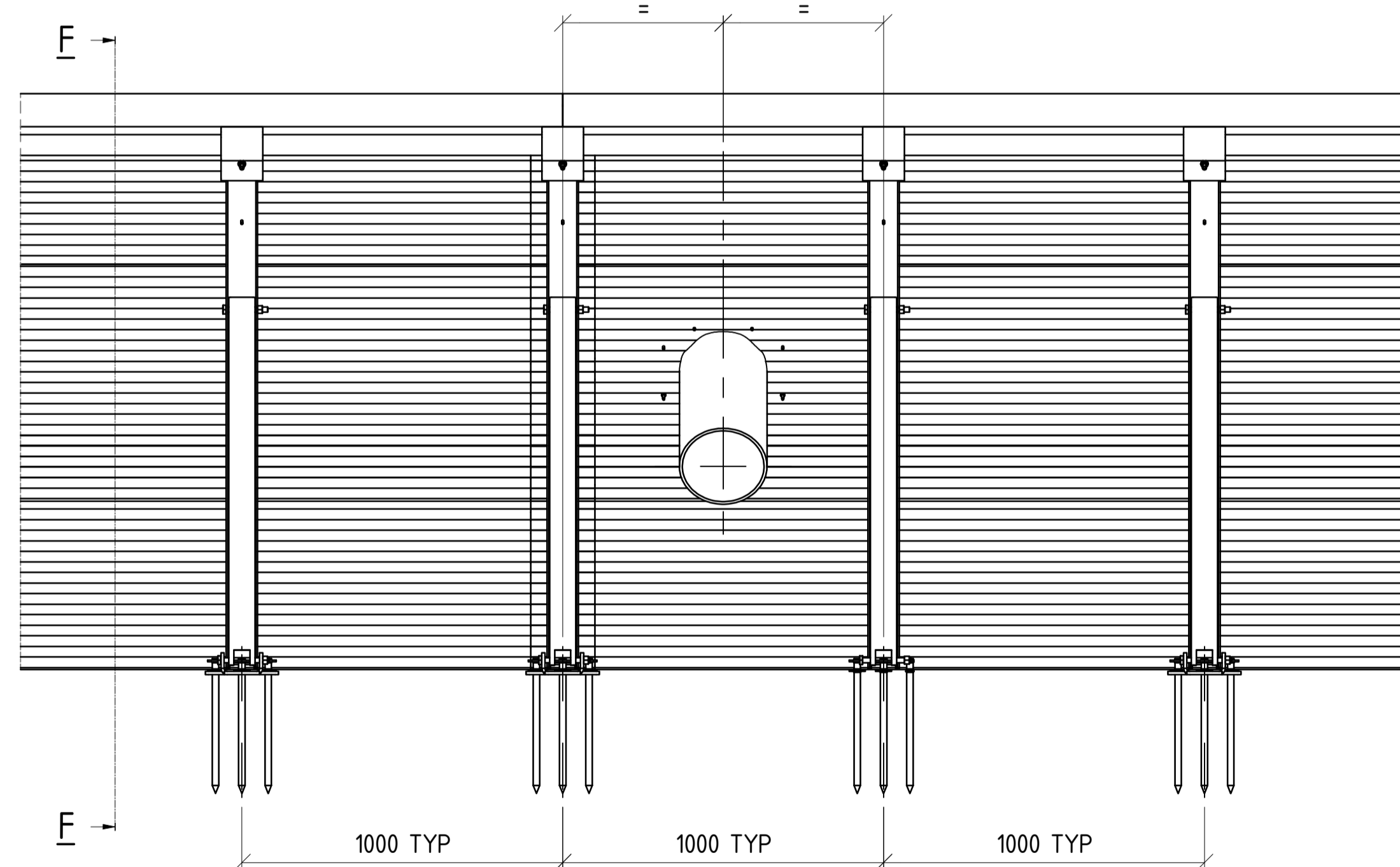




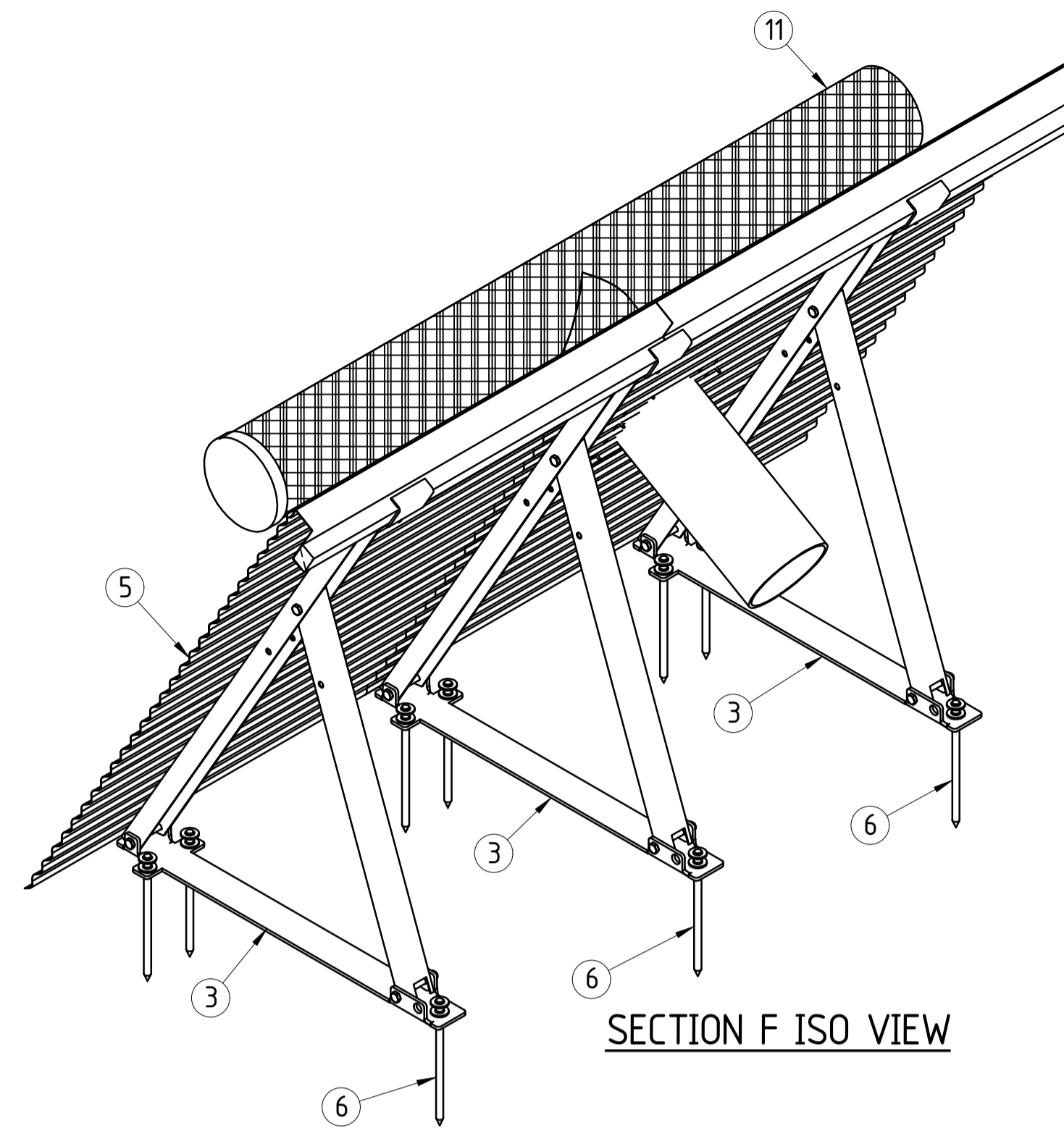


200 CLADDING OVERLAP, CENTERED OVER THE CENTRELINE OF THE STRUT  
TYPICAL ALL CLADDING, EXCEPT OBH GATE/DOOR JOINS

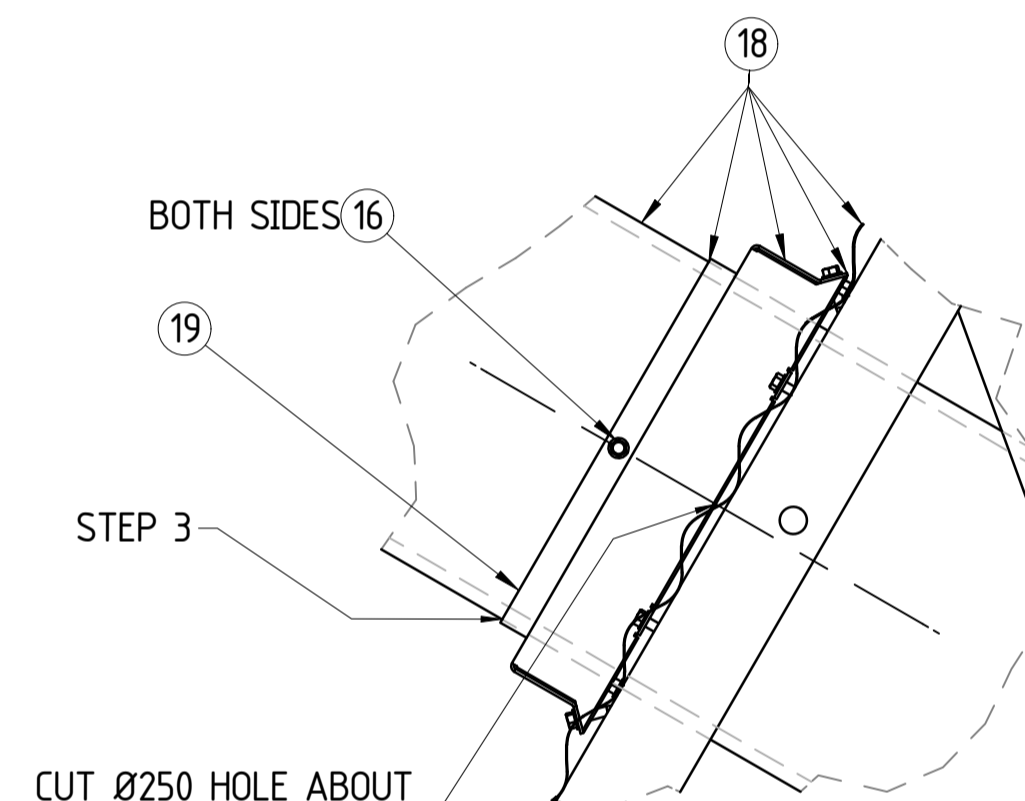
**DETAIL B**  
**'T' PIECE INSTALLATION DETAIL**



**ELEVATION**

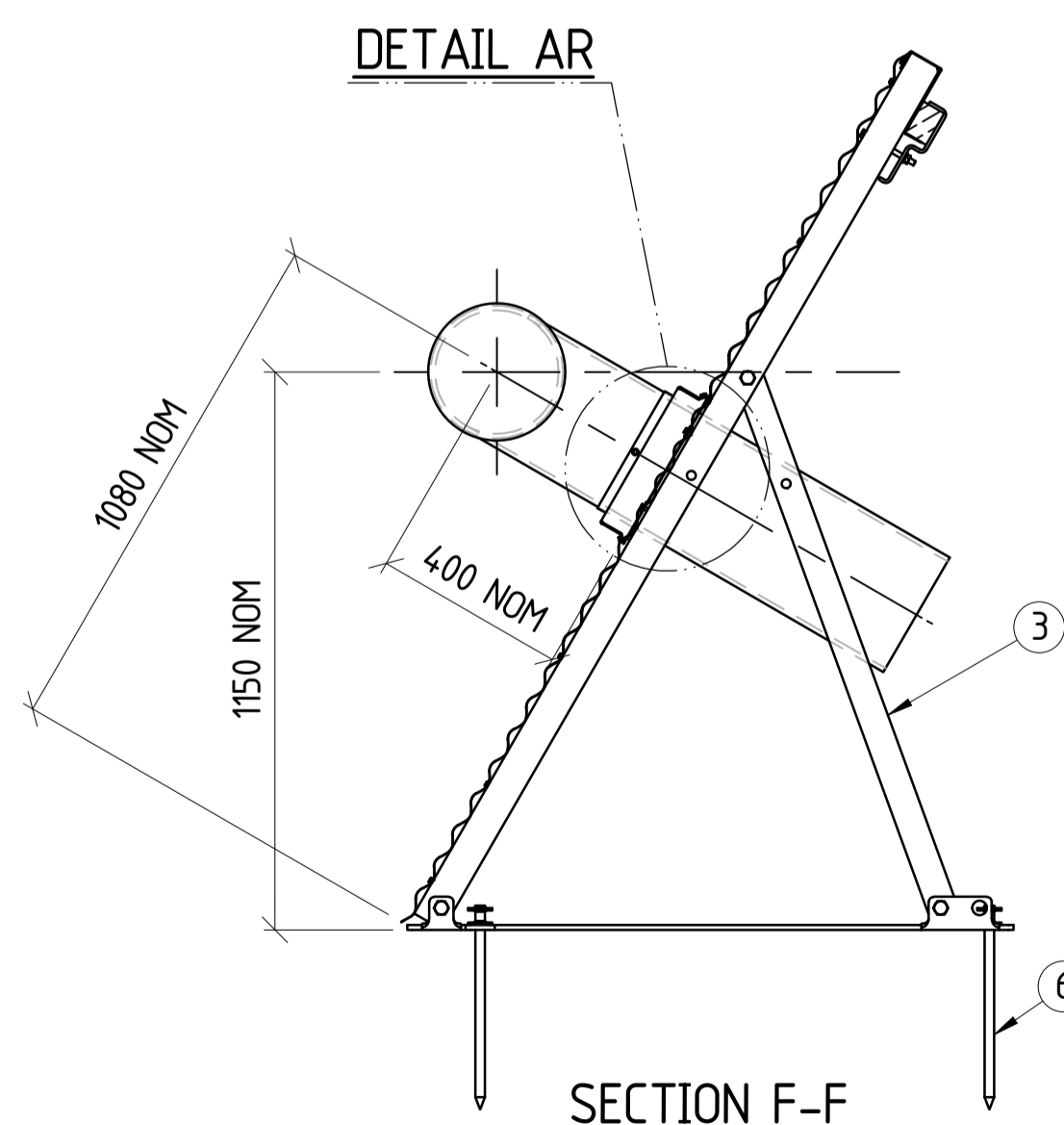


**SECTION F ISO VIEW**

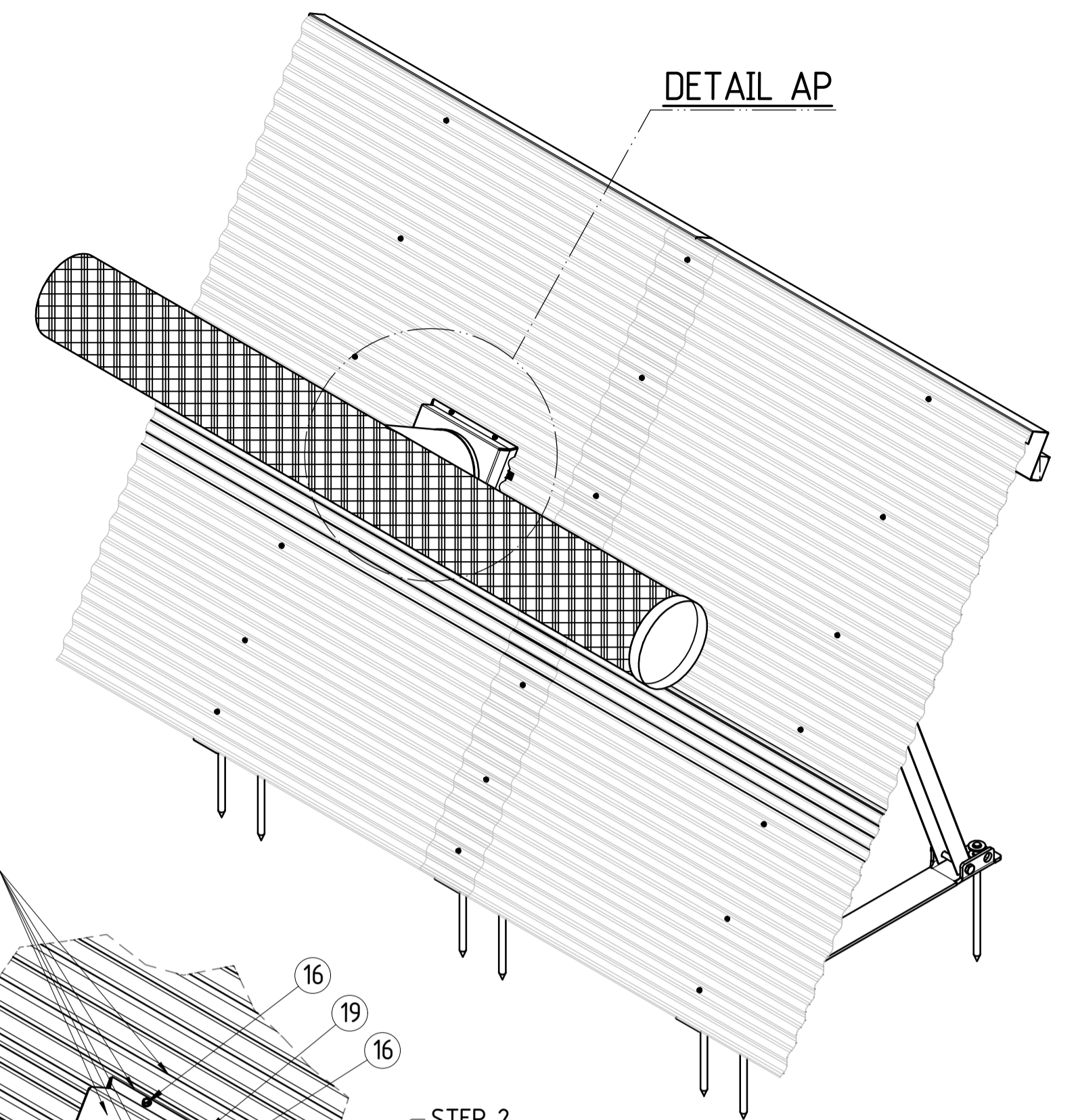


