Fountain Giving Life

Dimensions for Fabrication and Wiring Diagrams


DURACELL

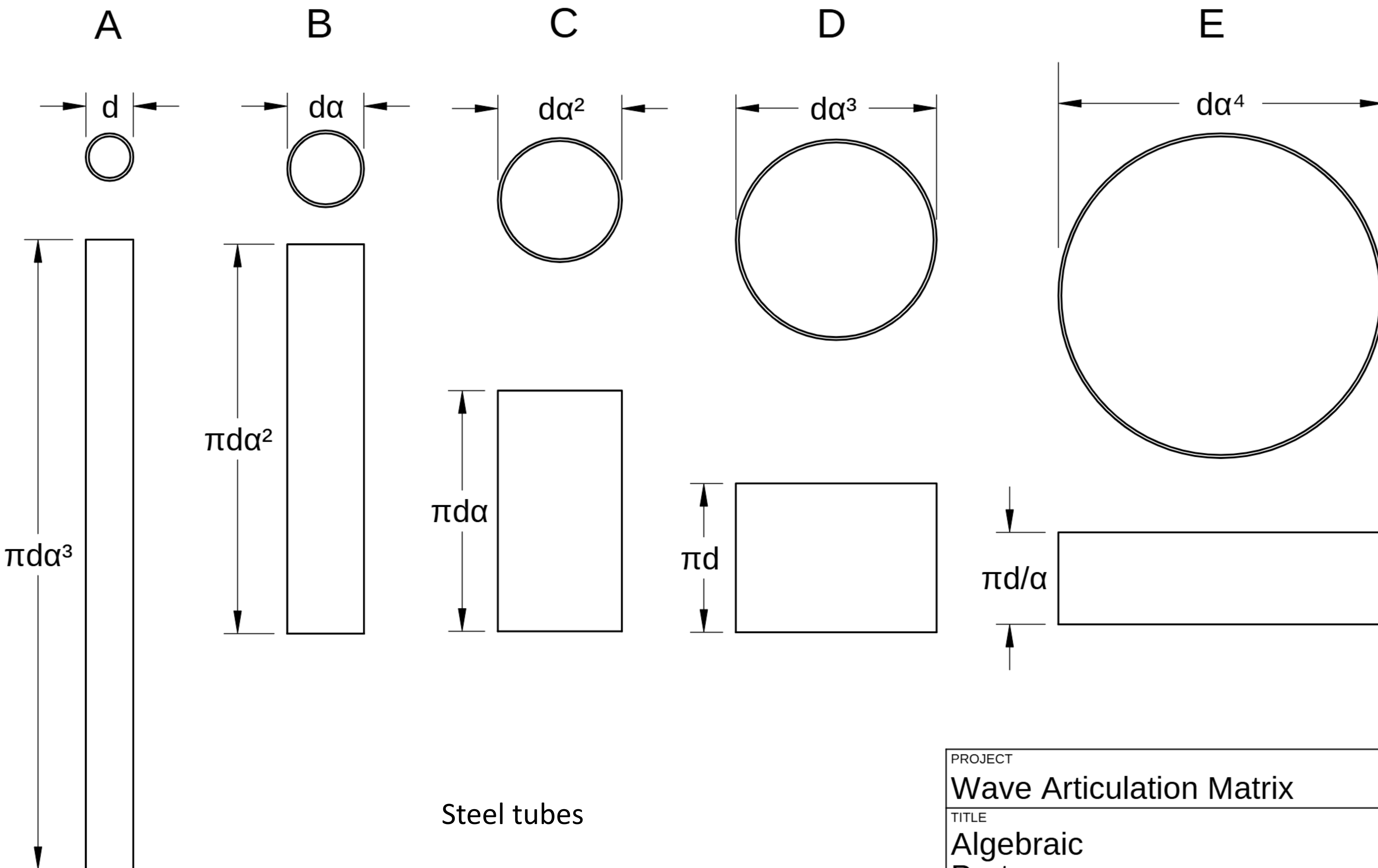
This instrument is composed of five concentric steel tubes, surrounded by a hollow ring.

The center tube is connected to an electric circuit, which rapidly varies the amount of charge on the tube. The tube is at all times charged negative. The electric circuit is grounded into a flowing river.

The tubes sit on a plastic jig, which holds them in place. The ring sits on blocks, which hold it in position.

The hollow ring is made from a length of steel tube, rolled into a circle, and the ends welded together. It is covered with a layer of cellophane (or other dielectric material) then a layer of copper foil.

Cylinder Dimensions, Algebraic

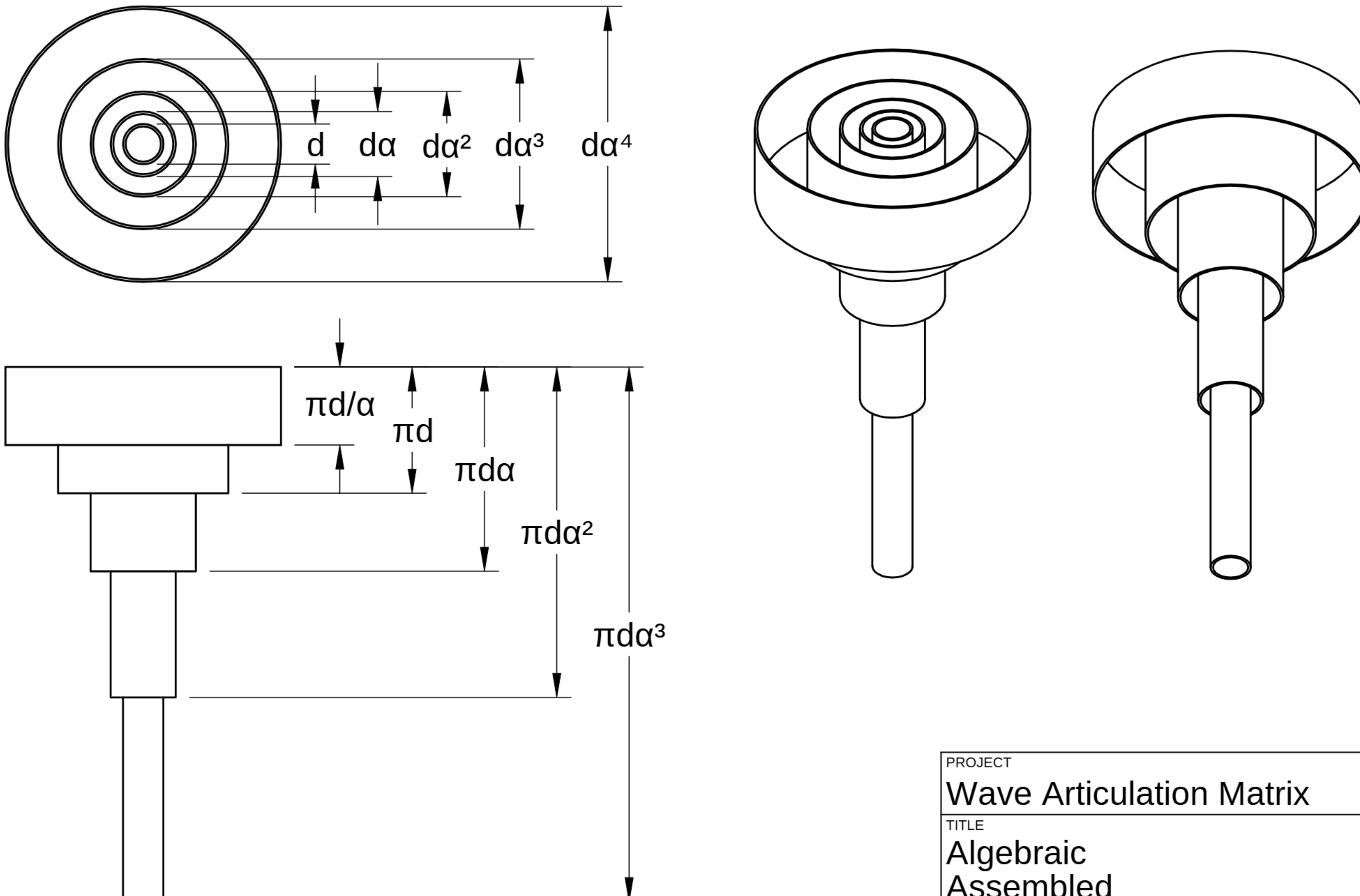


Steel tubes

PROJECT
Wave Articulation Matrix

TITLE
Algebraic
Parts

SCALE	SHEET 1/3



PROJECT Wave Articulation Matrix	
TITLE Algebraic Assembled	
SCALE	SHEET 2/3

d = diameter of innermost cylinder

$$\alpha = \frac{1+\sqrt{5}}{2}$$

a = 1.61803 "Extreme and Mean Ratio"

$\pi = 3.14159$

#	Diameter	Length	Circumference
A	d	$\pi d \alpha^3$	πd
B	$d\alpha$	$\pi d \alpha^2$	$\pi d \alpha$
C	$d\alpha^2$	$\pi d \alpha$	$\pi d \alpha^2$
D	$d\alpha^3$	πd	$\pi d \alpha^3$
E	$d\alpha^4$	$\pi d/\alpha$	$\pi d \alpha^4$

Euclid of Alexandria
<u>The Elements of Geometry</u>
Book 6, Definition 3
Extreme and Mean Ratio
Circa 300 BC

