



LYCÉE FRANÇAIS LA PÉROUSE, ORTEGA CAMPUS

This registered city landmark was originally built in 1927 and operated as an orphanage until 1956 when sold to the San Francisco Conservatory of Music and used as such for the following 50 years. Its conversion into a middle/high school saved the building from demolition and maintains its consistent identity with youth and education.

Three major challenges had to be overcome for this extensive remodeling project: keeping the historical character of the original structure, changing the occupancy use of the building from secondary education to middle / high-school, and working on a tight schedule (18 months from acquisition to final occupancy) to open on time for class.

A school committee composed of parents & staff developed the design program and participated through the Design Development phase. A project website with extensive 3D modeling was developed to facilitate understanding and input from the community.

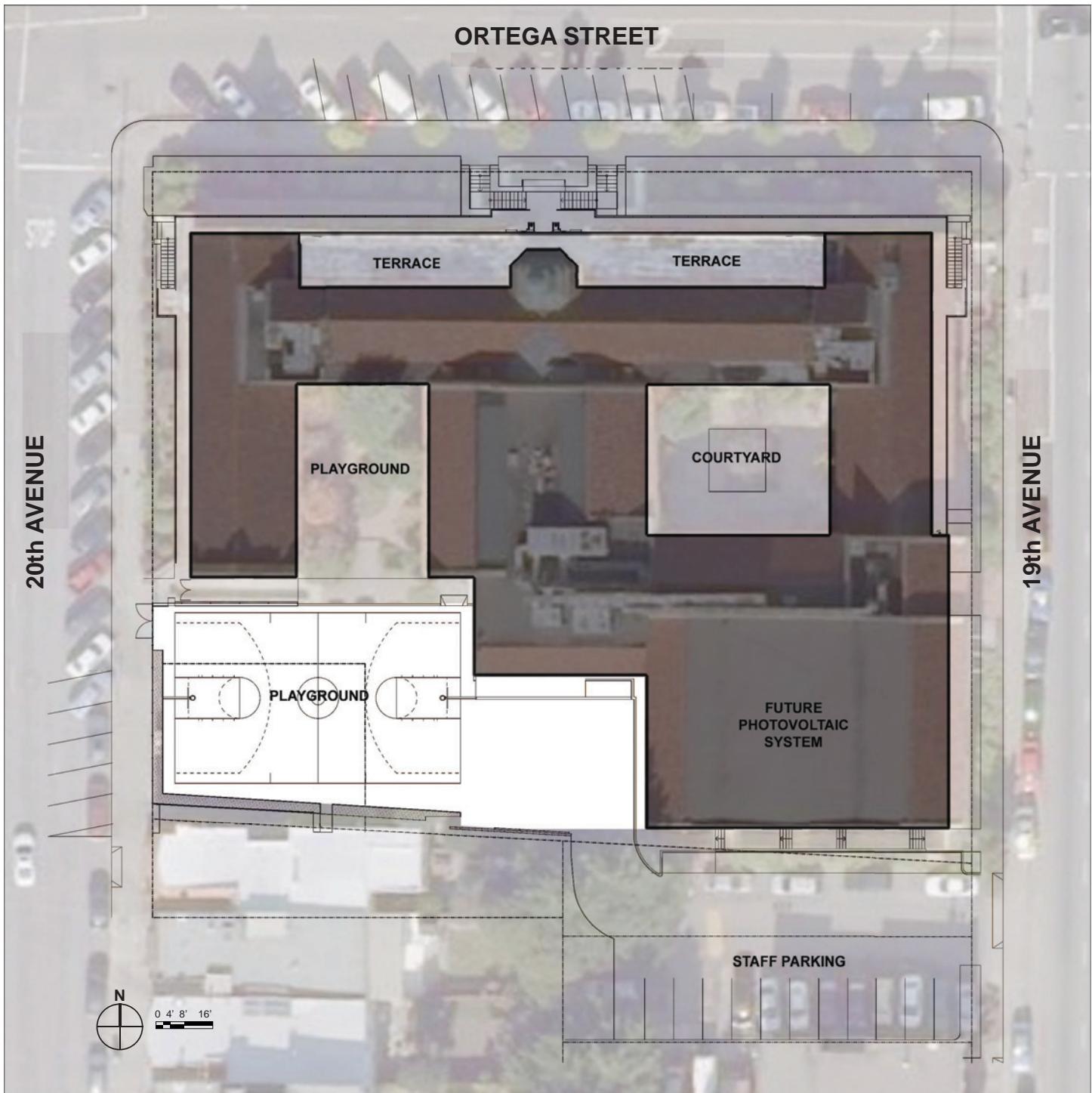
One general design intent has been to replace many of the original small music practice rooms and long, dark corridors, with large classrooms served by daylit corridors. This was achieved by the removal of eleven original 10" concrete walls without shoring or underpinning.

