



LE STUDIO



**TECHNICAL SPECIFICATIONS –
EXHIBITIONS**
V3.0, November 2021

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General description of the site

Le Studio Telus is located at the southeast corner of the Grand Théâtre. It is on five levels in an open area that runs along the odd-numbered side foyers of Salle Louis-Fréchette. The Grand Théâtre restaurant and bar with seating for 88 occupies the entire ground floor. A small 11' x 16' stage is located at the base of the west wall. The upper portion of Le Studio Telus, which gives onto the sidefoyers, is dedicated to technological pieces.

Main dimensions of the space

Distance between the side foyers and the south catwalk: 18'10" (5.74 m)

Distance between the west wall and the east staircase: 40'6" (12.34 m)

Height under the concrete beams: 51' (15.54 m)

Floor

The floor of Le Studio Telus is carpeted. It is crossed lengthwise by two service troughs and transversally by three service troughs. These troughs are used to run temporary cables in the floor.

You may not put nails or screws in the floor of Le Studio Telus or in the stage.

South wall

At the ground floor level, the south wall of Le Studio Telus has floor-to-ceiling bay windows that run the entire length of the space.

The upper portion is made up of the "Justice/Liberté" section of the sculptural triptych by Jordi Bonet. 2D and 3D scans of this section of the mural can be provided upon request. There are skylights at the top of this wall.

Jordi Bonet's mural can be obscured by a temporary installation. Of course, nothing may touch or alter it. Light and images can be projected onto it, provided the work is respected.

The catwalk at the base of the mural must remain unobstructed for the circulation of the public and for operational purposes. It offers the public a view of all of Le Studio.

West wall

The concrete west wall extends uniformly along the height of Le Studio Telus (17' wide x 51' high approximately).

There is a small stage at its base, measuring around 11' x 16' x 24", for performances at any

time. As such, the lower portion of Le Studio Telus (ground floor) cannot normally be used for works.

North side foyer balconies

The bar section of Le Studio Telus occupies the north side of Le Studio Telus on the ground level. This section is under the side foyers of Salle Louis-Frédette, which run along the four upper levels.

The odd-numbered side foyers of Salle Louis-Frédette offer a view of the four upper levels from their 16 balconies. Most spectators who attend the shows can enjoy the works from these vantage points.

East staircases

The entrance and the lounge section occupy the east side of Le Studio Telus at the ground level. Public staircases that lead to the side foyers of Salle Louis-Frédette occupy the entire upper portion of this side.

Ceiling

The concrete ceiling is made up of concrete beams overhung with a structural slab that supports the roof of the Grand Théâtre. Vertical acoustic panels occupy the space between the hanging straps.

Hanging

Ceiling

The ceiling has seven motorized straps that can be lowered to 48" (1.2 m) from the floor and raised to a maximum height of 47'3" (14.4 m). Each strap has a load capacity of 675 lb (300 kg), or 56 lb/ft (82 kg/m). The straps move at a speed of 30'/min.

The length of the straps is 12'11" (3.94 m) in steel, OD 1.9" (4.8 cm), centred between the south catwalk and the balconies. Each strap has two 120V 20A circuits and four Cat6A telecom links. Two of the straps have one 120/208V 3ph 20A circuit.

A grid made up of 1.9" (4.8 cm) pipes can be added, by section, below the straps to raise large structures or those that need many attachment points. This grid has a capacity of 40 lb/ft and weighs a total of 250 lb.

A Genie AWP 36S aerial work platform that reaches a working height of 42' may be available upon request. A Spider 18.90 articulating boom lift can also be rented for installation work.

South wall

The top of the front of the south catwalk is equipped with 1/2" threaded anchors every 36" (91.4 cm). A selection of hardware is available for attaching lights or other equipment. The traction capacity of each anchor is 250 lb (113 kg). These anchors can be accessed using a stepladder or a personal lift from the ground or the south catwalk.

West wall

Eight 1/2" threaded anchors each with a traction capacity of 250 lbs (113 kg) are available for hanging equipment. They are vertically aligned in the centre. There are two per storey. These anchors can be accessed using a stepladder or a personal lift, or an articulating boom lift from the ground.