PROJECT
Wave Articulation Matrix

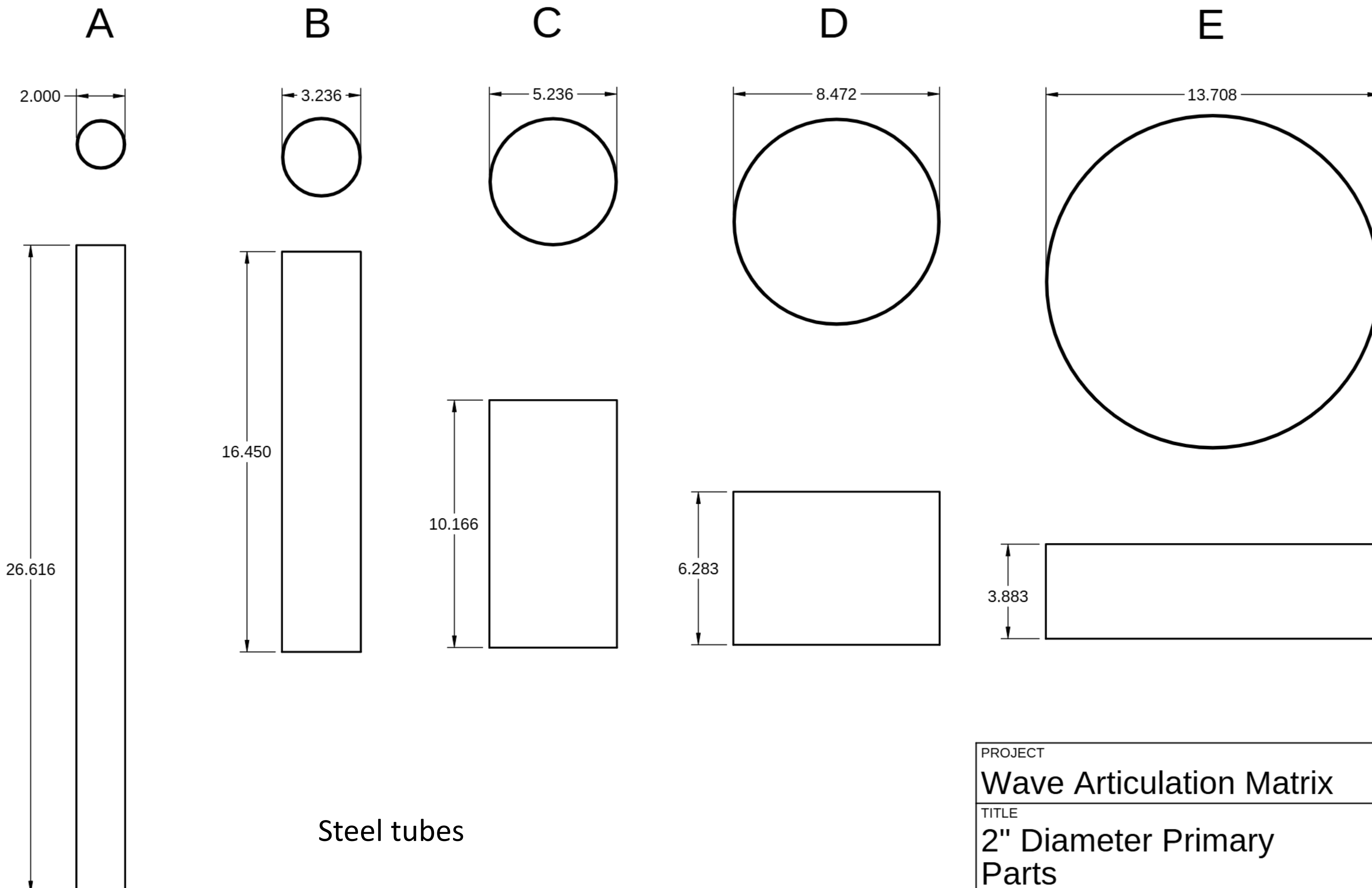
TITLE
Algebraic Table

SCALE

SHEET 3/3

Cylinder Dimensions, Decimal

2 inch Diameter Cathode



Steel tubes

All Units in Inches

PROJECT

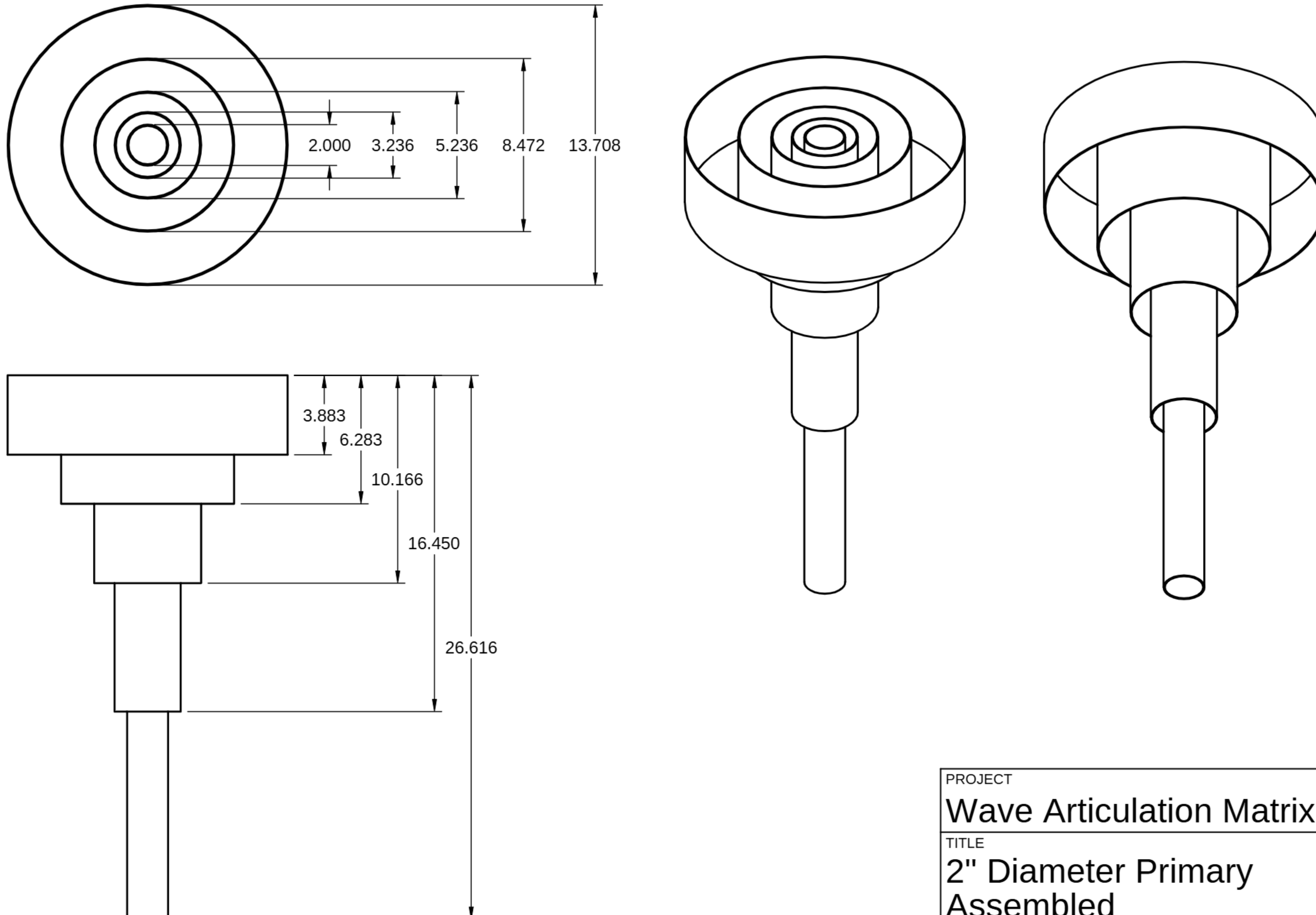
Wave Articulation Matrix

TITLE

2" Diameter Primary Parts

SCALE 1:4

SHEET 1/3



All Units in Inches

PROJECT

Wave Articulation Matrix

TITLE

2" Diameter Primary Assembled

SCALE 1:8 | SHEET 2/3

#	Diameter	Length	Circumference
A	2.000	26.616	6.283
B	3.236	16.450	10.166
C	5.236	10.166	16.450
D	8.472	6.283	26.616
E	13.708	3.883	43.066

16 gauge mild steel.
.0625 inch low carbon steel.
Seam weld.

All Units in Inches

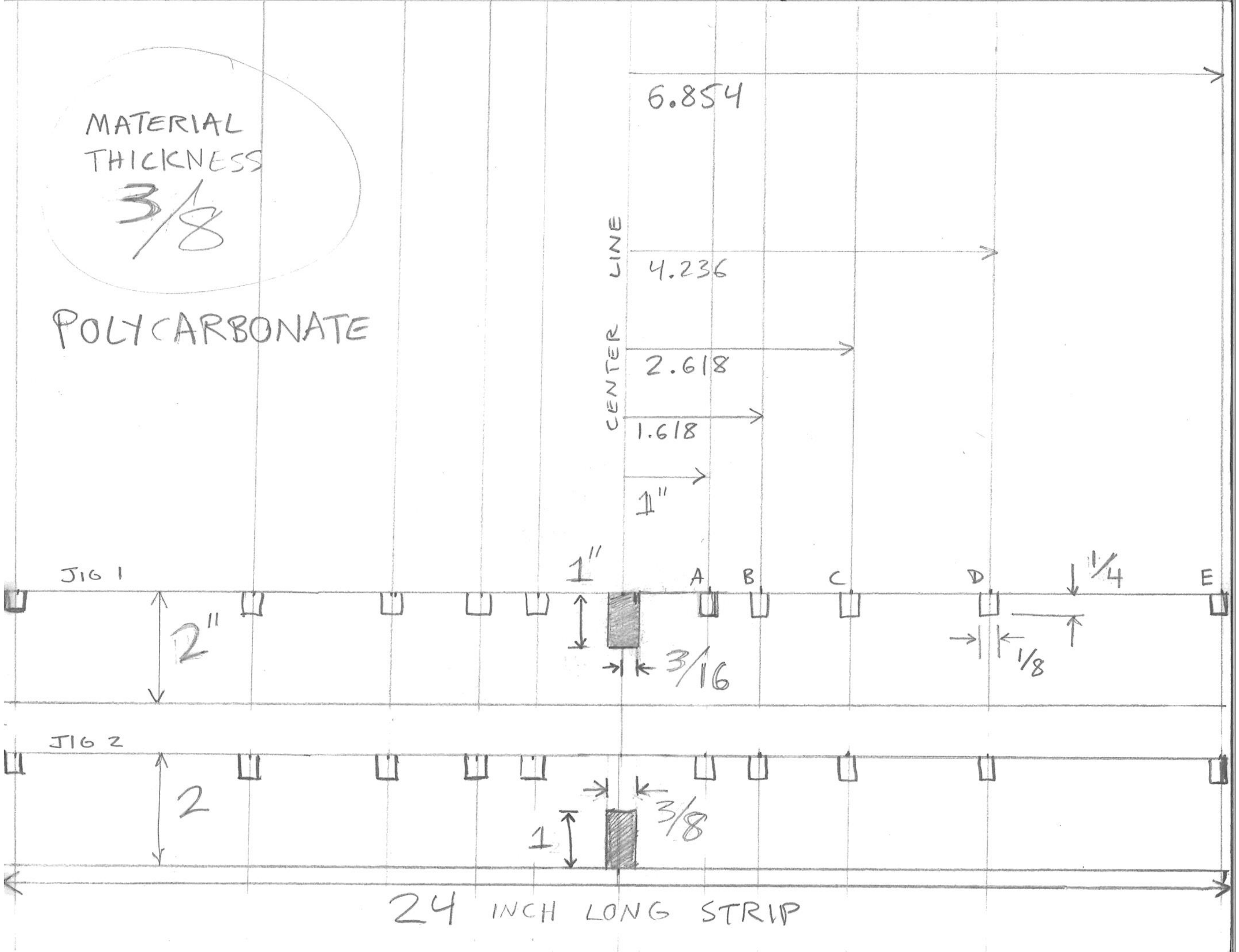
PROJECT
Wave Articulation Matrix

TITLE
2" Diameter Primary Table

SCALE

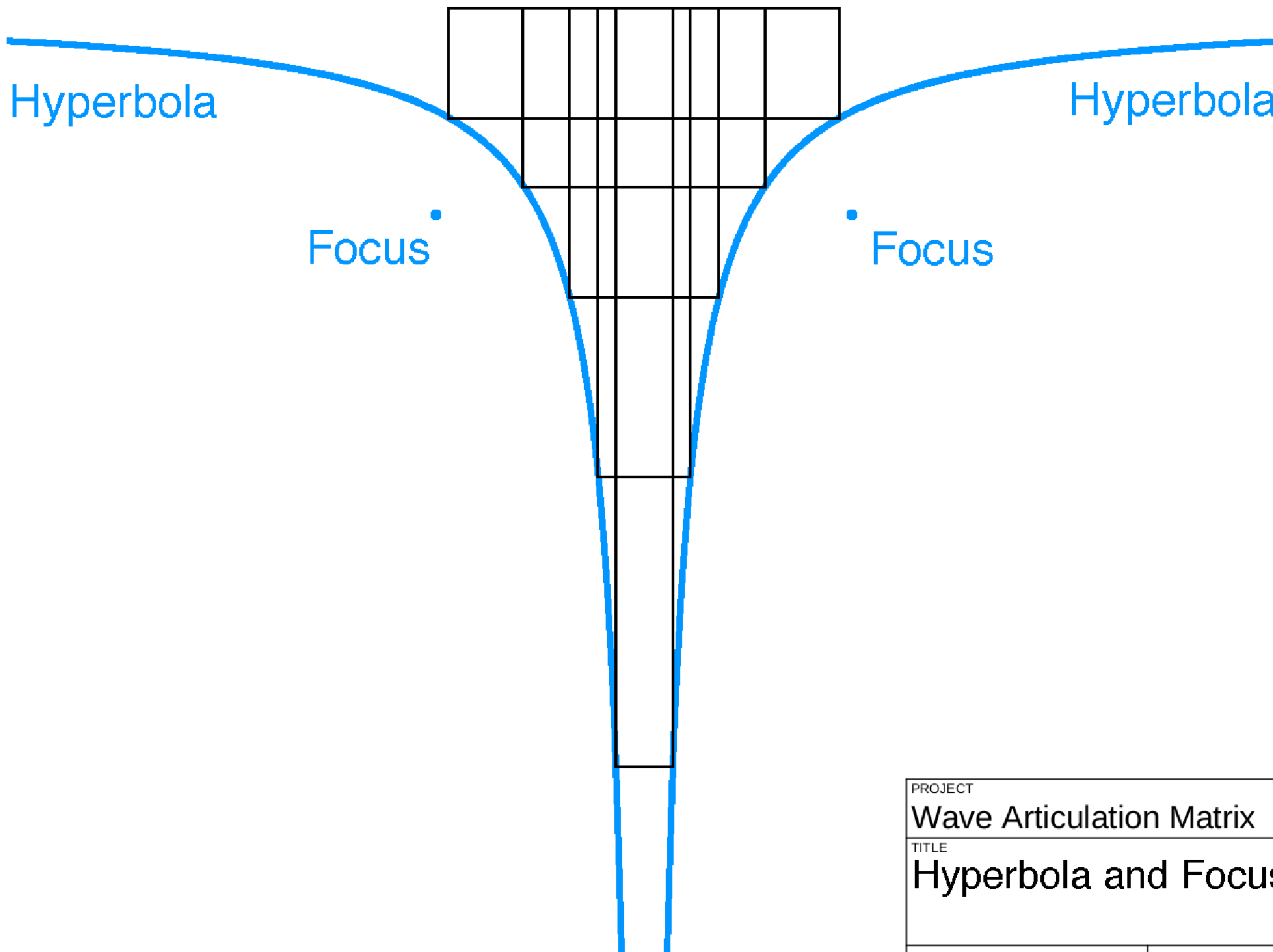
SHEET 3/3

Jig to hold the Steel Cylinders



MATERIAL THICKNESS 3/8
POLYCARBONATE
6.854
4.236
2.618
1.618
1"
CENTER LINE
JIG 1
1"
A
B
C
D
E
1/4
2"
3/16
1/8
JIG 2
2
3/8
1
24 INCH LONG STRIP

