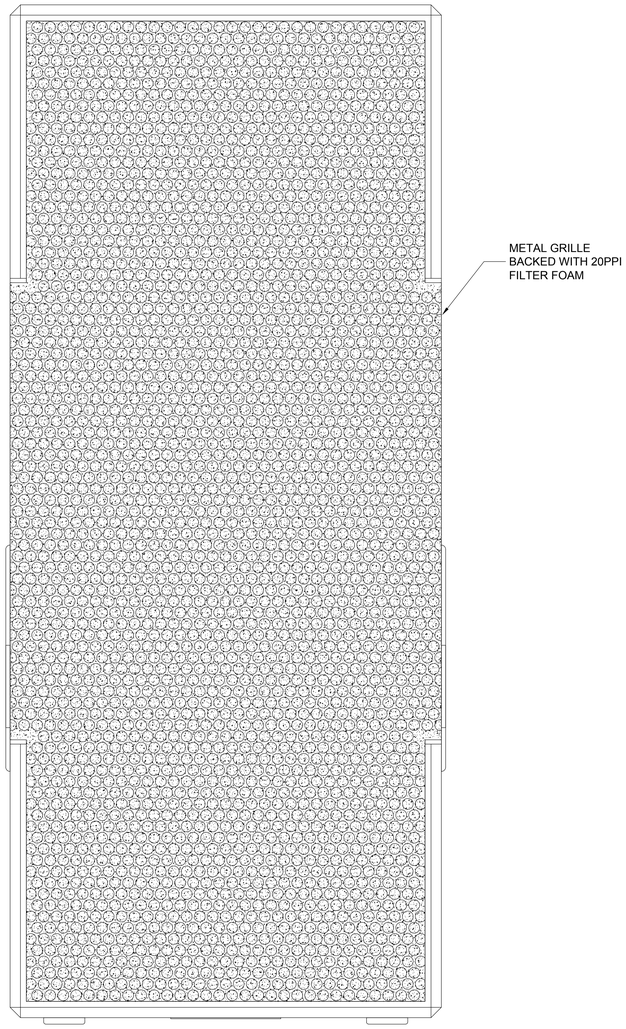
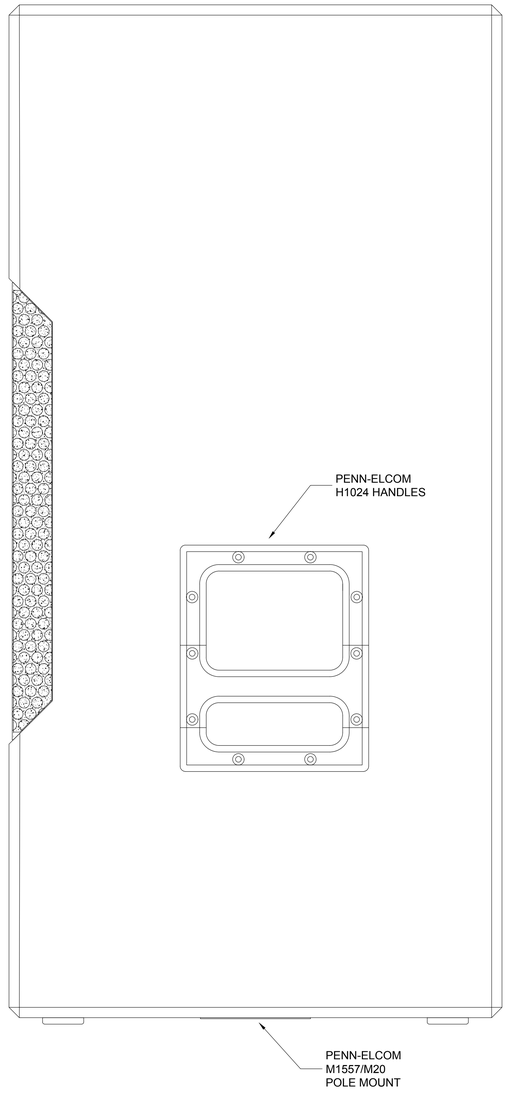
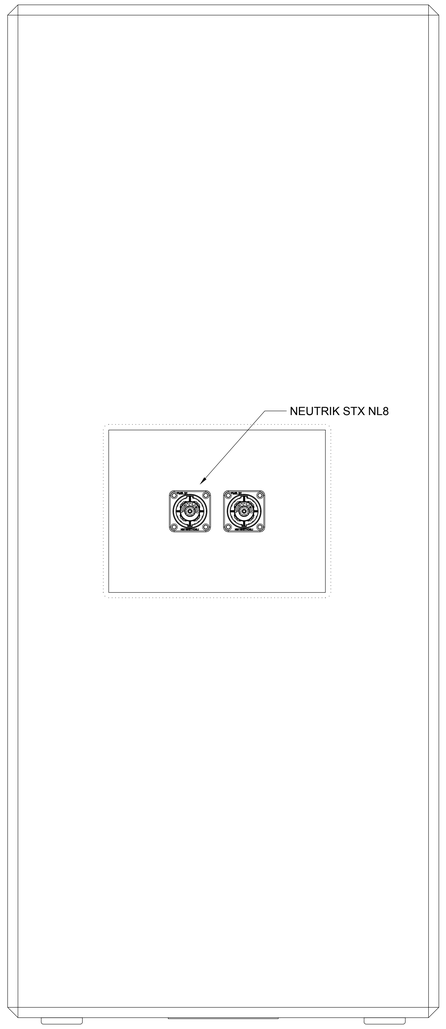
FRONT VIEW



LEFT SIDE VIEW



REAR VIEW



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PM90

DIY Three-Way Mid-High Speaker Cabinet

Designed by Peter Morris

NOTES:

1. All dimensions SI millimeters.
2. External cabinet chamfer done after box construction completed to prevent alignment issues.

