Boomilever Template 2026

Based on Rules of 6/6/2025

The 2026 Boomilever Template is provided as a reference for a compliant (Tier 1) "Tension" type design, where the longest DIAGONAL member in TENSION, and the HORIZONTAL COMPRESSION sub-structure is a Truss design. This Template is not a drawing, but a schematic of a potential solution that could be used to satisfy the Boomilever requirements, with opportunities for structure optimization for increased scores.

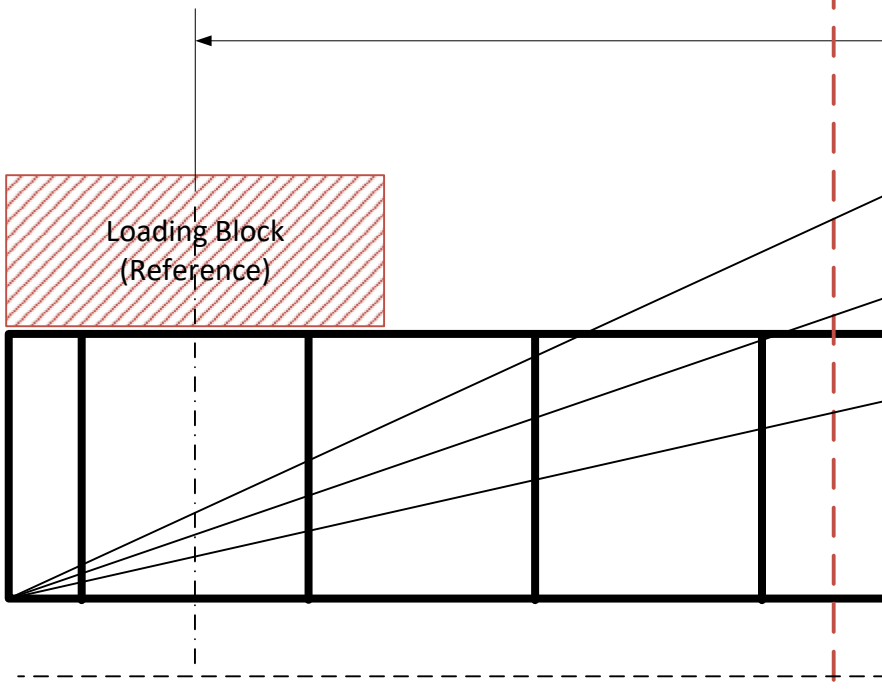
Template provides a structure for both Division B & C Boomilevers, with: A) Overall size of Boomilever (Length, Width restrictions, & Contact Depth); B) Gap dimension of Connector Bolt; C) Compliant location of Load Block for testing

Suggested Build Process: (Use Gap Filling CA glue with 5-10sec Cure time)

- Pre-cut all members for the Truss sides using the "Side View" and "Top View" of the Template as a reference for lengths
- Bond Horizontal and vertical members to form truss sides using pin boards and pins (do not put pins thru wood). Bond desired Truss support diagonals for each side, making the opposite side identical but mirrored to the other side. Once both sides are completed, remove pins and …..
- Using the "Top View" of the Template, stand-up and pin both sides of the Truss, with the support members on the inside, and ensure that sides are perpendicular to surface. Apply desired cross-support and/or diagonal members on the interior top portion of the Truss. Once dried, flip over and re-pin, standing the last side of the Truss for cross-member and diagonal bonding. Allow to entire Truss subassembly dry, then remove, …
- Using a mock up Test Wall apparatus (with the Connector Bolt installed), position the Truss along a flat surface and carefully bond and clamp the long Tension members, connecting the Truss end (where Load Block is positioned), to the inside edge of Connector Bolt's small wood block. Allow to dry (1 minute or so), then remove.