**DETAIL AR**

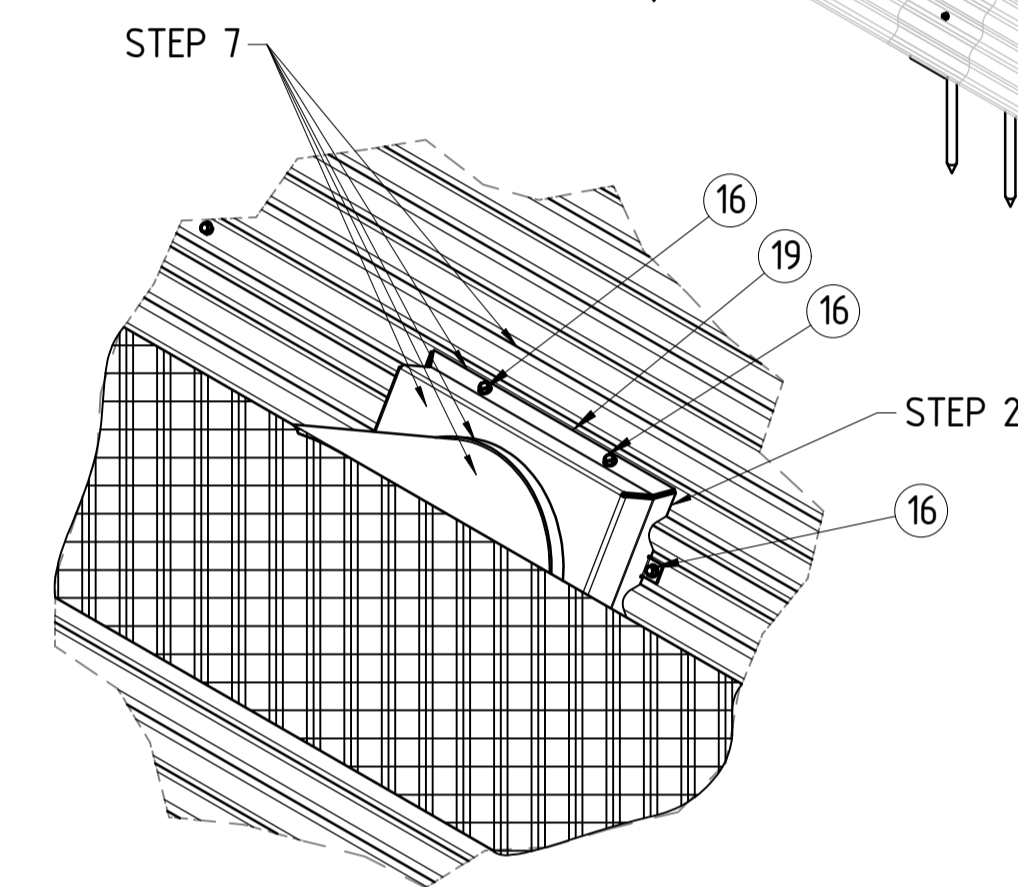
CUT Ø250 HOLE ABOUT THE CENTRELINE



**SECTION F-F**



**DETAIL AP**



**DETAIL AP**

**BACKGROUND:**

- THE 'T' PIECE IS USED TO PUMP HAZARDOUS FUMIGANT INTO THE STORAGE AFTER IT IS FULLY SEALED. CARE MUST BE TAKEN WHEN INSTALLING THE 'T' PIECE AND APPLYING THE SEALANTS TO ENSURE THE SEAL IS APPLIED TO A HIGH QUALITY.

