GALAXY 51 "DEV'S ROOM" LAYOUT, ACOUSTIC TREATMENT & MONITORING

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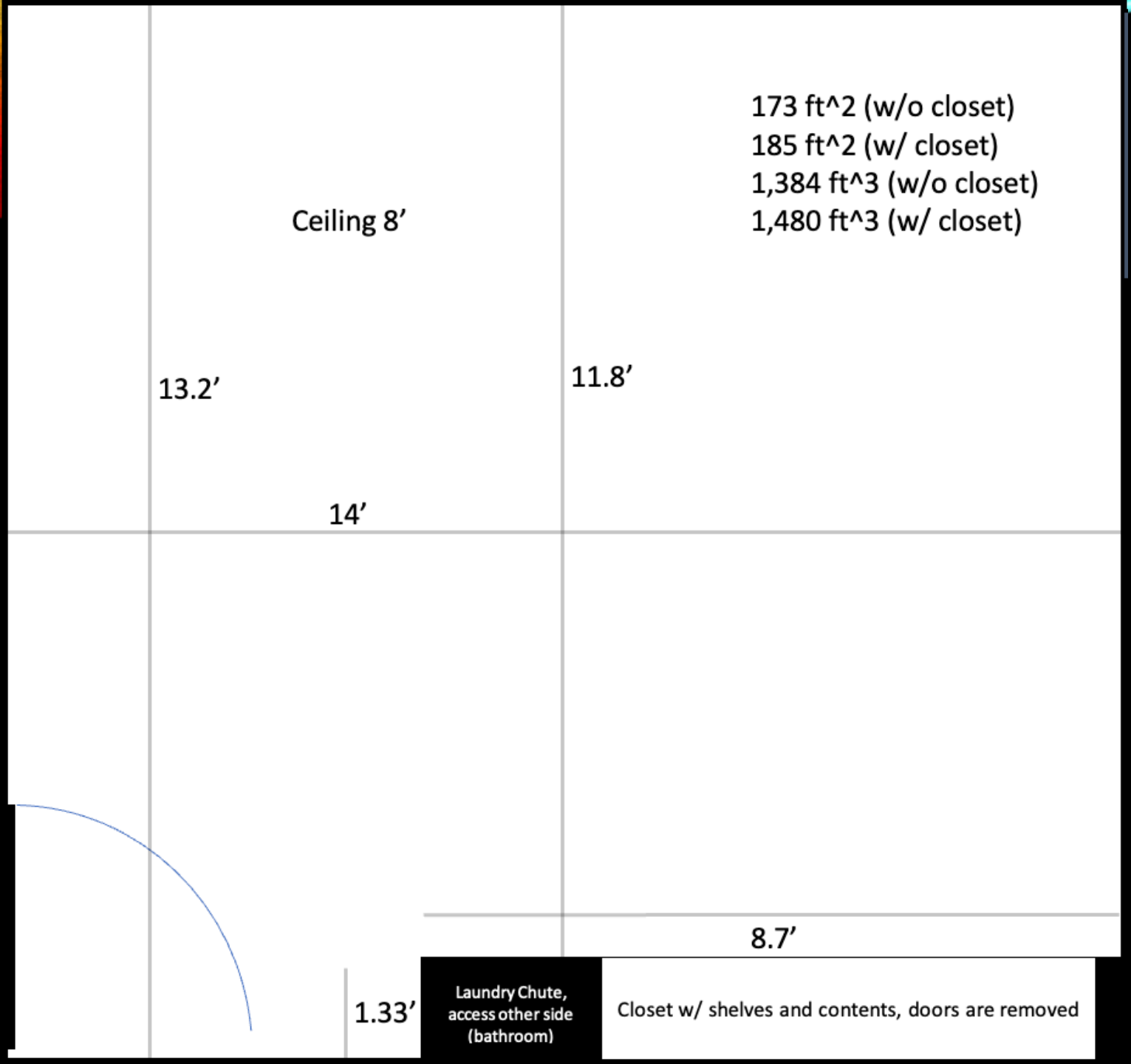
1707 NW 36th Ave Camas, WA 98607 – July 8TH, 2024

THE STORY

I built this bedroom project studio intended for professional composition, tracking and stereo mixing. The room was completed, but shortly thereafter a flood in the house required that the studio be disassembled, and that the room be stripped down to studs and sub-floor. I'm planning the rebuild and would like to making some improvements to the acoustic treatment and monitoring to optimize frequency response and accuracy/translation of mixes.

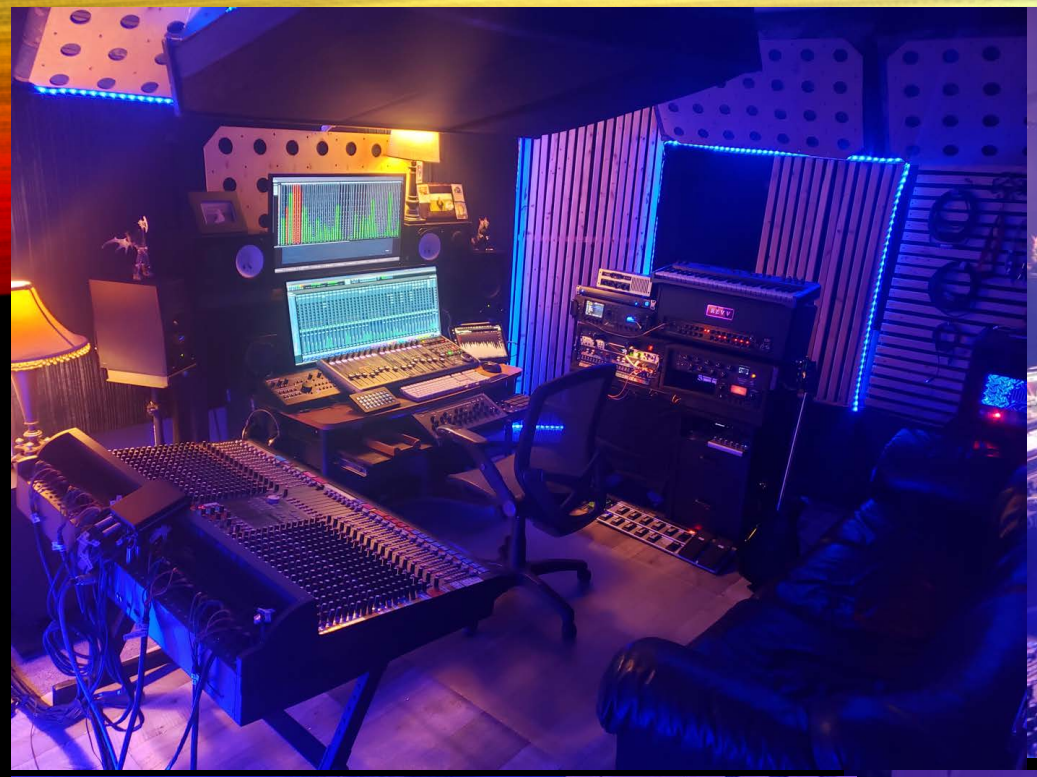


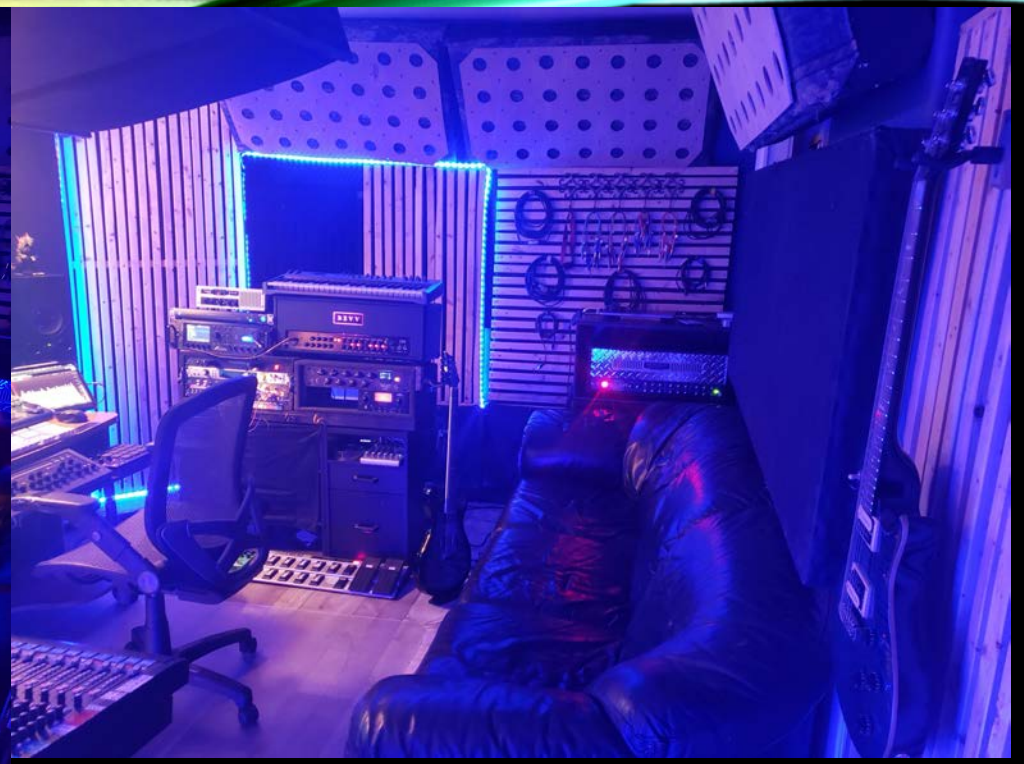
ROOM DESCRIPTION

Upstairs bedroom, one door and one window, on one wall a wide closet the protrudes into the room with doors removed, vinyl plank flooring, wainscot and chair rail moldings, knock-down finished ceiling

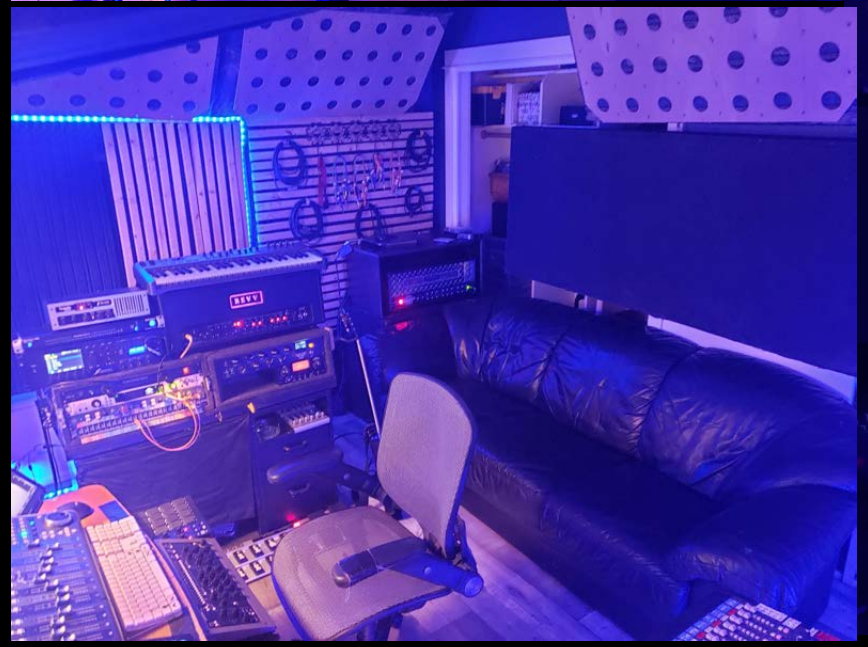
ROOM PICTURES

Note – Carpet has been replaced with vinyl plank flooring, closet doors are removed