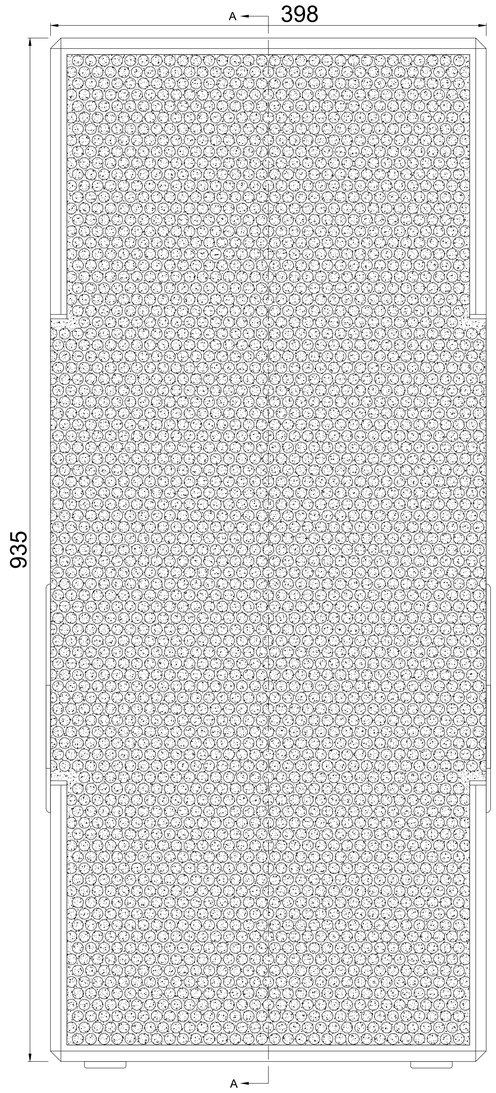
Overview

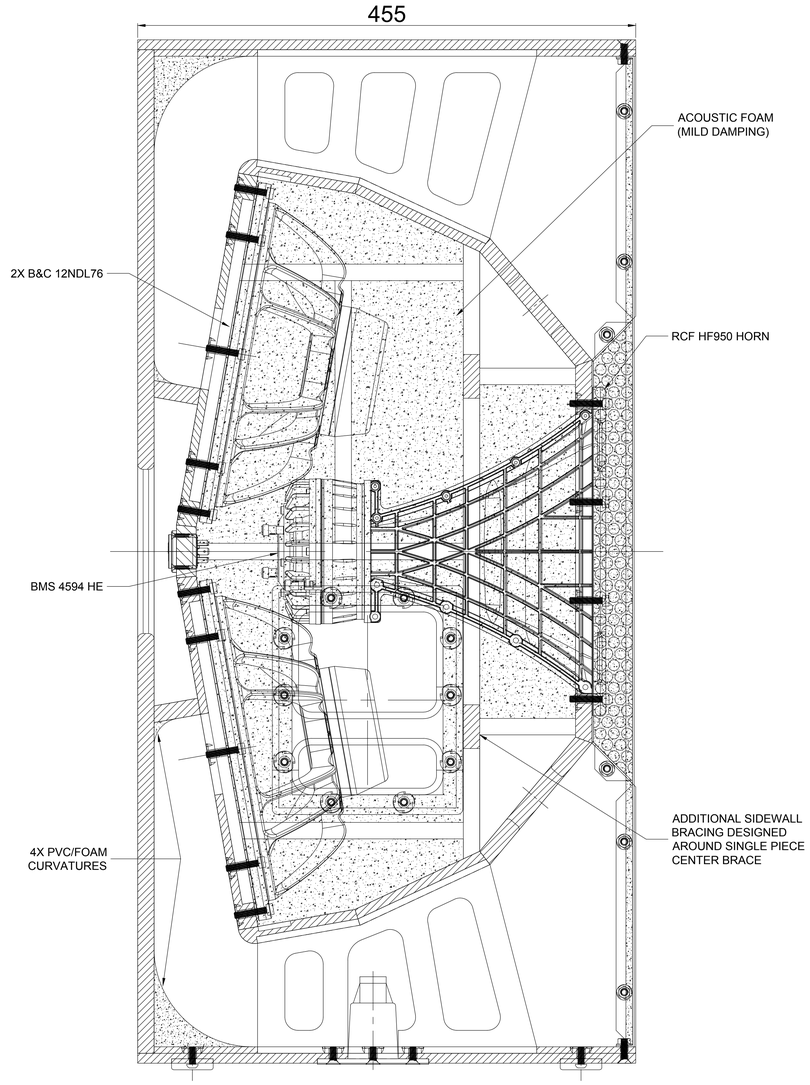
Date: 6/25/2017 | Rev: 0.7 | Scale: 1:2

Drafted By: Peter Maxwell Warasila

Plate No. 1 of 7

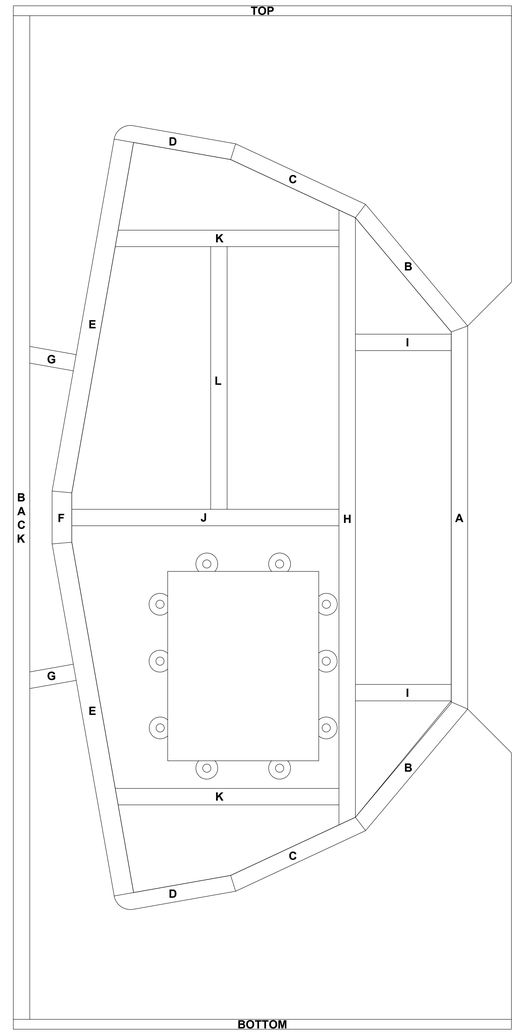
OVERVIEW





SECTION A-A NOTE: HATCH INDICATES SECTION CUT

BAFFLE LAYOUT



SoundForums.net

PM90

DIY Three-Way Mid-High Speaker Cabinet

Designed by Peter Morris

NOTES:
1. All dimensions SI millimeters.
2. Tolerances on all linear dimensions ±0.1mm
3. Tolerances on all angles ±0.1°
4. Hatch indicates dado or pocket, all 6mm deep, unless otherwise specified.
5. Derive toolpaths from .dxf not from plot.

CONSTRUCTION PROCESS:
1.

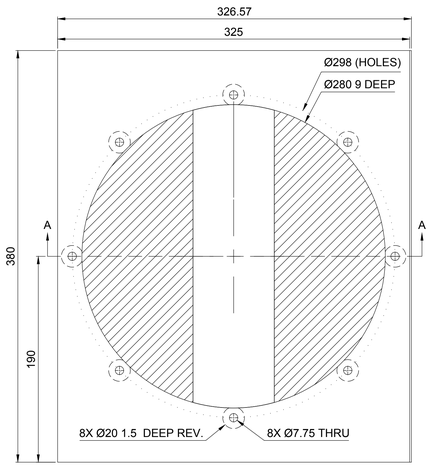
Center Section and Baffle Map

Date: 6/25/2017 | Rev: 0.7 | Scale: 1:2

