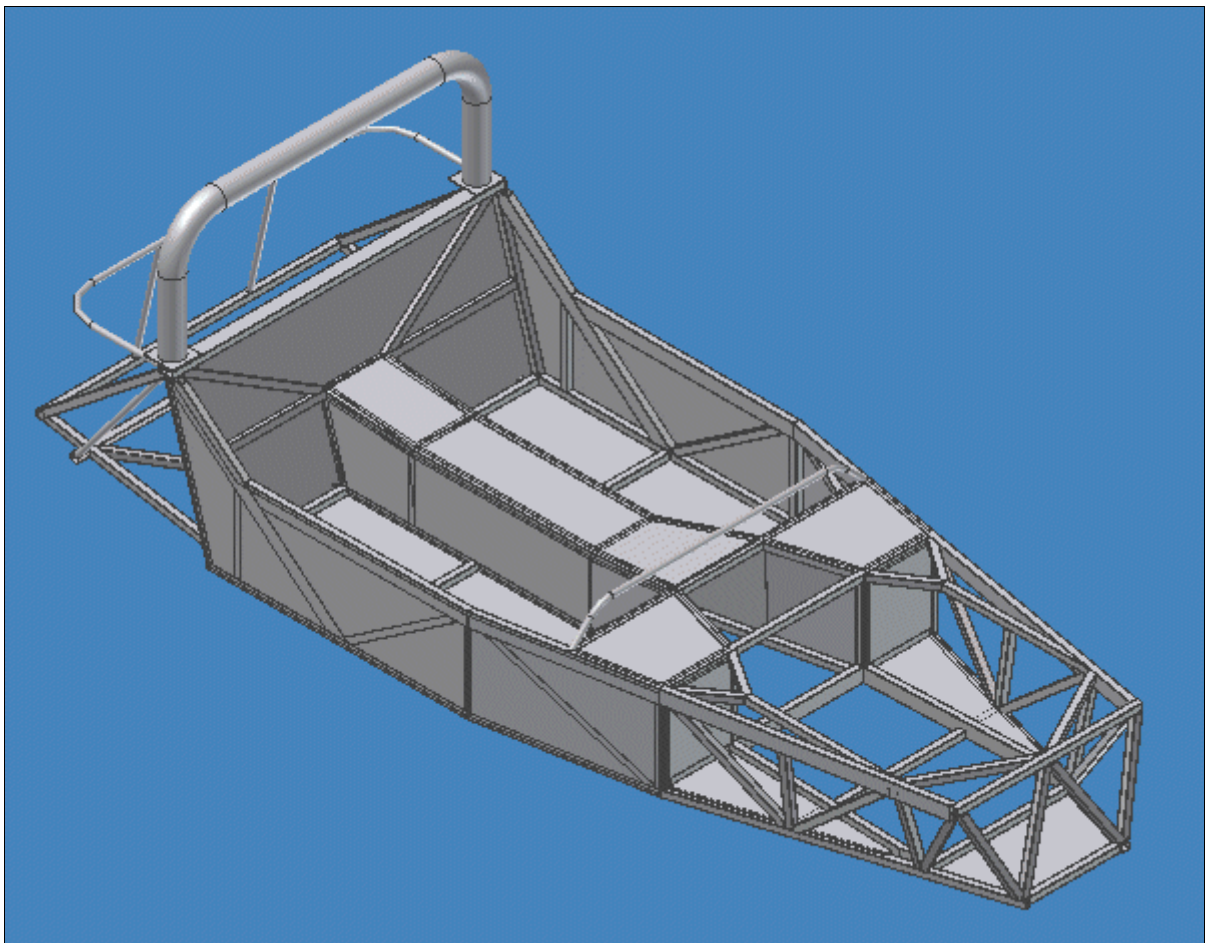


Clubman Chassis Structure

Type 3 Design

PRELIMINARY

(drawings to be verified)



John McIver
www.car-stuff.info

18th December 2007

Chassis Frame (Type 3)

The following tables provide a cutting list for all the structural members in the chassis. The chassis has been divided into 3 logical sections; the main frame, the transmission tunnel and the rear frame structures.

Each member in the chassis has been given a unique identifying name. For each member the length and the number of items required are listed. Information is also provided to indicate if the tube ends need to be specially cut to shape.

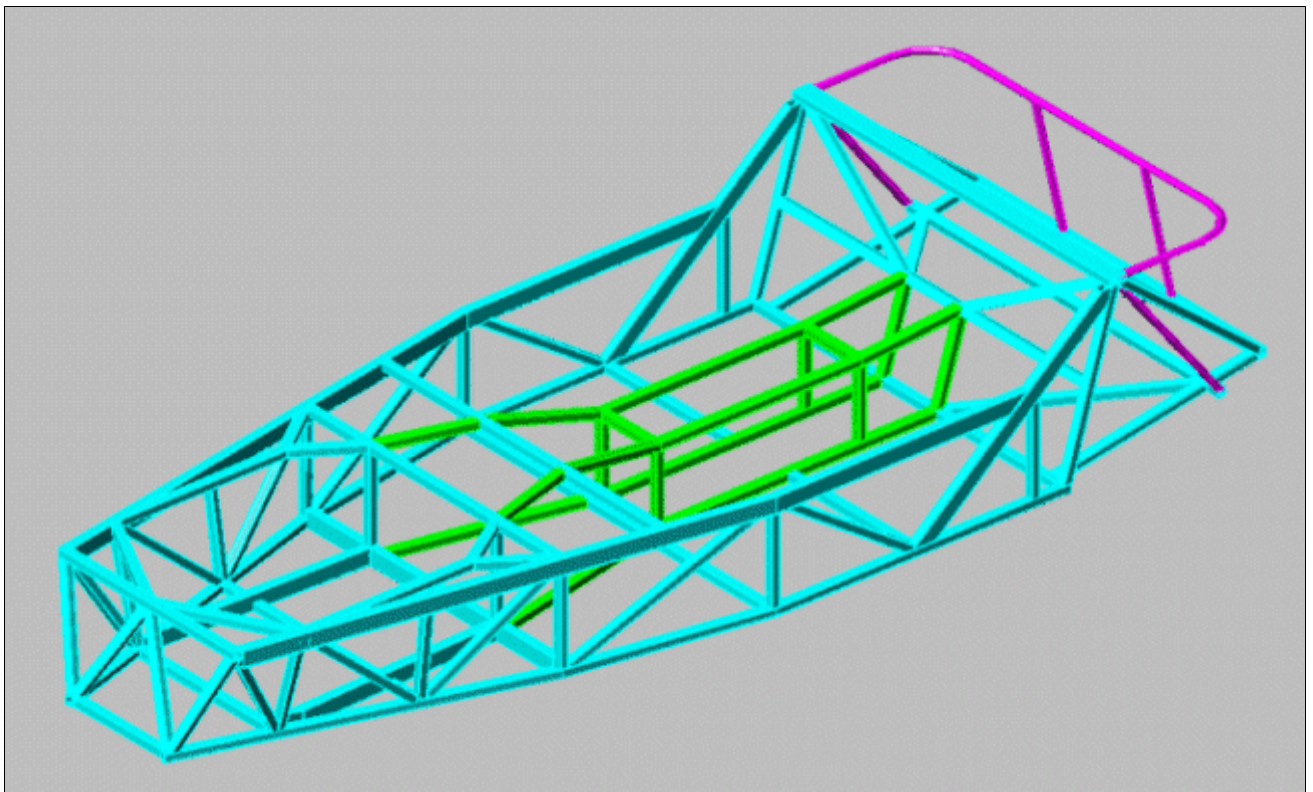
Each member is defined as being either a SHS, RHS or CHS section, and all members should be cut using C350 grade steel. For SHS this indicates a tube of size 25 x 25 x 1.6 mm Square Hollow Section. For RHS this indicates a tube of size 25 x 50 x 1.6 mm Rectangular Hollow Section. For CHS this indicates a tube of size 19 diameter x 1.6 mm Circular Hollow Section.

CHS sections are only used for the rear bodywork structure and this is not structural.

Total steel quantities are as follow,

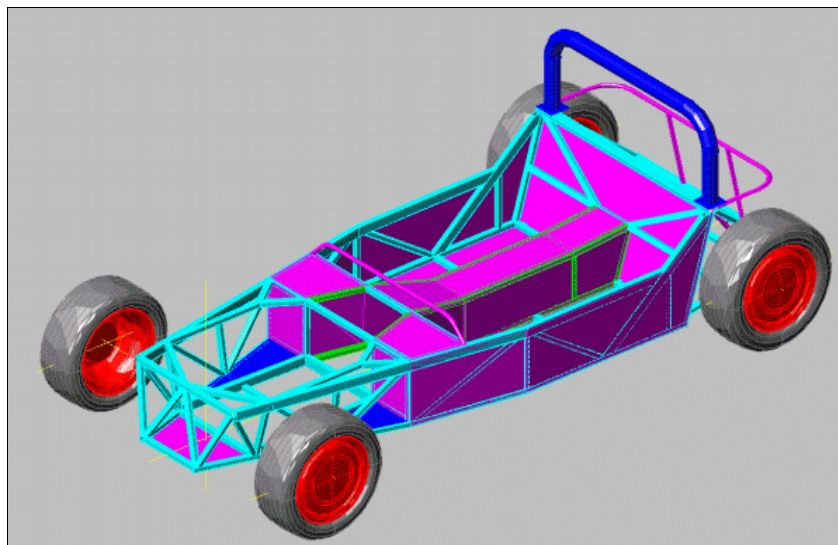
| | | |
|----------|--------------|-----------------------|
| 25SHS | 40.54 metres | (1.12 kg/m → 45.4 kg) |
| 25x50RHS | 9.53 metres | (1.75 kg/m → 16.7 kg) |
| 19CHS | 3.53 metres | (1.23 kg/m → 4.4 kg) |

Estimated total material weight is therefore 66.5 kg.



Main Chassis Structure

| Member Name | Qty | Cut Length | Section | End Cuts | Description |
|--------------|-----|------------|---------|----------|-------------------|
| A1 A2 | 2 | 913 | SHS | No | Base Frame |
| B1 | 1 | 1117 | SHS | No | Base Frame |
| B2 | 1 | 1117 | SHS | 2 | Base Frame |
| B3 | 2 | 445 | SHS | No | Base Frame |
| B4 | 1 | 441 | RHS | 2 | Base Frame |
| B5 (3 units) | 1 | 658 | SHS | 4 | Base Frame |
| C | 2 | 215 | RHS | 3 | Base Frame |
| D1 D2 | 2 | 584 | SHS | 2 | Base Frame |
| E | 1 | 495 | SHS | 2 | Base Frame |
| F1 F2 | 2 | 1027 | SHS | No | Base Frame |
| FU1 FU2 | 2 | 272 | SHS | 2 | Side Frames |
| FU3 FU4 | 2 | 310 | SHS | 7 | Side Frames |
| FU5 FU6 | 2 | 404 | SHS | 3 | Side Frames |
| G1 G2 | 2 | 710 | RHS | 2 | Base Frame |
| H1 H4 | 2 | 254 | SHS | No | Side Frames |
| H2 H3 | 2 | 254 | SHS | No | Transverse Frames |
| H5 H6 | 2 | 254 | SHS | No | Side Frames |
| H7 H8 | 2 | 260 | SHS | No | Side Frames |
| J1 J2 | 2 | 1464 | RHS | 2 | Top Frame |
| K1 K2 | 2 | 790 | RHS | 3 | Side Frames |
| K3 K4 | 2 | 519 | SHS | 2 | Side Frames |
| LA LB | 2 | 321 | SHS | 3 | Side Frames |
| LC | 1 | 656 | SHS | 2 | Top Frame |
| LD | 1 | 331 | SHS | 2 | Base Frame |
| LE LF | 2 | 350 | SHS | 2 | Transverse Frames |
| M1 M2 | 2 | 269 | SHS | 1 | Side Frames |
| N1 N2 | 2 | 781 | RHS | 1 | Top Frame |
| O | 1 | 1167 | RHS | No | Transverse Frames |
| O3 | 1 | 1117 | SHS | No | Transverse Frames |
| P | 1 | 1116 | SHS | 2 | Top Frame |
| Q | 1 | 918 | SHS | 2 | Top Frame |
| R1 R2 | 2 | 523 | SHS | 1 | Top Frame |
| R3 R6 | 2 | 196 | SHS | 4 | Top Frame |
| R4 R5 | 2 | 202 | SHS | 3 | Top Frame |
| S T | 2 | 379 | SHS | 2 | Top Frame |
| TR1 TR2 | 2 | 415 | SHS | 3 | Side Frames |
| TR3 TR4 | 2 | 580 | SHS | 3 | Side Frames |
| TR5 TR6 | 2 | 467 | SHS | 3 | Side Frames |

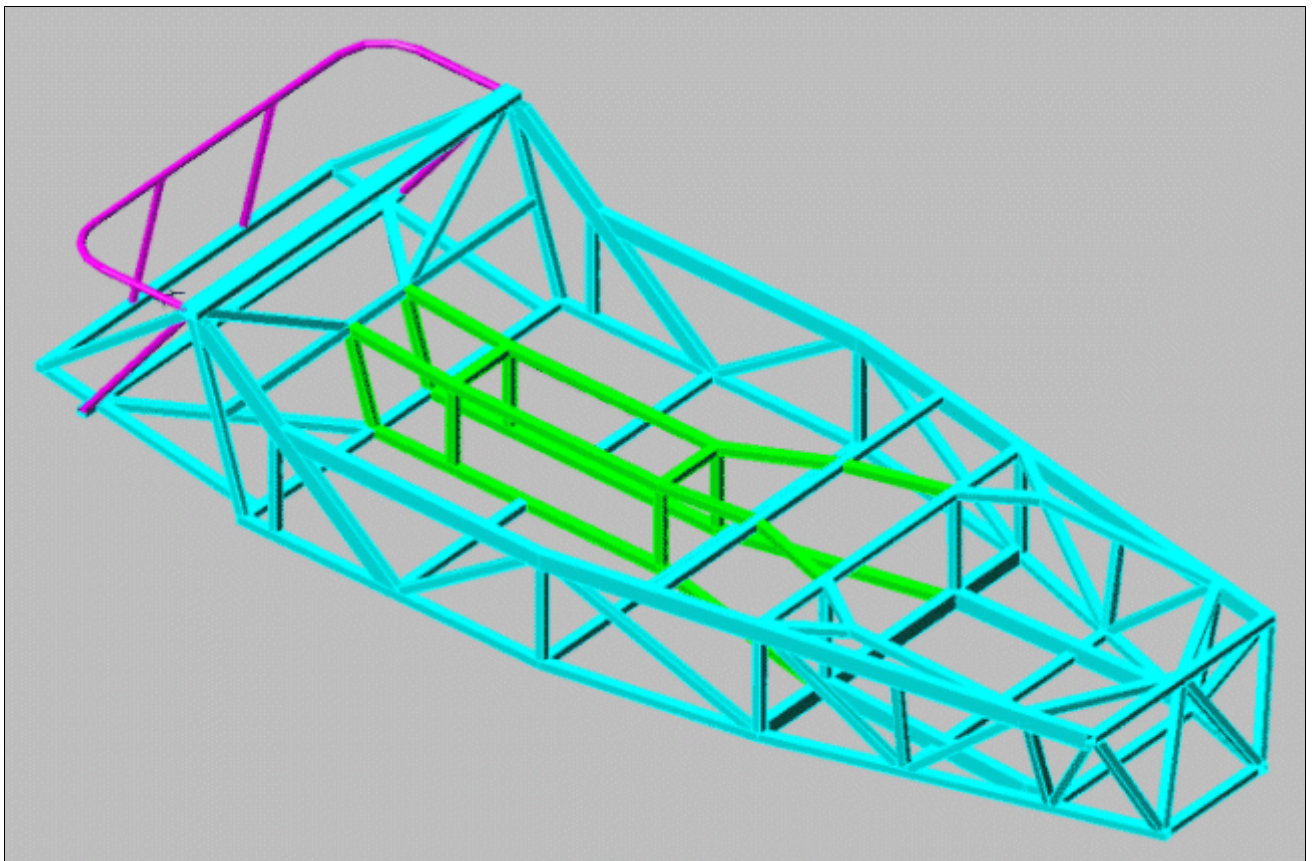


Transmission Tunnel

| Member Name | Qty | Cut Length | Section | End Cuts | Description |
|-------------|-----|------------|---------|----------|-------------|
| RA RB | 2 | 876 | SHS | No | Base Frame |
| RC RD | 2 | 627 | SHS | No | Tunnel |
| RE RF | 2 | 244 | SHS | 1 | Tunnel |
| RG RH | 2 | 334 | SHS | 2 | Tunnel |
| RI RJ | 2 | 308 | SHS | 2 | Tunnel |
| RK1 RK2 | 2 | 204 | SHS | No | Tunnel |
| RK3 RK4 | 2 | 204 | SHS | No | Tunnel |
| RL RM | 2 | 546 | SHS | 2 | Base Frame |
| RN RO | 2 | 249 | SHS | No | Tunnel |
| RP RQ | 2 | 177 | SHS | No | Tunnel |

Rear Frame

| Member Name | Qty | Cut Length | Section | End Cuts | Description |
|-------------|-----|------------|---------|----------|-------------------|
| O1 O2 | 2 | 520 | SHS | 2 | Transverse Frames |
| RU1 RU2 | 2 | 634 | SHS | 2 | Rear Frame |
| V | 1 | 1065 | SHS | No | Rear Frame |
| W1 W2 | 2 | 619 | SHS | 2 | Rear Frame |
| Y | 1 | 1170 | SHS | No | Rear Frame |
| Z Z2 | 2 | 625 | SHS | 2 | Rear Frame |
| X1 X2 | 2 | 519 | CHS | 2 | Rear Frame |
| X3 X4 | 2 | 400 | CHS | 2 | Rear Frame |
| Luggage | 1 | 1685 | CHS | No | Rear Frame |

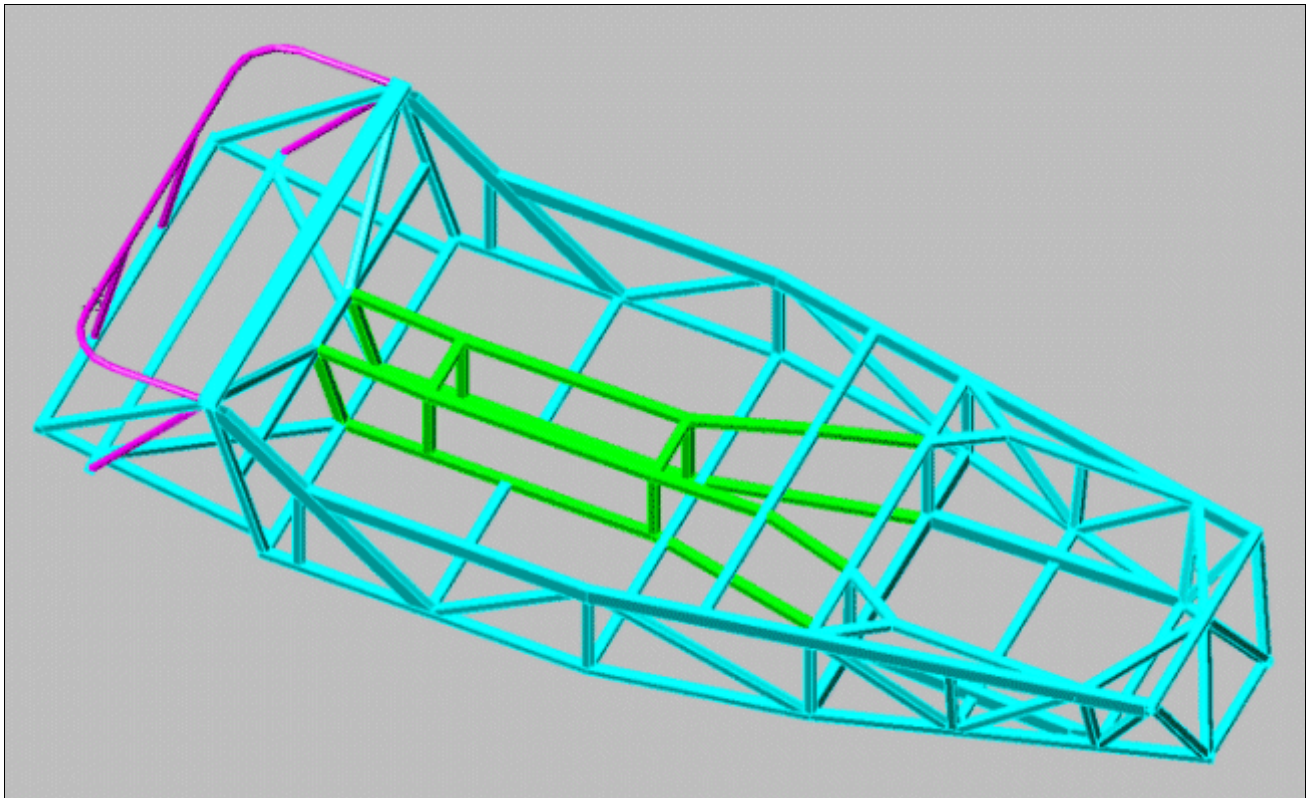


Drawing Numbers

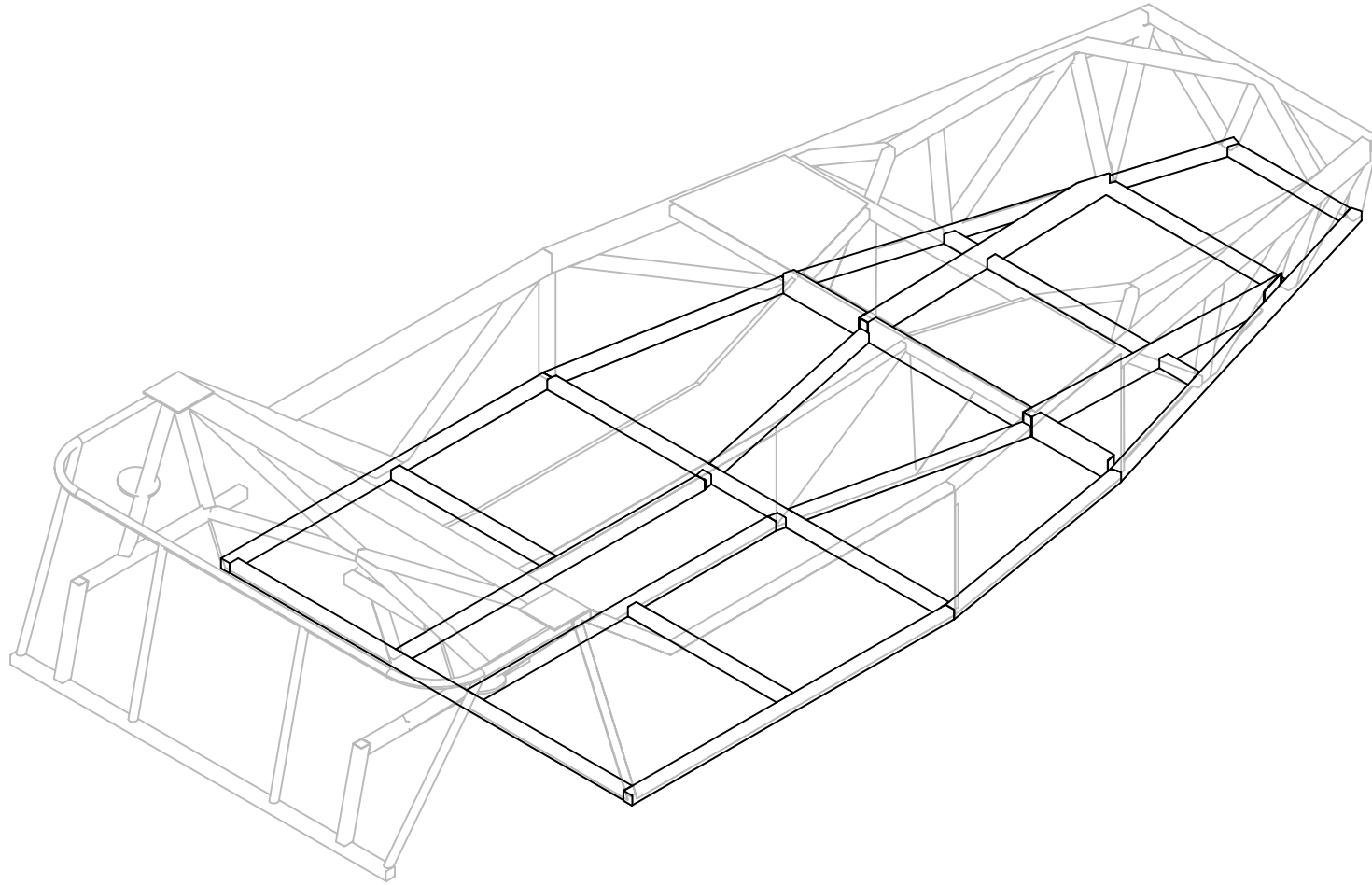
The basic drawing number is of the form 0601001A, where the CAD drawing file uses the same name. The first two characters (03) are the chassis type number (here a Type 3 chassis), while the second two characters are the frame number (here 01, which indicates a base frame). The next 3 characters are the drawing number (here 001) while the final character is the drawing revision (here A).

The frame numbers are as follows;

- 00 - General Drawing
- 01 - Base Frame
- 02 - Top Frame
- 03 - Side Frames
- 04 - Front Frame, Firewall, Seat Frame
- 05 - Transmission Tunnel
- 06 - Rear Structure - Clubman
- 07 - Plate Elements



Bottom Frame

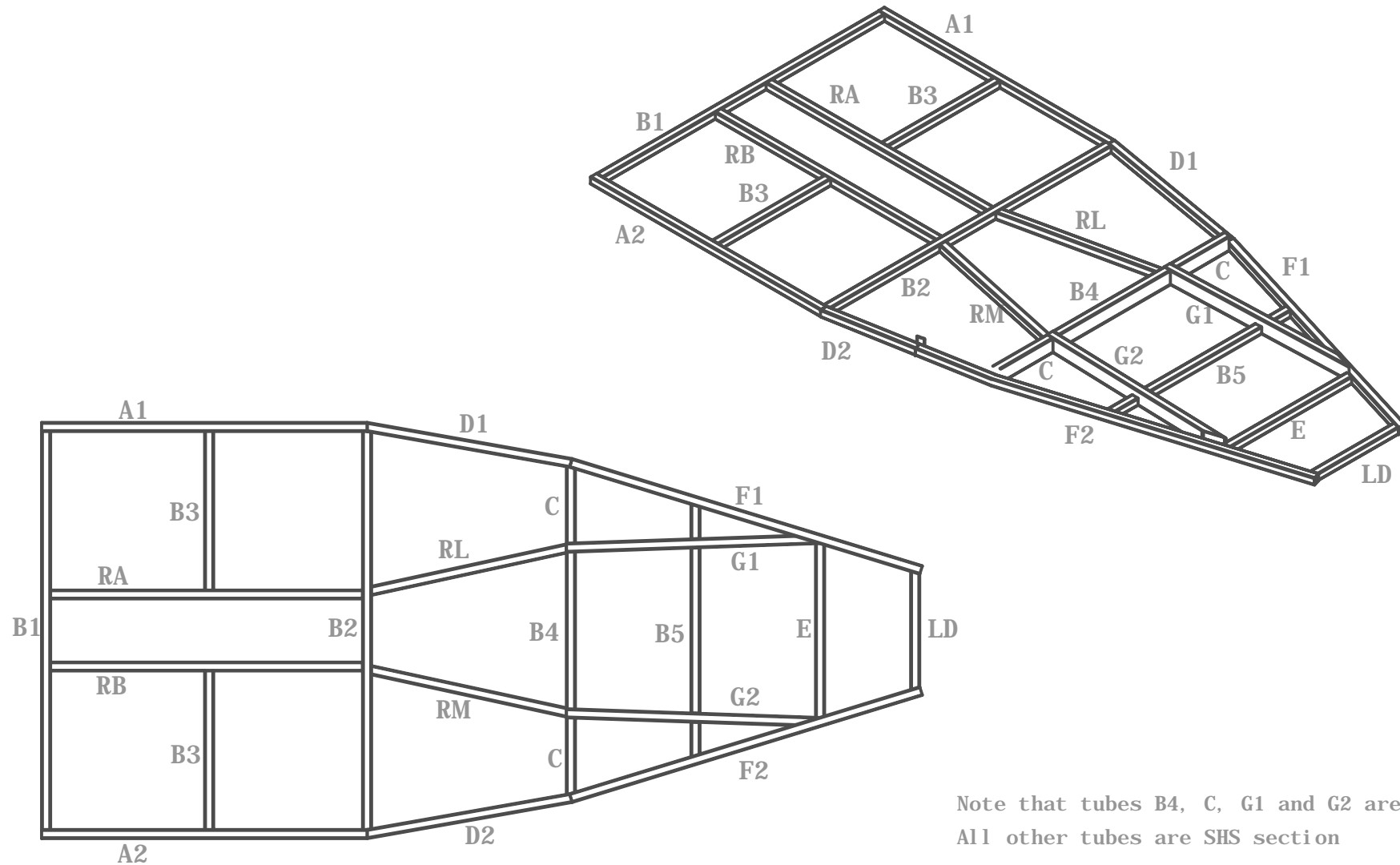


Temporal Images


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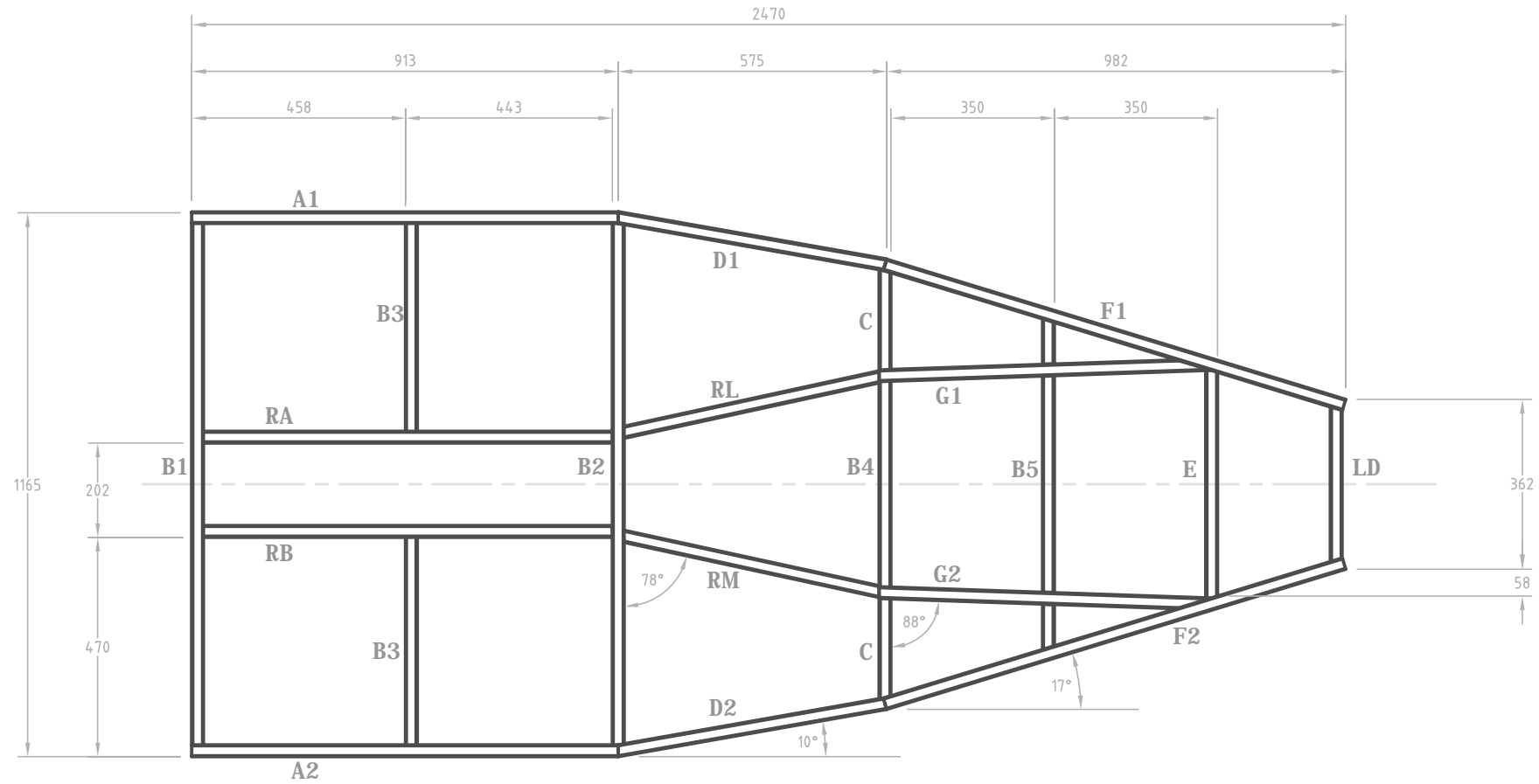
Base Frame


General Arrangement



Note that tubes B4, C, G1 and G2 are RHS sections
All other tubes are SHS section

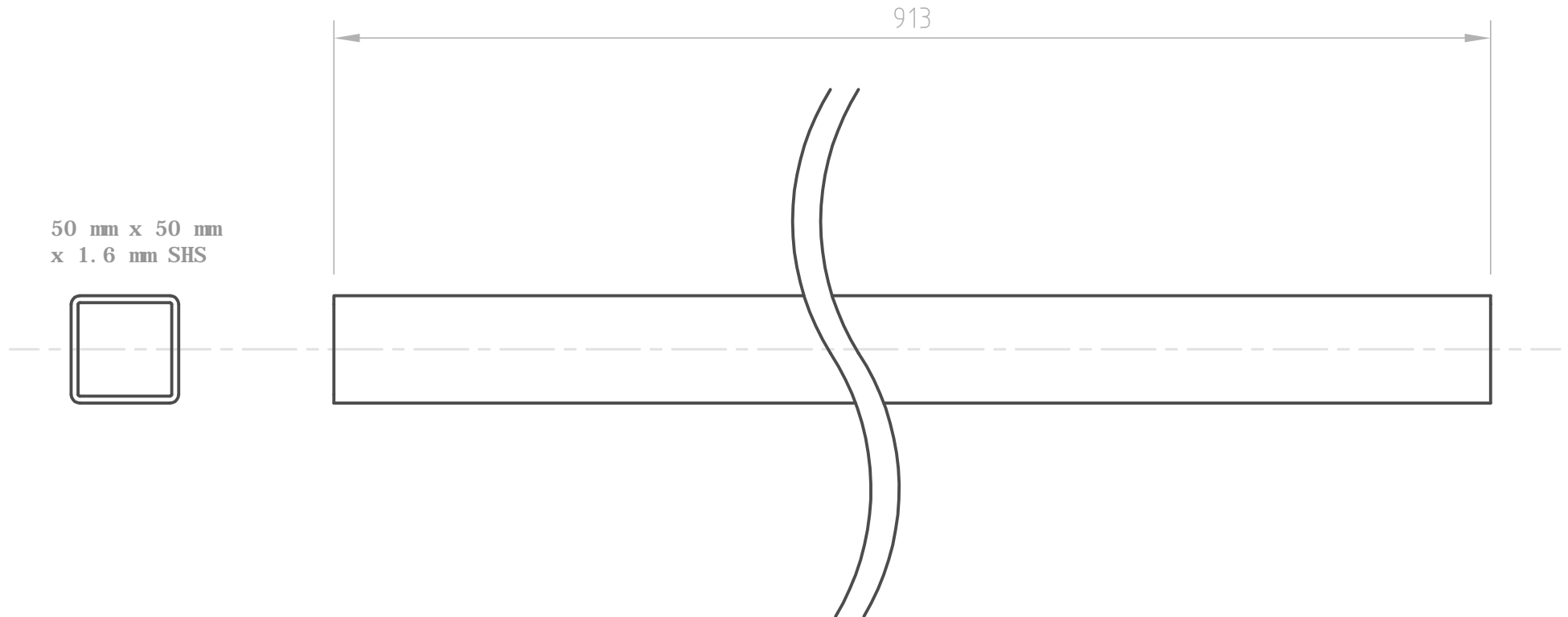
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| Designed by John McIver | Date 18th December 2007 | Clubman Chassis - Type 3 Structure | |
|  Temporal Images www.car-stuff.info | Filename | 0301001A. Dwg | Scale 1: 12 |
| | 0301001A | | Sheet 1 of 16 |




| | | | |
|--|----------------------------|------------------------------------|------------------|
| Designed by John McIver | Date 18th December 2007 | Clubman Chassis - Type 3 Structure | |
|  Temporal Images www.car-stuff.info | Filename 0301002A. Dwg | Scale 1: 10 | |
| | 0301002A | | Sheet 2 of 16 |

