Case Study Format Developed By: AIA Academy of Architecture for Health | Research Initiatives Committee

Duke Student Wellness Center
Durham, North Carolina, United States

**About | Design Intentions**

The Student Wellness Center advances student health by consolidating medical and psychological services into one location. Situated between residential, student services and athletic districts, the Center provides services for the mind, body and spirit including preventative programs, physical therapy and pharmacy. This innovative facility fulfills Duke’s mission to meet the highest standards of clinical care and wellness that directly contribute to student well-being and success. This transformational design has seen an increase in critical metrics for students seeking services while making a list of top places to study on campus.

**Completion Date**

March, 2017

**Architect(s)**

Duda Paine Architects

**Owner/Affiliation**

Duke University

**SQ FT**

72,000 BGSF

- [Image Sources](https://www.archdaily.com/904664/duke-student-wellness-center-duda-paine-architects)
**Three-Story Lobby**

The Center’s welcoming three-story lobby reaches out to the neighboring Duke Forest and serves as a central “living room” for students. The lobby also serves as an orientating “umbrella” under which clinical, health and wellness resources come together.

Blurring the distinction between interior and exterior, the open structure infuses the building with natural light to positively impact user’s psychological and physiological state.

**Site Plan**

- Duke Student Wellness Center
- Durham, North Carolina, United States

**Ecological Impact**

To preserve the adjacent Anderson Woods, an area of 190K SF [4.36 acres], the building’s footprint and area of disturbance was reduced from 47,250 SF [1.1 acres] to 41,000 SF [1 acre].

Site-harvested chestnut white oak trees were locally milled into veneer, panelized and installed to be used as custom desks and reception walls throughout. On-site timbers in the best conditions were hewed into large-scale, monolithic benches, the longest being nearly 20’ long, placed adjacent to the lobby rock garden and other indoor spaces of the building. Minimalist connections between wood laminated columns, glazing and floor systems enhance the sense of lightness and airiness. Vertical wood louvers and fritted glass provide solar shading, while controlling light and preserving views.

The Center’s wooden super-structure, open views, abundant natural lighting, channels of loose river rock and flooring that extends to the outside improve the health and work experience of users.
### Duke Student Wellness Center
Durham, North Carolina, United States

#### FIRST LEVEL:

<table>
<thead>
<tr>
<th>DEPARTMENTAL GROSS SQUARE FOOT</th>
<th>NSF</th>
<th>GSF</th>
<th>Multiplier</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical/Staff Support</td>
<td>2372 SF</td>
<td>2846 SF</td>
<td>1.24</td>
</tr>
<tr>
<td>Clinical</td>
<td>3205 SF</td>
<td>4285 SF</td>
<td>1.35</td>
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<tr>
<td>Building Support</td>
<td>7888 SF</td>
<td>9802 SF</td>
<td>1.25</td>
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<tr>
<td>Pharmacy</td>
<td>2165 SF</td>
<td>2420 SF</td>
<td>1.12</td>
</tr>
<tr>
<td>Multi-Purpose/Conference</td>
<td>2084 SF</td>
<td>2453 SF</td>
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</tr>
<tr>
<td>Total Floor Square Footage</td>
<td>18,194 SF</td>
<td>21,509 SF</td>
<td>1.18</td>
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**Note:** *Departmental Square footage take-off based on Analysis of Departmental Area in Contemporary Hospitals calculation methodologies & Design Factors Report, 2014*

### TRAVEL DISTANCE ANALYSIS

- **Patient:** 54ft - 215ft
- **Staff:** 51ft - 208ft

### DEPARTMENT PLAN KEY:
- Clinical/Staff Support
- Clinical
- Building Support
- Pharmacy
- Multi-Purpose/Conference
- Circulation

### Image Sources:

### Key Spaces:
- Lobby
- Connector
- Pre-Function | Gallery
- Pharmacy
- Multi-Purpose | Conference
- Oasis
- Staff Lounge
- DukeReach Case Management

### Travel Distance Analysis

- Patient
  - 54sf - 215sf
- Staff
  - 51sf - 208sf
Duke Student Wellness Center
Durham, North Carolina, United States

DEPARTMENT PLAN KEY:
- Clinical/Staff Support
- Clinical
- Building Support
- Waiting
- Circulation

SECOND LEVEL:

