

FESTSALEN MUNCH

TECHNICAL SPECIFICATIONS - LAST UPDATED July 2024



TECHNICAL CONTACTS

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ROOM DIMENSIONS

L= 276,7m
W=12,6-15,3 m
H=8,6 m

The room with full height has the following dimensions:
length 26.7 m; width between 12.6-15.3 m; height 8.6 m.

This gives an area of around 370 m² and a volume of about 3000 m³

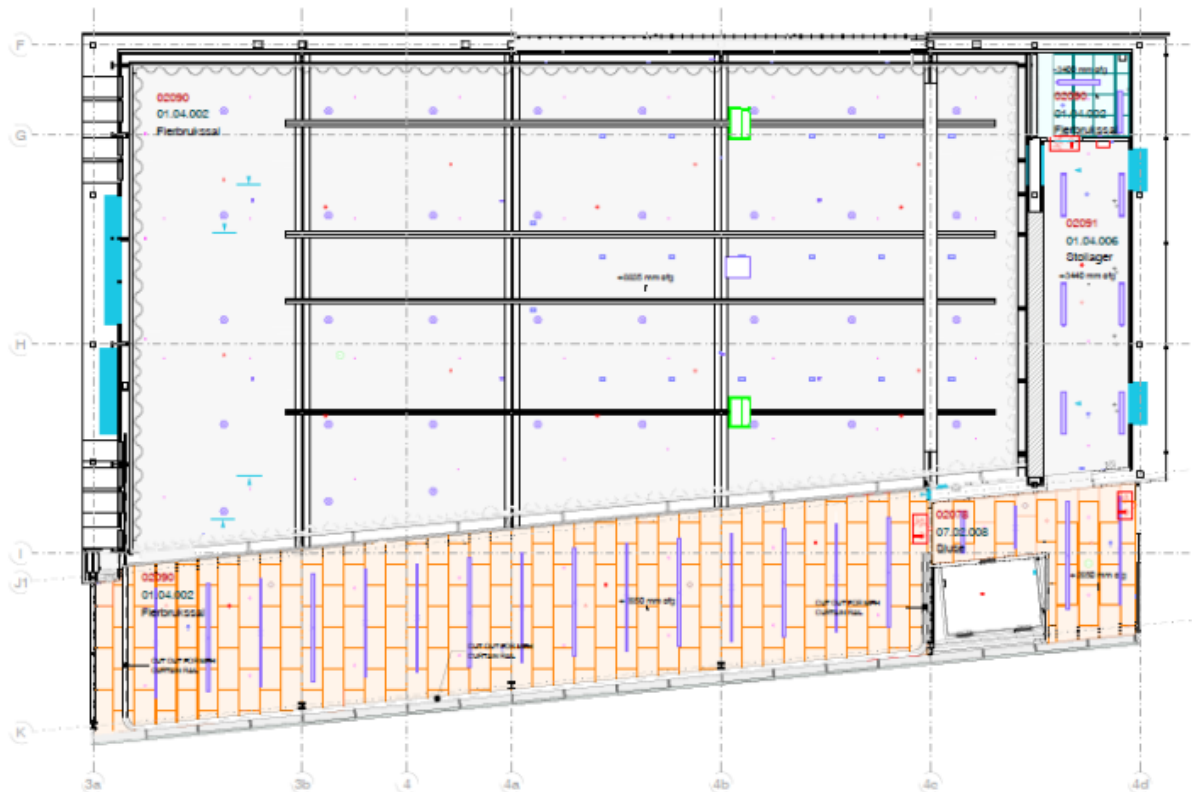


Figure 1: Floorplan of Festalen

STAGE

Scalable Nivtec system.
 30 x Nivtec modules 2x1 m
 8 x Nivtec modules 1x0,5m
 Legs: 20cm, 40cm and 60 cm
 All necessary railing

Standard stage size:
 Width: 10m
 Depth: 5m
 Height: 0,6m

No sidestage!

BLEACHERS

Festsalen has automated bleachers with 260 seats. FOH is rigged on top level.
 See attachment for details.