Base Frame

Frame Members



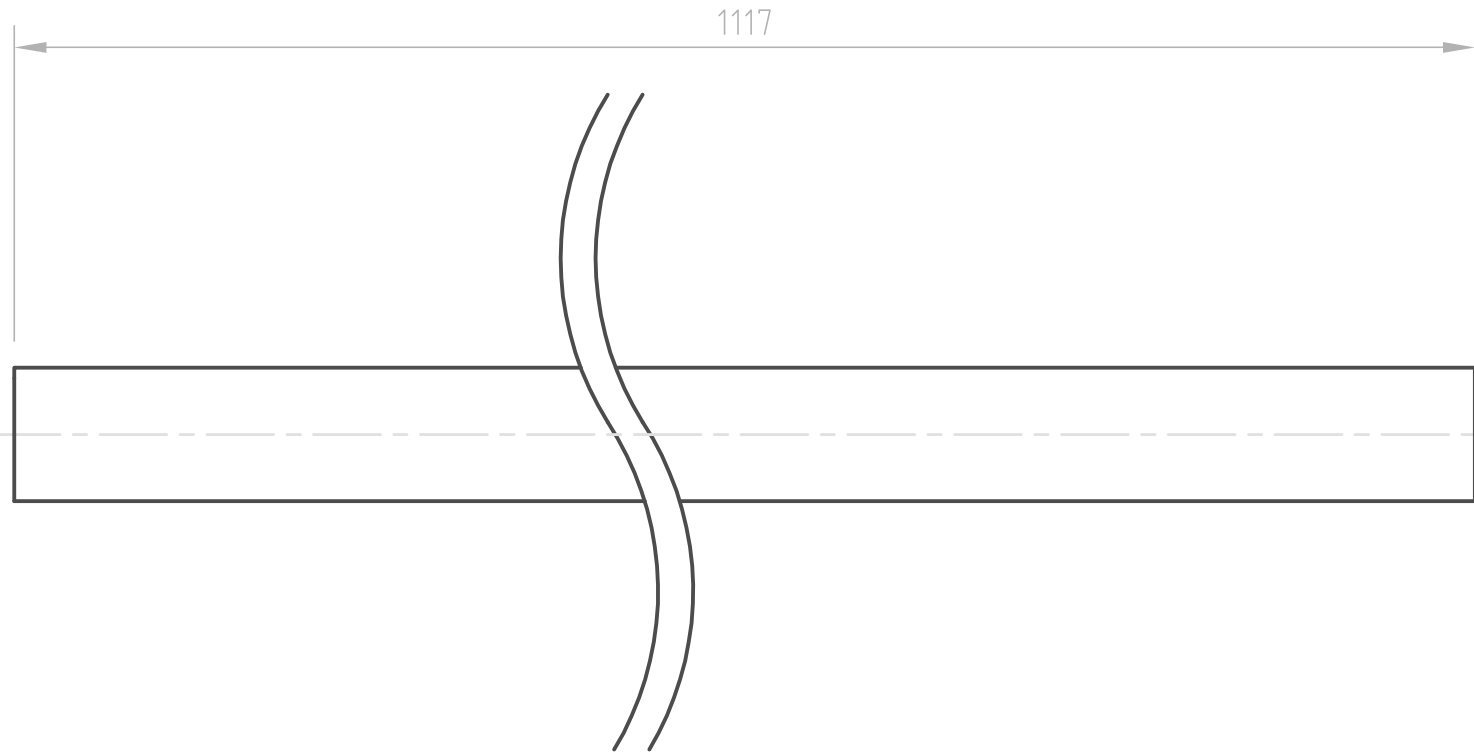
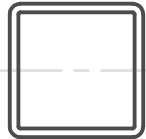
A1 & A2

| | | | |
|---|----------------------------|------------------------------------|--|
| Designed by John McIver | Date 18th December 2007 | Clubman Chassis - Type 3 Structure | |
|  Temporal Images www.car-stuff.info | Filename 0301003A.Dwg | Scale 1:1 | |
| | 0301003A | Sheet 3 of 16 | |


Base Frame

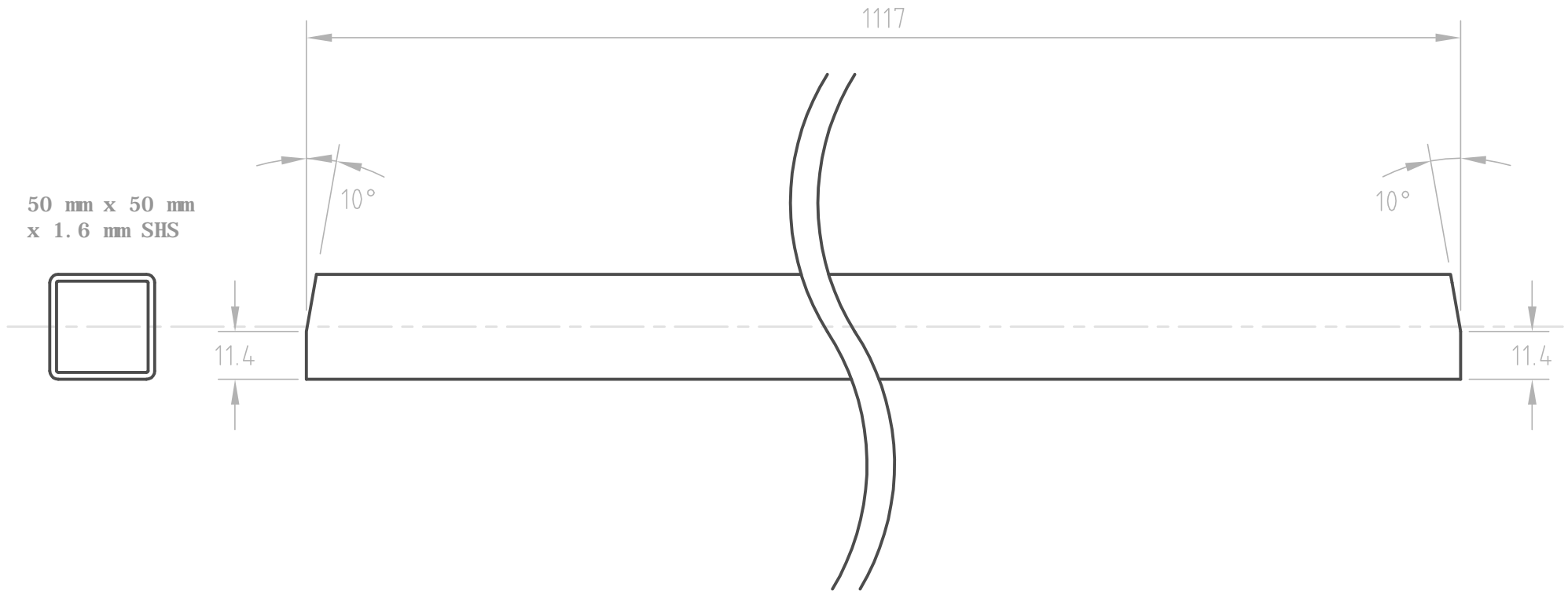
Frame Members

50 mm x 50 mm
x 1.6 mm SHS




B1

| | | | |
|---|----------------------------|------------------------------------|--|
| Designed by John McIver | Date 18th December 2007 | Clubman Chassis - Type 3 Structure | |
|  Temporal Images www.car-stuff.info | Filename 0301004A.Dwg | Scale 1:1 | |
| | 0301004A | Sheet 4 of 16 | |

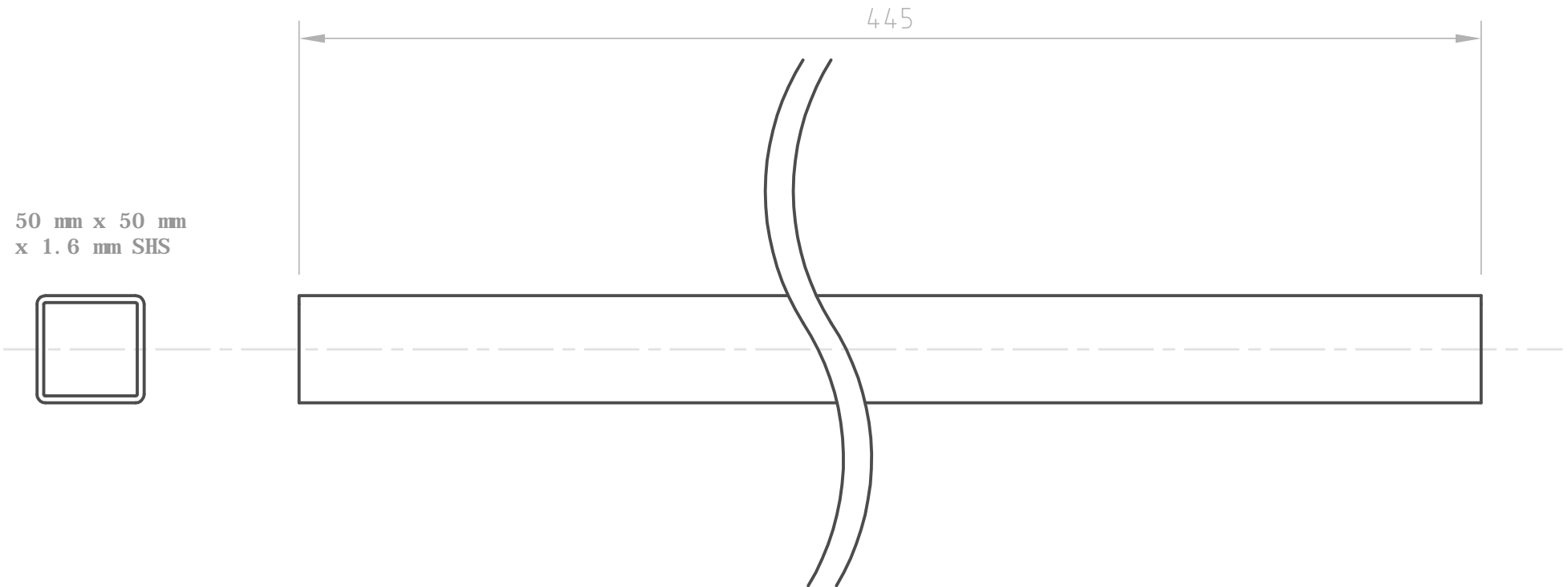


B2

| | | | |
|---|----------------------------|------------------------------------|---------------|
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| | | 0301005A | Sheet 5 of 16 |

Base Frame


Frame Members

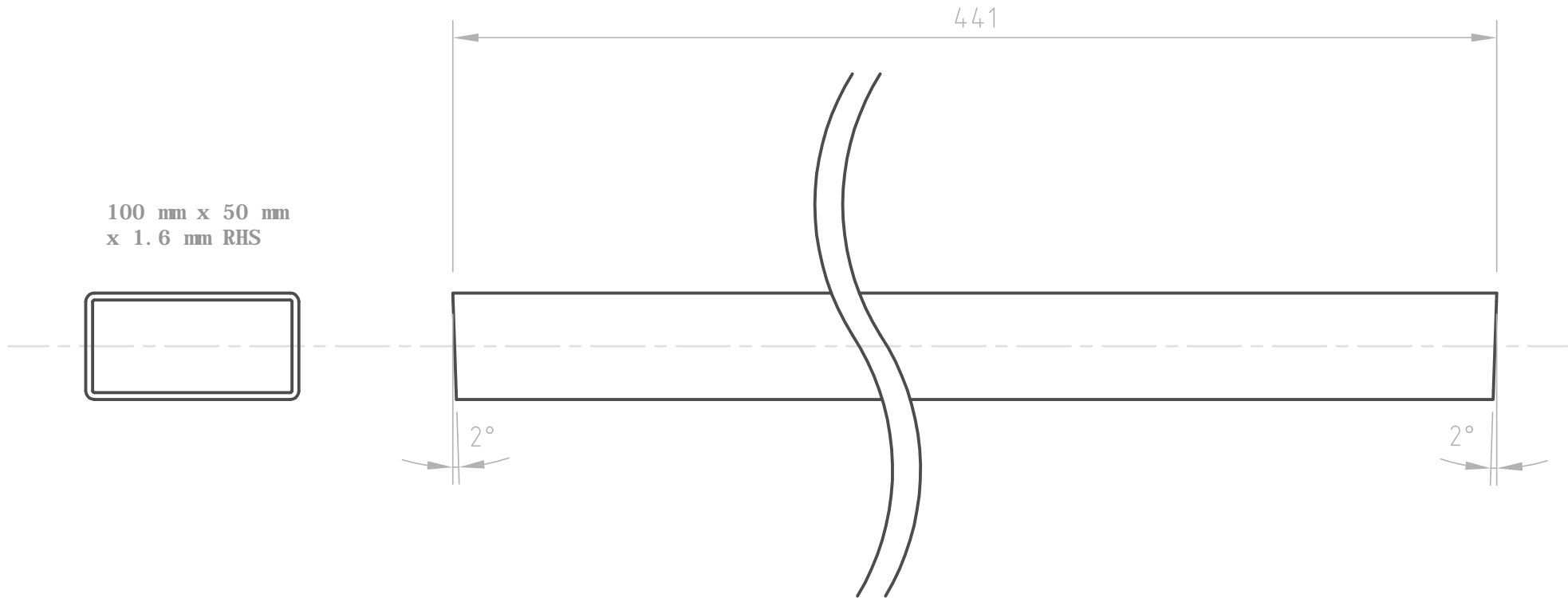


50 mm x 50 mm
x 1.6 mm SHS


445

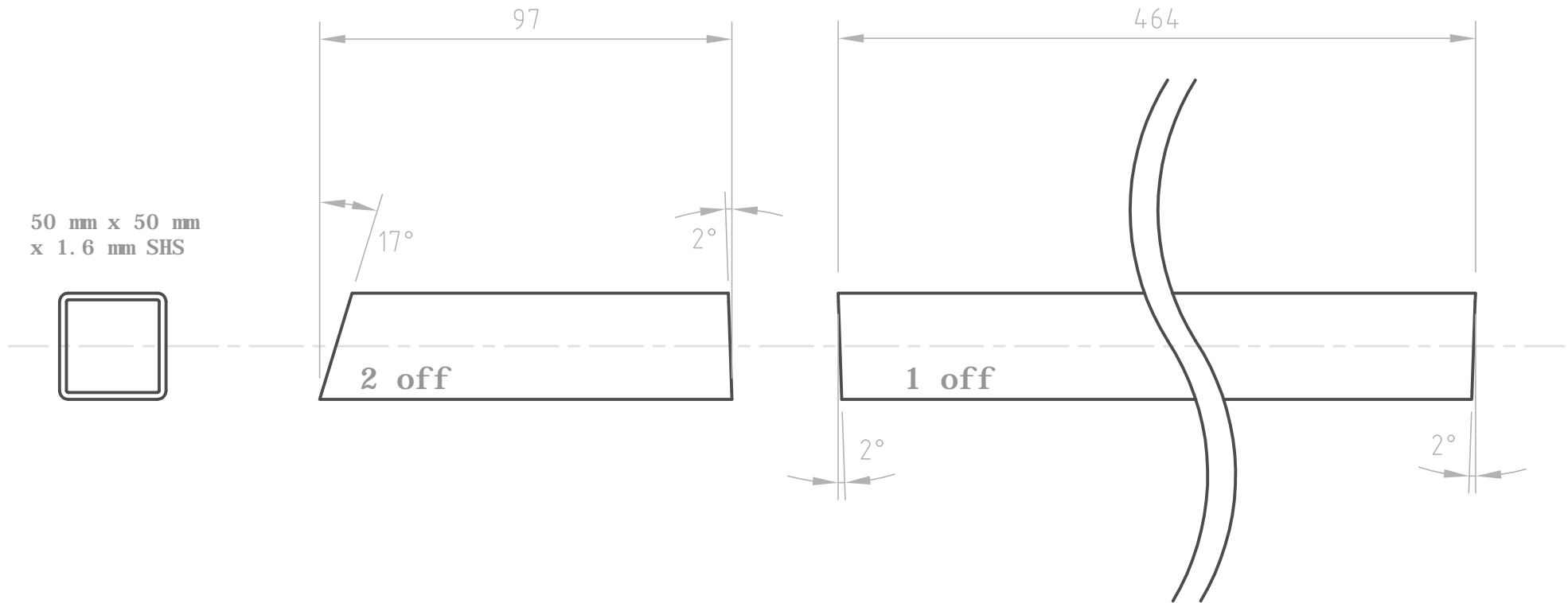
B3 (2 off)

| | | | |
|---|----------------------------|------------------------------------|--|
| Designed by John McIver | Date 18th December 2007 | Clubman Chassis - Type 3 Structure | |
|  Temporal Images www.car-stuff.info | Filename 0301006A.Dwg | Scale 1:1 | |
| | 0301006A | Sheet 6 of 16 | |




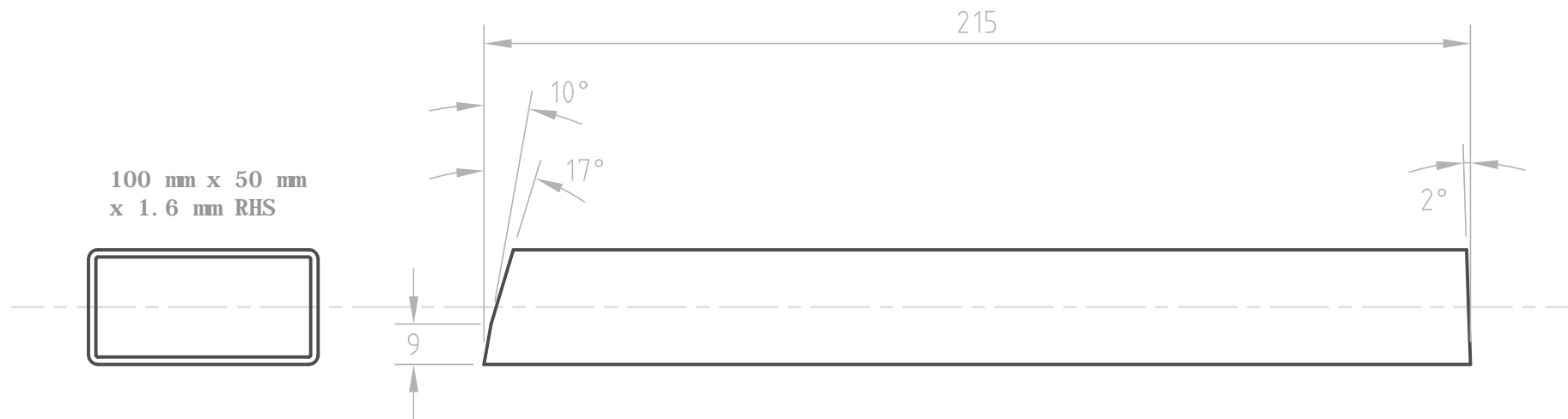
B4

| | | | |
|---|----------------------------|------------------------------------|--|
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|  Temporal Images www.car-stuff.info | Filename 0301007A. Dwg | Scale 1: 1 | |
| | 0301007A | Sheet 7 of 16 | |




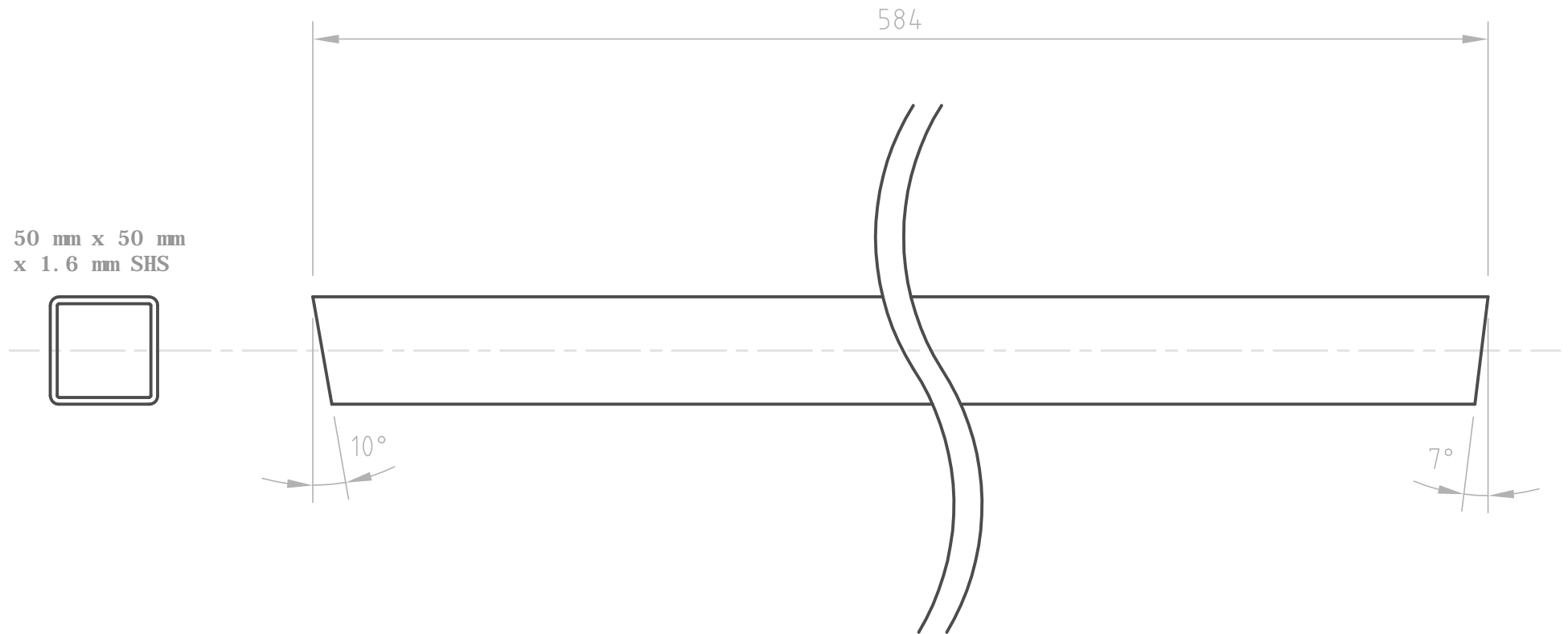
B5 (3 sections)

| | | | |
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| Designed by John McIver | Date 18th December 2007 | Clubman Chassis - Type 3 Structure | |
|  Temporal Images www.car-stuff.info | Filename | 0301008A.Dwg | Scale 1:1 |
| | | 0301008A | Sheet 8 of 16 |




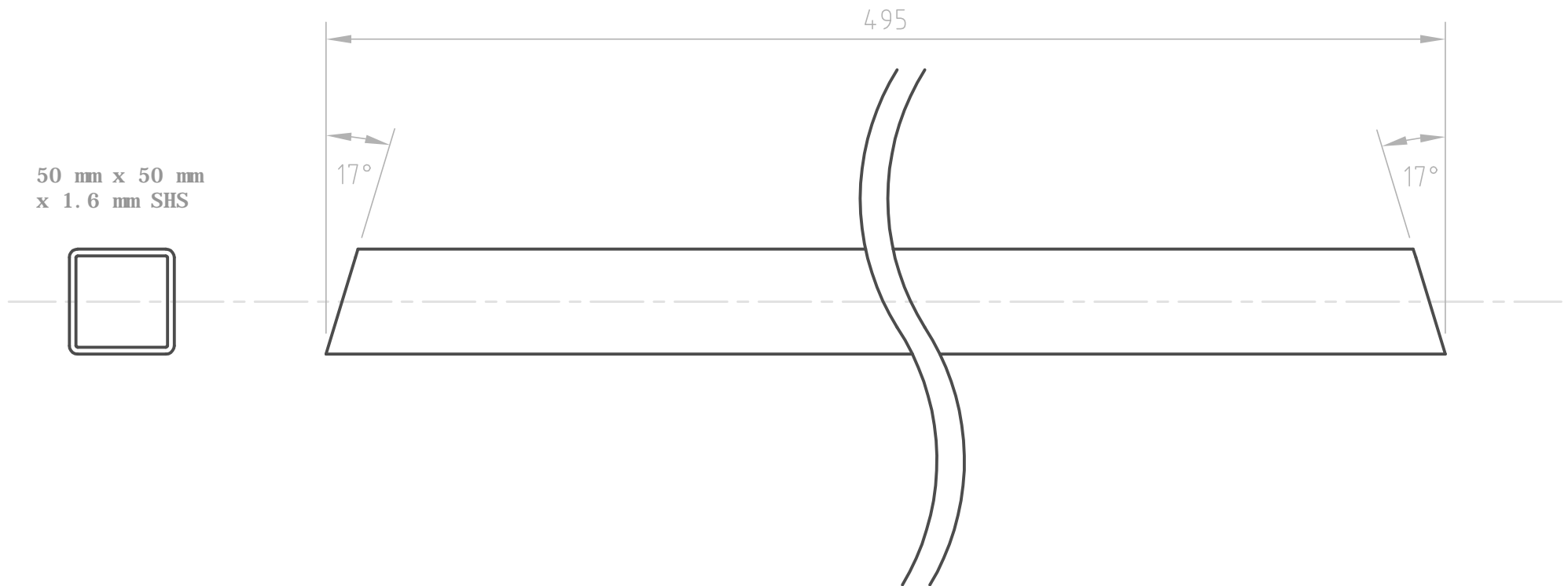
C (2 off)

| | | | |
|---|----------------------------|------------------------------------|---------------|
| Designed by John McIver | Date 18th December 2007 | Clubman Chassis - Type 3 Structure | |
|  Temporal Images www.car-stuff.info | Filename | 0301009A.Dwg | Scale 1:1 |
| | | 0301009A | Sheet 9 of 16 |




D1 & D2

| | | | |
|---|----------------------------|------------------------------------|----------------|
| Designed by John McIver | Date 18th December 2007 | Clubman Chassis - Type 3 Structure | |
|  Temporal Images www.car-stuff.info | Filename | 0301010A.Dwg | Scale 1:1 |
| | | 0301010A | Sheet 10 of 16 |



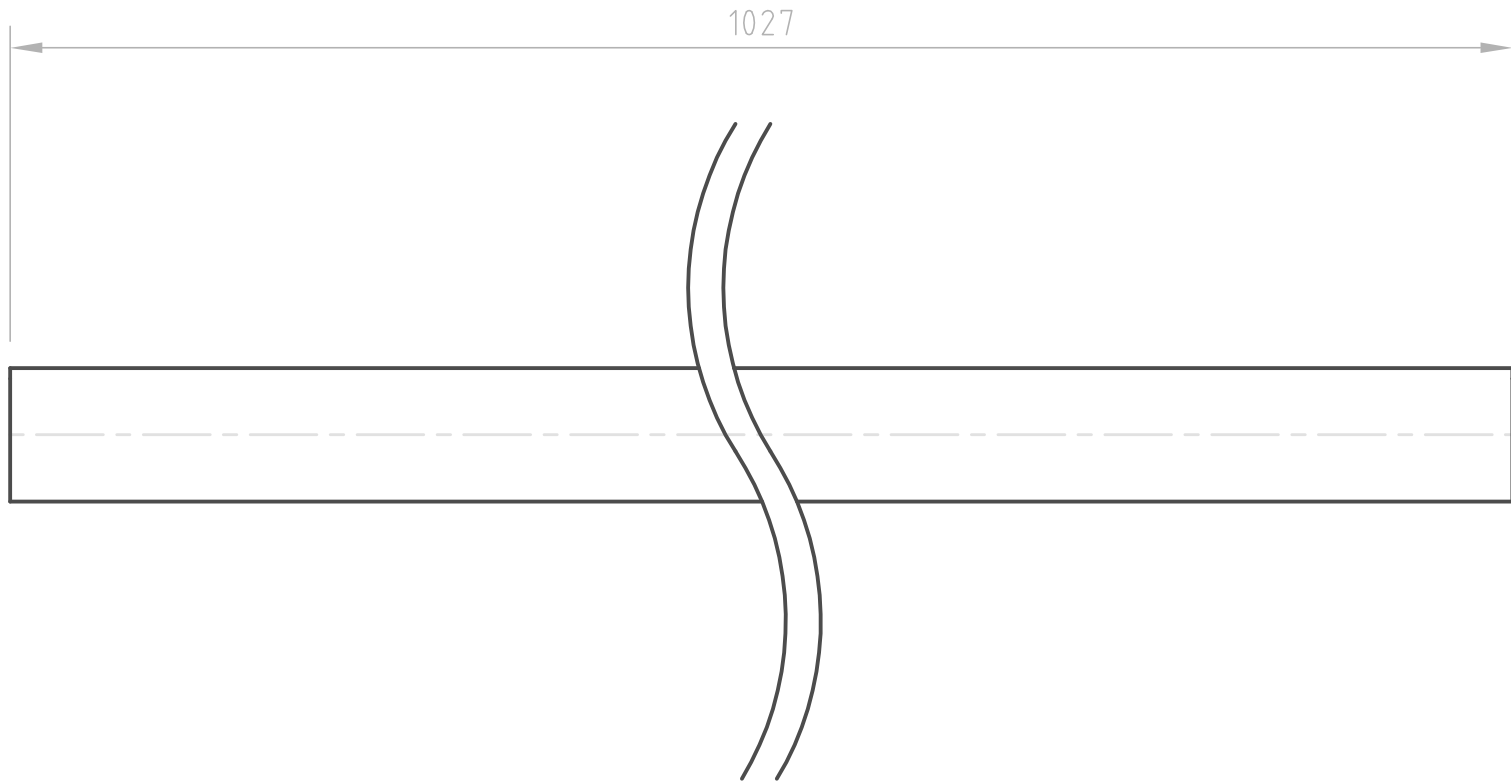
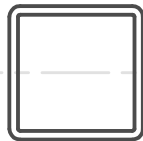
E

| | | | |
|---|----------------------------|------------------------------------|----------------|
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|  Temporal Images www.car-stuff.info | Filename | 0301011A.Dwg | Scale 1:1 |
| | | 0301011A | Sheet 11 of 16 |


Base Frame

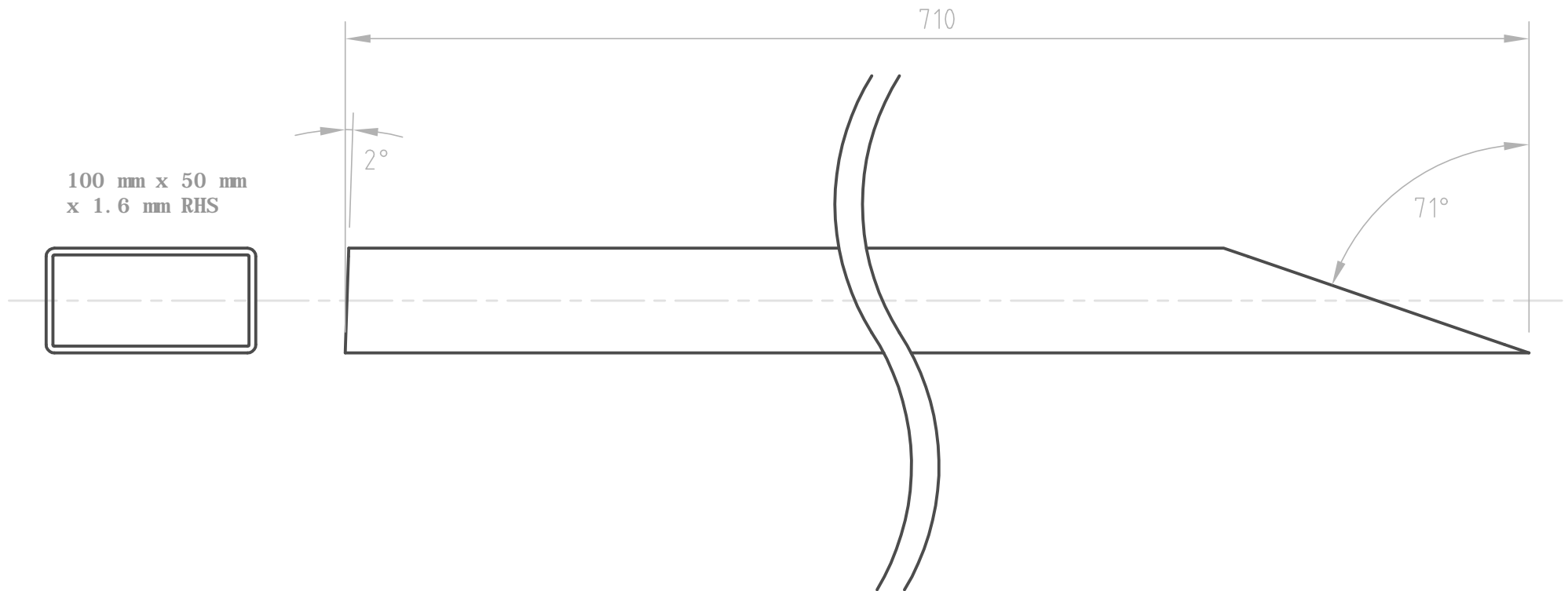
Frame Members

50 mm x 50 mm
x 1.6 mm SHS




F1 & F2

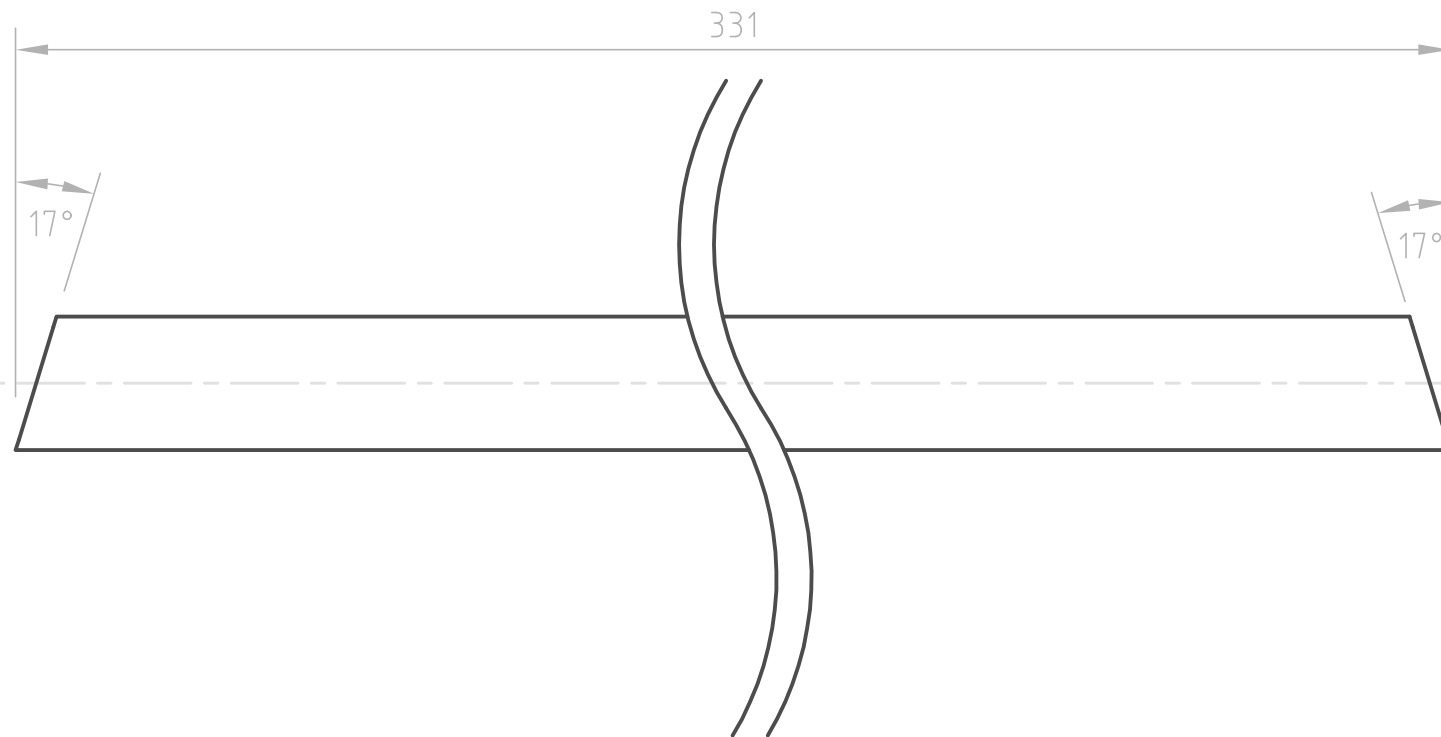
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| Designed by John McIver | Date 18th December 2007 | Clubman Chassis - Type 3 Structure | |
|  Temporal Images www.car-stuff.info | Filename 0301012A.Dwg | Scale 1:1 | |
| | 0301012A | | Sheet 12 of 16 |




G1 & G2

| | | | |
|---|----------------------------|------------------------------------|-------------------|
| Designed by John McIver | Date 18th December 2007 | Clubman Chassis - Type 3 Structure | |
|  Temporal Images www.car-stuff.info | Filename 0301013A.Dwg | Scale 1:1 | |
| | 0301013A | | Sheet 13 of 16 |

50 mm x 50 mm
x 1.6 mm SHS

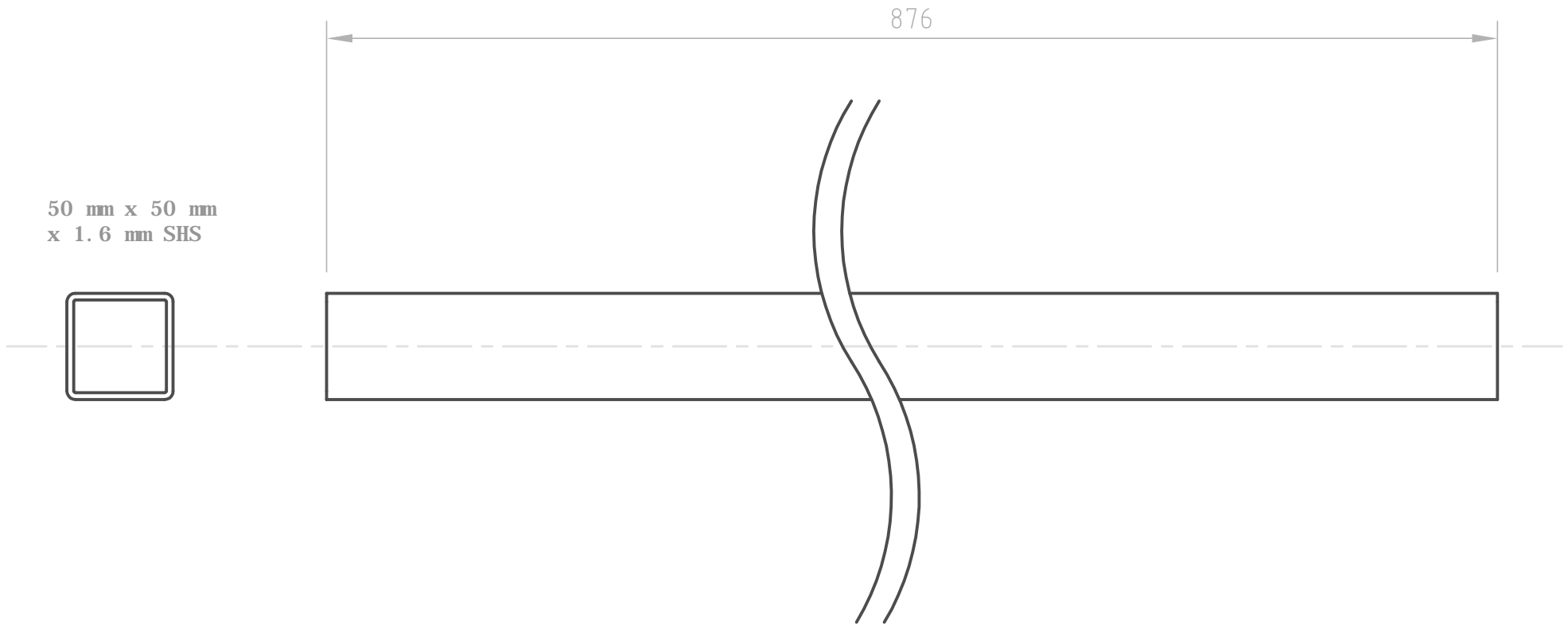


LD


| | | | |
|---|----------------------------|------------------------------------|----------------|
| Designed by John McIver | Date 18th December 2007 | Clubman Chassis - Type 3 Structure | |
|  Temporal Images www.car-stuff.info | Filename | 0301014A. Dwg | Scale 1:1 |
| | | 0301014A | Sheet 14 of 16 |

