4.1 INTRODUCTION

The Department of Design, Housing, and Apparel (DHA), formally part of the College of Human Ecology (CHE), and the Departments of Architecture and Landscape Architecture, formerly of the College of Architecture and Landscape Architecture (CALA), were merged to create the new College of Design (CDes). To further interdisciplinary and collaborative connections, it is important for the three departments’ offices, classrooms, research and outreach centers, and support spaces are located on the same campus. Currently, they are located in three buildings on two campuses: East Bank and St. Paul. The goal of this project is to design a state-of-the-art facility to house DHA and all of its components in the Armory building on the East Bank campus. This chapter will provide the programming information necessary for designing and planning the new facility in the Armory.

The following items are included in this chapter:

1. Design Goals
2. Organizational Charts
3. Adjacency Matrix
4. Task Analysis and User Requirements
5. Minimum Square Footage Requirements as Shown in Prototypical Space Plans

4.2 DESIGN GOALS

Code Compliance

The interior renovation of the building will be in compliance with the International Building Code (IBC) 2003. The maximum building capacity will be 1200 people. Given the occupancy load, the Armory falls under B/A-3. The construction type used is type IV, heavy timber. In addition, the entire building will be sprinklered. All hallways, toilet rooms and means of egress will also be in compliance with Chapter 1341 of the Minnesota State Building Code.

Sustainability

Sustainability will be an important consideration in the renovation of the Armory. The Leadership in Energy and Environmental Design (LEED) Green Building Rating System will be used for establishing sustainable guidelines for the project,
specifically LEED for Commercial Interiors (LEED CI) will guide design decisions.

Universal Design
The new space for the DHA will take into consideration Universal Design throughout the building. Universal design is designing spaces for people with the widest range of functional capabilities (www.design.ncsu.edu). The design inherently minimizes unintentional hazards.

Place Attachment Theory
Place attachment is commonly defined as, “a person’s bond with the social and physical environments of a place” (Kopec, 2006, p. 62). When broken down further place can be defined individually as a room or space, specific portion of a space being occupied by another person, or an area that is designated for a particular purpose. As well, attachment can be defined by itself as a bond, affection for, or loyalty to something, in this case, to a place (Hawker, 2003). Place attachment revolves around central themes such as people’s emotions and feelings, positive and negative experiences or effects, and satisfaction with specific spaces. There are also two primary interrelated concepts woven into place attachment: place identity and sense of place. These concepts contribute to the holistic concept of place attachment and help create a bond between the designed environment and the people who use it.

Health, Safety and Welfare
Interior designers are responsible for the health, safety and welfare of the people for whom they design. In addition to mandatory code compliance, ergonomics, indoor air quality and ambient and task lighting will be developed to contribute to the users’ health. Safety will be addressed by security systems, signage, and appropriate levels of privacy. People’s welfare will be enhanced through well designed wayfinding; comfort; function; and social, psychological and physical needs being met.

4.3 DESIGN GOALS
The College of Design (CDes) Operation Chart and the Design Housing and Apparel (DHA) Organizational Charts, outline the hierarchical structures within CDes and DHA. This helps put people and their roles into their functional context.
Table 4.1: College of Design Operation Chart
Table 4.2: Design, Housing and Apparel Organizational Chart

FULL TIME FACULTY [Bill Angell (on leave SS06), James Boyd-Brent, Lyn Bruin, Missy Bye, Sauman Chu (on leave F06), Jeff Crump, Marilyn DeLong, Sherri Gahring, Denise Guerin, Tasoulla Hadjiianni, Brad Hokanson, Daniel Jasper, Kim Johnson, Karen LaBat, Seung-Eun Lee, Caren Martin, Barb Martinson (on sabbatic 06-07), Steven McCarthy, Carol Waldron, Gloria Williams, Becky Yust, Ann Ziebarth, & Stephanie Zollinger]

PART-TIME FACULTY [about 20 individuals; varies each year]

GRADUATE ASSISTANTS [about 35 teaching and research assistants each year]

RESEARCH AND OUTREACH CENTER ASSOCIATIONS

- Extension Capacity Areas: Natural Resources, Family Development, Community Vitality
- MURC/IAQ
- by Design
- InformeDesign®
- The Goldstein Museum of Design
- Housing & Community Collaboratory
- Human Dimensioning Laboratory
- Center for Sustainable Building Research
- Design Institute
- Metropolitan Design Center
- Center for Rural Design
- Center for the Changing Landscape
- World Heritage Center
- Digital Design Center
### 4.4 ADJACENCY MATRIX

The following is a matrix showing the adjacency requirements of the DHA spaces.

#### Table 4.3: Adjacency Matrix

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<th>Changing Room</th>
<th>Conference/Suit</th>
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<th>Display Space</th>
<th>Entrance</th>
<th>Gallery</th>
<th>Graduate Studies Conference Space</th>
<th>In-House Design Office</th>
<th>Janitor's Closet/Utility Room</th>
<th>Lecture Hall</th>
<th>Lighting Lab</th>
<th>Library</th>
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Relocation of Design, Housing and Apparel to the Armory 68
Table 4.3: Adjacency Matrix, Cont.

| Server Room | U | U | N | U | D | U | U | U | U | N | N | N | U | N | U | U | U | N | U | N | U | U | U | U | N | N | N | N | N | U |
| Storage     | D | D | N | U | U | N | N | U | D | D | N | N | D | U | D | N | D | D | D | D | D | N | D | N | D | N | D | N | D | N | D |
| Student Storage / Lockers | N | N | N | U | D | N | N | U | N | U | N | N | U | U | D | U | U | N | N | N | D | D | N | D | N | N | D | N | N | D |
| Student Services | N | N | N | U | N | N | N | D | N | N | N | U | N | D | N | D | N | N | N | N | N | D | D | N | D | N | N | D | D | N |
| Studio Classrooms | ~Clothing Design | U | N | N | D | D | D | D | N | N | U | N | N | N | D | U | D | N | N | D | D | N | N | N | D | D | D | U | N | D | D |
| ~Graphic Design | U | N | N | D | D | D | D | N | N | U | N | N | N | D | U | D | N | N | D | D | N | N | N | D | D | D | U | N | D | D |
| ~Interior Design | ~Foundations Studio: Color | U | N | N | D | D | D | D | N | N | U | N | N | N | D | U | D | N | N | D | D | N | N | N | D | D | D | U | N | D | D |
| ~Foundations Studio: Drawing | U | N | N | D | D | D | D | N | N | U | N | N | N | D | U | D | N | N | D | D | N | N | N | D | D | D | U | N | D | D |
| Supply Store | N | N | N | U | N | N | U | N | D | N | N | U | N | N | N | U | U | N | N | N | N | N | D | D | N | N | N | D | D | D | D |
| Textiles Lab | T | U | U | D | N | U | U | N | U | U | U | N | N | N | U | U | U | U | N | D | U | U | N | N | D | N | N | D | D | D | D |
| Vending Area | W | N | N | D | D | N | D | N | D | N | D | N | D | N | D | D | N | D | N | D | N | D | N | D | N | N | N | N | N | N |
| Weaver Room | W | U | N | D | D | N | N | N | U | N | U | N | N | N | U | U | U | U | U | U | D | D | N | N | D | D | N | D | D | D |
| Work Room: Staff | N | U | N | U | U | N | U | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| Work Room: Students | U | U | N | U | N | N | N | N | N | N | N | N | N | U | U | D | U | U | D | D | D | D | D | D | D | D | D | D | D | D |

Key:

- Durable: D
- Unnecessary: N
4.5 TASK ANALYSIS AND USER REQUIREMENTS

AUDITORIUM

General Room Description:
The auditorium will be used as a lecture hall for various courses in Clothing Design, Graphic Design, Housing Studies, Interior Design, and Retail Merchandising. The space will accommodate a large audience, a couple of speakers, and the technology necessary for instruction or other presentations. There is also the opportunity for the space to be utilized by different organizations to view videos or PowerPoint presentations. These groups could include student organizations or other classes not regularly having class in the auditorium.

Task Analysis:
- Student note-taking from lectures or presentations
- Viewing of Power Point presentations or videos
- Reading passages from course textbooks
- Class discussions
- Lecturing or teaching, including guest lectures
- Test/Quiz taking
- Viewing materials (such as textiles)
- Storage of book bags and class materials adjacent to each seat
- Coat storage
- Technology access for students (wireless internet access)

Square Footage:
Total square footage: 2,800
See Appendix G for prototype.

Place Attachment Theory:
Emotions/Feelings:
- Use stadium seating to create a feeling of immensity and solidarity, giving students a sense of structure.
- Provide dimmable lighting for comfortable viewing of the projector screen.
- Create a comfortable routine for students by offering lecture classes in the auditorium. This will facilitate a bond with the learning facility.
Positive and Negative Experiences or Effects:

- Face all seats toward the front of the room to emphasize the importance of the lectures or presentations and to facilitate a positive learning experience.
- Provide audio/visual equipment to enable audience members to hear and see clearly, creating a positive learning experience.

Satisfaction:

- Use unique materials or a combination of textures to make the space stand out and to promote satisfaction.

Social Requirements:

- Multiple users per class schedule and semester
- Varying number of people at any given time: 30-150 people
- Socialization occurs through class discussions
- Hierarchical structure: teacher leads, students participate and complete assignments

Psychological Requirements:

- Clearly marked exits
- Focus on the presentation material
- Should be focused on a point. Can be large stadium seating rooms but should not make users feel like they are set apart from other users in the space.
- Inviting, ample space between rows and chairs
- Comfortable seating for long periods of sitting

Physical Requirements:

- Length of stay: 1-2 hrs.
- Specific route of travel dictated by furniture placement
- Acoustical needs to absorb and reflect sounds throughout space

- Acoustical wallcovering
- Carpet
- One podium with storage below, meet accessibility requirements
- Projector
• Screen
• AV equipment
• Flexible lighting

Additional FF&E:
- 100 stadium seats with tablet arms; 95 right handed and 5 left handed
- 1 table for professor
- 1 task chair for professor
CAFÉ AREA

General Room Description:
The café area will include several small groupings of tables and chairs, allowing students to sit and eat their lunches or snacks; enjoy a cup of coffee, tea, or hot chocolate. A small service counter will offer beverages such as coffee, tea, and specialty drinks. In addition there will be pre-assembled sandwiches available, as well as muffins, scones, and donuts. It will be utilized during and after typical school hours.

Task Analysis:
- Purchasing hot or cold beverages
- Purchasing snack or lunch foods snacks
- Throwing away garbage
- Eating
- Students reading textbooks, completing homework
- Socialization between faculty/staff/students

Square Footage:
Total square footage: 2,073
See Appendix G for prototype

Place Attachment Theory:

Emotions/Feelings:
- Make food choices clearly visible to allow people to view their options easily.
- Use stainless steel surfaces or other surfaces that are easily cleaned and maintained.
- Provide a view of the exterior to help people form a connection with the space.

Positive and Negative Experiences or Effects:
- Specify large table surfaces that may be used for eating, studying, and socializing.

Satisfaction:
- Create an interesting, lively environment to promote satisfaction.

Social Requirements:
- Frequent visits, daily by multiple users primarily during the academic year
• Minimal or intimate socializing: meetings, homework, lunches
• Varying number of people at any given time
• Length of stay: 5-30 minutes
• Specific route of travel

Psychological Requirements:
• Lively colors to enliven students as well as nourish them should be located in an area where not a lot of time is spent. Quick in and out solution; this should not be a long stop.
• Bright and inviting

Physical Requirements:
• Snack counter (i.e., Java City)
• Sink/counter
• Refrigerator
• Cash register
• Glass display case
• Cabinet storage
• Salt/pepper shakers
• Napkins
• Garbage containers x 2
• Recycling bins x 2
• Hard flooring

Additional FF&E:
  • Tables - 6
  • Chairs – 24 (4 at each table)
CAREER CENTER

General Room Description:
The Career Center office is currently configured as two open offices (rooms 197 and 198) and an interview room.