Match Line A

Match Line A



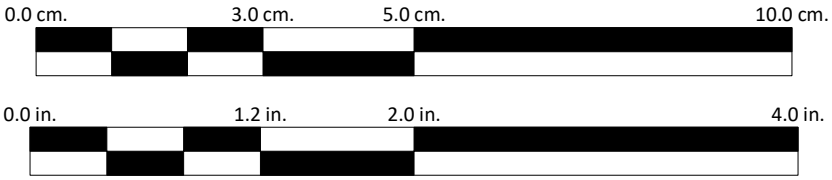
Side View – Division B & C
(left sheet)

Critical areas of attention and optimization include: 1) Truss Horizontal Compression members (cross section & density); 2) Truss Diagonal support members (quantity, direction, & size); C) Truss Top/ Bottom's Cross-support & Diagonal Members (quantity, direction, & size) ; 4) Contact Depth Positioning (difference between Div B & C); 5) Dimension of Tension Member (cross-section); 6) Quality of Critical Bond Joints (surface area & preparation); 7) Overall density screening of members; 8) Use of wood types other that Balsa Wood (Basswood, or other hard/dense wood)

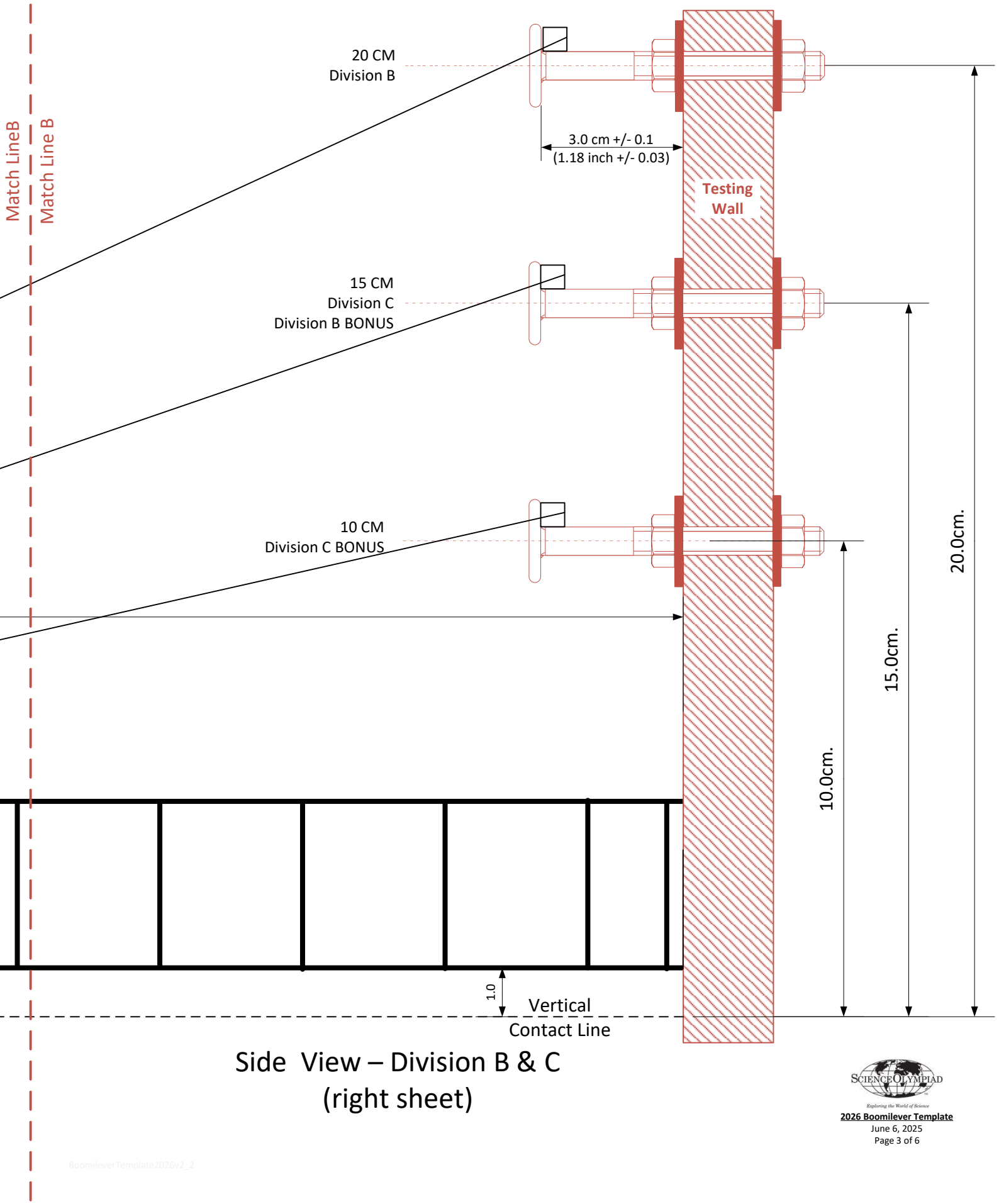
Other areas to consider for Optimization: a) Truss Height; b) Truss width (within restrictions); c) Truss segments (or spacing); d) Alternate approaches other than Truss design, such as a Beam vs Truss; or e) Completely different compression type Boomilever design.