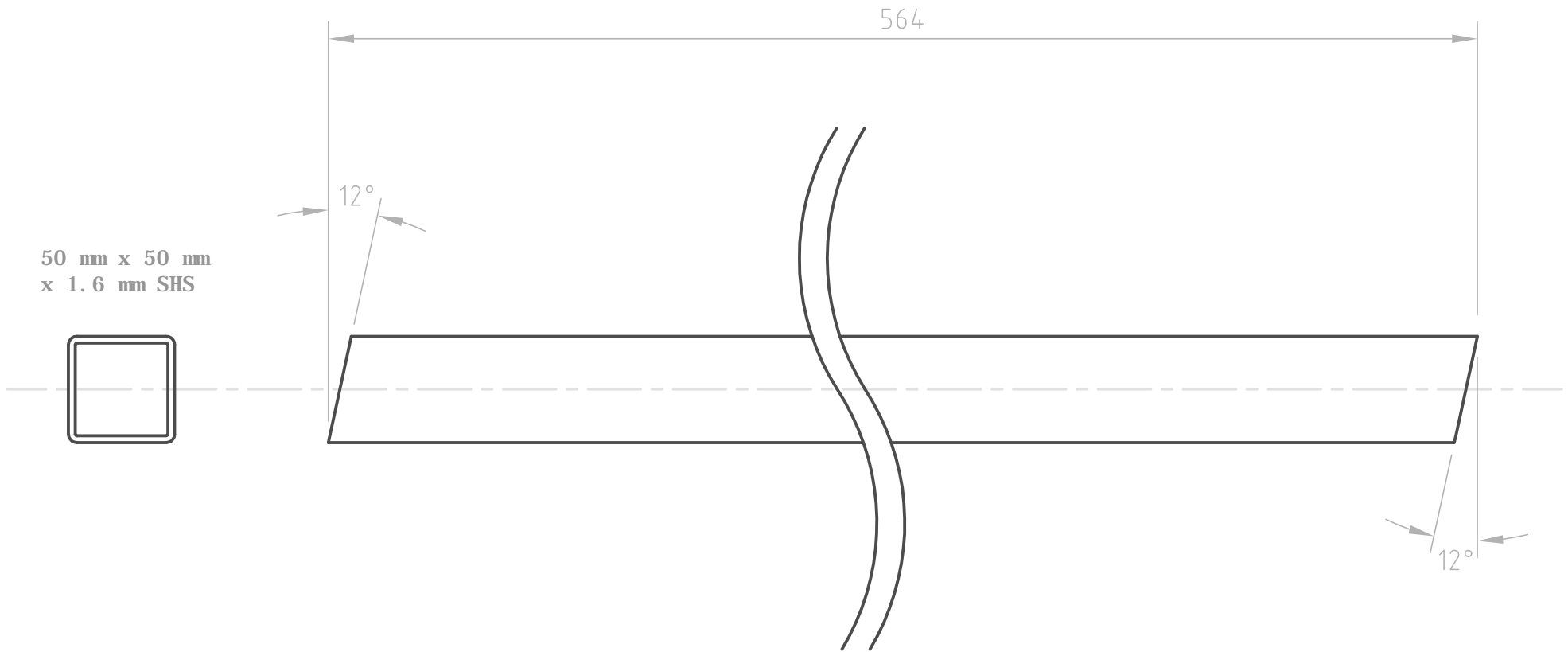
Base Frame

Frame Members




RA & RB

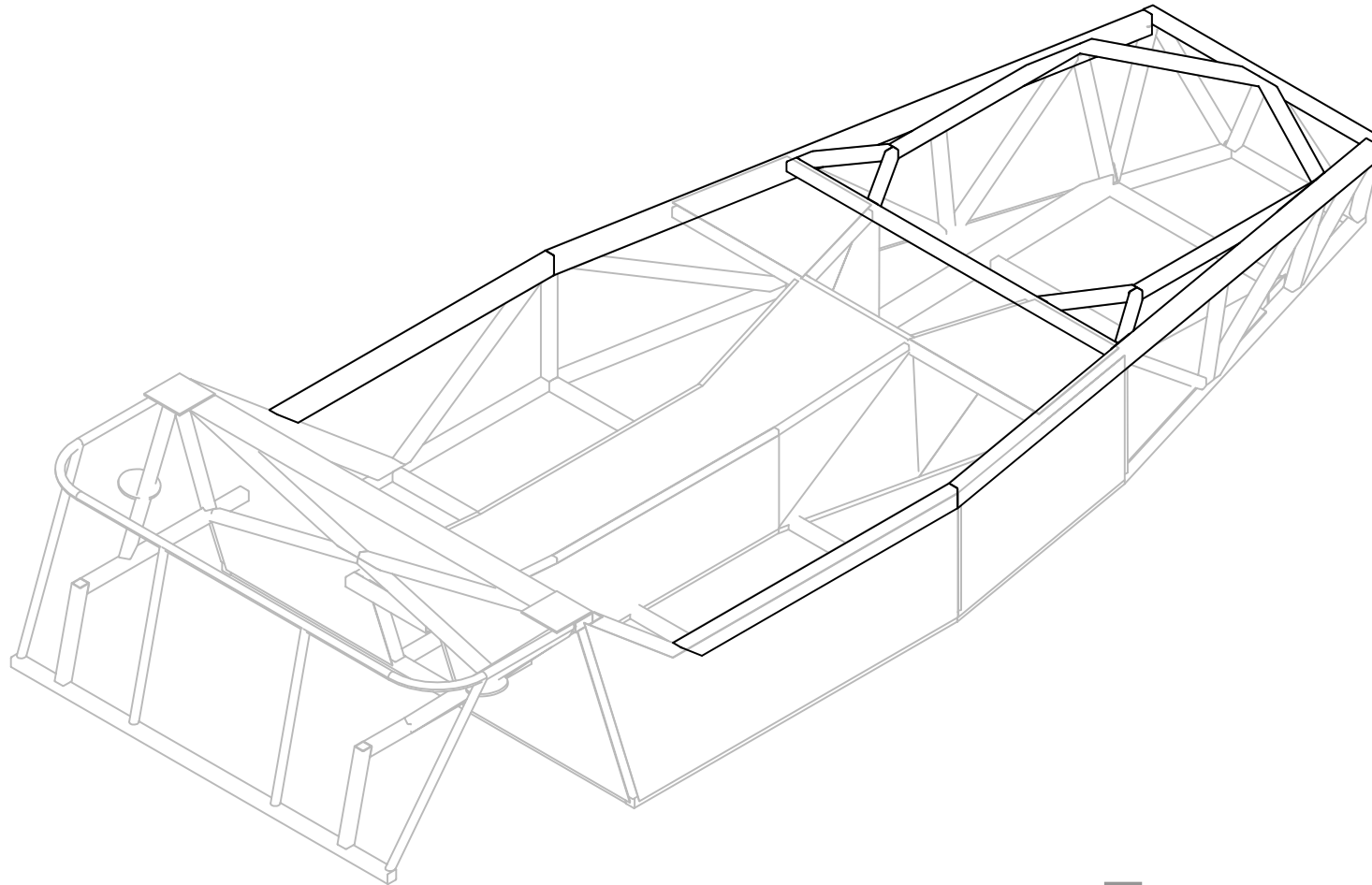
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| Designed by John McIver | Date 18th December 2007 | Clubman Chassis - Type 3 Structure | |
|  Temporal Images www.car-stuff.info | Filename 0301015A.Dwg | Scale 1:1 | |
| | 0301015A | Sheet 15 of 16 | |



RL & RM

| | | | |
|---|----------------------------|------------------------------------|----------------|
| Designed by John McIver | Date 18th December 2007 | Clubman Chassis - Type 3 Structure | |
|  Temporal Images www.car-stuff.info | Filename | 0301016A.Dwg | Scale 1:1 |
| | | 0301016A | Sheet 16 of 16 |

Top Frame

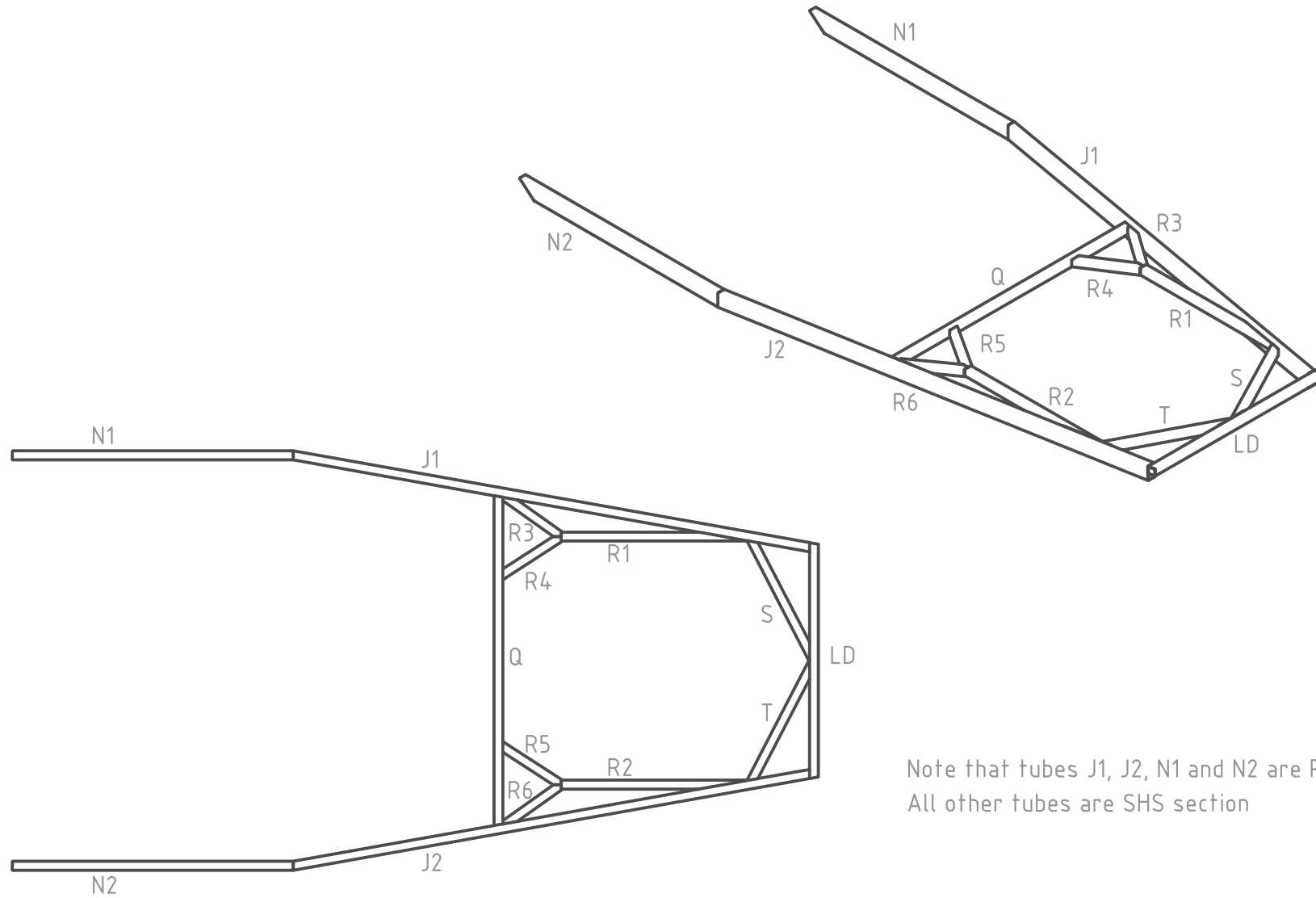


Temporal Images


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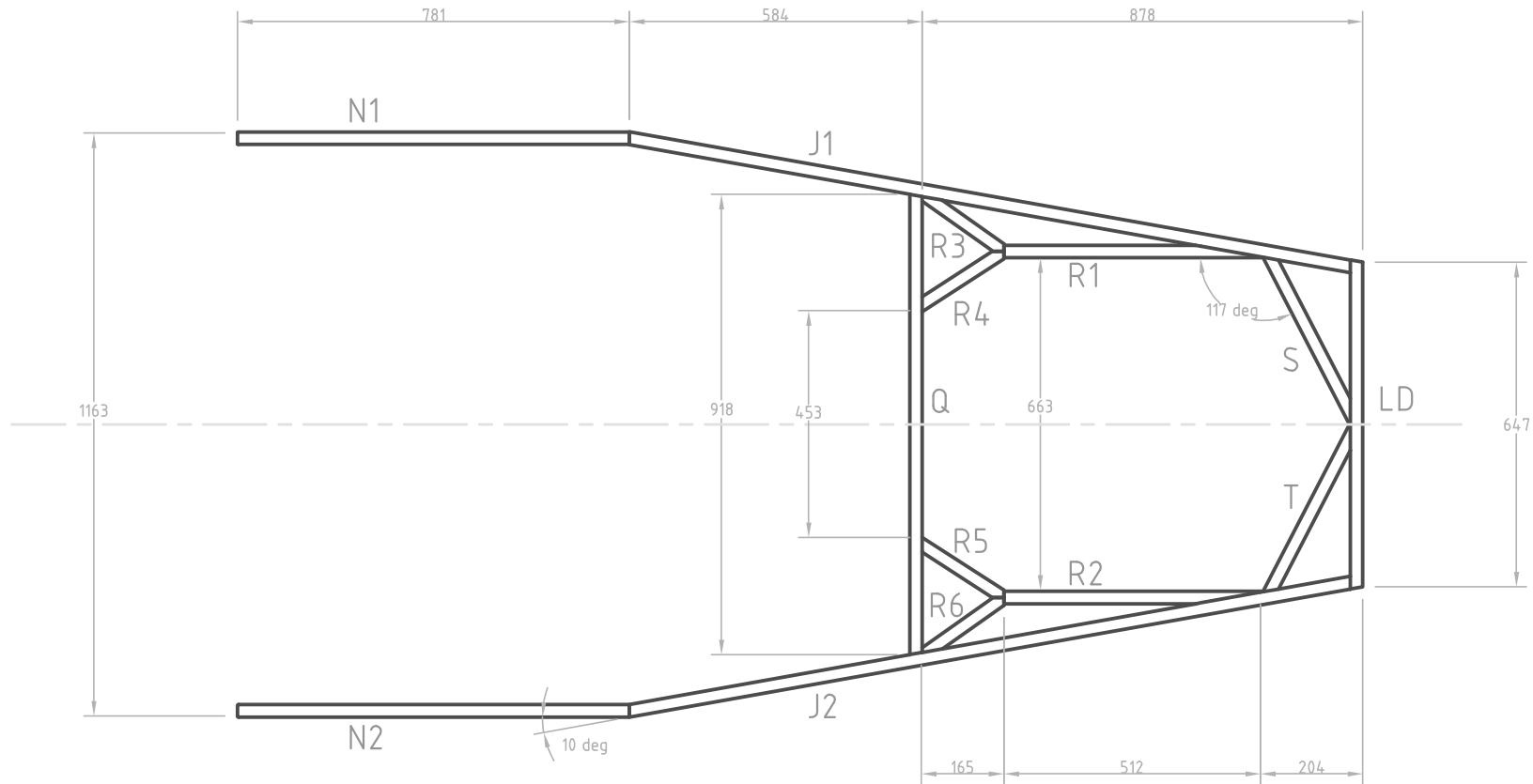
Top Frame


General Arrangement

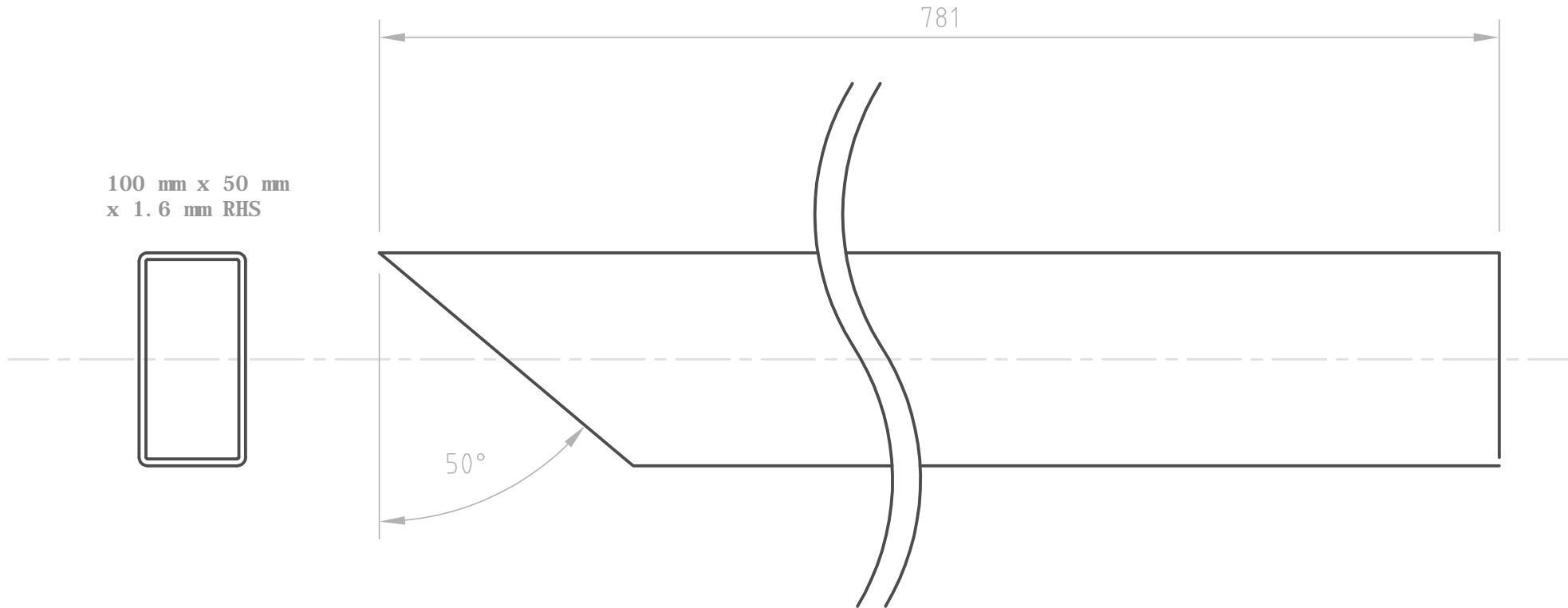


Note that tubes J1, J2, N1 and N2 are RHS sections
All other tubes are SHS section


| | | | |
|--|----------------------------|------------------------------------|---------------|
| Designed by John McIver | Date 18th December 2007 | Clubman Chassis - Type 3 Structure | |
|  Temporal Images www.car-stuff.info | Filename | 0302001A. Dwg | Scale 1: 12 |
| | | 0302001A | Sheet 1 of 10 |

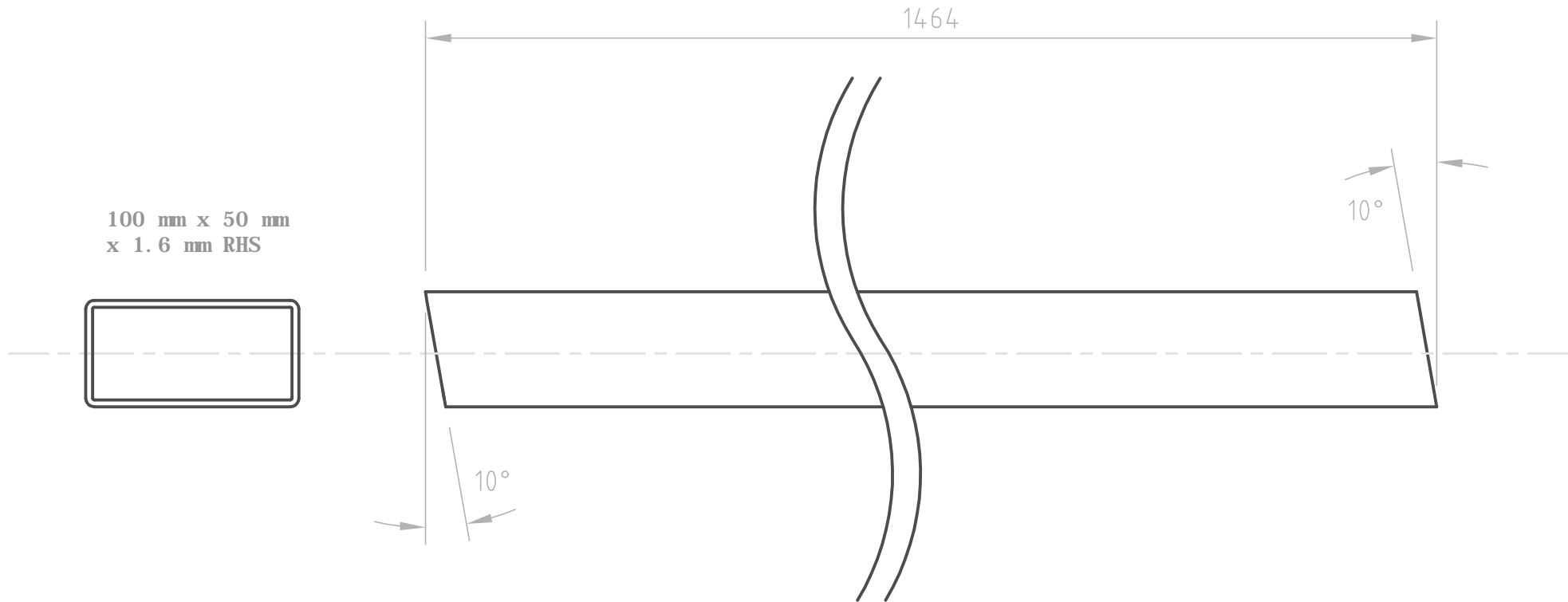


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| | | 0302002A | Sheet 2 of 10 |




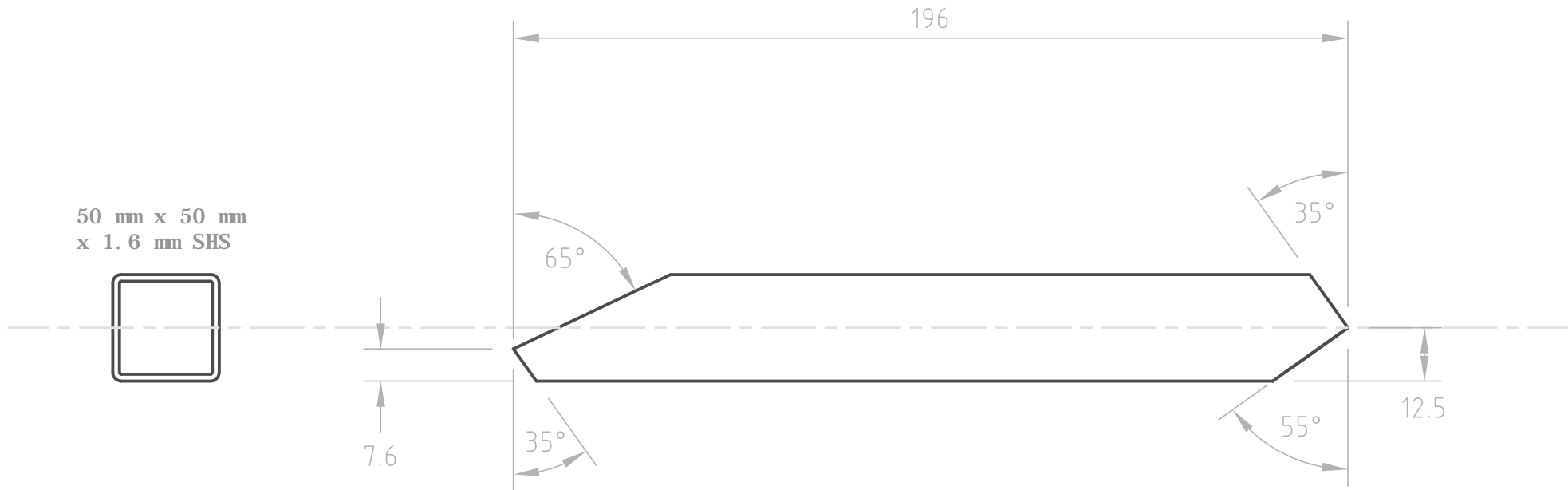
N1 & N2

| | | | |
|---|----------------------------|------------------------------------|------------------|
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|  Temporal Images www.car-stuff.info | Filename 0302003A. Dwg | Scale 1:1 | |
| | 0302003A | | Sheet 3 of 11 |




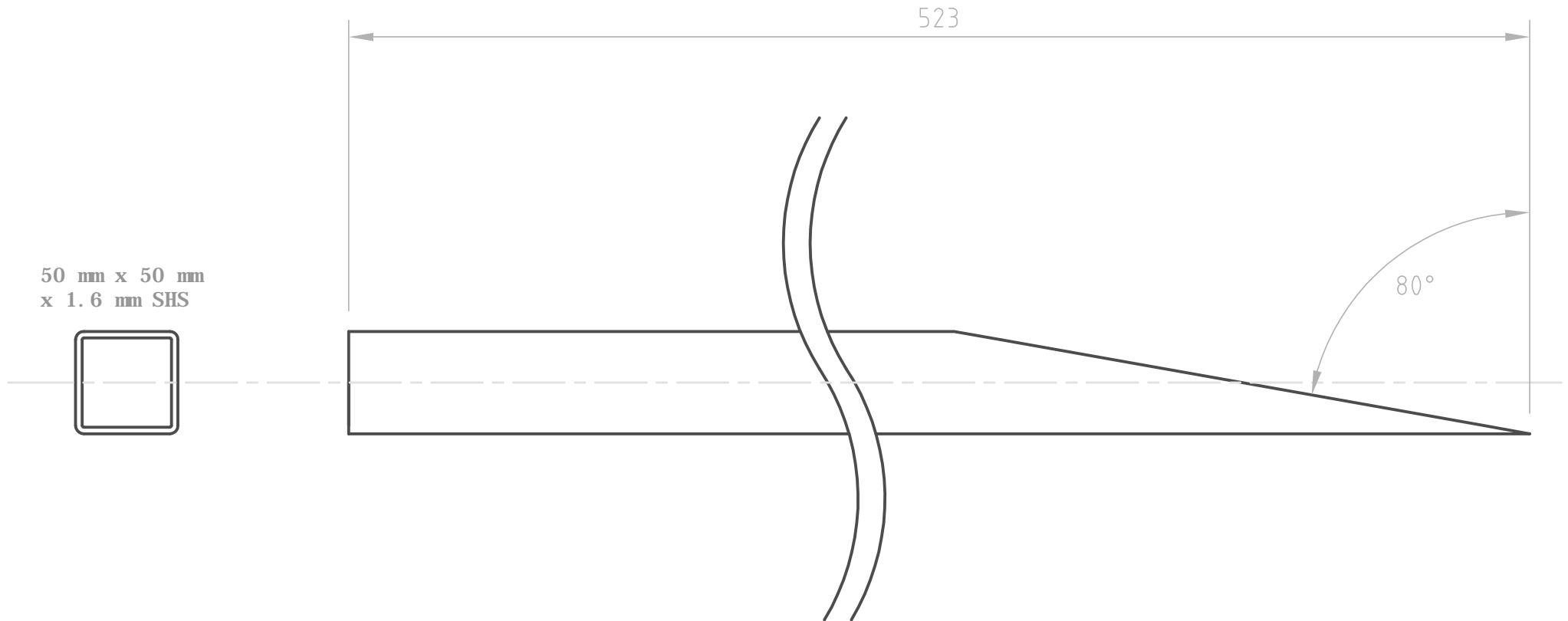
J1 & J2

| | | | |
|---|----------------------------|------------------------------------|------------------|
| Designed by John McIver | Date 18th December 2007 | Clubman Chassis - Type 3 Structure | |
|  Temporal Images www.car-stuff.info | Filename 0302004A. Dwg | Scale 1:1 | |
| | 0302004A | | Sheet 4 of 11 |




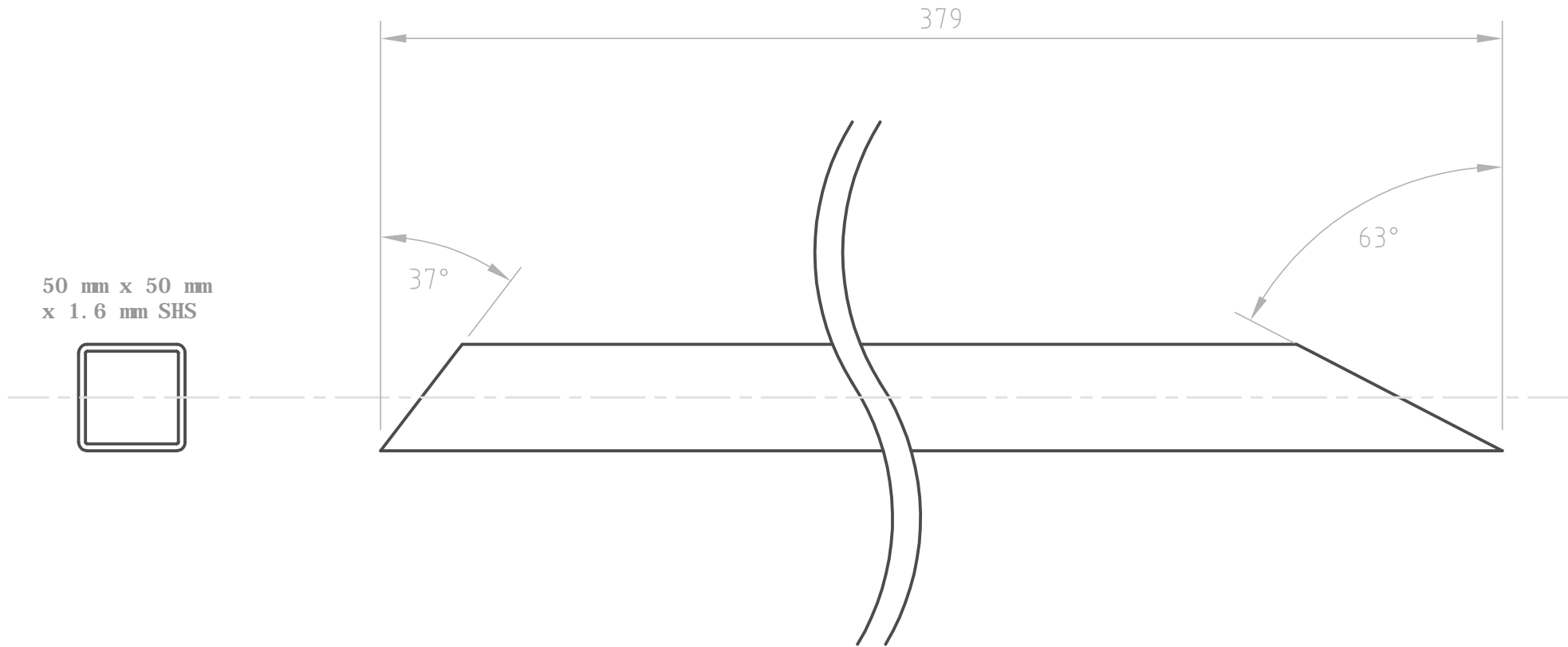
R3 & R6

| | | | |
|---|----------------------------|------------------------------------|---------------|
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|  Temporal Images www.car-stuff.info | Filename | 0302005A. Dwg | Scale 1:1 |
| | | 0302005A | Sheet 5 of 11 |




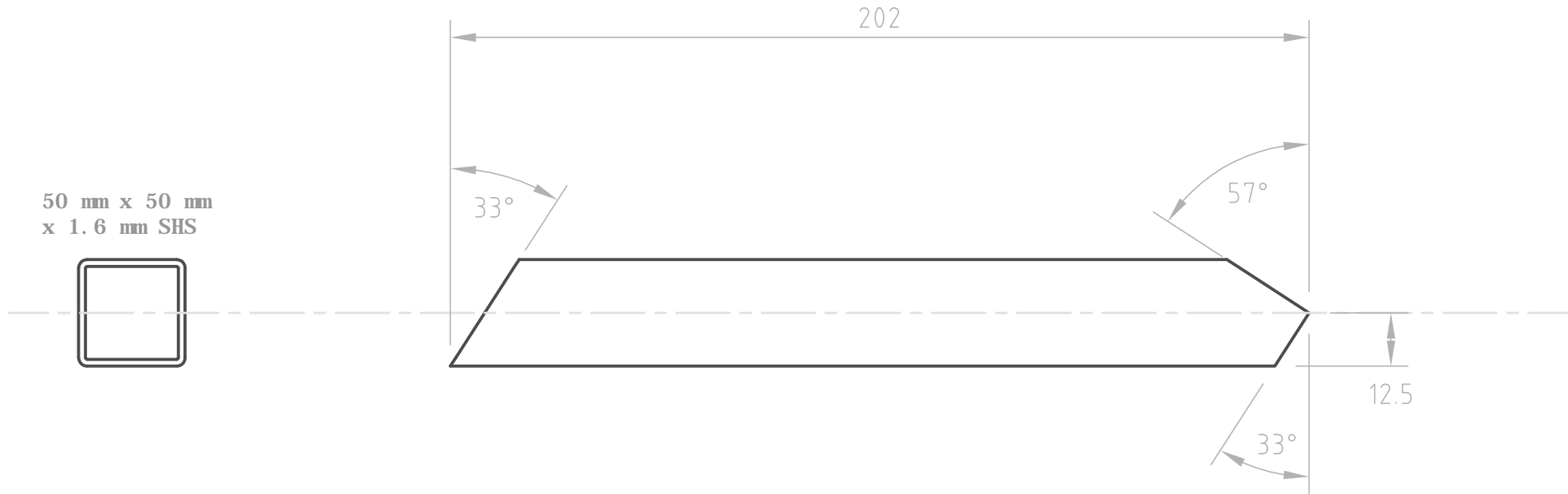
R1 & R2

| | | | |
|---|----------------------------|------------------------------------|--|
| Designed by John McIver | Date 18th December 2007 | Clubman Chassis - Type 3 Structure | |
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| | 0302006A | Sheet 6 of 11 | |




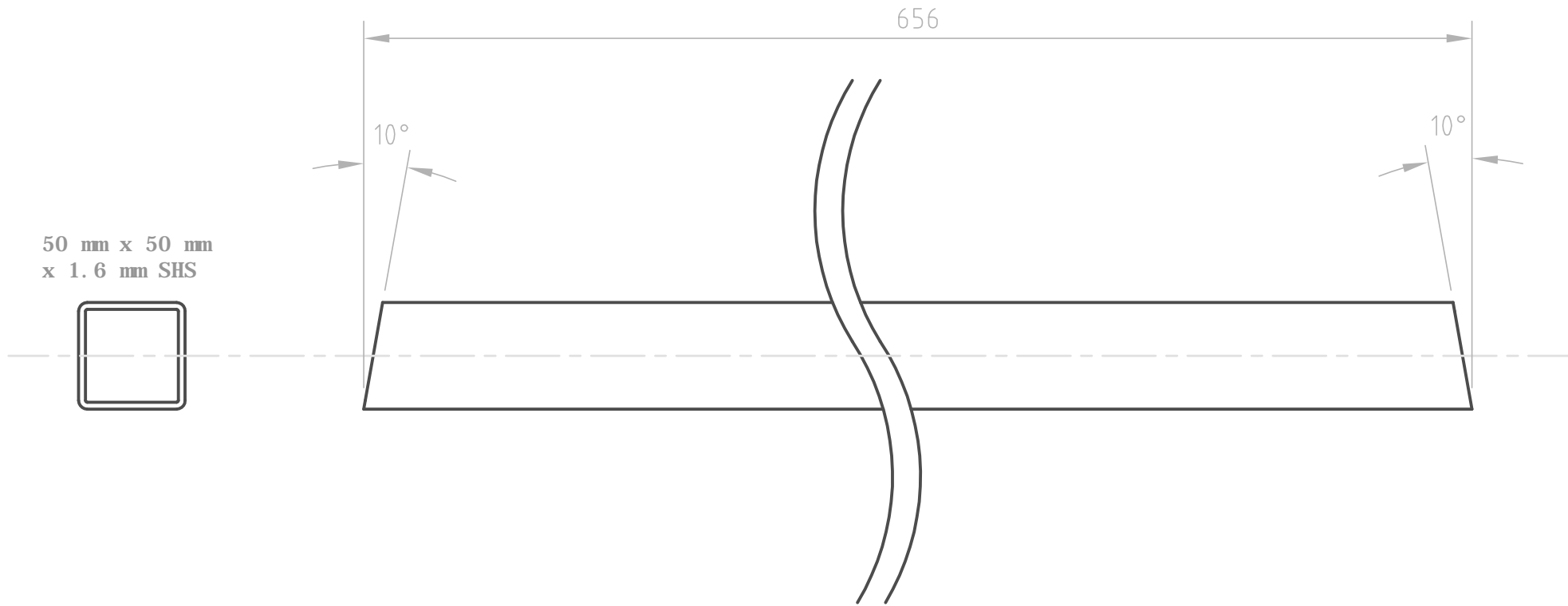
S & T

| | | | |
|---|----------------------------|------------------------------------|------------------|
| Designed by John McIver | Date 18th December 2007 | Clubman Chassis - Type 3 Structure | |
|  Temporal Images www.car-stuff.info | Filename 0302007A. Dwg | Scale 1:1 | |
| | 0302007A | | Sheet 7 of 11 |