Another design strategy was to move the original music library to a more central and accessible location. The new library is now located on the second floor to access the old roof terrace, daylight and views of the Golden Gate Bridge and Marin Headlands beyond. Existing steel roof trusses above the ceiling were coated with intumescent fireproofing and exposed to create a large and voluminous reading room. The main entry was also relocated to the south side of the building to accommodate the number of students. This entailed having to construct a new major stairway to the second floor. The old parking lot was resurfaced and converted into a new multi play court for the children.

Other key elements of the remodeling include:

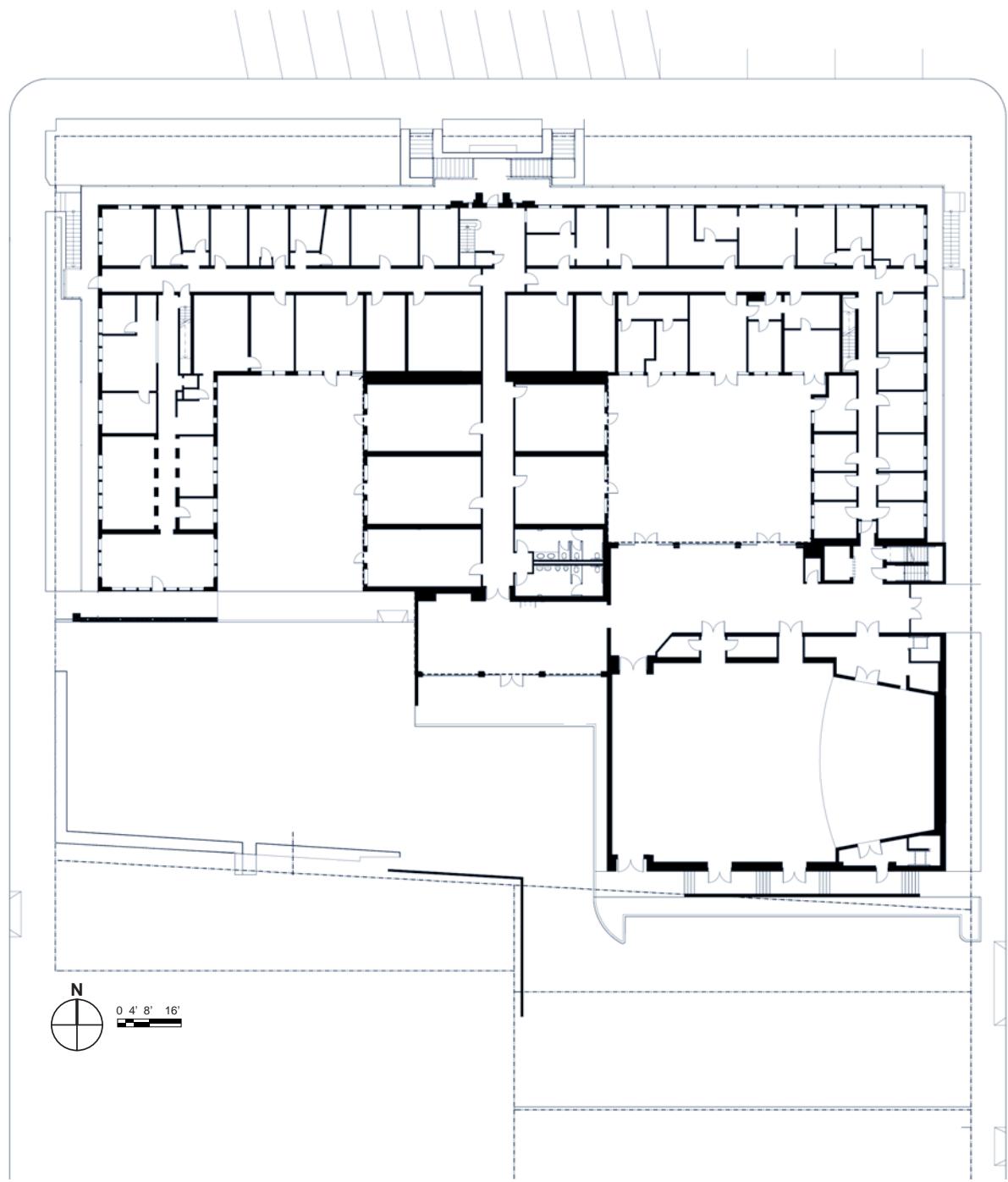
- The neighborhood is residential with a major boulevard on the east side. Student drop-off is located on the west side with entry through the playcourt and south lobby. Classes and offices are zoned away from the noisy boulevard.
- The central courtyard is a “living room” that unites the multipurpose room, lobbies and auditorium and encourages interaction of students and faculty.
- An original 2000sf roof terrace on the building’s north side that was lost in an earlier remodeling will be re-opened for student use.
- The science labs are grouped together and interconnected for flexibility and cross-discipline projects.
- High efficiency lighting with occupancy sensors are installed in all rooms.
- All custom casework and shelves use FSC certified wood. All paints, wood finishes, flooring and ceiling tiles are certified low VOC and formaldehyde free where applicable.
- A 24kw photovoltaic array is planned for the auditorium roof and should provide more than 20% of the electrical usage.
- Mobile duct-free venthoods were used in labs to save energy and provide greater flexibility.
- Interactive “Smartboards” are installed in almost every classroom and science lab allowing teaching in multiple media and online.
- A “computer-assisted experimentation” lab teaches computer simulation of chemistry, biology and physics.
- Classrooms use a “powered over ethernet” centralized telephone system and satellite calibrated clocks.
- The entire building features wireless highspeed network with more than 20 access points. Fiber optic hubs are routed into major computer labs.