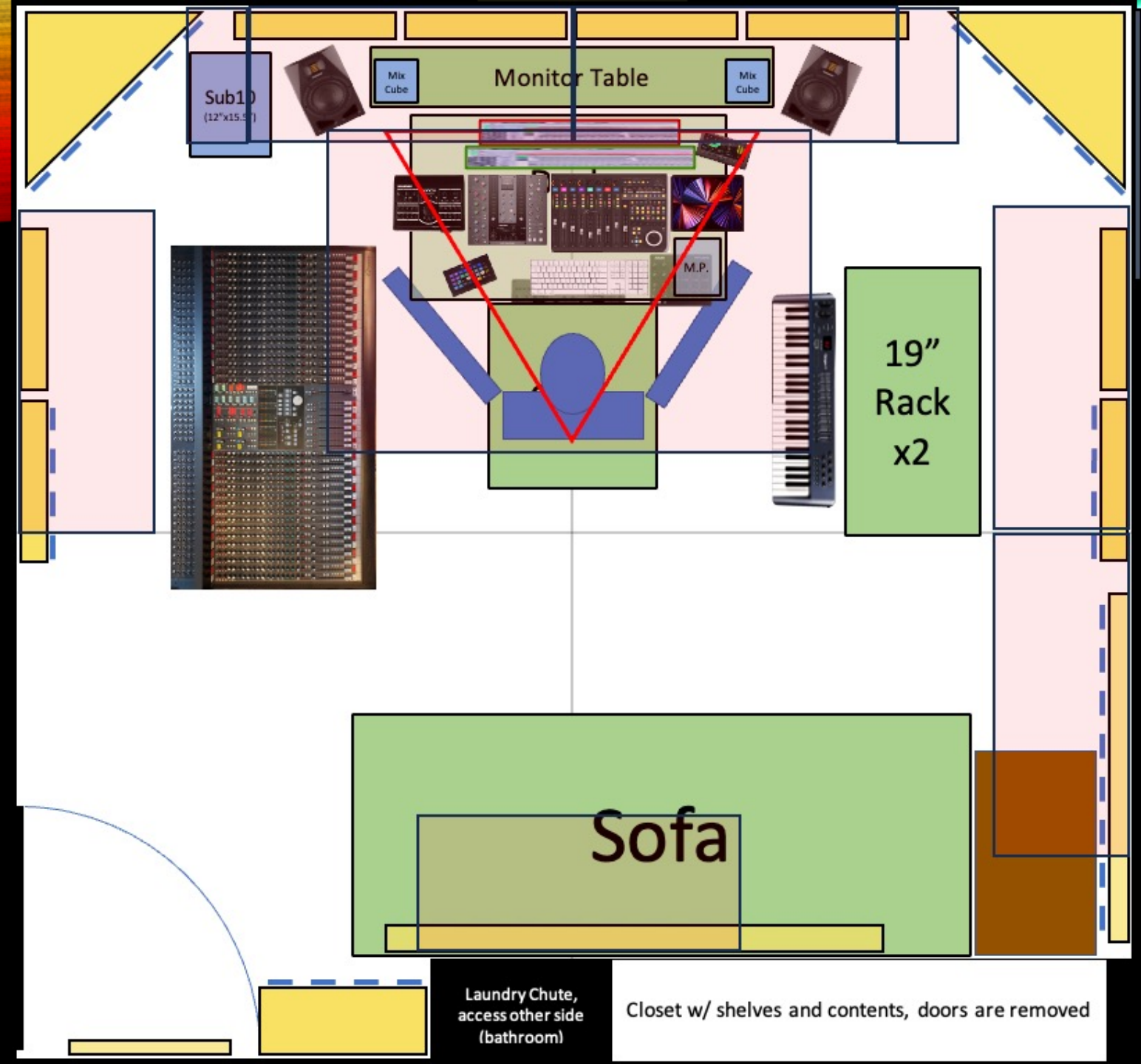
PRE-FLOOD

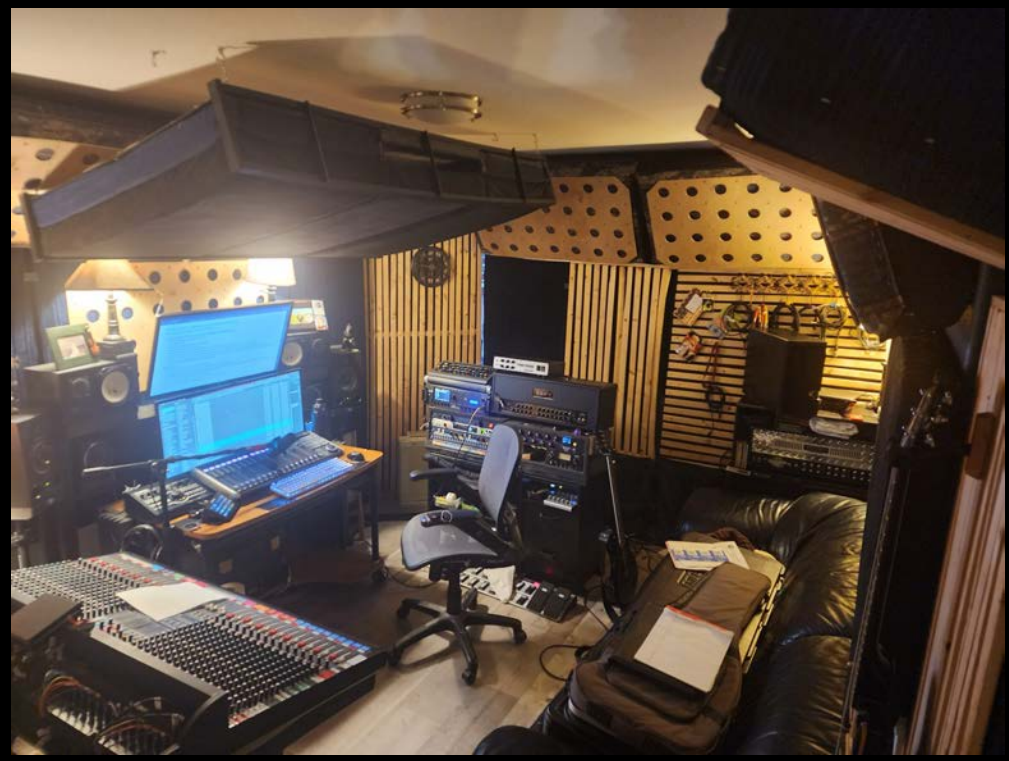


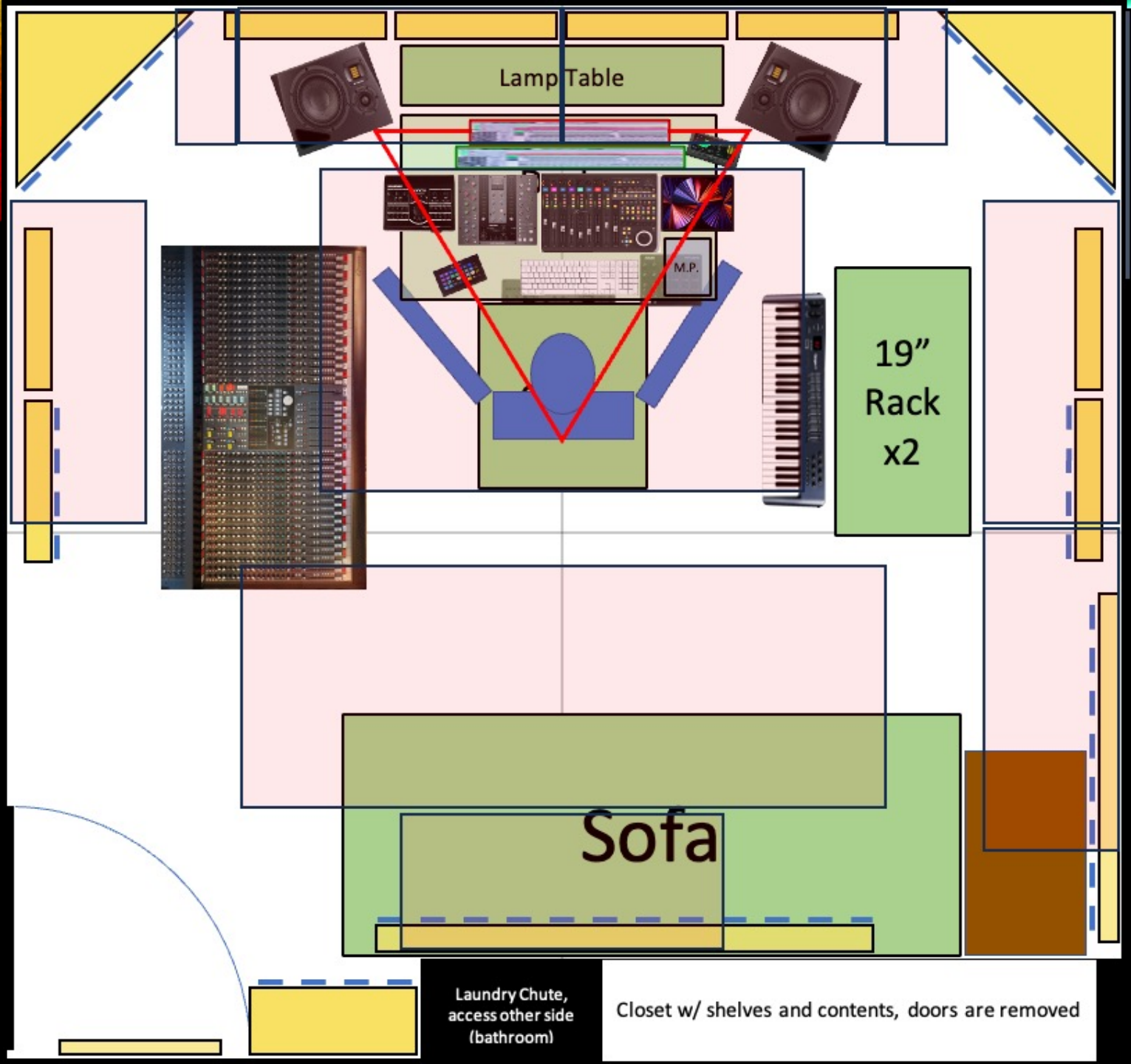
ROOM TODAY

Will be restored to be as before (insulation, drywall, wainscot), but carpet will be replaced with vinyl plank flooring (could be a different material if there is an acoustic benefit).

ROOM LAYOUT (PRE-FLOOD)







ROOM LAYOUT (PLANNED)

Not many changes planned. Would like to upgrade treatment and maybe improve monitoring but looking for input from experts.

Thinking about making monitor/lamp table narrower since I sold my NS-10s so the mid-fields can now be closer together.