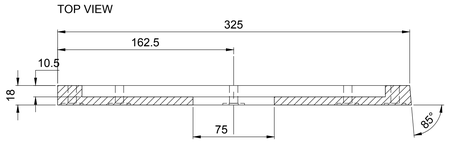
Drafted By: Peter Maxwell Warasila

Plate No. 2 of 7

12" BAFFLE (E)

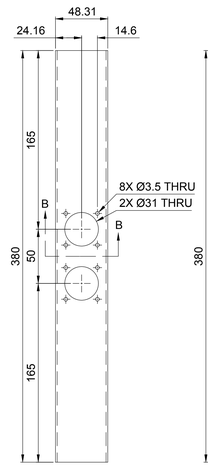


TOP VIEW

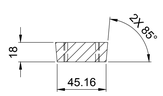


SECTION A-A NOTE: TIGHTER HATCH INDICATES SECTION CUT ON ALL DRAWINGS THIS PLATE

BACK BAFFLE (F)

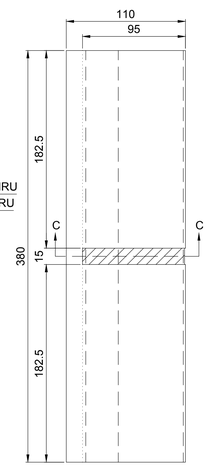


TOP VIEW

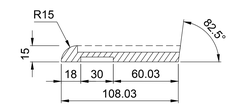


SECTION B-B

ROUNDED BAFFLE (D)

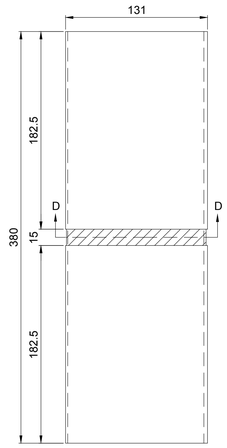


TOP VIEW

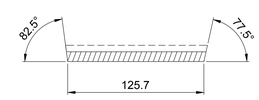


SECTION C-C

MID BAFFLE (C)

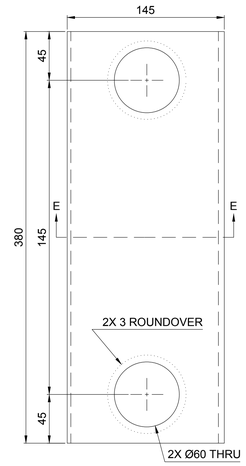


TOP VIEW

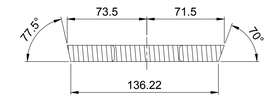


SECTION D-D

PORT BAFFLE (B)

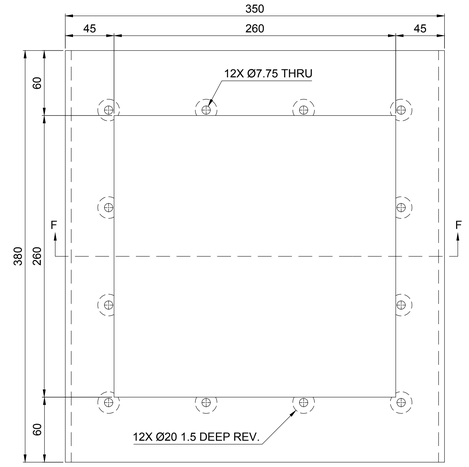


TOP VIEW

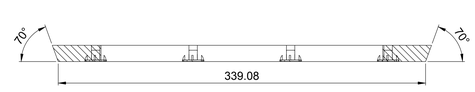


SECTION E-E

HORN BAFFLE (A)