Room 197: Students go here for career guidance, counseling, or other career-related resources. There are long, rectangular tables, and side chairs for mock interviews or resume critiques.

Room 198: An office within the Career Center where the staff works. There are open-office workstations with high wall partitions and sliding doors. There is an open area with a round table for internal staff meetings.

Room 199: This is where prospective employers who are outside the University of Minnesota, come here to interview students. This room is also a space where career counseling staff engages in mock interviews with students.

Task Analysis:
- Office work
- Counseling work/work with students
- Resume critiques
- Cover letter critiques
- Mock interviews
- Real job interviews

Square Footage:
Total square footage: 1,350
See Appendix G for prototype

Place Attachment Theory:
Emotions/Feelings:
- Satisfaction from staff in performing job tasks
- Satisfaction from students in finding a helpful resource
- Frustration with job search
- Frustration with functions due to ineffective/inefficient space
Positive and Negative Experiences or Effects:

- Can work be completed in this environment, or is it frustrating to work in this space?
- Is a student able to find what he/she needs?

Satisfaction:

- Sense of accomplishment in job functions
- Sense of accomplishment in a job interview, mock interview, portfolio review, etc.
- Sense of connection to University of Minnesota as a whole, and the outside environment

Social Requirements:

- Frequent visits by multiple users, especially during the academic year
- Intimate socializing, or private meetings
- Varying number of people at any given time
- Length of stay: 5 minutes – 1 hour
- Hierarchical structure: Follow the hierarchy model of administration at the University of Minnesota.

Psychological Requirements:

- Specific route of travel: Enter and exit
- Acoustical needs for privacy
- Exciting and lively space to encourage students to use the services available and not be timid
- Clearly visible to the areas around it
- Welcoming but quiet space so that users can focus on the tasks that they are trying to accomplish.
- Adequate technology
- Adequate resources
- Accessible
- Convenient and organized with a clear reception area and definable private area
- Interview rooms need to have a professional image/feeling in order to give a positive impression to visitors who may be on the exterior of the University of Minnesota’s community (i.e. outside employers interviewing students)
The Career Center would prefer two rooms due to the number of interviews they conduct, with a phone line and a meeting table that seats a minimum of four people.

**Physical Requirements:**
- 10 – 20 chairs for waiting areas
- 4 lounge chairs
- 7 – 10 task chairs
- 3 – 6 guest chairs
- 2 conference tables
- Conference table seating
- Workstations
  - Cubicles

**Equipment in space:**
- 4 large bookcases (80” tall) – 18 square feet
- 2 student computer stations – 10 square feet
- 2 lateral files – 12 square feet
- 2 Printers – 20 square feet
- 1 copy/fax machine – 12 square feet
- Television – 6 square feet
- Computer for each cubicle (7 total for all 3 rooms) 3 square feet

**Workstation Square Footage:**
- Small: approximately 64 square feet
- Large: approximately 128 square feet

**Additional FF&E:**
- Type of Work surface: Laminate
- Floor Material: Carpet
- Wall Material: Painted drywall, masonry
- Ceiling Material: Painted drywall
- Windows
CHANGING ROOM

General Room Description:
The changing room is a space for changing and/or fitting clothing by clothing design students and models. The room may be partitioned into individual fitting rooms and may be in use by 2-4 people at any given time.

Task Analysis:
- Changing clothing
- Fitting patterns, clothing items
- Preparing models for fashion shows

Square Footage:
Total square footage: 280
See Appendix G for prototype

Place Attachment Theory:
Emotions/Feelings:
- Create a safe, private space for changing.

Positive and Negative Experiences or Effects:
- Specify colors and lighting that will enhance a user’s complexion, promoting a positive experience with the space.

Satisfaction:
- Provide adequate space for changing.

Social Requirements:
- Varying number of people at any given time: 2-4
- Minimal socialization
- Length of stay: 10 – 30 minutes

Psychological Requirements:
- Privacy needed for changing clothing

Physical Requirements:
- Full-length mirrors: 2 minimum
- Small bench seating: 2 minimum
- Fitting room partitions: 2 minimum
- Space for fitting patterns 16 sq. ft. minimum
COMMUNITY SPACES

General Room Description:
The common spaces will be for gathering and will encourage social interaction among small and large groups, as well as be comfortable for individual lounging. These spaces will be flexible, allowing various activities to take place, including meetings for school projects, receptions, or spontaneous conversations. Students, faculty, staff, and the public will use these spaces. Visits will be frequent, and the length of stay may be five minutes to a few hours.

Task Analysis:
- Individual study/work
- Group study/work (2-10 students)
- Reception/party
- Lounging
- Talking
- Eating
- Working on a laptop
- Display of student work

Square Footage:
Total square footage: 350
See Appendix G for prototype

Place Attachment Theory:
Emotions/Feelings:
- Create spaces that are used solely for displaying student work and disperse them throughout the building to promote continuity, familiarity, and a sense of identity for students and visitors.

Positive and Negative Experiences or Effects:
- Design these spaces to be flexible and to accommodate individuals, groups, and receptions to increase satisfaction and create a sense of place for users.
- Allow for spontaneous social interaction by crossing circulation paths and by placing student work areas near one another to create support networks and to encourage place attachment.
• Design these spaces to create a sense of community and to encourage socialization, enabling place attachment among users.

**Satisfaction:**
• Incorporate nature into the spaces to increase satisfaction.
• Use a variety of unique materials in the design to create distinctive spaces that will promote place attachment through spatial identity.
• Provide variation in aesthetic and privacy levels for the diverse tasks that will take place in these spaces.
• Provide enclosed areas for group work that will contribute to greater group cohesiveness and satisfaction.
• Design these spaces to be comfortable, inviting, and intriguing for users to increase satisfaction and entice people to use them.
• Color code signage or repeat color to tell the user something, i.e.: all toilet room doors are blue. Color is easy for the mind to comprehend and this tactic will give the user a sense of place when they know what each color “means.”

**Social Requirements:**
• Frequent visits by multiple users during the academic year
• Socialization occurs through private meetings and group discussions
• Varying number of people at any given time
• Length of stay: 5 minutes – 3 + hours
• Hierarchical structure: None determined
• Specific route of travel
• Acoustical needs to absorb sound

**Psychological Requirements:**
• Sense of community with students and faculty that use the space
• Welcoming spaces that encourage interaction to take place
• Inviting, friendly, socially welcoming
• Comfortable
• Occupants need to know where the exits are located through proper wayfinding and signage
• Occupants need to feel perceived safety from anywhere in the building

**Physical Requirements:**
• Lounge seating: 10 minimum
• Side tables: 5 minimum
• Group tables: 6 minimum (seat 4)
• Drinking fountains
• Computer kiosks: 2 minimum
• Display space
• Greenery
• Ambient lighting
• Task lighting
• Wireless Internet access
• Computer network access
COMPUTER LABS

General Room Description:
A public computer lab used by students and faculty. Several different rooms are needed so that certain scheduled classes can be held. Computer labs that are used for classes need space for a projection screen and equipment. Computers should be arranged so that each person at a computer can see the screen from their computer. An area is required for the printers and plotters. There should also be an area for one or two computer lab monitors, consisting of a work space and room for their computers, used during open lab hours.

Task Analysis:
- Computer work
- Printing
- Meeting
- Teaching
- Learning
- Taking Notes

Square Footage:
Total square footage: 4,725
See Appendix G for prototype

Place Attachment Theory:

Emotions/Feelings:
- A warm and inviting environment will make work in this industrial space more pleasant; students will want to work at school instead of at home
- Provide plant life to reduce industrial feel

Positive and Negative Experiences or Effects:
- Easy to find location, a hard to find location will cause confusion and emotional stress

Satisfaction:
- Providing areas for individual and group study will help every user be more satisfied with the space, and feel ownership since it accommodates their needs
Social Requirements:

- Frequent visits by multiple users
- Minimal socialization between visitors (primarily students)
- Varying number of people at any given time
- Length of stay: 5 minutes – 3 + hours
- Specific route of travel needed
- Classroom setting: Interaction between student(s) and professor

Psychological Requirements

- Space planning so that users feel comfortable in the space.
  - Prospect refuge: backs to a wall and not to a door; users have the ability to see those entering into the lab
- A non sterile, inviting environment will encourage students to feel more at home
- A space void of distractions will help users focus on computer work

Physical Requirements:

- Classroom Setting:
  - Computers: 20
  - Desks/tables: 20
  - Computer/task chairs: 20
  - Projection screen: 1
  - A/V Equipment: 1
  - Scanners

- Reception Areas and Printing Areas in the computer lab
  - Scanners
  - Color printer: 2
  - Black and white printer: 3
  - Plotter
  - Help Desk
    - Work station for at least 1 employee
    - Computer
    - Storage
  - Storage for paper
  - Lighting (avoid glare)
  - Natural light
Special Requirements:

- Special heating and cooling considerations due to the heat the computers produce
- Different spaces are needed for computer group work and individual users
- Place attendant desk so the employee can supervise the rest of the area
- Window treatments (Mecho Shades) to block glare on the computers
DISPLAY SPACES
General Room Description:
There are two types of display cases that are used in the College of Design:
- Wall mounted display cases to display two-dimensional student work
- Enclosed spaces or small rooms that are enclosed on two or three sides with windows to display three-dimensional student work
Each major program may prefer to have their own display cases to showcase student work or for studio critiques. Only students and faculty will be utilizing the display cases.

Task Analysis:
- Current student’s work on display
- Display of student’s work for critiques

Square Footage:
Total square footage: 100
See Appendix G for prototype

Place Attachment Theory:
Emotions/Feelings:
- Gratification: Being able to display a project or piece of work in front of peers, faculty and visitors to the College of Design
- Attachment: Establishing a bond with the social and physical aspects of these display cases and creating memories from this bond
- Engaging: Critiques are done in front of peers
- Belonging: Feeling a connection to the community or established culture within the building

Positive and Negative Experiences or Effects:
- Students can establish a sense of identity and belonging within their major and within the College of Design.
- Students in different majors are able to relate to each other by observing their peer’s work; gaining an understanding of what other students are working on in other degree programs.
• Students can create memories relating to events occurring inside of or in front of these display cases, whether good or bad, experiences will be attached to these spaces.

**Satisfaction:**
• Sense of accomplishment for the student because they have their work on display; this honor can translate into having this piece of work incorporated into their portfolio.
• This accomplishment can be addressed in interviews for internships or on resumes under student accomplishments

**Social Requirements:**
• Frequent visits by multiple users: Daily
• Minimal Socializing
• Varying number of people at any given time: 5-30
• Length of stay: 5 minutes – 3+ hours

**Psychological Requirements:**
• Flexible lighting to allow for different emotional responses from users
• Easy to clean, access, and manipulate
• Ample space for different types of media
• Secured to keep all work safe

**Physical Requirements:**
• Wall mounted display cases – (for each program/major)
• Room-like display spaces – (for each program/major)

**Additional FF&E:**
• Accent lights
• Tack-able, wall mounted display flats
  • Potentially throughout public spaces (for each program/major) for display and critique
**ENTRANCE**

**General Room Description:**
This is the place where people enter or exit a building. It can lead into nothing, like a hallway or a split entry; it can be a space that leads into something bigger, such as a lobby, atrium, vestibule; or a space that has elevators and signage.

**Task Analysis:**
- Provide safe and accessible access into and out of a building/enter and exit
- Provide area for postings/signage/communications if necessary

**Square Footage:**
- Total square footage: 512
- See Appendix G for prototype

**Place Attachment Theory:**

**Emotions/Feelings:**
- Create a sense of arrival so people will remember what it is like to enter the space

- Create a logical, non-confusing transition from the outside environment to the inside environment

**Positive and Negative Experiences or Effects:**
- If the entry is not designed to be accessible easy to navigate, a negative experience or effect can occur
- This is the first interior space that a visitor will encounter; this experience will be able to create a positive or negative impression of the entire building. The rest of the interior spaces unfold from the entry point, so the entry way must aim to be a positive experience.

