## Precedent Studies

# National Arts Centre Rejuvenation

*Location:* Ottawa, Canada

*Architect:* Diamond Schmitt Architects

*Year:* 2017

*Area:* 79,997 sq. feet

*Materiality:* Glass and wood palette with warm interior finishes, exposed structural elements and stone and concrete continuity.

*Lighting:* Natural light integration, nighttime glow and layered interior lighting.

*Features:*

- Panoramic views that frame the city.
- Enhanced accessibility.
- Transparency and performance spaces on display.
- Four different performance spaces.
- Food and hospitality spaces.
- Expanded public and gathering spaces.

*Elements I'd like to Incorporate:*

- Warm and inviting interior materials.
- Natural light.
- Transparency in rehearsal spaces.
- Large gathering spaces.













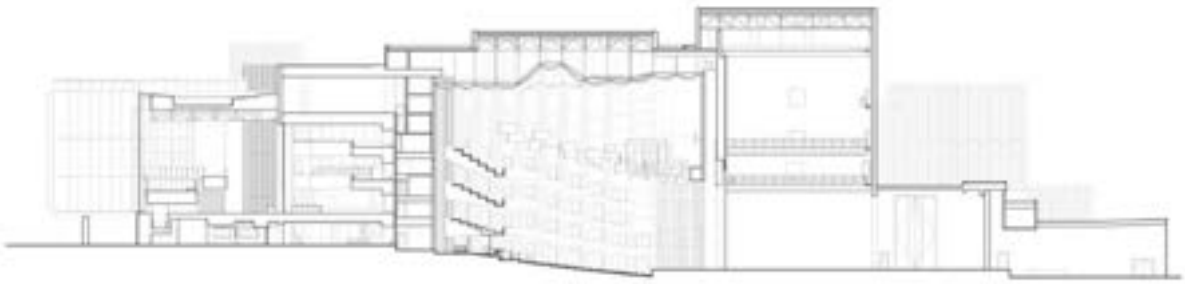


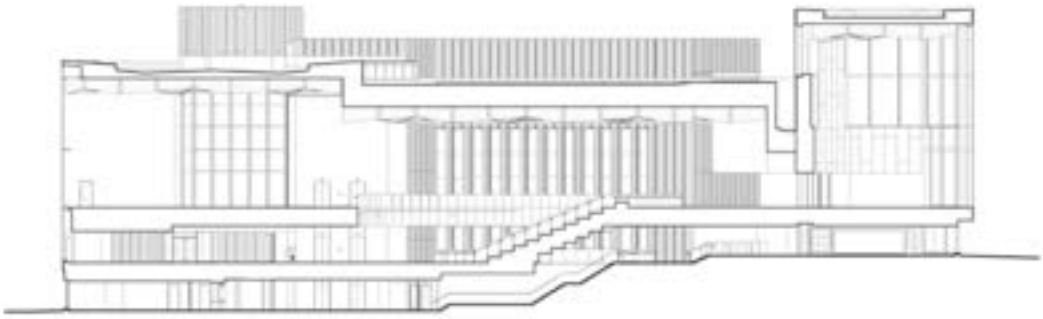






## National Arts Centre Rejuvenation: Building Sections

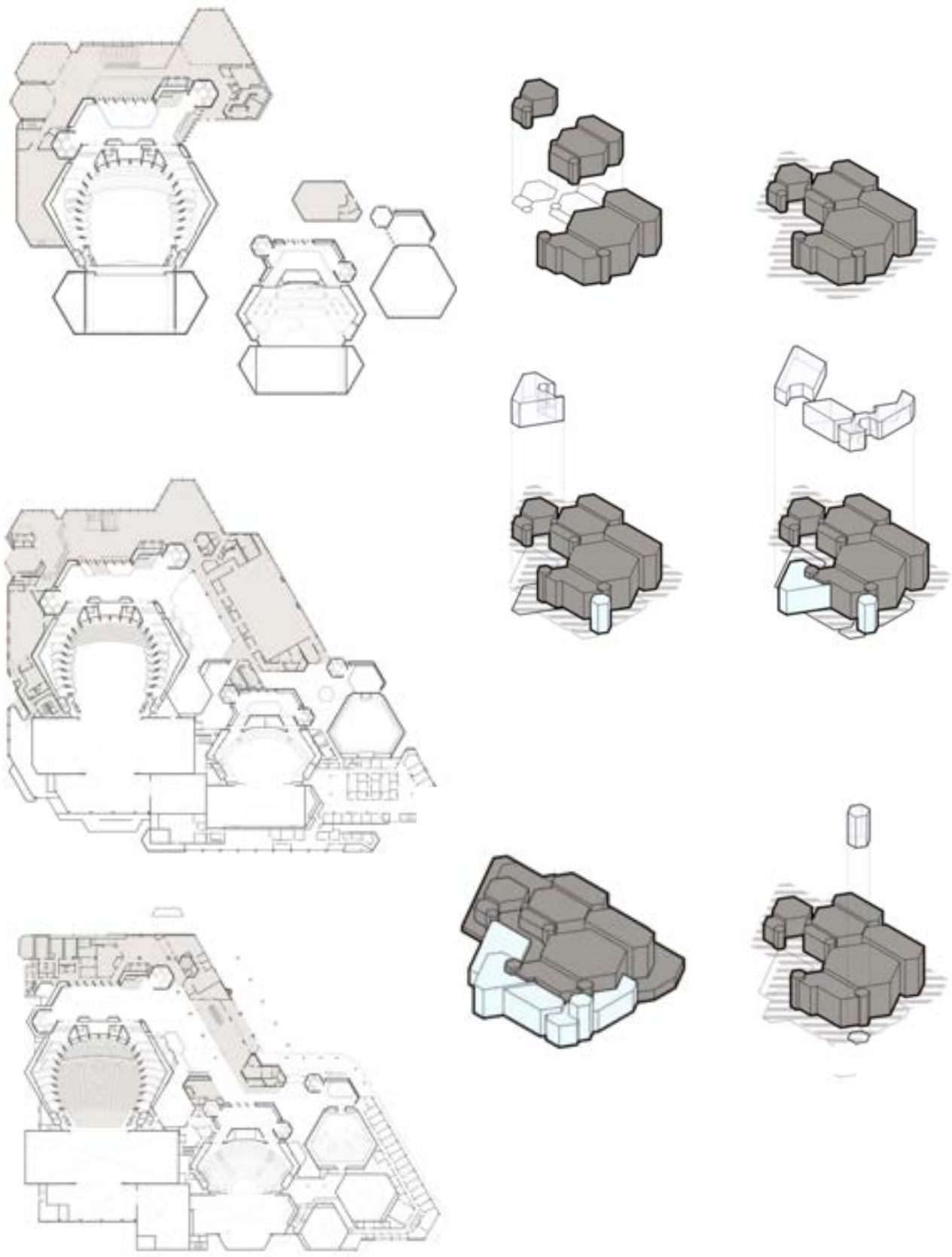








## National Arts Centre Rejuvenation: Floor Plans



# Peter Hall Performing Arts Centre

*Location:* Cambridge, United Kingdom