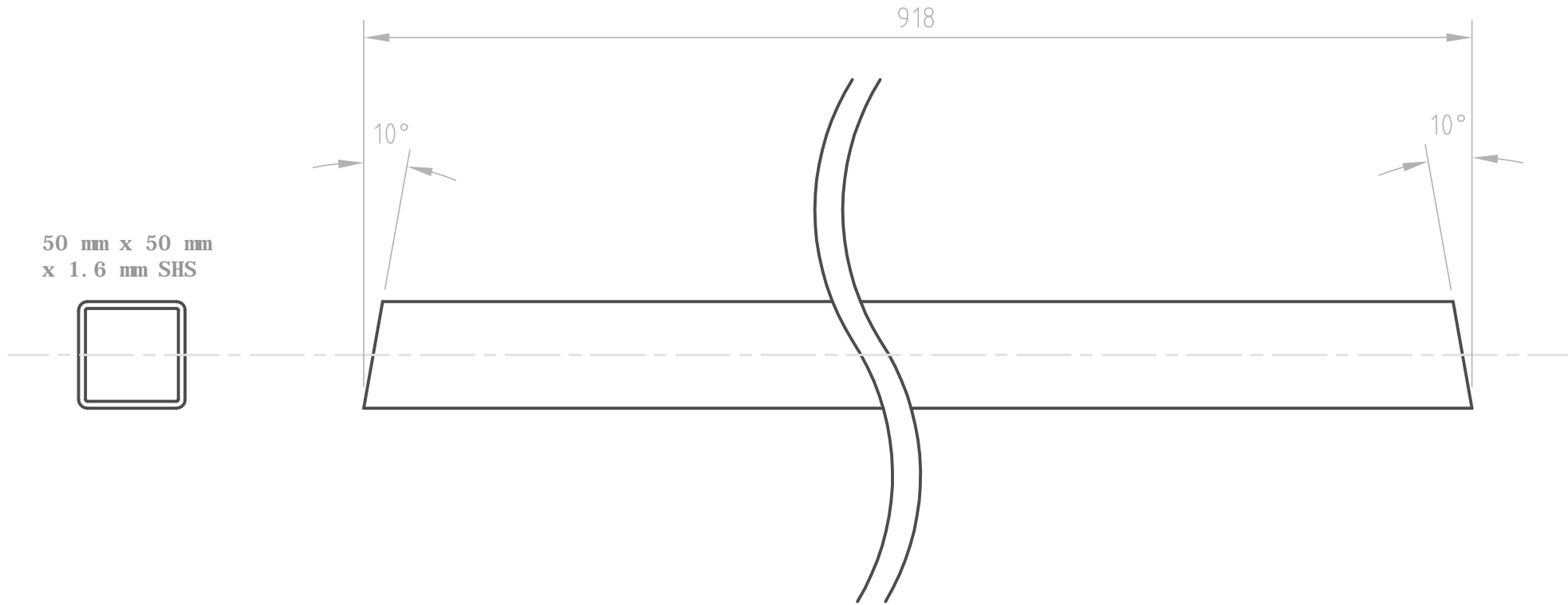
R4 & R5

| | | | |
|---|----------------------------|------------------------------------|---------------|
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|  Temporal Images www.car-stuff.info | Filename | 0302008A. Dwg | Scale 1:1 |
| | | 0302008A | Sheet 8 of 11 |




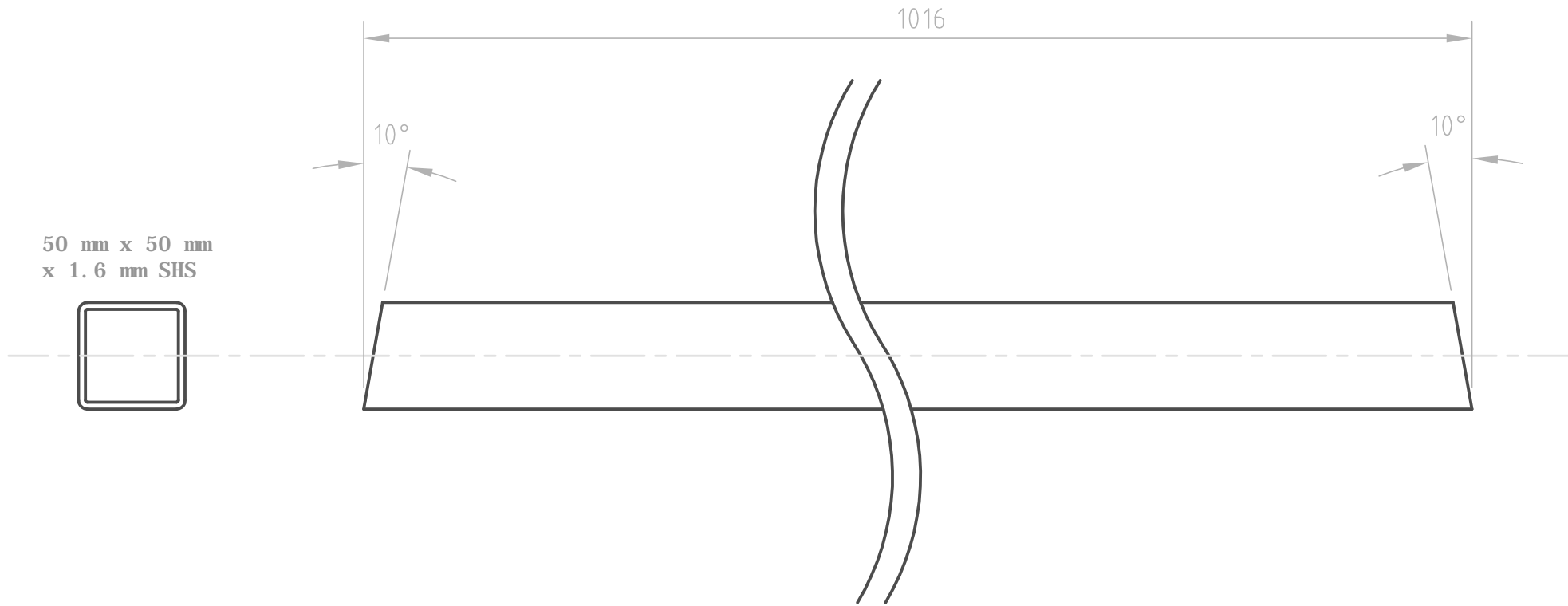
LC

| | | | |
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| Designed by John McIver | Date 18th December 2007 | Clubman Chassis - Type 3 Structure | |
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| | 0302009A | | Sheet 9 of 11 |




Q

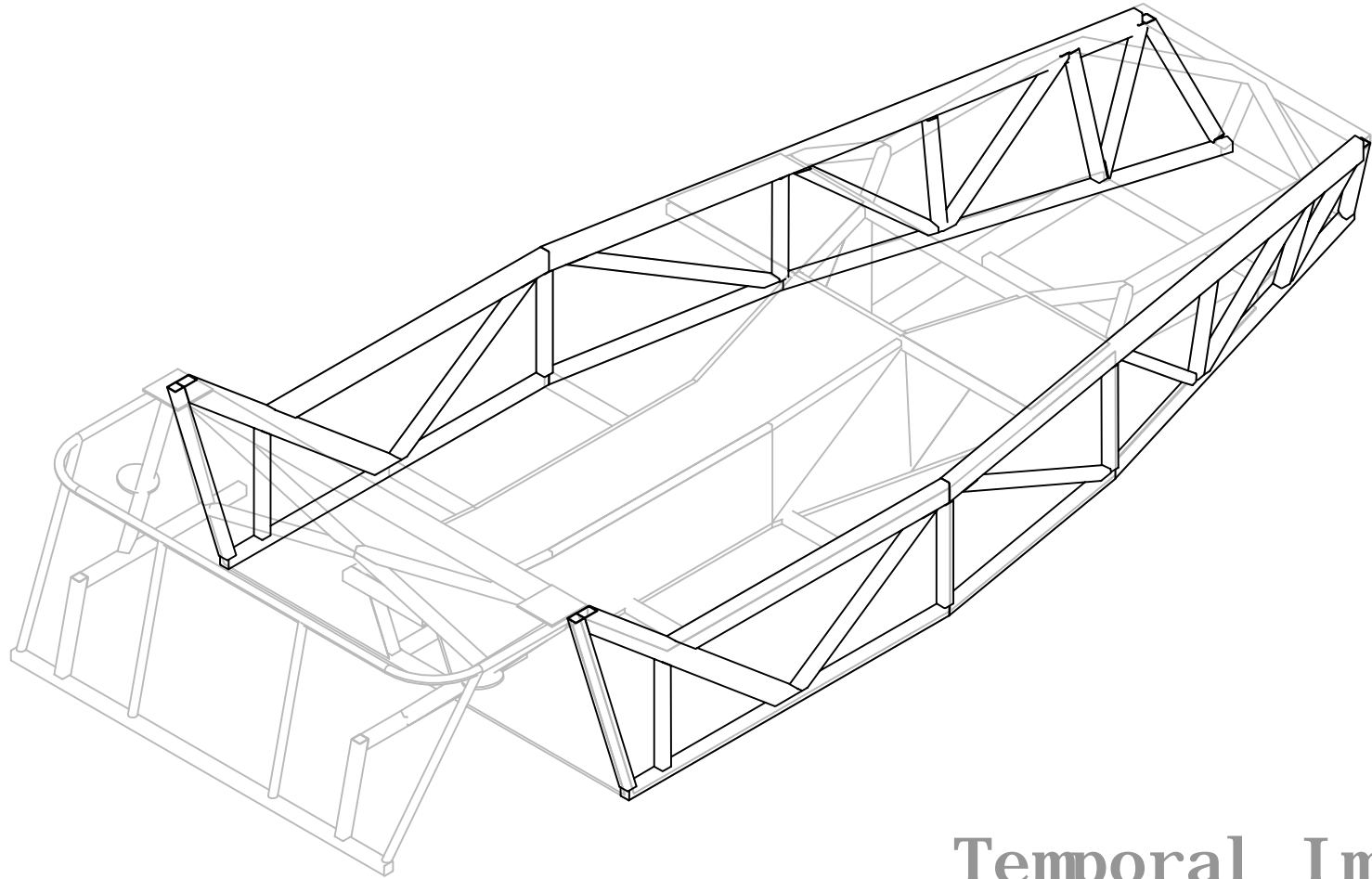
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| | 0302010A | | Sheet 10 of 11 |



P

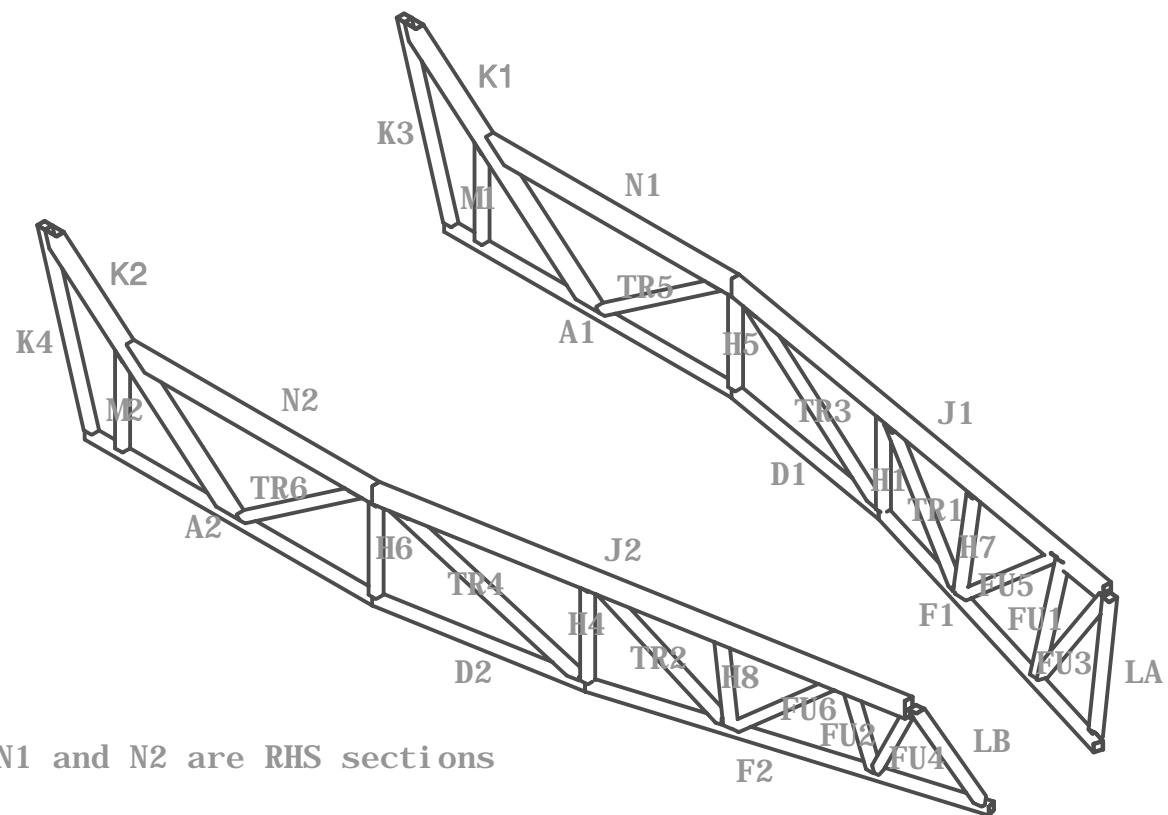
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| Designed by John McIver | Date 18th December 2007 | Clubman Chassis - Type 3 Structure | |
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| | 0302011A | | Sheet 11 of 11 |

Side Frames

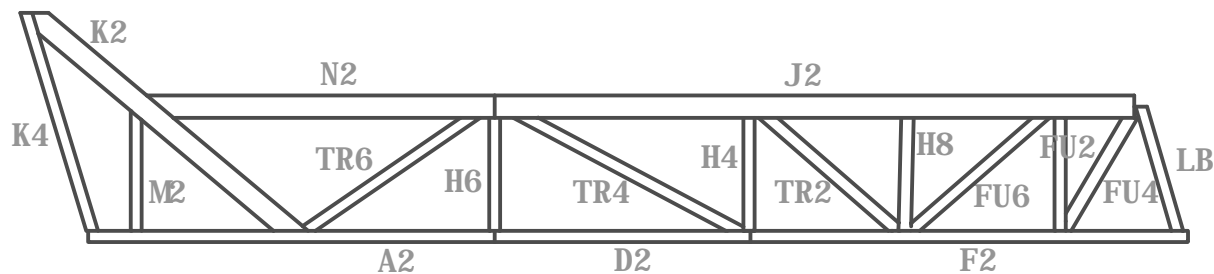



Temporal Images

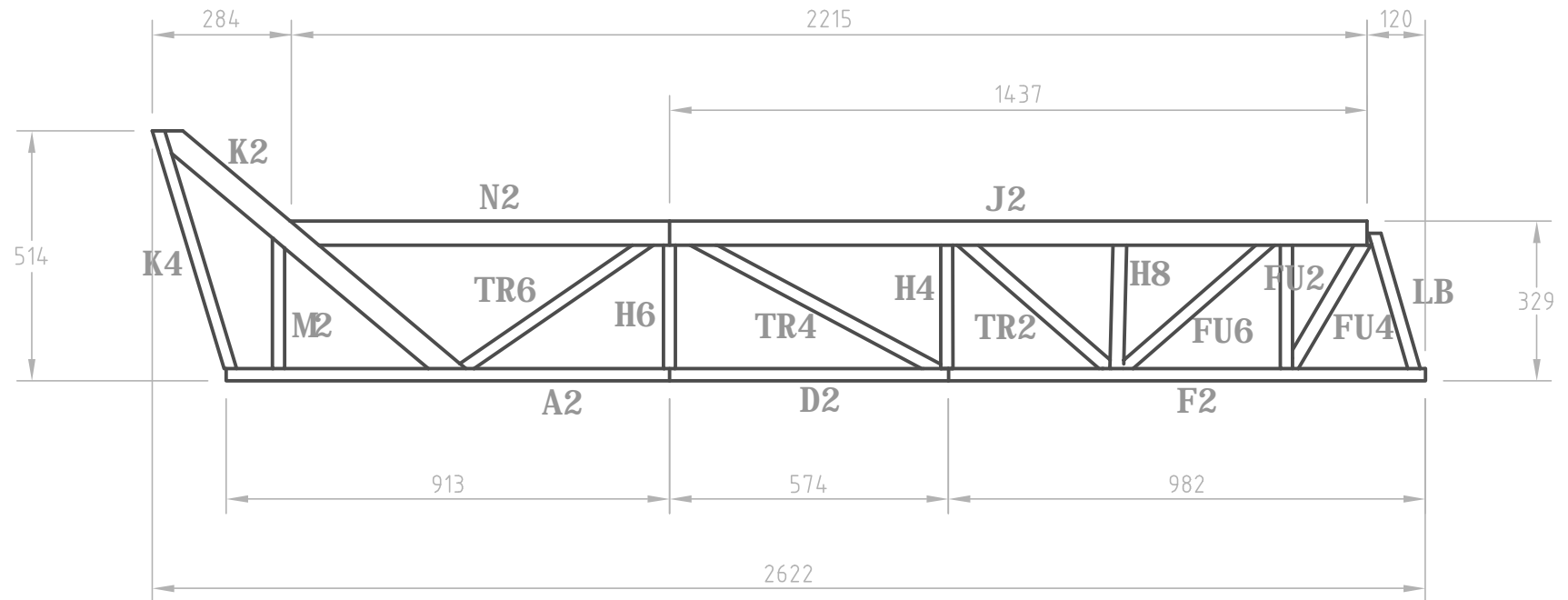
www.car-stuff.info




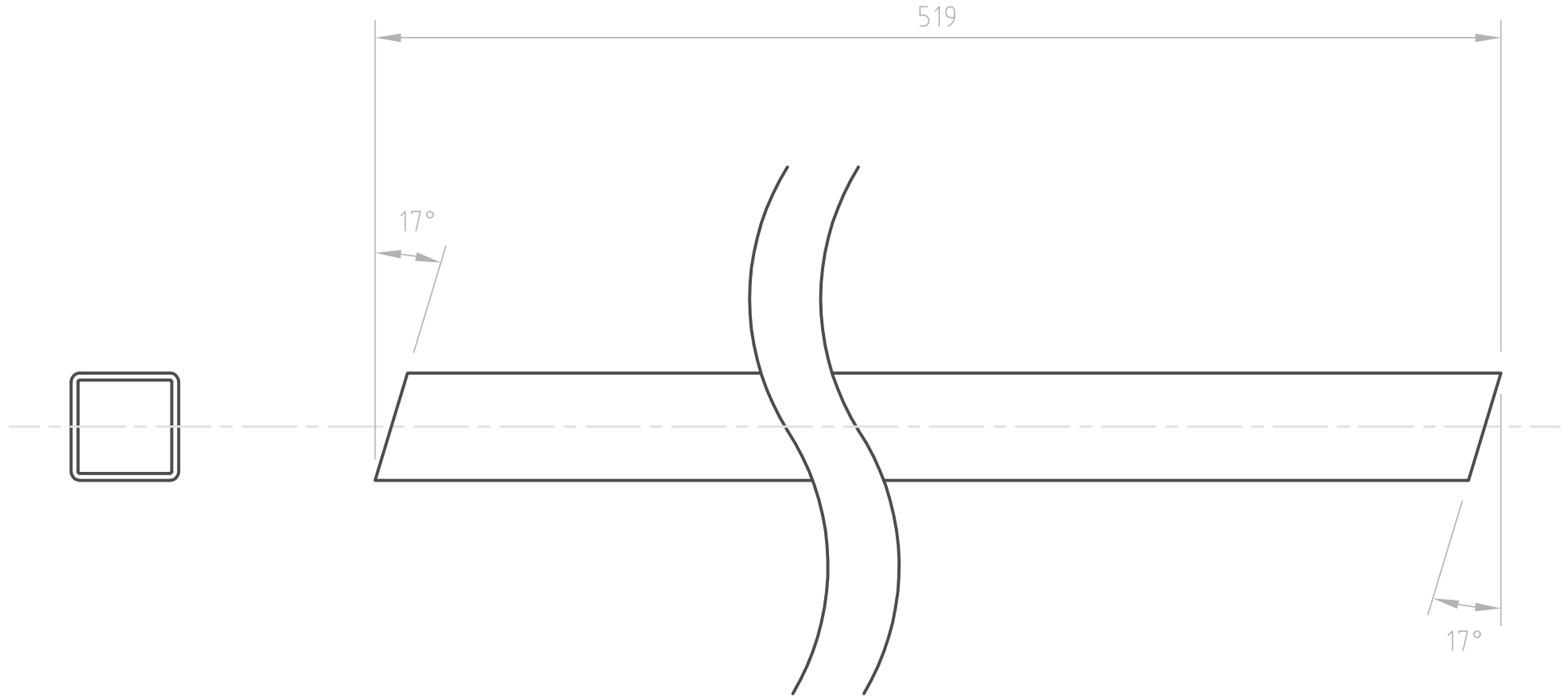
Note that tubes J1, J2, K1, K2, N1 and N2 are RHS sections
 All other tubes are SHS section




| | | | |
|---|----------------------------|------------------------------------|---------------|
| Designed by John McIver | Date 18th December 2007 | Clubman Chassis - Type 3 Structure | |
|  Temporal Images www.car-stuff.info | Filename | 0303001A. Dwg | Scale 1: 12 |
| | | 0303001A | Sheet 1 of 20 |

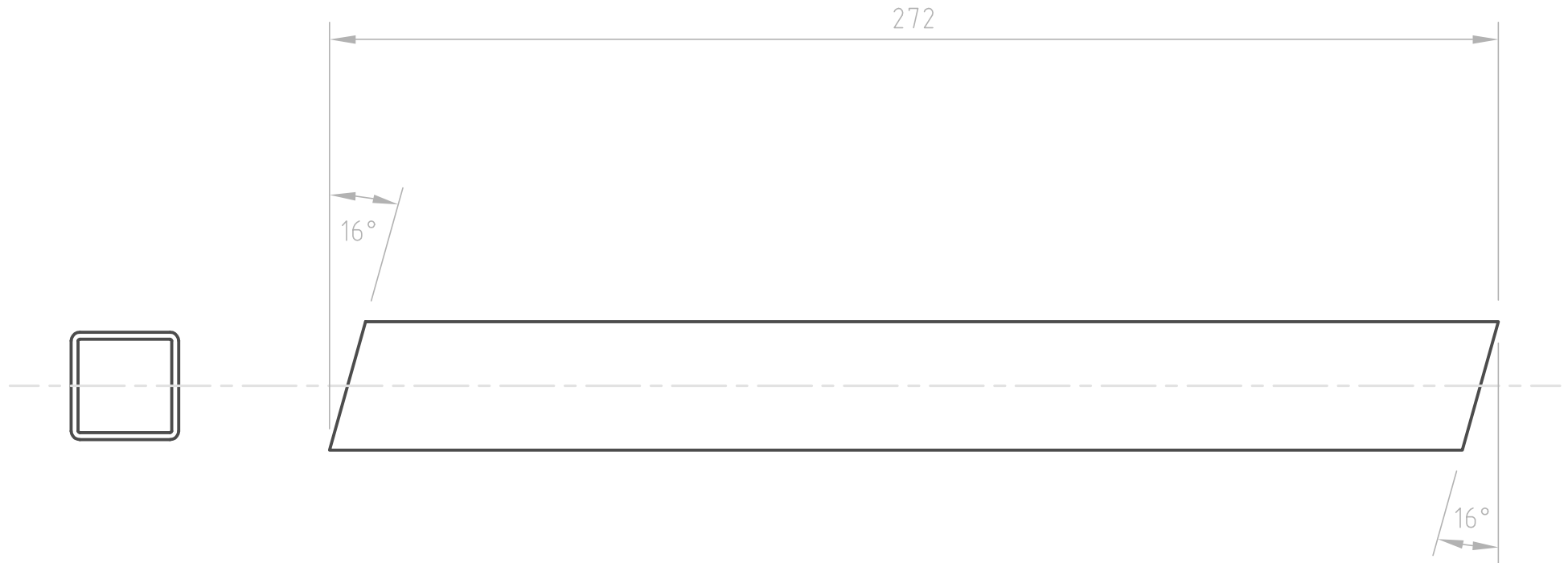


| | | | |
|---|----------------------------|------------------------------------|---------------|
| Designed by John McIver | Date 18th December 2007 | Clubman Chassis - Type 3 Structure | |
|  Temporal Images www.car-stuff.info | Filename | 0303002A. Dwg | Scale 1: 10 |
| | | 0303002A | Sheet 2 of 20 |




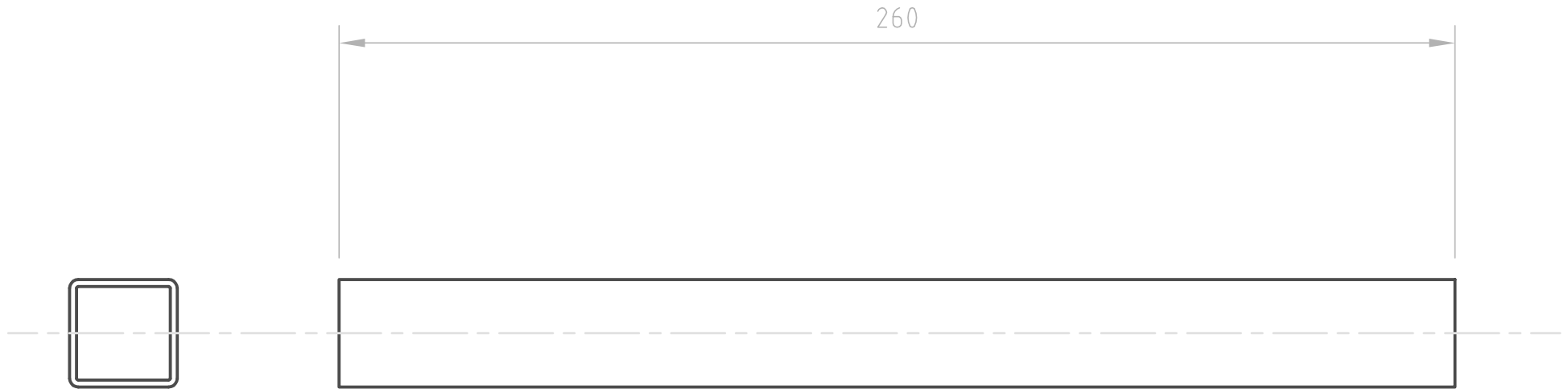
K3 & K4

| | | | |
|---|----------------------------|------------------------------------|--|
| Designed by John McIver | Date 18th December 2007 | Clubman Chassis - Type 3 Structure | |
|  Temporal Images www.car-stuff.info | Filename 0303003A. Dwg | Scale 1: 1 | |
| | 0303003A | Sheet 3 of 20 | |




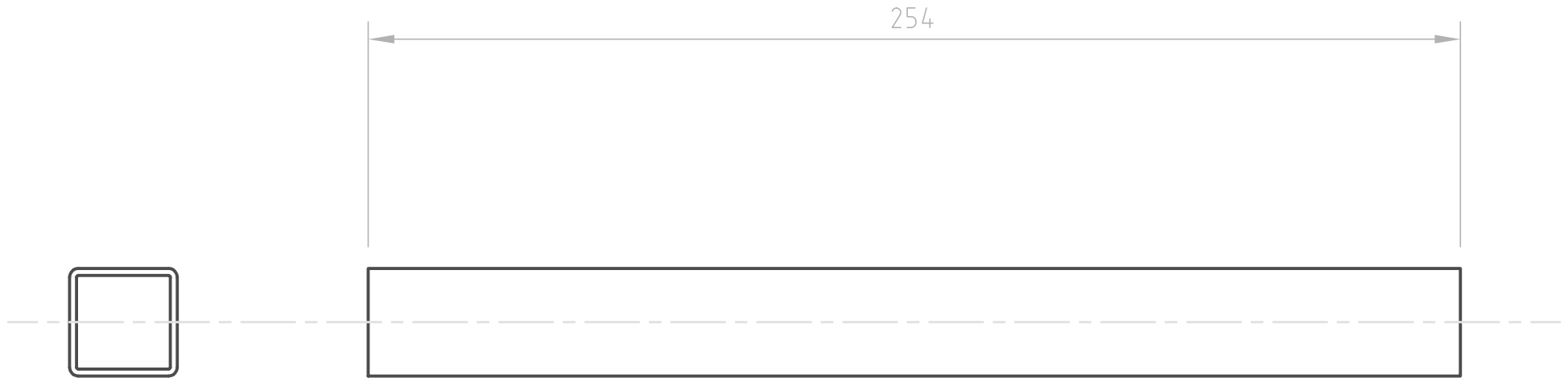
FU1 & FU2

| | | | |
|---|----------------------------|------------------------------------|------------------|
| Designed by John McIver | Date 18th December 2007 | Clubman Chassis - Type 3 Structure | |
|  Temporal Images www.car-stuff.info | Filename 0303004A.Dwg | Scale 1:1 | |
| | 0303004A | | Sheet 4 of 20 |




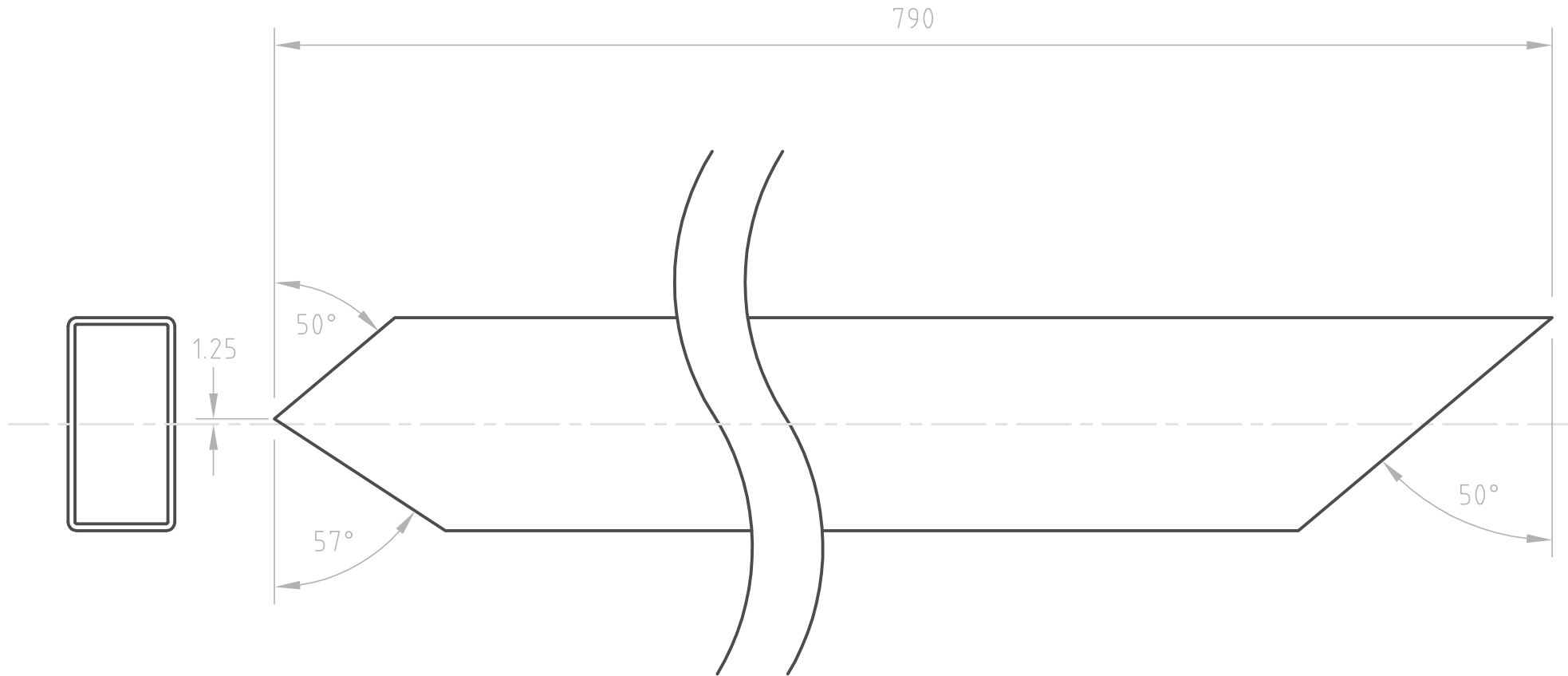
H7 & H8

| | | | |
|---|----------------------------|------------------------------------|---------------|
| Designed by John McIver | Date 18th December 2007 | Clubman Chassis - Type 3 Structure | |
|  Temporal Images www.car-stuff.info | Filename | 0303005A. Dwg | Scale 1:1 |
| | 0303005A | | Sheet 5 of 20 |




H5 & H6

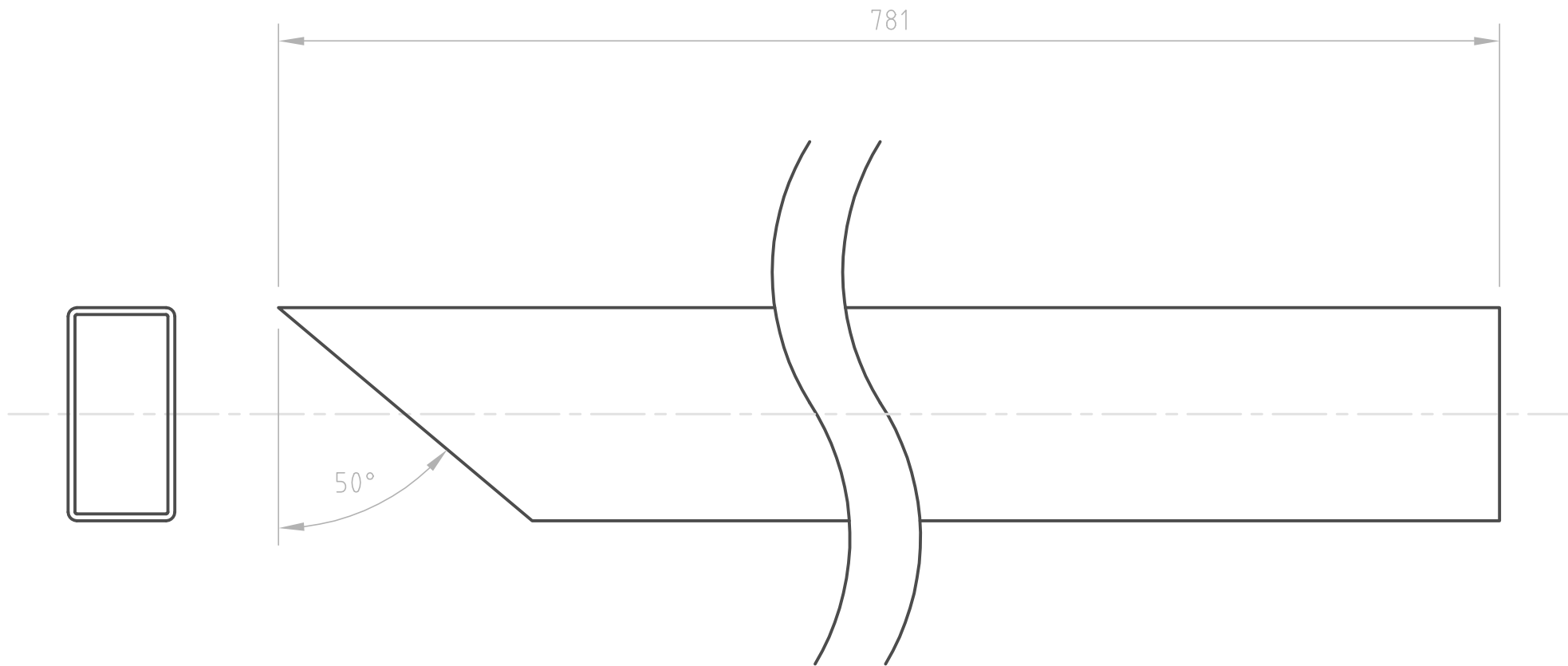
| | | | |
|---|----------------------------|------------------------------------|--|
| Designed by John McIver | Date 18th December 2007 | Clubman Chassis - Type 3 Structure | |
|  Temporal Images www.car-stuff.info | Filename 0303006A.Dwg | Scale 1:1 | |
| | 0303006A | Sheet 6 of 20 | |