**Satisfaction:**
- Visitors should be able to enter the building and receive the appropriate information needed to navigate the building. This will help contribute to a feeling of satisfaction when entering the building
- Visitors should feel an overall sense of arrival/entry
- Visitors are to be protected from the elements once they enter inside
• All guests will be greeted by appropriate room temperature:
  o Air conditioning in the summer
  o Heat in the winter

Social Requirements:
• Frequent visits by multiple users: Daily
• Socialization space is needed for individuals to orient themselves within the space, to sit alone or sit in groups
• Varying number of people at any given time
• Length of stay: 1 minute – 5 minutes
• Hierarchical structure: Images of the College of Design and/or the Department of Design Housing and Apparel (DHA)
• Specific route of travel: Entrance or Exit

Psychological Requirements:
• Welcoming, inviting, and visually interesting in order to encourage people to come inside the building
• The entry should be visibly prominent

Physical Requirements:
• Walk-off mats to absorb water, snow, and sand
• HVAC ducts above doors
• Signage

Additional FF&E:
• Doors with panic hardware
• Windows with safety glass
• Places for posting information or flyers
• Enough space for people to stand and view posted information
• Signage
FOUNDATION STUDIO: Drawing Classroom

General Room Description:
Classroom used for drawing studios. Students will primarily be using this space for exploring the use of line and shading through the mediums of pencil, markers, charcoal, etc. Professors will be teaching the classes and will need the proper tools to execute their lessons. People will typically be using this space during scheduled class period times. Lighting control is important within the space so that shadowing of people and objects can be flexible. Privacy is also an important issue for class sessions involving nude models for figure drawing.

Task Analysis:
- Drawing
- Teaching
- Listening
- Learning
- Washing of hands
- Posing
- Presenting

Square Footage:
Total square footage: 1,353
See Appendix G for prototype

Place Attachment Theory:

Emotions/Feelings:
- When one enters a classroom at any college of school there are going to be mixed emotions

Positive and Negative Experiences or Effects:
- One can have a feeling of frustration and disappointment when assignments or presentations do not go the way that they were intended
- A feeling of pride for the professor when they can see the students grow in understanding or be frustrated with students that have so much potential, but do not utilize their talents
Satisfaction:
• Sometimes there are days when one feels satisfaction and pride in what they are learning and the project that they are working on.

Social Requirements:
• Multiple users, less frequent visitors
• Intimate socializing
• General class discussion or interaction through activities
• Classroom critique: open space to allow free exchange of ideas
• Interaction between: Student/Professor and Student/Classmates
• Varying number of people at any given time: 5 – 20 people
• Hierarchical structure: Teacher leads, students participate and complete assignments
• Length of stay: 1 – 3 hours

Psychological Requirements:
• Lighting is extremely important so that the student can feel more confident in being able to capture the true essence of what they are trying to draw.

Physical Requirements:
• Desks/tables
• Chairs
• Instructor desk/chair
• Critique area
• Private area for model drawing
• Lighting
• Storage for props
• Sink
• Chalk board or white board

Additional FF&E:
• Drawing tables: 20
• Chairs: 20
• Chalk board: 1
- Dry erase board: 1
- Projector and equipment: 1
- Light table: 2
- Counter and cabinets
- Waste bins: 2
- Sink: 1
FOUNDATION STUDIO: Color Classrooms

General Room Description:
Classroom used for color studios. Students will primarily be using this space for exploring the elements and principles of design through color. Professors will also be using the space and will need the proper tools to execute their lessons. People will typically be using this space during scheduled class period times. Lighting control is important within the space because it may affect color rendition.

Task Analysis:
- Painting
- Teaching
- Listening
- Learning
- Washing of hands
- Presenting/critiquing

Square Footage:
Total square footage: 1,353
See Appendix G for prototype

Place Attachment Theory:

Emotions/Feelings:
- When one enters a classroom at any college or school there are going to be mixed emotions

Positive and Negative Experiences or Effects:
- One can have a feeling of frustration and disappointment when assignments or presentations do not go the way that they were intended
- A feeling of pride for the professor when they can see the students grow in understanding or be frustrated with students that have so much potential, but do not utilize their talents

Satisfaction:
- Sometimes there are days when one feels satisfaction and pride in what they are learning and the project that they are working on

Social Requirements:
- Multiple users, less frequent visitors
• Intimate socializing
• General class discussion or interaction through activities
• Classroom critique: open space to allow free exchange of ideas
• Interaction between: Student/Professor and Student/Classmates
• Varying number of people at any given time: 5 – 20 people
• Hierarchical structure: Teacher leads, students participate and complete assignments
• Length of stay: 1 – 3 hours

Psychological Requirements:
• Classroom colors should be monochromatic overall so that the room is not distracting people away from the education that they are getting while using the space

Physical Requirements:
• Desks/tables

• Chairs
• Instructor desk/chair
• Critique area
• Lighting
• Large basin sink
• Chalk board or white board
• Projection screen
• Storage

Additional FF&E:
• Large tables: 20
• Chairs: 20
• Chalk board: 1
• Dry erase board: 1
• Projector and equipment: 1
• Light table: 2
• Counter and cabinets: placed along one wall
• Sink: 1
• Waste bins: 2
GALLERY

General Room Description:
The gallery space is a place where all students, staff, faculty and members of the general public can come and view work that is on display. An open and unobstructed space allows for free circulation and clear viewing of all design work.

Task Analysis:
- Hanging up design work
- Adjusting lighting fixtures
- Painting/repainting wall space
- Installations of three-dimensional design work
- Viewing

Square Footage:
Total square footage: 140
See Appendix G for prototype

Place Attachment Theory

Emotions/Feelings:
- Gratification: Being able to display a project or piece of work in front of peers, faculty and visitors to the College of Design
- Engaging for viewers
- A sense of belonging and respect; feeling a connection to the community or established culture within the building

Positive and Negative Experiences or Effects:
- Students can establish a sense of identity
- Students in different majors are able to relate to each other by observing their peer’s work; gaining an understanding of what other students are working on in other degree programs.
- Students can create positive memories from this experience
Satisfaction:
- Sense of accomplishment for the student because they have their work on display; this honor can translate into having this piece of work incorporated into their portfolio.
- This accomplishment can be addressed in interviews for internships or on resumes under “Student Accomplishments”

Social Requirements:
- Frequent visits by multiple users: Daily
- Minimal Socializing
- Varying number of people at any given time: 5 – 20 people. More if there is a small gallery opening
- Length of stay: 1 minute – 30 minutes
- Specific route of travel: Determined by the curator

Psychological Requirements:
- Flexible lighting to allow for different emotional responses from viewers

Physical Requirements:
- A space that can be changed out quickly
- Ample space for different types of media
- Secured environment as to keep all design work safe

Additional FF&E:
- Dramatic lighting
GRADUATE STUDENT CONFERENCE SPACE

General Room Description:
This space is a gathering space for graduate students to meet with each other over work and school issues. It should be a central location to the users. It is used for individual work when not in use for meetings.

Task Analysis:
• Meeting
• Group work
• Individual work

Square Footage:
Total square footage: 325
See Appendix G for prototype

Place Attachment Theory:
Emotions/Feelings:
• Creating a space that is comfortable and inviting. Users must feel that this space is useful and well designed so that they will use this area instead of other public meeting spaces

Positive and Negative Experiences or Effects:
• Provide a central location that is easily accessible to most of, or all users to create satisfaction within the space
• Allow the space to be easily reserved for use, encouraging users to utilize this space more frequently

Satisfaction:
• Create a feeling of ownership with the area

Social Requirements:
• Frequent interaction between graduate students and his/her advising faculty member during the academic year
• Socialization Through meetings or lunches
• Varying number of people at any given time
• Length of stay: 10 minutes – 2 hours
Specific route of travel needed if the office is being shared

- Acoustical needs

**Psychological Requirements:**

- Create a space that can be closed off at any given time, will put users to ease when they are having a confidential or private meeting
- Providing a flexible system of chairs and tables will allow users to arrange them accordingly

**Physical Requirements:**

- Table
- Chairs

**Special Requirements:**

- Privacy, but still accessible to users
INFORMEDESIGN OFFICE

General Room Description:
The InformeDesign office space is an area where employees work to summarize research articles and store research literature. The InformeDesign office is comprised of two spaces:

- A large, shared office space is utilized by one full-time editor, one part-time editor, and four Undergraduate Student Research Assistants. There are multiple desk spaces, each with a computer, and two counter surfaces with storage cabinets above and below to house research articles and journals.
- A small office space is used by the Assistant Director of InformeDesign; it has one desk with a computer, and two storage units.

Task Analysis:
- Summarizing research articles
- Articles are posted on the InformeDesign Web site to serve as a research tool for design practitioners
- Store/file all research articles and journals
- Interaction among coworkers

Square Footage:
- Total square footage: 226
- See Appendix G for prototype

Place Attachment Theory:
Emotions/Feelings:
- The feeling of safety is created by making an inviting atmosphere for employees to work in
- Comfort is created so employees will feel as if they are right at home, establishing an attachment to their environment
- An established sense of belonging to a community within the office and within the College of Design
- Attachment is created by establishing a bond with the social and physical aspects of these spaces and then creating memories from this attachment
- Unification is recognized when co-workers are interacting with each other at their work stations

Positive and Negative Experiences or Effects:
- Part-time employees have the option of working at home or in the office. However, more employees will
be included to work in the office if they feel comfortable in their space.

- Employees working together in a shared office space at certain work spaces will establish physical and social bonds to the space; ultimately they may or may not enjoy working in the space with others
- Employees working alone in the office space may establish and physical bonds to their work space and may or may not enjoy working in the space alone

Satisfaction:

- Meeting the primary needs of the staff members within this space will increase its value, ultimately resulting in a high level of satisfaction and staff members will build attachments to the space
- Creating a space where staff members feel at home because they feel safe and comfortable will give them a sense of belonging while they are at work
- Incorporating a sense of community into this office space, will encourage staff members to work together in producing successful research summaries while they are in this space.

Social Requirements:

- Infrequent visits by few users
- Minimal socializing
- Varying number of people at any given time: 1 – 5
- Length of stay:
  - Full-time employees: 8 hours
  - Part-time employees: 1 – 3 hours
- Specific route of travel

Psychological Requirements:

- Quiet space where students and staff can focus on the research/work they are doing
- Organized and appealing
- Visible presence
Physical Requirements:

- 4 desks/work surfaces
- 4 computers
- 4 task Chairs
- 2 client chairs
- 1 small round conference table
- 4 computers
- Cabinet storage for supplies: 20 square feet
- 1 lateral File
- 1 Printer

Additional FF&E:

- Work surfaces: 2’ x 6’ for each work space
- Cabinet, counter and sink area: 20 square feet
- Shelving storage: 2 – 3 units
- Lower cabinet storage: 7 – 10 cabinets
  - 20” wide
  - 30” high
  - 24” deep
JANITOR CLOSET / UTILITY ROOM

General Room Description:
The janitor closet will store all necessary cleaning and maintenance supplies for each floor of the building. The space will only be used by maintenance staff and will typically be accessed during evening hours.

Task Analysis:
- Storage

Square Footage:
- Total square footage: 168
- See Appendix G for prototype

Place Attachment Theory:
Emotions/Feelings:
- Make the maintenance staff feel appreciated by creating an organized, well-supplied, and somewhat visually appealing environment.

Positive and Negative Experiences or Effects
- Provide adequate ventilation to reduce the negative effects that the lack of windows in a small space containing chemicals may have on the maintenance staff.

Satisfaction:
- See emotions/feelings

Social Requirements
- Infrequent visits by few users
- No socializing
- 1-2 people at any given time
- Length of stay 5-15 minutes
- Specific route of travel

Psychological Requirements
- Organized to allow for users to find things with ease and efficiency
- Well lit
Physical Requirements:

- Mess sink
- Utility sink
- Storage for cleaning supplies, brooms, mops, garbage bins
- Mirror
LECTURE HALL

General Room Description:
The lecture hall is an auditorium style space that is used for the education of a large number of students in a higher educational setting. Educational material that is presented to students varies from class to class and can be presented in a variety of ways. Seating is typically fixed stadium seating and can accommodate hundreds of students. The front of the lecture hall is the focal point of the space and the teacher is located at a table or podium. Lighting is controlled by the instructor and can be adjusted to accommodate different presentation methods. Aisles must be kept clear and exits adequately marked to allow for safe egress in the case of an emergency.