*Architect:* Haworth Tompkins

*Year:* 2018

*Area:* 25, 187 sq. feet

*Materiality:* Brick walls, wooden diagrid that creates a warmth to the ceiling and exposed concrete and steel structure.

*Lighting:* Warm interior lighting that highlights the wood textures.

*Features:*

- Wooden diagrid ceiling in the main foyer space.
- Flexible auditorium space that can change based on the performance happening.
- Integration between education and public spaces.
- Connects modern design to the existing brick building.

*Elements I'd like to Incorporate:*

- Warm and inviting interior materials.
- Connecting my design to the exciting site and building.
- Adaptable spaces for multiple uses.













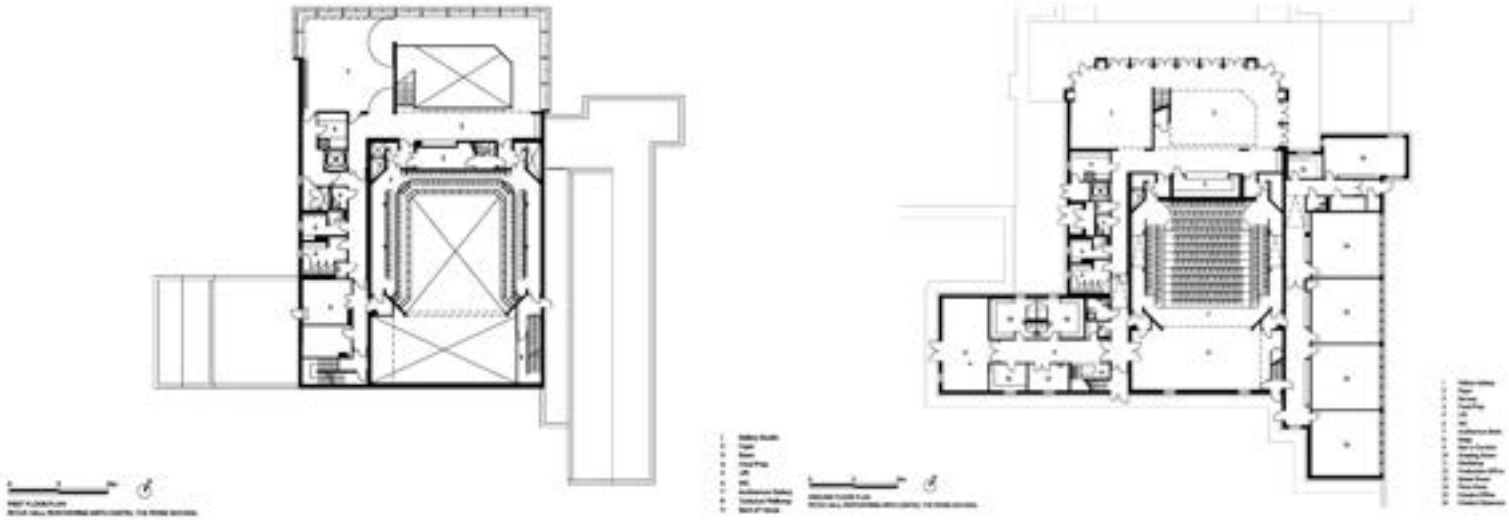


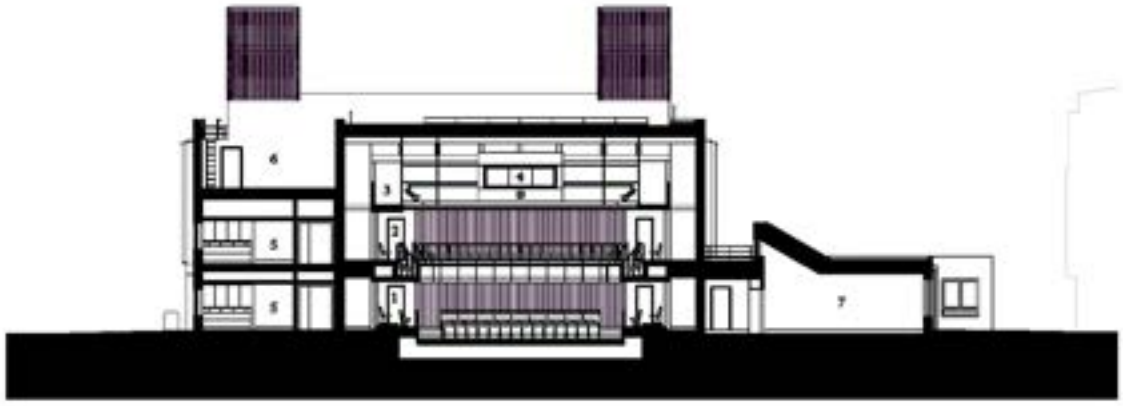






## Peter Hall Performing Arts Centre: Building Drawings







# Cincinnati Ballet: Margaret & Michael Valentine Center for Dance



*Location*: Cincinnati, Ohio

*Architect:* GBBN

*Year:* 2021

*Area:* 57,000 sq. feet

*Materiality*: Terracotta tile facade, large open windows and concrete and steel structures.