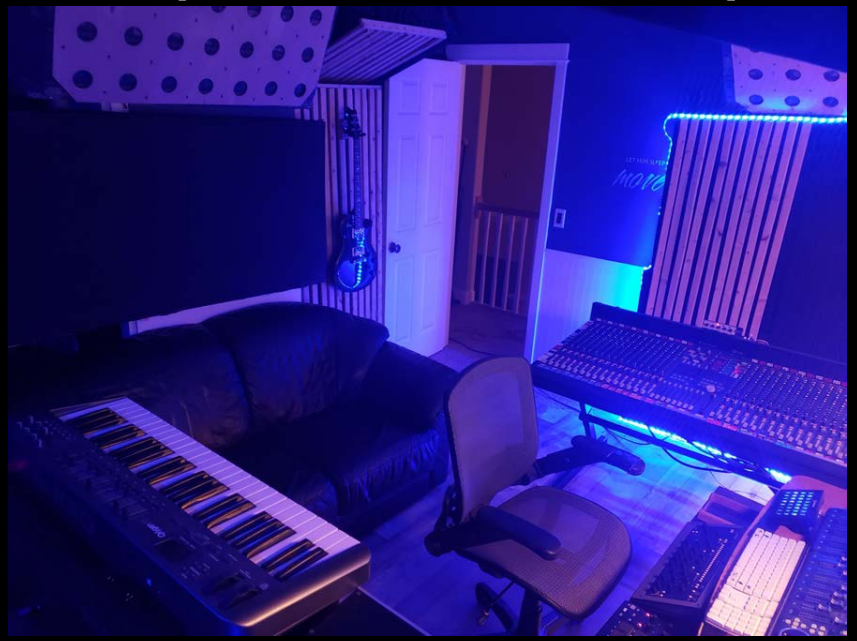
Will move side broadband absorbers off walls a few inches.

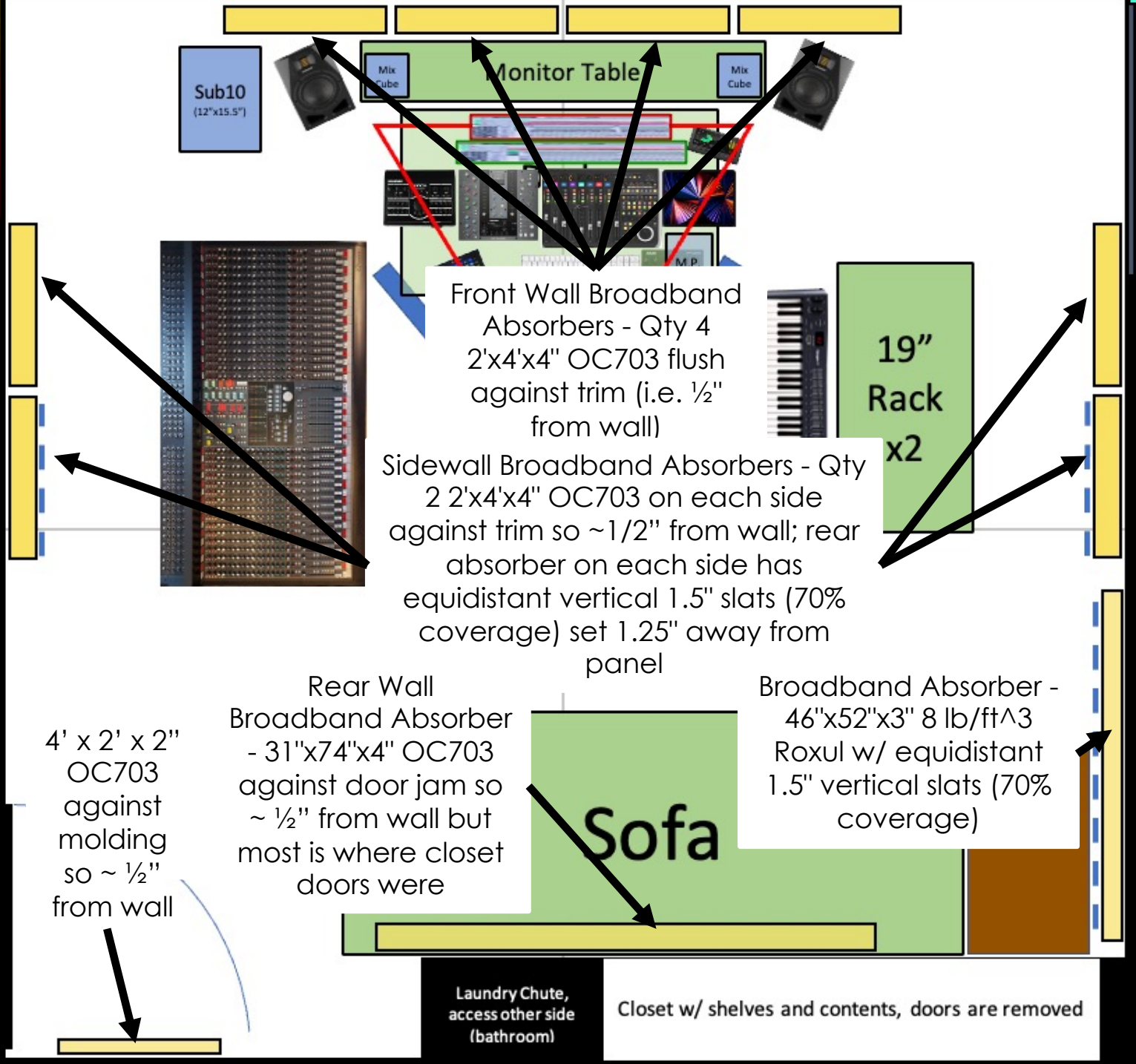
Will change out material in bass traps from OC703 to Knauf ECOSE 1.6 lb.

Considering second cloud for back of room.

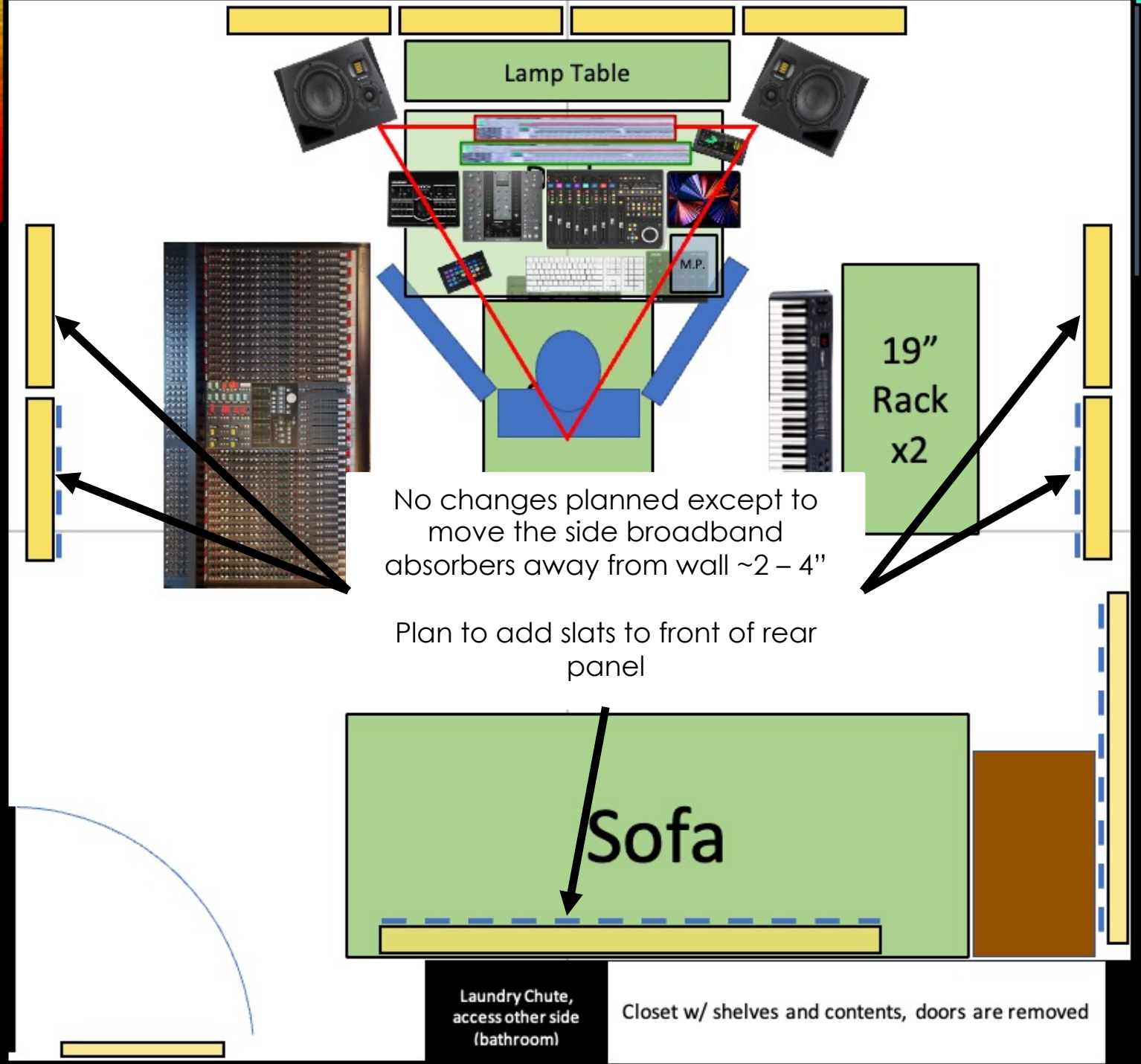
Considering some kind of diffusion and/or maybe a way to get RT60/RT30/Topt up a little.

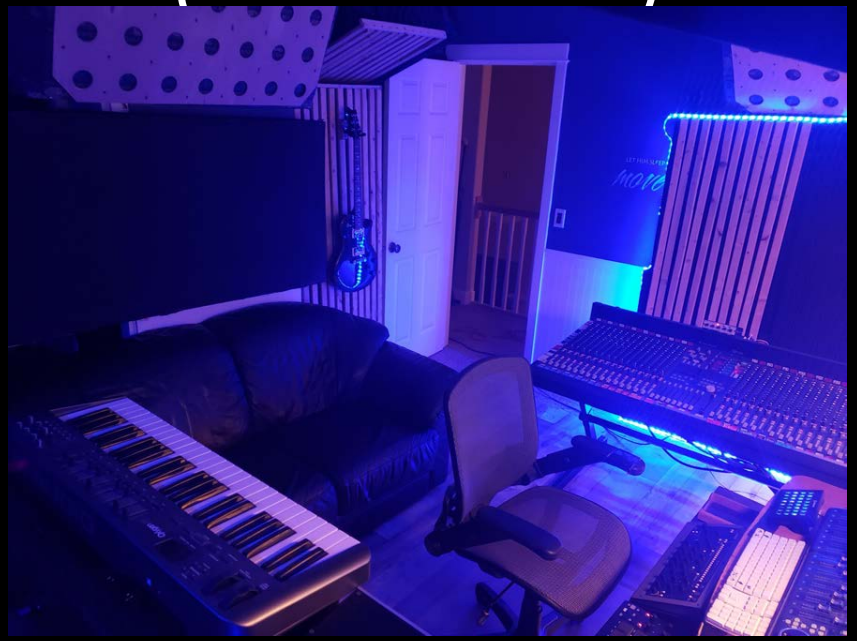
BROADBAND ABSORPTION (PRE-FLOOD)