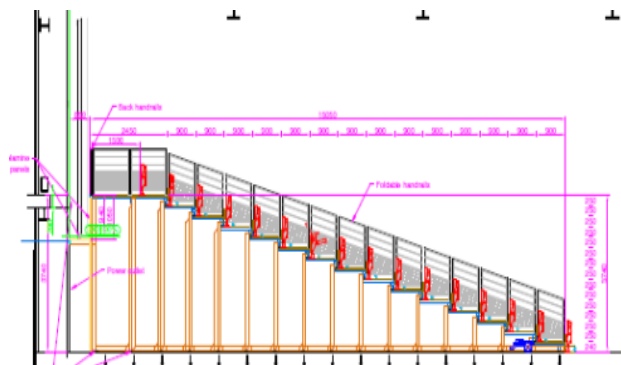


Figure 2: Side view Bleachers

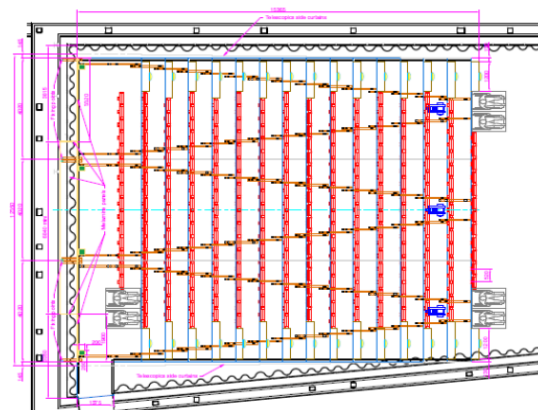


Figure 3: Top view Bleachers

SOUND

PA SYSTEM

Tops: 10x Meyer Lina pr side
Subs: 6x Meyer LFC 750, flown mono endfire
Front fill: 2x Meyer x40 pr side

FOH:

Alt1: Allen & Heath Dlive S5000
Alt2: Allen & Heath Dlive S2500
Alt3: Allen & Heath Dlive C1500

Stagerack:

Allen & Heath CDM 64 (64 in, 31 out)
4x A&H DX 168 (16 in, 8 out)

External FX:

2x Bricasti M7

WIRELESS SYSTEM:

Shure Axient, 8 ch
8x ADX 1m bodypack
8 x countryman headsetmics
4x SM 58 WL
4X KMS9 WL

Sennheiser, 2ch:

2 ch Sennheiser WL
2x Headset mics
2x HH mics

Recording:

We can provide different versions of recording.
Please contact head of sound for further details and agreements

PROJECTION/AV

Projector 1 (Short side / stage end)

Panasonic RQ-22, HD projector

Screen size: 7 X 4 meters

Format: 16:10

Projector 2 (Long side)

Screen size: Panasonic RQ-22, HD projector

Screen size: 487 X 304 cm

Format: 16:10

HD BASE-T, Connection HDMI available at FOH, stage and in every patch around the room

LIGHTS

OPERATION

1x GrandMA3 light

LUMINEERS:

Martin	
aura XB	26
Martin encore (stage)	8
Martin encore (front)	5
XLED	
Ledbar	8
Okero dimmer channels	60
Nodes:	
MA2 port node	10

HAZE:

MDG ATMe HAZE w/MDG FAN

HOUSE POWER

DELTA-system 400V/50Hz (red); 3 phases + ground, - but no neutral.
230V between the three phases. 130V between phases and earth.

Available connectors:

2x 32 A , 400 V

2x 63 A, 400V

RIGGING

All trusses are motorized

Truss 1-3 moveable both horizontally and vertically. SWL = 300kg

Truss 4-11 can be moved vertically SWL = 400kg

See attachment for details

Controller has weightcells for loadmonitoring. Overload will indicate and keep truss from moving.