*Lighting:* Abundant natural light.

*Features:*

- Several decent sized dance rooms.
- Panoramic views on downtown Cincinnati.
- Community oriented design allowing individuals to see dance rehearsals in action.
- Accessibility centered design.

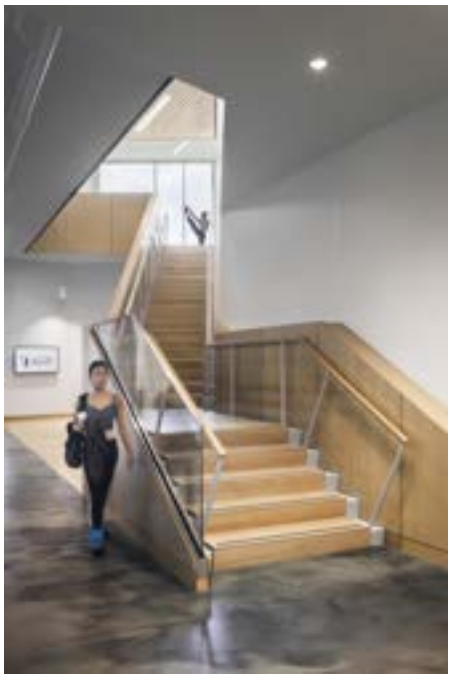


*Elements I'd like to Incorporate:*

- Openness to panoramic views outside.
- Community centered design.