Match Line A
Match Line A

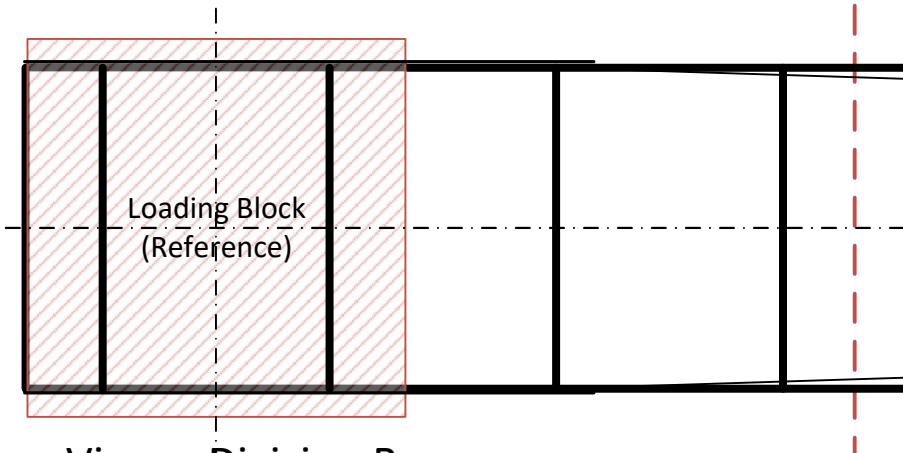
Match LineB
Match Line B



Side View – Division B & C
(middle sheet)



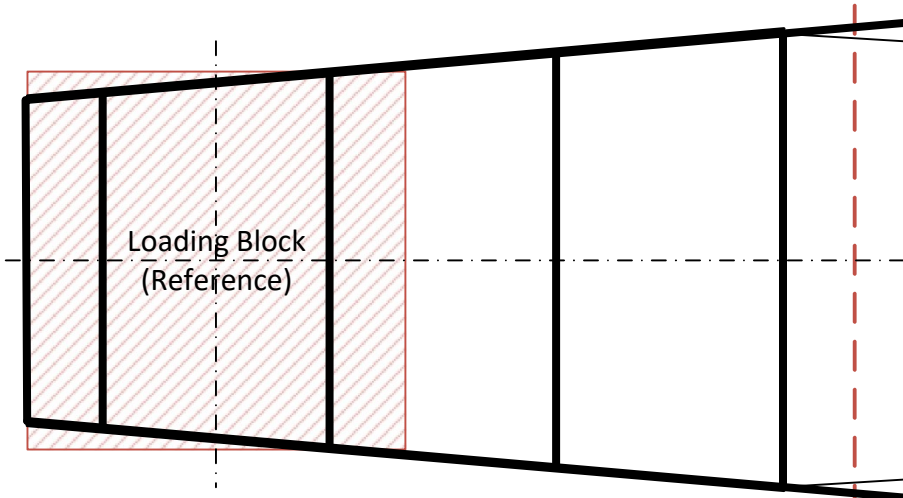
Side View – Division B & C
(right sheet)