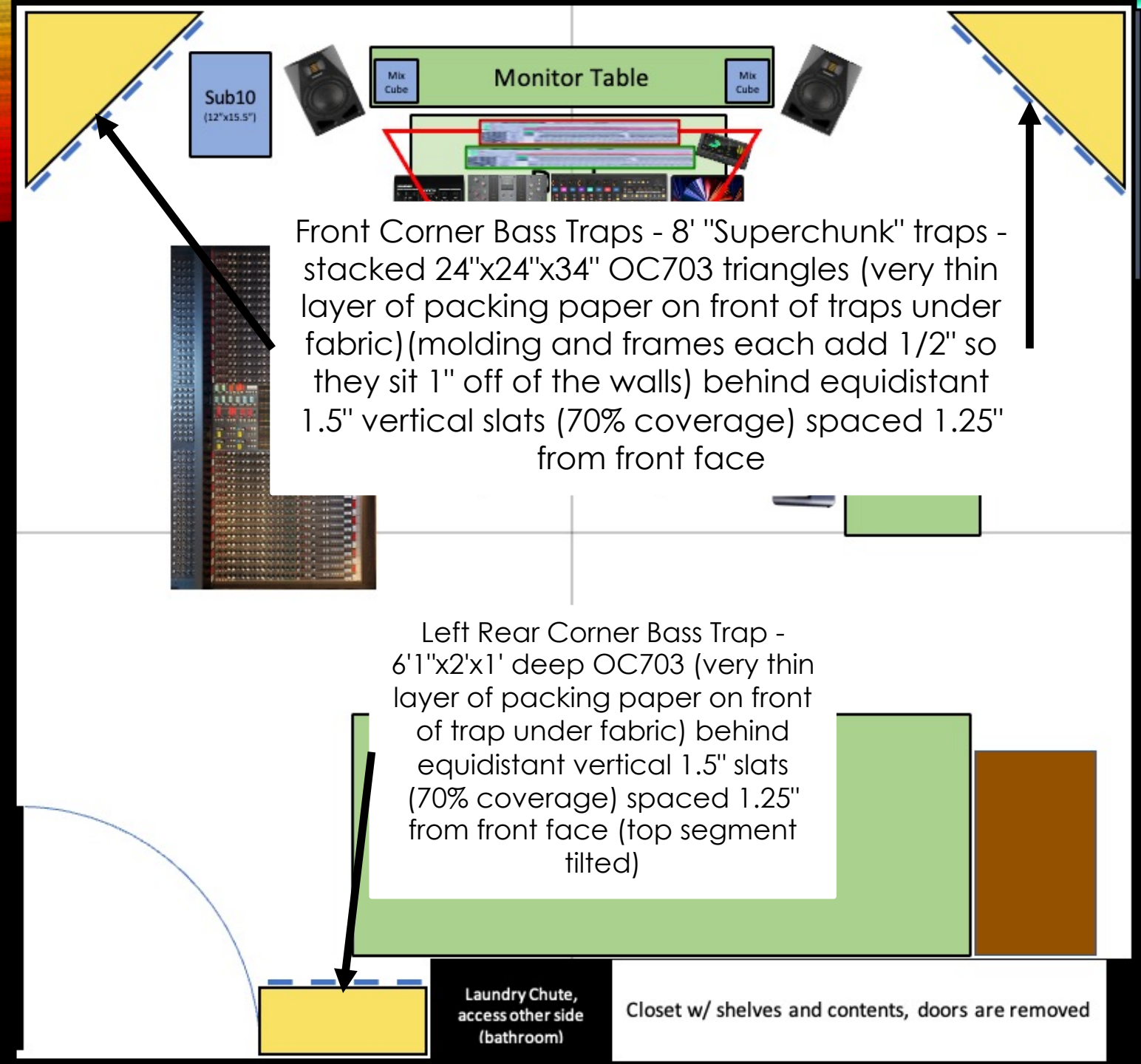


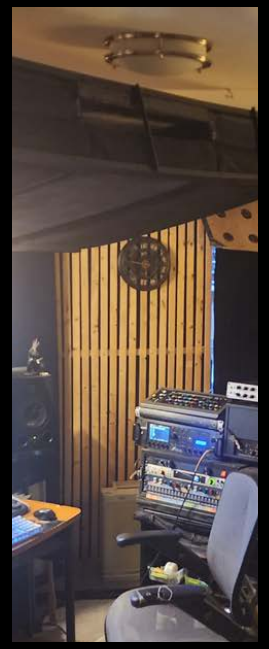
BROADBAND ABSORPTION (PLANNED)

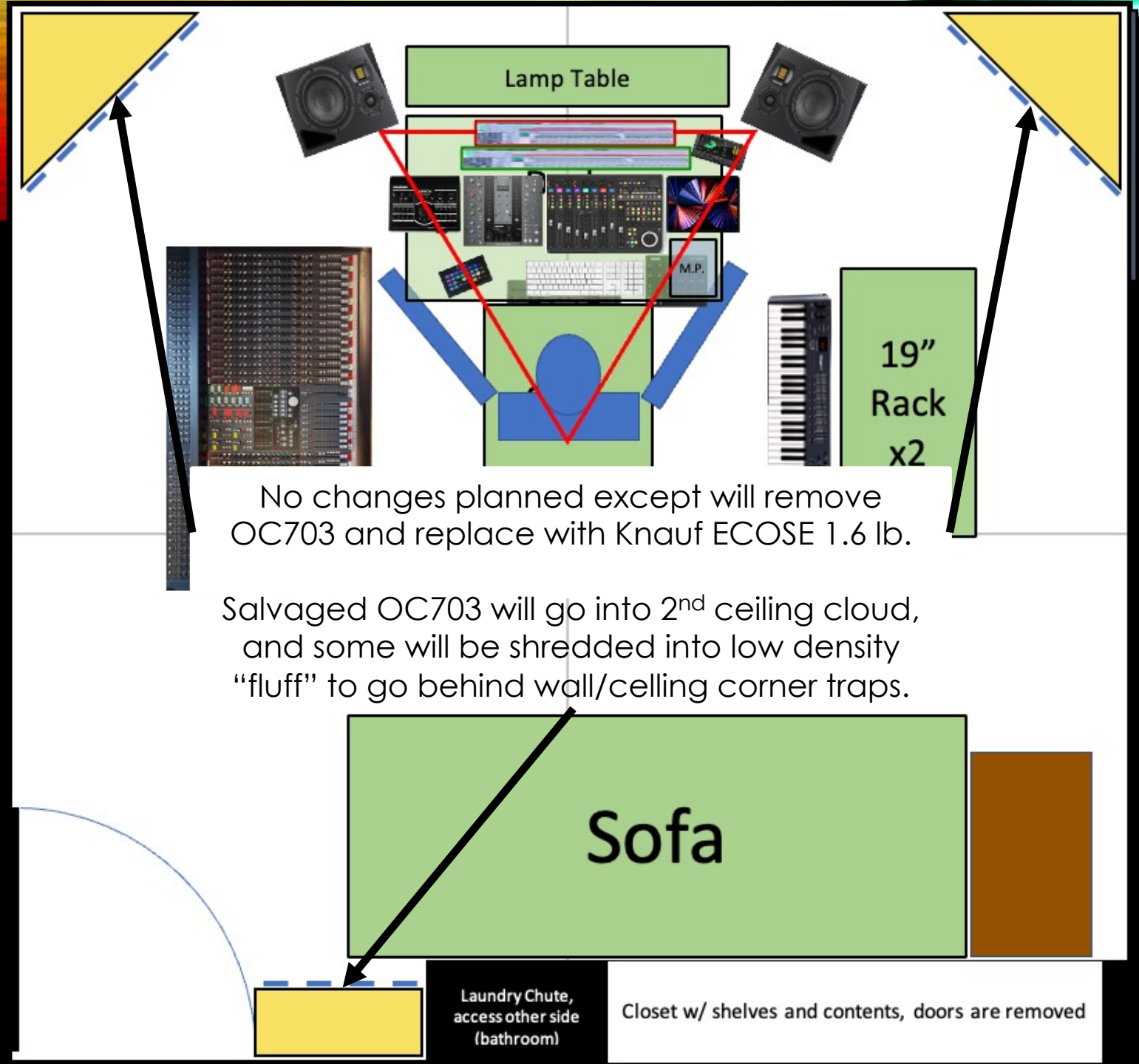




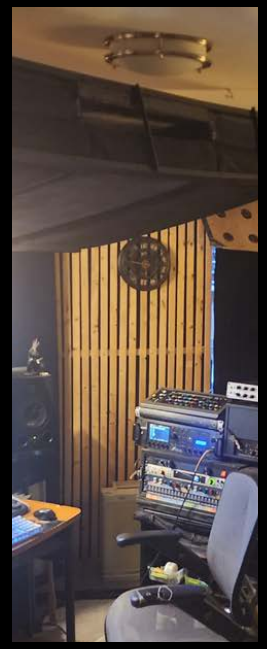
BASS TRAPS (PRE-FLOOD)