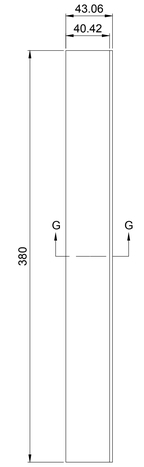


TOP VIEW

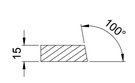


SECTION F-F

SEAL BAFFLE (G)

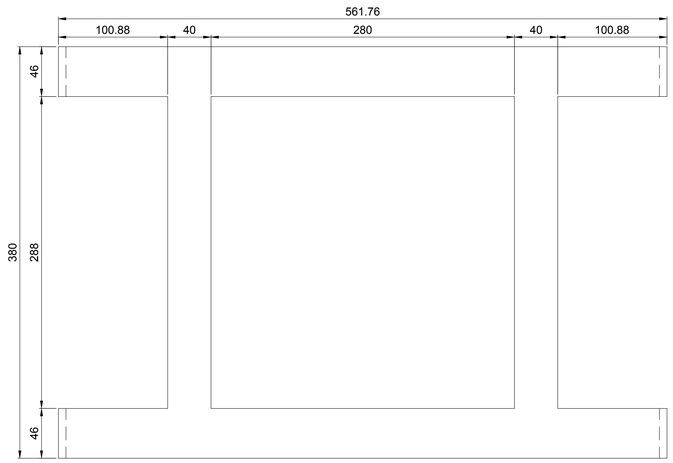


TOP VIEW

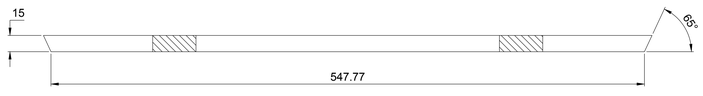


SECTION G-G

MAIN BRACE (H)

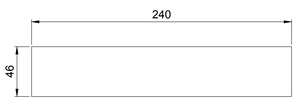


TOP VIEW



SECTION A-A

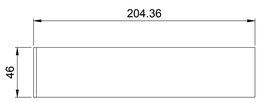
VERTICAL SIDEWALL BRACE (L)



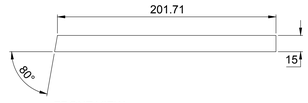
TOP VIEW

FRONT VIEW

HORIZONTAL SIDEWALL BRACE (K)

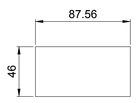


TOP VIEW



FRONT VIEW

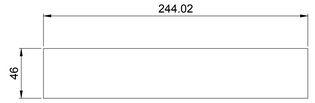
FORWARD BRACE (I)



TOP VIEW

FRONT VIEW

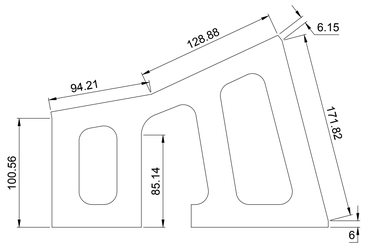
CENTER SIDEWALL BRACE (J)

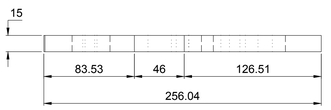


TOP VIEW

FRONT VIEW

HORN BRACES (NEEDS DETAIL)





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DIY Three-Way Mid-High Speaker Cabinet

Designed by Peter Morris

NOTES:
1. All dimensions SI millimeters.
2. Tolerances on all linear dimensions ±0.1mm
3. Tolerances on all angles ±0.1°
4. Hatch indicates dado or pocket, all 6mm deep, unless otherwise specified.
5. Derive toolpaths from .dxf not from plot.