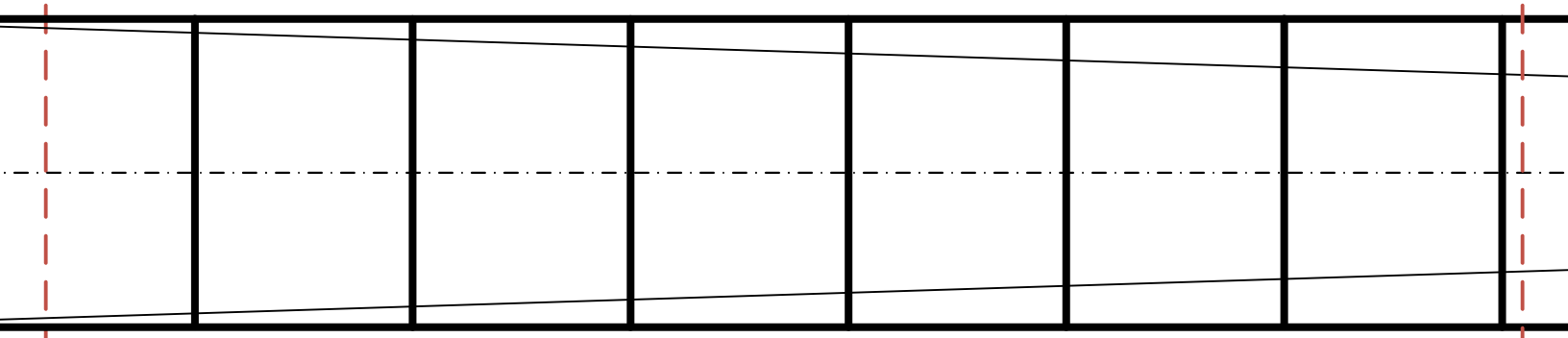
Top View – Division B
(left sheet)

Match Line A

Match Line A



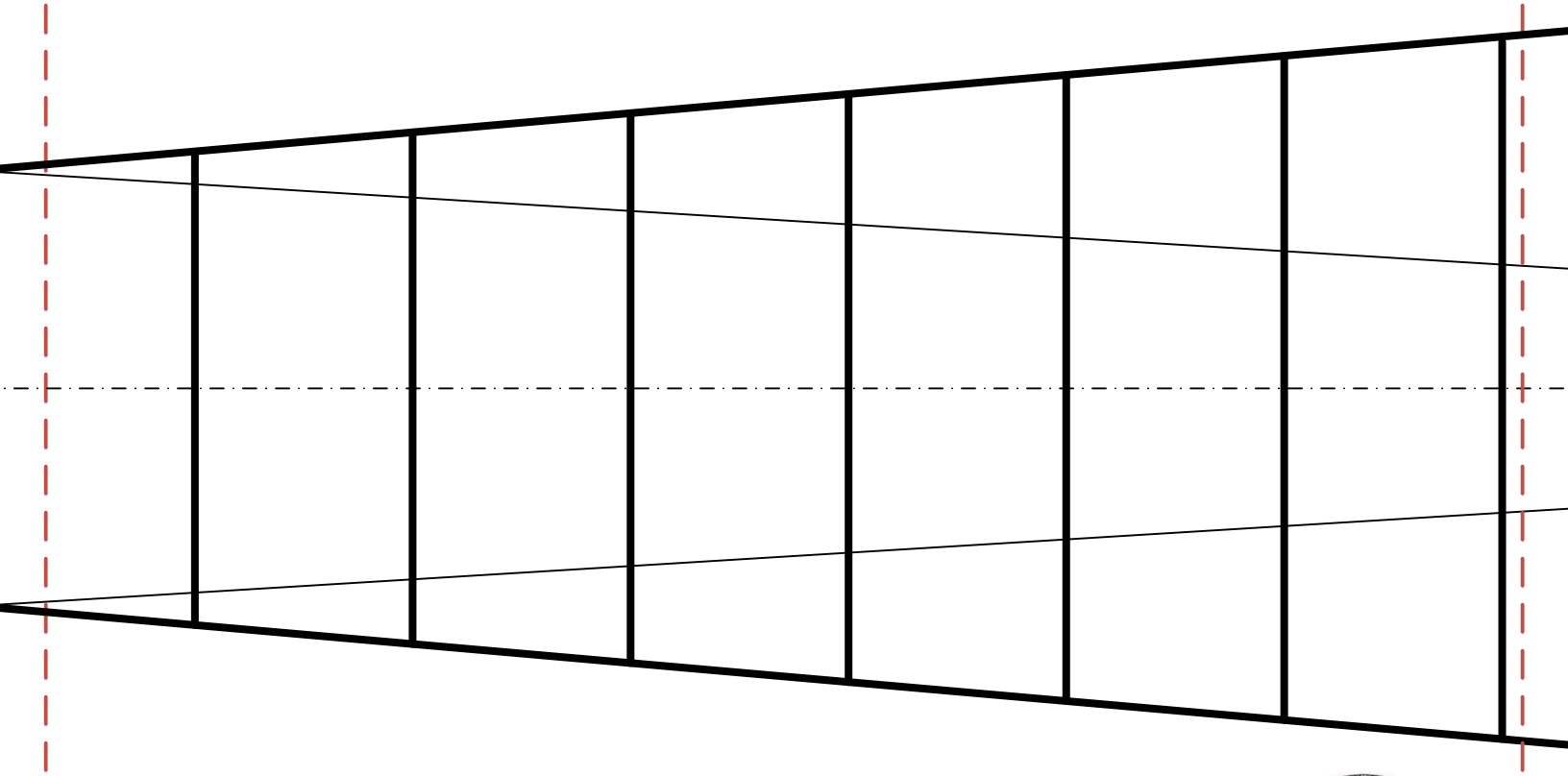
Top View – Division C
(left sheet)