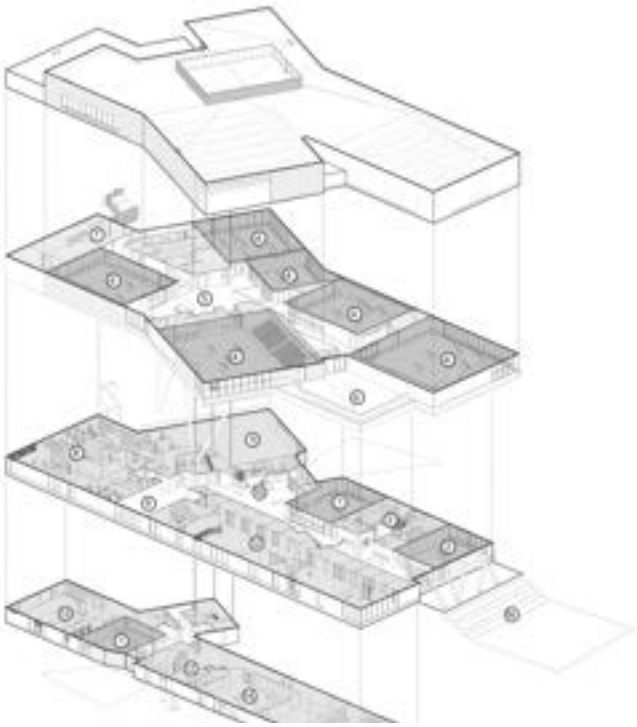






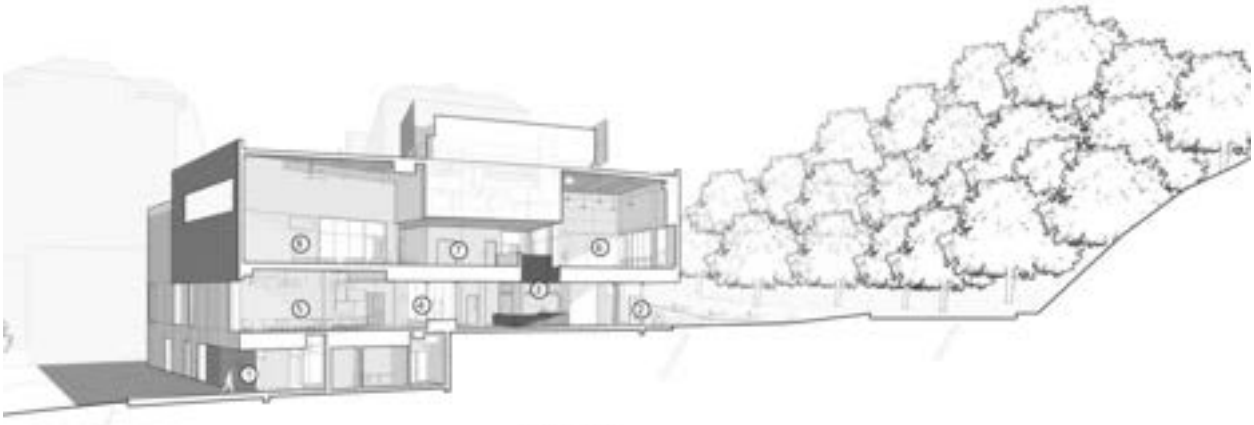


**Cincinnati Ballet: Margaret & Michael Valentine Center for Dance: Building Drawings**



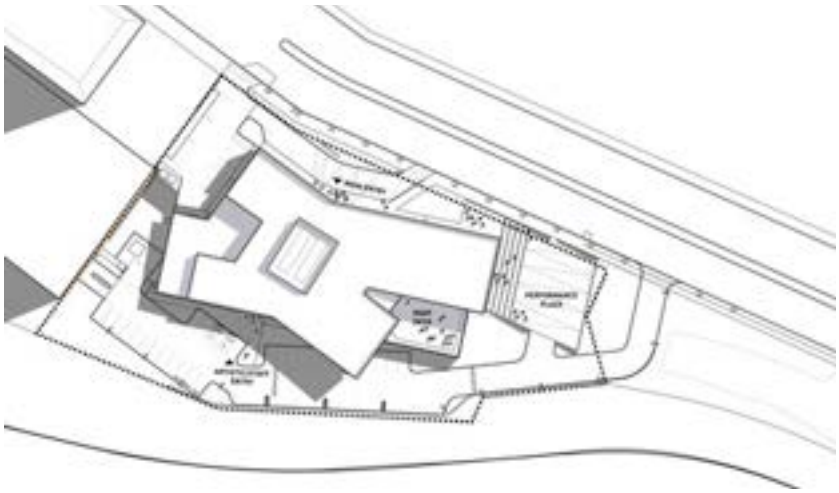
**PROGRAM**

1. Academy Dance Studio
2. Community Studio
3. Academy Locker Room
4. Professional Dance Studio
5. Event Space
6. Roof Deck
7. Loading Dock
8. Professional Locker Room
9. Cafe/Lounge
10. Lobby
11. Physical Therapy
12. Office Suite
13. Wardrobe + Costume
14. Board Room



**PROGRAM**

1. Artistic/Staff Entry
2. Main Community Entry
3. Welcome Desk + Portal
4. Costume Display
5. Cafe/Lounge
6. Professional Dance Studio
7. 2nd Floor Lobby
8. Event Space



# Collage Dance Center



*Location:* Memphis, Tennessee

*Architect:* Archimania

*Year:* 2020

*Area:* Approximately 22,500 sq. feet

*Materiality:* Steel framing, wood trusses, metal wall panels (textured facade), warm wood accents in interiors.



*Lighting:* Dance studios are sun-lit, artificial lighting supports practice and performance needs, layered lighting effects.

*Features:*

- Column free studios with sprung floors.
- Large glazing and lots of natural daylight.
- Dedicated circulation paths separated for dancers and visitors.
- Accessible design.



*Elements I'd like to Incorporate:*

- Incorporate the ideas of studios and spaces being sun-lit.
- Considering intentional circulation for all individuals in the space.
- Connection from inside the building to out with windows and materials.




COLLAGE
DANCE
COLLECTIVE



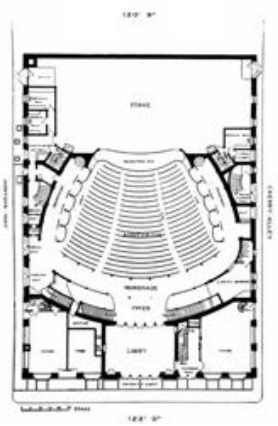
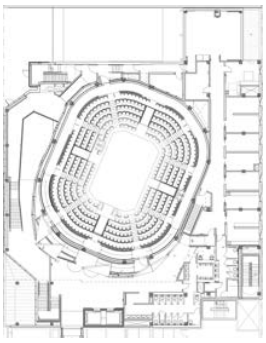
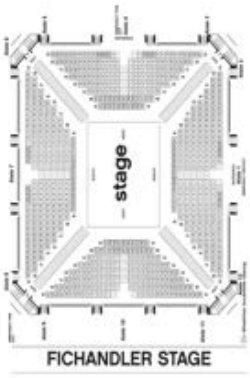
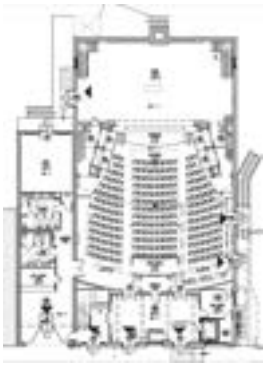






# Typology Studies

## Theaters and Auditoriums

| | Nixon Theater | Steppenwolf Ensemble Theater | Fichandler Stage - Mead Center | Historic Masonic Theater |
|---|---|---|---|---|
| Location | Pittsburgh, PA. | Chicago, IL. | Washington, D.C. | Clifton Forge, VA |
| Year | 1903 | 1974 | 2010 | 1906 |
| Plan |  |  |  |  |
| Square Footage | Between 37,00-50,000 ft2 | | 4,400 ft2 | 26,000 ft2 |
| Components | 2,500 seats.<br>Capable of hosting large touring productions.<br>Large wing space and dressing rooms. | 400 seats in-the-round.<br>Only 6 rows deep so audience proximity is an explicit design move.<br>3 different theaters located in Steppenwolf Theater Company.<br>Various rehearsal spaces for each auditorium. | 514- 680 seating range depending on configuration of seats.<br>Fan shaped seating offering excellent sightlines and actor-audience proximity. | 545 seats for the main theater.<br>4 floors of the theater building, consisting of conference rooms, common and rehearsal spaces. |
| Source | https://www.thenixoncentre.net/upcomingevents | https://www.steppenwolf.org/plan-your-visit/theaters/Ensemble-Theater-in-Honor-of-Helen-Zell/ | https://www.arenastage.org/plan-your-visit/the-mead-center/ | https://historicmasonictheatre.com/ |

## Dance Education Centers

| | Houston Ballet Center for Dance | Sandi Simon Center for Dance | Beck Center for the Arts | Dwana Smallwood Performing Arts Center |
|---|---|---|---|---|
| Location | Houston, TX | Orange, CA | Cleveland, OH | Brooklyn, NY |
| Year | 2009 | 2023 | 1975 | 2016 |
| Plan |  Level 1 |  |  |  |
| Square Footage | 115,000 ft2 (six-story facility) | 72,000 ft2 | 42,000 ft2 | 3,700 - 4,000 ft2 |
| Components | Nine dance studios for professional and academy dancers. Dance Lab for presentational rehearsals. Artistic, administrative and support facilities. | Five dance instruction studios and performance studio for small concerts. Two classrooms, training room, faculty offices and student lounges within the facility. | Two performance stages. Two gallery/exhibition spaces. Mix of performance, education, therapy, visual arts and dance offered. | Two large dance studios that can be combined into one larger performance space. Much smaller, but community oriented design and space concept. |
| Sources | https://www.archdaily.com/129307/houston-ballet-center-for-dance-gensler | https://www.archdaily.com/1002080/sandi-simon-center-for-dance-at-chapman-university-lorcan-oherlihy-architects?ad_source=search&ad_medium=projects_tab | https://beckcenter.org/ | https://archello.com/project/dwana-smallwood-performing-arts-center |