SITE PLAN

Before - aerial view toward South



ORIGINAL FIRST FLOOR PLAN

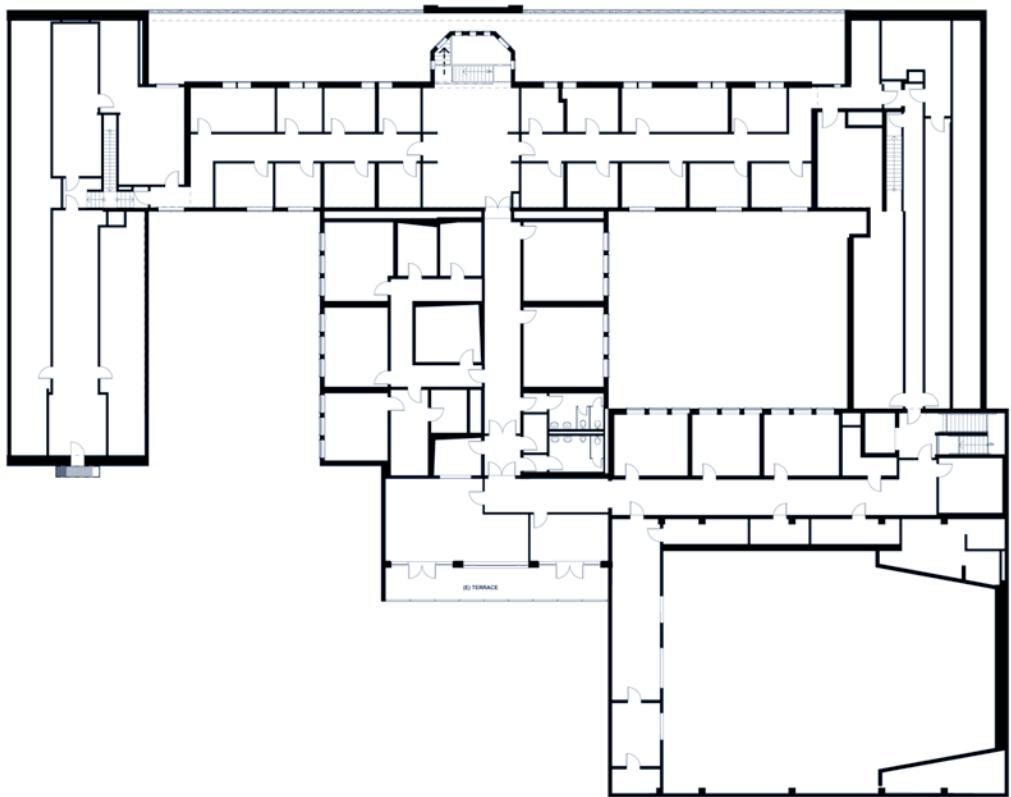


NEW FIRST FLOOR PLAN

The original music library was converted into a new administration wing, with large and sunny conference room at the southwest corner. Walls between the small music rooms were removed to create large classrooms on the north side of the building. In the east wing, small offices were combined to create a large and light-filled art studio.