North side foyers

The 16 balconies along the north side foyers are equipped at the top front with six 1/2" threaded anchors spaced 18" (45.7 cm) apart. A selection of hardware is available for attaching lights or other equipment. The traction capacity of each anchor is 250 lb (113 kg). You may hang a maximum of 250 lb (113 kg) per balcony. These anchors can be accessed from the balconies or using a personal lift or articulating boom lift from the ground.

East staircases

The staircases are equipped at the level of the landings with 1/2" threaded anchors every 18" (45.7 cm). A selection of hardware is available for attaching lights or other equipment. The traction capacity of each anchor is 250 lb (113 kg). These anchors can be accessed using a personal lift or an articulating boom lift from the ground or by opening certain hinged railings from the staircases.

Lighting

Control

The lighting control system supports the sACN protocol, and we also use Cat6A cabling to carry DMX signals. Lighting cables extend along each motorized strap, on every balcony along the west wall, the east side stairs and the south catwalk. There are also lighting cables on the stage and at the control booth near the lounge area and the bar.

A grandMA2 on PC console controls lighting related to the work. A grandMA2 ultra light lighting console (available upon request) enables programming effects and interventions during a performance. An ETC Color Source AV console enables simplified control of stage lighting.

Equipment

All Le Studio Telus lights are non-motorized RGB LEDs. Some are installed semi-permanently specifically for stage needs and for lighting the Jordi Bonet mural.

- 1 ETC ColorSource 20AV console
- 1 GMA2 on PC/ 2 PortNode 2K console
- 2 Pathway DMX 9018 repeaters

- 12 Chauvet COLORado 3 Solo lights (available for works)
- 8 Chauvet COLORado 3 Solo lights (for shows)
- 6 Chauvet Ovation E910 lights, white (2 x 19°, 2 x 26°) (for shows)

Power supply

120V 20A electrical outlets are available on every motorized sling on every level of the balconies, along the west wall, on the east staircases and at the south catwalk. They are also on the stage and at the control booth near the lounge area and the bar.

Le Studio Telus does not have a system of permanent dimmers.

Sound

Given the proximity of Salle Louis-Frédéric, which hosts productions of all types, including non-amplified concerts and recitals, the use of sound sources in Le Studio Telus must be approved by the Grand Théâtre.

A sound system with 16 Genelec 4020 loudspeakers covers the entire public area on the ground floor. The speakers are distributed into eight groups and fed by a Qsc Core 110f processor. A touchscreen at the bar offers simplified control of the processor, e.g. playing background music, MC mic, etc.

A permanent D&B Yi7P and YiSub sound system is dedicated to stage operations. A movable soundboard is used for stage presentations.

Digital audio signals can be carried via a Cat6A cabling system to all hanging positions.

Projection/Video

Video can be projected on the west wall of Le Studio Telus for an image around 17' wide by 34' high. Projections are also possible on the Jordi Bonet mural and on all surfaces of the space. No projection screen is available.

Behind the bar there are five 70" video screens formed in a circle resulting in a round image approximately 30" in diameter. The screen resolution is 1920 x 1080. A spotlight provided upon request makes it possible to surround images in the visible circle. Common image formats are accepted: jpg, gif, png. The preferred video format is: mp4, h264, 1080 p30, 15 kbs.