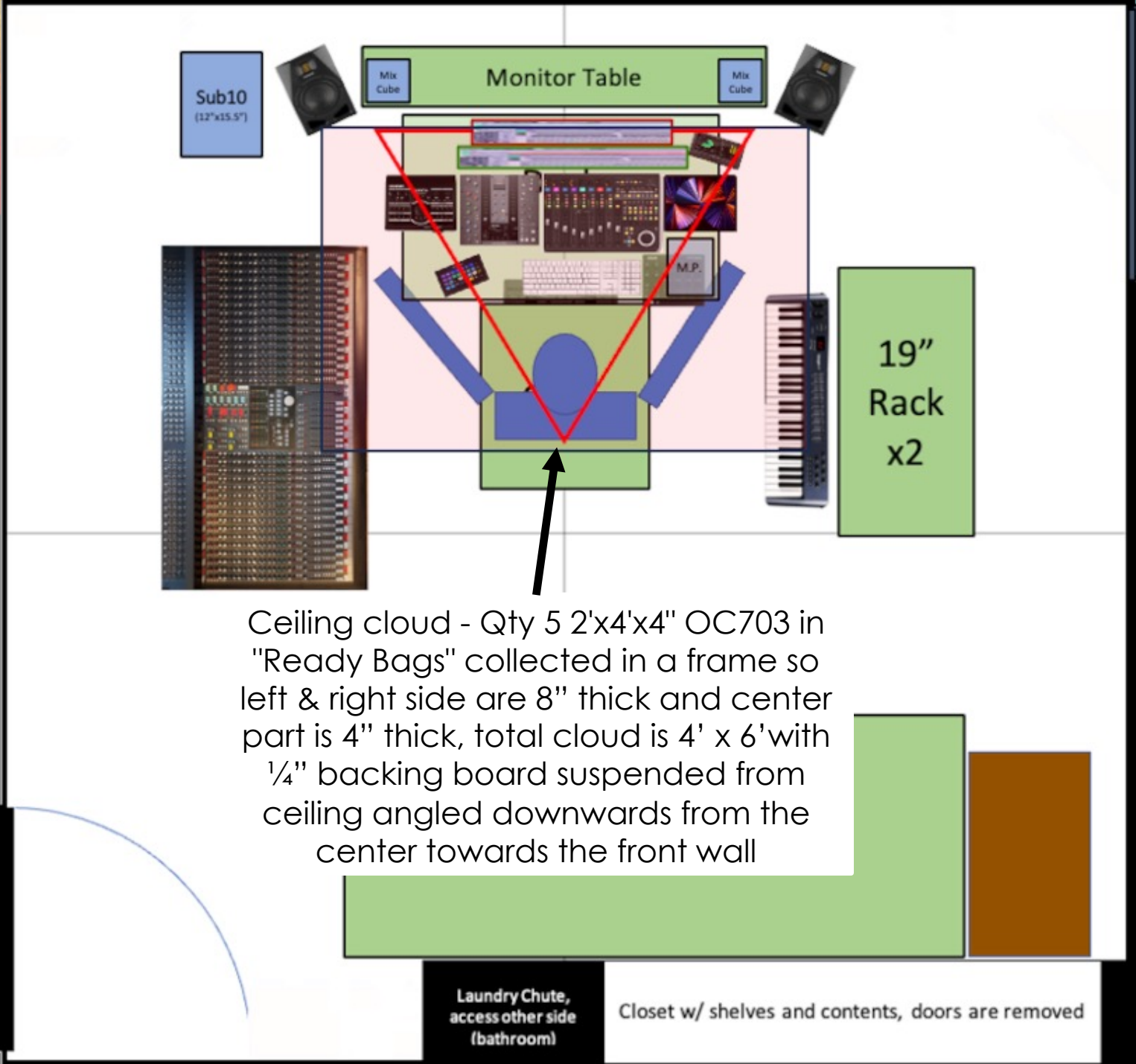


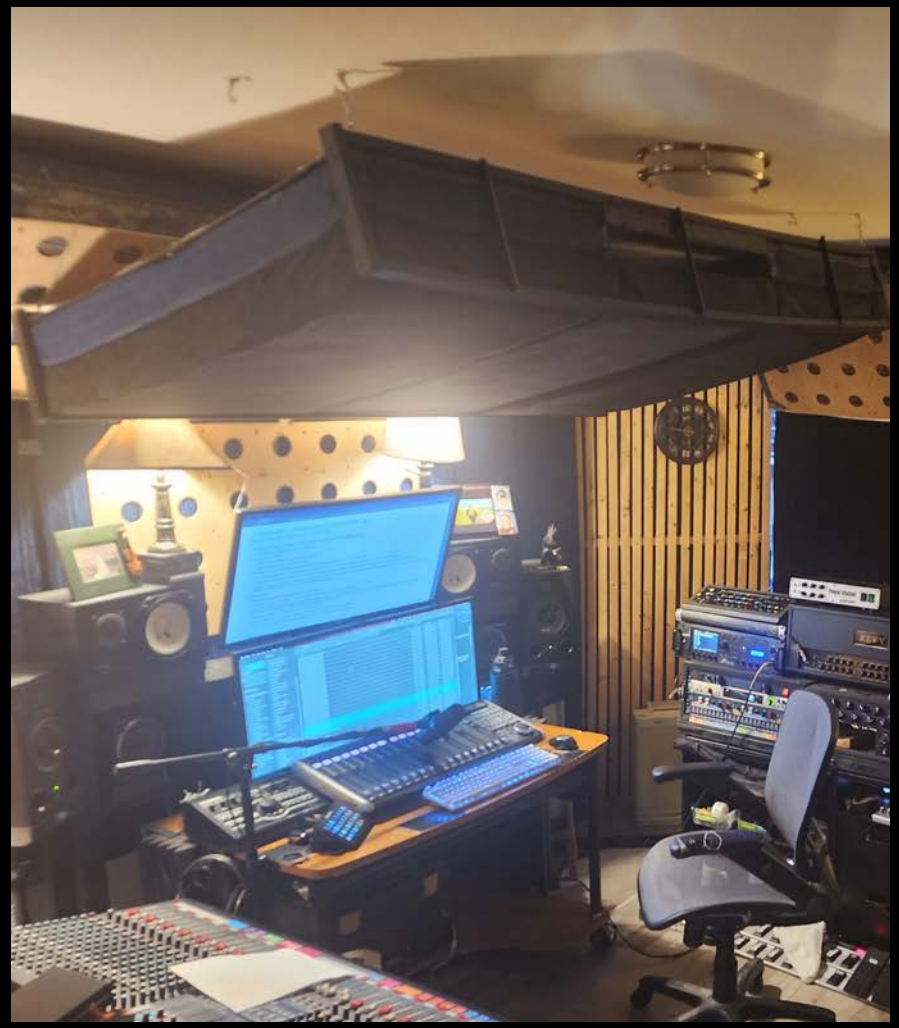


BASS TRAPS (PLANNED)

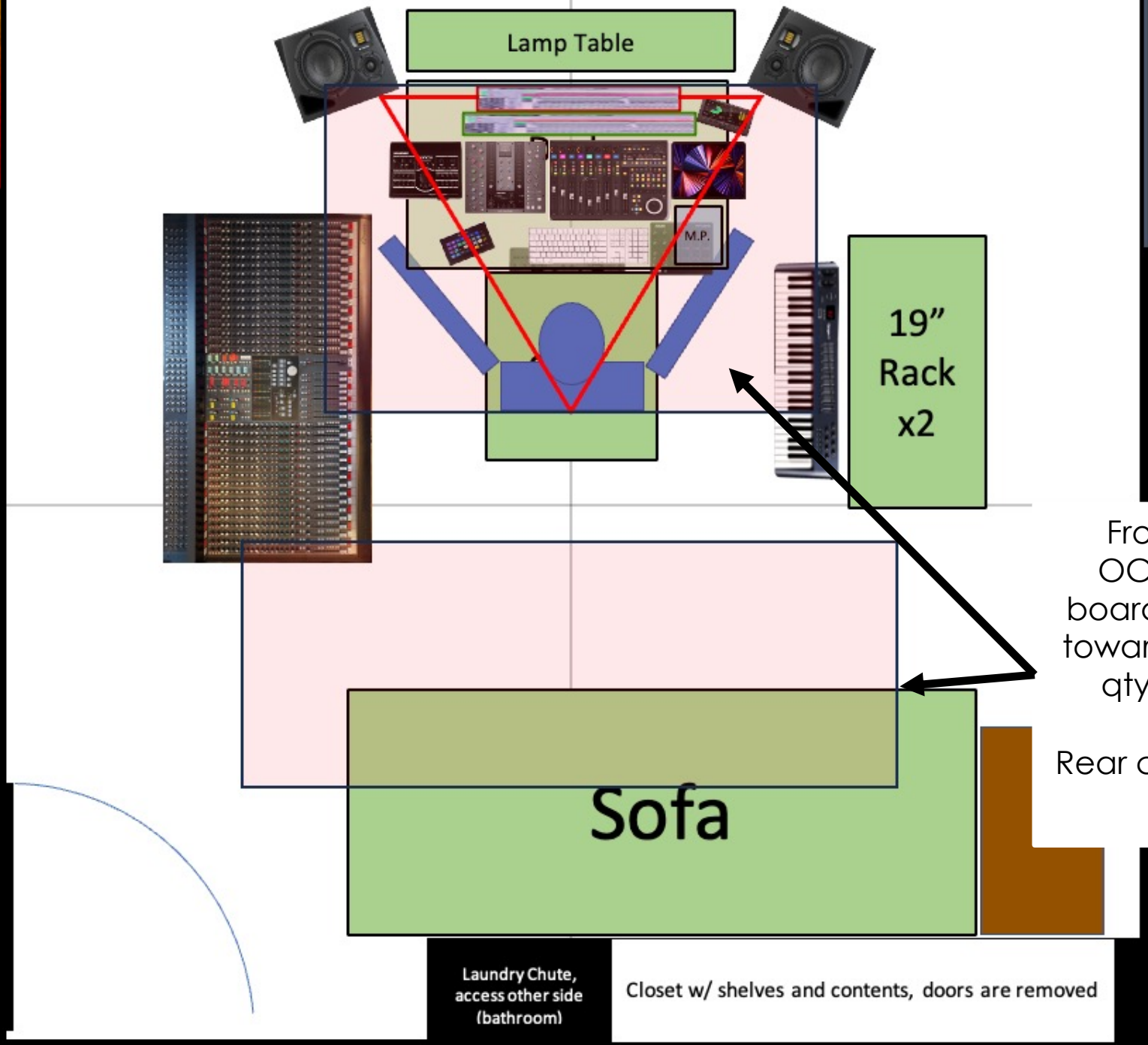


CEILING TREATMENT (PRE-FLOOD)



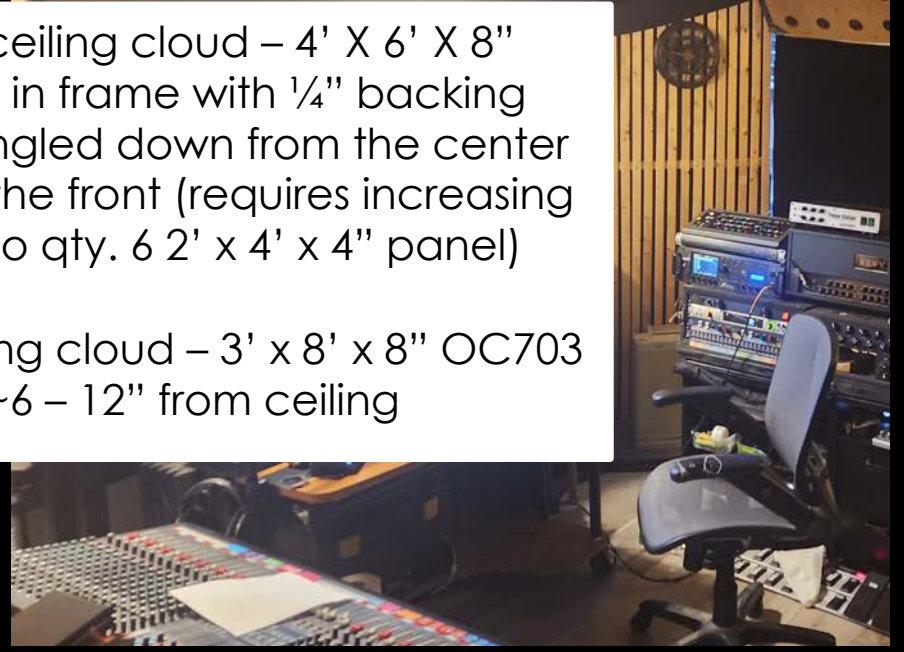


CEILING TREATMENT (PLANNED)

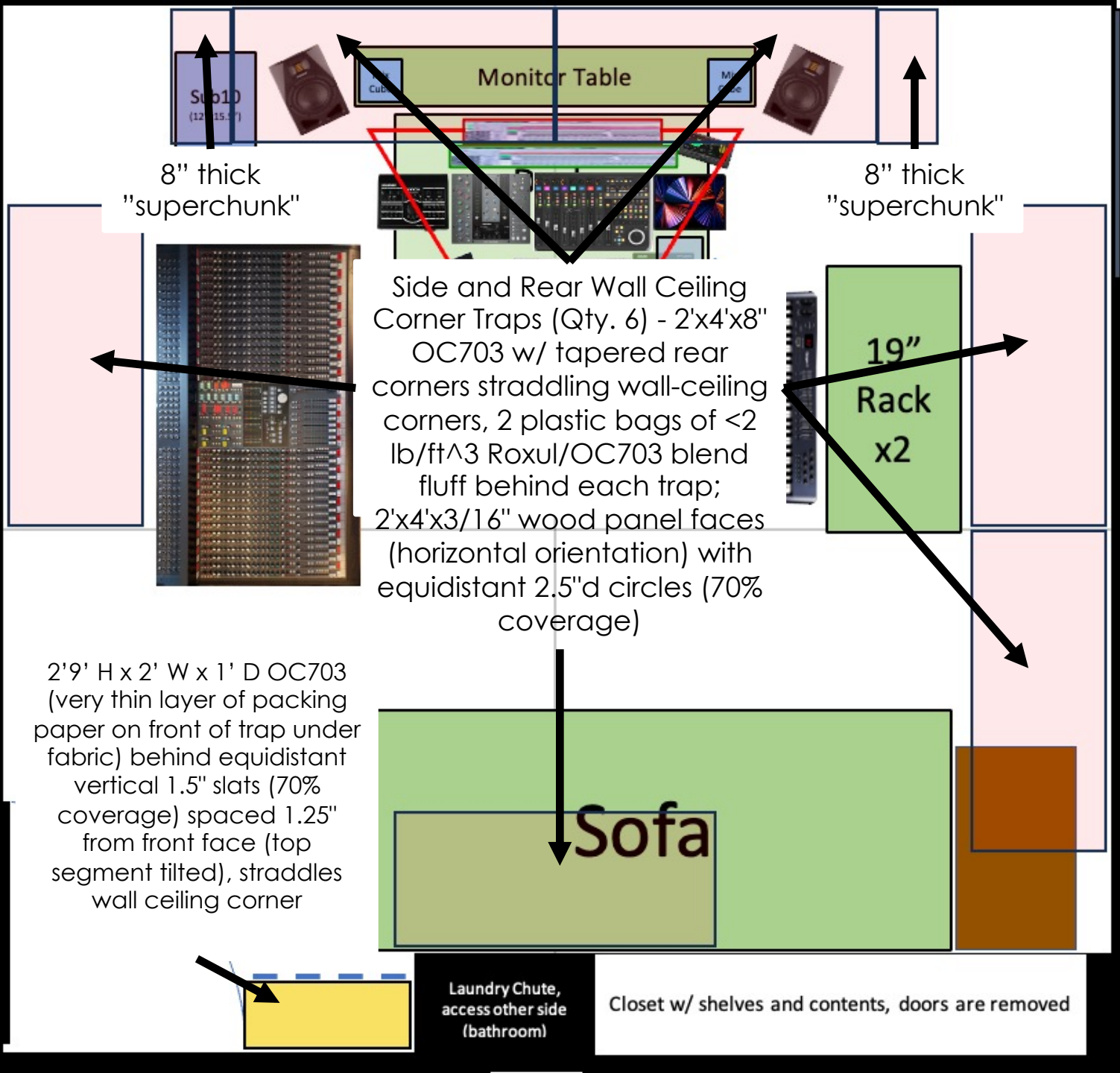


Front ceiling cloud – 4’ X 6’ X 8” OC703 in frame with ¼” backing board angled down from the center towards the front (requires increasing qty. 5 to qty. 6 2’ x 4’ x 4” panel)

