AIA Northeast Illinois

# AIA NEI 2025 Design Awards Application

## 3. Project Information

**Project Name** A.E.R.O. Therapeutic Center

**Is this project a resubmission or has it been submitted in the previous 5 years to another AIA program?** (•) Yes ( ) No

**If yes, please indicate the year submitted and any recognition received.** AIA Illinois (2025)

**What is the gross conditioned floor area (sq. ft.) of the project?** 150,000

**What is the primary use/category of the project?**

- ( ) Commercial (Retail/Restaurant)
- ( ) Healthcare
- (•) Institutional – Educational, K -12, Higher Education
- ( ) Institutional – Civic, Municipal
- ( ) Interior Architecture
- ( ) Preservation/Renovation
- ( ) Residential – Single Family
- ( ) Residential – Multi-Family
- ( ) Religious
- ( ) Student Work
- ( ) Unbuilt

**Was a design charette or sustainability workshop conducted with owner and team?** (•) Yes ( ) No

**Which of the following levels of community engagement were used during the design process?** (Select all that apply.)

- [ ] No community engagement practices were applied for this project.
- [x] Inform: Potential stakeholders were informed about the project.
- [x] Consult: Stakeholders were provided with opportunities to provide input at pre-designed points in the process.
- [x] Involve: Stakeholders were involved throughout most of the process.
- [x] Collaborate: A partnership is formed with stakeholders to share in the decision-making process including development of alternatives and identification of the preferred solution.
- [x] Empower: Stakeholders were provided with opportunities to make decisions for the project.
- [ ] Unknown
- [ ] Not applicable (please explain)

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## 4. Project – Ecosystem

*Submissions will be reviewed and awarded based on the successful integration of the AIA Framework for Design Excellence*

**What percent of site area supported vegetation (landscape or green roof) pre-development?**

12.5%

**What percent of site area supported vegetation (landscape or green roof) post-development?**

35%

**What percent of site area is covered by native plants that support native or migratory species or pollinators?**

15%

**Which of the following intentional design strategies were used to promote design for ecosystem?** (select all that apply.)

- ☑ Biodiversity
- ☑ Dark skies
- ☑ Bird safety
- ☑ Soil conservation
- ☑ Habitat conservation, flora/fauna
- ☑ Abatement of specific regional environmental concerns
- ☐ None of the above
- ☐ Unknown
- ☐ Not applicable

## 5. Project - Water

**Is potable water used for irrigation?** ○ Yes ◉ No ○ NA

**Is potable water used for cooling?** ◉ Yes ○ No ○ NA

**Is grey/blackwater re-used on-site?** ○ Yes ◉ No ○ NA

**Is rainwater collected on-site?** ◉ Yes ○ No ○ NA

**What percentage of stormwater is managed on-site?** 100% in a 48-hour period

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## 6. Project - Cost

*Unless otherwise noted, AIA NEI and the jury will keep financial information confidential. AIA NEI will only describe financial information in public narratives with prior consent from the submitter.*

**What is the cost per square foot for this project?** $320

**How does the cost to construct this project compare to similar buildings in the region?**

The budget was extremely tight, so the cost of construction was low compared to oth

## 7. Project - Energy

**Using ZeroTool, what is the 2030 Commitment baseline EUI (in kBtu/sf/yr) for the project?**

82 EUI

**What was the predicted EUI (in kBtu/sf/yr) of the project, including on-site renewables**? (Note: carbon offsets should not be counted.)

41 EUI

**What was the percentage reduction from the benchmark?** (To calculate, first subtract predicted EUI from baseline, then divide by baseline.)

50%

**Is the project all-electric?** ○ Yes ◉ No

## 8. Project – Well-being

**What level of air filters are installed?** Merv 13

**Do greater than 90% of occupied spaces have a direct view to the outdoors?** ◉ Yes ○ No

**Was a 'chemicals of concern' listed used to inform material selection?** ◉ Yes ○ No

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## 9. Project – Resources

**Were embodied carbon emissions estimated for this project?** ○ Yes ◉ No

**What is the estimated embodied carbon emissions (in kgCO2e/m2/yr) associated with the project, including the extraction and manufacturing of materials used for construction?**

Specifications included non red list and limited embodied carbon emissions. Howeve

## 10. Project – Change

**What is the estimated service life of the project**? (in years)? 150

**Which of the following risk assessment and resilience services were provided**? (select all that apply.)

☑ Hazard identification ☐ Climate Change Risk ☑ Building vulnerability assessment

☐ Hazard mitigation strategies above code ☐ None of the above

☐ Unknown ☐ Not applicable

## 11.Project – Discovery

**Has a post-occupancy evaluation been conducted?** ◉ Yes ○ No

**Which of the following building performance transparency steps have been taken?**
(select all that apply.)

☑ Present the design, outcomes, and/or lessons learned in the office

☑ Present the design, outcomes, and/or lessons learned to the profession

☑ Present the design, outcomes, and/or lessons learned to the public

☑ Publish post-occupancy data from the project

☑ Publish lessons learned from the design, construction, and/or occupancy

☐ None of the above

☐ Unknown

☐ Not applicable (please explain)

# AIA NEI 2025 Design Awards Application

Please describe your project emphasizing elements of design achievement including project intentions, programming requirements, cost data and the distinguishing aspects of your resolution (limit 500 words).

A Compassionate Response to Neurodiversity
The 150,000-square-foot A.E.R.O. Therapeutic Center serves 11 public school districts in seven southwest Chicago suburban communities. It is designed to accommodate 400 staff members and 550 neurodiverse students (ages three to 22) including those with mild to profound physical and intellectual disabilities as well as those with emotional and behavioral disorders. Spaces range from multineeds classrooms for severely disabled students to training rooms for employment and independent living.