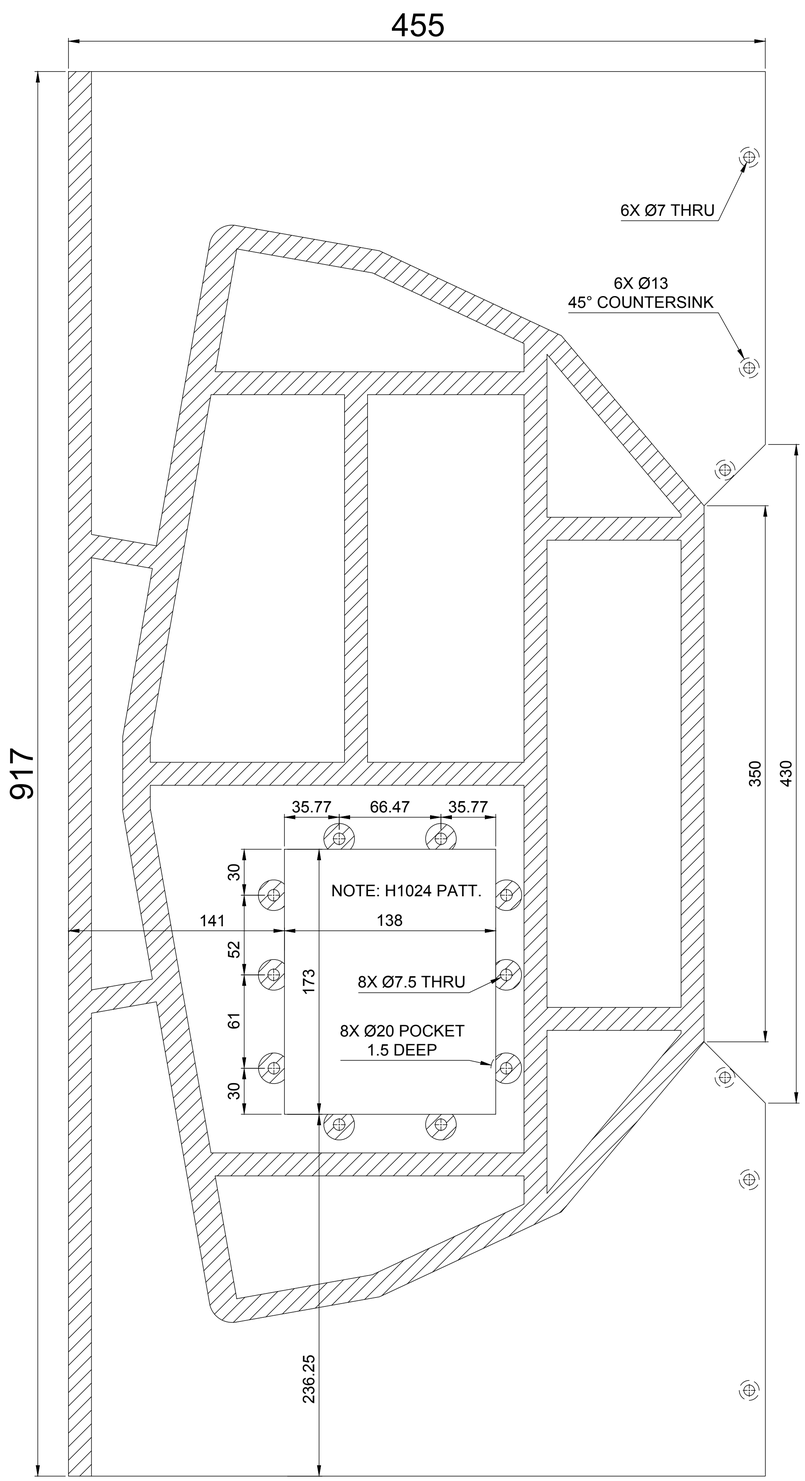
CONSTRUCTION PROCESS:
1.

Baffle and Brace Detail

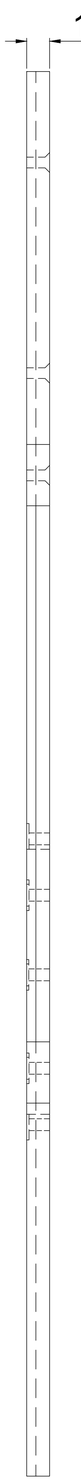
Date: 6/25/2017 | Rev: 0.7 | Scale: 1:2

Drafted By: Peter Maxwell Warasila

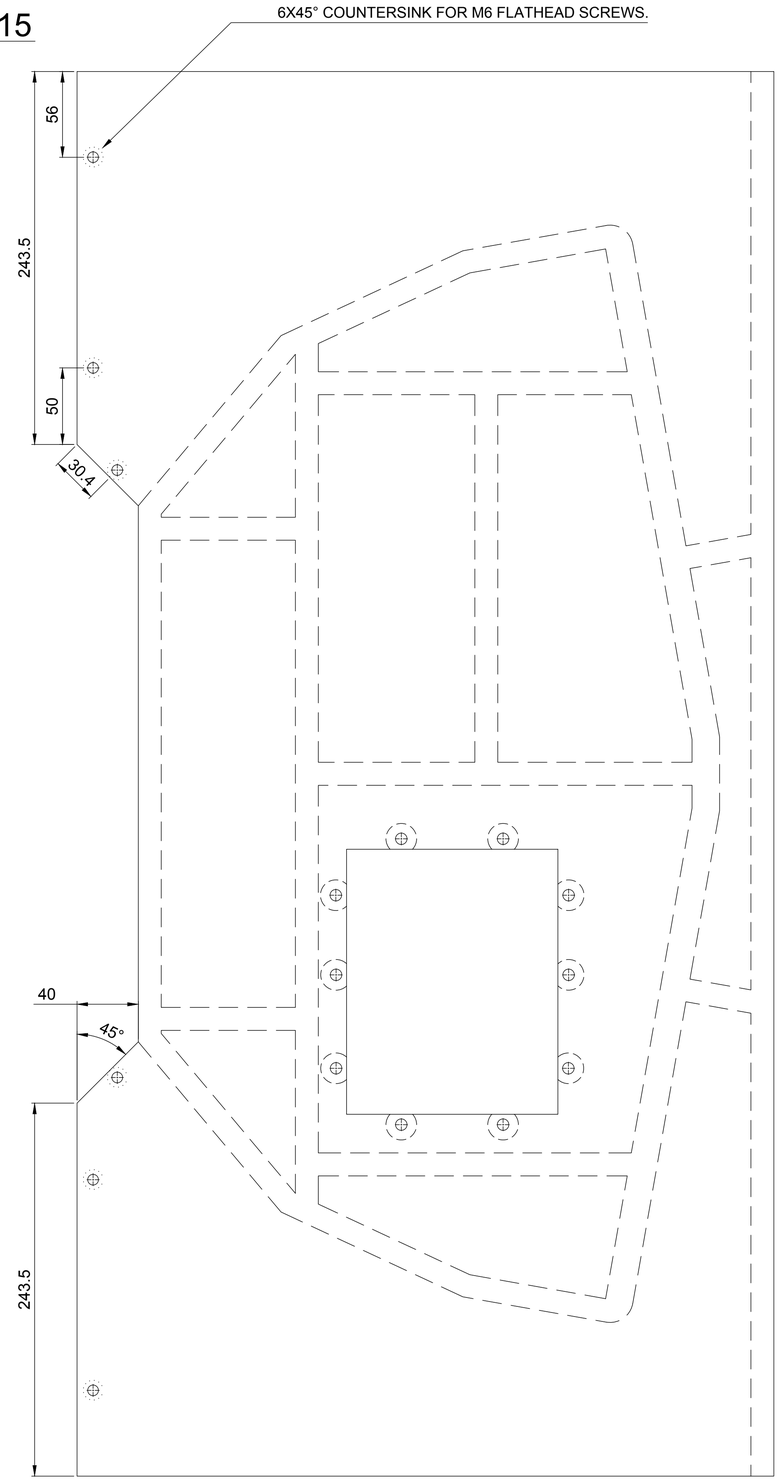
Plate No. 3 of 7



INSIDE VIEW



FRONT VIEW
(ROTATED)