Hollow Ring Dimensions



PROJECT

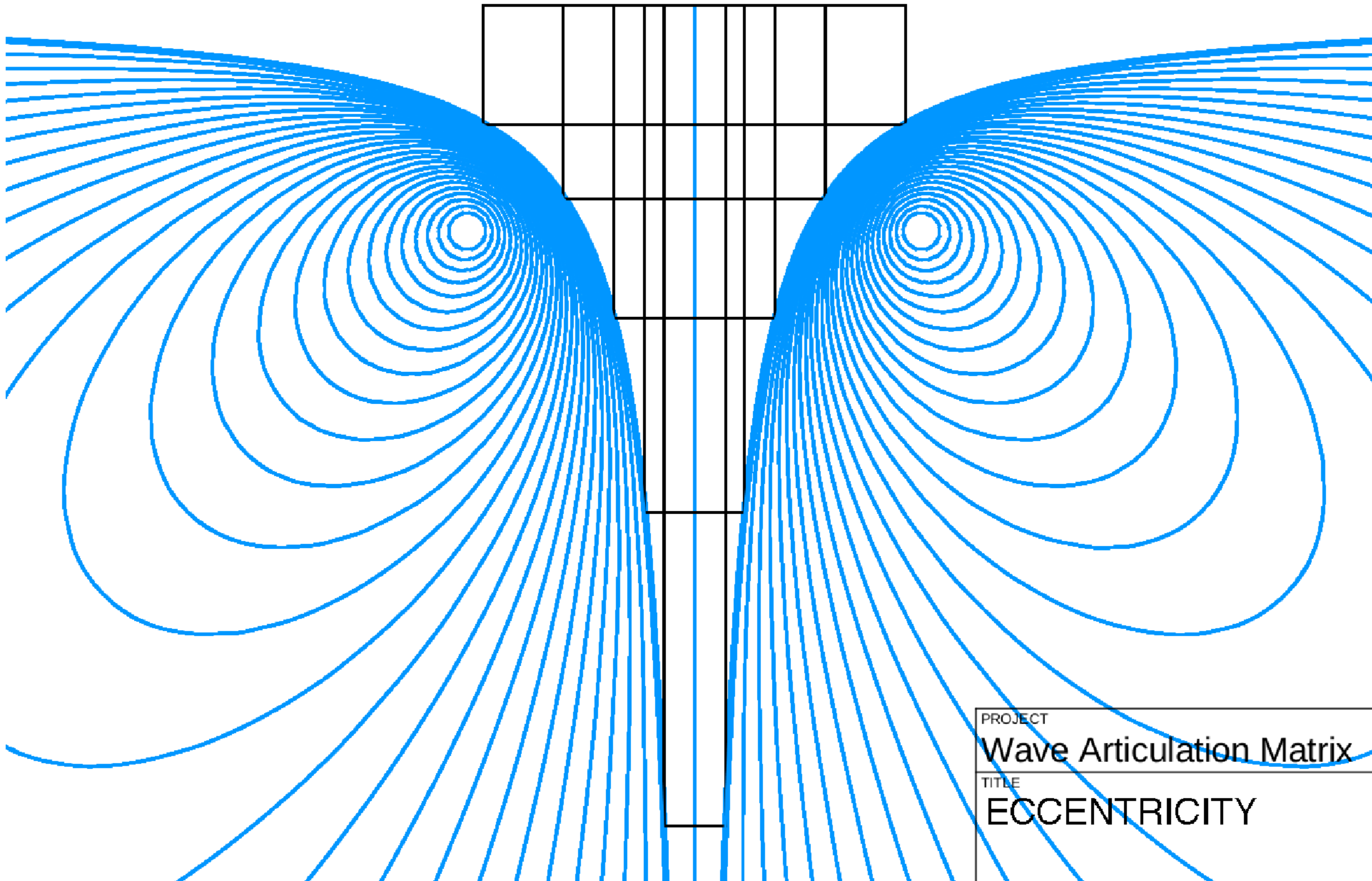
Wave Articulation Matrix

TITLE

Hyperbola and Focus

SCALE	SHEET

Vary the eccentricity of the Hyperbola to create Ellipses

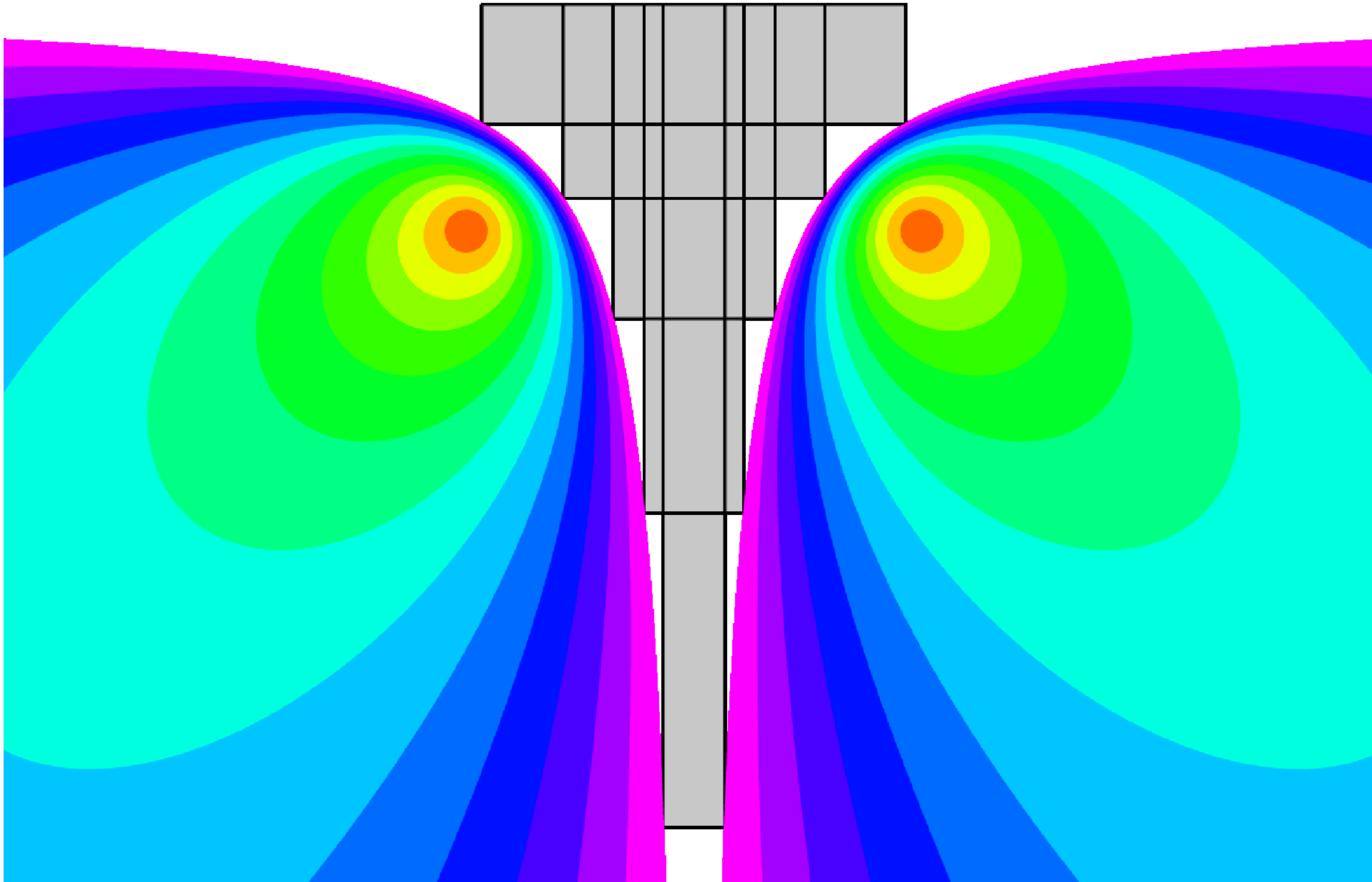


PROJECT
Wave Articulation Matrix

TITLE
ECCENTRICITY

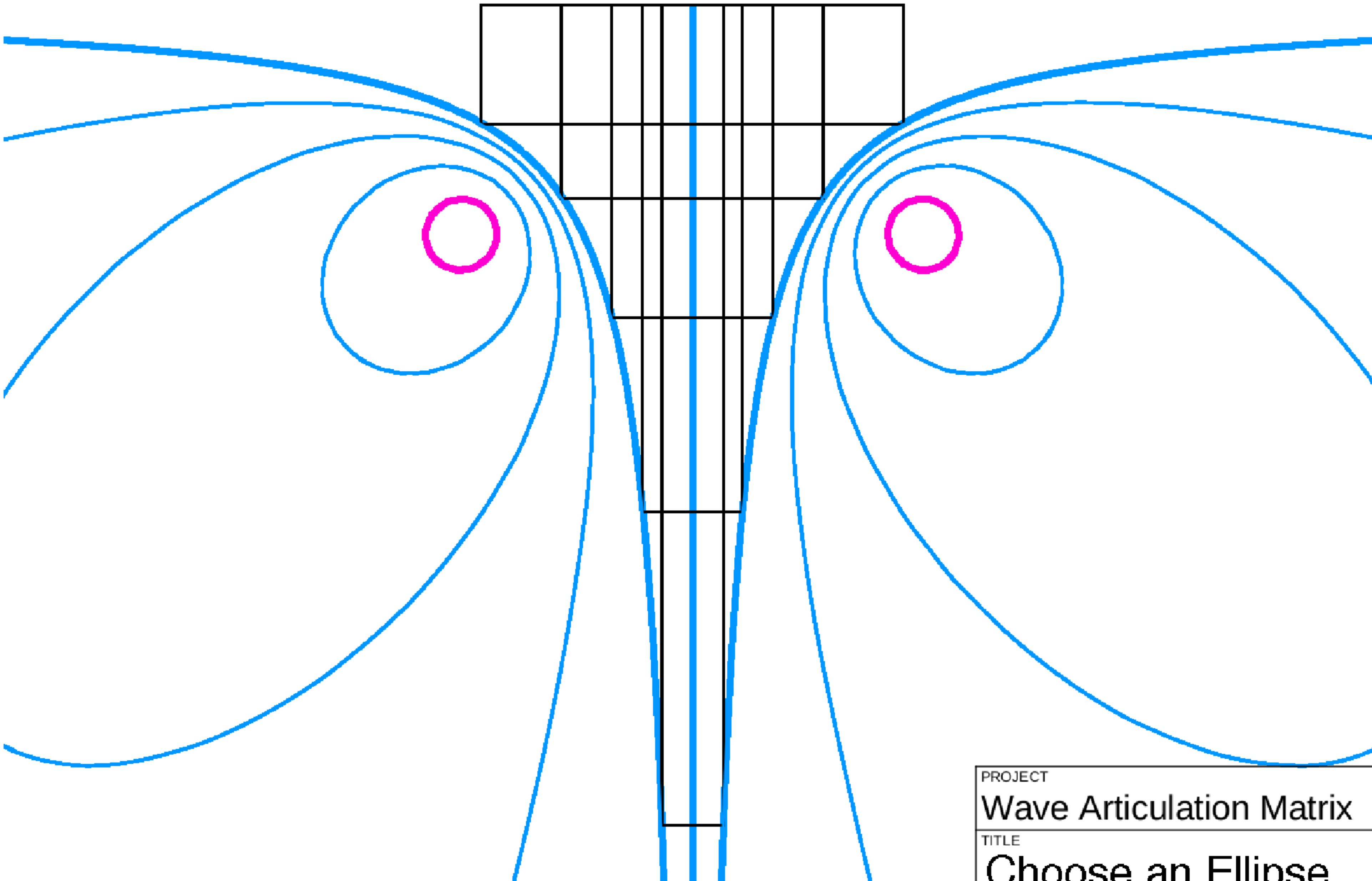
SCALE	SHEET

The Ellipses each share one focus with the Hyperbola



SCALE	SHEET

Choose one of the Ellipses

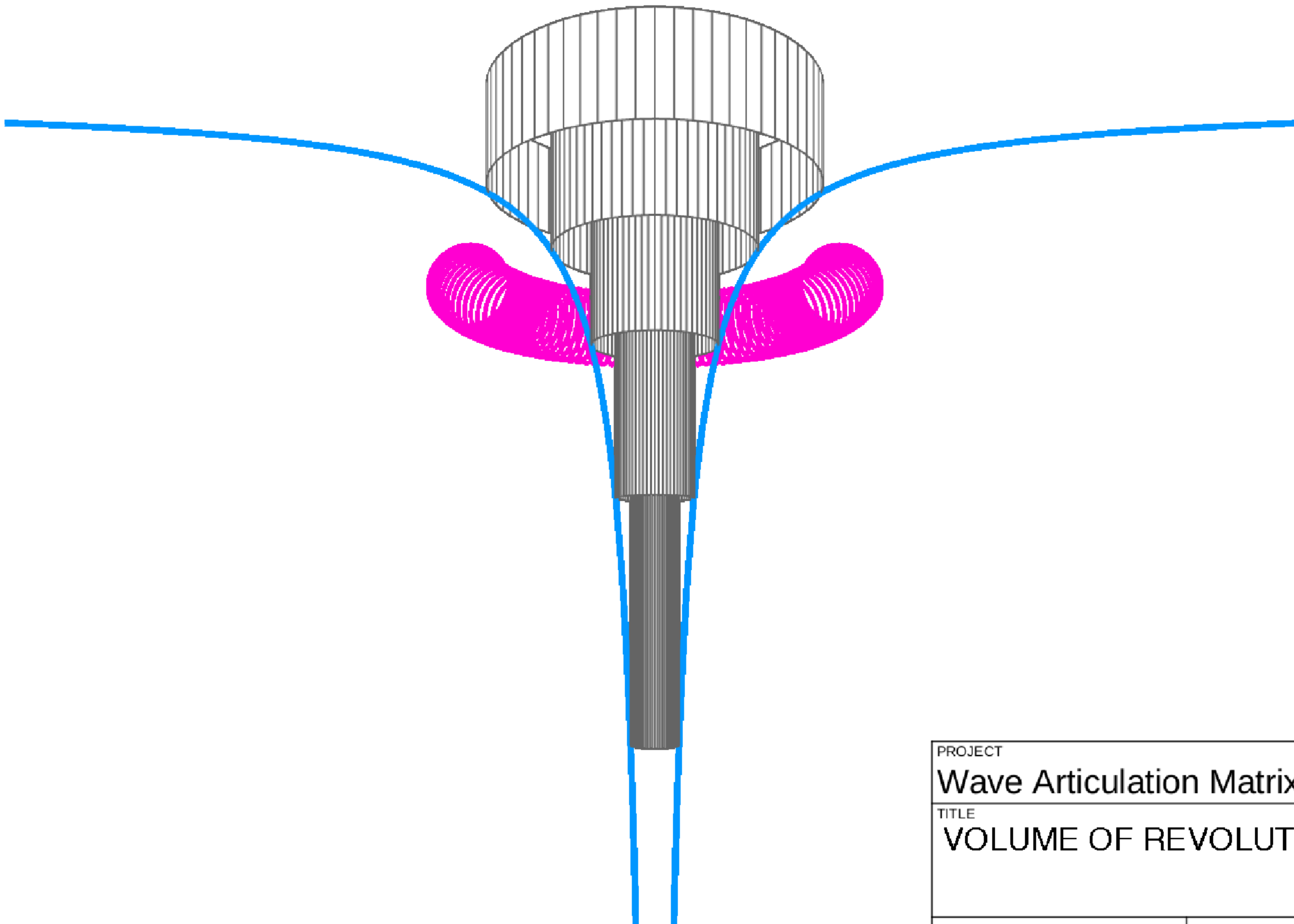


PROJECT
Wave Articulation Matrix

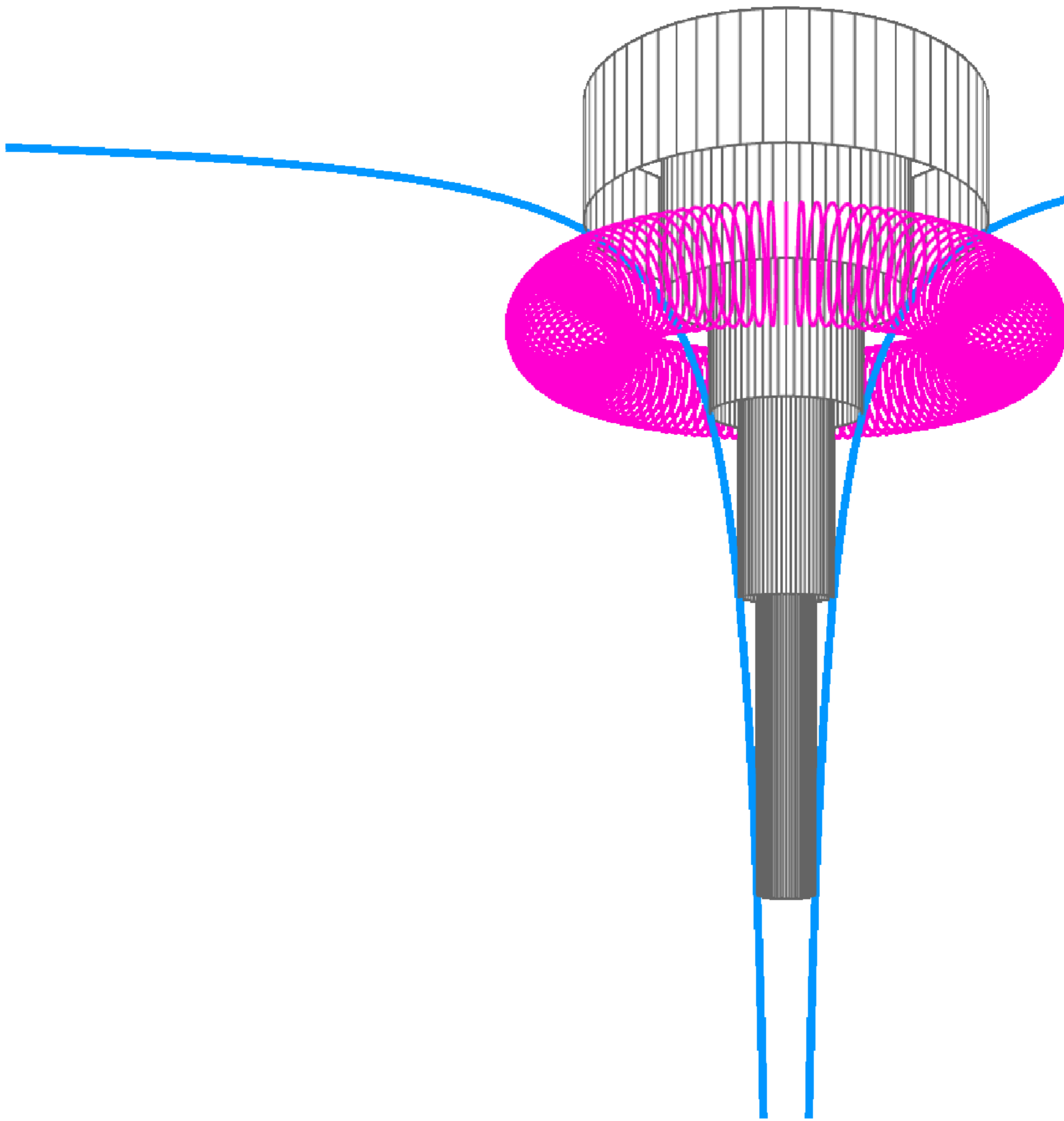
TITLE
Choose an Ellipse

SCALE | SHEET

Rotate the Ellipse around the Hyperbola's vertical asymptote.