Whether the goal is self-regulation or self-reliance, the center is more than a place where special needs students go to learn. It is designed to nurture students, help teachers do their jobs better, and comfort parents with the knowledge that their children are getting the care they need. The facility was built on time and within the $50 million budget.

A Calming Environment for Neuroatypical Students
• Six entrances support efficient movement of a neurodiverse population.
• Metal canopies reduce the scale at entries.
• Classroom wings are rotated 10 degrees to make the building appear smaller.
• Each wing has a unique color, texture, and graphic treatments to support wayfinding.
• Retreat zones, quiet rooms, sensory rooms, and stair pockets allow students to safely separate from peers.

Please provide a timeline and summary on how the project came to be including the client's perspective from the start and what impact the project has made on the client and community (limit 500 words).

11 Districts, One Vision
For decades, A.E.R.O. Special Education Cooperative operated from an undersized facility designed for a dated, " tough love " approach. The organization ' s programs moved into and out of up to 15 rented standard classrooms at regional schools.

A.E.R.O., composed of 11 member school districts, resolved to build a customized learning environment that would consolidate all programs under one roof to reduce stress and provide therapeutic programming. In spring of 2020, the organization initiated a competition to find an architectural partner that would use evidence-based design to create a therapeutic learning environment.

The selected architect led community engagement sessions including interviews and a design charette with key stakeholders in summer and fall of 2020.

A core team of administrators, superintendents from the 11 member districts, and the design/construction team met monthly throughout design. Additionally, more than 20 focus group meetings gathered staff input. The design approach responds to identified goals:

? Create an inclusive environment that fosters independence and learning without boundaries for differently abled and behaviorally challenged students
? Mitigate student stress by incorporating multiple options for de-escalation
? Design direct and clear circulation patterns to facilitate ease of movement
? Integrate natural elements to minimize anxiety and enhance performance
? Ensure staff areas are conducive to communication and recharging
? Promote accessibility throughout the campus

# IEd101 – AERO Therapeutic Center – answers to questions and page 6

**2. Firm Demographics**
**For each of the race and ethnic identifiers used above, please specify the percentage of each employed with the firm, if available**. (ex: 5% Black/African American, 5% Hispanic – Other, etc.)

1% Asian - Chinese, 3% Black/African American, 1% Hispanic - Puerto Rican, 1% Asian - Korean, 83% White/Caucasian, 1% Asian - Indian, 9% Hispanic - Mexican, 1% Middle Eastern/North African

**6. Project – Cost**
**How does the cost to construct this project compare to similar buildings in the region?**

The budget was extremely tight, so the cost of construction was low compared to other schools in the region.

**9. Project – Resources**
**What is the estimated embodied carbon emissions (in kgCO2e/m2/yr) associated with the project, including the extraction and manufacturing of materials used for construction?**

Specifications included non red list and limited embodied carbon emissions. However, no calculations were done.

**Page 6**

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• Each wing has a unique color, texture, and graphic treatments to support wayfinding.
• Retreat zones, quiet rooms, sensory rooms, and stair pockets allow students to safely separate from peers.
• A central gymnasium subdivides into quadrants, each with its own entrance and stair.

Specialized Classrooms
• Three classroom types respond to different needs and house specialized furniture and equipment.
• Six classrooms offer ceiling-mounted track and patient lift systems for students with mobility issues.
• Shared group rooms between classrooms support pull-out intervention.
• Classroom entrances have curved corners, lower soffits, and a natural wood palette to smooth transitions.

Natural Connections
• Biophilic examples range from clerestories in offices to tactile wall panels at classroom wing entrances and flooring inspired by natural textures.
• The building surrounds and displays two internal courtyards, each designed to support students in an enclosed outdoor environment.
• The back of the facility offers two secure outdoor play areas.

Holistic Student Development
• Each wing has a core area with offices for key staff such as therapists and nurses.
• Home Life Skills and Commercial Life Skills rooms support daily living and job skills training.
• In the diagnostics room, adults sit at the “kitchen table” and observe how children behave and interact in a non-threatening environment.

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Research Propels Therapeutic Design

Prior to the design, the architect plunged into a three-month research exercise. It investigated the needs of all student types served by A.E.R.O. as well as how spaces could effectively respond to these needs. A.E.R.O. representatives and the architect also visited regional special education facilities to analyze the spaces and interview staff.

The team's primary and secondary research generated six design guideposts:

- Sensory loading
- Sequencing and transitions
- Geographic stressors
- Overlapping approaches
- Biophilia
- Care

Impact: Inclusion at Every Scale

A.E.R.O. Therapeutic Center has transformed the landscape of special education in the Midwest and set a new benchmark for inclusive and accessible design. The design embraces neurodiversity with details that reduce stress and foster independence. Features like rounded corners, calming color palettes, and strategically placed lighting ease transitions for students. In-classroom quiet zones, sensory rooms, and stair pockets offer safe spaces for self-regulation. Each classroom includes therapy swing infrastructure, and several classrooms feature ceiling-mounted track and lift systems to support students with mobility challenges.

The facility also supports A.E.R.O.'s life skills development program. Spaces such as the Home Life Skills and Commercial Life Skills rooms enable students to gain independence through hands-on training in daily tasks and workplace preparation.

The design also incorporates biophilic elements like internal courtyards and nature-inspired interiors to enhance community well-being.