A new entrance lobby was constructed at the center south entrance, and the old parking lot was transformed into a new, multi-game playcourt. Additional staff parking is accommodated at the southeast entrance.

The existing auditorium, with its impeccable acoustics, was left untouched.



ORIGINAL SECOND FLOOR PLAN



NEW SECOND FLOOR PLAN

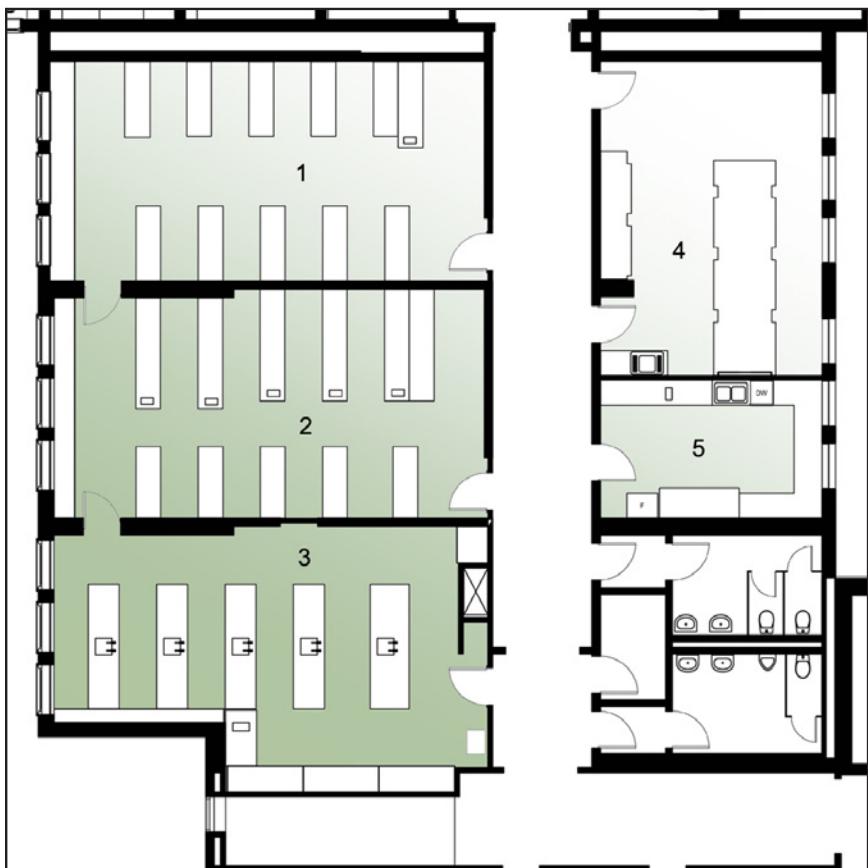
The entire upper northwest wing has been transformed into a new and luminous library, taking advantage of the northern light for daylighting and views of the Golden Gate Bridge and Marin Headlands beyond.