PROJECT	
Wave Articulation Matrix	
TITLE	
VOLUME OF REVOLUTION	
SCALE	SHEET



PROJECT

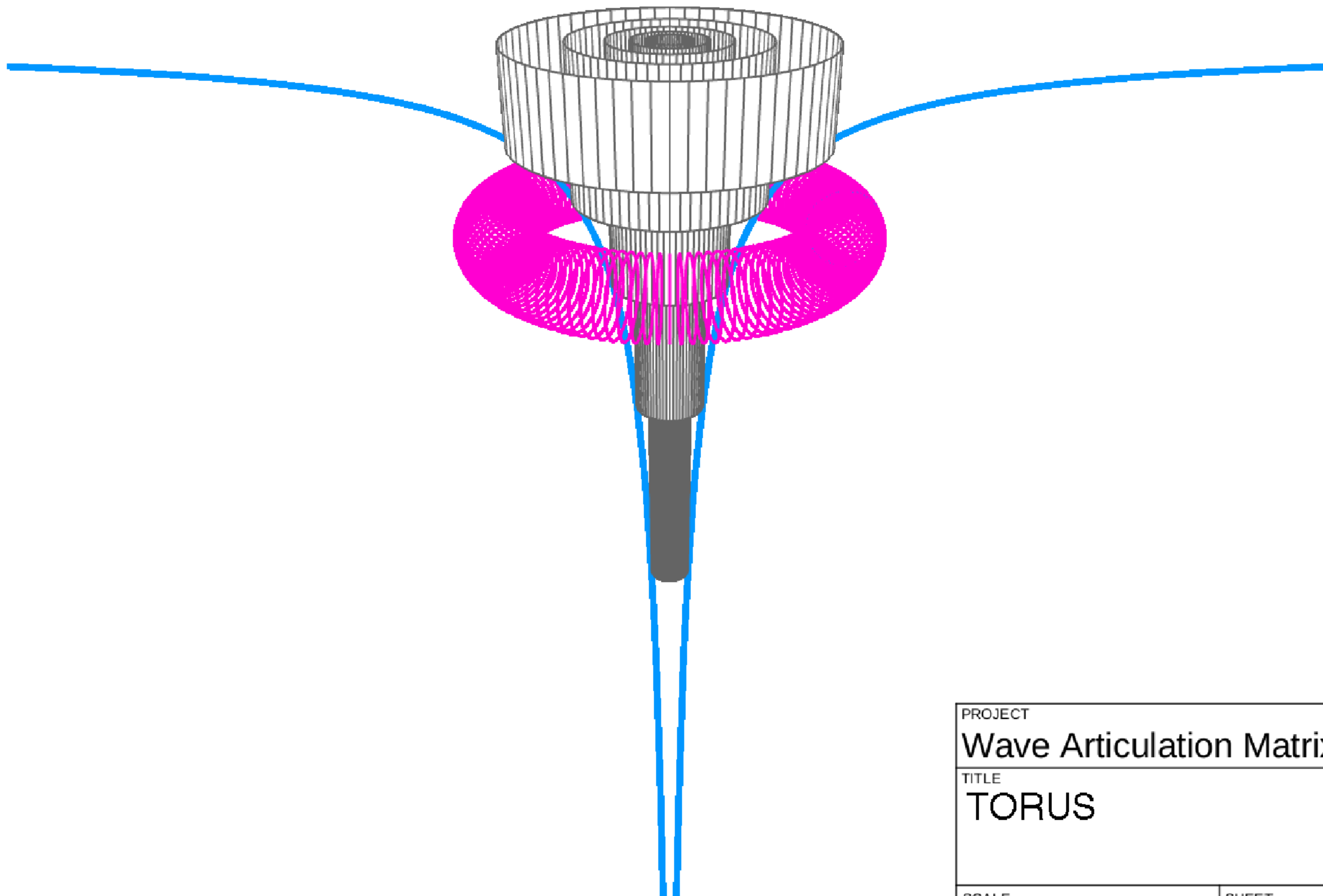
Wave Articulation Matrix

TITLE

VOLUME OF REVOLUTION 2

SCALE	SHEET

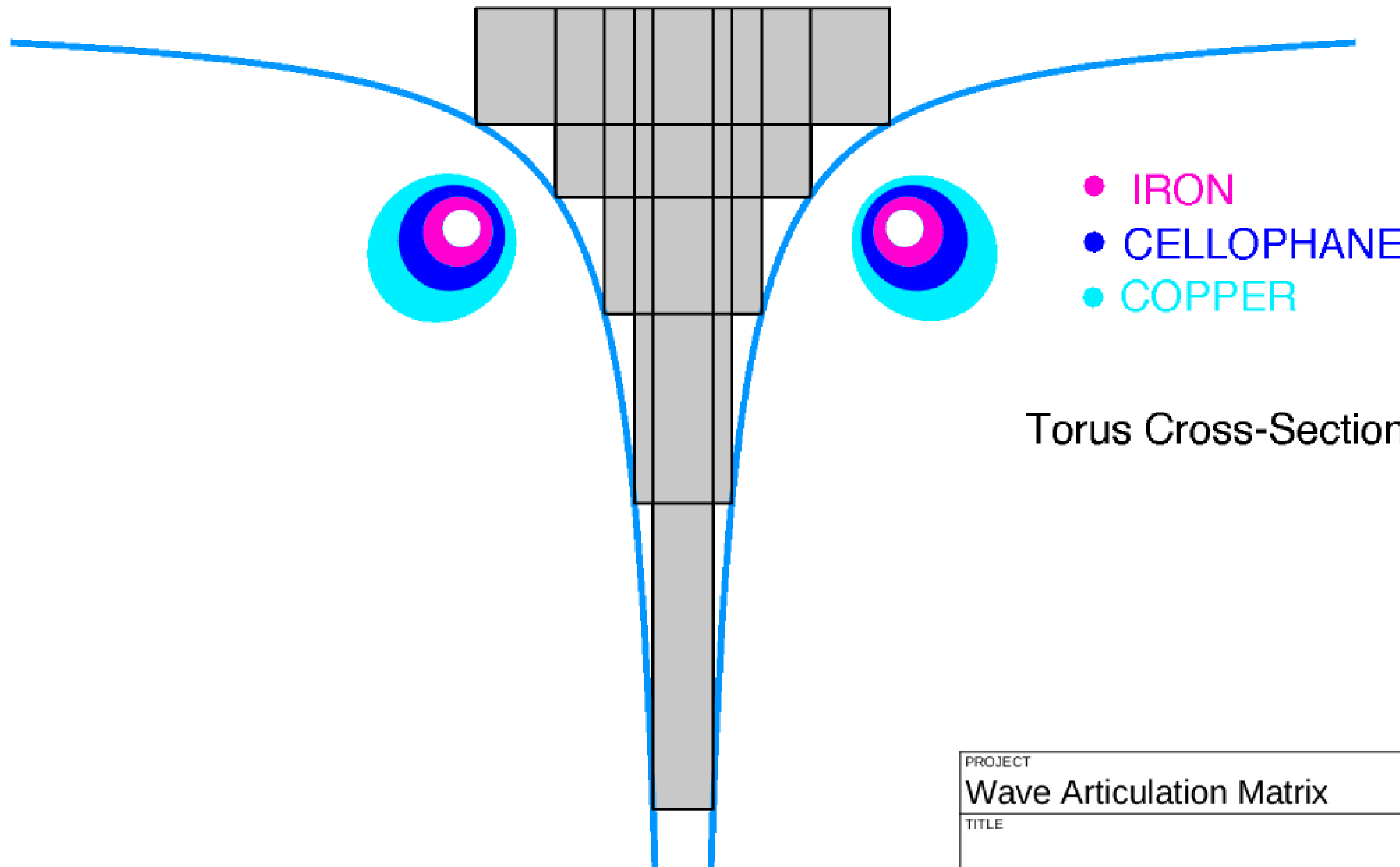
Now we have our "Torus".



PROJECT
Wave Articulation Matrix

TITLE
TORUS

SCALE	SHEET



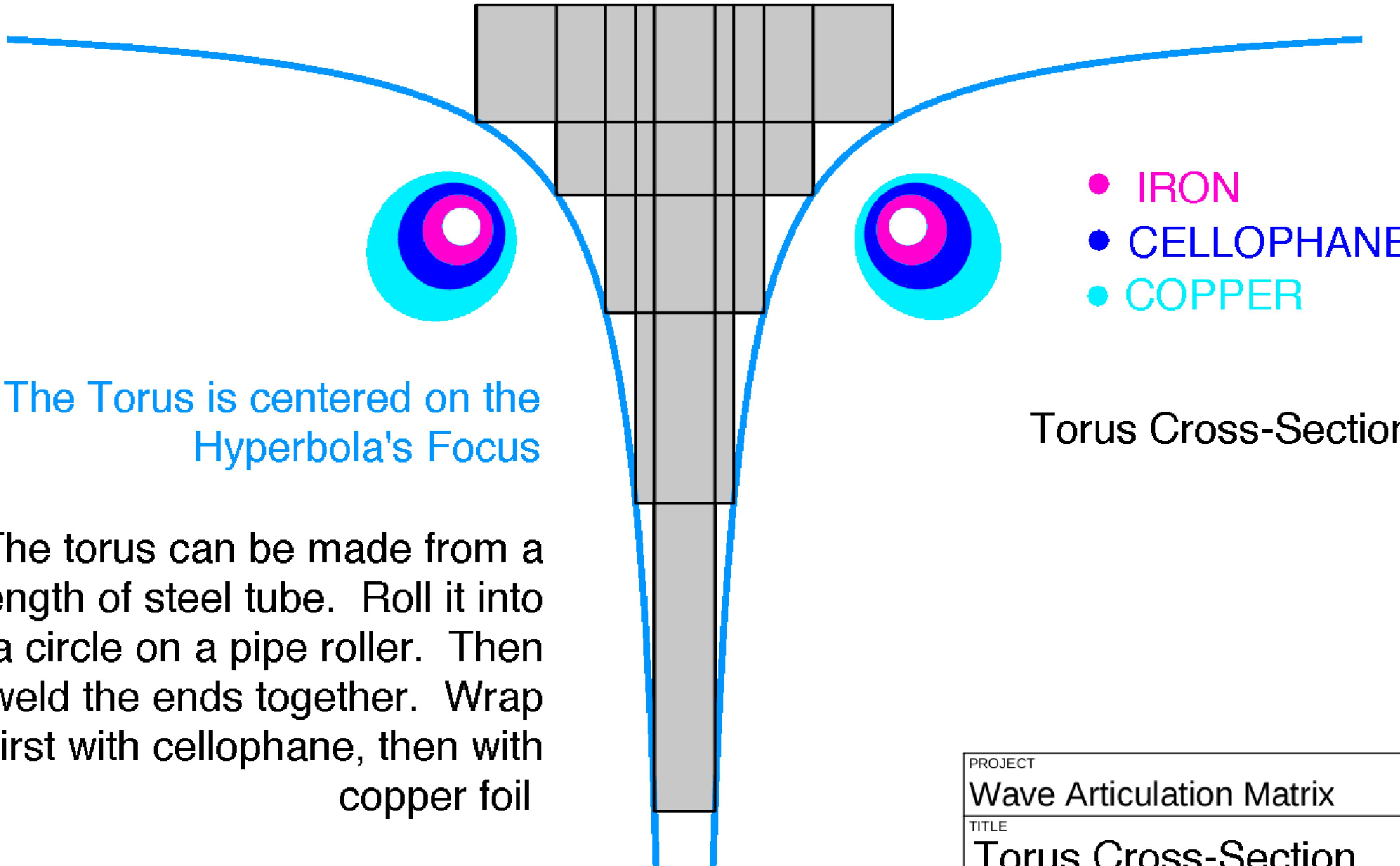
PROJECT

Wave Articulation Matrix

TITLE

SCALE

SHEET

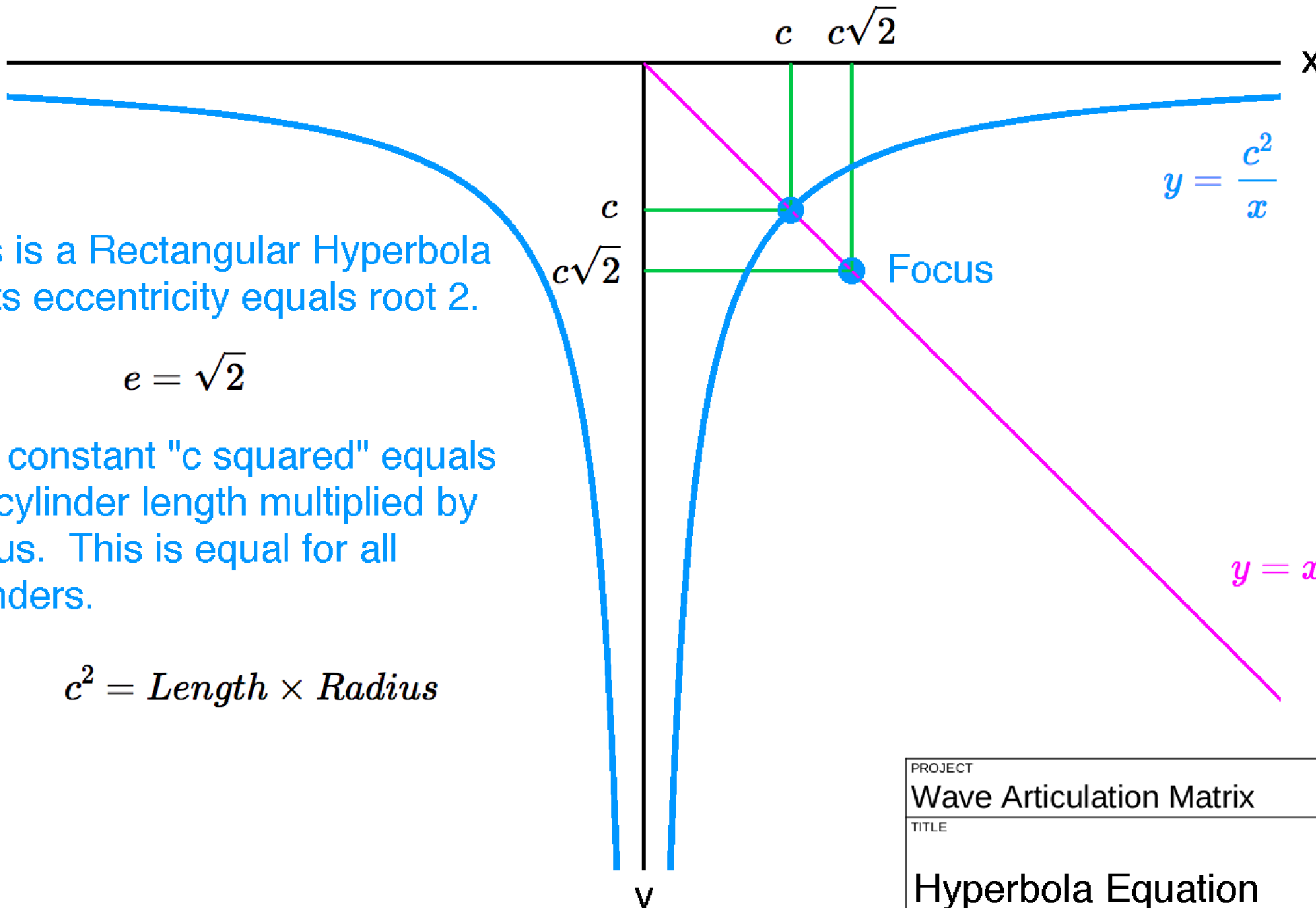


The Torus is centered on the Hyperbola's Focus

The torus can be made from a length of steel tube. Roll it into a circle on a pipe roller. Then weld the ends together. Wrap it first with cellophane, then with copper foil