## Dance Studios

| | Mark Morris Dance Center (Maxine Morris Studio) | Mark Morris Dance Center (Independence Community Foundation Studio) | Chris Hellman Center for Dance (Christensen-Tomasson Studio) | Collage Dance Center Studio |
|---|---|---|---|---|
| Location | Brooklyn, NY | Brooklyn, NY | San Francisco, CA | Memphis, TN |
| Year | 2001 | 2001 | 1884 | 2020 |
| |  |  |  |  |
| Square Footage | 1,380 ft2 (30’ x 46’) | 720 ft2 (18’ x 40’) | Approximately 1,500 ft2 | 1,345 ft2 |
| Components | Triple-basket weave sprung subfloor covered with marley.<br>Ceiling height at 16’.<br>One wall of 8’ high mirrors.<br>Permanently mounted black velour curtain on track to cover mirrors.<br>Large windows along the wall, adjustable scrim sunshades, metal halide bulb lights.<br>Fixed and portable bars. | Triple-basket weave sprung subfloor covered with a hard maple floor.<br>Ceiling height at 11’.<br>One wall of 8’ high mirrors.<br>Small window and fixed fluorescent lights. | Modular sprung flooring surfaced with marley.<br>Ceiling height at 12’.<br>Mirrored walls with obscuring curtains.<br>Windows offer natural lighting. | Woodspring basketweave flooring with maple hardwood.<br>14’ to the bottom of open trusses.<br>Full wall mirror.<br>Open windows for natural lighting and views. |
| Source | https://markmorrisdancegroup.org/space-rental/maxine-morris-studio/ | https://markmorrisdancegroup.org/space-rental/independence-community-foundation-studio/ | https://www.sfballet.org/venue/rentals/ | https://collagedance.org/center/ |

## Community Art Centers

| | Artists Collective, Inc. | Boston Center for the Arts - the Cyclorama Building | King Arts Complex | Corvallis Arts Center |
|---|---|---|---|---|
| Location | Hartford, CT | Boston, MA | Columbus, OH | Corvallis, OR |
| Year | 1999 | 1884 | 1925 | 1889 |
| | | | | |
| Square Footage | 40,000 ft2 | 83,750 ft2 | 60,000 ft2 | Approximately 13,069 ft2 |
| Components | The facility was built to support a broad range of programs. The program included classrooms, dance studios, practice rooms and a 400-seat theater. | A large domed hall used for exhibitions, events and performances. Studio space housing for working artists. Two theaters, rehearsal rooms, backstage, lobbies and support spaces. | Hosts cultural programs, exhibitions, youth arts education, community events, and performances. Ground floor theater (444 seats) and upper floor slated for artist studios, meeting rooms and offices. | Exhibitions, cultural events, and arts education. Classes and workshop spaces. Large gallery spaces. |
| Source | https://www.artistscollective.org/ | https://bostonarts.org/venue/the-cyclorama/ | https://kingartscomplex.com/ | https://theartscenter.net/ |

# Project Description

This Dance Education and Performance Center is a multifunctional space dedicated to fostering movement, creativity, and community engagement within New York City. Designed as both a training hub and a communal gathering place, the center provides professional quality studios, flexible performance areas, community classrooms, and public spaces that invite visitors to observe, participate in, and learn from the art of dance. It serves dancers at all levels, emerging artists to seasoned professionals, while opening its doors to the surrounding community through accessible programs, workshops, and events. By integrating education, rehearsal, performance, and public interaction under one roof, the center becomes a dynamic environment where movement is not only practiced but shared, celebrated and woven into everyday life of the city.

## Concept

Transparency of movement and harmony.

The concept guiding this project envisions a building where dance is not contained, but revealed. Movement becomes the architecture's living pulse, visible and shared, weaving dancers, visitors, and the city into a single, fluid narrative.

Transparency invites the body in motion to be seen. Framed through glass, drifting across layered sightlines, unfolding along corridors of light. It transforms rehearsal into spectacle and everyday passage into quiet performance. Movement breathes into the building and the building breathes it back. Harmony shapes the spaces between, balancing openness with retreat, vibrancy with stillness, the needs of seasoned professionals with the curiosity of new

learners. A place where movement is both invitation and expression, and where the people within it become a part of the choreography of the building.

## Culture and Lifestyle

The lifestyle and culture fostered by this concept center on openness, belonging and the shared value of movement. By making dance visible rather than hidden, the space cultivates an atmosphere where the art form feels approachable rather than exclusive. Transparency dissolves traditional boundaries, inviting curiosity from visitors and reducing the social and cultural barriers that often prevent underrepresented communities from engaging with dance. This accessibility supports a lifestyle rooted in movement and wellness, one that encourages active bodies, embodied creativity, and mental grounding through physical expression. The design promotes participation rather than competition, emphasizing the emotional, cognitive and physical benefits of dance.