Task Analysis:
- Professor lecturing
- Students attending a lecture
- Technology use to assist lecture

Square Footage:
Total square footage: 3,777
See Appendix G for prototype

Place Attachment Theory:

Emotions/Feelings:
- Create an atmosphere where students are comfortable
- Use unique materials or a mix of textures to make the space stand out

Positive and Negative Experiences or Effects:
- Create a fun environment where students will want to participate and become involved in lecture

Satisfaction:
- Create a focal point at the center of the room so students will be able to focus
- Design a comfortable space with a lively atmosphere in increase student satisfaction and connection to the lecture halls
Social Requirements:

- Multiple users per class schedule and semester
- Varying number of people at any given time: 50 – 150 people
- Socialization occurs through classroom lecture
- Hierarchical structure: Teacher leads; students participate and complete assignments
- Length of stay: 1 – 2 hours
- Specific route of travel dictated by furniture placement
- Acoustical needs to absorb and reflect sounds throughout space

Psychological Requirements:

- Clearly marked exits
- Focus on the presentation material
- Should be focused on a point. Can be large stadium seating rooms but should not make users feel like they are set apart from the other users in the space.
- Inviting, ample space between rows and chairs
- Comfortable seating for long periods of sitting

Physical Requirements:

- Stadium seating w/ attached writing surface
- Projection screen
- AV equipment
- Audio/visual hookups
- Podium w/ microphone and task light
- Acoustic wall panels

Additional FF&E:

- Stadium seating with tablet arms for 100-500 students
- Movable tables and chairs for 16-20 students
- Open storage for:
  - Coats
  - Book bags
- Podium 30”D x 36”W
- 4-5 side chairs 18” x 18”
- 2-3 mobile writing surface 30”D x 48”W
- Pencil sharpener
- Clock
Special Requirements:

- Aisle clearance: 4'-0”
- Clearance from front wall to first row of movable seating: 8'-0” minimum
- Clearance between rows: 38”
- If using tablet-arm with fixed seating, 10% of tablet arms must be left handed

Special Considerations:

- Egress requirements depending on code and occupant load
- Focal point that holds attention on professor
- Adjustable lighting levels for control
- Adjustable temperature and HVAC system ideal
- Secure storage for technology equipment
LIGHTING LAB

General Room Description:
Lighting classes use the space to experiment with different types of lighting. In addition, this space is open and flexible allowing for presentations, classes, and experiments related to their field of study.

Task Analysis:
- Lighting class demonstrations and research studies
- Presentations
- Displays

Square Footage:
Total square footage: 1,200
See Appendix G for prototype

Place Attachment Theory:
Emotions/Feelings:
- Mixed experiences lead to different emotions elicited by different lighting types

- Nervousness from previous experiences within the space
  - Portfolio Review
- Nostalgia from previous experiences in a lighting class

Positive and Negative Experiences or Effects:
- Lighting display vignettes
- Presentations
- Portfolio Review
  - Traumatic experience for Interior Design students

Satisfaction:
- Sense of accomplishment, due to previous experiences
- Different lighting fixtures provide visuals for students who are in currently enrolled in the lighting class

Social Requirements:
- Multiple users
- Visitors: Depending on what the space is set up for
• Minimal socialization/interaction
• Varying number of people at any given time
• Primary interaction: Student/Professor
• Length of stay: 10 minutes – 3 hours
• No standard specific route of travel
• Acoustical needs to absorb noise

Psychological Requirements:
• An open space that is not threatening to those who may be presenting designs
• Large open space which will allow students to experiment freely with different lighting issues
• Inviting
• Group task oriented

Physical Requirements:
• Lighting examples
  o Florescent lamps with louvers
  o Par lamps
  o Spots
  o Low-voltage lamps

  o High-Intensity Discharge (HID) lamps
  o Low-Pressure Sodium (LPS) lamps
  o Ballasts and transformers

• Light Control
  o Reflection
  o Refraction
  o Glare

• Photometrics
• Open, flexible and accessible space
• Storage for many lamp types
• Workstations for researchers
LOBBY

General Room Description:
The lobby is a space that directly follows the entry space and connects to adjacent circulation spaces. This space serves as a medium for communication as it is typically in a central location, and it is utilized by most people who are entering the building. Also, the lobby is a space where various organizations or members of the design community can post announcements. This space can also be used as a reception area for large event in the College of Design.

Task Analysis:
- General circulation
- Gathering
- Waiting
- Posting information
- Hosting receptions

Square Footage:
Total square footage: 855
See Appendix G for prototype

Place Attachment Theory:

Emotions/Feelings:
- The identity of the College of Design helps to establish a feeling of community
  - Communicating these elements will be vital to creating a sense of belonging and attachment to the College of Design
- Frustration can arise due to inadequate signage/wayfinding
- An overall feeling comfort and safety can be achieved by maintaining visual surveillance of the entry allowing students

Positive and Negative Experiences or Effects:
- Positive socialization can be obtained by providing ample seating, encouraging students to use the lobby as a primary waiting or gathering space
- Unique materials will help set the space apart by creating new welcoming experiences for first time visitors
Clear signage, maps, and directional cues help limit negative experiences associated with ambiguous wayfinding.

The visibility of large gatherings before and after classed creates a sense of connectedness.

**Satisfaction:**
- Incorporate views of green space or direct access through adjacencies.
- Adequate lighting will ensure a satisfactory feeling of perceived safety and comfort for students.
- Clear signage will aid in the overall satisfaction with the atrium.

**Social Requirements:**
- Frequent visits by multiple users: Daily.
- Minimal to frequent socializing.
- Varying number of people at any given time: 5 – 60 people.
- Length of stay: 5 minutes – 1 hour.

**Psychological Requirements:**
- Ease of access to exits and visibility.
- Signage and maps will help all users locate where they are and where they need to go.
- Open and inviting.
- This space helps create a unified presence of the College of Design and the Department of Design Housing and Apparel.

**Physical Requirements:**
- Computer kiosks.
- Seating.
- Side tables.
- Garbage and recycling bins.

**Additional FF&E:**
- Display flats.
- Moveable seating.
MATERIALS LIBRARY / CLIPPING ROOM

General Room Description:
The materials library will be used by interior design students for selecting materials, finishes, and equipment for design projects. The space may be in use at all times and the length of stay may vary from 5 minutes to a few hours. Areas for individual and group work will be provided, as well as ample storage for organizing all materials, finishes, and equipment.

Task Analysis:
- Looking for materials, finishes, and equipment
- Putting away materials, finishes, and equipment
- Cutting
- Pasting
- Making sample/finish boards
- Individual work
- Group work of 2-5 students

Square Footage:
Total square footage: 630
See Appendix G for prototype

Place Attachment Theory:

Emotions/Feelings:
- Provide well-known, current materials to help students feel like professional designers, creating a sense of identity and value.

Positive and Negative Experiences or Effects:
- Provide wall space for interactive inspiration/work to give students a unique experience and a sense of accomplishment, i.e., marker boards for sketching, easels with paper so that groups can sketch things quickly, artwork/pin-up area to display images/things that will spark ideas. This experience will connect users to their place.
- Create a permanent space with built-in storage units to promote a sense of value and identity among student users, reassuring them that this space is important and will not be removed or encroached upon by something else.
**Satisfaction:**

- Incorporate nature through windows with an interesting view.
- Display professional or student design work for inspiration within the space to increase satisfaction.
- Provide continuity in the built-in storage units to create a sense of familiarity, satisfaction, and identity.
- Design the space for ease of use by students to increase the utilization of and satisfaction with the space.
- Create flexible work areas within the space to enable individual and group work. This will increase satisfaction among users and create a sense of place.
- Design the space to be comfortable, inviting, and intriguing for users, increasing satisfaction and enticing people to use it.
- Use a variety of unique materials in the design to create a distinctive space.
- Provide various types of lighting for viewing materials.

**Social Requirements:**

- Frequent visits by multiple users: Daily
- Minimal socializing occurs as individuals
- Frequent socializing can happen in (large) group work
- Varying number of people at any given time: 5 – 20
- Hierarchical structure: None necessary
- Length of stay: 10 minutes – 1 hour
- Specific route of travel

**Psychological Requirements:**

- Organization and good lighting so that users can find things with ease without frustration or confusion.
- Easy to use so that the space will be properly utilized, easy to put things away, if it is easy to keep clean it will be used more
- Allow for possible social interaction
- Well-stocked with materials, finishes, and equipment product information or samples
- Occupants need to know where the exits are located through proper wayfinding and signage
• Occupants need to feel perceived safety from anywhere in the building

Physical Requirements:
• Shelving storage: 45 linear feet, 12” deep
• Cabinetry storage: 50 linear feet, 12” deep
• Counter space: 50 linear feet, 24” deep
• Tables: 3 tables minimum (seat 6)
• Chairs: 18 minimum
• Ladder
• Computers
• Peg system for hanging various materials
• Natural light
• Service desk
  o Desk w/return
  o Computer
  o Storage
• Ambient lighting
• Wireless Internet access
• Computer network access
• Cutting surfaces
• Cutting equipment
MEETING/CONFERENCE ROOMS

General Room Description:
Meeting/conference rooms will be used by staff, faculty, and graduate students for meetings, conferences, presentations, organization meetings, and workshops. It will be used during daytime and evening hours. The number of users will vary from 2-40.

Task Analysis:
- Board presentations
- Power Point presentations
- Staff meetings
- Organization meetings
- Seminars
- Workshops

Square Footage:
Total square footage: 1,920
See Appendix G for prototype

Place Attachment Theory:

Emotions/Feelings:
- Incorporate a variety of unique architectural and interior materials to create a meaningful space.
- Provide windows to relate the space to positive emotions with the outdoors.
- Allow for interaction among users in order to promote bonds with the building.

Positive and Negative Experiences or Effects:
- Create a comfortable environment to increase the frequency of users.

Satisfaction:
- Allow student work to be displayed (i.e. wall art) to create a sense of identity and belonging.
- Provide a professional setting to promote satisfaction.

Social Requirements:
• Frequent visits by multiple users: Daily during the academic year
• Socializing occurs through private meetings, or through group meetings (large and small meetings)
• Varying number of people at any given time: 5 – 20
• Length of stay: 5 minutes – 3 + hours
• Hierarchical structure: None determined
• Specific route of travel
• Acoustical needs to absorb noise

**Psychological Requirements:**
• Unobtrusive and comfortable space where users feel free to express their views
• Secluded area away from distractions so that meetings can happen without interruptions.
• More formal, sophisticated aesthetic
• Adequate, easy to use technology
• Enclosed, clear sight lines
• Flexible in usage types

**Physical Requirements:**
• Flexible furniture layout
• Tables- 10- 30” x 60”
• Chairs-40
• Projection screen
• AV equipment
• White board
• Upper and lower cabinet storage: 10’ x 2’

**Special Considerations:**
• Screen should be placed perpendicular to seated user sightline
• Viewing angle is 50 degrees above sightline and 35 degrees below
General Room Description:
Administration, staff, faculty, and graduate students will use the office spaces. The offices may be private, shared, or open-office workspaces.

Definitions:
Administration:
Activities include administrative support services related to providing the general student population with supplementary educational service, counseling and career guidance, financial aid assistance, and the maintenance of student records.

Academic administration:
Activities include providing administrative and clerical support and management direction for instruction and departmental research, organized research programs and/or other institutional activities. Includes: Department head offices and supporting service rooms, administrative offices and supporting service rooms, clerical offices, academic counseling and advising for staff.

Faculty office:
A room used by a professional engaged primarily in teaching, research or public service. Does not include department head, associate dean, or staff office.

Graduate assistant office:
A room used by students employed as administrative, project, research, or teaching assistants.

Staff office:
A room used by administrative (dean or department head), faculty, or professional staff.