Torus Cross-Section

PROJECT	
Wave Articulation Matrix	
TITLE	
Torus Cross-Section	
SCALE	SHEET



This is a Rectangular Hyperbola so its eccentricity equals root 2.

$$e = \sqrt{2}$$

The constant "c squared" equals the cylinder length multiplied by radius. This is equal for all cylinders.

$$c^2 = Length \times Radius$$

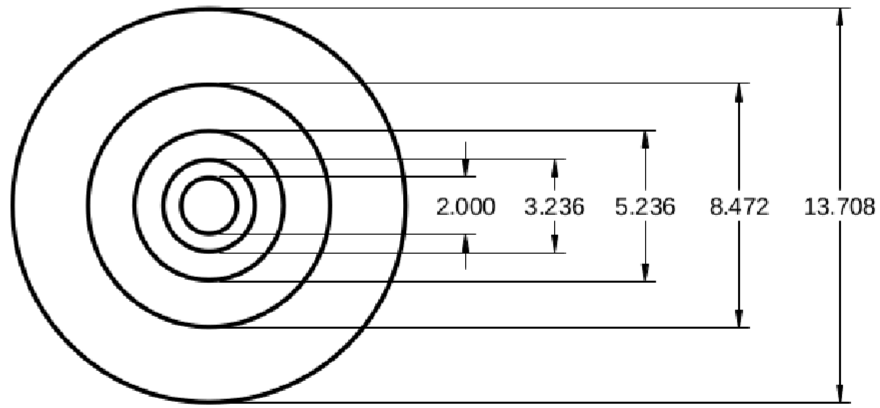
PROJECT
Wave Articulation Matrix

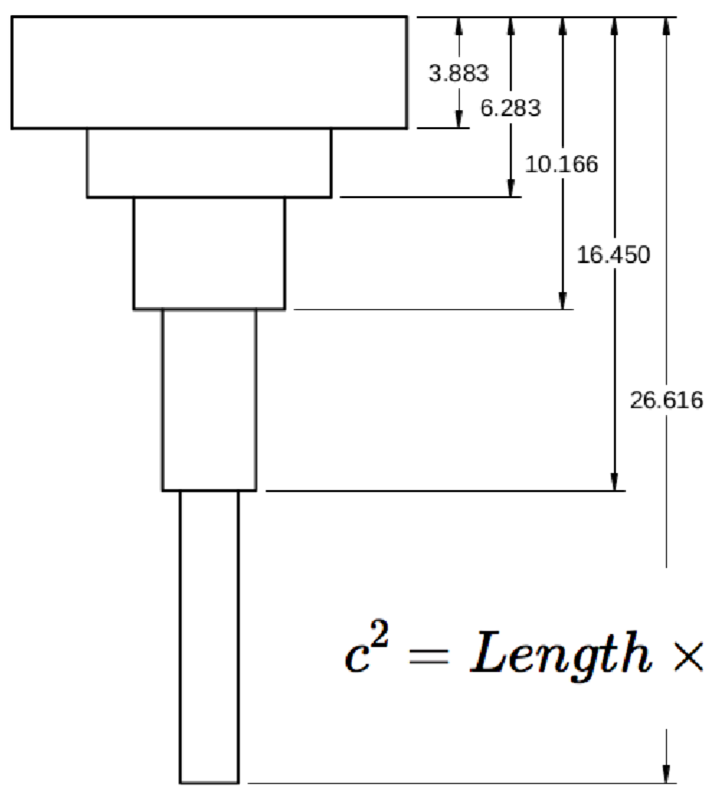
TITLE
Hyperbola Equation

SCALE

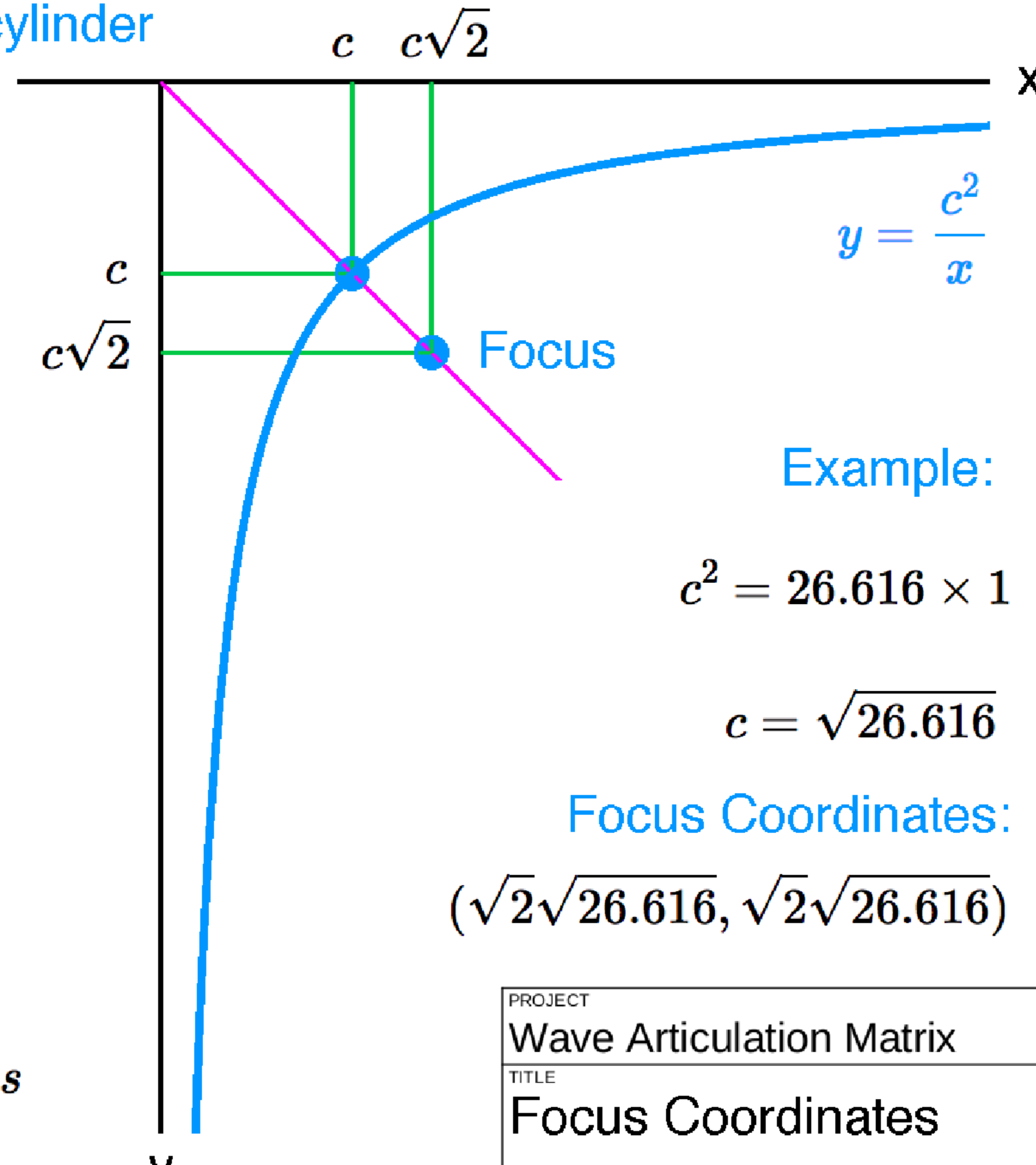
SHEET

Example: 2 inch diameter center cylinder





$$c^2 = Length \times Radius$$



Example:

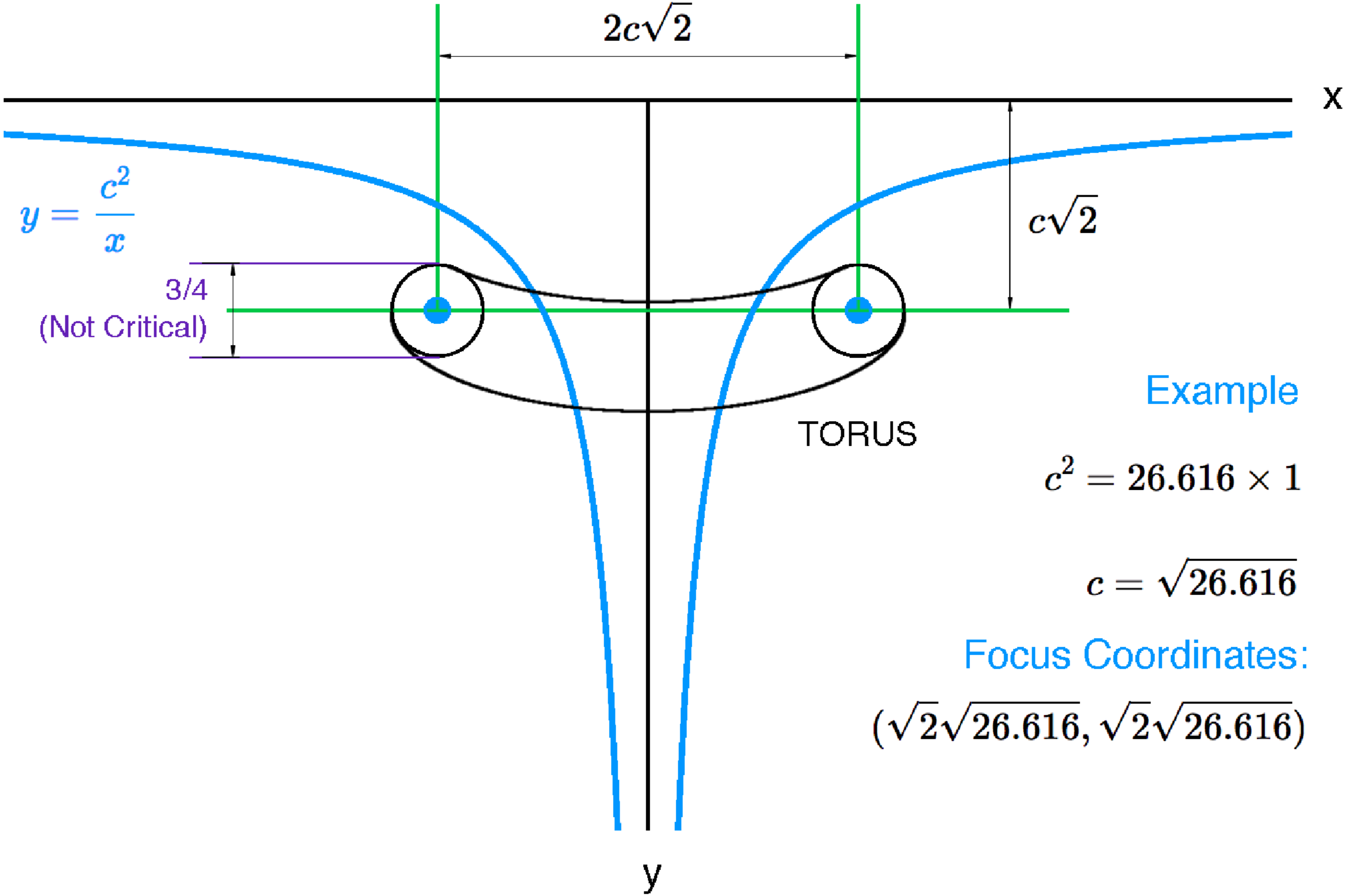
$$c^2 = 26.616 \times 1$$

$$c = \sqrt{26.616}$$

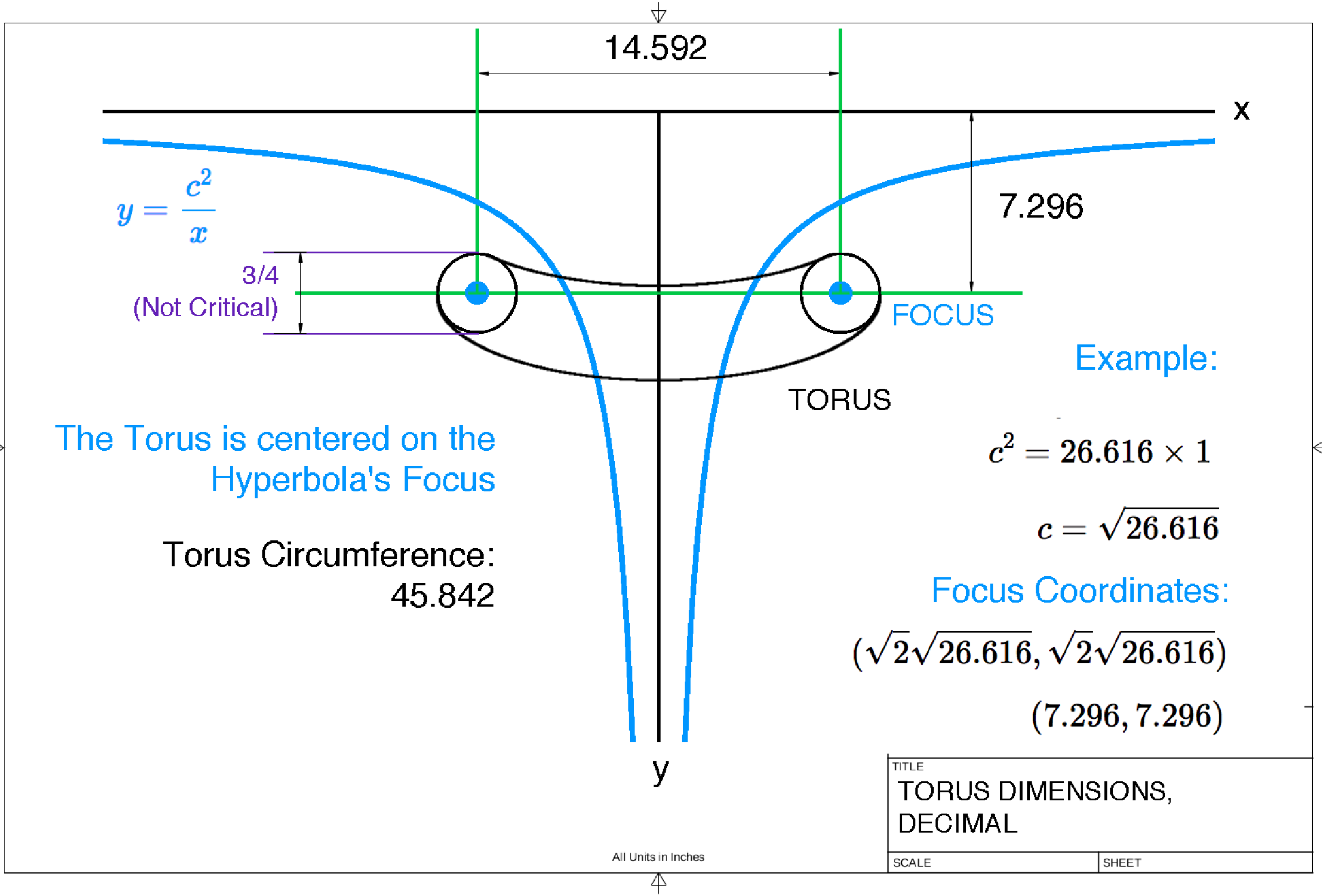
Focus Coordinates:

$$(\sqrt{2}\sqrt{26.616}, \sqrt{2}\sqrt{26.616})$$

PROJECT	
Wave Articulation Matrix	
TITLE	
Focus Coordinates	
SCALE 1:8	SHEET 2/3



$2c\sqrt{2}$
x
$c\sqrt{2}$
$y = \frac{c^2}{x}$
3/4
(Not Critical)
TORUS
y
Example
$c^2 = 26.616 \times 1$
$c = \sqrt{26.616}$
Focus Coordinates:
$(\sqrt{2}\sqrt{26.616}, \sqrt{2}\sqrt{26.616})$


14.592
x
$y = \frac{c^2}{x}$
7.296
3/4
(Not Critical)
FOCUS
Example:
TORUS
The Torus is centered on the Hyperbola's Focus
$c^2 = 26.616 \times 1$
$c = \sqrt{26.616}$
Torus Circumference:
45.842
Focus Coordinates:
$(\sqrt{2}\sqrt{26.616}, \sqrt{2}\sqrt{26.616})$
$(7.296, 7.296)$
y
TITLE
TORUS DIMENSIONS, DECIMAL
SCALE
SHEET
All Units in Inches

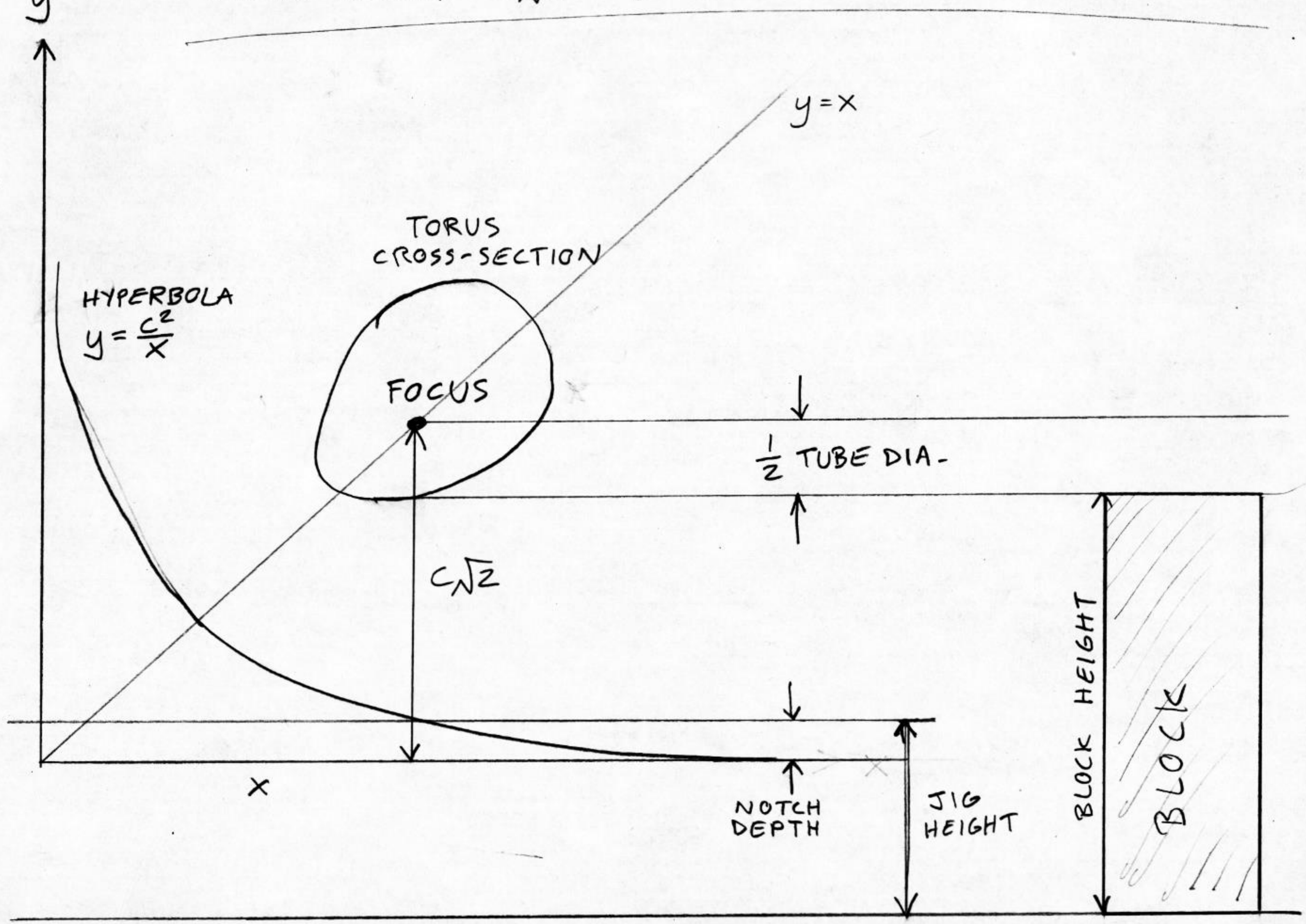
Hollow Ring, or "Torus"
The Torus is made out of 3/4 inch steel tube, .049 inch wall (18 gauge). The important thing is that the center of the tube is lined up with the Hyperbola's Focus. That's where the magic happens.

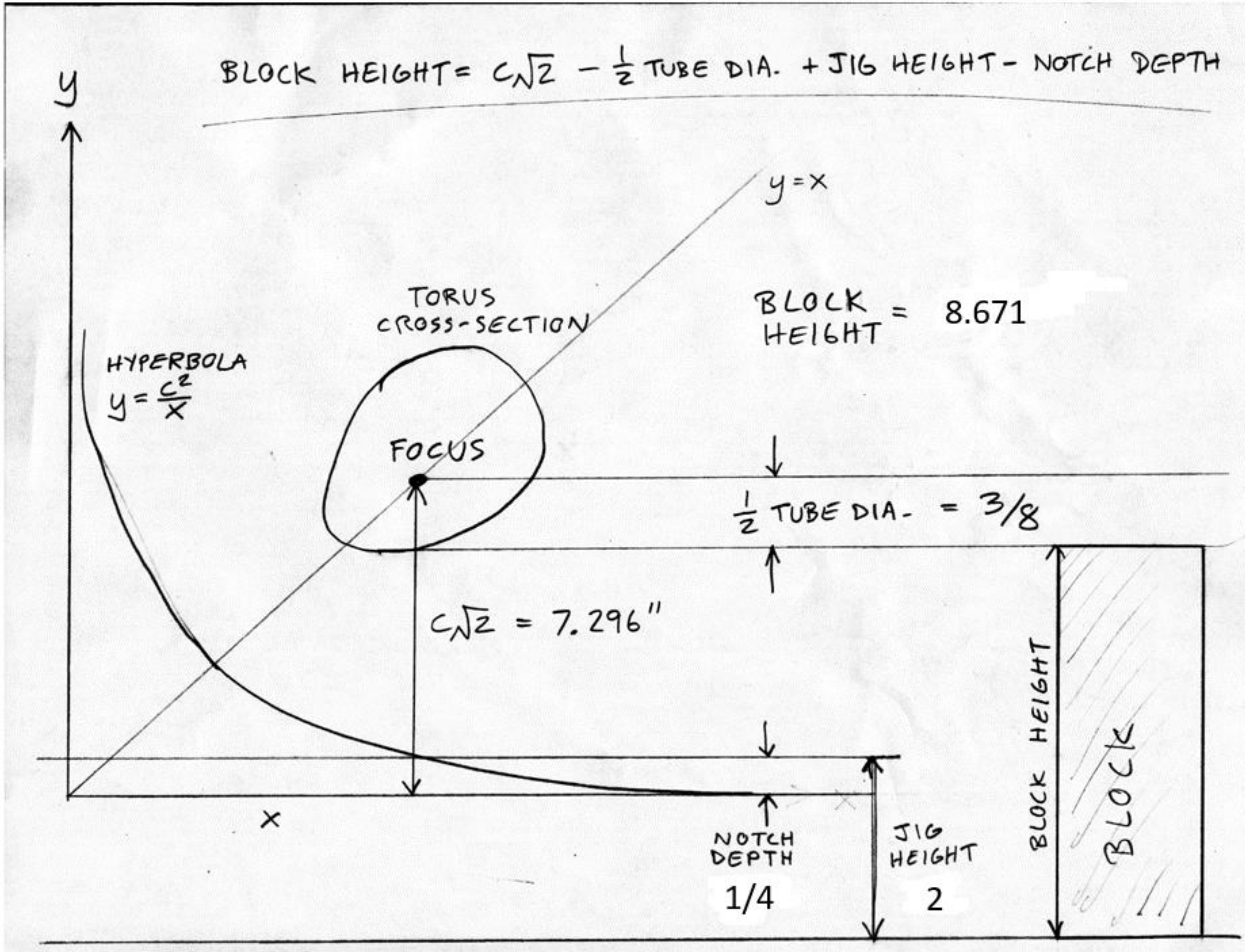
The circumference of the torus is just under four feet. In the process of bending the tube into a circle on the tube rolling machine, you lose about 10 inches at each end. So order a six foot length of steel tubing.

Low-Carbon Steel Round Tube
0.049" Wall Thickness, 3/4" OD
6 Feet Long
McMaster Carr Part Number 7767T21
$12.66 Each

Blocks to Hold the Hollow Ring

$$\text{BLOCK HEIGHT} = C\sqrt{2} - \tfrac{1}{2}\,\text{TUBE DIA.} + \text{JIG HEIGHT} - \text{NOTCH DEPTH}$$




BLOCK HEIGHT = $C\sqrt{2}$ − $\frac{1}{2}$ TUBE DIA. + JIG HEIGHT − NOTCH DEPTH
y
y=x
TORUS CROSS-SECTION
BLOCK HEIGHT = 8.671
HYPERBOLA $y = \frac{c^2}{x}$
FOCUS
$\frac{1}{2}$ TUBE DIA. = 3/8
$C\sqrt{2}$ = 7.296"
x
NOTCH DEPTH
1/4
JIG HEIGHT
2
BLOCK HEIGHT
BLOCK

$c^2 = 26.616 \times 1$

$c = \sqrt{26.616}$

FOCUS COORDINATES:

$(\sqrt{2}\sqrt{26.616}, \sqrt{2}\sqrt{26.616})$

$c\sqrt{2} = 7.296''$

JIG HEIGHT = 2 inch

NOTCH DEPTH = 1/4

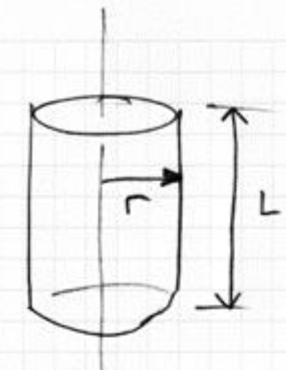
$\frac{1}{2}$ TUBE DIA. = 3/8

BLOCK HEIGHT = 7.296 − 3/8 + 2 − 1/4

= 8.671

BLOCK HEIGHT = $c\sqrt{2}$ − $\frac{1}{2}$ TUBE DIA. + JIG HEIGHT − NOTCH

BLOCK HEIGHT = 8.671

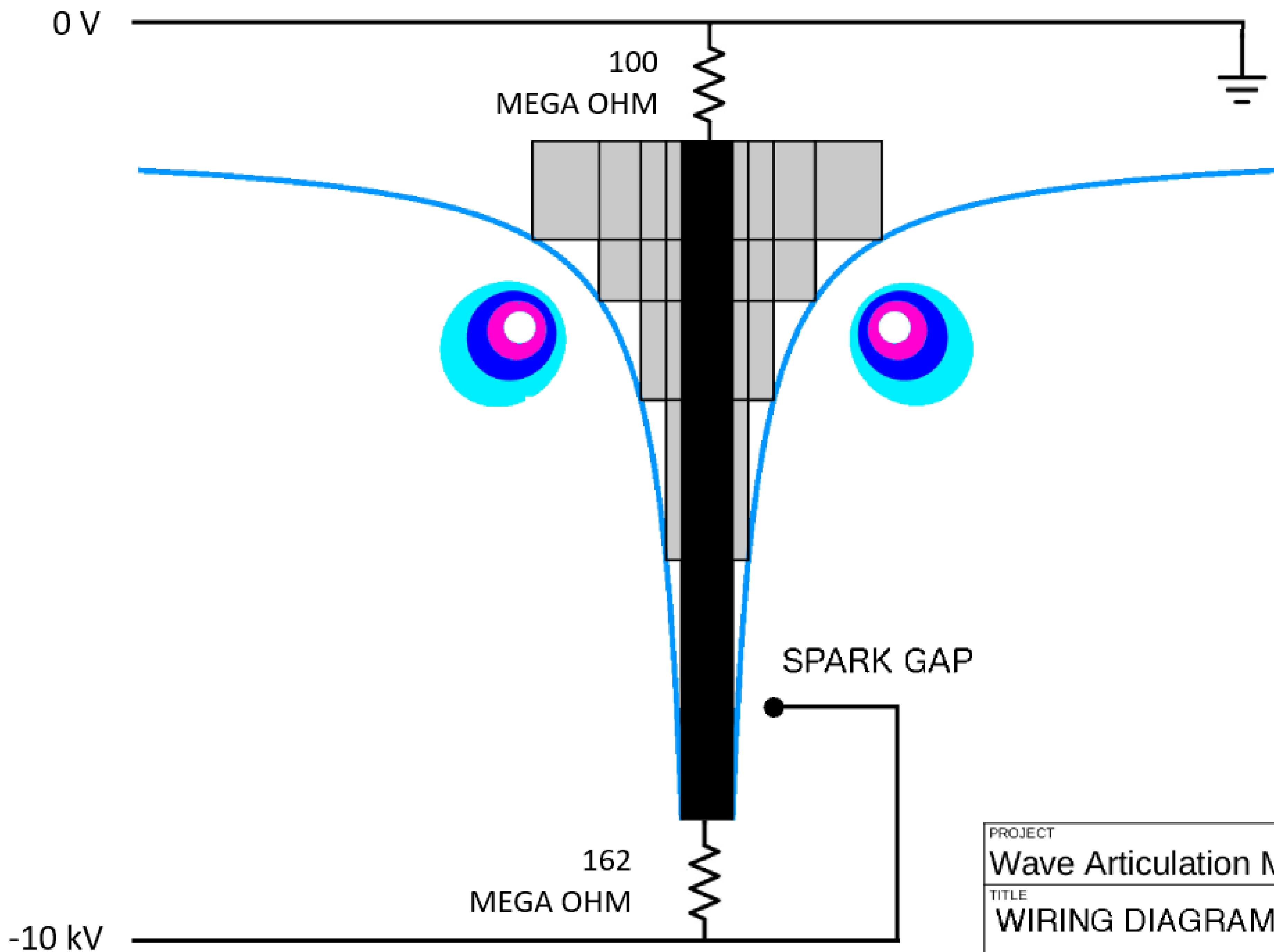


STEEL CYLINDER

$c^2 = r \times L$

THIS VALUE IS THE SAME FOR ALL 5 STEEL CYLINDERS

Wiring Diagram,
-10 kV DC, Spark Gap



PROJECT

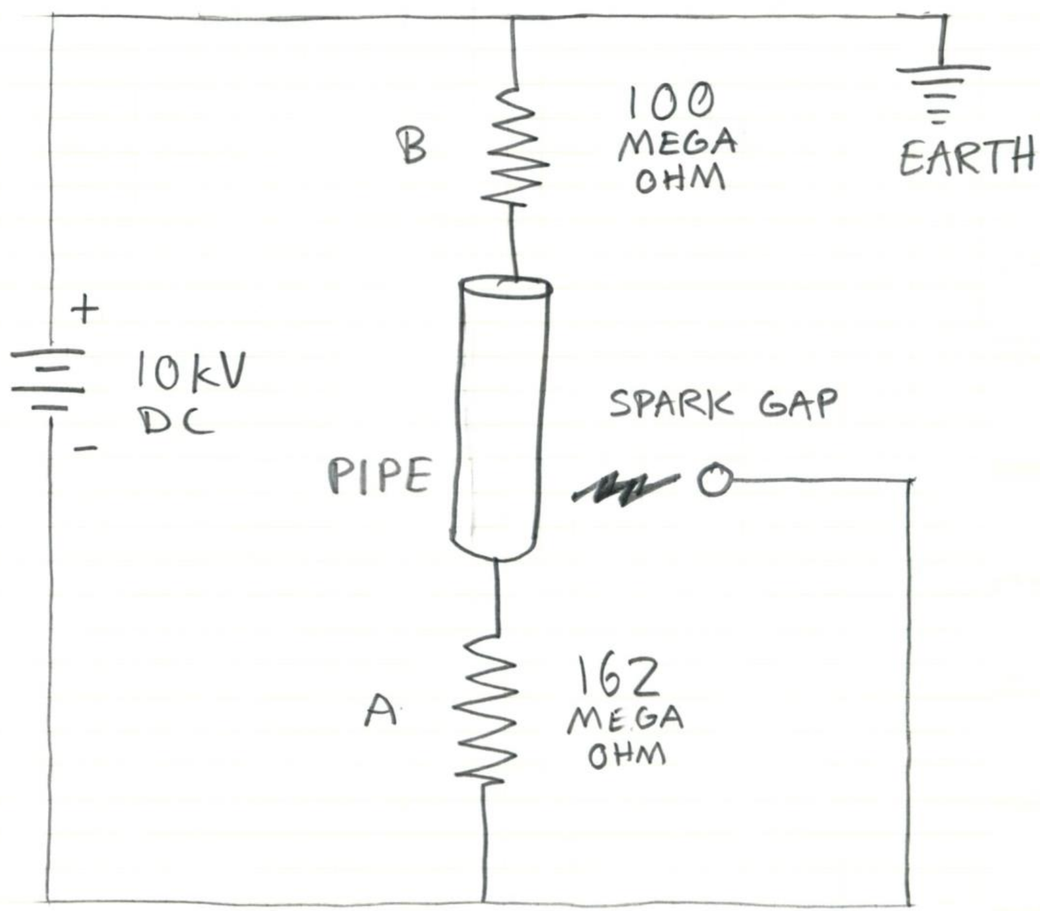
Wave Articulation Matrix

TITLE

WIRING DIAGRAM

SCALE

SHEET



$$\frac{A}{B} = \frac{1+\sqrt{5}}{2}$$

$$\frac{A}{A+B} = \frac{2}{1+\sqrt{5}}$$

$V =$ Circuit Voltage relative to Earth

$Q =$ Charge

$\sigma =$ Surface Charge Density

$\Phi =$ Electric Potential

☥ $=$ Life

$$Q = CV$$

$$Q \propto V$$

$$\sigma \propto Q$$

$$\Phi \propto \sigma$$

$$\blacksquare$$

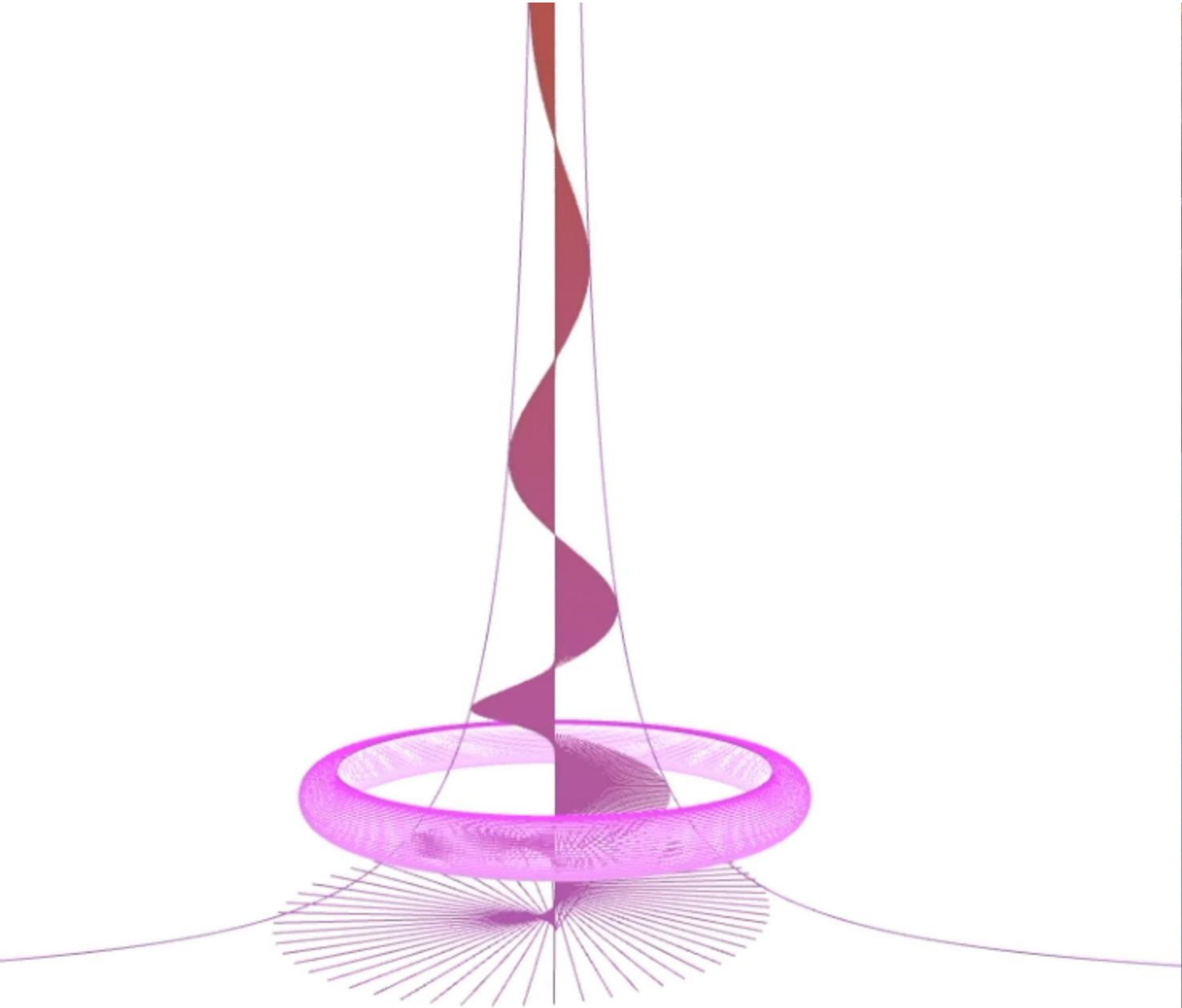
$$\Phi \propto V$$

$$\frac{\partial \Phi}{\partial t} \propto \frac{\Delta V}{\Delta t}$$

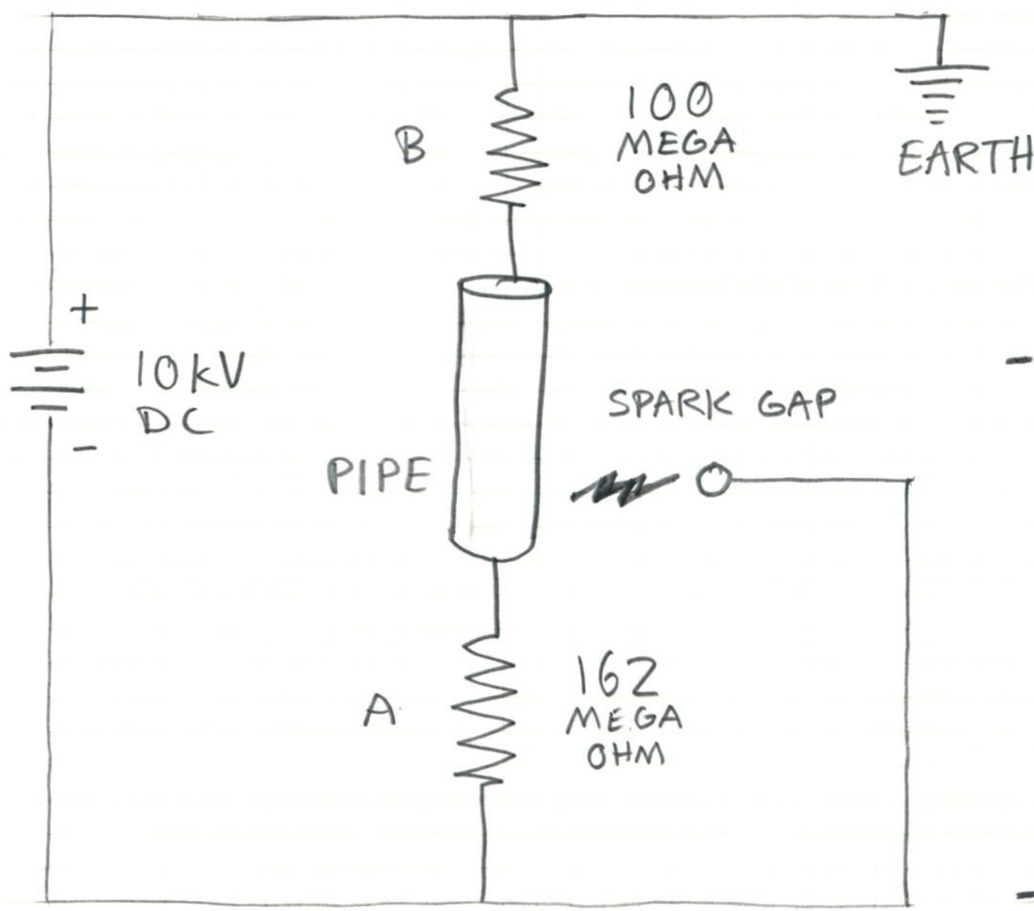
☥ $\propto \frac{\partial \Phi}{\partial t}$

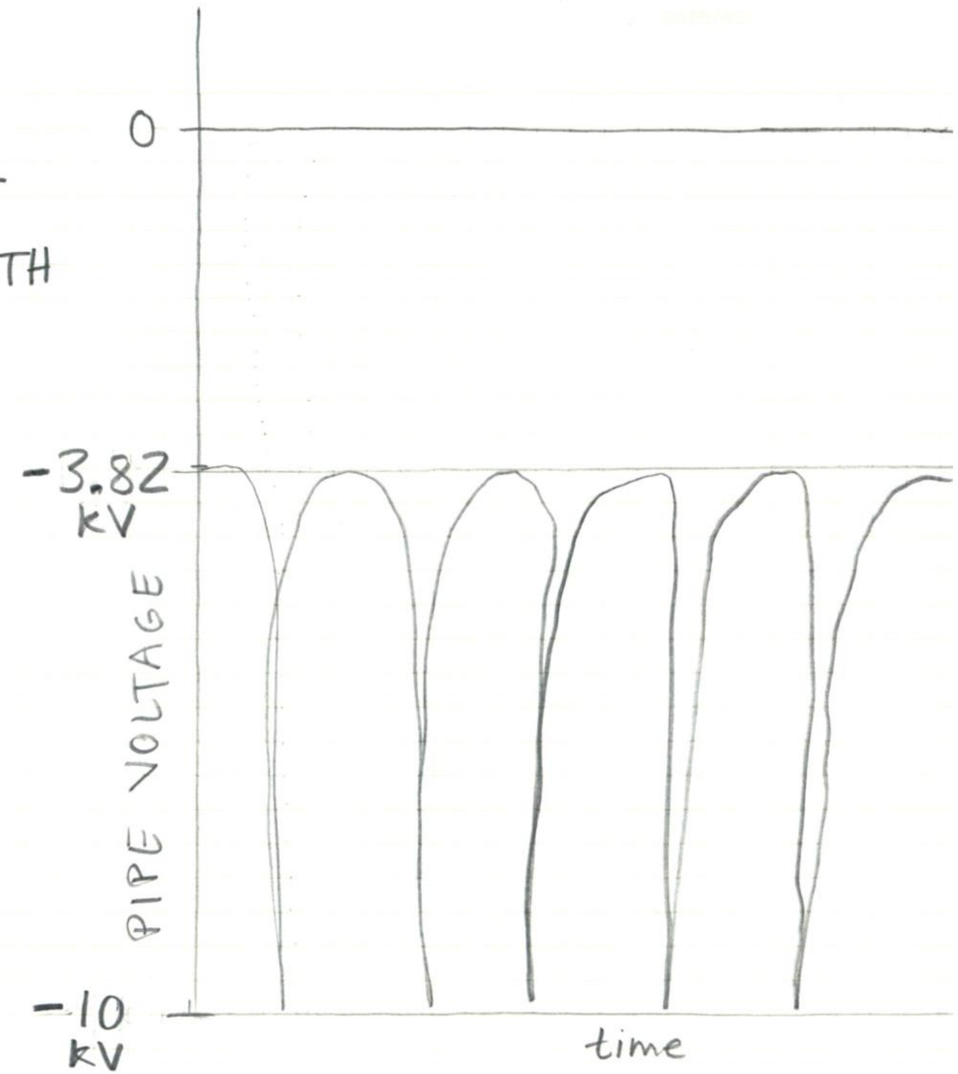
We are working with electric charge. We are varying the surface charge density on the pipe.