Test Fit this Member for Final Shape

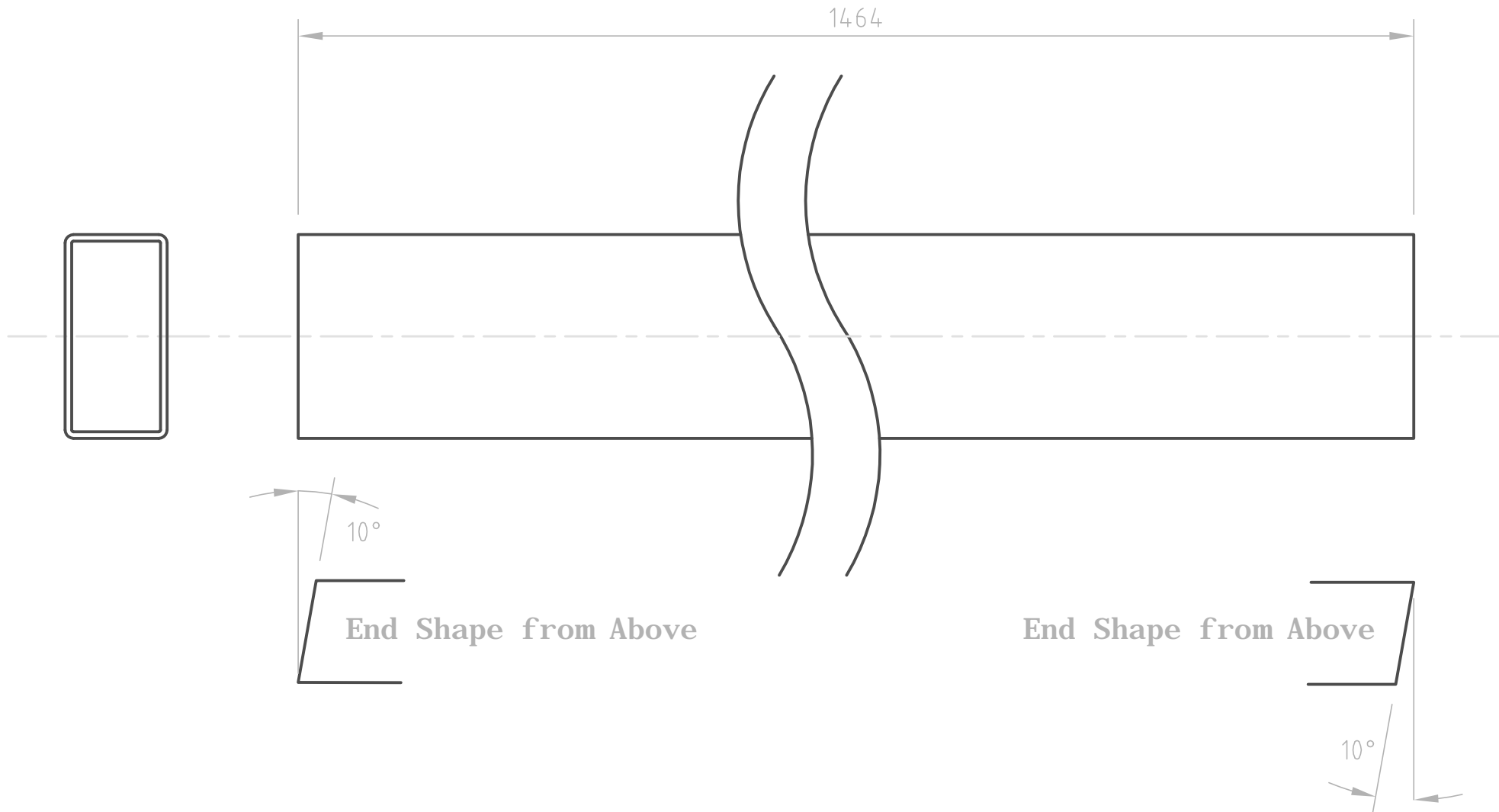
K1 & K2

| | | | |
|---|----------------------------|------------------------------------|---------------|
| Designed by John McIver | Date 18th December 2007 | Clubman Chassis - Type 3 Structure | |
|  Temporal Images www.car-stuff.info | Filename | 0303007A. Dwg | Scale 1:1 |
| | | 0303007A | Sheet 7 of 20 |




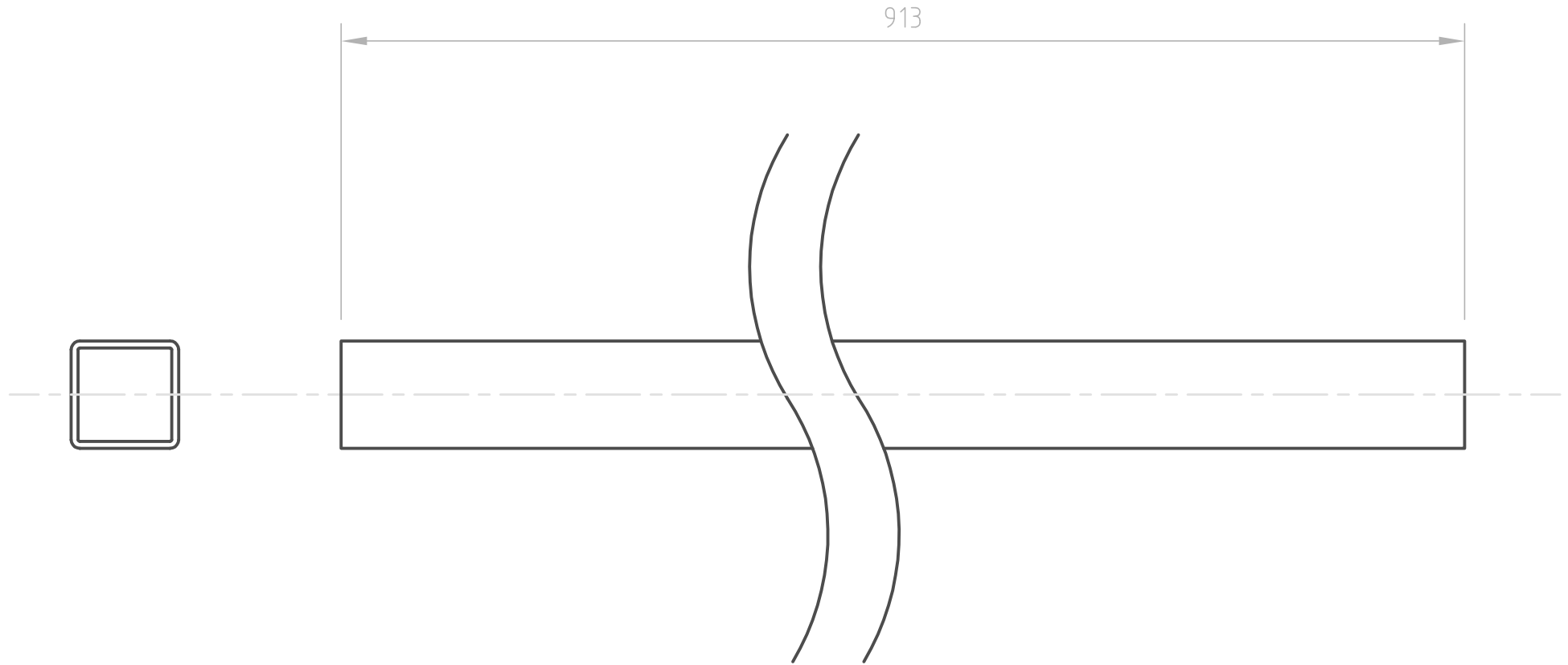
N1 & N2

| | | | |
|---|----------------------------|------------------------------------|---------------|
| Designed by John McIver | Date 18th December 2007 | Clubman Chassis - Type 3 Structure | |
|  Temporal Images www.car-stuff.info | Filename | 0303008A. Dwg | Scale 1:1 |
| | | 0303008A | Sheet 8 of 20 |




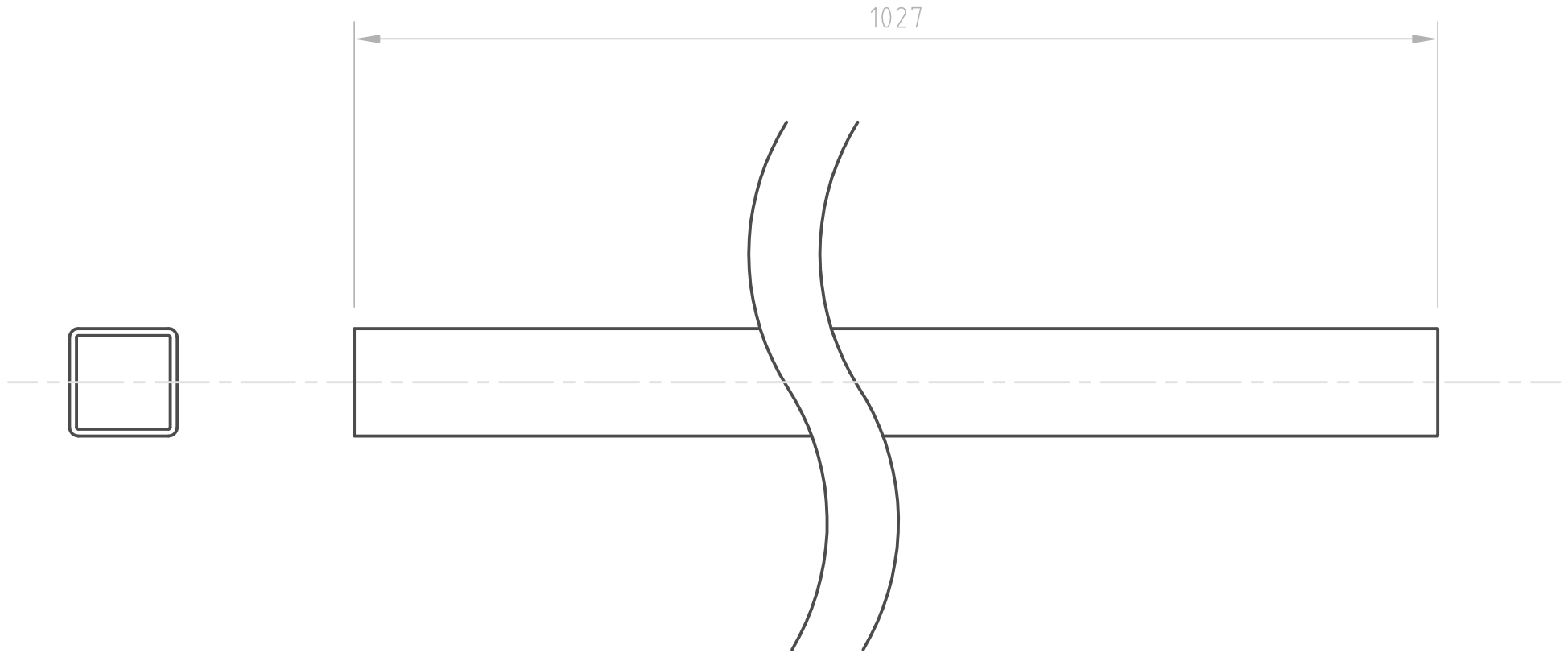
J1 & J2

| | | | |
|---|----------------------------|------------------------------------|---------------|
| Designed by John McIver | Date 18th December 2007 | Clubman Chassis - Type 3 Structure | |
|  Temporal Images www.car-stuff.info | Filename | 0303009A. Dwg | Scale 1:1 |
| | | 0303009A | Sheet 9 of 20 |




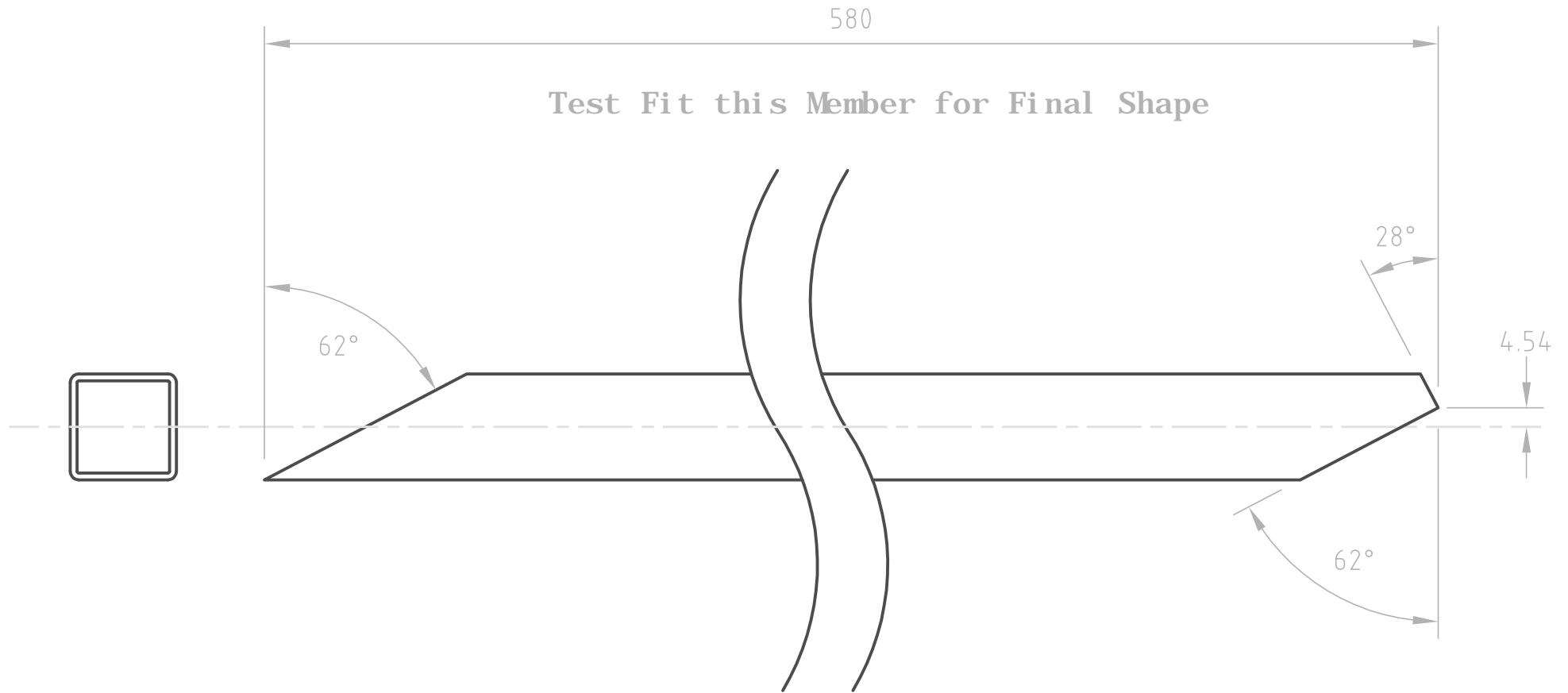
A1 & A2

| | | | |
|---|----------------------------|------------------------------------|----------------|
| Designed by John McIver | Date 18th December 2007 | Clubman Chassis - Type 3 Structure | |
|  Temporal Images www.car-stuff.info | Filename | 0303010A. Dwg | Scale 1:1 |
| | | 0303010A | Sheet 10 of 20 |




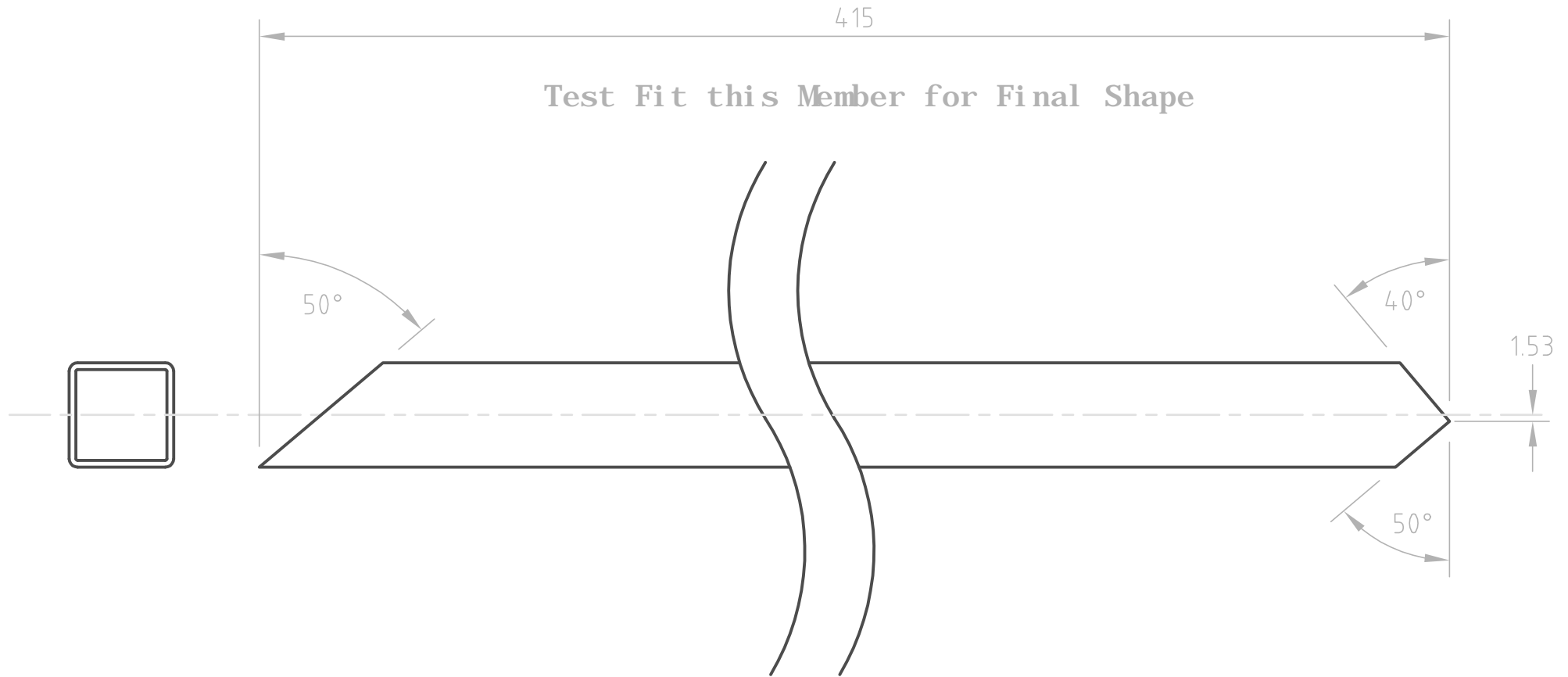
F1 & F2

| | | | |
|---|----------------------------|------------------------------------|-------------------|
| Designed by John McIver | Date 18th December 2007 | Clubman Chassis - Type 3 Structure | |
|  Temporal Images www.car-stuff.info | Filename 0303011A.Dwg | Scale 1:1 | |
| | 0303011A | | Sheet 11 of 20 |




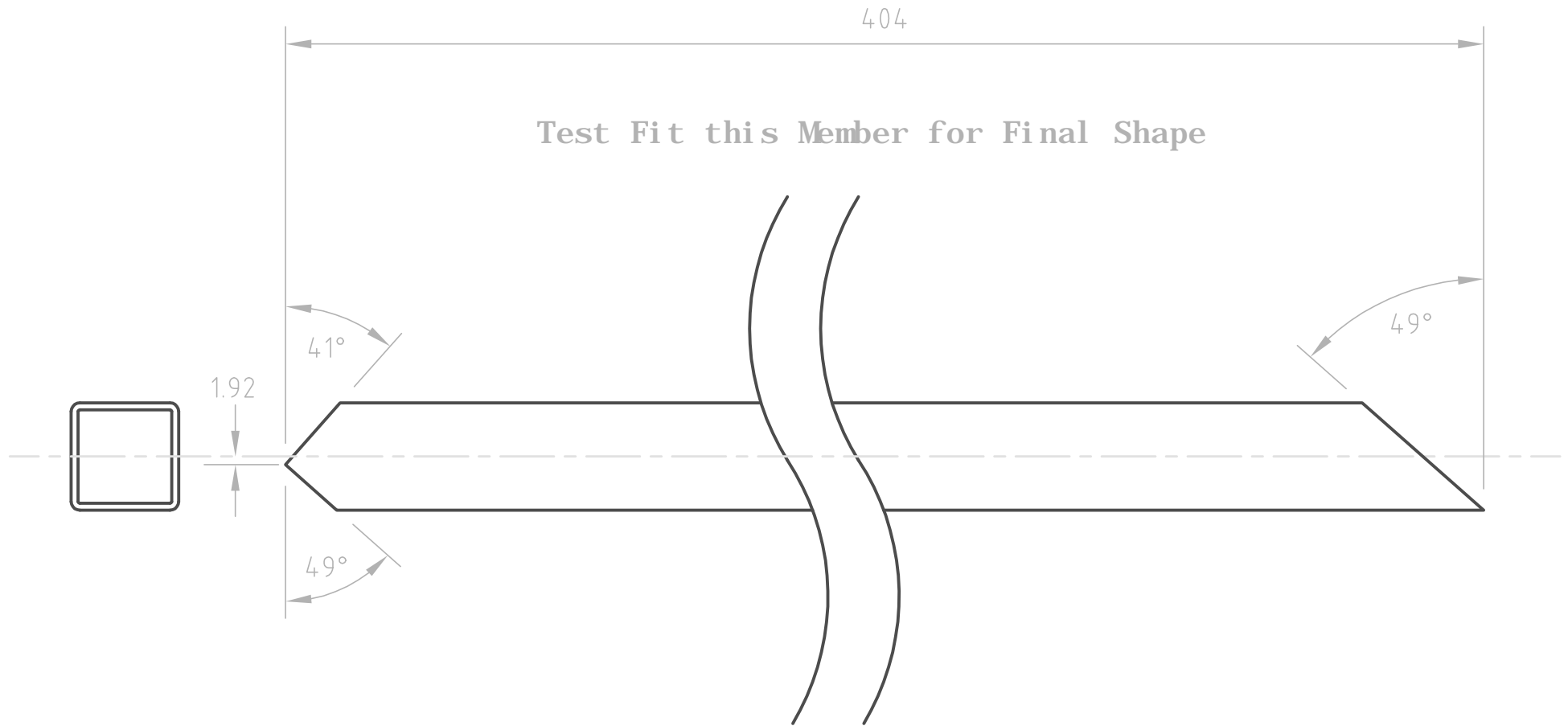
TR3 & TR4

| | | | |
|---|----------------------------|------------------------------------|----------------|
| Designed by John McIver | Date 18th December 2007 | Clubman Chassis - Type 3 Structure | |
|  Temporal Images www.car-stuff.info | Filename | 0303012A.Dwg | Scale 1:1 |
| | | 0303012A | Sheet 12 of 20 |




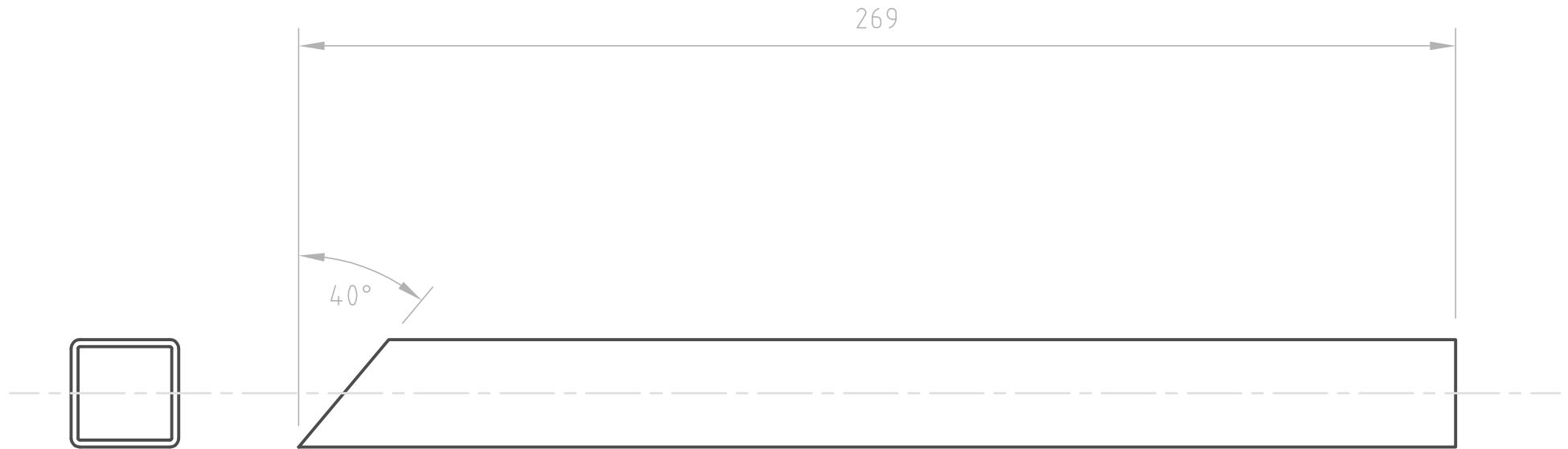
TR1 & TR2

| | | | |
|---|----------------------------|------------------------------------|--|
| Designed by John McIver | Date 18th December 2007 | Clubman Chassis - Type 3 Structure | |
|  Temporal Images www.car-stuff.info | Filename 0303013A.Dwg | Scale 1:1 | |
| | 0303013A | Sheet 13 of 20 | |




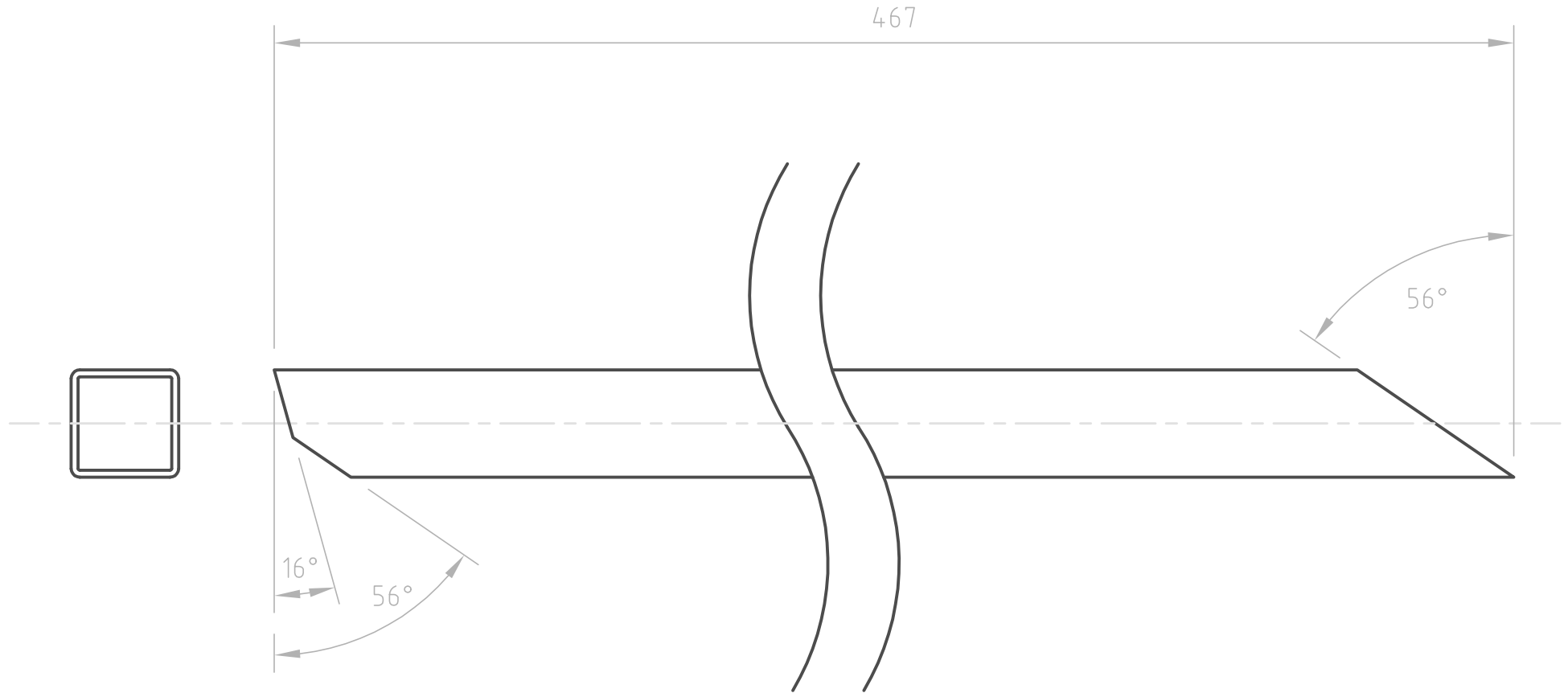
FU5 & FU6

| | | | |
|---|----------------------------|------------------------------------|--|
| Designed by John McIver | Date 18th December 2007 | Clubman Chassis - Type 3 Structure | |
|  Temporal Images www.car-stuff.info | Filename 0303014A.Dwg | Scale 1:1 | |
| | 0303014A | Sheet 14 of 20 | |




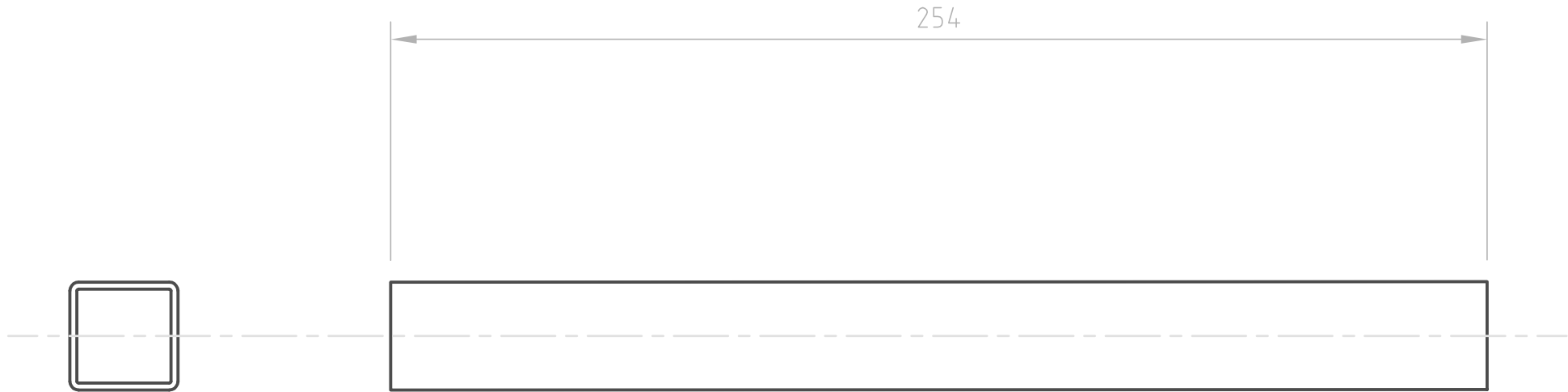
M1 & M2

| | | | |
|---|----------------------------|------------------------------------|----------------|
| Designed by John McIver | Date 18th December 2007 | Clubman Chassis - Type 3 Structure | |
|  Temporal Images www.car-stuff.info | Filename | 0303015A.Dwg | Scale 1:1 |
| | | 0303015A | Sheet 15 of 20 |




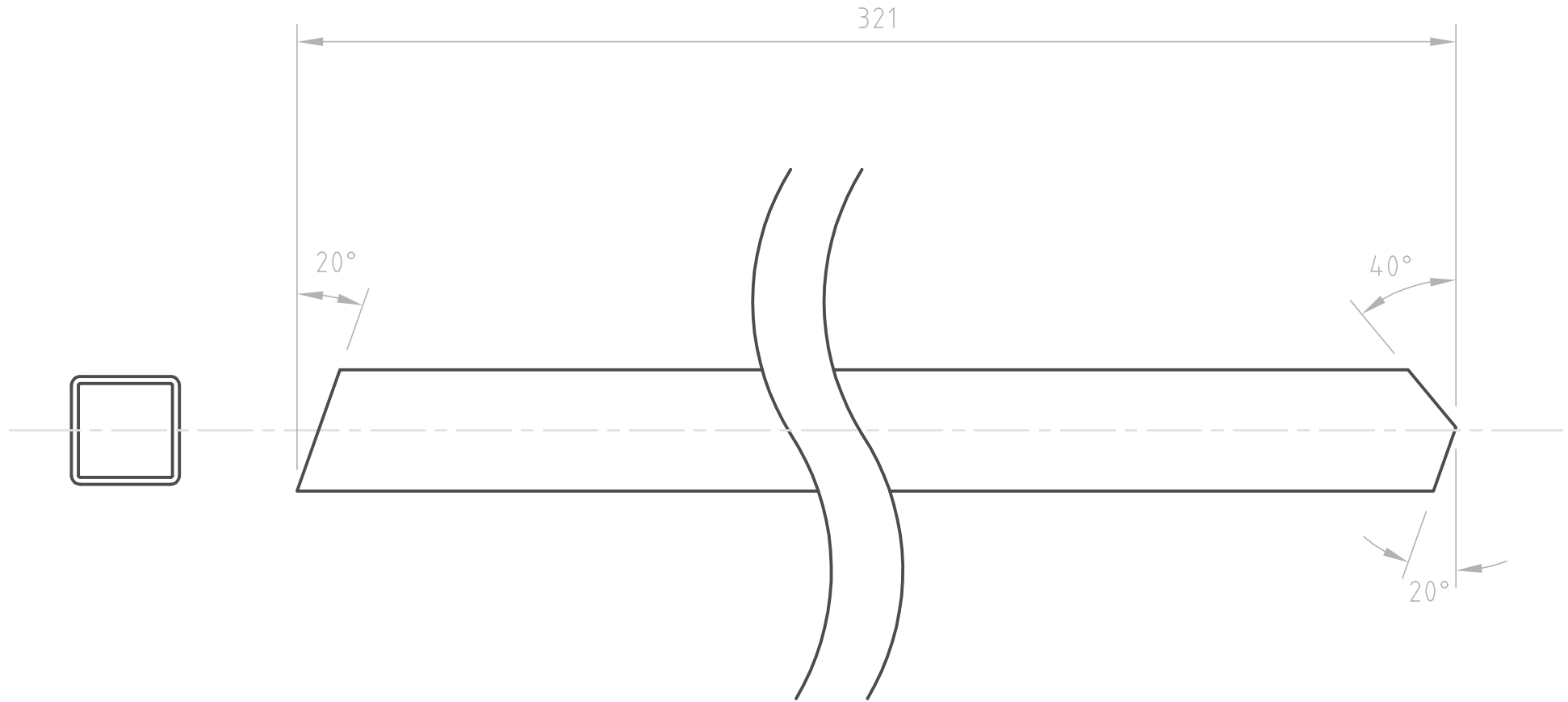
TR5 & TR6

| | | | |
|---|----------------------------|------------------------------------|----------------|
| Designed by John McIver | Date 18th December 2007 | Clubman Chassis - Type 3 Structure | |
|  Temporal Images www.car-stuff.info | Filename | 0303016A.Dwg | Scale 1:1 |
| | | 0303016A | Sheet 16 of 20 |




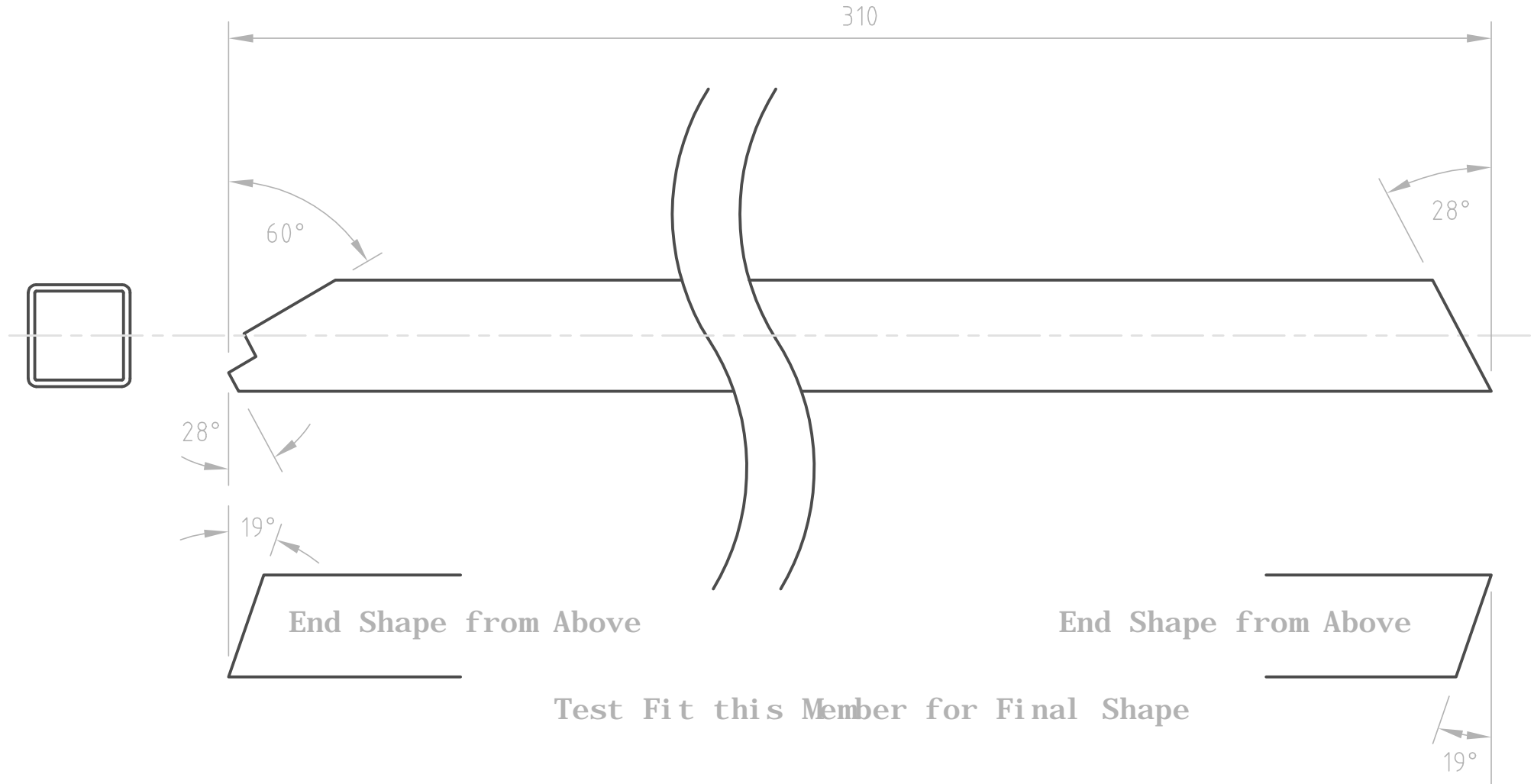
H1 & H4

| | | | |
|---|----------------------------|------------------------------------|--|
| Designed by John McIver | Date 18th December 2007 | Clubman Chassis - Type 3 Structure | |
|  Temporal Images www.car-stuff.info | Filename 0303017A.Dwg | Scale 1:1 | |
| | 0303017A | Sheet 17 of 20 | |