Task Analysis:
Administration/Staff
- Communication by phone, e-mail, or in person
- Paperwork processing and storage
- Short meetings with students or coworkers

Faculty
- Communication by phone, e-mail, or in person
Chapter 4

Relocation of Design, Housing and Apparel to the Armory

• Paperwork processing and storage
• Grading
• Advising
• Preparing presentations (lecture or other)
• Meeting with students or coworkers
• Writing/computer work
• Research

Graduate Students
• Communication by phone, e-mail, or in person
• Studying
• Research
• Preparing lectures and class activities
• Grading
• Writing/computer work

See Appendix G for prototypes

Place Attachment Theory:

Emotions/Feelings:
• Provide clear sightlines, locked personal cabinets or drawers, and adequate general lighting throughout the office area to create a sense of safety.
• Clusters of offices within an open office area will have a receptionist to create a feeling of security for users.

Positive and Negative Experiences or Effects:
• Make the space easy to navigate and not visually cluttered to provide a comfortable and familiar environment.
• Using unique materials to create interest and attachment within the space.
• Creating flexible seating options where visitor chairs are incorporated will provide control over interaction among users.

Square Footage:
Total square footage: 8,488
Satisfaction:
- Allow space for an individual’s personal effects (photos, minimal trinkets) to assist in place attachment.
- Incorporate DHA and CDes branding within the space to create a sense of community.

Social Requirements:
All Administration, Faculty, Staff, and Grad Students
- Varying number of people at given time
- Hierarchical structure: follow hierarchy model of administration at the University of Minnesota; use other academic departments as models for consistency
- Specific route of travel: entrance and exit
- Acoustical privacy needs for intimate conversations

Administration/Staff
- Frequent visits by multiple people: daily during the academic year

Faculty
- Infrequent visits by few users, however the visits occur daily
- Intimate socializing through meetings or private conversations
- Length of stay 5 minutes – 8 hours

Graduate Student
- Infrequent visits by few users, however visits can potentially occur daily

- Intimate socializing through private meetings or private conversations
- Length of stay: 5 minutes – 8 hours
- Accessible to students without losing privacy (closing a door to keep privacy makes it appear that the individual is occupied or not available).
• Intimate socializing through small meetings with academic advisors or undergraduate and graduate students
• Length of stay 5 minutes – 8 hours

**Psychological Requirements:**

All Administration: Faculty, Staff, and Graduate Students
• Feeling that space can be personalized and conditions controlled
• Perceived spaciousness
• Perceived privacy
• Perceived safety

Administration
• Privacy is important because work is typically with documentations that are not for public viewing
• Inviting, organized, reception open to public, with offices open only by appointment

Staff
• Welcoming open spaces as staff typically provide people with information

Faculty
• Inviting with a clear flow
• Perceived privacy and organization

Grad Student
• Quiet areas for focusing on teaching lessons or research
• Inviting with a clear flow
• Perceived privacy and organization

**Physical Requirements:**

• Administration, Faculty, Staff, Grad Student, Facility/IS
• Workstations or Offices (current numbers)
  • Administration/Staff
  • CDes Administration
  • 9 Private offices
  • 1 office shared by 3 people
  • 13 cubicles
Chapter 4

- Student Services
  - 6 private offices
  - 10 cubicles
- Faculty private offices
  - 3 Clothing Design
  - 6 Graphic Design
  - 3 Housing Studies
  - 5 Interior Design
  - 3 Retail Merchandising
  - 1 Other
- 35 Graduate student (average per year) workstations
- Work stations/areas for about 20 part-time staff and other positions that do not require a full private office or workstations. These may be shared or assigned yearly.
- There may be fluctuations from year-to-year for graduate students and part-time faculty and adjunct faculty.
- Consult organizational charts and Table 1.1 for additional information of how these may be arranged to achieve the goals of DHA and CDes.
- 107 Task chairs + number of PT faculty workstations (5-20)
- 80 guest chairs (approximately, place as needed in private offices, and shared within clusters of workstations)
- Storage for books
  - 1- 5’ shelf minimum per workstation
  - Additional 20’ + for faculty desired
- 1 paper file- lateral preferred (1 or 2 pedestal files may be sufficient for part-time or temporary positions.
- Computers- space for PC provided by U of MN or for personal laptops.
- 1 Copy/Fax machine per office area
- Storage for coat/personal items (100-130 coat hooks, lockers or combination)
- Kitchenette containing refrigerator, sink, microwave, and cupboard storage.
- Task lighting provided at each workstation
1 B&W printer for each office area, approximately 1 for every 10 people minimum.
• 130 mail slots minimum, located near workstation.
• 1 workroom containing papers (white and color), office supplies, copy/fax, paper cutter, and printer.
• Reliable wireless and LAN internet connections
• 1 scanner for each small office area (approximately 1 scanner to 5 people)

Additional FF&E:
  o Recycling and garbage bins
  o Lounge or guest seating as needed
  o Side tables and coffee tables as needed
  o Additional shared book or lateral file storage where possible (particularly in graduate student areas.
  o Study area containing lounge furniture and tables for graduate students with daylight.

Special Considerations:

The arrangement of offices will be integral as part of the design solution. Office centers such as DHA administration or Student Services may have their own office centers, but the other faculty, staff, and graduate students may be separated by major, or clustered together to collaborate across majors. There may be an arrangement that will come out of further design exploration and understanding of the goals of DHA and the College of Design.

The Facilities Management has standards for offices that may be used as a guideline for square footage requirements.

REGULAR CLASSROOMS

General Room Description:
A regular classroom is a space in which traditional education is conducted in a higher educational setting. The size and layout may vary depending on institution and teaching material, but the space typically features a centralized podium or table area for the instructor and flexible seating for students. Student seating may
consist of tables and chairs or chairs with a built in writing surface and can usually accommodate up to 40 students. The regular classroom is designed to be flexible and used by a variety of instructors and classes.

Task Analysis:
- Professor lecturing
- Students attending a lecture
- Technology use to assist lecture
- Personalized interaction with the instructor
- Group activities

Square footage:
Total square footage: 5,000
See Appendix G for prototype

Place Attachment Theory:

Emotions/Feelings:
- Create an atmosphere where students are comfortable.

Positive and Negative Experiences or Effects:
- Use unique materials or a mix of textures to make the space stand out and aid in one’s attachment.

Satisfaction:
- Create a focal point at the center of the room so students will be able to focus and better understand the material (ease frustration and distractions).
- Create a comfortable space with a lively atmosphere to increase student satisfaction and connection to the classroom.
- Provide a view to the outside to increase student satisfaction.
- Allow for flexibility in the design so that the space can adapt to students’ needs.

Social Requirements:
- Frequent visits by multiple users
Chapter 4

- Intimate socializing
- Varying number of people at given time: 5 – 40
- Length of stay: 1 – 3 hours
- Specific route of travel
- Acoustical considerations to absorb/reflect noise

**Psychological Requirements:**
- Clearly marked exits
- Focus on the presentation material
- Should be focused on a point. Can be large stadium seating rooms but should not make users feel like they are set apart from the other users in the space.
- Inviting, ample space between rows and chairs
- Comfortable for long periods of sitting
- Flexibility is important to allow for changes in the structure of the learning process once in while for the users to be stimulated.
- Inviting
- Controlled view to outside or natural light

**Physical Requirements:**
- Desks/tables
- Chairs
- Instructor desk/chair
- Podium
- Chalk board or white board
- Projection screen
- AV equipment

**Additional FF&E:**
- Tables and chairs for 30-50 students (tables, 20” D x 96” W)
- Or tablet-arm chairs for 30-50 students (chairs, 20” x 20”)
- Podium 30”D x 36”W
- 2-3 side chairs 18” x 18”
- 1-2 mobile writing surfaces 30”D x 48”W
- Pencil sharpener
- Clock

**Special Considerations:**
• 26” minimum clear space per student for tables and chairs
• 20” table depth minimum for configuration with tables and chairs
• For tablet arm configuration, 10% must be left handed
• Aisle/walkway clearance: 4’-0
• Distance between rows of tablet arms: 38” – 42”
• Distance between rows of tables and chairs: 48”
• Clearance between last row and wall: 4’-0
• Flexibility in seating and technology requirements
• Natural light or view to outside if possible
• Secure storage for technology when not in use
• Encompass a wide range of use but retain an aesthetic appeal
• Simple layout to ensure flexibility
• Adjustable lighting
• Adjustable temperature controls

SERVER ROOM

General Room Description:
This space houses the networking equipment for the entire building, all computer labs and personal computers within all offices. This room also includes a rack-mounted server system. The server size, layout, and square footage needed for this space will depend on the amount of computers and networks needed by the department. Currently, there is one in McNeal Hall and another server room and in Rapson Hall. Most of the tasks
completed on the system will be performed by the technology staff and the networking administrator; all tasks will be done remotely.

Task Analysis:
- Maintenance of equipment performed by 1-2 people
- Installation of new equipment typically by 1 staff member
- Changing of backup tapes, performed by 1 staff member
- Restarting the backup system, which will be done typically by 1 staff member

Square Footage:
Total square footage: 240
See Appendix G for prototype

Place Attachment Theory:
Emotions/Feelings:
- Simplicity in design will be necessary to insure that the space will not be too complex due the equipment housed in this space

Positive and Negative Experiences or Effects:
- Reduction of feedback and external noise will help to negate adding tension to stressful situations
- Allocation of communication systems will cut down on isolation
- The machines emit an excessive amount of heat upwards of 90° where are the room temperature is set to 61°, so the user will need to have interior control of the temperature for negate negative experiences when lengthy work needs to be completed.

Satisfaction:
- Satisfaction of the operator can be created by designing a space that is easy to work in and can be achieved by addressing the following three issues:
  - Ergonomics
  - Layout
  - Adjacencies
    - Lesser distance to networking area and the building community will help
develop the overall satisfaction of the staff, while improving productivity of the server for those who may be using the internet

Social Needs
- Infrequent visits
- Extremely minimal socializing
- 1 user at any given time
- Length of stay: 5 minutes – 3 hours

Psychological Needs
- Organized and clean
- Secure from those who are not allowed to enter
- Adequate space provided for circulation for all that need to access around any and all equipment

Physical Needs
- Computer servers

- Proper HVAC system
- Moveable chairs
- Ample space for circulation

Additional FF&E
- Two doors within the entry require different keys for security
- Acoustically sound so that the excessive noise created from the mechanical vents does not disrupt the surrounding spaces
- The server board is 19” wide with a depth of 29 – 36” in the current McNeal Hall server room; this may change due to the load requirements
- Back-up batter for the server; various sizes dependant on server load
STORAGE

General Room Description:

This is an area that functions as Design Housing and Apparel’s (DHA) storage for their Alumni records and University of Minnesota marketing literature. Staff uses the space as a filing headquarters for such paperwork that is not always immediately used. Collectively this room requires ample storage space. The space is utilized at various times throughout the day when DHA staff need to retrieve literature or other materials from this space.
Task Analysis:

- Storing
- Filing
- Stacking

Square Footage:

Total square footage: 1,000

See Appendix G for prototype

Place Attachment Theory:

**Emotions/Feelings:**
- Secured storage will encourage staff to want to store things in the space
- Uniform signage creates a familiar sense of place
- Personal department storage will create attachment to place; a common shared territory

**Positive and Negative Experiences or Effects:**

- Centralized workroom location also encourages collaboration of DHA staff, and creates a bond between departments in a shared space; creates cohort group
- A well lit and clean area will also greatly encourage and facilitate positive feelings toward space
- Centralized workroom location creates a bond between departments in a shared space

Satisfaction:

- Well organized and planned filing system will create a user friendly and accessible storage space
- Tactile communication including the use of Braille as well as changes in material and texture assist all users and increase satisfaction in the space
- Audible wayfinding communication includes verbal communication, chimes on elevators, audible landmarks such as fountains, and audio maps also increase confidence and satisfaction in the space

Social Requirements:
• Infrequent visits by few users
• Minimal or zero socializing
• Varying number of people at any given time: 1 – 2 people
• Length of stay: 5 – 10 minutes