By varying the amount of charge on the pipe, we thus vary the magnitude of the electric potential in the space inside the pipe.



Aharonov Bohm Effect



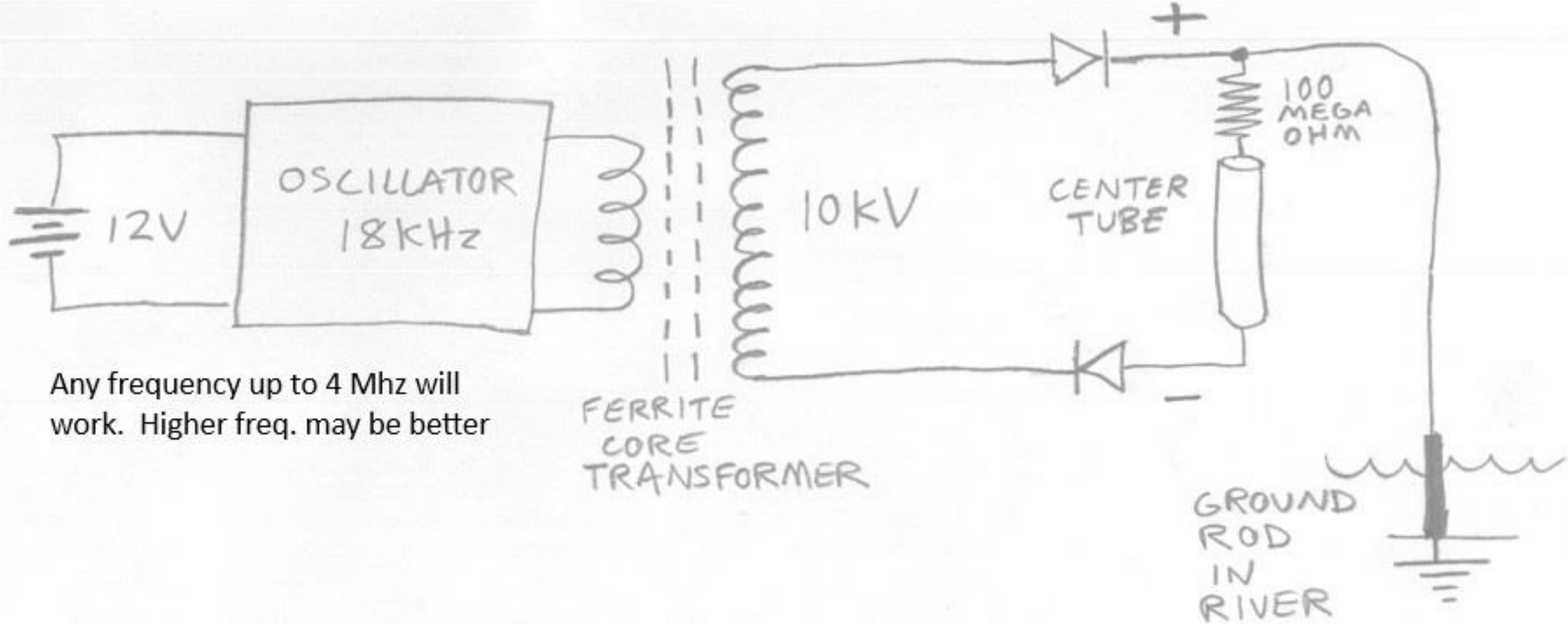


$$\frac{A}{B} = \frac{1+\sqrt{5}}{2}$$

$$\frac{A}{A+B} = \frac{2}{1+\sqrt{5}}$$

The pipe is always charged negative, just more and less so.

Wiring Diagram,
-10 kV DC, 18 KHz



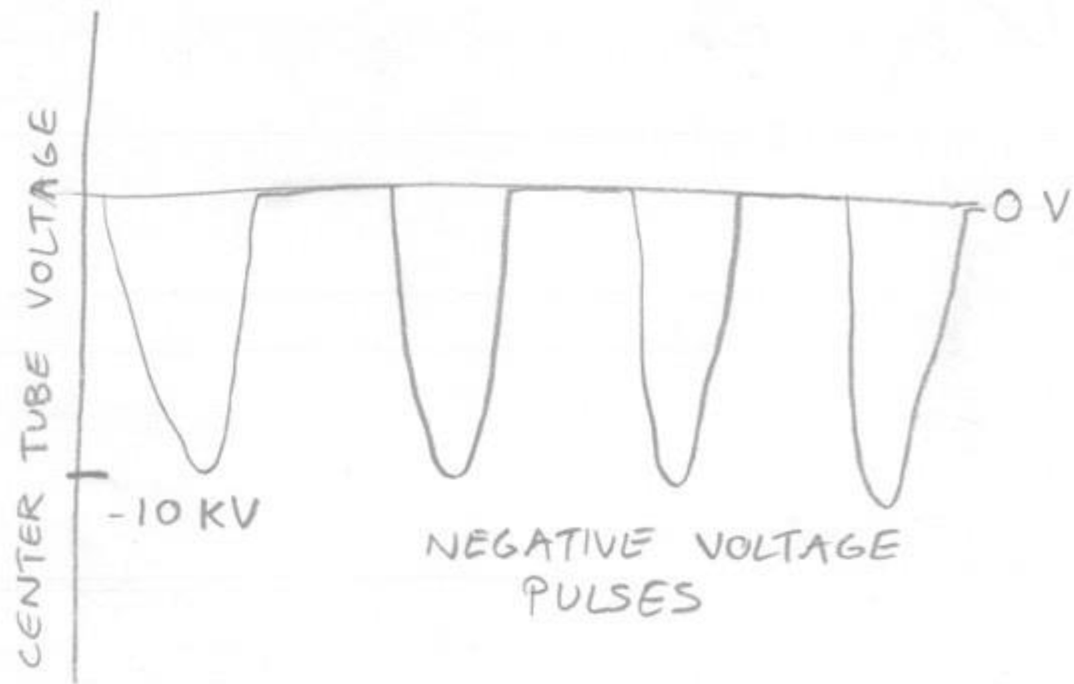
Any frequency up to 4 Mhz will work. Higher freq. may be better

$Q \propto V$

$\Phi \propto Q$

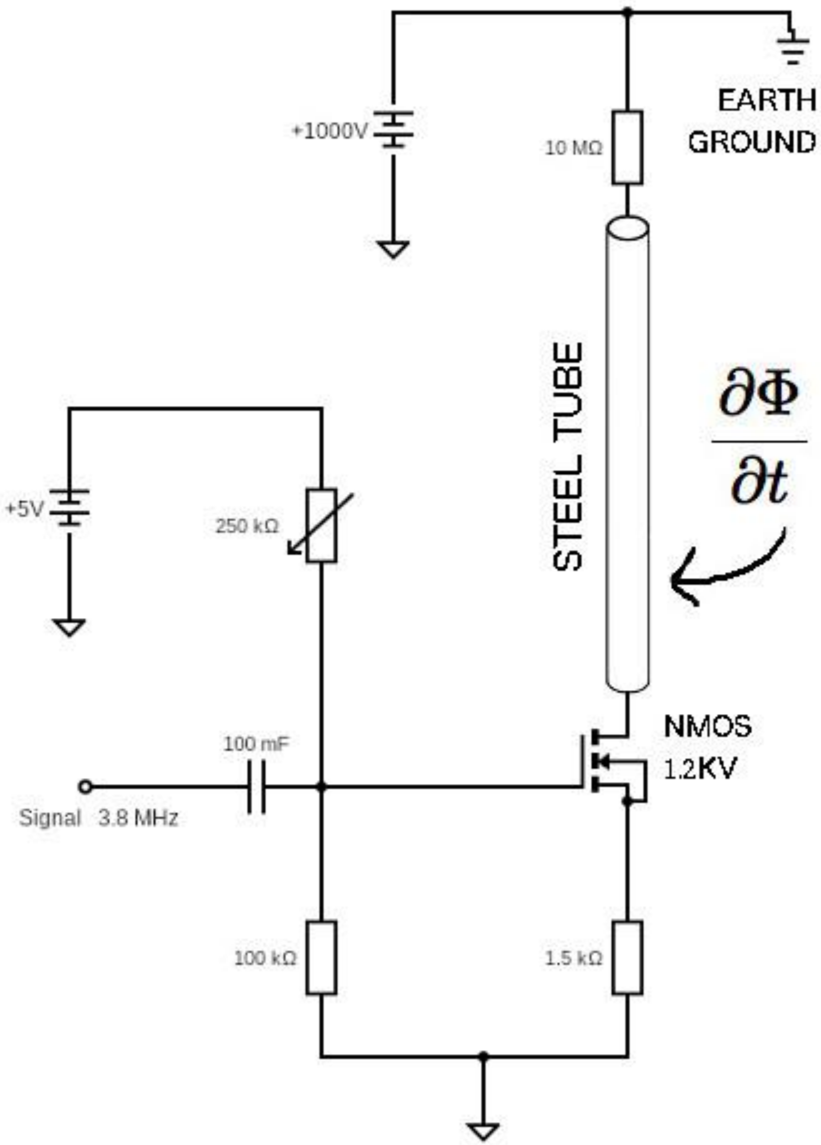
THE CHARGE ON THE TUBE IS PROPORTIONAL TO THE VOLTAGE.

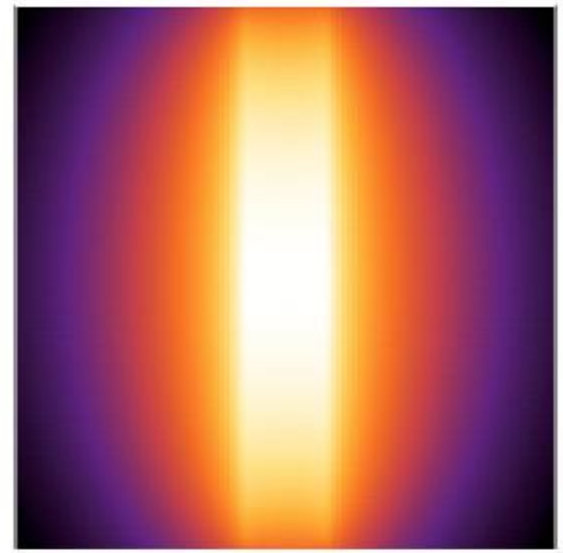
THE ELECTRIC POTENTIAL INSIDE THE TUBE IS PROPORTIONAL TO THE CHARGE.



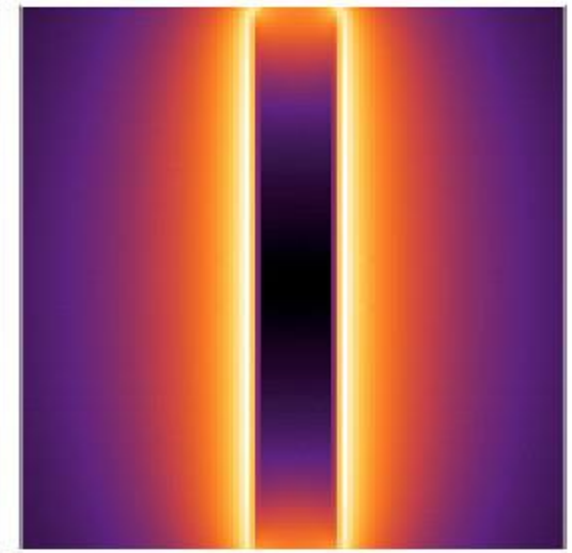
Wiring Diagram,
-1 kV, Transistor

Time-Varying Electric Potential of a Metal Tube





Electric Potential



Electric Field

The Charge on the steel tube is varied with respect to time. Thus, the Electric Potential inside the tube is varied.

$$\mathbf{E} = -\boldsymbol{\nabla}\Phi$$

$$\Phi = \mathit{Electric\ Potential}$$

$$\mathbf{E} = \mathit{Electric\ Field}$$

The circuit varies the amount of charge on the center tube. There are a number of ways to achieve this. It could even be done electro-mechanically. As the surface charge density of the tube is varied, so the Coulomb Potential inside the tube varies.

The tube must at all times be charged negative, just more and less so.

The circuit must be grounded into a flowing river. There is a Life Energy present in flowing water ("living water"), which flows up into the tube, as the charge on the tube is varied.

Higher pulse rates may be more effective. Higher pulse rates may be effective, even at much lower voltages (300 V). I am experimenting with an oscillator using at 3.550 MHz crystal (80 meter ham band), at only 20 V.

Maxwell's Equations

$\mathbf{\Phi}$ = Coulomb Potential

$\mathbf{A}$ = Magnetic Vector Potential

$\mathbf{E}$ = Electric Field

$\mathbf{B}$ = Magnetic Field

☥ = Life

$$\mathbf{E} = -\boldsymbol{\nabla}\Phi - \frac{\partial \mathbf{A}}{\partial t}$$

$$\mathbf{B} = \boldsymbol{\nabla} \times \mathbf{A}$$

$$\boxed{\text{☥} = \frac{\partial \Phi}{\partial t}}$$

$$\nabla \cdot \mathbf{E} \propto \rho$$

$$\nabla \cdot \mathbf{B} \propto 0$$

$$\boldsymbol{\nabla} \times \mathbf{E} \propto \frac{\partial \mathbf{B}}{\partial t}$$

$$\boldsymbol{\nabla} \times \mathbf{B} \propto \frac{\partial \mathbf{E}}{\partial t}$$

Further Information

https://spaz.org/~magi

https://youtube.com/playlist?list=PL-mwgKssk8XgiZ2rml0ywtLjdg4DR9naP