Motors: Liftket 030/22mb -250 kg

Truss: Milos 2KH-40 -M390K, pipe Ø048,4 X 4,47mm, length 9,5m

Class: UC1 - SIS standard

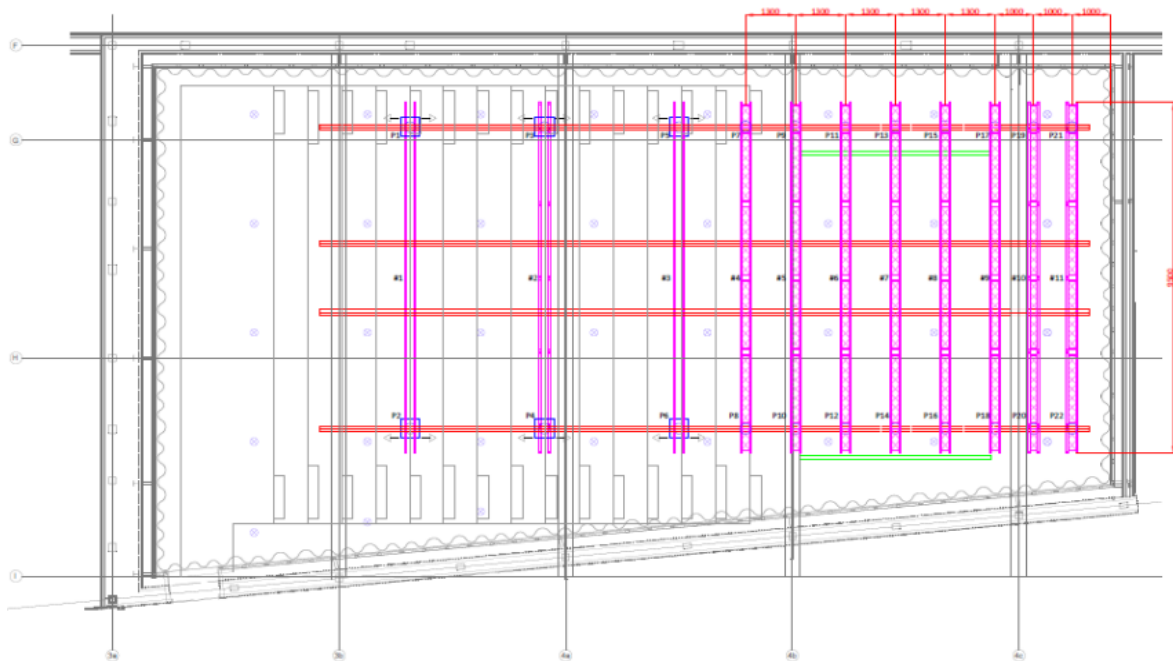


Figure 4: Trusses Festsalen

See weight distribution chart bellow

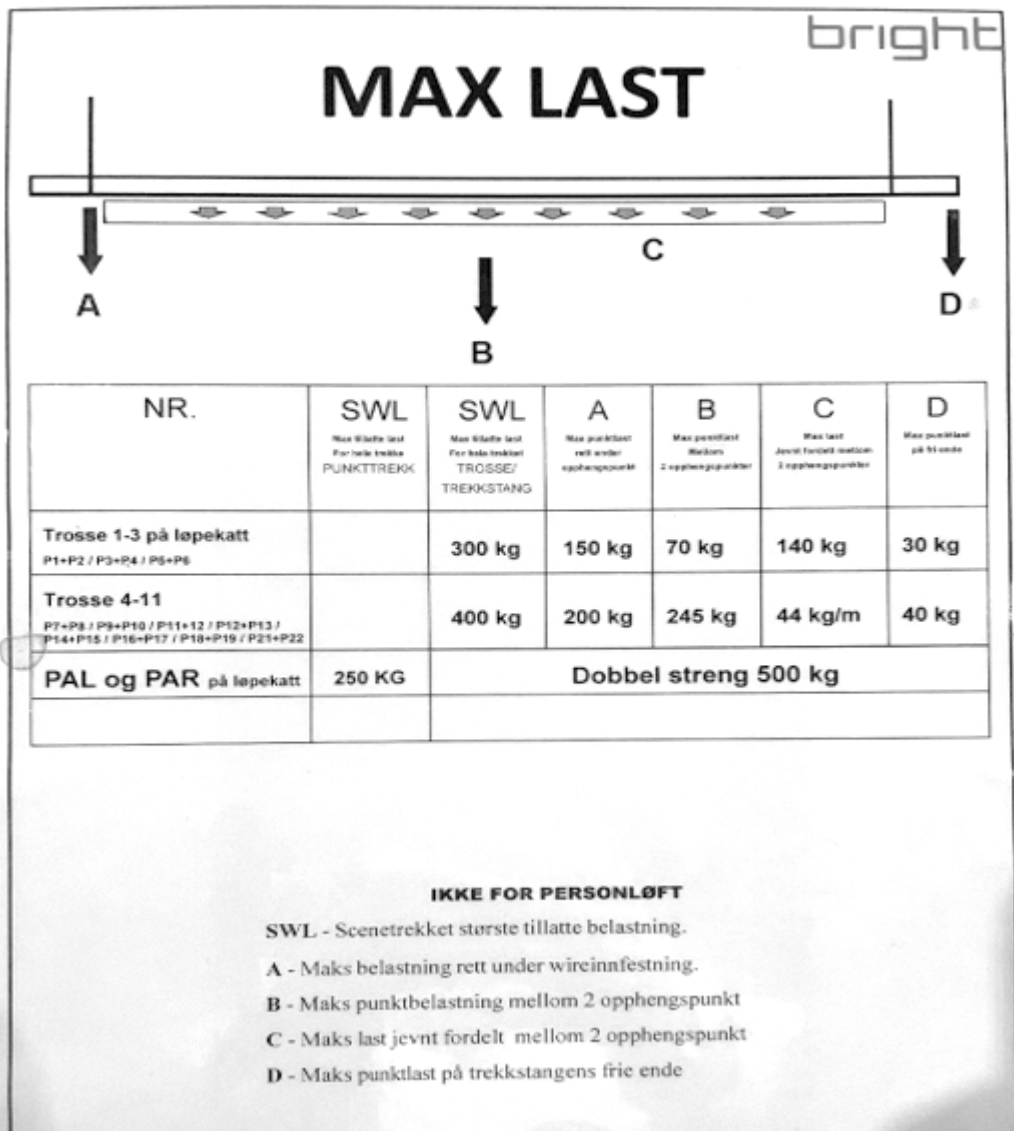


Figure 5 Weight distribution chart

Directly under suspension _____ 150 kg
 Point load between 2 suspencions _____ 70 kg
 Evenly distributed load btwn 2 suspencions ____ 140 kg
 Point load free end load carrier _____ 30 kg

Please note:

- All equipment/other to be hanged in truss MUST be approved by technical department.
- Please contact technical department regarding all external equipment mounted in truss.

FLOATING KITS

All items are subject to availability.

Contact technical department for solutions and availability.

MONITORS:

8 programs with possibility of adding 8 more

Separate monitor mix available on request.

Wedges:

16x Turbosound TFM 122

Amps:

8x LAB IPD 2400

Mics/DIS:

Shure B91	2
Shure B52	2
Shure SM58	14
Shure SM57	10
Shure KSM44A	2
DPA 2011	10
DPA 4099	10
DPA 6061	4
Audio Technica ATM350	6
Audio Technica AT4050	2
Audio Technica AE3000	2
Audio Technica AT4081	4
Audio Technica AE5400	1
Audio Technica ATM450	1
Audio Technica ATM650	1
Beyerdynamic M 160	4
Beyerdynamic M 88 TG	2
Beyerdynamic M 201 TG	2
Sennheiser MD441-U	2
AKG C411	6
AKG C414 XLS	8
Yamahiko CPS-PF1P Tone Plug model	2
Radial PZ-DI	2

Klark Teknik DN100	24
Electrovoice RE20	1
Telefunken M80	1

ADDITIONAL LIGHTS

All items are subject to availability.

Contact technical department for solutions and availability.