OUTSIDE VIEW

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DIY Three-Way Mid-High Speaker Cabinet

Designed by Peter Morris

NOTES:

1. All dimensions SI millimeters.
2. Tolerances on all linear dimensions ±0.1mm
3. Tolerances on all angles ±0.1°
4. Hatch indicates dado or pocket. All 6mm deep unless otherwise specified.
5. Derive toolpaths from .dxf not from plot.

CONSTRUCTION PROCESS:

1. Profiles, rabbets, and dados CNC routed. The right side is shown. Left side created via reflection from the right side shown.
2. T-Nut pockets, thru holes, and countersinks added by hand using a power drill.

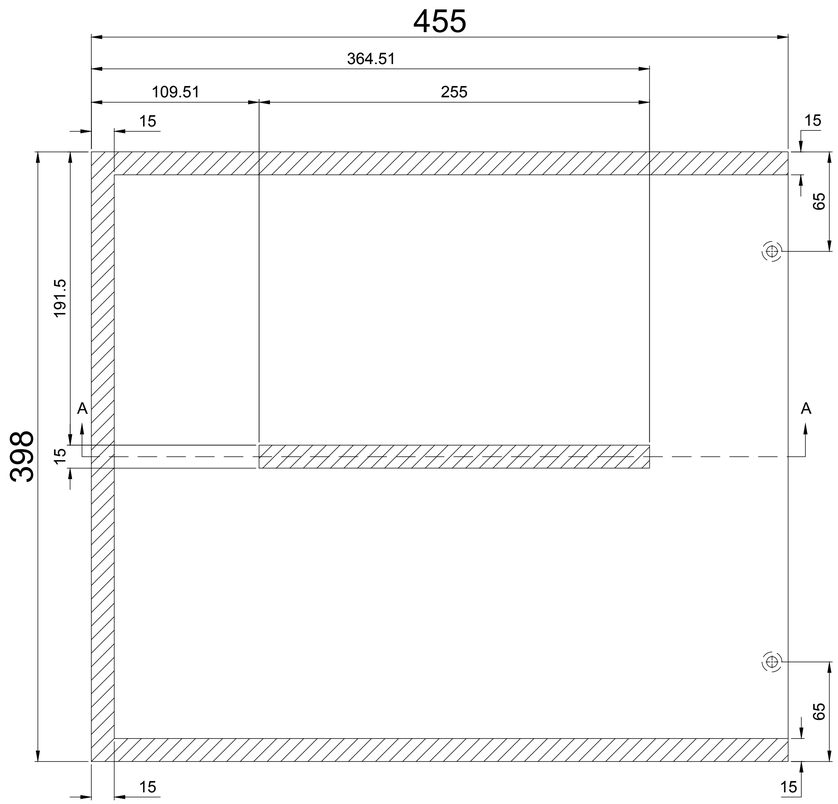
Sides Detail

Date: 6/25/2017 | Rev: 0.7 | Scale: 1:2

Drafted By: Peter Maxwell Warasila

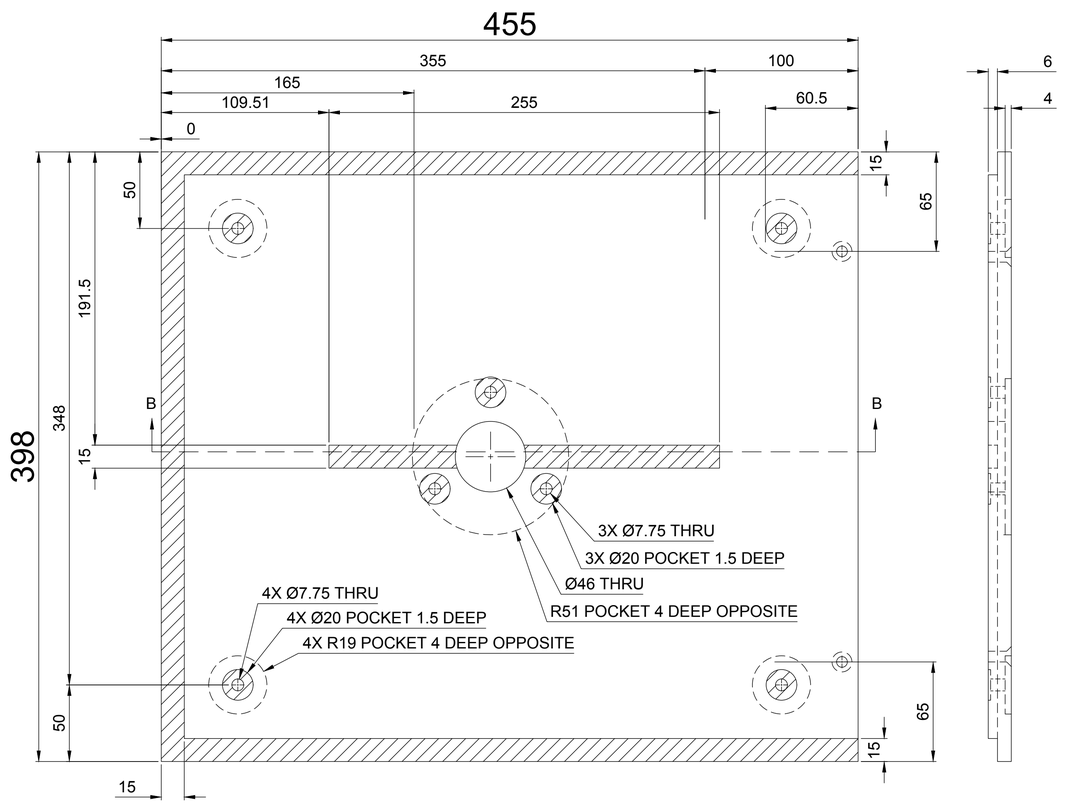
Plate No. 4 of 7

TOP



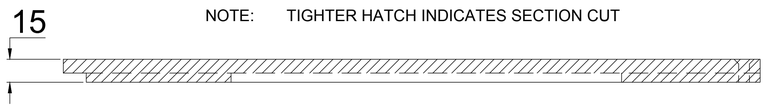
TOP VIEW

BOTTOM



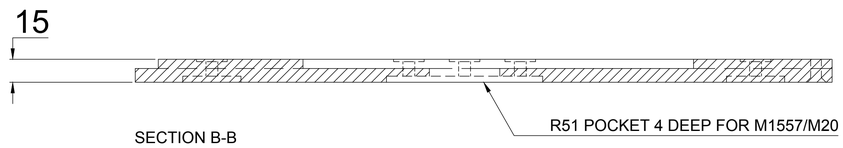
TOP VIEW

FRONT VIEW