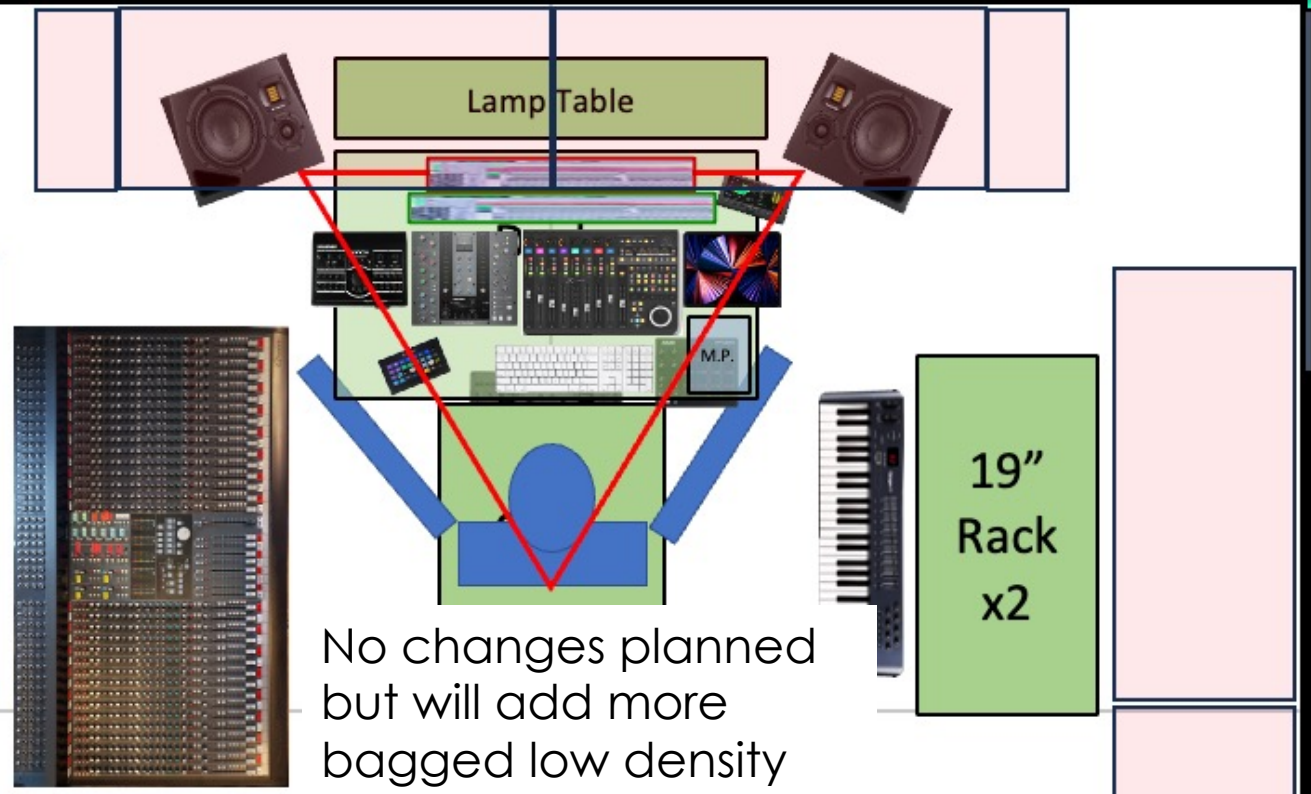
Rear ceiling cloud – 3’ x 8’ x 8” OC703 ~6 – 12” from ceiling



TOP CORNER TREATMENTS (PRE-FLOOD)



TOP CORNER TREATMENTS (PLANNED)



No changes planned but will add more bagged low density OC703 “fluff” behind panels as will have material left over from stripping bass traps

MONITORING

Adam A7X 2-Way Active
Near Fields + Sub10 MkII
Active Subwoofer
Full-Range Speaker System

Avantone
Active
Mixcubes

Drawmer mc3.1
Monitor Controller

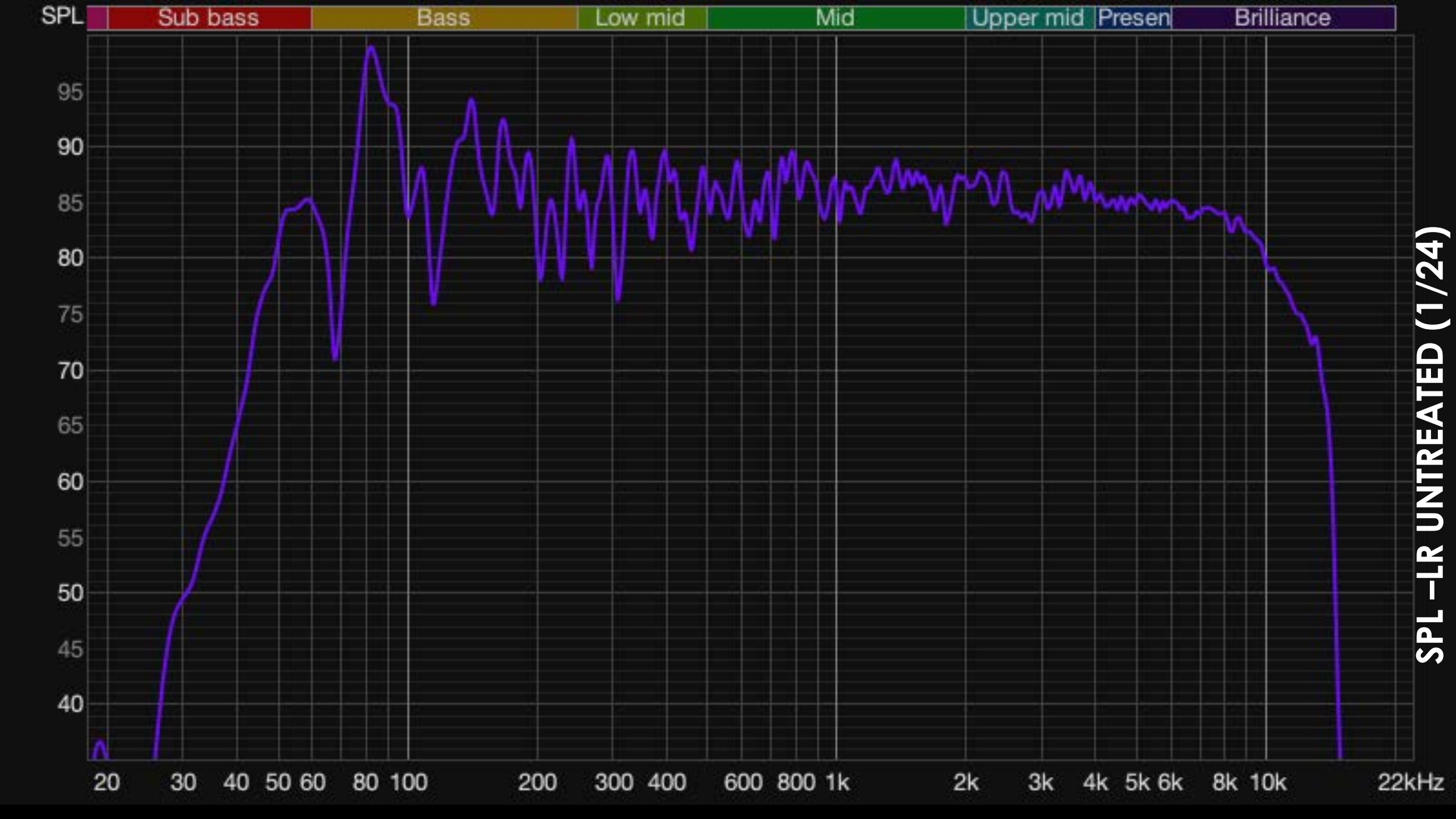
ACOUSTIC MEASUREMENTS (UNTREATED)

Note – Measurements taken with carpet. Carpet was replaced with vinyl plank flooring but no “empty” room measurements were repeated.

Note – “Empty” measurements made with Behringer ECM8000.

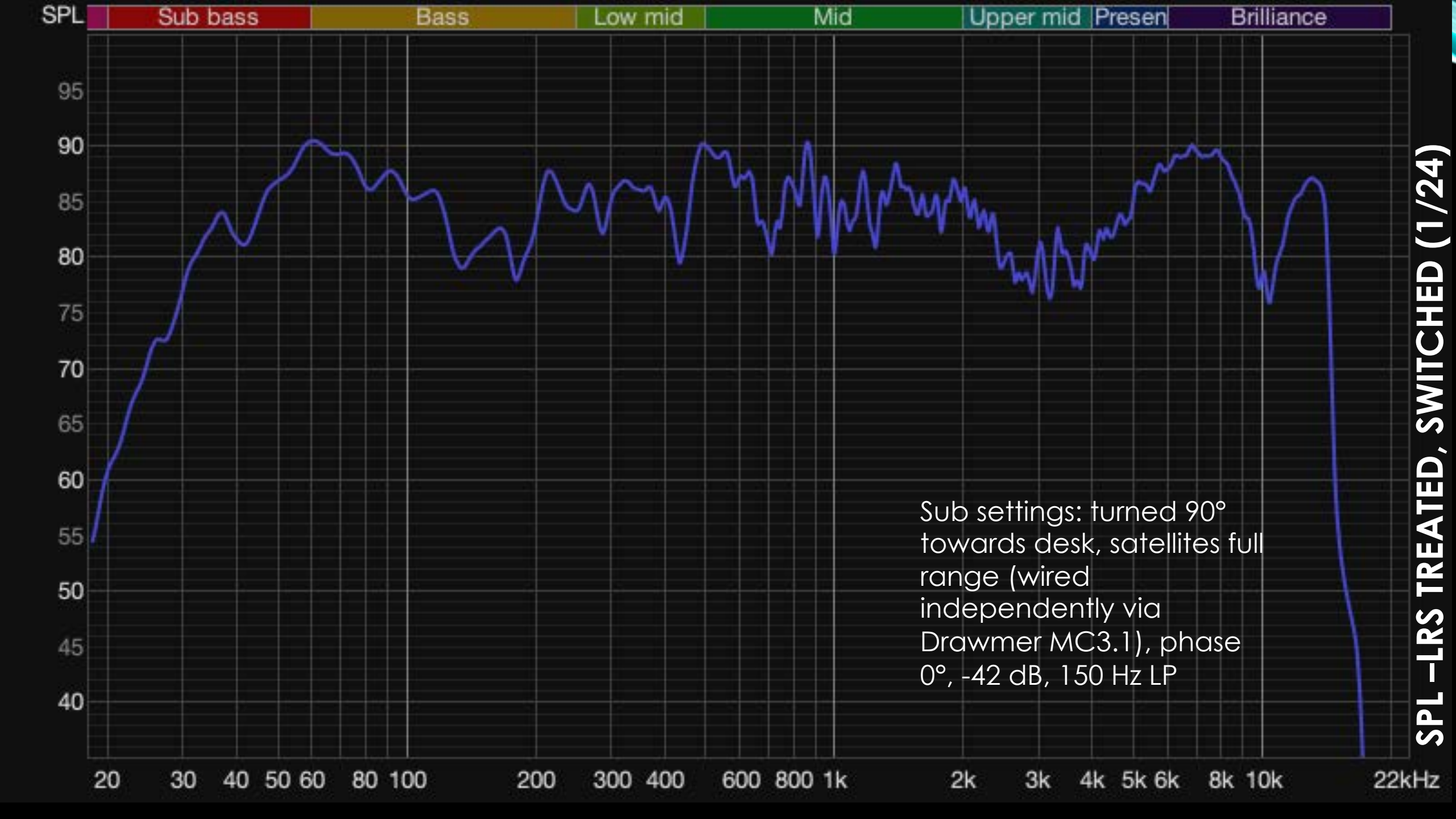
Subsequent measurements made with PreSonus PRM1