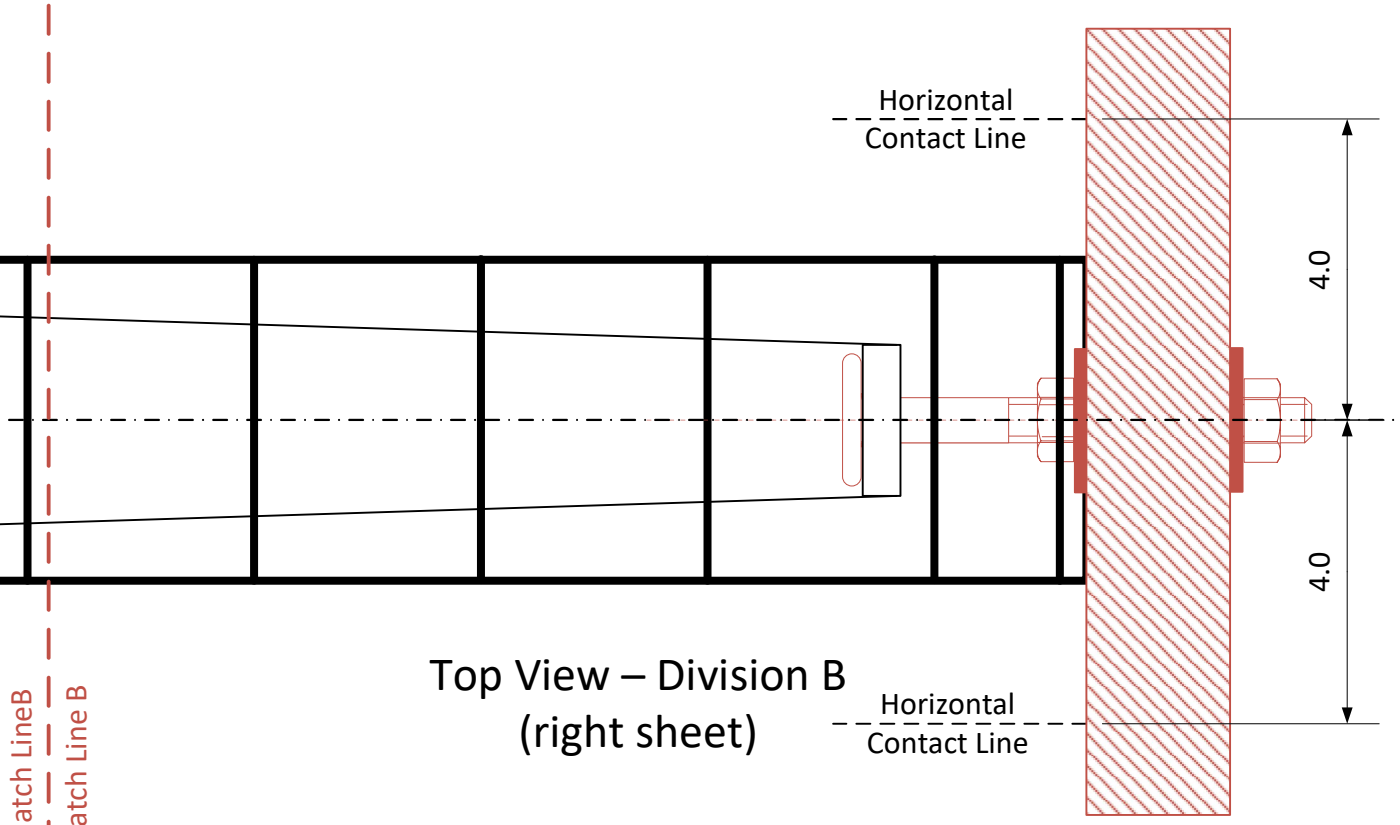
Top View – Division B
(middle sheet)