(ROTATED)



NOTE: TIGHTER HATCH INDICATES SECTION CUT

SECTION A-A
(VERTICALLY INVERTED)



SECTION B-B

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DIY Three-Way Mid-High Speaker Cabinet

Designed by Peter Morris

NOTES:
1. All dimensions SI millimeters.
2. Tolerances on all linear dimensions ±0.1mm
3. Tolerances on all angles ±0.1°
4. Hatch indicates dado or pocket, all 6mm deep, unless otherwise specified.
5. Derive toolpaths from .dxf not from plot.

CONSTRUCTION PROCESS:
1. Profiles and rabbets/dados CNC routed for both parts identically.
2. Bottom flipped over and feet/pole mount pockets and thru holes CNC routed.
3. T-Nut pockets and M6 grille screw holes drilled and countersunk by hand using power drill.

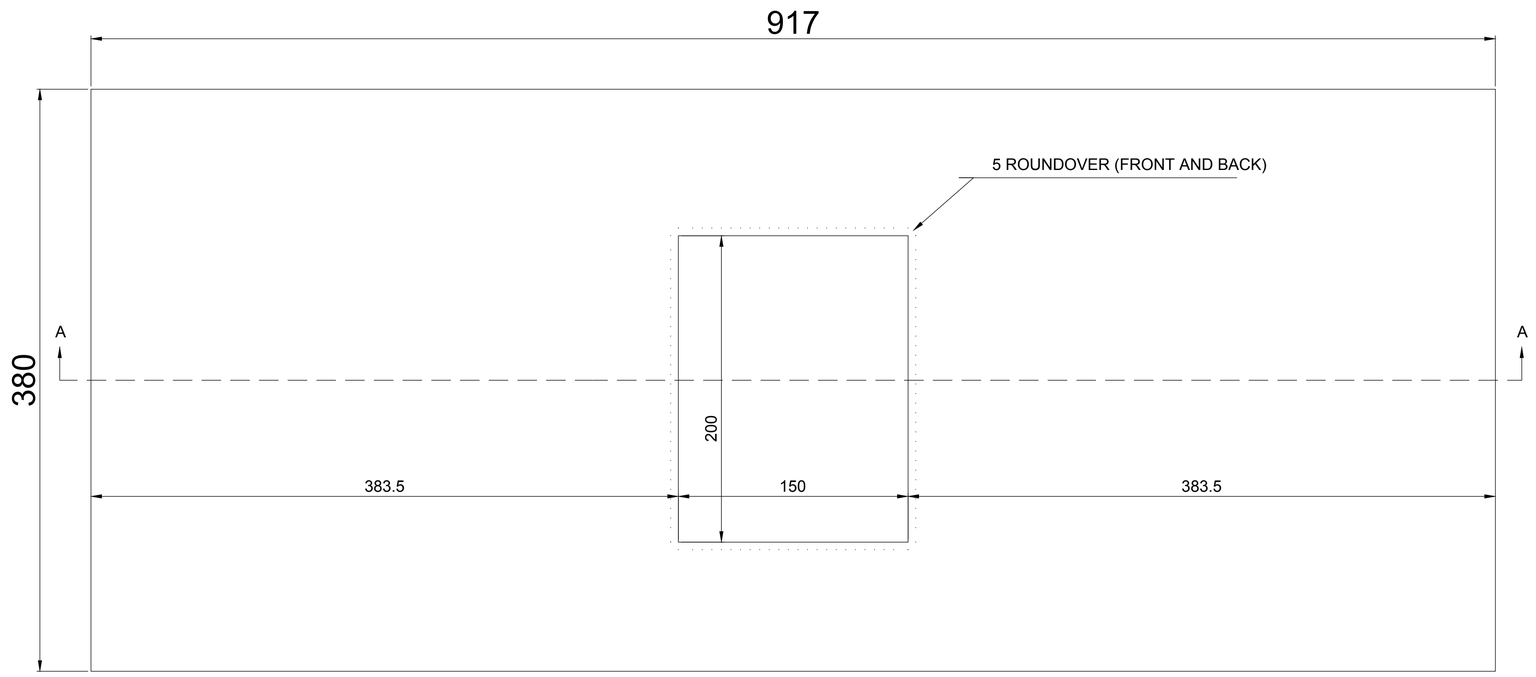
Top and Bottom Detail

Date: 6/25/2017 | Rev: 0.7 | Scale: 1:2

Drafted By: Peter Maxwell Warasila

Plate No. 5 of 7

TOP



TOP VIEW

SECTION A-A
(VERTICALLY INVERTED)