Psychological Requirements:
• Organization is important
• Clean
• Adequate Lighting
• Accessible and adequate

Physical Requirements:
• Equipment Needs:
  ○ Shelving for DHA
  ○ Lateral File Cabinets for DHA
  ○ Literature Storage Boxes for DHA
• Storage for:
  ○ DHA Alumni Records
  ○ DHA Marketing Literature
  ○ Various DHA Application forms
  ○ Other DHA paperwork

STUDENT SERVICES
General Room Description:
Student Services is an office that serves many functions for Undergraduate Students within the College of Design. The following information and services are housed within this space:
• Academic Progress Audit System (APAS) reports
• Alumni Relations
• Appointments with:
  ○ Undergraduate Academic Advisors
Chapter 4

- Other staff members
  - Degree requirements
  - Forms
  - General Undergraduate questions
  - Graduation requirements
  - Honors Program Advising
    - Upper Division
    - Lower Division
  - Scholarship information and applications
  - Student files
    - Academic probation students
    - Current Undergraduate students
    - Inactive students
  - Study abroad programs for all majors:
    - Architecture
    - Clothing Design
    - Graphic Design
    - Housing Studies
    - Landscape Architecture
    - Interior Design
    - Retail Merchandising

Task Analysis:
- Administrative tasks
- APAS updates
- Appointments
- Competitive review process for incoming students:
  - Clothing Design
  - Graphic Design
  - Interior Design
  - Retail Merchandising
- Graduation clearance
- Meetings:
  - With other staff and administrative members
  - Prospective student tours given by a Prospective Student Advisor
  - Petitions

Square Footage:
Total square footage: 2,040
See Appendix G for prototype

Place Attachment Theory:

Emotions/Feelings:
- Communicating achievements of the College of Design will be important in order to reaffirm positive place attachment

Positive and Negative Experiences or Effects:
- Enhancing positive connections with prospective students and current students can be achieved by creating a space that is welcoming
- View of gardens or landscaping will reinforce positive experiences

Satisfaction:
- Acoustics and private spaces will lower tension during private meetings

Social Requirements:
- Private spaces for personal or confidential conversation
- Address acoustical needs
- Reception or waiting area
- This space encourages students and others to visit and use the services that are available
- Undergraduate student appointments with their Academic Advisors, or other staff are made at a reception desk, by Student Workers
- Frequent visits by multiple users, especially during the academic year
- Intimate socializing, group meetings, private meetings
- Varying number of people at any given time
- Length of stay: 5 minutes – 1 hour

Psychological Requirements:
- Exciting and lively space to encourage students to use the services and to not be timid
- Clearly visible to students
- Welcoming and easy to find areas help students with questions or problems that they might need answers to
- Adequate technology
• Convenient and organized with a clear public and private area

Physical Requirements:
• Total number of staff:
  o Full-time employees: 10
  o Part-time employees: 10
• Offices
  o Private: 7 – 10
  o Cubicles/workstations: 5 – 7
• Front desk
• Task chairs
• Guest seating
• Waiting area
• Reception table for food and beverages
• Computers
  o Undergraduate Academic Advisors
  o Support Staff
  o Student Workers
• Storage
  o Files
  o Office supplies
  o Binders
  o Miscellaneous supplies for office parties
  o Fax machine
  o Copy machine
  o Printers
    o Color
    o Black and white

STUDENT STORAGE/LOCKERS
General Room Description:
This is an open, flexible area, perhaps in a hallway or gathering space with secured locker storage for Undergraduate students in DHA. Students can store their artwork, studio work, and other learning materials such as textbooks, drawing pads, notebooks, drawing/rendering mediums. Students who are enrolled in DHA can choose to store their work and supplies in a locker so that they do not have to bring such materials to and from home each class period. Students use the space before and after class;
anywhere from 1 to 20 students may use the space at any point in time.

**Task Analysis:**
- Storing
  - Textbooks
  - Drawing pads
  - Notebooks
  - Artwork
  - Drawing and rendering mediums
- Socializing

**Square Footage:**
Total square footage: 200
See Appendix G for prototype

**Place Attachment Theory:**

**Emotions/Feelings:**
- Secured storage lockers with keys will encourage students to want to store things in the space
- Uniform signage creates a familiar sense of place
- Personal storage will create attachment to place; a common shared territory
- Regulation of personal space is important for people to feel comfortable when in close proximity to others

**Positive and Negative Experiences or Effects:**
- Dedicated sufficient storage for student supplies encourage staff to want utilize space; students will use their lockers frequently
- A well lit and clean area will also greatly encourage and facilitate positive feelings toward space
- Creates a common bond between other students who they share a common class or interest, such as they are both graphic design majors
- Centralized student storage location creates a bond between students in different programs in a shared space; creates cohort group
- A camaraderie is formed between students who may share classes together
• This common territory creates connection to campus life as students are able to store their personal belongings there

Satisfaction:
• A well lit and clean area will also greatly encourage and facilitate positive feelings toward space
• Personal locker storage creates a sense of pride in a given environment
• Student artwork hung on walls create attachment to place
• Uniform signage creates sense of place
• Having personal space creates an attachment to the space
• Tactile wayfinding communication including the use of Braille as well as changes in material and texture assist all users and increase satisfaction in the space
• Audible wayfinding communication includes verbal communication, chimes on elevators, audible landmarks such as fountains, and audio maps also increase confidence and satisfaction in the space

Social Requirements:
• Infrequent visits by few users
• Minimal socializing
• Vary number at any given time: 1 – 10 people
• Length of stay: 5 – 10 minutes

Psychological Requirements:
• Organization is important
• Adequate Lighting
• Centrally located so that accessible by DHA students
• Accessible and adequate:
  • Located away from main traffic patterns to ensure privacy and ability to perform tasks
  • Sufficient circulation clearances around lockers are important so that users can use space comfortably
Physical Requirements:
Accessible and Adequate

- Equipment Needs:
  - Lockers
  - Pad locks
  - Keys for Pad locks

- Storage for:
  - Student work
  - 24” x 18” Drawing Pads
  - Drawing/Rendering Mediums
  - Textbooks
  - Notebooks

Additional FF&E:
- Locker Storage Area: 85.5 sq ft
- Lockers: 5 linear sq ft per locker

STUDIO CLASSROOMS: Clothing Design

General Room Description:
The Clothing Design (CD) studio classroom is a space in which specialized education in the field of clothing design and apparel takes place. The space accommodates a wide variety of CD
education activities that includes design work, textile work, group activities, peer critiques, and formal presentations.

The space typically accommodates up to 25 students and the focal point is the front centralized instructor area. The instructor is generally located at a podium or table, however they move throughout the space in order to interact with their students. Students have individual work stations that are used for their specific needs. Critique and presentation space is accommodated within the space, as is storage.

**Task Analysis:**
- Sewing
- Lectures
- Students attending a lecture
- Technology use to assist lecture
- Personalized interaction with the instructor
- Group activities
- Fabric work/ pinning
- Ironing
- Presentations
- Critiques

**Square Footage:**
Total square footage: 2,740
See Appendix G for prototype

**Place Attachment Theory**

**Emotions/Feelings:**
- Create an atmosphere where students are comfortable
- Use unique materials or a mix of textures to make the space stand out and aid in one's attachment
- Create space for students to work together on projects and to be social

**Positive and Negative Experiences or Effects:**
- Create a fun environment where students will want to participate and become involved in studio activities

**Satisfaction:**
• A comfortable space with a lively atmosphere may increase students’ satisfaction and connection to the classroom
• View to the outside will help to increase overall satisfaction
• Allow for flexibility in the design so the space can adapt to the students’ needs
• Permanent display areas will increase a sense of accomplishments

Social Requirements:
• Frequent visits by multiple users
• Minimal to occasional socializing
• Varying number of people at given time: 5-25
• Length of stay: 1-3 hours
• Specific route of travel

Psychological Requirements:
• Stimulating area that will not be distracting from lessons but interesting in volume and space.
• Controlled view to outside or natural light, clean, comfortable
• Spacious, flexible, well-lit

Physical Requirements:
• Tables with cork tops
• Chairs
• Instructor desk/chair
• Chalk board or white board
• Projection screen
• Sewing machines
• Clothing forms
• Washer and dryer
• Sink
• Critique/presentation area
• Natural light
• Storage

Additional FF&E:
• Chairs and tables for 25-30 students (tables 36”W x 72”D for 2 students)
• Podium 30” D x 36” W
• 1-2 side chairs
• 1-2 mobile writing surfaces 30” D x 48” W
• 13-15 clothing forms (men and women) 12” W x 8” D
• 15-20 sewing machines and surfaces, 20” D x 48” W
• 2-3 irons and surfaces, 15” D x 54” W
• Three way mirror, 12” D x 36” W

**Special Considerations:**

- Storage and organization of material and student supplies
- Presentation and gathering space within classroom to facilitate critiques and aid in group activities
- Area for cutting and working (secondary work stations)
- Adjustable lighting
- Adjustable temperature

**STUDIO CLASSROOMS: Graphic Design**

**General Room Description:**

The graphic design studio classroom is a space in which specialized education in the field of graphic design takes place. The space accommodates a wide variety of graphic design
education activities that include layout work, group activities, peer critiques, and formal presentations. The space typically accommodates up to 25 students and the focal point is the front centralized instructor area. The instructor is usually located at a podium or table but moves around and interacts with the students. Students have a private work area that is used for their specific needs. Critique and presentation space is accommodated within the space, as is storage.

**Task Analysis:**
- Professor lecturing
- Students attending a lecture
- Technology use to assist lecture
- Personalized interaction with the instructor
- Group activities
- Graphic work/ use of light table
- Computer use
- Presentations
- Critiques
- Cutting and gluing

**Square Footage:**
Total square footage: 9,225
See Appendix G for prototype

**Place Attachment Theory:**

**Emotions/Feelings:**
- Create an atmosphere where students are comfortable
- Use unique materials or a mix of textures to make the space stand out and aid in one's attachment
- Create space for students to work together on projects and to be social

**Positive and Negative Experiences or Effects:**
- Create a fun environment where students will want to participate and become involved in studio activities

**Satisfaction:**
- A comfortable space with a lively atmosphere my increase students’ satisfaction and connection to the classroom
• View to the outside will help to increase overall satisfaction
• Allow for flexibility in the design so the space can adapt to the students’ needs
• Permanent display areas will increase a sense of accomplishments

Social Requirements:
• Frequent visits by multiple users
• Minimal to occasional socializing
• Varying number of people at given time: 5-25
• Length of stay: 1-3 hours
• Specific route of travel

Psychological Requirements:
• Stimulating area that will not be to distracting from lessons but interesting in volume and space.
• Controlled view to outside or natural light, clean, comfortable
• Spacious, flexible, well-lit

Physical Requirements:
• Tables/desks
• Chairs
• Instructor desk/chair
• Projection screen
• A/V equipment
• Chalk board or white board
• Computers
• Critique area
• Storage
• Light tables

Additional FF&E:
- Private workstations and chairs
- Podium 30”D x 36”W
- 1 – 2 side chairs
- 1 mobile writing service
2 – 3 light tables

Special Considerations:

- Storage and organization of materials and student supplies
- View to the outside if possible
- Presentation and gathering space within classroom to facilitate critiques and aide in group activities
- Area for cutting and gluing within the space (secondary work areas)
- Wireless connection
- Adjustable lighting
- Adjustable temperature controls
- Sound/music system

STUDIO CLASSROOMS: Interior Design

General Room Description

The Interior Design (ID) studio classroom is a space in which specialized education the field of ID takes place. It is used as the major teaching space in the ID program. The space
accommodates a wide variety of interior design education activities that include manual drafting, work on presentation bards, group activities, peer critiques, and forma presentations. The space typically accommodates up to twenty-five students and the focal point is the centralized instructor area; the instructor moves around the classroom and interacts with the students.

Students have individual work stations that are equipped with a parallel bar for drafting; however drafting accommodations can possibly be separated to another area. Critique and presentation space is accommodated by tack-able surfaces and space for students to gather.