Match Line A
Match Line A

Match LineB
Match Line B

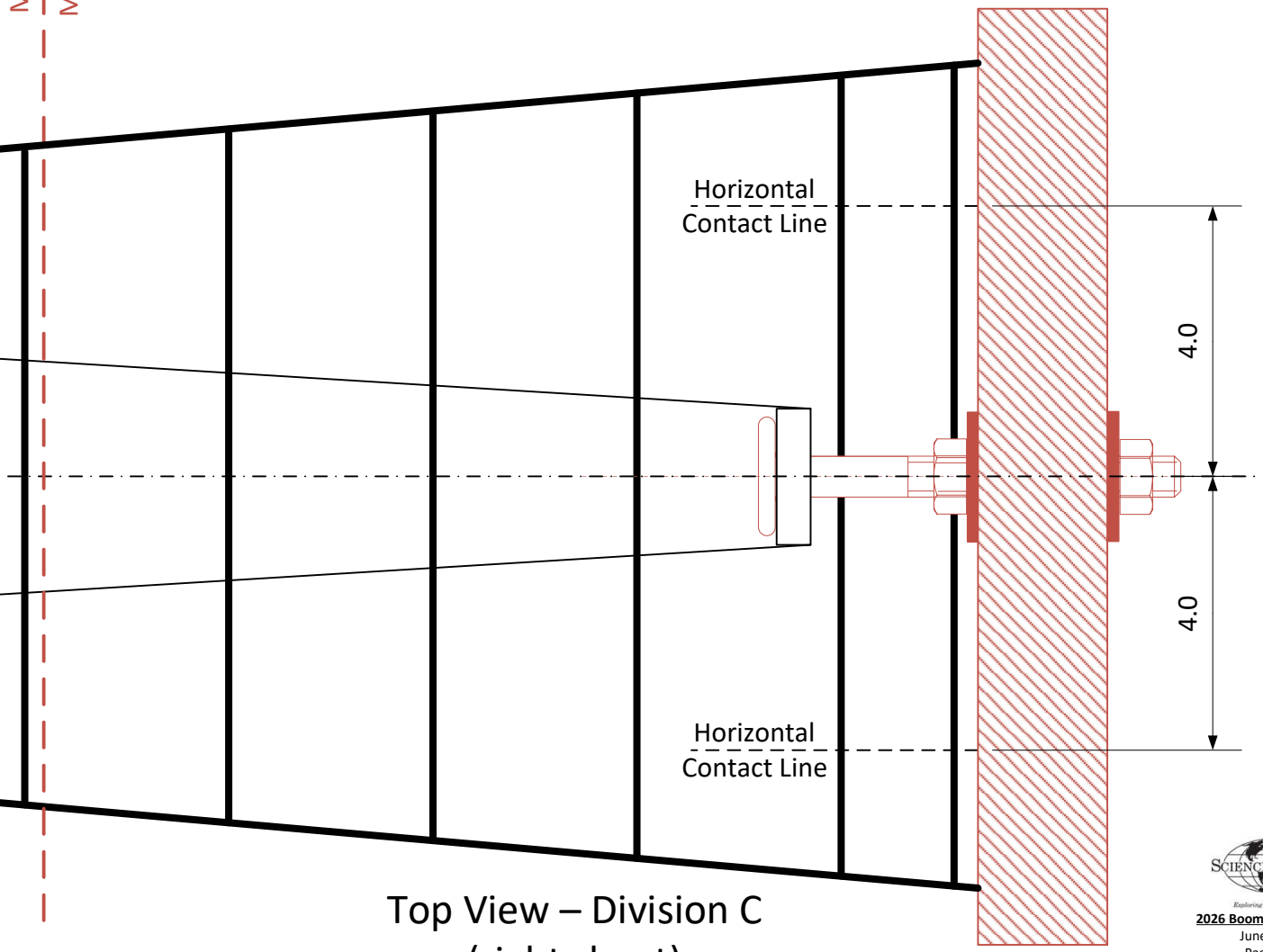


Top View – Division C
(middle sheet)



Top View – Division B
(right sheet)

Match LineB
Match Line B



Top View – Division C
(right sheet)

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