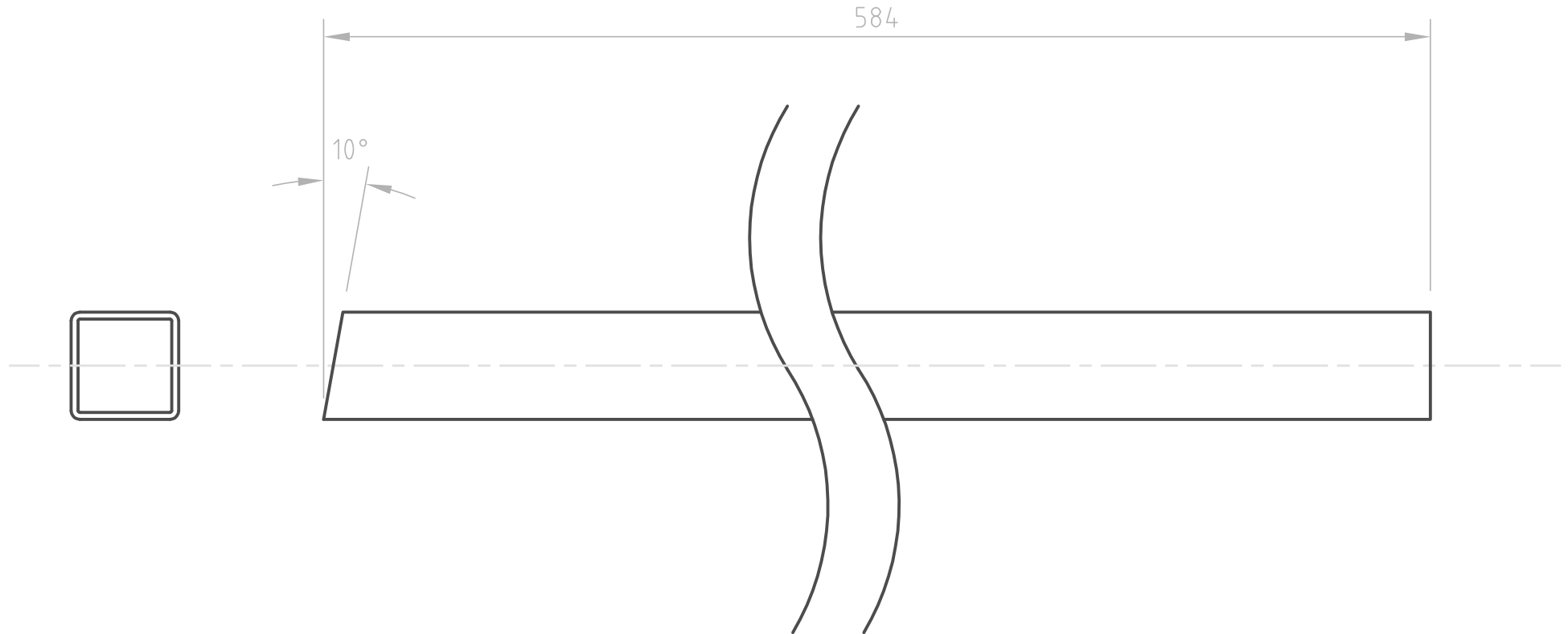
LA & LB

| | | | |
|---|----------------------------|------------------------------------|----------------|
| Designed by John McIver | Date 18th December 2007 | Clubman Chassis - Type 3 Structure | |
|  Temporal Images www.car-stuff.info | Filename | 0303018A.Dwg | Scale 1:1 |
| | | 0303018A | Sheet 18 of 20 |




FU3 & FU4

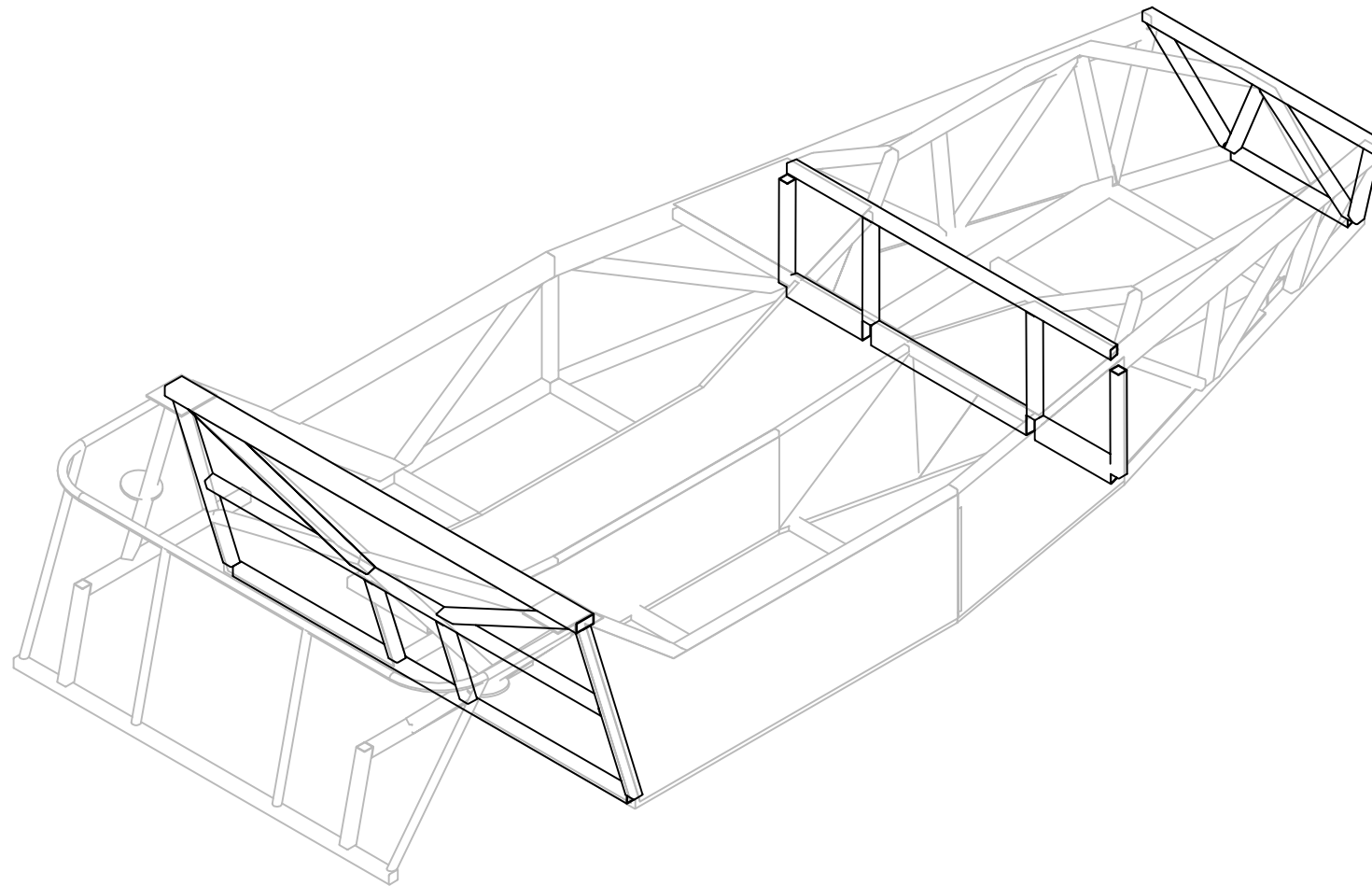
| | | | |
|---|----------------------------|------------------------------------|----------------|
| Designed by John McIver | Date 18th December 2007 | Clubman Chassis - Type 3 Structure | |
|  Temporal Images www.car-stuff.info | Filename | 0303019A.Dwg | Scale 1:1 |
| | | 0303019A | Sheet 19 of 20 |



D1 & D2

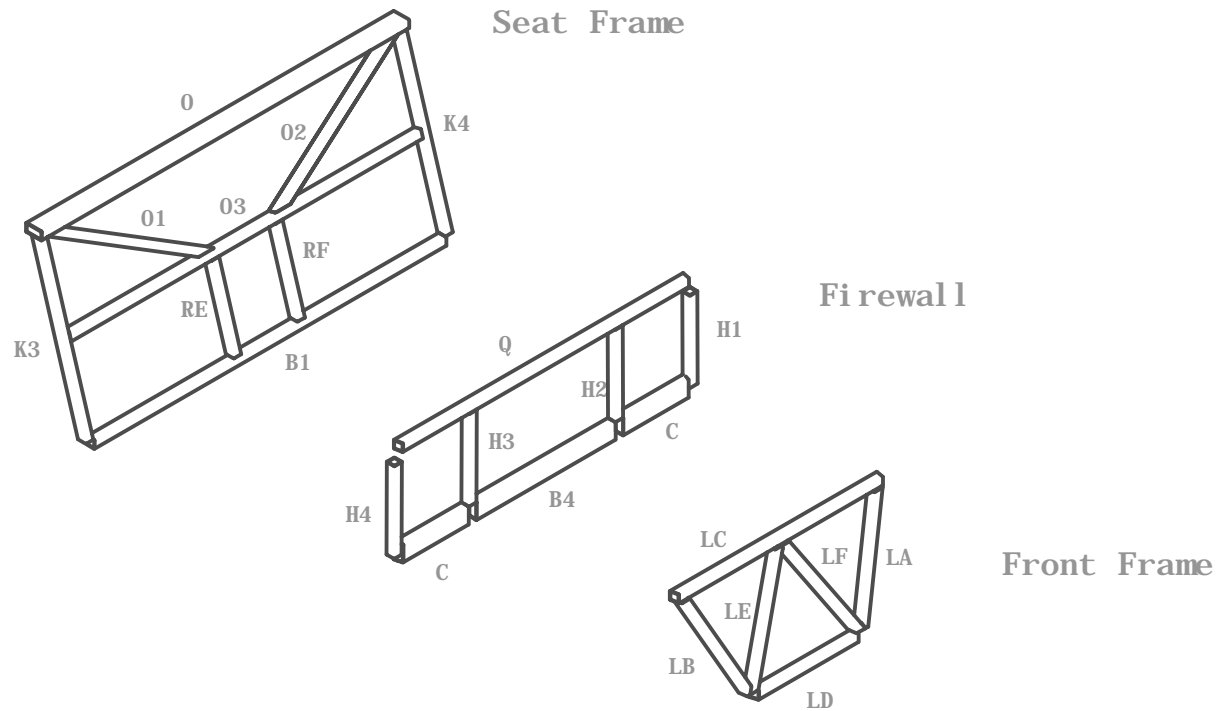
| | | | |
|---|----------------------------|------------------------------------|----------------|
| Designed by John McIver | Date 18th December 2007 | Clubman Chassis - Type 3 Structure | |
|  Temporal Images www.car-stuff.info | Filename | 0303020A. Dwg | Scale 1:1 |
| | | 0303020A | Sheet 20 of 20 |


Transverse Frames



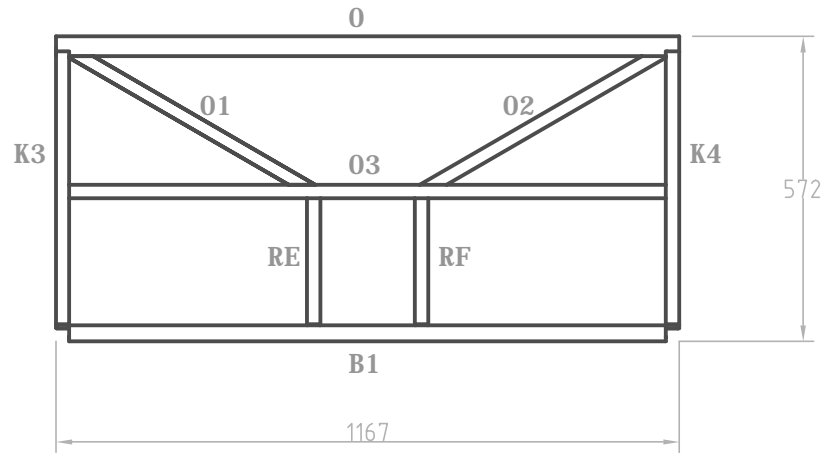
Temporal Images

www.car-stuff.info

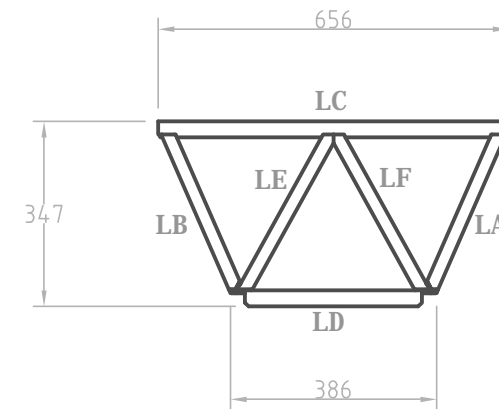


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|--|----------------------------|------------------------------------|--------------|
| Designed by John McIver | Date 18th December 2007 | Clubman Chassis - Type 3 Structure | |
|  Temporal Images www.car-stuff.info | Filename | 0304001A. Dwg | Scale 1: 12 |
| | | 0304001A | Sheet 1 of 7 |

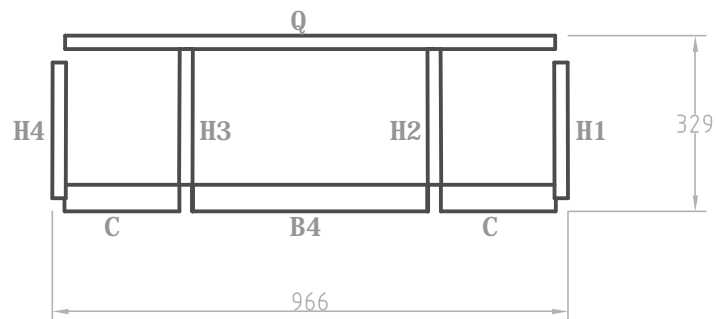
Seat Frame




Front Frame



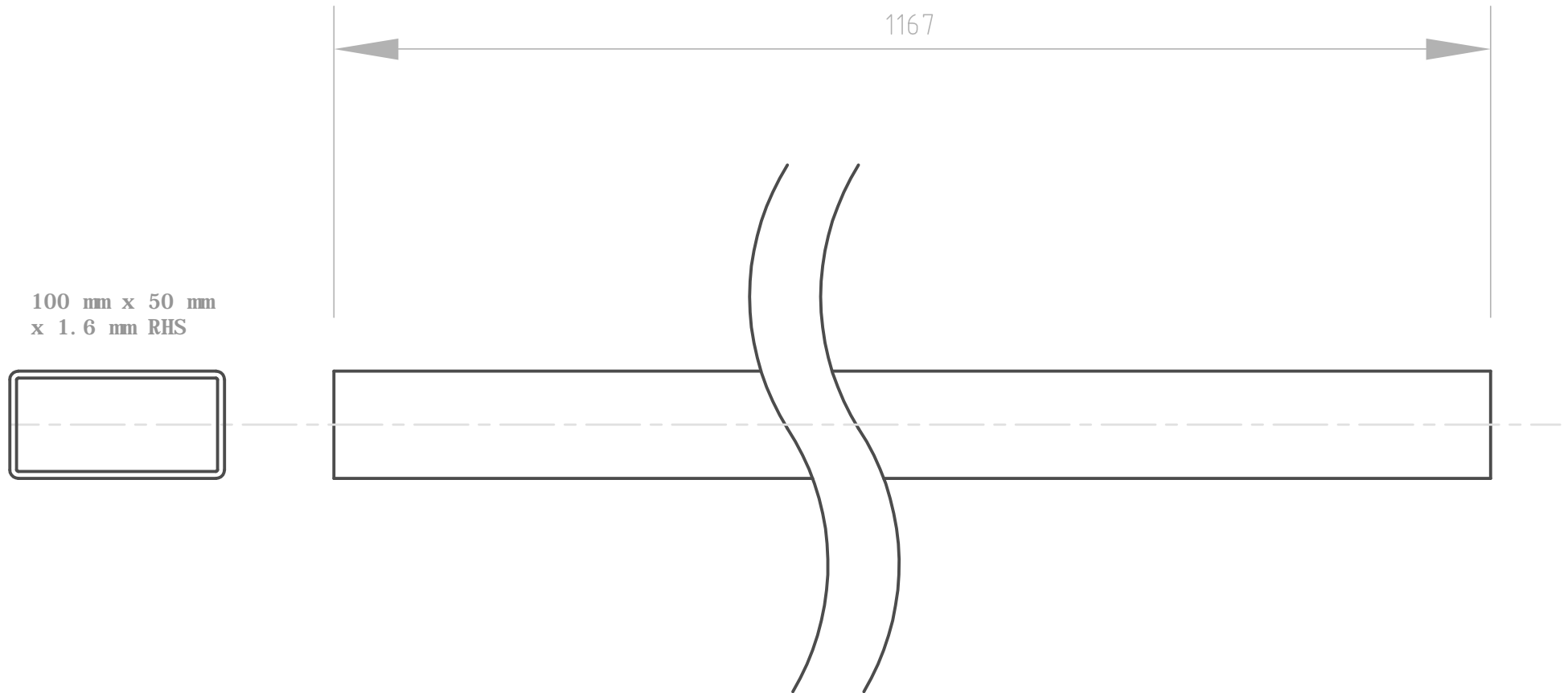
Firewall



| | | | |
|--|----------------------------|------------------------------------|-----------------|
| Designed by John McIver | Date 18th December 2007 | Clubman Chassis - Type 3 Structure | |
|  Temporal Images www.car-stuff.info | Filename 0304002A. Dwg | Scale 1: 10 | |
| | 0304002A | | Sheet 2 of 7 |

Transverse Frames


Frame Members

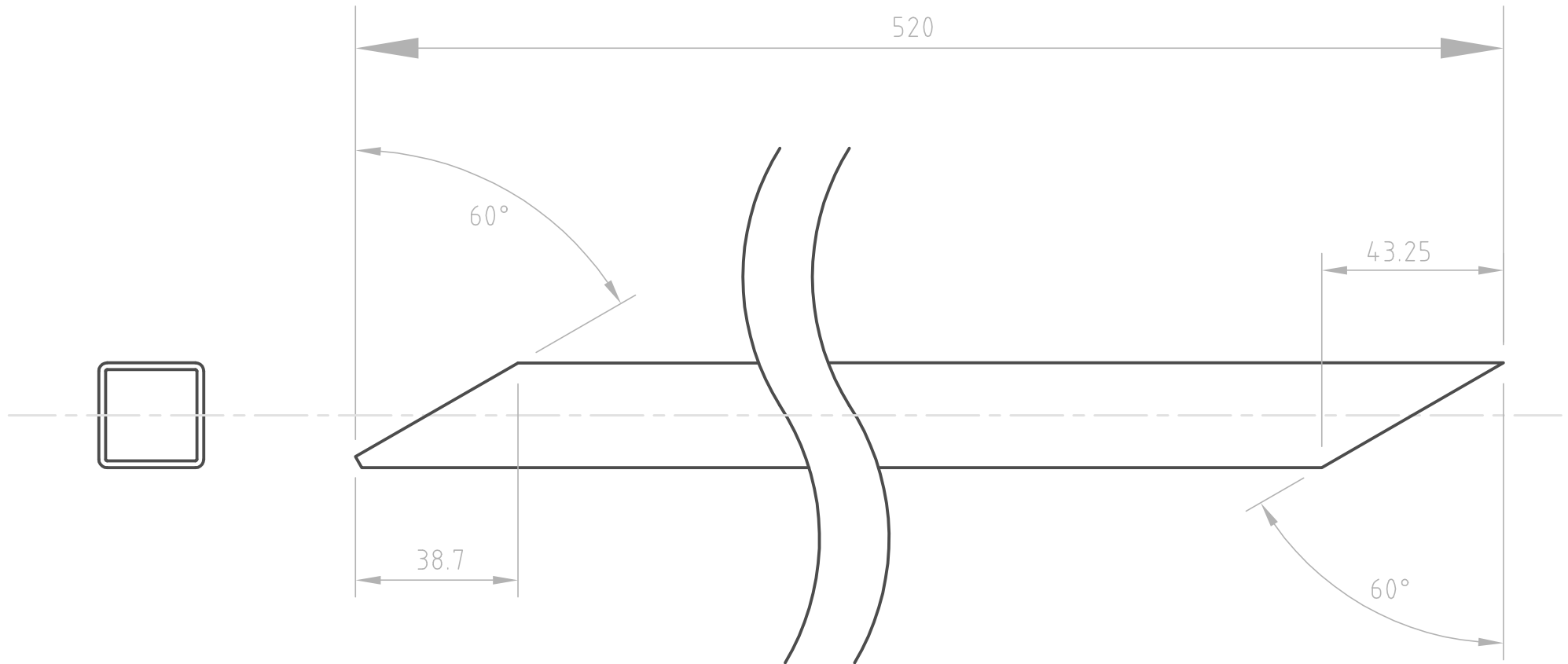


100 mm x 50 mm
x 1.6 mm RHS


1167

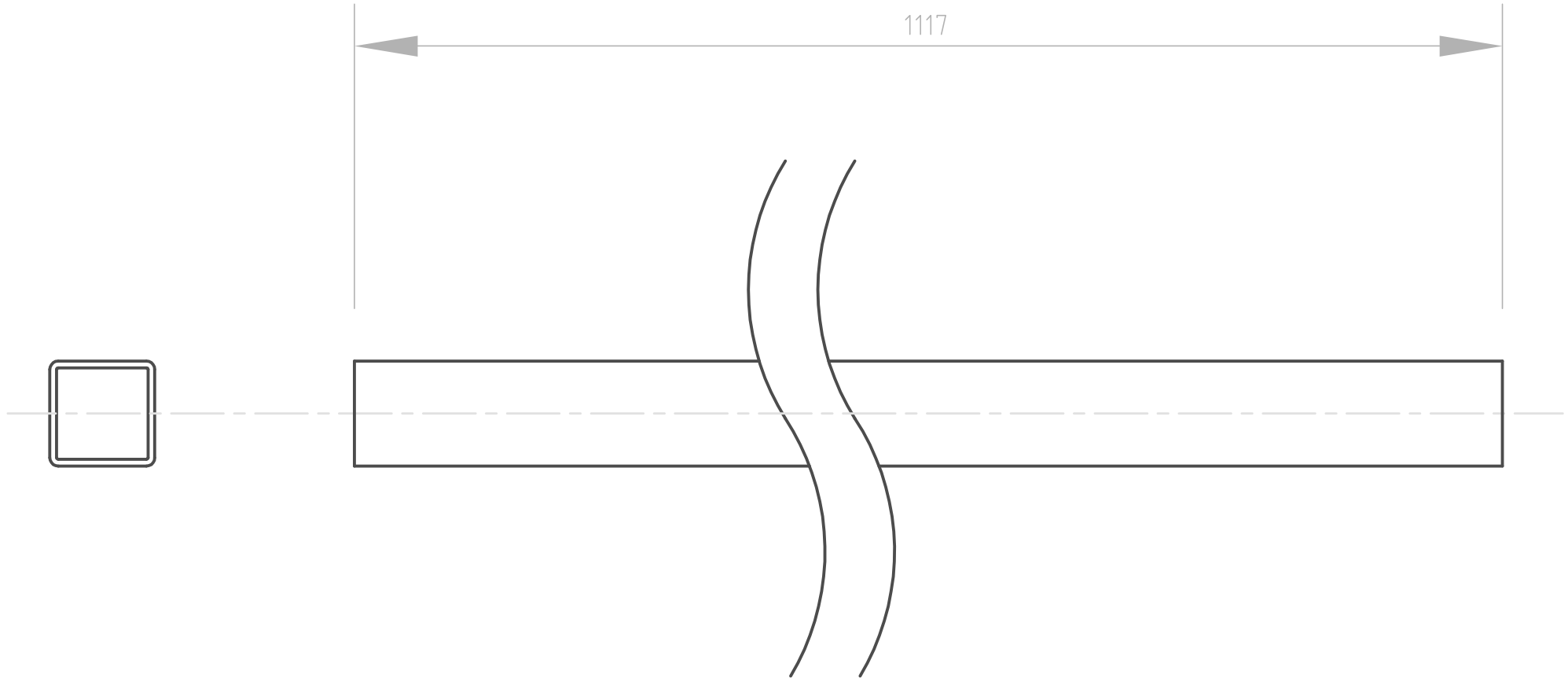
0

| | | | |
|---|----------------------------|------------------------------------|--|
| Designed by John McIver | Date 18th December 2007 | Clubman Chassis - Type 3 Structure | |
|  Temporal Images www.car-stuff.info | Filename 0304003A.Dwg | Scale 1:1 | |
| | 0304003A | Sheet 3 of 7 | |




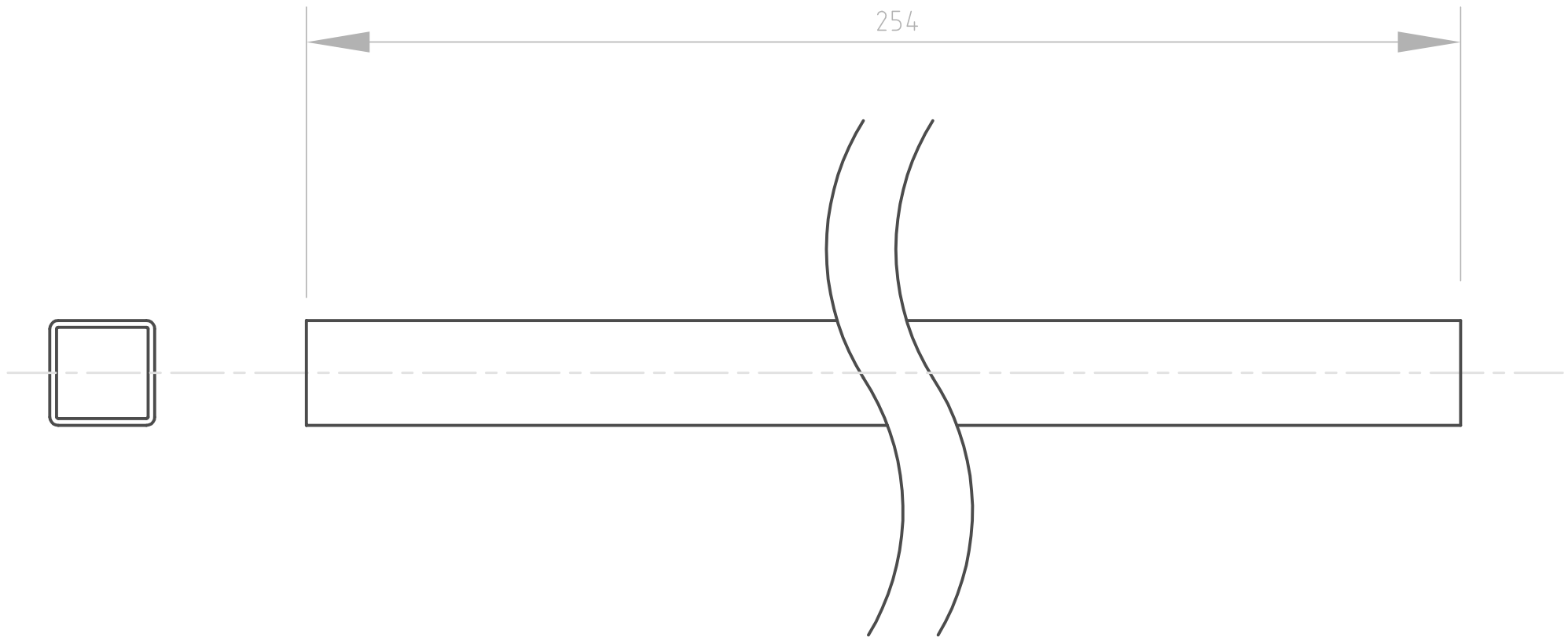
01 & 02

| | | | |
|--|----------------------------|------------------------------------|--|
| Designed by John McIver | Date 18th December 2007 | Clubman Chassis - Type 3 Structure | |
|  Temporal Images www.car-stuff.info | Filename 0304004A. Dwg | Scale 1: 1 | |
| | 0304004A | Sheet 4 of 7 | |




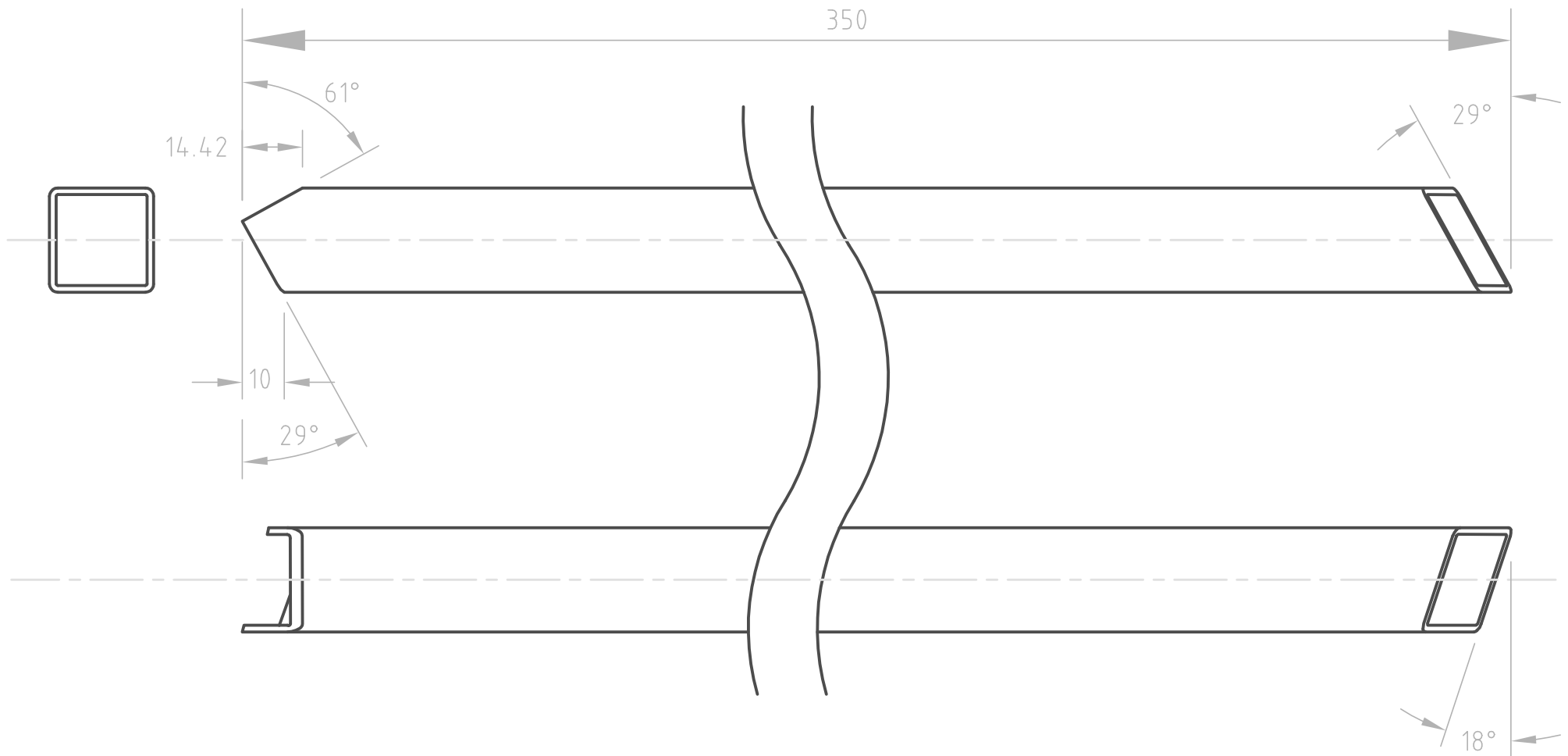
03

| | | | |
|---|----------------------------|------------------------------------|--|
| Designed by John McIver | Date 18th December 2007 | Clubman Chassis - Type 3 Structure | |
|  Temporal Images www.car-stuff.info | Filename 0304005A. Dwg | Scale 1: 1 | |
| | 0304005A | Sheet 5 of 7 | |




H2 & H3

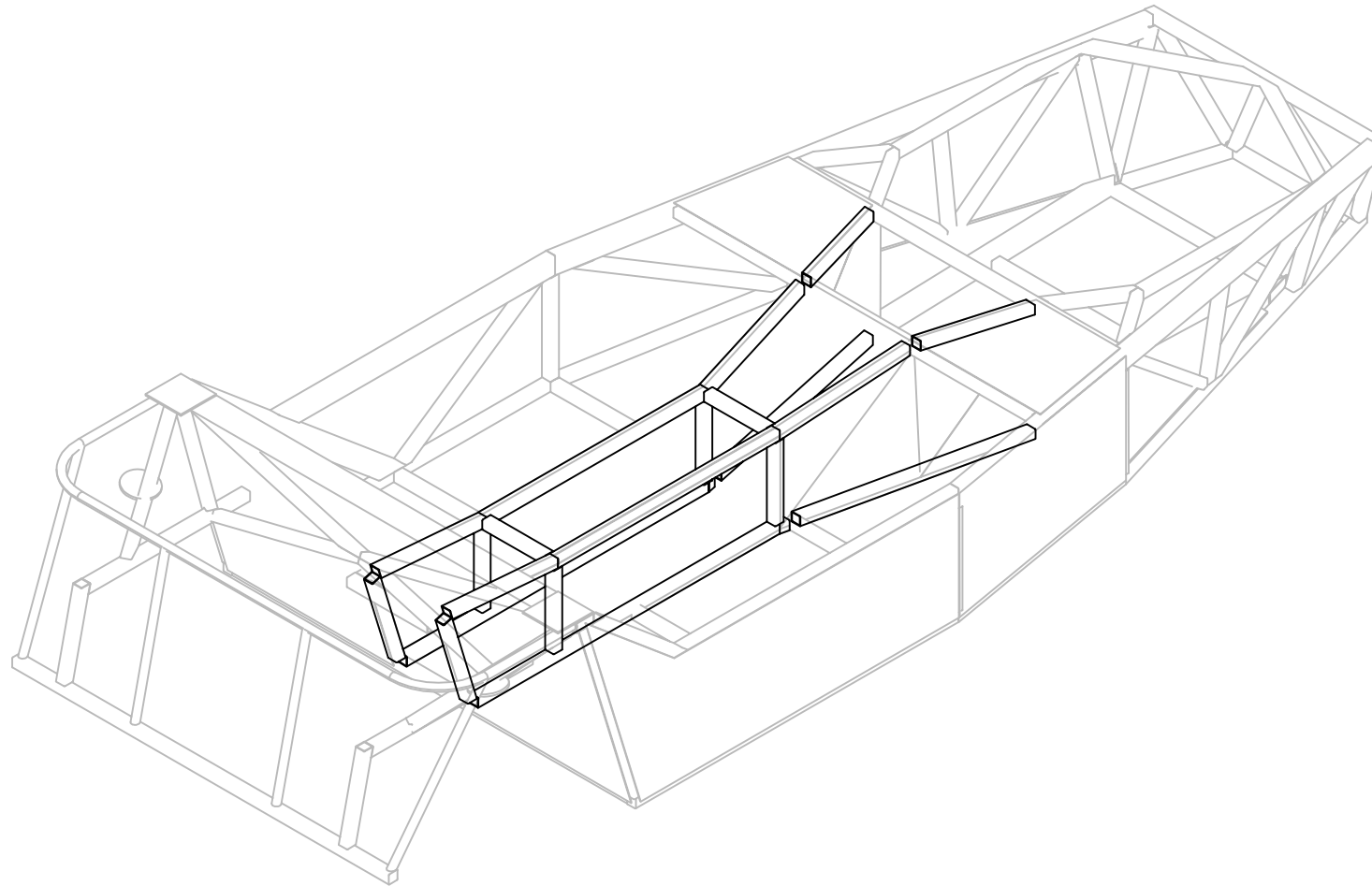
| | | | |
|---|----------------------------|------------------------------------|--|
| Designed by John McIver | Date 18th December 2007 | Clubman Chassis - Type 3 Structure | |
|  Temporal Images www.car-stuff.info | Filename 0304006A. Dwg | Scale 1:1 | |
| | 0304006A | Sheet 6 of 7 | |