**USE THE FOLLOWING QUANTITY'S PER 1 'T'PIECE**

- 1 X 600ML SAUSAGE OF BOSTIK SEAL AND FLEX 1
- 1L OF NOVALAST LTM 151

**PROCEDURE:**

- STEP 1: PREPARE AND CLEAN SURFACES WHERE SEALANTS ARE TO BE APPLIED AS PER MANUFACTURERS SPECIFICATIONS.
- STEP 2: INITIAL COLLAR INSTALL; APPLY A THICK (5-10MM) BEAD OF 'BOSTIK SEAL N FLEX 1' TO ALL EDGES OF THE T-PIECE MOUNTING COLLAR WHICH WILL CONTACT THE CORRUGATED CLADDING. TEK SCREW T-PIECE MOUNT (WITH BOSTIK SEALANT APPLIED) TO THE CLADDING USING 8 TEK SCREWS, EVENLY SPACED AROUND THE T-PIECE MOUNTING COLLAR.
- STEP 3: INSERT T-PIECE INTO THE T-PIECE MOUNTING COLLAR. SECURE THE T-PIECE AT THE LOCATION SHOWN, USING 2 X TEK SCREWS, THROUGH THE MOUNTING COLLAR RING. APPLY A THICK (5-10MM) BEAD OF 'BOSTIK SEAL N FLEX 1' AROUND THE JOIN AND AROUND ANY GAPS, INCLUDING AROUND THE TEK SCREWS. ALSO APPLY A THICK BEAD TO FILL THE GAP BETWEEN