Task Analysis:
- Professor lecturing
- Students attending a lecture
- Technology use to assist lecture
- Personalized interaction with the instructor
- Group activities
- Work on boards
- Rendering
- Cutting, cluing, and model making
- Presentations
- Critiques

Square Footage:
Total square footage: 8,775
See Appendix G for prototype

Place Attachment Theory:
Emotions/Feelings
- Create an atmosphere where students are comfortable
- Use unique materials or a mix of textures to make the space stand out and aid in one’s attachment

Positive and Negative Experiences or effects
- Create space for students to be social and to work on projects together

Satisfaction:
• A comfortable space with a lively atmosphere may increase students’ satisfaction and connection to the classroom
• View to the outside will help to increase overall satisfaction
• Allow for flexibility in the design so the space can adapt to the students’ needs
• Permanent display areas will increase a sense of accomplishments

Social Requirements:
• Frequent visits by multiple users
• Minimal to occasional socialization
• Varying number of people at any given time: 5 – 25 people
• Length of stay: 1 – 3 hours
• Specific route of travel

Psychological Requirements:
• Stimulating area that will not be distracting from lessons but interesting in volume and space
• Controlled view to outside or natural light, clean, and comfortable
• Spacious, flexible and well-lit

Physical Requirements:
• Drafting tables
• Chairs
• Instructor desk/chair
• Chalkboard or whiteboard
• Computers
• Natural light

Additional FF&E:
• Private work surfaces and chairs for up to 30 students
Drafting surfaces and parallel bars for up to 25 students
- Podium
- 1-2 side chairs
- 1 mobile writing surface

**Special Considerations:**
- Storage organization of materials and student supplies
- Natural light or view to outside if possible
- Presentation and gathering space within classroom to facilitate critiques and aide in group activities
- Area for cutting and gluing within the space (secondary work areas)
- Adjustable lighting
- Adjustable temperature controls
The supply store will offer general school supplies, office supplies, and supplies specific to the various design programs for purchase by the College of Design students, faculty, and staff.

**Task Analysis:**
- Shopping for supplies needed for projects
- Shopping for general school and office supplies
- Sales transactions
- Interaction between customers and employees
- Unpacking items for sale
- Stocking items

**Square Footage:**
- Total square footage: 1,960
- See Appendix G for prototype

**Place Attachment Theory:**
- Emotions/Feelings:
  - Incorporate a variety of unique architectural and interior materials to create a meaningful space.

**Positive and Negative Experiences or Effects:**
- Provide a similar layout to the current supply store for familiarity.

**Satisfaction:**
- Make the space organized and accessible.

**Social Requirements:**
- Frequent visits by multiple users
- Little or minimal socializing; through monetary transactions
- Varying number of people at any given time
- Length of stay: 5–30 minutes
- Specific route of travel
- Frequent visits by multiple users
• Little or minimal socializing; through monetary transactions
• Varying number of people at any given time
• Length of stay: 5 – 30 minutes

Psychological Requirements:
• Wayfinding important for minimizing confusion and for locating items within store
• Organized, clean and convenient

Physical Requirements:
• Handicap Accessible
• Flexible furniture layout
• Shelving
• Lockers for storage of staff's personal items
• Back stock area
  o Shelving
  o Desks and shelves
  o File storage
• Staff office
• Peg system for supplies which require hanging
• Personal storage lockers for staff
• Check-out counters
  o Cash registers - 2
  o Counter space
  o Storage

Special Considerations:
• Checkout lanes should allow 18” w for standing customers
• Area behind counter for clerks should be 26-30” w
• 30” minimum between merchandise cases
• 66” minimum between book cases
Room Description:
This lab space is for Textile Analysis students to experiment with different types of textiles in order to understand how they perform under varying environmental conditions. Also, students develop a greater understanding of textile construction and characteristics by hands-on exploration.

Task Analysis:
- Lab students experimenting with textiles (450 square feet)
- Instructor teaching and observing (100 square feet)
- Display and storage cabinetry along wall (150 square feet)
- Storage area for textile racks (200 square feet)

Square Footage:
Total square footage: 945
See Appendix G for prototype

Special needs/Code considerations:
- The Textiles lab technically qualifies as a “Business Group B” occupancy, but may qualify for “High-hazard Group H-3” with the presence of combustible elements such as methane-burning Bunsen burners and caustic chemicals like bleach and other acidic liquids
- As the textile lab is a setting that will operate with caustic chemicals and bunsen burners, the space must be protected with
  - adequate exiting
  - ventilation
  - fire sprinkler system
  - more substantial rated wall construction

Place Attachment Theory:
Emotions and Feelings
- Depending on experiences in class, students could have mixed emotions related to the space
  - Excitement of discovery
  - Frustration or boredom with class materials

Positive and Negative Experiences or Effects
- Distinctive smell of burning textiles and chemicals can recall textile lab experiences
  - Lab accidents from inappropriate use of tools
Sitting on the lounge furniture outside cramming before exams or filling in lab reports

**Satisfaction**
- Sense of accomplishment, having completed class and still seeing other younger students in the classroom or hearing them complain or talk about the class
- Knowledge gained from experiences in the class

**Social Requirements:**
- Multiple users, less frequent visits
- Minimal socialization, through classroom activities: Lectures, class participation, and completion of assignments
- Intimate socializing
- Varying number of people at any given time: 5 – 30 people
- Hierarchical structure: Teacher leads; students participate and complete assignments
- Length of stay: 1 – 3 hours
- Specific route of travel

**Psychological Requirements:**
- A safe space where the use of fire and gas can be used that will not seem threatening
- Marked exits and an open plan for egress
- Alarms or signals that could be used when the burners are left on could help users feel safer when using this equipment.
- Organized and well lit for visibility of small details
- Perceived safety and comfortable interactions with others

**Physical Requirements:**
- Large lab stations with knee-space beneath part of counter
  - Built-in Bunsen burners
  - Small sinks
  - 4’ working space per student
  - Heat-resistant countertops
- Chairs
• Gas line
• Safety shower
• Fire extinguisher
• Storage (cupboards)
• Peg system for hanging textile samples
• Chalk board or white board
• Projector screen
• Must contain storage for microscopes and textile racks
• Display space for textiles and items specifically related to the different labs that occur weekly.

Additional FF&E:
  o Desk area for TA/Instructor

Special Considerations:
• The Textiles lab technically qualifies as a “Business Group B” occupancy, but may qualify for “High-hazard Group H-3” with the presence of combustible elements such as methane-burning Bunsen burners and caustic chemicals like bleach and other acidic liquids

  o As the textile lab is a setting that will operate with caustic chemicals and Bunsen burners, the space must be protected with
    o adequate exiting
    o ventilation

  o fire sprinkler system
  o more substantial rated wall construction
• Approximately 15-20 students and 1-2 instructors must be accommodated at a time.

TOILET ROOM
General Room Description:
Toilet rooms will be located on all floors, with separate rooms designated for men and women. As public spaces, they will be accessible and easy to locate. Persons will use toilets, sinks, and mirrors in these spaces. Visits will be frequent, but short.

Task Analysis:
- Using the toilet/urinal
- Washing hands/face/etc.
- Using a mirror

Square Footage:
Total square footage: 2574
See Appendix G for prototype

PLACE ATTACHMENT THEORY
Emotions/Feelings:
- Place toilet rooms in the same location on each level/wing of the building to help users locate them. This will give them a sense of ownership and place.
- Create safe and secure environments to make users feel comfortable.

Positive and Negative Experiences or Effects:
- Design toilet rooms the same throughout the building to create a sense of identity. For example, all of the women’s toilet rooms will have the same layout and blue sinks.

Satisfaction:
- Display art for inspiration/contemplation within the space to increase users’ satisfaction with the aesthetics of the space, creating a more inviting atmosphere.
- Design toilet rooms well, with additional amenities such as a seating/lounge space to increase satisfaction among users.
- Incorporate nature through pattern/textures, plants, or a water feature, to increase satisfaction.

Social Requirements:
- Frequent visits by multiple users: daily
• Socialization is not necessary in this space
• Varying number of people at given times: 1 – 7 people
• Length of stay: 5 – 10 minutes
• Specific route of travel

Psychological Requirements:
• Feeling of security
• Well lit
• Privacy is extremely important
• Clean
• Adequate space
• Potential for noise control allows people to use the space with more comfort
• Occupants need to know where the exits are located through proper wayfinding and signage

Physical Requirements:
• Storage for extra paper products
• WC’s (number to be determined by Occupancy)
• Urinals (number to be determined by Occupancy)
• Lavatories (number to be determined by Occupancy)
• Physical barriers between stalls
• Mirrors
• Counter
• Baby changing station?
• Easily cleanable surfaces
• Paper towel
• Soap dispensers
• Toilet paper dispensers
• Waste receptacles
• Storage rack
• Napkin/Tampon dispenser (women only)
• Coat hooks
• A counter surface to place packages, books and bags

VENDING AREA

General Room Description:
This is a space where students and staff can receive refreshments and snacks throughout the course of the day, in a quick and efficient manner. As many as 2 – 6 people can use this space at a time when the building is open. A microwave and a small food prep area allows for people to heat up meals that are brought from home, or bought at one of the vending machines. The vending machines offer a variety of food and beverage refreshments.

**Task Analysis:**
- Buying food from machines
- Food or beverage selection
- Preparing food
- Heating up food in the microwave
- Eating

**Square Footage:**
Total Square Footage: 355
See Appendix G for prototype

**Place Attachment Theory:**
**Emotions/Feelings:**
- Make the vending area exciting to match the cravings on my be having for a specific food craving or beverage item

**Positive and Negative Experiences or Effects:**
- Offer well-stocked vending machines to entice people
- Provide a central location that is easily accessible to most or all users to increase

**Satisfaction:**
- Allow for a variety of snacks and beverages
  - Chips
  - Crackers
  - Healthy snacks/food selections
  - Soda
  - Water
  - Energy drinks

**Social Requirements:**
- Frequent visits by multiple users: Daily
Chapter 4

Relocation of Design, Housing and Apparel to the Armory

• Minimal socialization
• Varying number of people at any given time
• Length of stay: 1 – 5 minutes
• Specific route of travel
• Vending machines are in close proximity to each other

Psychological Requirements:
• Location in an area where not a lot of time is spent
• A quick in and out solution

Physical Requirements:
• Soda vending machines
• Candy/food vending machines
• Coffee vending machines
• Ice cream vending machines
• Microwave: 2
• Minimal counter space
• Resilient flooring
• Trash bins
• Recycling bins:
  • Plastic and glass bottles

Additional FF&E
  • 1 water and energy drink vending machine
  • 3 soda machines
  • 3 candy/food vending machines
  • A machine that can make change

WEAVING ROOM
General Room Description:
The weaving room will be used primarily by the Clothing Design program for weaving textiles and for examining the weaving process. The space will be conducive to teacher and personal instruction methods.

**Task Analysis:**
- Loom weaving
- Teaching by instruction, lecture, and demonstration

**Square Footage:**
Total square footage: 1,598
See Appendix G for prototype

**Place Attachment Theory:**
**Emotions/Feelings:**
- Allow for user interactions to build bonds and create positive feelings with the space.
- Provide windows to relate the space to positive emotions with the outdoors.

**Positive and Negative Experiences or Effects:**
- Design a creative and inspiring environment to give the user a positive experience.

**Satisfaction:**
- Incorporate a variety of unique architectural and interior materials to increase satisfaction.
- Display student work to create a sense of identity and belonging.