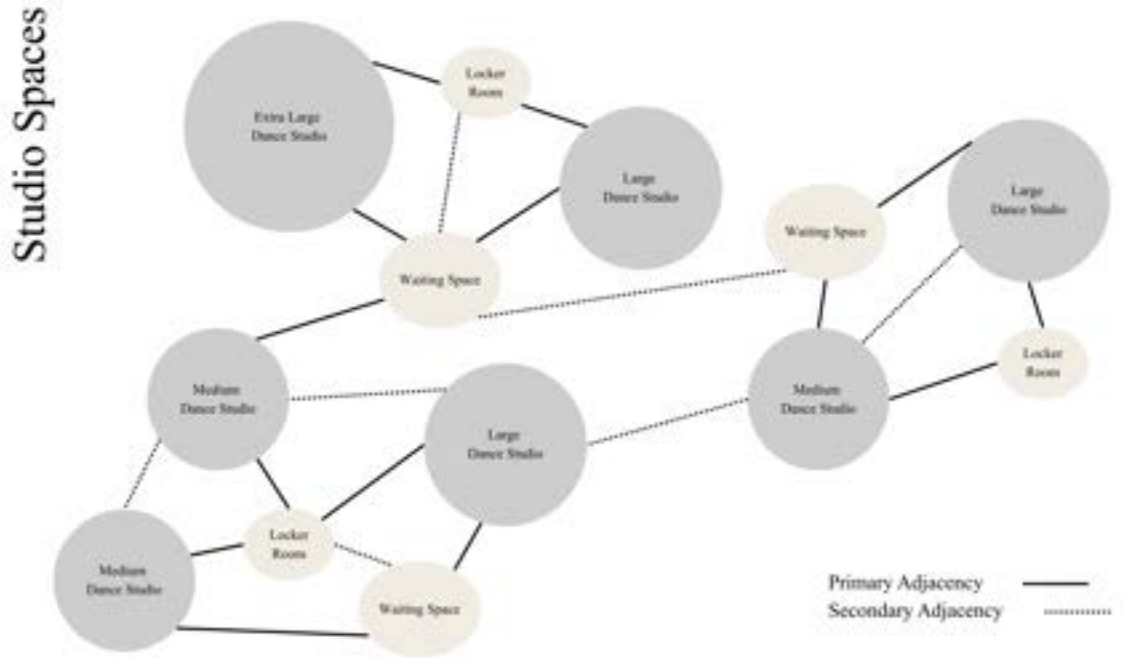
At the same time, the center nurtures a deeply collaborative artistic culture. Because movement is continually visible throughout the building, dancers naturally influence one another's practices. This environment supports spontaneous exchange, shared authorship, and mentorship that occurs fluidly across experience levels. The space encourages collective creation rather than isolated rehearsal. The center helps to reshape dance as a shared cultural practice, inviting the community to witness, participate in and feel connected to the art of movement.