LE & LF

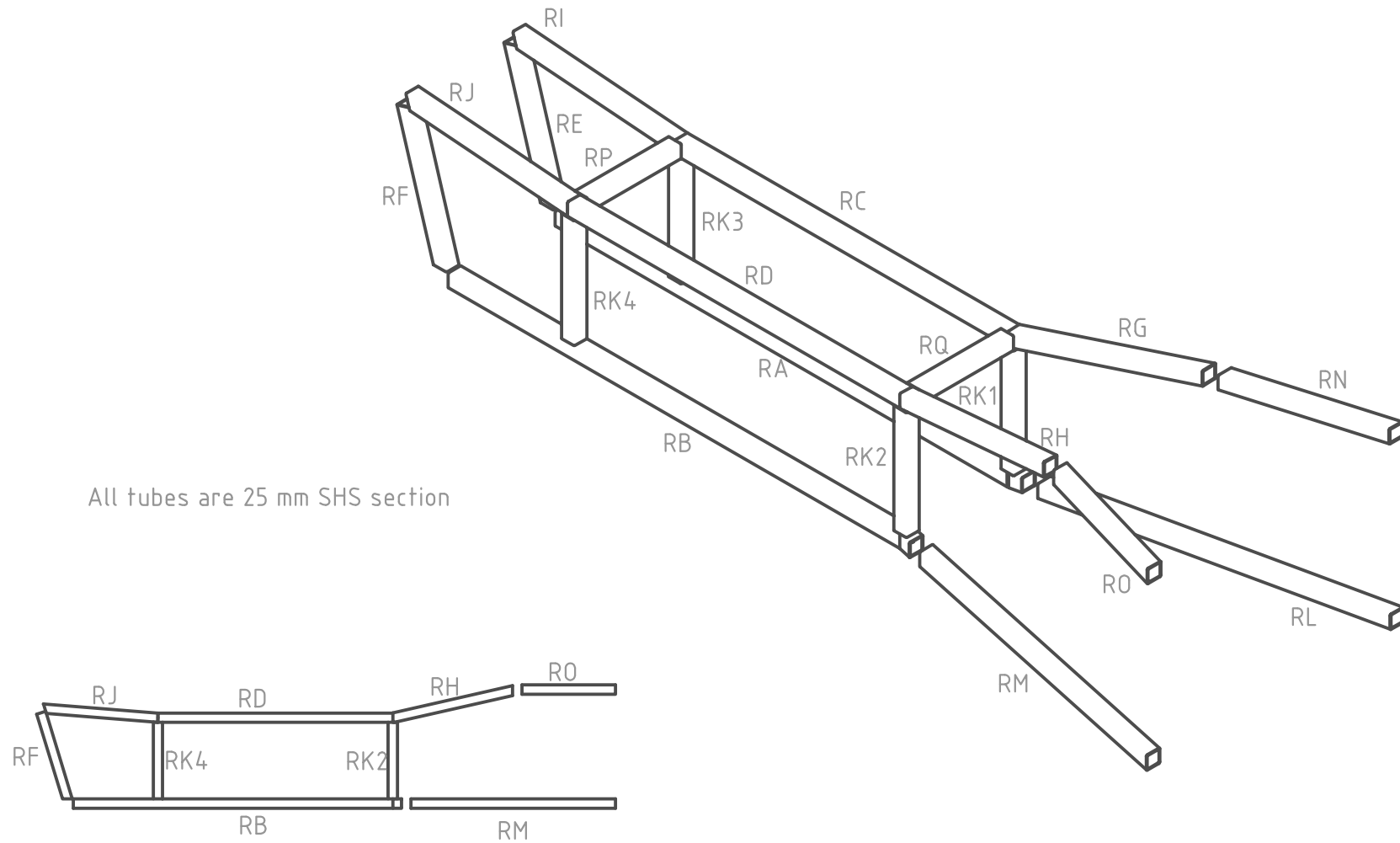
| | | | |
|--|---------------------------------|------------------------------------|--|
| Designed by John McIver | Date 18th December 2007 | Clubman Chassis - Type 3 Structure | |
|  Temporal Images www.car-stuff.info | Filename 0304007A. Dwg | Scale 1: 1 | |
| | 0304007A Sheet 7 of 7 | | |


Transmission Tunnel

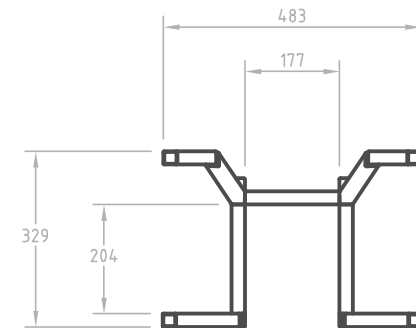
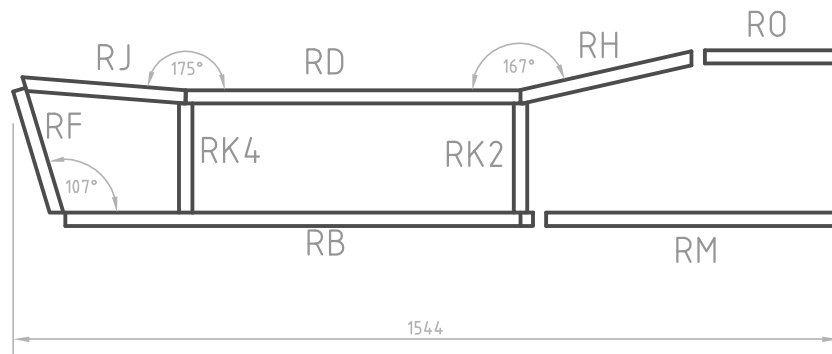
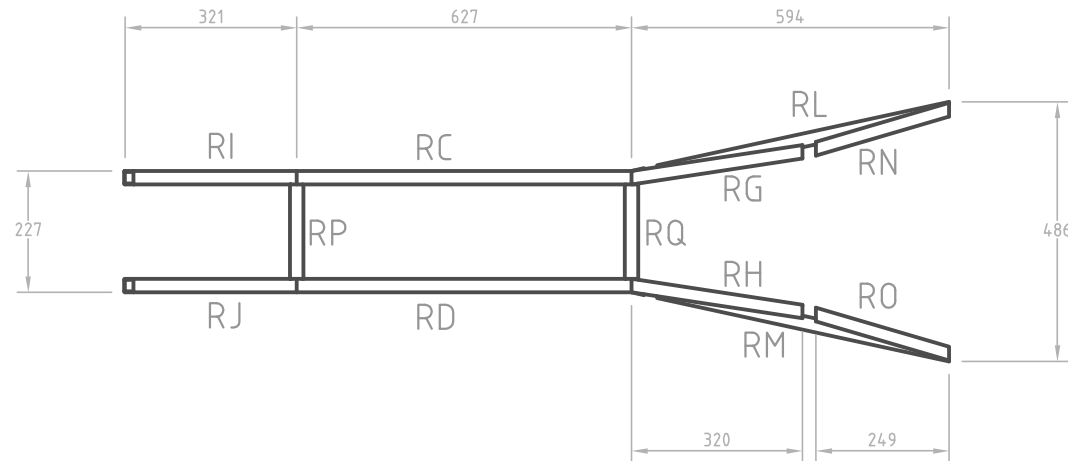



Temporal Images

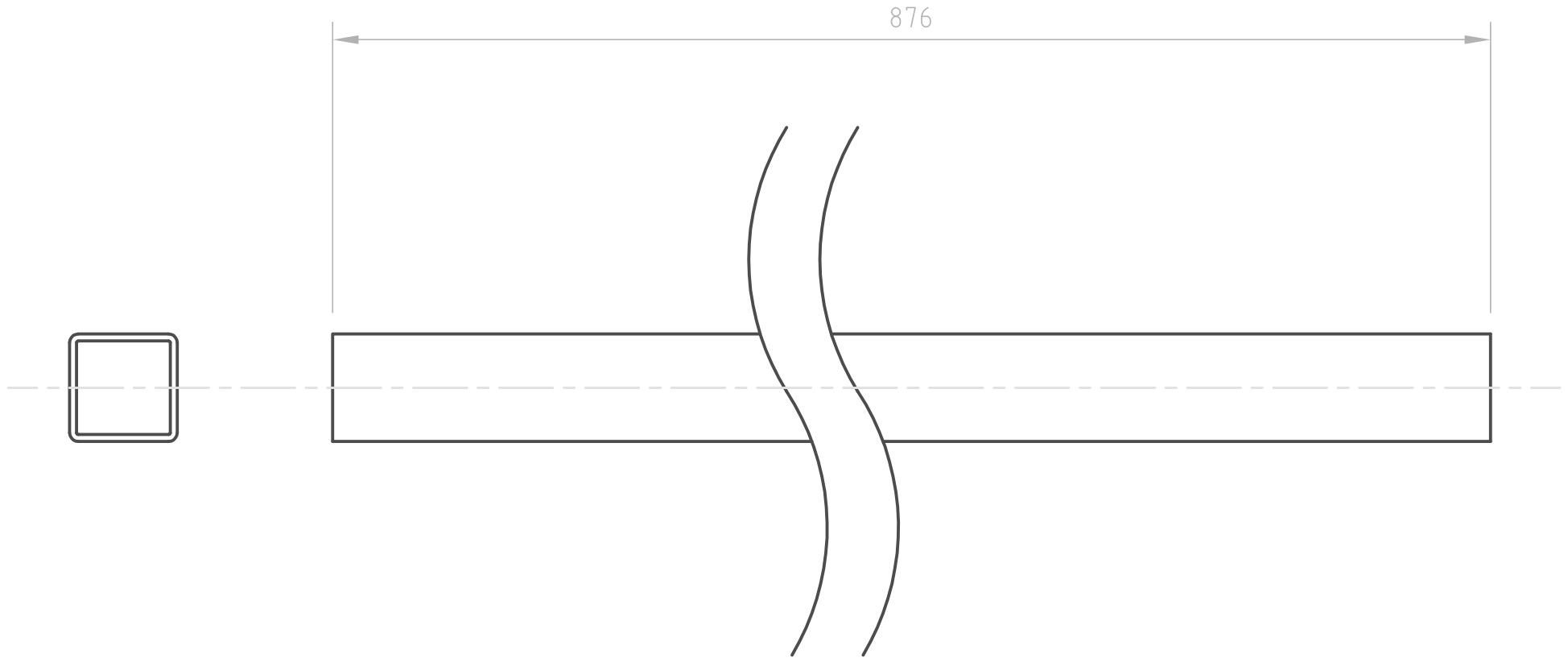
www.car-stuff.info




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|--|----------------------------|------------------------------------|---------|
| Designed by John McIver | Date 18th December 2007 | Clubman Chassis - Type 3 Structure | |
|  Temporal Images www.car-stuff.info | Filename | 0305001A. Dwg | Scale |
| | | 0305001A | 1: 12 |
| | | | Sheet |
| | | | 1 of 11 |

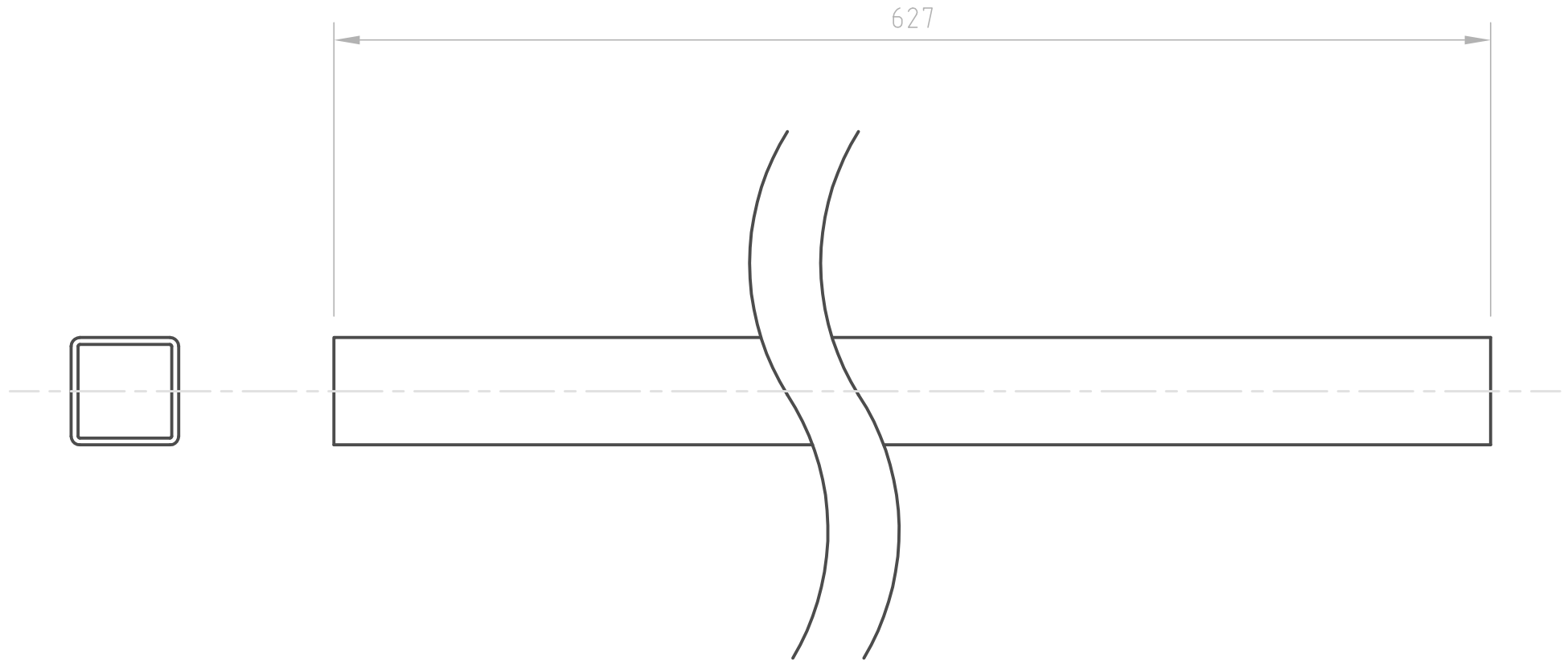


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|--|----------------------------|------------------------------------|------------------|
| Designed by John McIver | Date 18th December 2007 | Clubman Chassis - Type 3 Structure | |
|  Temporal Images www.car-stuff.info | Filename 0305002A.Dwg | Scale 1:10 | |
| | 0305002A | | Sheet 2 of 11 |




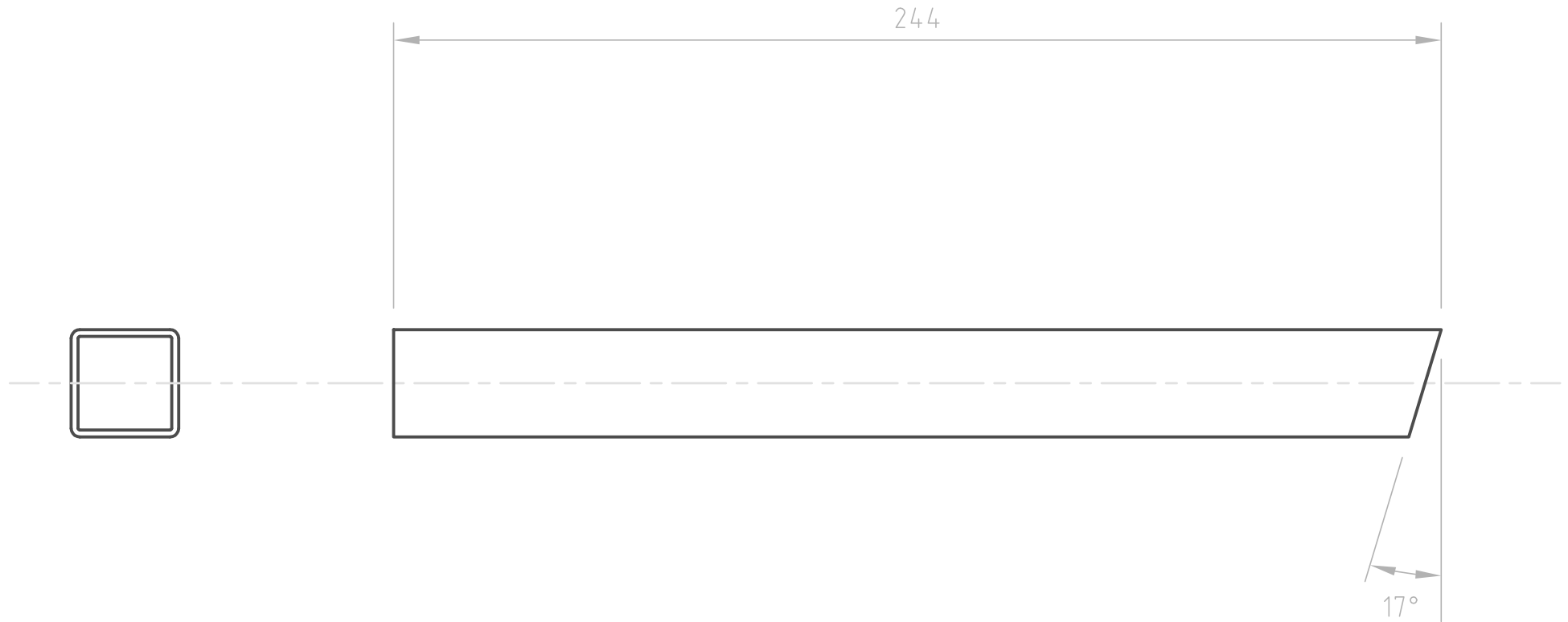
RA & RB

| | | | |
|---|----------------------------|------------------------------------|--|
| Designed by John McIver | Date 18th December 2007 | Clubman Chassis - Type 3 Structure | |
|  Temporal Images www.car-stuff.info | Filename 0305003A.Dwg | Scale 1:1 | |
| | 0305003A | Sheet 3 of 11 | |




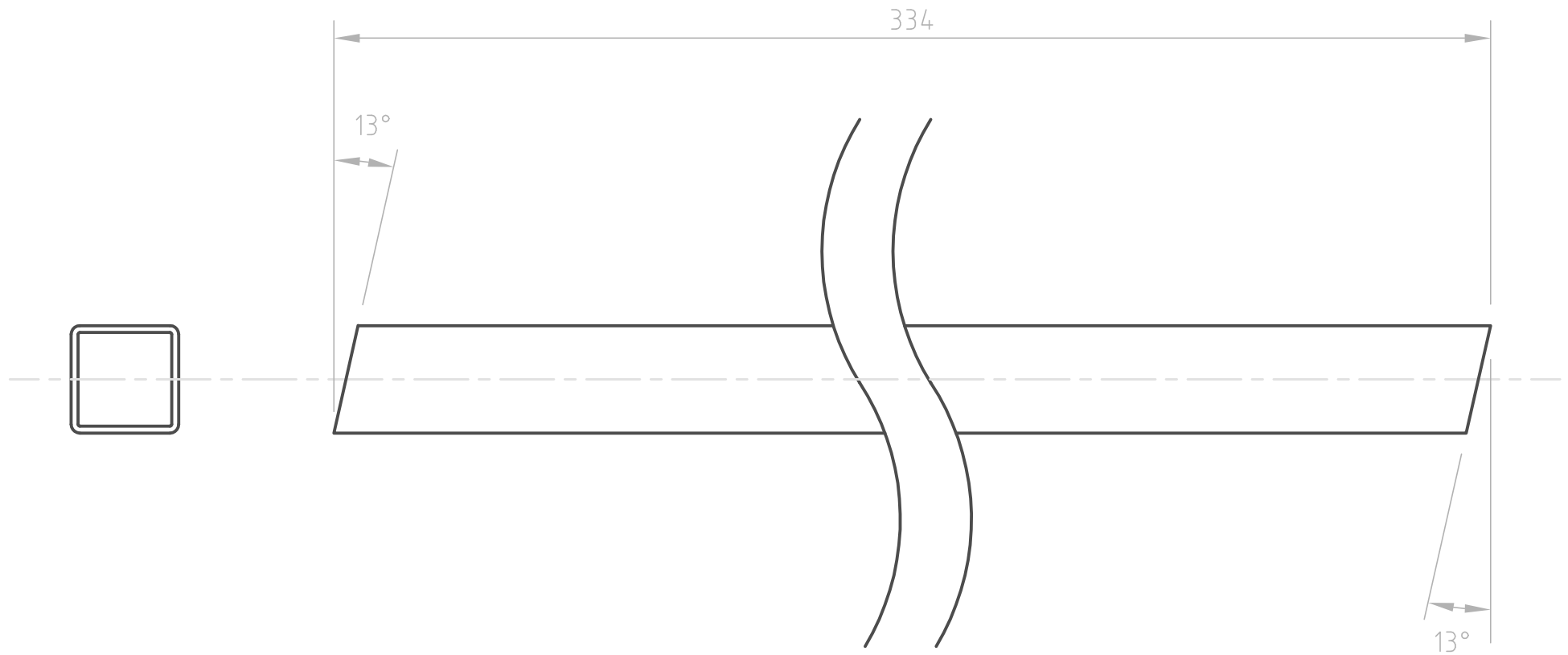
RC & RD

| | | | |
|---|----------------------------|------------------------------------|--|
| Designed by John McIver | Date 18th December 2007 | Clubman Chassis - Type 3 Structure | |
|  Temporal Images www.car-stuff.info | Filename 0305004A.Dwg | Scale 1:1 | |
| | 0305004A | Sheet 4 of 11 | |




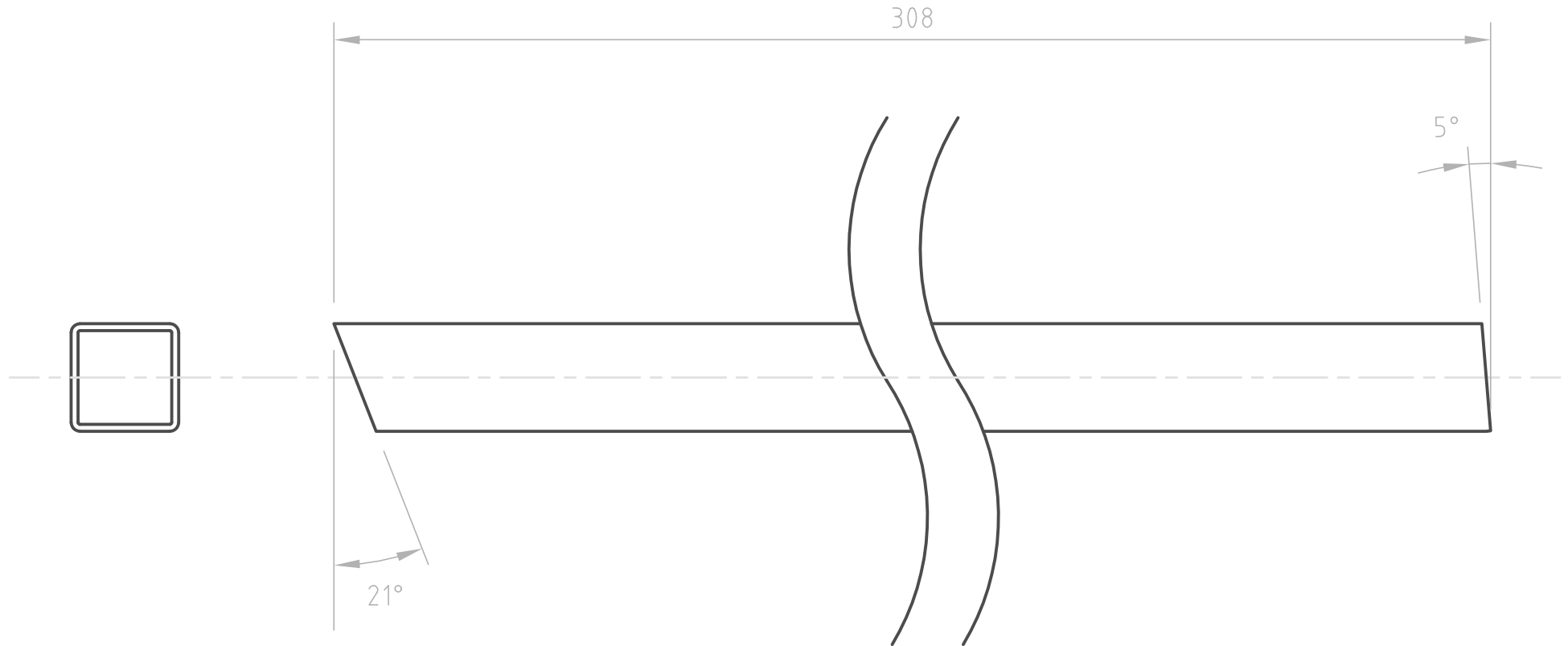
RE & RF

| | | | |
|---|----------------------------|------------------------------------|--|
| Designed by John McIver | Date 18th December 2007 | Clubman Chassis - Type 3 Structure | |
|  Temporal Images www.car-stuff.info | Filename 0305005A. Dwg | Scale 1:1 | |
| | 0305005A | Sheet 5 of 11 | |




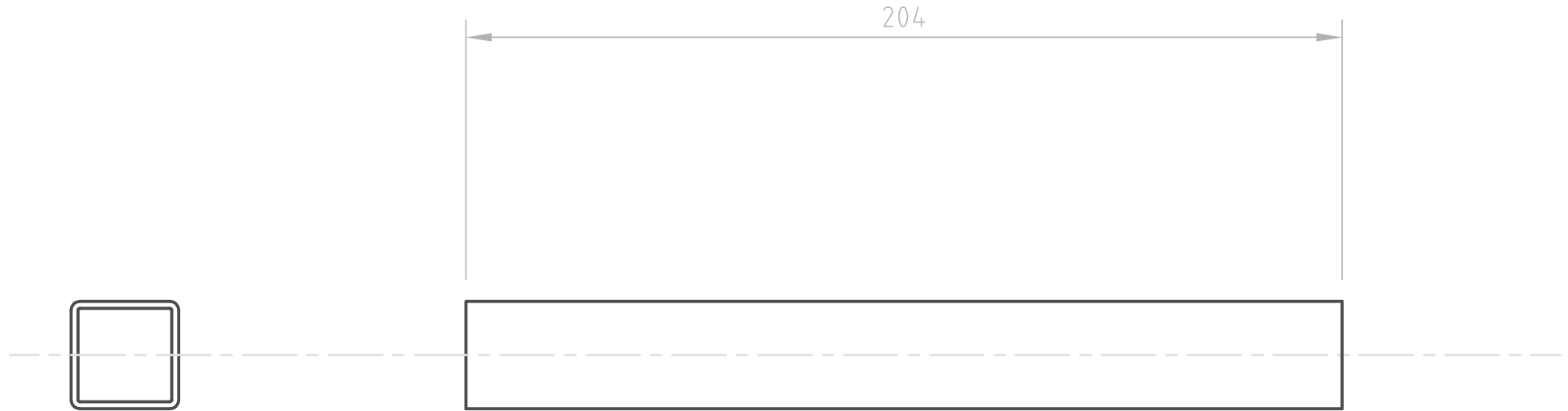
RG & RH

| | | | |
|---|----------------------------|------------------------------------|---------------|
| Designed by John McIver | Date 18th December 2007 | Clubman Chassis - Type 3 Structure | |
|  Temporal Images www.car-stuff.info | Filename | 0305006A.Dwg | Scale 1:1 |
| | | 0305006A | Sheet 6 of 11 |




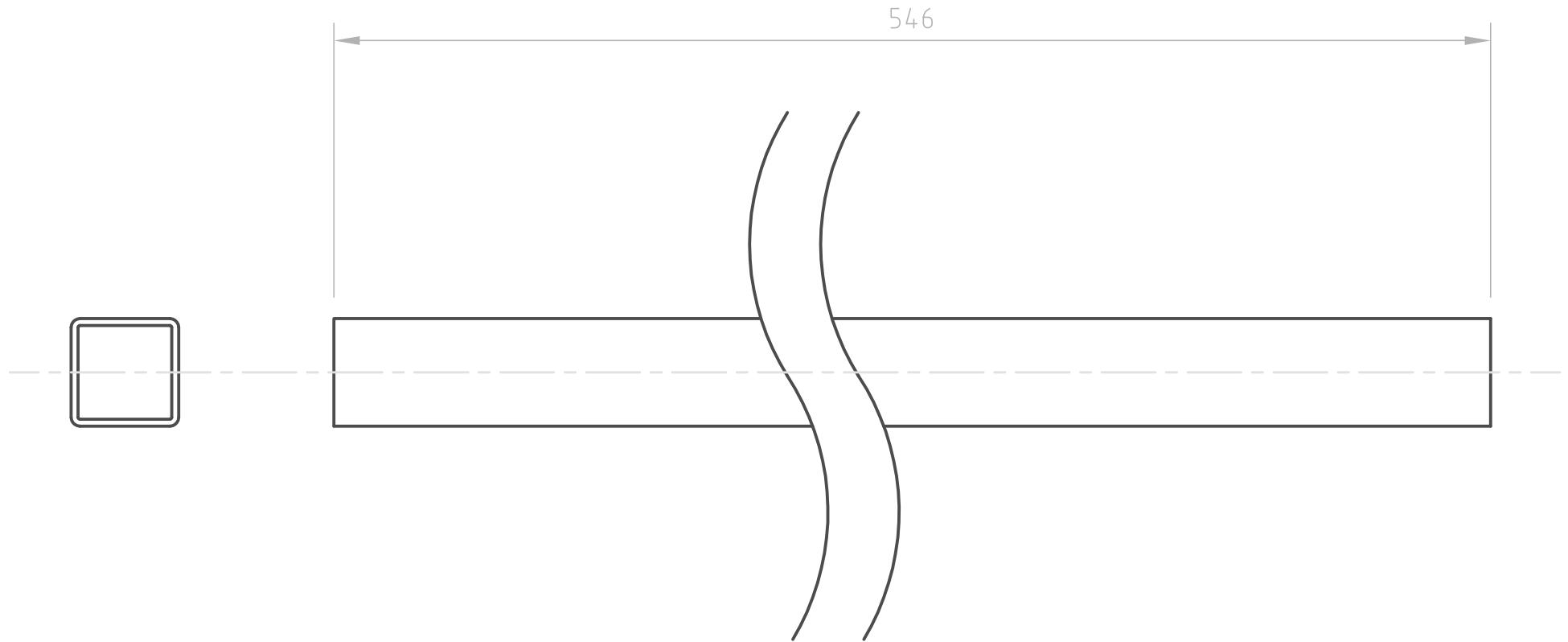
RI & RJ

| | | | |
|---|----------------------------|------------------------------------|--|
| Designed by John McIver | Date 18th December 2007 | Clubman Chassis - Type 3 Structure | |
|  Temporal Images www.car-stuff.info | Filename 0305007A. Dwg | Scale 1:1 | |
| | 0305007A | Sheet 7 of 11 | |




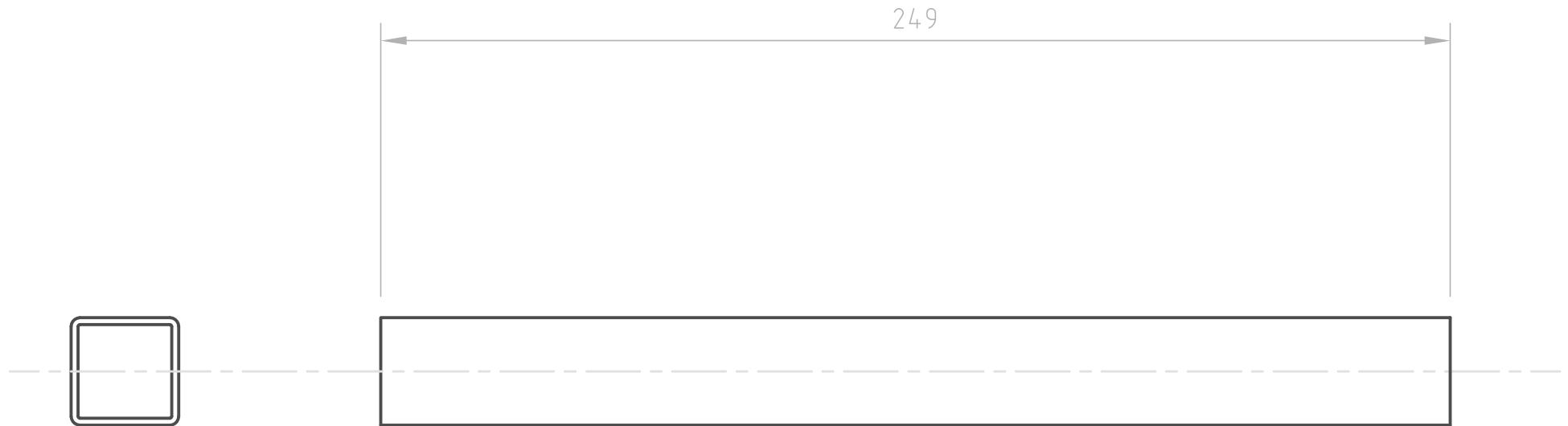
RK1, RK2, RK3 & RK4

| | | | |
|---|----------------------------|------------------------------------|---------------|
| Designed by John McIver | Date 18th December 2007 | Clubman Chassis - Type 3 Structure | |
|  Temporal Images www.car-stuff.info | Filename | 0305008A. Dwg | Scale 1:1 |
| | | 0305008A | Sheet 8 of 11 |




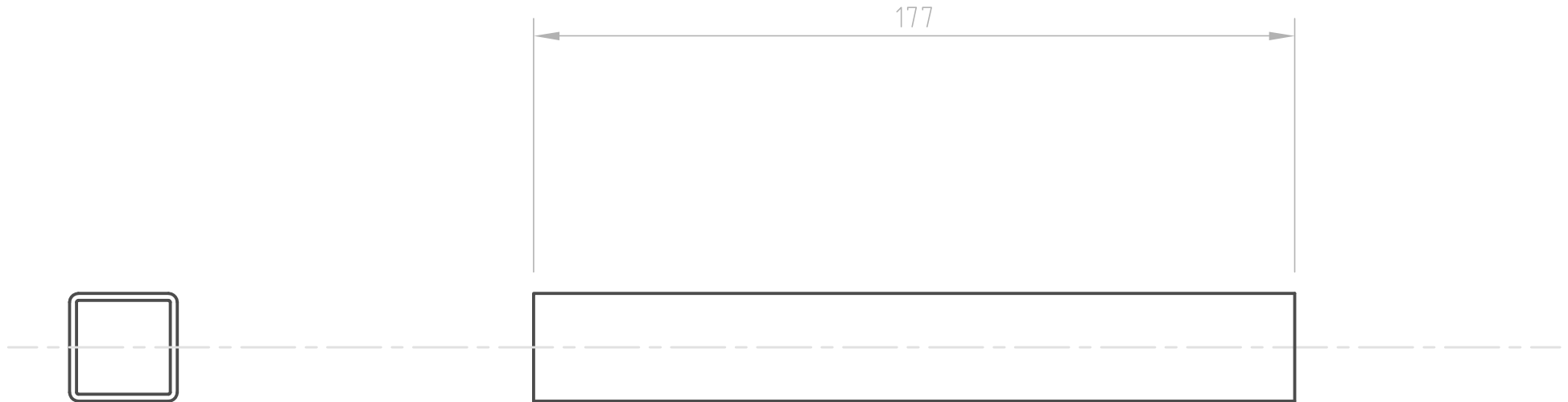
RL & RM

| | | | |
|---|----------------------------|------------------------------------|--|
| Designed by John McIver | Date 18th December 2007 | Clubman Chassis - Type 3 Structure | |
|  Temporal Images www.car-stuff.info | Filename 0305009A.Dwg | Scale 1:1 | |
| | 0305009A | Sheet 9 of 11 | |




RN & RO

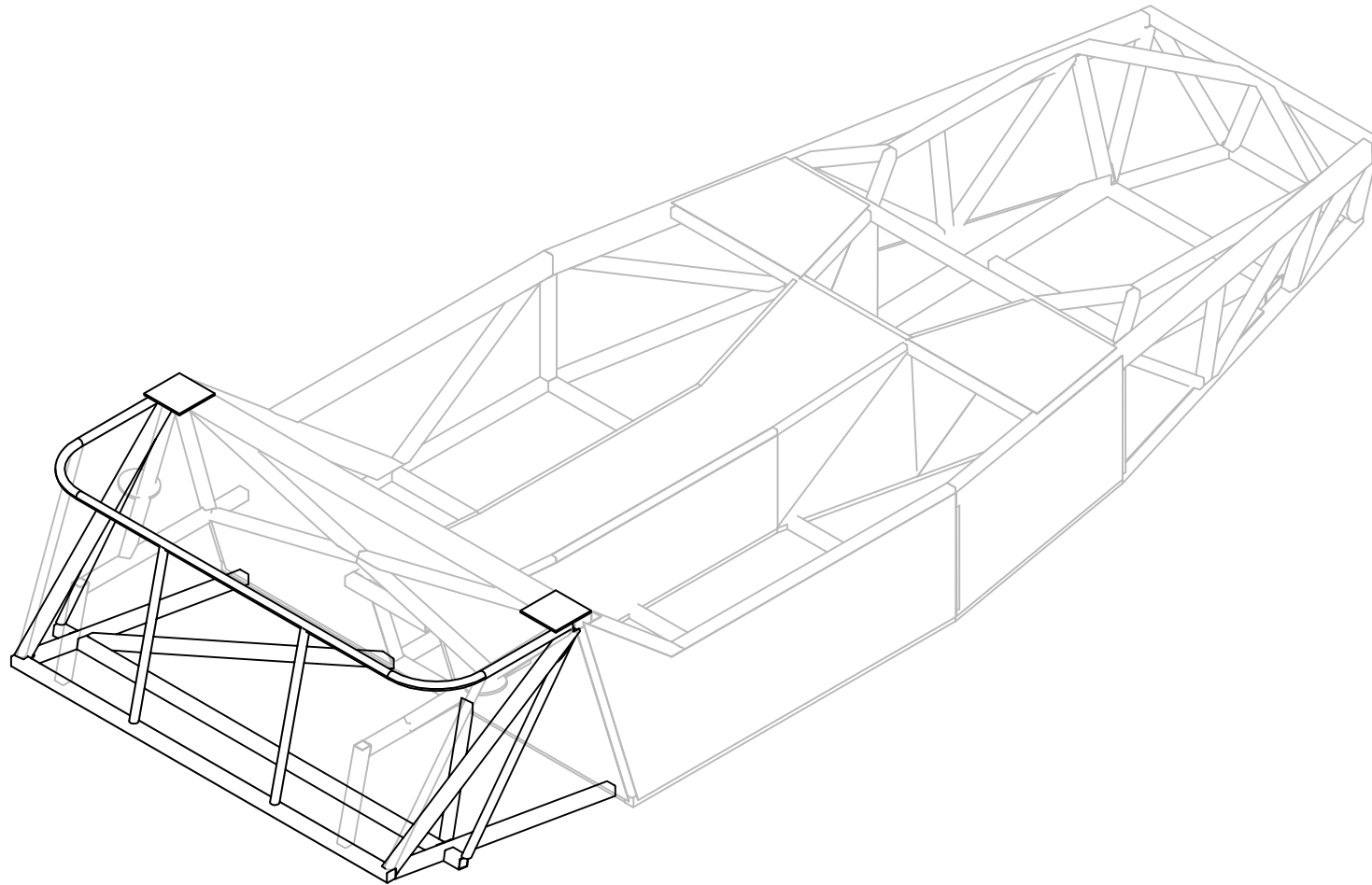
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| Designed by John McIver | Date 18th December 2007 | Clubman Chassis - Type 3 Structure | |
|  Temporal Images www.car-stuff.info | Filename | 0305010A.Dwg | Scale 1:1 |
| | 0305010A | | Sheet 10 of 11 |