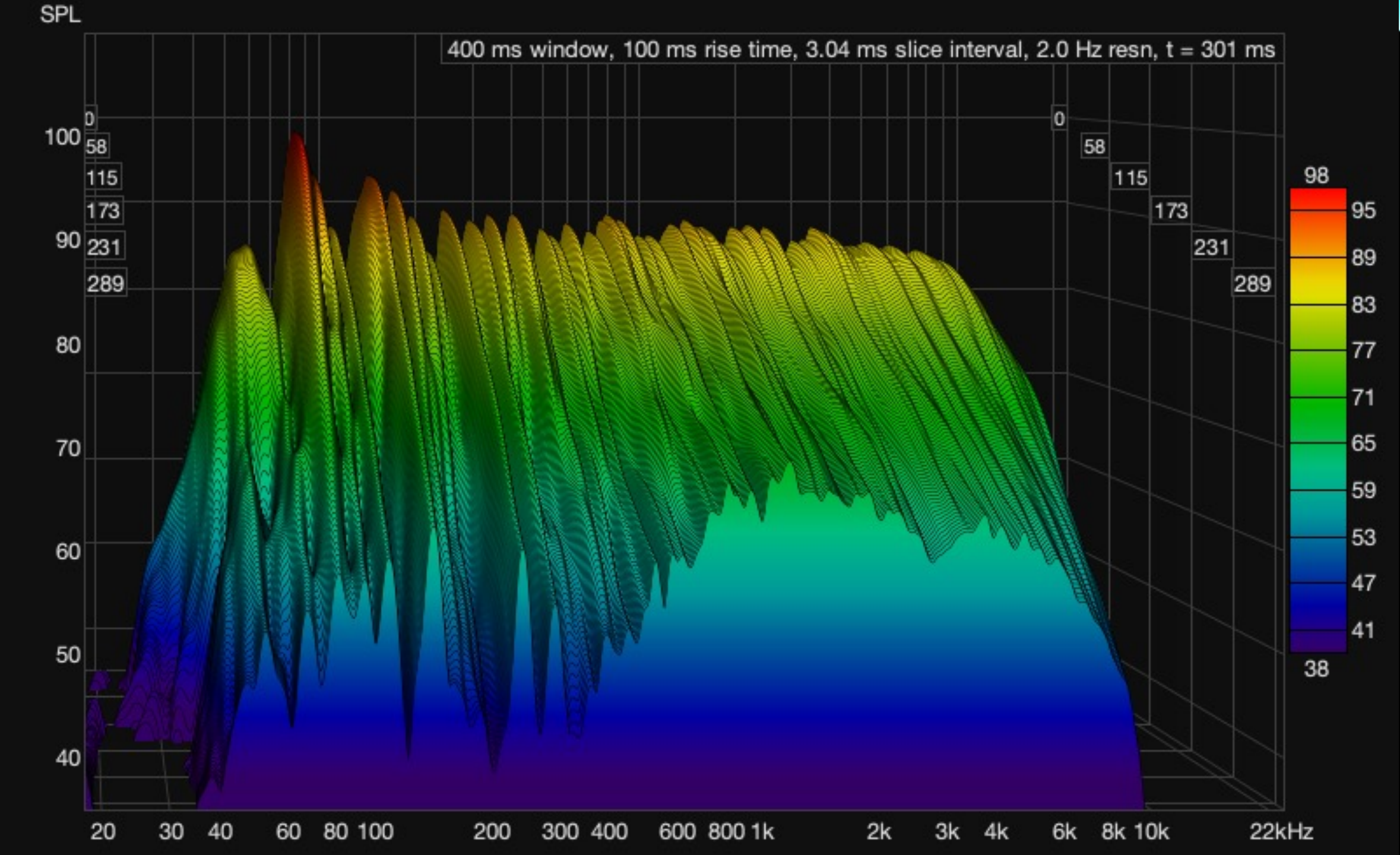
SPL
Sub bass
Bass
Low mid
Mid
Upper mid
Presen
Brilliance
95
90
85
80
75
70
65
60
55
50
45
40
20
30
40
50
60
80
100
200
300
400
600
800
1k
2k
3k
4k
5k
6k
8k
10k
22kHz
SPL –L,-R UNTREATED (1/24)


SPL
Sub bass
Bass
Low mid
Mid
Upper mid
Presen
Brilliance
95
90
85
80
75
70
65
60
55
50
45
40
20
30
40
50
60
80
100
200
300
400
600
800
1k
2k
3k
4k
5k
6k
8k
10k
22kHz
SPL –LR UNTREATED (1/24)

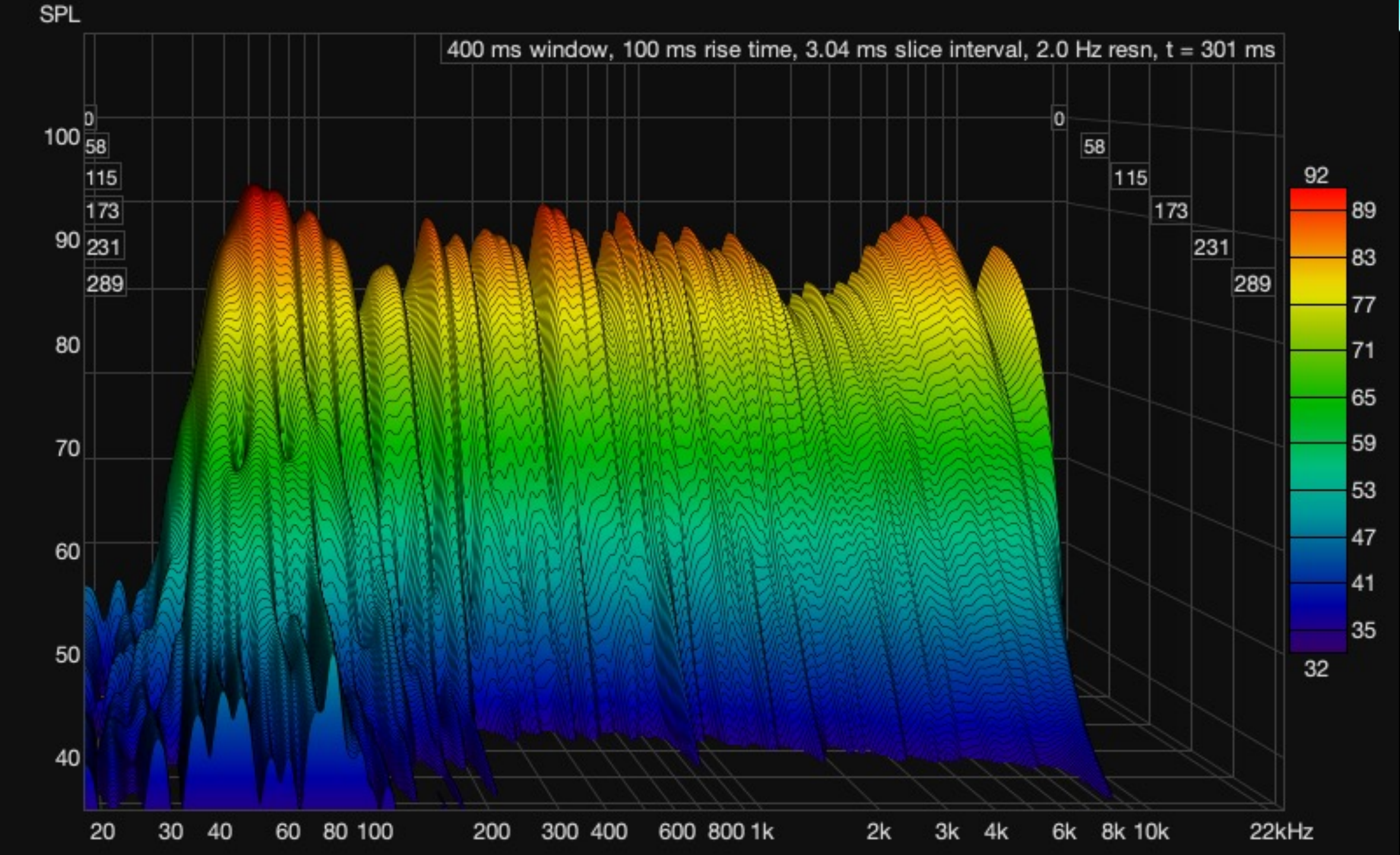
SPL
Sub bass
Bass
Low mid
Mid
Upper mid
Presen
Brilliance
95
90
85
80
75
70
65
60
55
50
45
40
20
30
40
50
60
80
100
200
300
400
600
800
1k
2k
3k
4k
5k
6k
8k
10k
22kHz
SPL –LR TREATED, UNSWITCHED (1/24)

SPL
Sub bass
Bass
Low mid
Mid
Upper mid
Presen
Brilliance
Switch tweaks = L-4, T+2
95
90
85
80
75
70
65
60
55
50
45
40
20
30
40
50
60
80
100
200
300
400
600
800
1k
2k
3k
4k
5k
6k
8k
10k
22kHz
SPL –LR TREATED, SWITCHED (1/24)