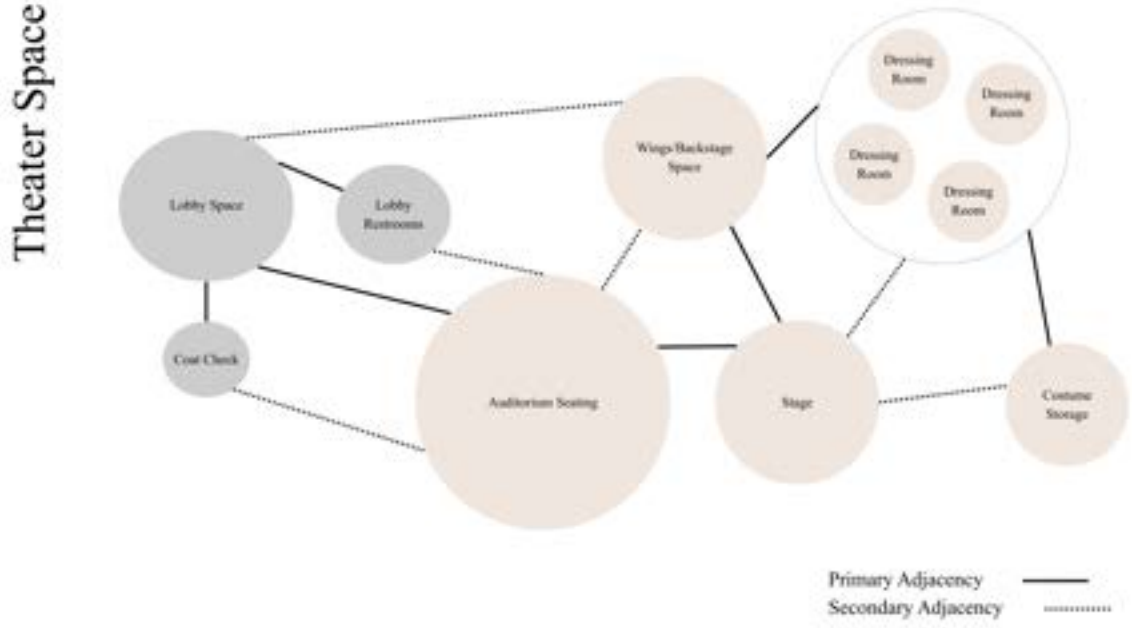
## Spatial Requirements

| | # | Area | Total Area | Notes |
|---|---|---|---|---|
| Dance Rehearsal Spaces | | | 13,100 ft2 | |
| Large Studio Rooms | 2 | 2,800 ft2 | 5,600 ft2 | Ideal for classes or rehearsals for 20-30 dancers. |
| Medium Studio Rooms | 4 | 1,800 ft2 | 7,200 ft2 | Ideal for classes or rehearsals for 16-18 dancers. |
| Locker Rooms | 2 | 150 ft2 | 300 ft2 | Space for dancers to store their personal belongings while in class or rehearsal. These spaces would be shared among different studios. |
| | | | | |
| Theater Space | | | 12,650 ft2 | |
| Lobby Space | 1 | 1,000 ft2 | 1,000 ft2 | Comfortable pre/post show flow for 200 seats, merch/concession queuing, spacing for accessible seating. |
| Auditorium | 1 | 2,500 ft2 | 2,500 ft2 | 200 seats, space includes aisles, circulation, seating footprints |
| Stage | 1 | 1,500 ft2 | 1,500 ft2 | |
| Wings/Backstage | 1 | 1,500 ft2 | 1,500 ft2 | Wing space, set storage near the stage, quick change zones, circulation for scenery and dancers. |
| Black Box Theater | 1 | 2,650 ft2 | 2,650 ft2 | Flexible seating performance space for smaller workshop performances. |
| Box Office | 1 | 150 ft2 | 150 ft2 | |
| Dressing Rooms | 2 | 400 ft2 | 800 ft2 | |
| Costume Storage | 1 | 800 ft2 | 800 ft2 | |
| Green Room | 1 | 350 ft2 | 350 ft2 | For performers during breaks, pre-stage holding and warm ups. |
| Loading Dock | 1 | 600 ft2 | 600 ft2 | Essential for adding stage equipment or props that need to be brought in. |
| Equipment/Technical Storage | 1 | 800 ft2 | 800 ft2 | Racks for lights, cables, speakers, portable marley tools, tools. |
| | | | | |
| Educational Rooms | | | 2,000 ft2 | |
| Classrooms | 2 | 500 ft2 | 1,000 ft2 | Ideal for 10-15 individuals. |
| Meeting/Workshop Rooms | 2 | 500 ft2 | 1,000 ft2 | Ideal for 15-25 individuals. |
| | | | | |

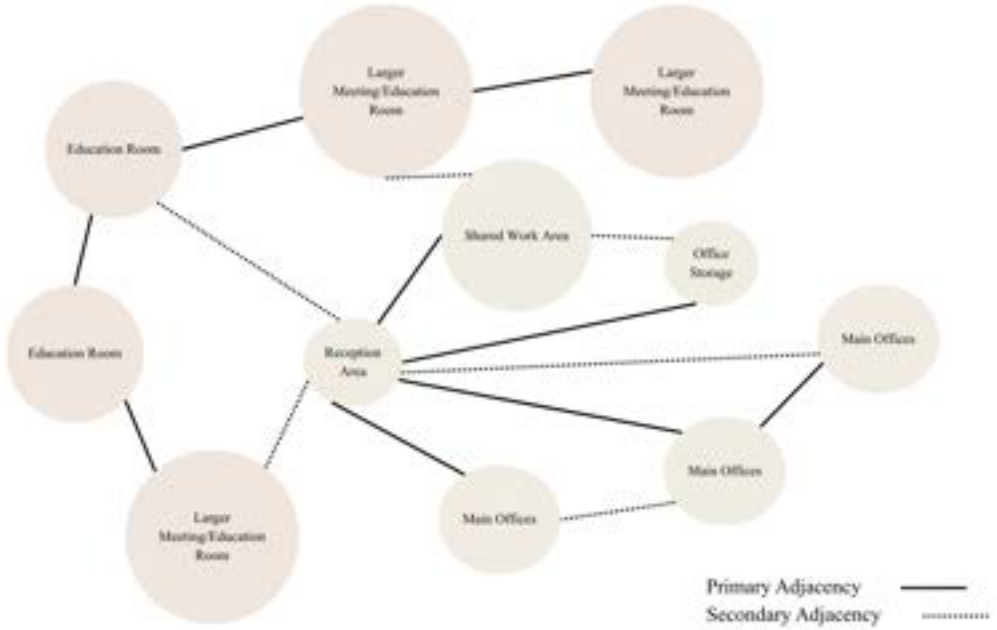
| | | | | |
|---|---|---|---|---|
| Administrative Offices | | | 1,850 ft2 | |
| Main Office Rooms | 5 | 200 ft2 | 1,000 ft2 | Offices for Artistic Director, Education or Program directors. |
| Shared Work Areas | 1 | 300 ft2 | 300 ft2 | Open office area, fits 4-8 individuals. |
| Reception Desk/Waiting Area | 1 | 400 ft2 | 400 ft2 | |
| Office Storage | 1 | 150 ft2 | 150 ft2 | |
| | | | | |
| Cafe Space | | | 750 ft2 | |
| Seating Area | 1 | 300 ft2 | 300 ft2 | |
| Service Counter | 1 | 150 ft2 | 150 ft2 | Cafe serving coffee, smoothies, small healthy snacks/meals. |
| Prep Kitchen Space | 1 | 200 ft2 | 200 ft2 | |
| Food Storage | 1 | 100 ft2 | 100 ft2 | |
| | | | | |
| Residential Units | | | 7,960 ft2 | |
| 1-Bedroom Apartment | 8 | 450 ft2 | 3,600 ft2 | Includes sleeping area, kitchenette, bathroom and small living room space. |
| 2-Bedroom Apartment | 4 | 910 ft2 | 3,640 ft2 | Includes two sleeping areas, kitchenette, bathroom and small workspace/living room area. |
| Mail/Package Room | 1 | 120 ft2 | 120 ft2 | |
| Residential Lounge/Common Room | 1 | 500 ft2 | 500 ft2 | Community space for residents to enjoy. |
| Janitor/Maintenance Closet | 1 | 100 ft2 | 100 ft2 | |
| | | | | |
| Supporting Programs Elements | | | 1,700 ft2 | |
| Mechanical and Electrical Room | 2 | 300 ft2 | 600 ft2 | Located on each floor level. |
| Restrooms | 2 | 550 ft2 | 1,100 ft2 | Located on each floor level. |
| | | | | |
| Circulation Space | | | 7,000 ft2 | |
| | | Total Program Square Footage | 47,010 ft2 | |