RP & RQ

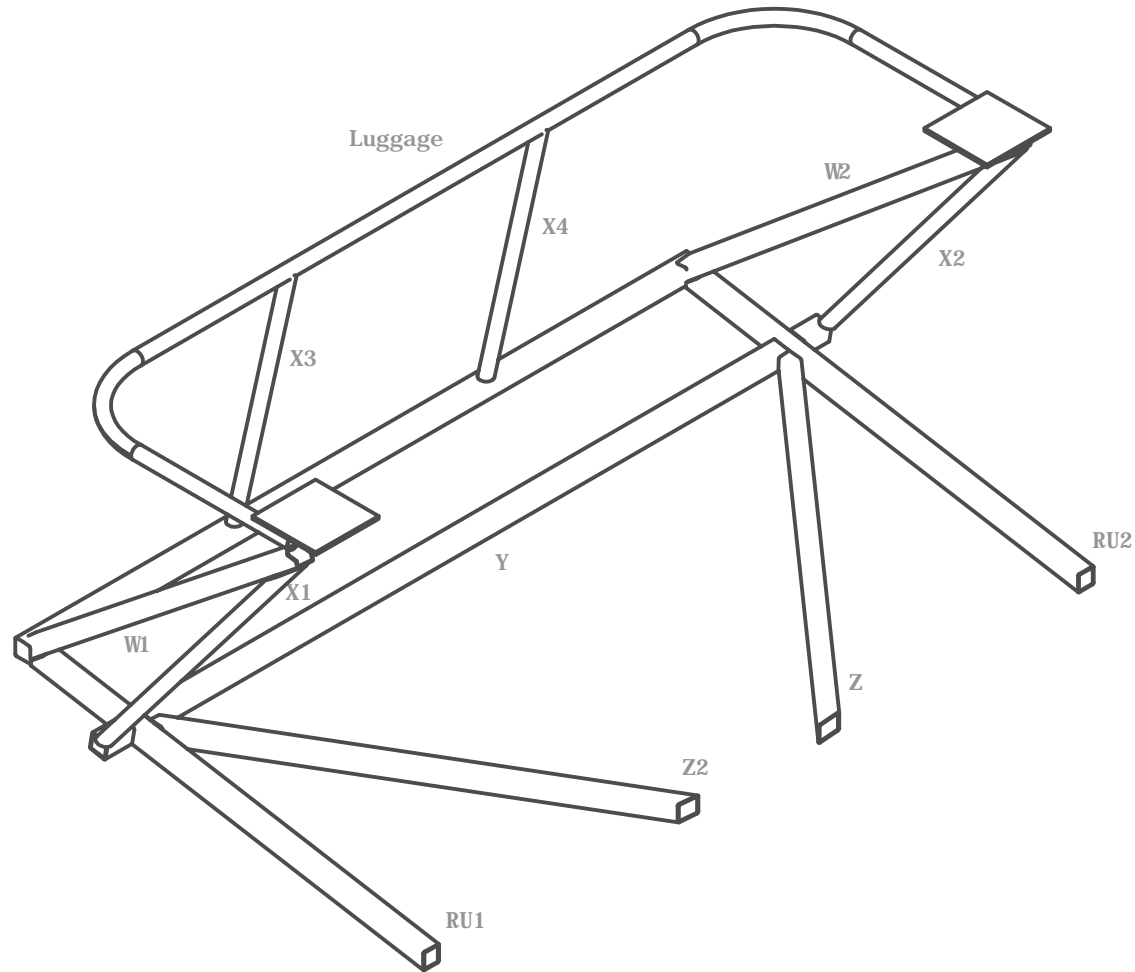
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|---|----------------------------|------------------------------------|----------------|
| Designed by John McIver | Date 18th December 2007 | Clubman Chassis - Type 3 Structure | |
|  Temporal Images www.car-stuff.info | Filename | 0305011A. Dwg | Scale 1:1 |
| | | 0305011A | Sheet 11 of 11 |

Rear Frame




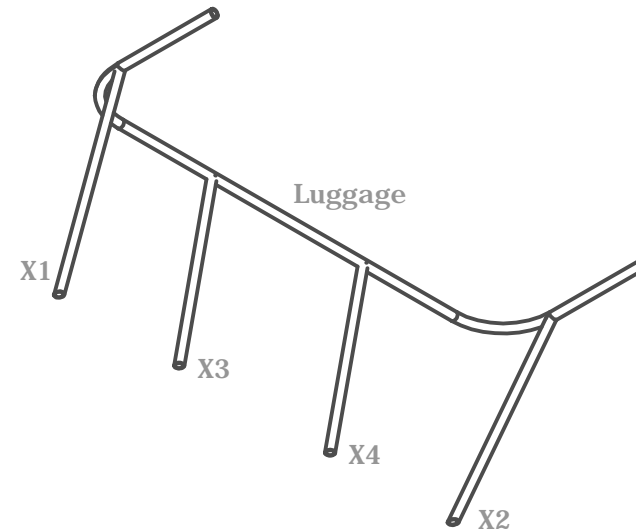
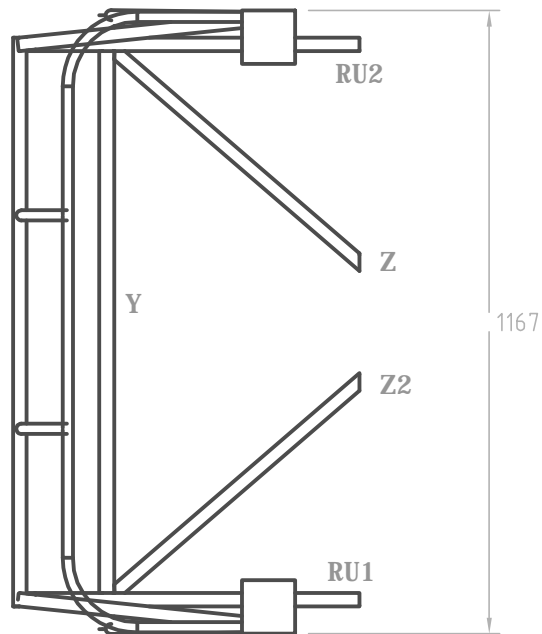
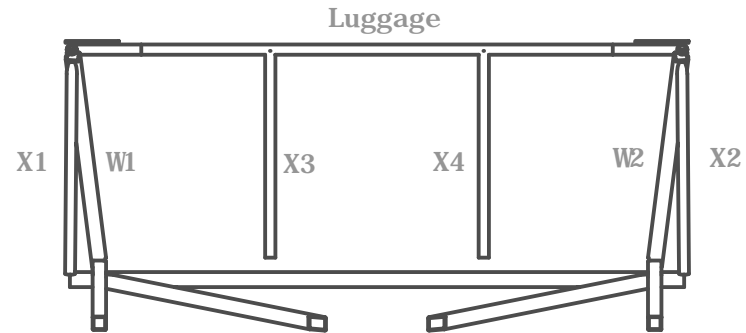
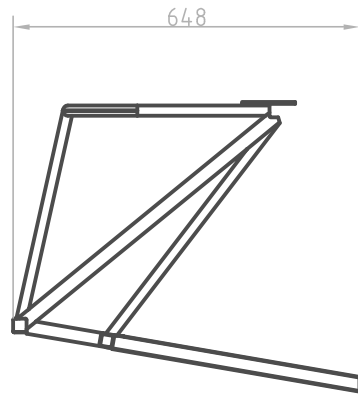
Temporal Images


www.car-stuff.info

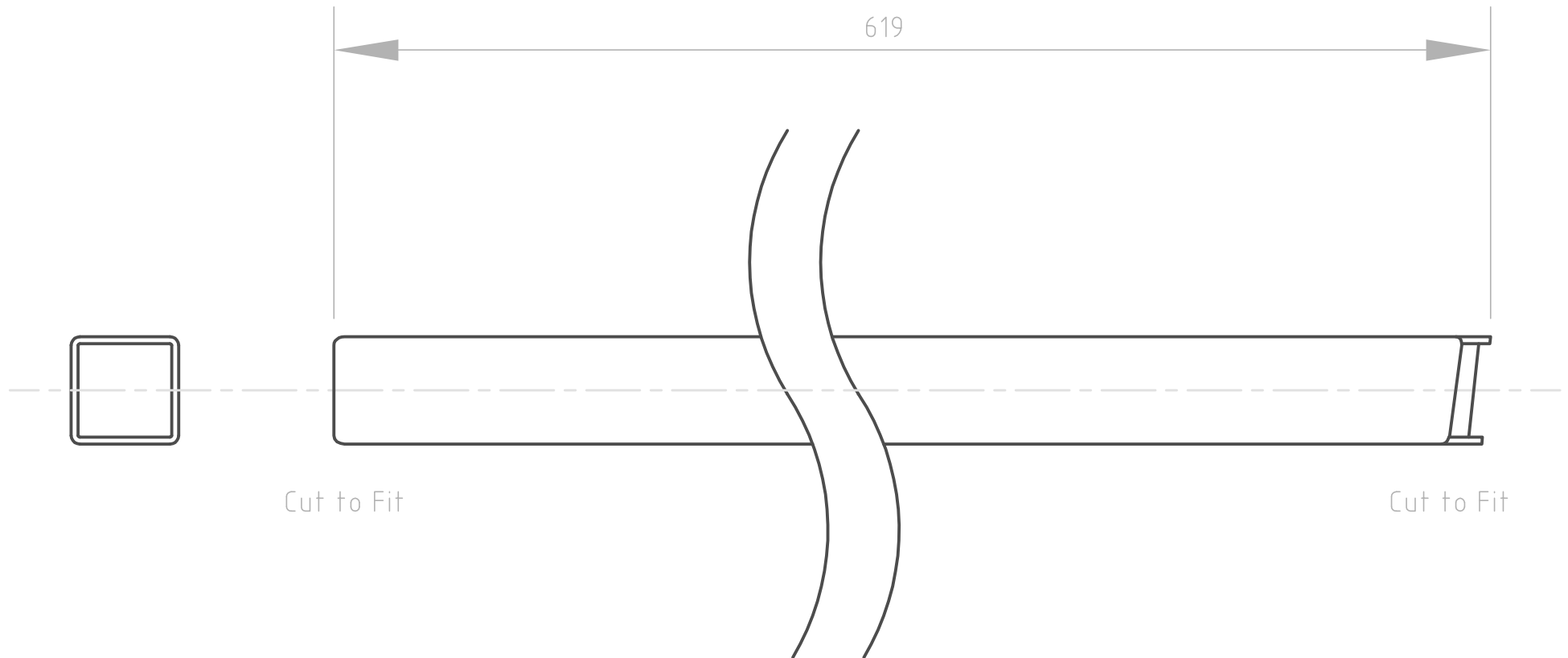


Note that tubes X1, X2, X3, X4 and Luggage are CHS sections
 All other tubes are SHS section


| | | | |
|---|----------------------------|------------------------------------|---------------|
| Designed by John McIver | Date 18th December 2007 | Clubman Chassis - Type 3 Structure | |
|  Temporal Images www.car-stuff.info | Filename | 0306001A. Dwg | Scale 1: 12 |
| | | 0306001A | Sheet 1 of 10 |

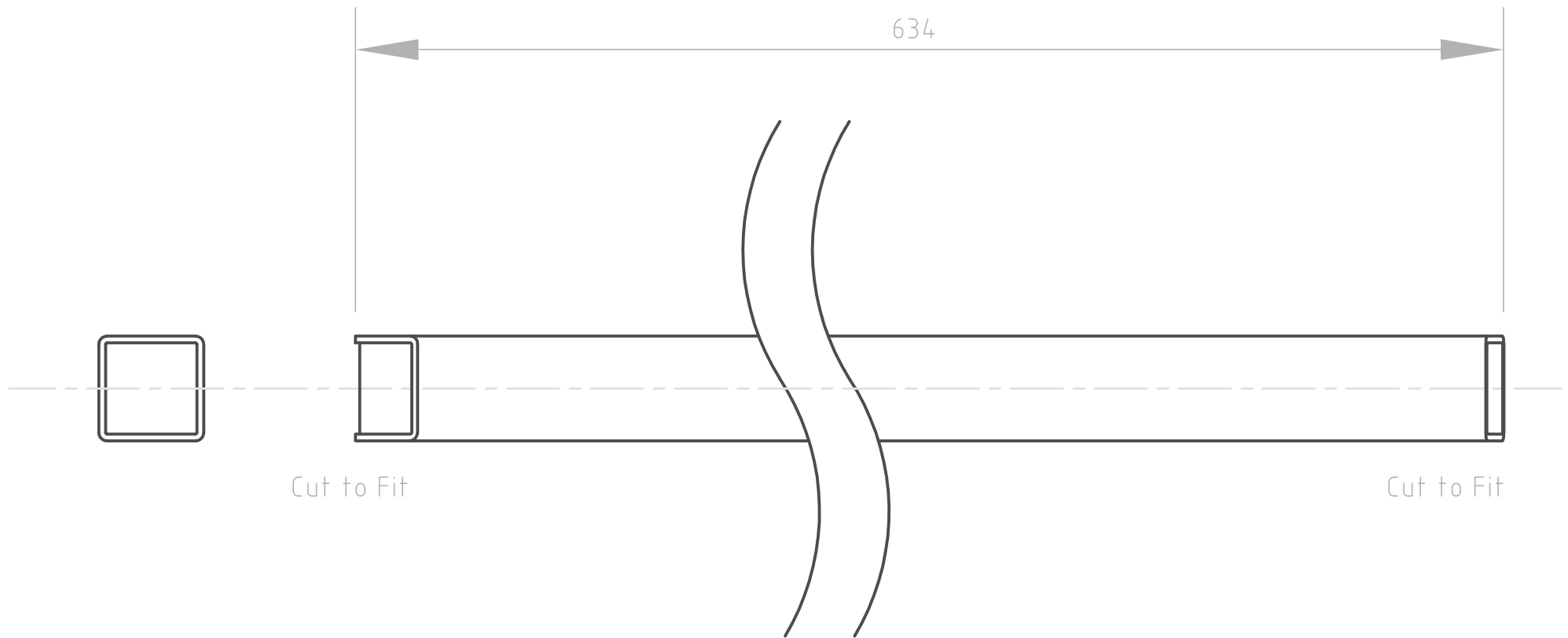


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| Designed by John McIver | Date 18th December 2007 | Clubman Chassis - Type 3 Structure | |
|  Temporal Images www.car-stuff.info | Filename | 0306002A. Dwg | Scale 1: 10 |
| | | 0306002A | Sheet 2 of 10 |




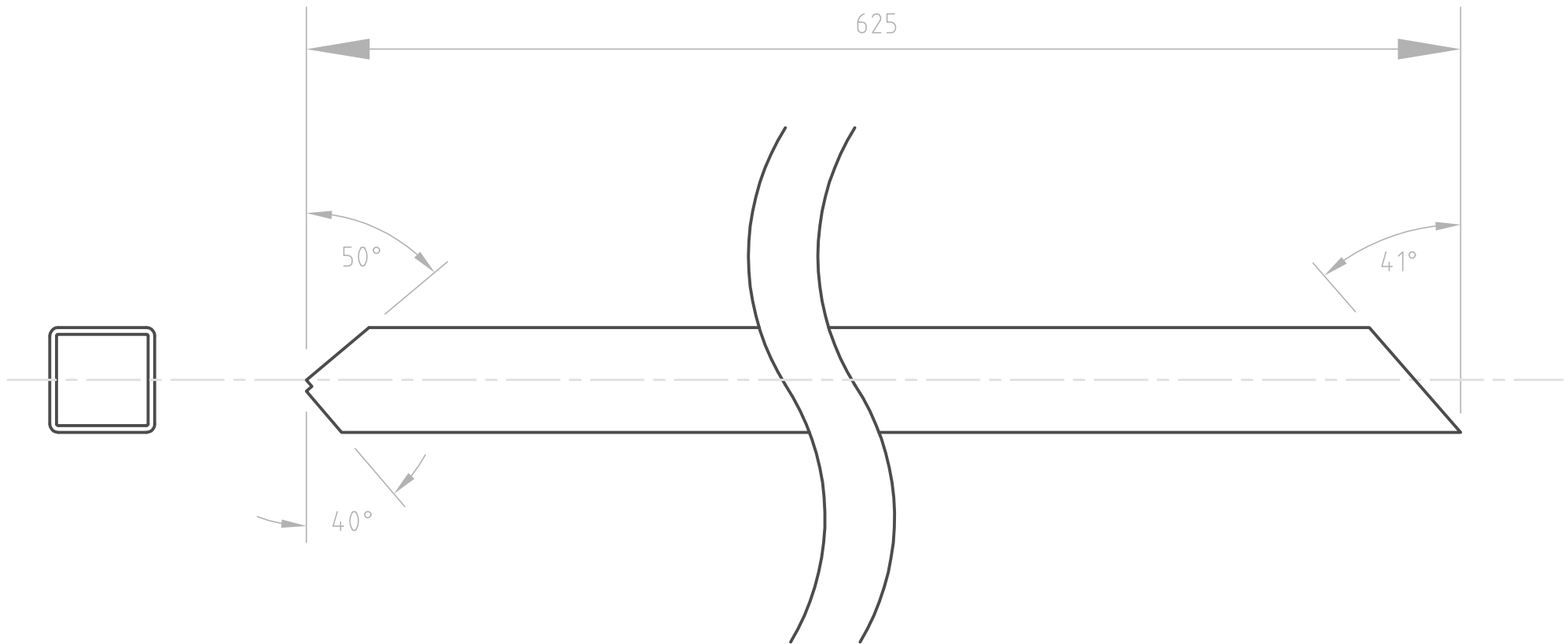
W1 & W2

| | | | |
|---|----------------------------|------------------------------------|--|
| Designed by John McIver | Date 18th December 2007 | Clubman Chassis - Type 3 Structure | |
|  Temporal Images www.car-stuff.info | Filename 0306003A.Dwg | Scale 1:1 | |
| | 0306003A | Sheet 3 of 10 | |




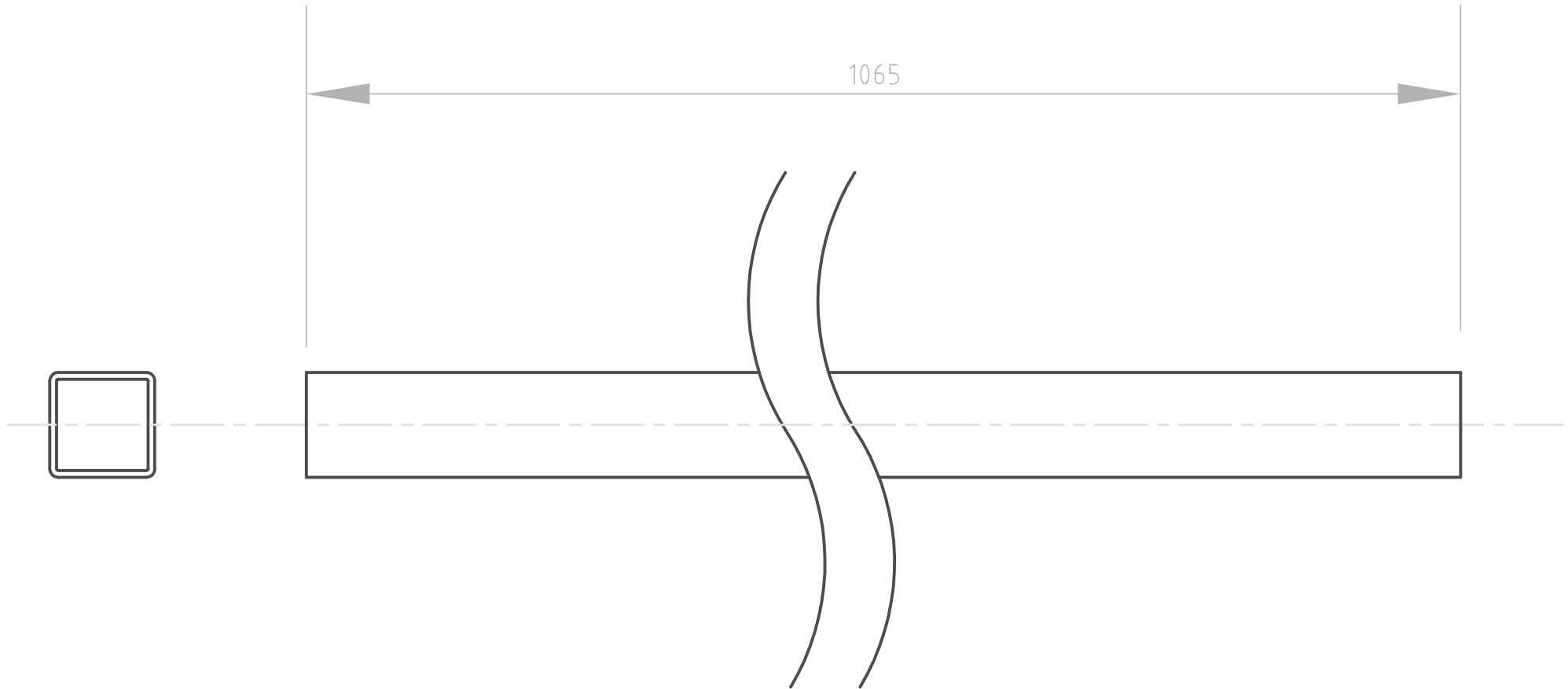
RU1 & RU2

| | | | |
|---|----------------------------|------------------------------------|---------------|
| Designed by John McIver | Date 18th December 2007 | Clubman Chassis - Type 3 Structure | |
|  Temporal Images www.car-stuff.info | Filename | 0306004A. Dwg | Scale 1:1 |
| | | 0306004A | Sheet 4 of 10 |




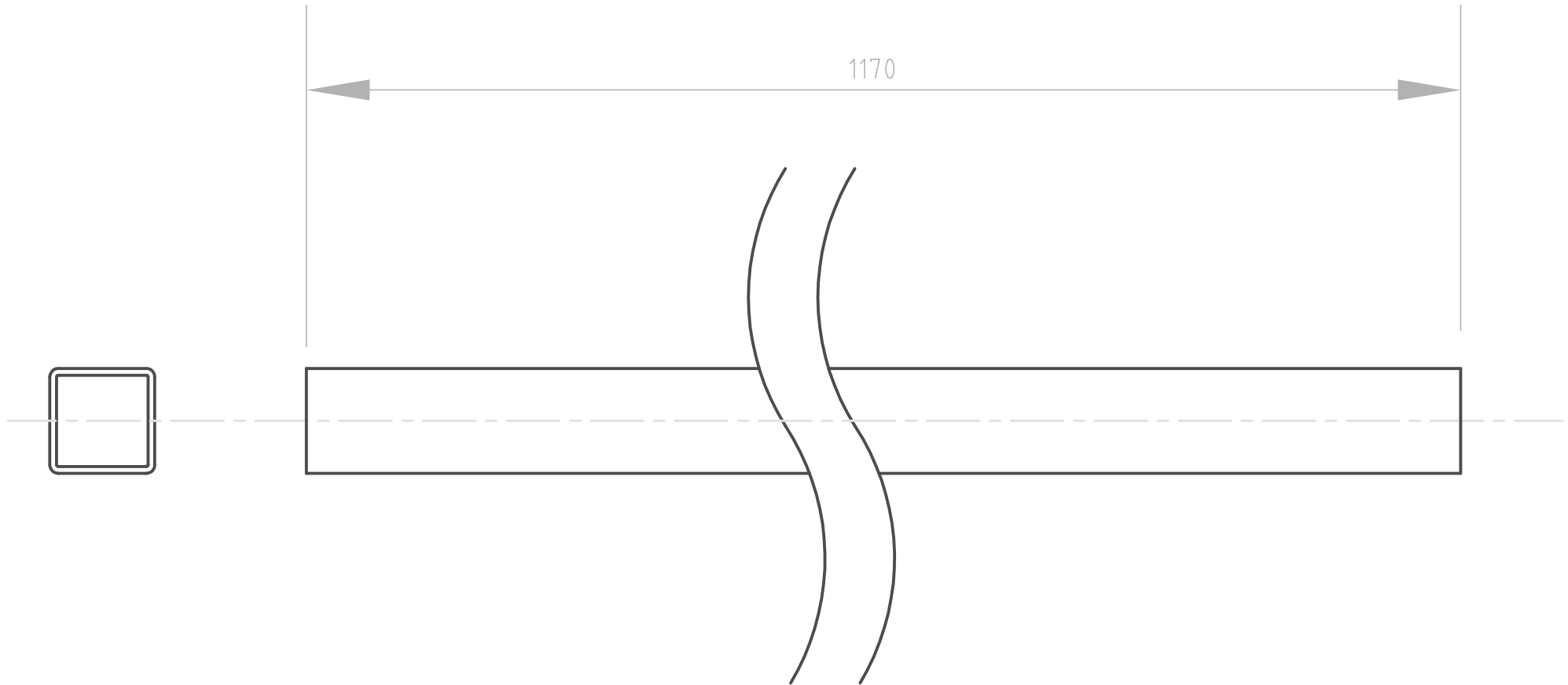
Z & Z2

| | | | |
|---|----------------------------|------------------------------------|---------------|
| Designed by John McIver | Date 18th December 2007 | Clubman Chassis - Type 3 Structure | |
|  Temporal Images www.car-stuff.info | Filename | 0306005A.Dwg | Scale 1:1 |
| | | 0306005A | Sheet 5 of 10 |




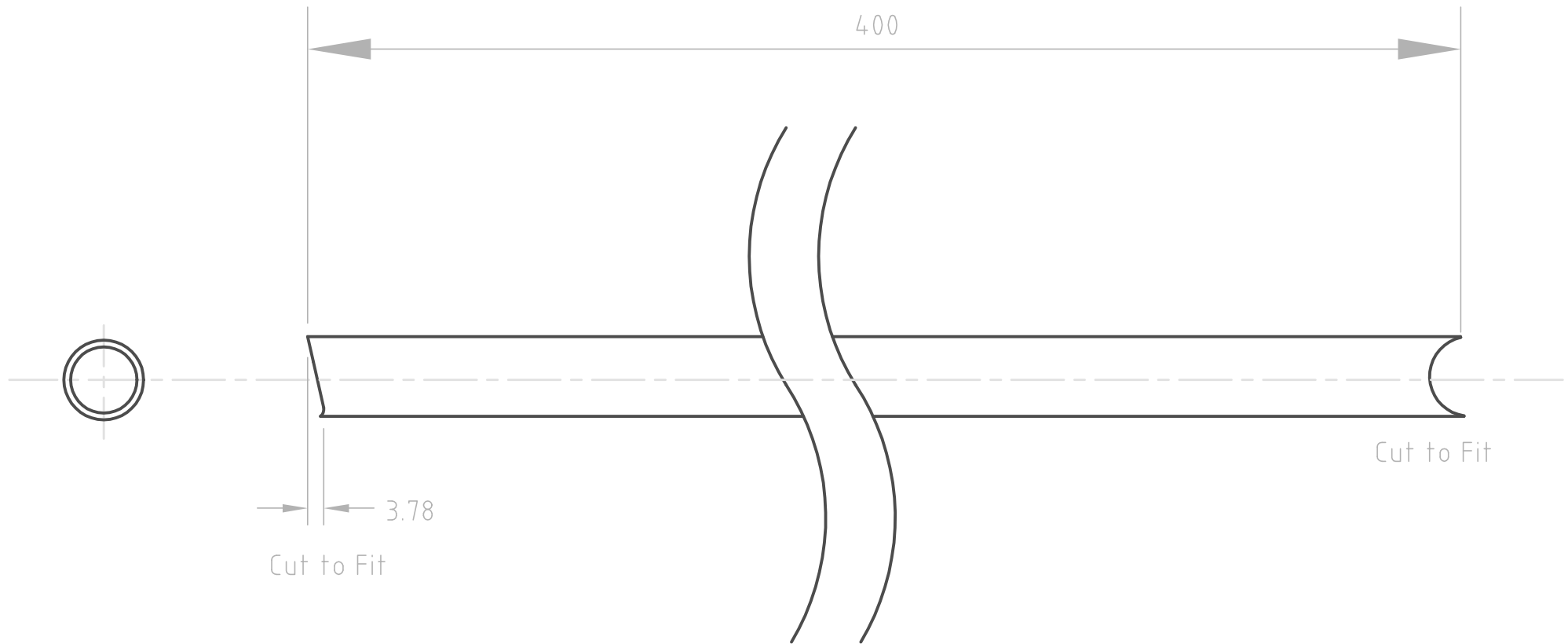
V

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|---|----------------------------|------------------------------------|--|
| Designed by John McIver | Date 18th December 2007 | Clubman Chassis - Type 3 Structure | |
|  Temporal Images www.car-stuff.info | Filename 0306006A.Dwg | Scale 1:1 | |
| | 0306006A | Sheet 6 of 10 | |




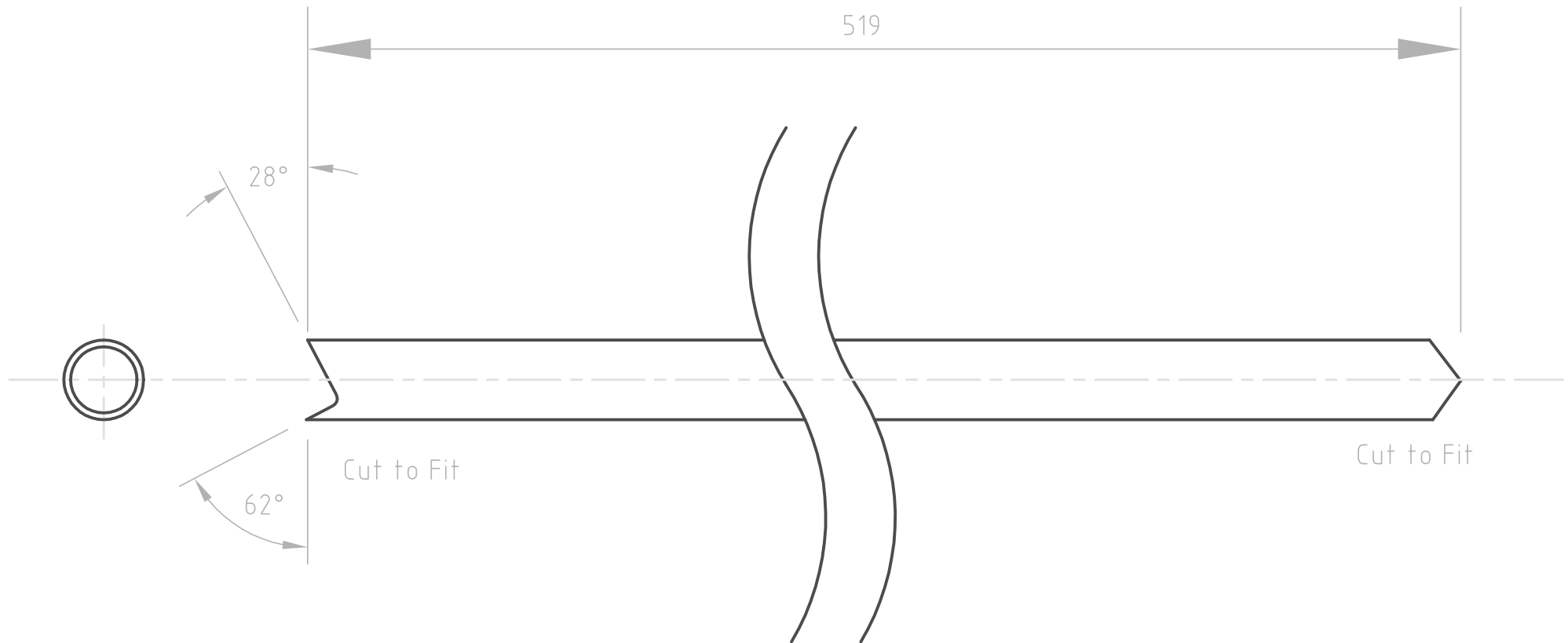
Y

| | | | |
|---|----------------------------|------------------------------------|--|
| Designed by John McIver | Date 18th December 2007 | Clubman Chassis - Type 3 Structure | |
|  Temporal Images www.car-stuff.info | Filename 0306007A. Dwg | Scale 1:1 | |
| | 0306007A | Sheet 7 of 10 | |




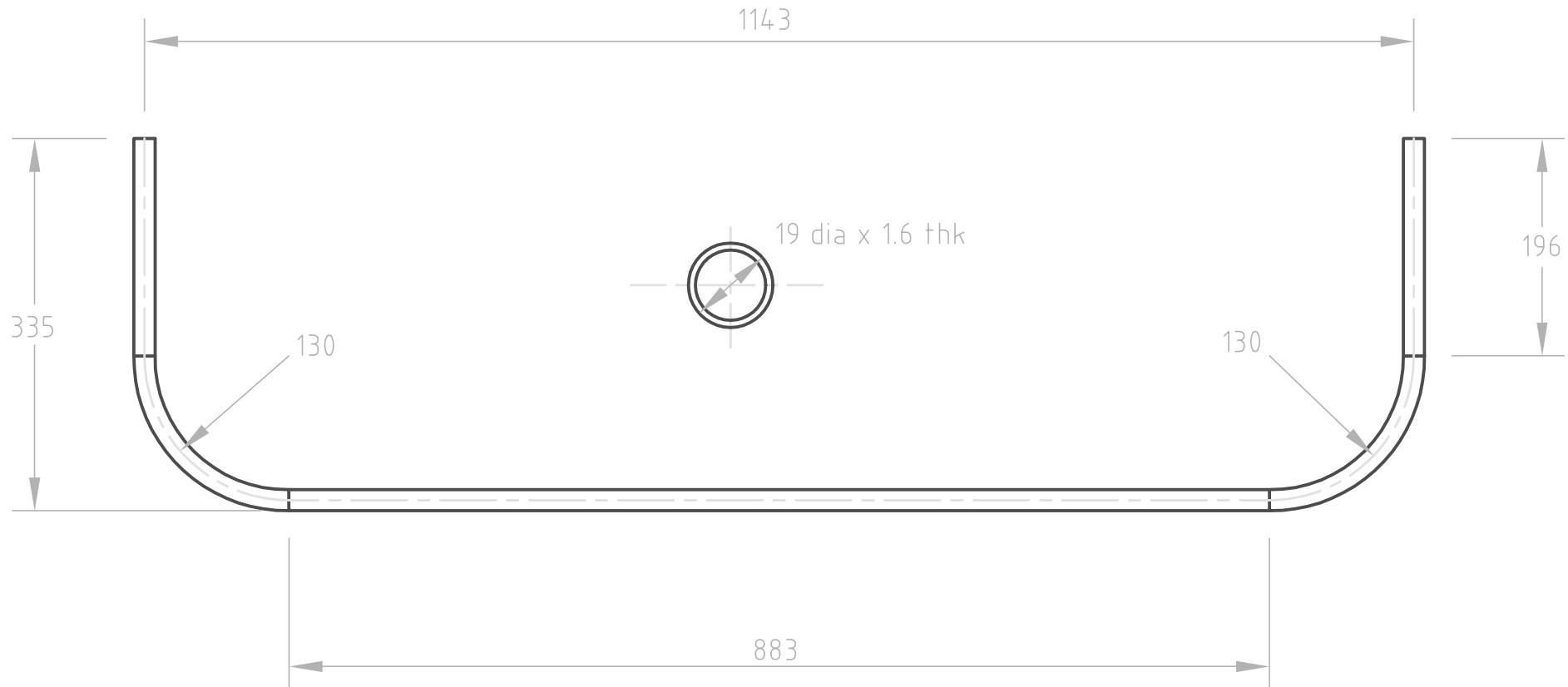
X3 & X4

| | | | |
|---|----------------------------|------------------------------------|---------------|
| Designed by John McIver | Date 18th December 2007 | Clubman Chassis - Type 3 Structure | |
|  Temporal Images www.car-stuff.info | Filename | 0306008A.Dwg | Scale 1:1 |
| | | 0306008A | Sheet 8 of 10 |




X1 & X2

| | | | |
|---|----------------------------|------------------------------------|---------------|
| Designed by John McIver | Date 18th December 2007 | Clubman Chassis - Type 3 Structure | |
|  Temporal Images www.car-stuff.info | Filename | 0306009A.Dwg | Scale 1:1 |
| | | 0306009A | Sheet 9 of 10 |



Luggage

| | | | |
|---|----------------------------|------------------------------------|----------------|
| Designed by John McIver | Date 18th December 2007 | Clubman Chassis - Type 3 Structure | |
|  Temporal Images www.car-stuff.info | Filename | 0306010A. Dwg | Scale 1:4 |
| | | 0306010A | Sheet 10 of 10 |