The central core music and recording studios have been replaced by the science hub, with its 3 main laboratories, a computer-assisted experimentation lab and a preparation room. A new bathroom, classroom and student lounge, served by a daylit corridor, are now located in the northeast wing, where small music studio rooms once were. The design re-opened the long-closed terrace running the length of the second floor, to offer students views and additional leisure space.

ORIGINAL MUSIC & RECORDING STUDIOS



- a classroom
- b practice studio
- c recording studio
- d storage room



NEW SCIENCE HUB

- 1 physics laboratory
- 2 biology laboratory
- 3 chemistry laboratory
- 4 computer-assisted experimentation lab
- 5 preparation room



FRONT FACADE

One major challenge of the project was transforming an existing historical building into a new use while preserving its historical and cultural integrity.

The exterior was cleaned and refinished, while retaining the building's original colors, arched entry ways, mouldings and wood frame windows.

The neighborhood embraced the remodelling project wholeheartedly.



Front facade circa 1964

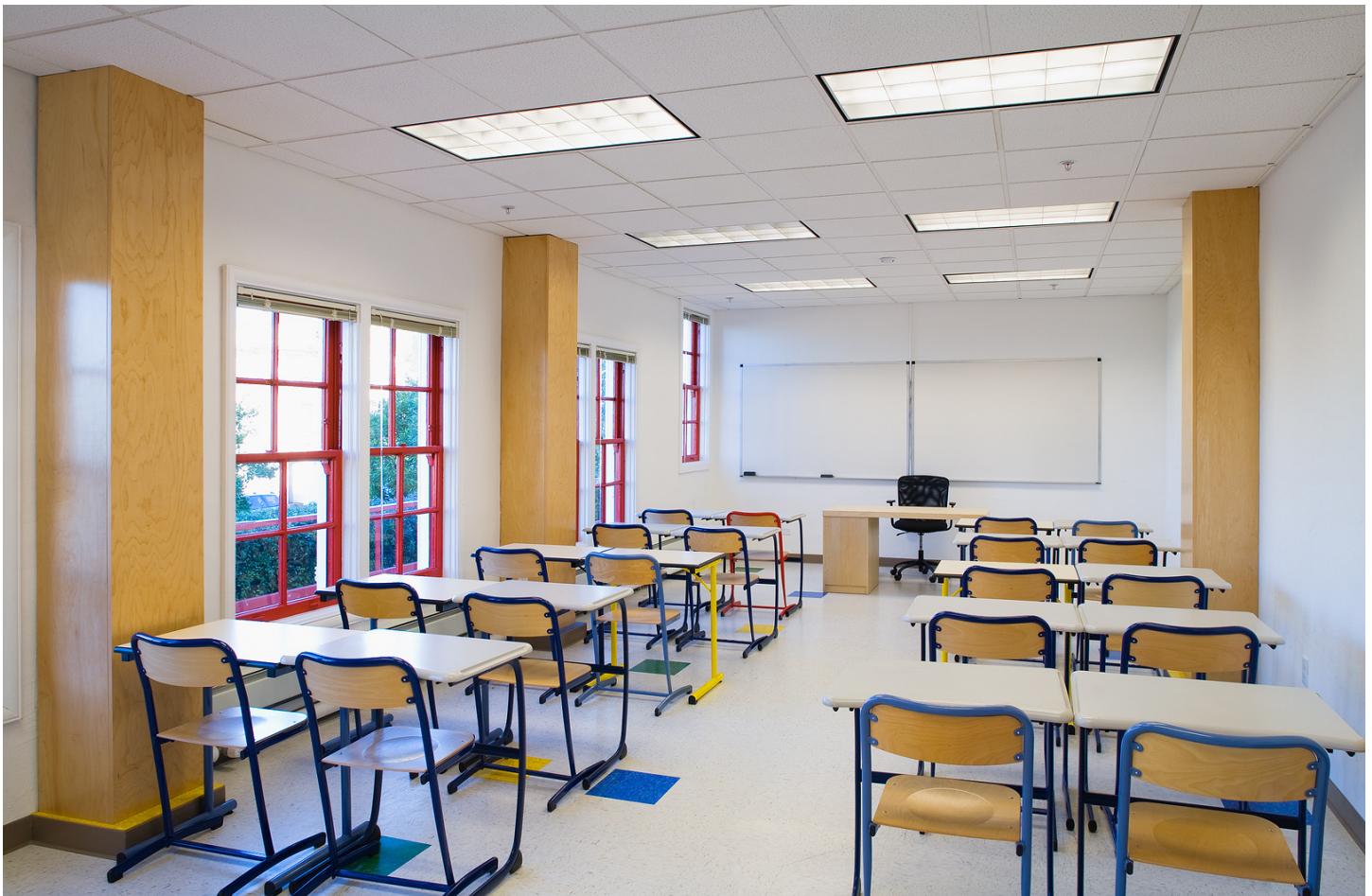


NORTH LOBBY

The original building entry and lobby was too small to be used as a primary entrance. It was kept as the business entrance and still features its original staircase to the second floor and arched entryway to the building wings beyond. The old colored glass panes of the light tower above were all replaced to maximize daylight into the lobby below.



Upstairs north lobby facing the new northeastern corridor



Demolition work: cutting down walls

CLASSROOMS

Light-filled classrooms have now taken the space where dark and small music practice studios once stood.

Ten inch thick concrete walls had to be removed, by first sandwiching the top of the walls with metal channels to create the future supporting beams. Old asbestos-filled flooring was replaced with new tiles and custom-built wood column covers now stand where the old walls used to be.

All of the classrooms are equipped with occupancy sensors.



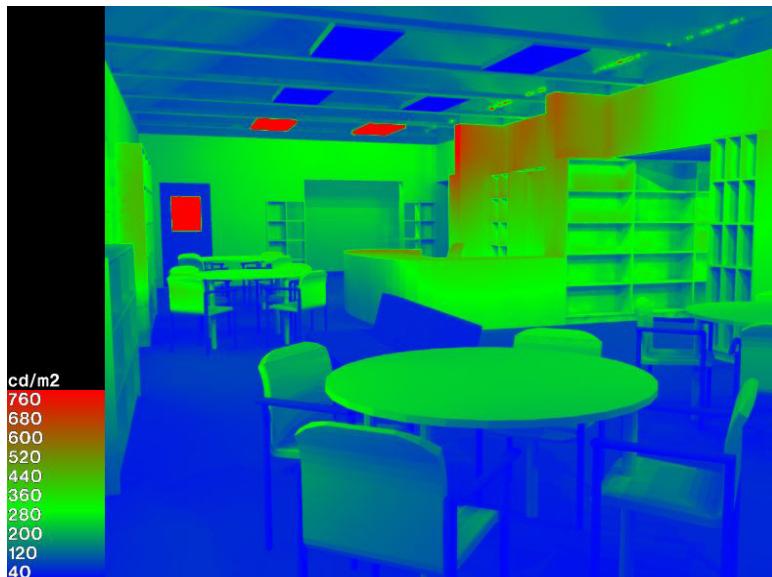
CHEMISTRY LABORATORY

Three large laboratory rooms have replaced seven practice and recording studio rooms in the upper core of the building.