## Organizational Requirements: Bubble Diagrams

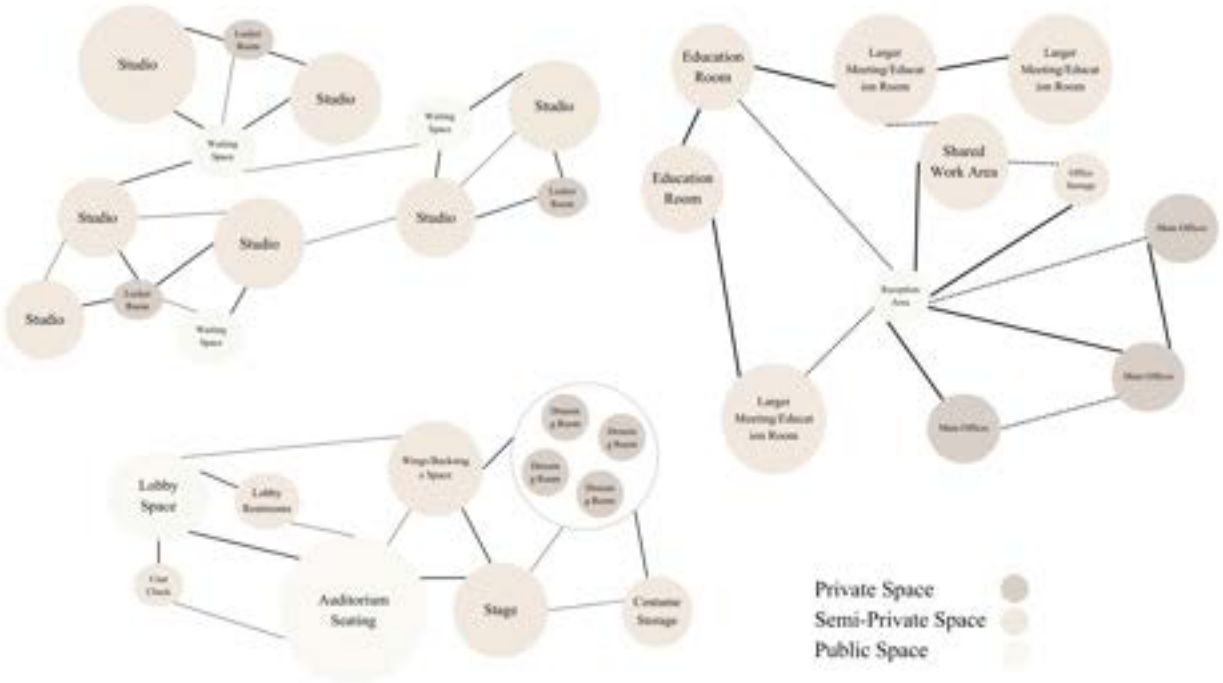


## Education and Office Space




## Private vs. Public Spaces



## Building Codes

### Dance Studios and Rehearsal Spaces

**Occupancy Classification:** Assembly Group A-3

**Occupancy Loads:**

Dance studios: 50 gross

Assembly without fixed seats

Concentrated (chairs only, not fixed): 7 net

Standing space: 5 net

Un-concentrated (tables and chairs): 15 net

Locker rooms: 50 gross

Storage rooms (studio storage): 300 gross

Waiting 1reas: 5 net

**Exiting Requirements:**

2 exit minimum required

Exit access: exits must be remote and independent, egress path must not pass through other studios

### Theater and Stage

**Occupancy Classification:** Assembly Group A-1

**Occupancy Loads:**

Assembly with fixed seats: Actual seat count (200)

Assembly without fixed seats

Concentrated (chairs only, not fixed): 7 net

Standing space: 5 net

Unconcentrated (tables and chairs): 15 net

Stages/platforms (performance areas) 15 net

Stage support areas (wings, backstage): 15 net

Dressing rooms/green room: 50 gross

Costume and equipment storage: 300 gross

Technical/AV storage: 300 gross

Loading dock/support: 100 gross

Lobby: 5 net

**Exiting Requirements:**

2 exits minimum required (layout typically requires 3-4 exits for seating distribution)

Aisles and doors: must accommodate full occupant load and distribute occupants evenly

Backstage egress: stage and wings require independent code compliant egress routes

## Education Spaces

**Occupancy Classification:** Education Group E

**Occupancy Loads:**

Classrooms/education rooms: 20 net

Lecture or meeting rooms: 20 net

Student lounge/study spaces

Unconcentrated assembly (tables and soft seating): 15 net

**Exiting Requirements:**

2 exits minimum required

Classrooms must have direct access to exit corridors

## Administrative Offices

**Occupancy Classification:** Business Group B

**Occupancy Loads:**

Office spaces/work areas: 150 gross

Conference rooms

Unconcentrated assembly (tables and chairs): 15 net

Reception/waiting: 5 net

Office storage/file rooms: 300 gross

Copy/print rooms: 150 gross

**Exiting Requirements:**

1 exit permitted

## Cafe

**Occupancy Classification:** Assembly Group A-2

**Occupancy Loads:**

Dining areas (table and chairs): 15 net

Standing dining or queue areas: 5 net

Concentrated seating (chairs only): 7 net

Kitchen (commercial): 200 gross

Food storage: 300 gross

Service counter/serving area: 200 gross

**Exiting Requirements:**

1 exit permitted

Egress path: clear, unobstructed route from seating area through lobby or exit corridor

## Residential Units

**Occupancy Classification:** Residential Group R-2

**Occupancy Loads:**

Dwelling units (apartments): 200 gross

Corridors/common areas (residential circulation): assumed 100 gross

Residential lounge/common room: 15 net

Mail/package room: 300 gross

Janitor/Maintenance closet: 300 gross

**Exiting Requirements:**

Individual apartments may exit to one shared rated corridor

Each resident floor must have 2 remote exits via the building's stair system

Information sourced from New York Department of Buildings (2022)
https://www.nyc.gov/assets/buildings/apps/pdf_viewer/viewer.html?file=2022BC_Chapter03_OccupancyClassWBwm.pdf&section=conscode_2022