TRAVEL DISTANCE ANALYSIS

Duke Student Wellness Center
Durham, North Carolina, United States

DEPARTMENTAL GROSS SQUARE FOOT

<table>
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<th>NSF</th>
<th>GSF</th>
<th>Multiplier</th>
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</thead>
<tbody>
<tr>
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<td>2790 SF</td>
<td>3937 SF</td>
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<td>Clinical</td>
<td>6030 SF</td>
<td>9189 SF</td>
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<tr>
<td>Building Support</td>
<td>1112 SF</td>
<td>1523 SF</td>
<td>1.38</td>
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<tr>
<td>Waiting</td>
<td>1151 SF</td>
<td>1397 SF</td>
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<tr>
<td>Total Floor Square Footage</td>
<td>11,132 SF</td>
<td>15,836 SF</td>
<td>1.43</td>
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Note: “Departmental” Square footage take-off based on Analysis of Departmental Areas in Contemporary Hospitals: calculation methodologies & Design Factors Report, 2014

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Duke Student Wellness Center
Durham, North Carolina, United States

DEPARTMENT PLAN KEY:
- Clinical/Staff Support
- Clinical
- Building Support
- Physical Therapy
- Waiting/Outdoor Space
- Circulation

THIRD LEVEL:

DEPARTMENTAL GROSS SQUARE FOOTAGE:

<table>
<thead>
<tr>
<th>Department/Space</th>
<th>NSF</th>
<th>GSF</th>
<th>Multiplier</th>
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<tr>
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<td>3054 SF</td>
<td>6104 SF</td>
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<tr>
<td>Building Support</td>
<td>1135 SF</td>
<td>1135 SF</td>
<td>1.0</td>
</tr>
<tr>
<td>Physical Therapy</td>
<td>1492 SF</td>
<td>1492 SF</td>
<td>1.0</td>
</tr>
<tr>
<td>Waiting/Outdoor Space</td>
<td>1913 SF</td>
<td>1913 SF</td>
<td>1.0</td>
</tr>
<tr>
<td>Total Floor Square Footage</td>
<td>12,301 SF</td>
<td>17,181 SF</td>
<td>1.40</td>
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</tbody>
</table>

Note: "Departmental Square footages take-off based on Analysis of Departmental Areas in Contemporary Hospitals calculation methodologies & Design Factors Report, 2014

TRAVEL DISTANCE ANALYSIS

1. Lobby
2. Counseling & Psychological Services
3. Group Therapy
4. Physical Therapy
5. Terraces

KEY SPACES:
- Staff Work area (181sf)
- Consult Rooms (1135sf)

PATIENT TRAVEL DISTANCE ANALYSIS
- Patient: 184ft - 300ft
- Staff: 179ft - 295ft

TRAVEL DISTANCE ANALYSIS
- Patient: 184ft - 300ft
- Staff: 179ft - 295ft

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DUKE STUDENT WELLNESS CENTER | CASE STUDY ANALYSIS
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Duke Student Wellness Center

Monumental Stair
Integrated wayfinding elements and a monumental, interconnected stair facilitate movement to different services and supports the design’s social sensibilities with views to and from all levels. The space has proven hugely popular with all students.

PROJECT SUMMARY:
Project: Duke Student Wellness Center
Project location: Durham, North Carolina
Owner/Client: Duke University
Architect: Duda Paine Architects
Structural engineer: Stewart, Inc.
General contractor: Newcomb & Boyd
MEP engineer: Newcomb & Boyd
Construction cost: $27 Million
Building area GSF: 72,000 GSF
Cost per square foot: $375
Construction start date: March 2014
Substantial completion date: March 2017

AIA/AIAH DESIGN AWARD WINNER
Category: Innovations in Planning and Design Research, Built and Unbuilt
JURY COMMENT
▶ This a very handsome piece of architecture that speaks to what Duke is trying to do with student wellness.
▶ The siting is elegant and the building is embedded in the student circulation path.
▶ It is encouraging to see a wellness center given such prominence in the campus plan.
▶ Each floor has a living room where students can gather, and the grand stair encourages walking.
▶ The transparent screens and glazing are an elegant solution, and the wood is very warm and inviting.

MONUMENTAL STAIR
VIEW FROM STUDENT LOUNGE

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CONNECTING GRAND STAIR
WAITING ROOM
MULTI-PURPOSE SPACE
THREE-STORY LOBBY
CIRCULATION SPACE

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