NOTE: TIGHT HATCH INDICATES SECTION CUT

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PM90

DIY Three-Way Mid-High Speaker Cabinet

Designed by Peter Morris

NOTES:
1. All dimensions SI millimeters.
2. Tolerances on all linear dimensions ±0.1mm
3. Tolerances on all angles ±0.1°
4. Hatch indicates dado or pocket, all 6mm deep, unless otherwise specified.
5. Derive toolpaths from .dxf not from plot.

CONSTRUCTION PROCESS:
1. Profiles cut with CNC.
2. Roundovers done by hand using router and 5mm roundover bit.

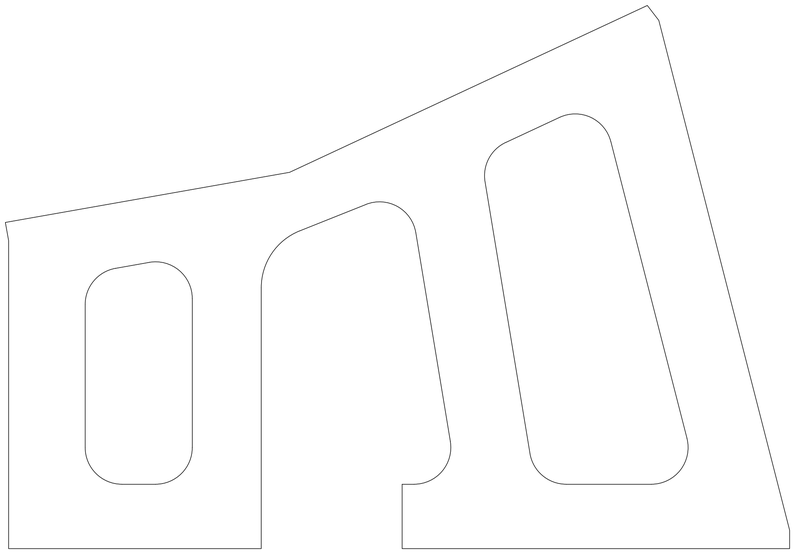
Back Detail

Date: 6/25/2017 | Rev: 0.7 | Scale: 1:2

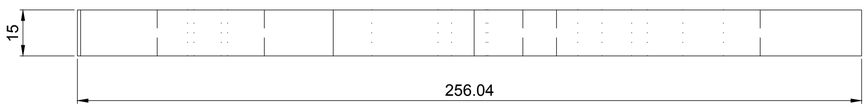
Drafted By: Peter Maxwell Warasila

Plate No. 6 of 7

BOTTOM HORN BRACE

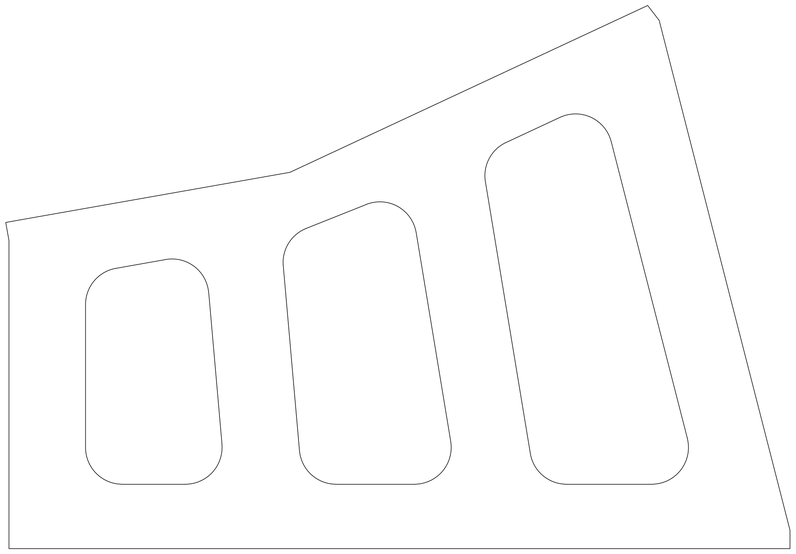


TOP VIEW

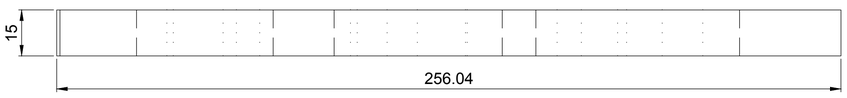


SIDE VIEW

TOP HORN BRACE



TOP VIEW



SIDE VIEW

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DIY Three-Way Mid-High Speaker Cabinet

Designed by Peter Morris

NOTES:
1. All dimensions SI millimeters.
2. Tolerances on all linear dimensions ±0.1mm
3. Tolerances on all angles ±0.1°
4. Derive toolpaths from .dxf not from plot.
5. This plate rendered at 1:1 with minimal dimensioning for hand cutting and measuring.

CONSTRUCTION PROCESS:
1. Profiles cut with CNC.

Horn Brace Detail

Date: 6/25/2017 | Rev: 0.7 | Scale: 1:2

Drafted By: Peter Maxwell Warasila

Plate No. 7 of 7