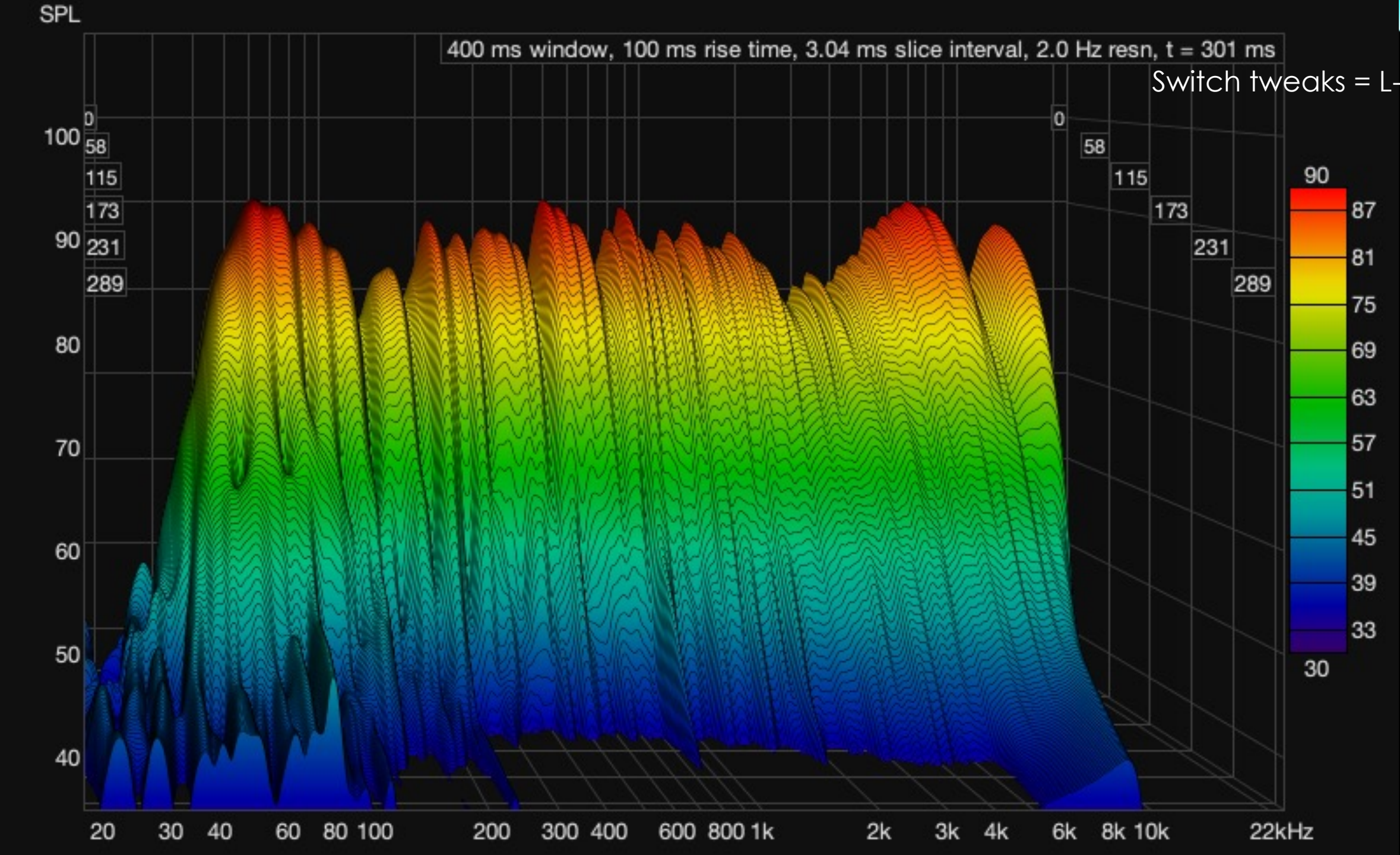

SPL
Sub bass
Bass
Low mid
Mid
Upper mid
Presen
Brilliance
95
90
85
80
75
70
65
60
55
50
45
40
20
30
40
50
60
80
100
200
300
400
600
800
1k
2k
3k
4k
5k
6k
8k
10k
22kHz
Sub settings: turned 90° towards desk, satellites full range (wired independently via Drawmer MC3.1), phase 0°, -42 dB, 150 Hz LP
SPL –LRS TREATED, SWITCHED (1/24)



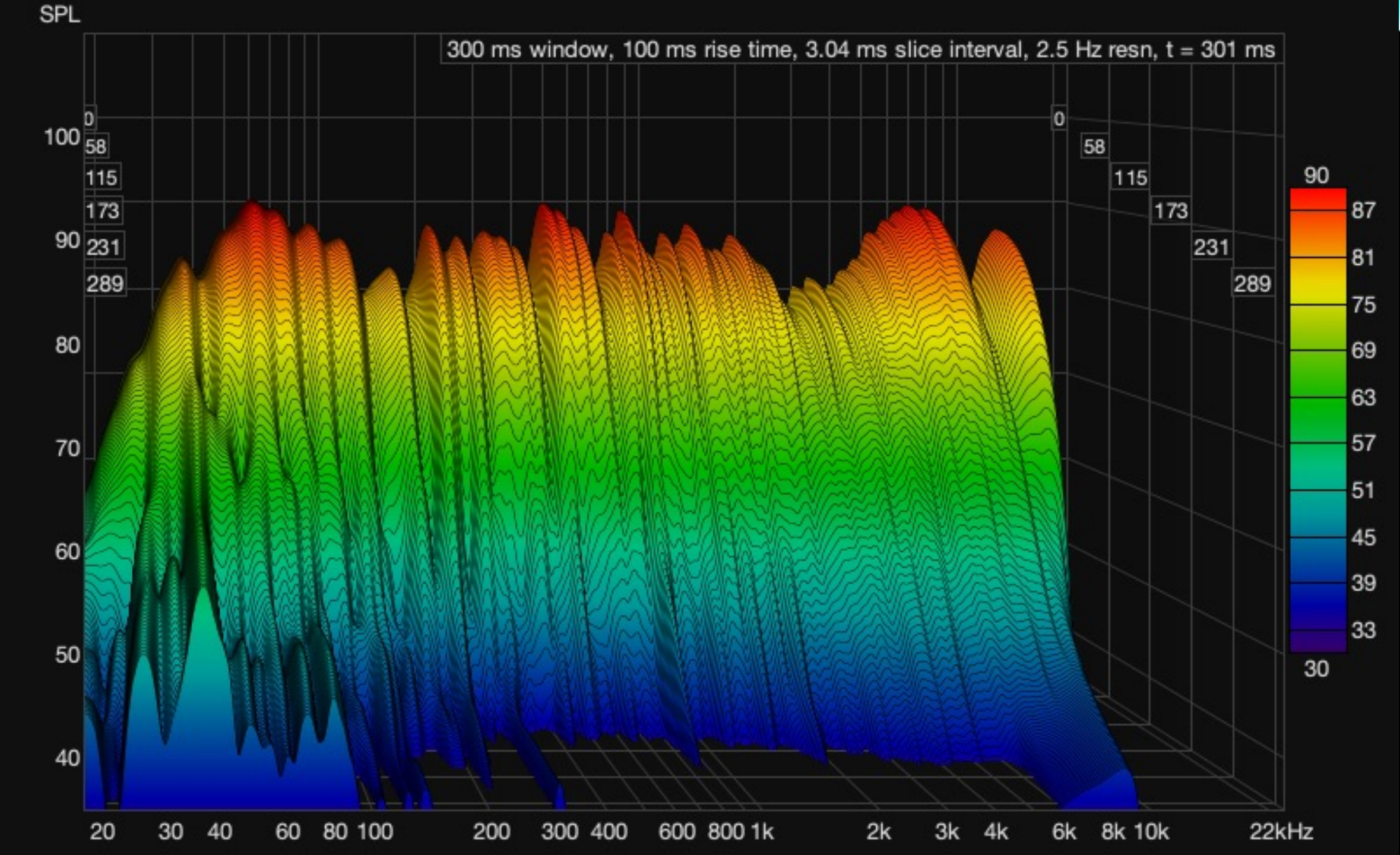
WATERFALL –LR UNTREATED



WATERFALL –LR TREATED, UNSWITCHED



WATERFALL –LR TREATED, SWITCHED



WATERALL –LRS TREATED, SWITCHED

RT60 –LR UNTREATED

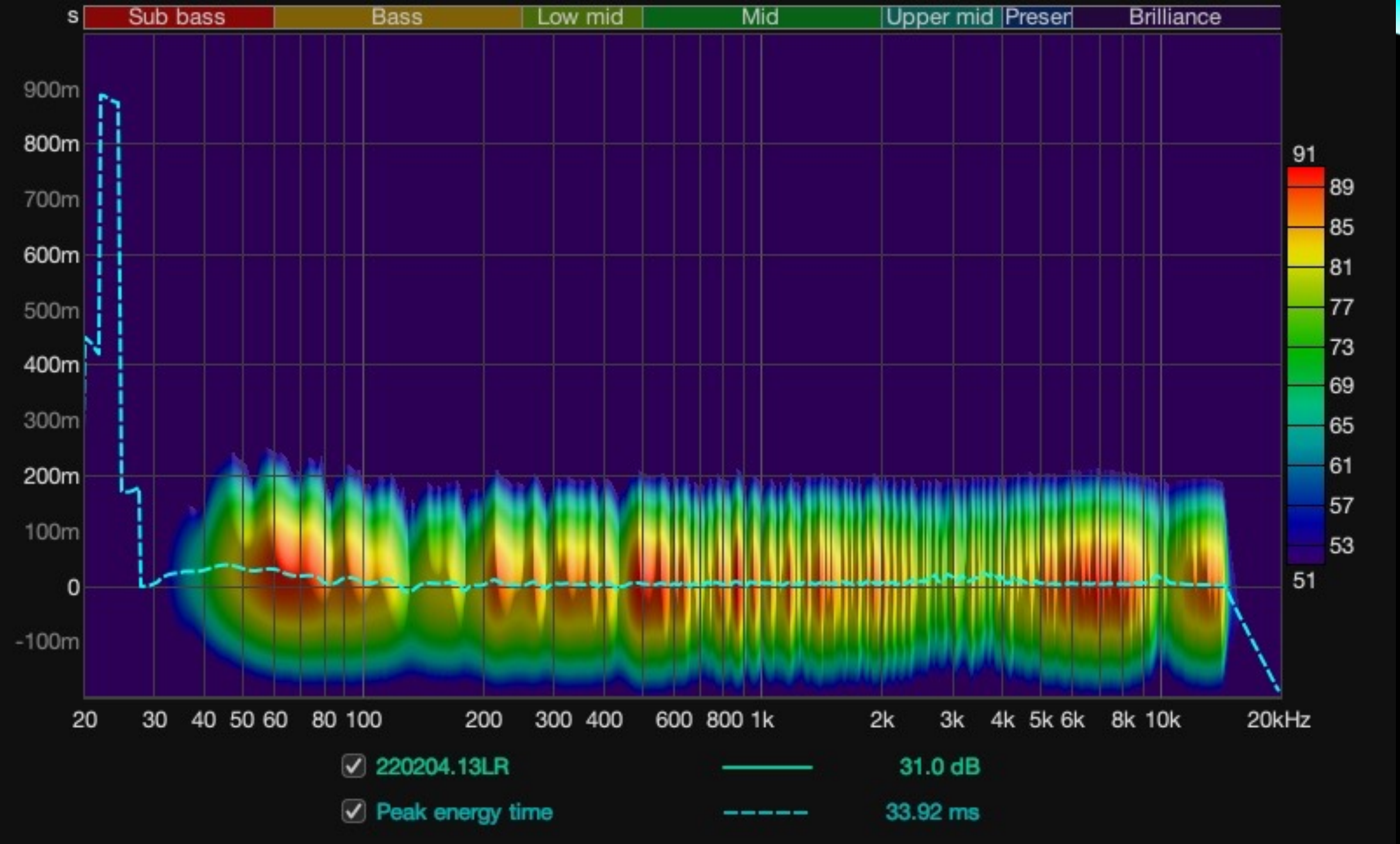
RT60 –LR TREATED, UNSWITCHED

RT60 –LR TREATED, SWITCHED

RT60 –LRS TREATED, SWITCHED

SPECTROGRAM –LR UNTREATED

SPECTROGRAM –LR TREATED, UNSWITCHED



SPECTROGRAM –LR TREATED, SWITCHED

SPECTROGRAM –LRS TREATED, SWITCHED