Equipment:	Qty:
Atomic 300 LED	4
Martin Mac aura XB	6
Astera AX1	15
Bright XBAR	8
Bright XLED HD	20
Bright XLED FX	4
HMI 1200W Quartzcolor fresnel	6
Profile Robert Juliat 1000/1200 W 16-35 degrees	8
4Lights LED	4
MDG Atme hazer	1
Astera AX9	16

WIRELESS SYSTEM

Shure Axient, 8 ch
 8x ADX 1m bodypack
 8 x countryman headsetmics
 4x SM 58 WL
 4X KMS9 WL

DJ EQUIPMENT:

1x Pioneer DJM 900 NX
 2x Pioneer CDJ 2000 NX
 2x Pioneer PLX-1000

VIDEO /RECORDING

Equipment for videoproduction, recording and/or stream is available on request.
Please contact technical manager for details on equipment and solutions.

PA SYSTEMS

Type:	Qty:
Meyer X 40 Top	6
Meyer 750 sub Genelec	4

RIGG

4x Manfrotto 087NWB

GRAND PIANO

Steinway D-series 274

SCREENS

Samsung 75" on stand
Samsung 32" stage monitor

ACOUSTICS

Festsalen has variable acoustics which can be adjusted with our motorized, black wool curtains.

Curtains = molton 500gr/m2, 50%fold

Configuration 1, conference setup with chairs

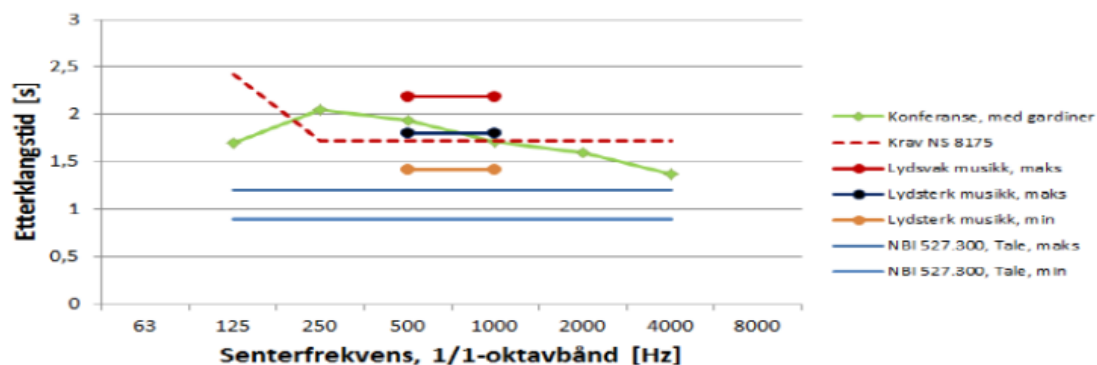


Figure 6: Reverberationtime conference setup with chairs

Configuration 2, stage on long wall

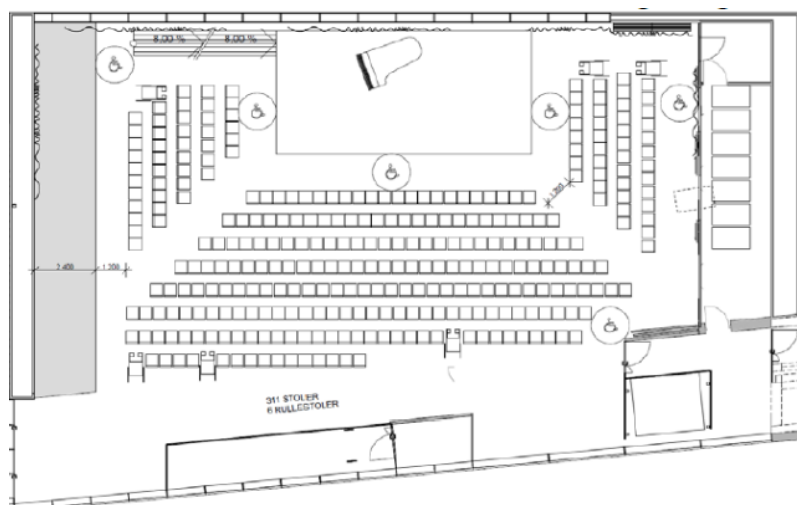