THE CLADDING AND THE T-PIECE, ON THE OUTSIDE OF THE BULKHEAD.
- STEP 4: LET SEALANT DRY AS PER MANUFACTURER'S DIRECTIONS.
- STEP 5: APPLY A SECOND THICK (5-10MM) BEAD OF 'BOSTIK SEAL N FLEX 1' AROUND ALL JOINS BETWEEN THE T-PIECE MOUNTING COLLAR, THE T-PIECE AND THE CLADDING.
- STEP 6: LET SEALANT DRY AS PER MANUFACTURER'S DIRECTIONS.
- STEP 7: PAINT THE ENTIRE T-PIECE MOUNTING COLLAR AND 150MM OF CLADDING AROUND THE COLLAR. ALSO PAINT 150MM OF THE T-PIECE, PAST THE COLLAR RING JOIN. PAINT WITH 'NOVALAST 151 LTM'
- STEP 8: LET SEALANT DRY AS PER MANUFACTURER'S DIRECTIONS.

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APPROVED NH 11/06/2020

DRAWING TITLE  
1.8m OPEN BULK HEAD  
GENERAL ARRANGEMENT  
'T' PIECE DETAIL

SITE  
VARIOUS  
PROJECT  
STANDARD

DRAWING No  
S119-ENG-ST-DGA-0003

SHEET  
7 OF 9

SIZE  
A1

REV.