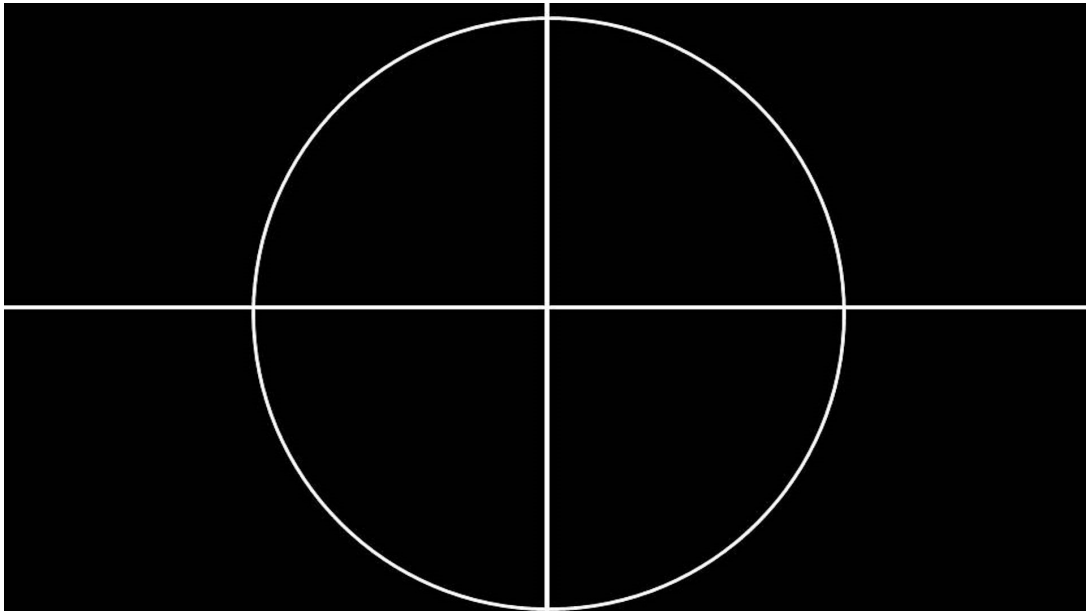
System

A Cat6A cabling system that serves all hanging positions carries video and control signals. All video signals are carried in HDBT. Convertors are available for specific needs. A video matrix switch can be used to route and convert HDMI signals to HDBT.

Equipment

- 3 Christie D20WU-HS 18,000 lumens laser projector reserved for works
- 1 Christie D20WU-HS 18,000 lumens laser projector reserved for shows
- 2 1.2 – 1.5: 1 lens
- 1 0.84 – 1.02: 1 lens

- 3 2.0 – 4.0: 1 lens
- 5 Sharp PNUH701 video screens
- 5 BrightSign HD224 player used for the video screens
- 1 AVPro edge AC-MX1616-AUHD-HDBT video matrix switcher
- 1 Coolux player version 5 with 3 outputs



Additional information

Control system

We use Node-RED to centralize control of different equipment for pieces, which enables automation and simplified control of the operation.

Ethernet network

A wired Ethernet network on Cat6A cables runs to all hanging positions and floor troughs. All connections terminate at a patch bay located in the equipment room.

A WiFi network that serves the entire Le Studio Telus can accommodate up to 300 active connections.

Security

The Grand Théâtre de Québec works to promote the safety of the public, its employees and users of its facilities. This is why it is of utmost importance to respect its safety requirements.

Notes to the technical specifications

Technical support during setup

The maximum time allowed for setup is seven consecutive days. A technician is present at all times, eight hours per day, for a maximum of 56 hours.

Technical support during teardown

The maximum time allowed for teardown is two days. A technician is available eight hours a day for a maximum of two days during teardown (16 hours)

Other points

- The works may, for example, take the form of projections or occupy the volumetric vertical space of Le Studio Telus (see models);
- The works must be designed and/or adapted to integrate to the space and must take into account the presentation context (public space, accessible to the general public);
- The works must use digital technology and processes (interactivity, kinetic, robotic, computers, programming, software, coding, 3D video, mapping, electronics, generative art, etc.);
- The works must not include a major sound component unless the sound can be modulated, and its deactivation does not change the appreciation or understanding of the work. The sound environment of the work will be located at the level of the floor only and will be disseminated from the surround speakers already present in Le Studio.
- The artist selected must provide specifications for the operation of the WORK and ensure a resource person chosen by the GTQ for its daily operation is trained;
- Only GTQ technicians are authorized to handle the equipment provided by the GTQ;
- The ceiling motorization system cannot be used in the artistic presentation; if the work must move, the mechanism for doing so must be integrated to the work itself;
- No change, modification or alteration to the permanent facilities and infrastructure of Le Studio Telus is permitted.