Figure 7: Setup stage on long wall

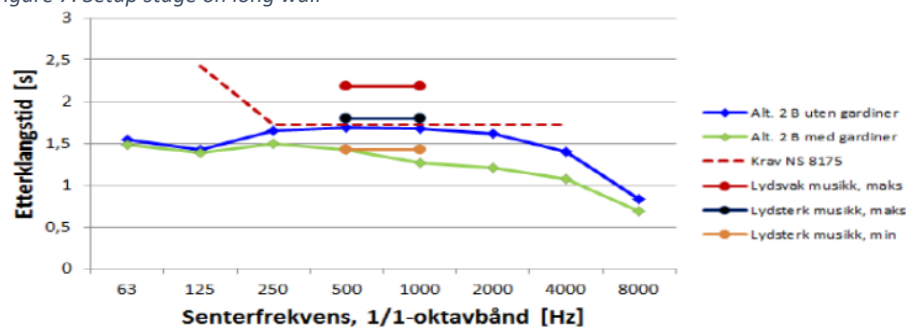


Figure 8: Reverberation time stage on long wall

Configuration 3, Acoustics empty hall

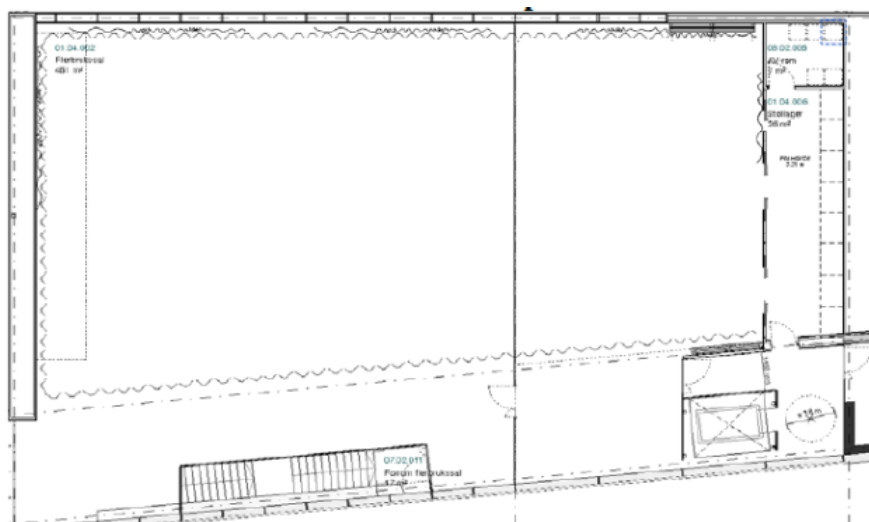


Figure 9: Setup empty room

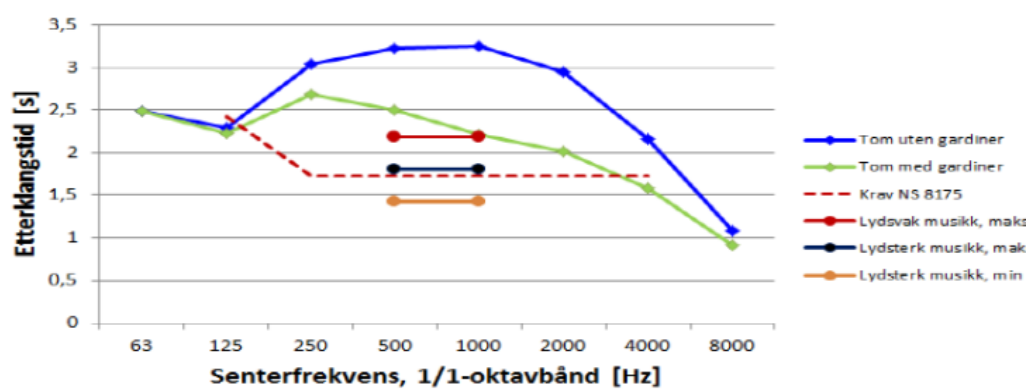


Figure 10: Reverberation time empty room with and without curtains

Configuration 4, telescopic bleacher

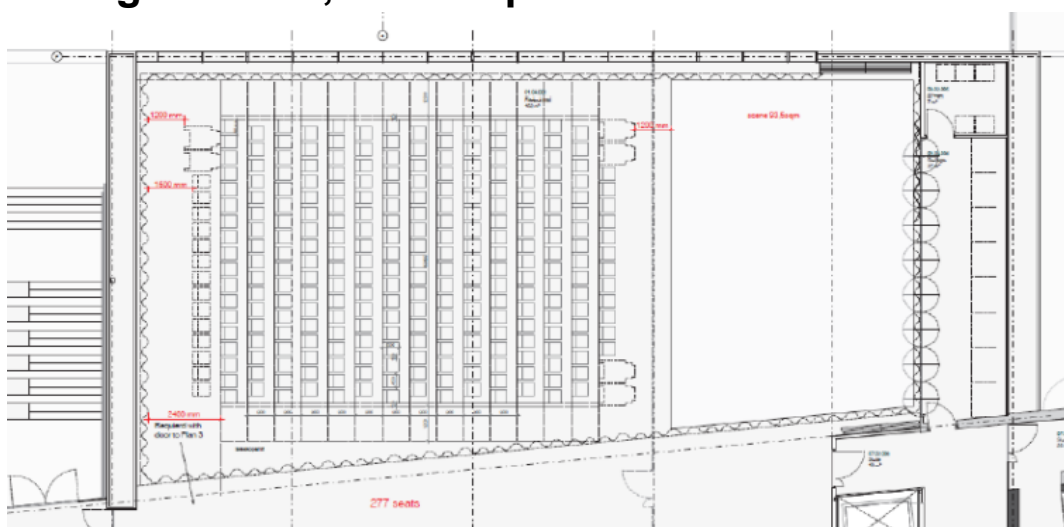


Figure 11: Setup telescopic bleachers

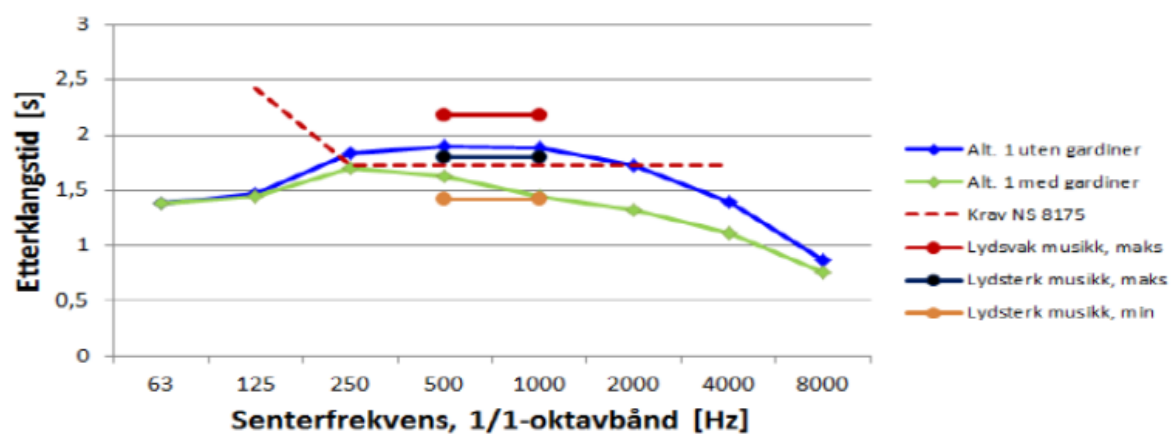


Figure 12: Reverberation time telescopic bleacher