The laboratories feature custom-built work benches, as well as a moveable fume hood with integrated filtering device, thus avoiding ducting to the outside and lowering energy consumption.

A computer-assisted experimentation (EXAO) and preparation rooms are also located across the hall from the three labs. All ceilings, floor tiles and paints are low-VOC throughout the remodel.

Chemistry laboratory under construction



Library daylighting study

LIBRARY

The new campus library occupies the entire second floor west wing of the school. It combines great daylighting and access to views of the Golden Gate Bridge.

The old flat ceiling was removed to expose steel trusses and create a more voluminous space. Ventilation is introduced via a soft ducting system that distributes the air through its porous fabric and minimizes noise.

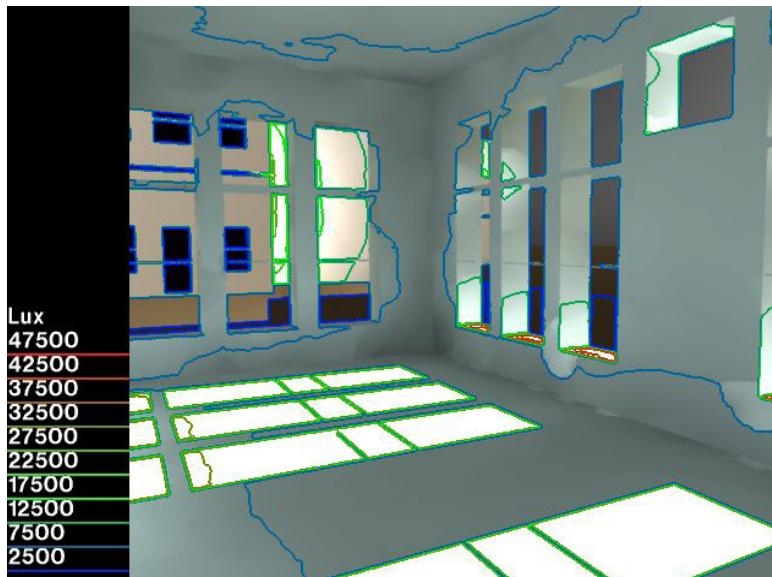
The shelving and librarian desk were custom-built with FSC certified wood and the carpet contains post-consumer content.



Art studio under construction

ART STUDIO

Six small offices and a corridor were demolished to make room for a new art studio located in the building's east wing. Now, the large studio can take advantage of natural light from two directions, and opens directly into the interior courtyard through large double doors. Old laboratory benches were salvaged from another school to become very durable and smooth work surfaces.



Conference room daylighting study

CONFERENCE ROOM

The old music library was converted into the administration wing, creating offices where the stack area once was, and replacing the reading room with the school's conference room.

The administration wing uses Interface modular carpet and the luminaires are controlled by occupancy sensors.

The old steam heating system was replaced with a high-efficacy condensing boiler coupled to hydronic radiant heaters throughout the school. No mechanical cooling is used except for the existing auditorium.



PLAYCOURT

The old parking lot was resurfaced and converted into a multi game playcourt. Sport tiles were used on top of the asphalt to allow for a combination of maximum flexibility, drainage and play comfort. A new staff parking lot was created at the southeastern corner of the building. A public transportation stop is located at the northeastern corner of the building.



Old parking lot



COURTYARD

The design arranged major building spaces around the existing interior courtyard to share the indoor/outdoor spatial relationship and benefits from California's mild climate. The student multipurpose room, the teacher lounge, auditorium lobby and the art studio have direct access to the centrally located courtyard.

The school also re-opened the second floor terrace with laser-engraved tiles, as another inviting outdoor space.



Future second floor terrace