**Social Requirements:**
- Frequent visits by multiple users
- Minimal to occasional socializing
- Varying number of people at given time: 5-20
- Length of stay: 1-3 hours
- Specific route of travel
- Well lit
- Frequent visits by multiple users
- Minimal to occasional socializing
- Varying number of people at given time: 5-20
- Length of stay: 1-3 hours
• Specific route of travel

**Psychological Requirements:**

• Stimulating space to allow for optimal creativity
• Organized, clean and easy to use

**Physical Requirements:**

• Handicap Accessible
• Looms 3’ x 3’- 20
• Task Chairs-20
• Instructor desk/chair (or podium)
• Daylight
• Storage (individual and general)
• Sink
• White board
• Yarn Storage

WORK ROOM: Staff and Students
General Room Description:
This is a space that accommodates for DHA faculty and staff, and administration staff's daily mail storage. The multi-functional space provides work space for paper copying, stapling, compiling etc., as well as, break food preparation areas and storage. Staff uses this space consistently throughout the day as tasks concerning paperwork arise. Staff also consistently uses space during lunchtime to retrieve lunch from refrigerator. Though the number of users in the space at a given time varies throughout the day, the space accommodates from 1 to 5 users at one time.

Task Analysis:
- Coping
- Stapling
- Cutting
- Compiling
- Filing Mail
- Mail sorting
- Retrieving mail
- Printing
- Faxing
- Refrigerating food
- Storing supplies
- Talking

Square Footage:
Total Square Footage: 1,305
See Appendix G for prototype

Place Attachment Theory:
Emotions/Feelings:
- Personal mail storage creates a strong bond between mail box holder and space
- A centralized mailbox area or room creates a common bond between other staff members who may also have a mailbox in space
- Lunch/Break area provides a home kitchen-like atmosphere
- Uniform signage creates a familiar sense of place
• Providing a view to the exterior provides natural light and objects in the distance to focus on. A view to the exterior improves mood, encourages communication

• Color on walls and FF&E’s might be used to encourage socialization between co-workers

Positive and Negative Experiences or Effects:

• Centralized workroom location also encourages integration of DHA and creates a bond between people in a shared space; creates cohort group

• Dedicated sufficient workspace for performing administrative tasks will encourage staff to want utilize space; and therefore use it more often

• A well lit and clean area will also greatly encourage and facilitate positive feelings toward space

Satisfaction:

• Personal mail storage creates a sense of territory and pride within in space

• Break area provides a home kitchen-like atmosphere and provides a social Area for people preparing lunch

• Using a variety of materials in the space promotes individuality and encourages place attachment

• Universal Design: an area well equipped to accommodate all users will increase user satisfaction

• Such as: Lowered upper cabinet heights, wheelchair approachability at work surfaces/counter, 18” on latch side of door

• Tactile communication including the use of Braille as well as changes in material and texture assist all users and increase satisfaction in the space

• Audible wayfinding communication includes verbal communication, chimes on elevators, audible landmarks such as fountains, and audio maps also increase confidence and satisfaction in the space

Social Requirements:

• Frequent visits by multiple users

• Minimal socializing except for during times of food prep

• Varying number of people at any given time: 1 – 5

• Length of stay: 5 minutes – 2 + hours

• Specific route of travel
Physiological Requirements:
- Centrally located to the rest of the offices so it is readily available for DHA faculty and staff
- Ample circulation space to reduce awkward movements within the space because users may be pushing carts or carrying a lot of materials such as:
  - Mail
  - Stacks of paper
  - Lunch
  - Supplies
- Organized space
- Acoustic barrier/control to surrounding offices as the space may become noisy at lunch time
- Efficient: Organized and well planned for easy access to all equipment to yield quick turnover rate of staff within the space

Physical Requirements
- Mail boxes for all faculty, staff, grad students and CDES Staff
- Copy machine: 1 machine
- Fax Machine: 1 machine
- BW Printer: 1 printer
- Color Printer: 1 printer
- Shredder: 1 shredder
- Electric 3-hole punch: 2-3 hole punch
- Electric Stapler: 2 Electric Stapler
- Waste receptacles: 1 waste receptacles
- Recycling:
  - White Paper (Office): 1bin
  - Colored Paper: 1 bin
  - Newspaper: 1 bin
- Cupboard storage for colored and white office paper/Aluminum/Plastic/Glass:
- Counter space
- Filtered Water Dispenser
- Single Basin Sink
- Shelving in mail room
- Coffee makers
Additional FF&E:

- Refrigerator: 1 ref
- Postage Machine: 1 machine

Special Considerations:

- Mail Room: 56 sq ft
- Postage Machine: 4 sq ft
- Copy/Work Room: 320 sq ft
- Break Area: 60 sq ft
- FF&E Square Footage:
  - Copy machine: 7.5 sq ft
  - Fax Machine: 7.5 sq ft (Copy/Fax as one machine)
  - BW Printer: 5 sq ft
  - Color Printer: 5 sq ft
  - Shredder: 2 sq ft
  - Electric 3-hole punch: 1 sq ft
  - Electric Stapler: .5 sq ft
  - Waste receptacles: 6.25 sq ft
  - Recycling:
    - White Paper (Office): 1.6 sq ft
    - Colored Paper: 1.6 sq ft
    - Newspaper: 5 sq ft
    - Cupboard storage for colored and white office paper/Aluminum/Plastic/Glass: 180 linear sq ft
    - Counter space: 60 sq ft
    - Filtered Water Dispenser: 2.25 sq ft
    - Shelving in mail area: 20 sq ft
    - Coffee machine
### 4.6 Minimum Square Footage Requirements as Shown in Prototypical Space Plans

#### Table 4.4: Total Square Footage Needs

<table>
<thead>
<tr>
<th>Space</th>
<th>Purpose of Space</th>
<th>Square Feet</th>
<th>Qty. of Rooms</th>
<th>Total Square Feet Needs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auditorium</td>
<td>To show large presentations and potential conference space, classroom teaching (max. 175 persons)</td>
<td>2800</td>
<td>1</td>
<td>2800</td>
</tr>
<tr>
<td>Café Area</td>
<td>Fresh/hot food service where students can eat and/or relax between classes</td>
<td>2073</td>
<td>1</td>
<td>2073</td>
</tr>
<tr>
<td>Career Center</td>
<td>Office with staff to assist students with career preparation, internships, and positions</td>
<td>1350</td>
<td>1</td>
<td>1350</td>
</tr>
<tr>
<td>Changing Rooms</td>
<td>Student designers and models fit clothing designs</td>
<td>140</td>
<td>2</td>
<td>280</td>
</tr>
<tr>
<td>Community Space</td>
<td>Small and large spaces in building for student gathering scattered throughout</td>
<td>350</td>
<td>1</td>
<td>350</td>
</tr>
<tr>
<td>Computer Lab</td>
<td>Houses computers for student use 24/7</td>
<td>1575</td>
<td>3</td>
<td>4725</td>
</tr>
<tr>
<td>Display Space</td>
<td>A space for any program to display student work, small and scattered throughout</td>
<td>100</td>
<td>1</td>
<td>100</td>
</tr>
<tr>
<td>-------------------------------------</td>
<td>---------------------------------------------------------------------------------</td>
<td>-----</td>
<td>---</td>
<td>-----</td>
</tr>
<tr>
<td>Entrance</td>
<td>A point of entry into the building from the exterior</td>
<td>128</td>
<td>4</td>
<td>512</td>
</tr>
<tr>
<td>Gallery</td>
<td>A single space for any program to display student work</td>
<td>140</td>
<td>1</td>
<td>140</td>
</tr>
<tr>
<td>Graduate Studies Conference Space</td>
<td>A space for grad students to gather for meetings that is dedicated to them</td>
<td>325</td>
<td>1</td>
<td>325</td>
</tr>
<tr>
<td>InformeDesign Office</td>
<td>An office for the InformeDesign staff</td>
<td>226</td>
<td>1</td>
<td>226</td>
</tr>
<tr>
<td>Janitor's Closet/Utility Room</td>
<td>A space for janitorial equipment and utility connections</td>
<td>56</td>
<td>3</td>
<td>168</td>
</tr>
<tr>
<td>Lecture Halls</td>
<td>A larger classroom for larger lecture classes (75-125 persons)</td>
<td>1259</td>
<td>3</td>
<td>3777</td>
</tr>
<tr>
<td>Lighting Lab</td>
<td>A space for lighting designs, and lighting experimentation</td>
<td>1200</td>
<td>1</td>
<td>1200</td>
</tr>
<tr>
<td>Lobby</td>
<td>A larger space at the main entrance, with potential for reception</td>
<td>855</td>
<td>1</td>
<td>855</td>
</tr>
<tr>
<td>Materials Library/Clipping Room</td>
<td>ID material, samples and surfaces, work area</td>
<td>630</td>
<td>1</td>
<td>630</td>
</tr>
<tr>
<td>Meeting/Conference Rooms</td>
<td>Small group meeting areas for students/staff/public</td>
<td>960</td>
<td>2</td>
<td>1920</td>
</tr>
<tr>
<td>Offices</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>~Administration</td>
<td>Office space for Administration</td>
<td>150</td>
<td>9</td>
<td>1350</td>
</tr>
<tr>
<td>~Faculty</td>
<td>Office space for Faculty</td>
<td>120</td>
<td>21</td>
<td>2520</td>
</tr>
</tbody>
</table>
Table 4.4: Total Square Footage Needs, Cont.

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
<th>GsqFt</th>
<th>SsqFt</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>~Grad Student*</td>
<td>Office space for Grad Students</td>
<td>64</td>
<td>35</td>
<td>2240</td>
</tr>
<tr>
<td>~IS Offices*</td>
<td>The offices for staff specific to servicing computer or computer related equipment</td>
<td>64</td>
<td>2</td>
<td>128</td>
</tr>
<tr>
<td>~Staff*</td>
<td>Office space for Staff</td>
<td>150</td>
<td>15</td>
<td>2250</td>
</tr>
<tr>
<td>Regular Classroom</td>
<td>A small classroom for regular sized classes (under 49 persons)</td>
<td>500</td>
<td>10</td>
<td>5000</td>
</tr>
<tr>
<td>Restroom/Toilet Room</td>
<td>A space for toilets and water closets (# to meet code)</td>
<td>286</td>
<td>9</td>
<td>2574</td>
</tr>
<tr>
<td>Server Room</td>
<td>A space for computer networking equipment</td>
<td>240</td>
<td>1</td>
<td>240</td>
</tr>
<tr>
<td>Storage</td>
<td>Storage of tables, chairs, etc. small and scattered throughout</td>
<td>100</td>
<td>10</td>
<td>1000</td>
</tr>
<tr>
<td>Student Storage/Lockers</td>
<td>Lockers for student personal storage scattered throughout</td>
<td>200</td>
<td>1</td>
<td>200</td>
</tr>
<tr>
<td>Student Services</td>
<td>Staff offices for academic counseling, study abroad info, graduation info, etc.</td>
<td>2040</td>
<td>1</td>
<td>2040</td>
</tr>
<tr>
<td>Studio Classrooms</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>~Clothing Design(CD)</td>
<td>Studio space for the CD program</td>
<td>1370</td>
<td>2</td>
<td>2740</td>
</tr>
<tr>
<td>Auxiliary CD Spaces</td>
<td>Spaces not in studio but needed</td>
<td></td>
<td></td>
<td>109</td>
</tr>
<tr>
<td>~Graphic Design(GD)</td>
<td>Studio space for the GD program</td>
<td>1845</td>
<td>5</td>
<td>9225</td>
</tr>
<tr>
<td>~Interior Design(ID)</td>
<td>Studio space for the ID program</td>
<td>1755</td>
<td>5</td>
<td>8775</td>
</tr>
<tr>
<td>~Foundations Studio: Color Classes</td>
<td>Studio space for the Color Classes</td>
<td>1353</td>
<td>1</td>
<td>1353</td>
</tr>
</tbody>
</table>
Table 4.4: Total Square Footage Needs, Cont.

<table>
<thead>
<tr>
<th>~Foundations Studio: Drawing</th>
<th>Studio space for the Drawing Classes</th>
<th>1353</th>
<th>1</th>
<th>1353</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply Store</td>
<td>To sell supplies needed for DHA specific programs</td>
<td>1960</td>
<td>1</td>
<td>1960</td>
</tr>
<tr>
<td>Textile Lab</td>
<td>Textiles testing equipment and samples</td>
<td>945</td>
<td>1</td>
<td>945</td>
</tr>
<tr>
<td>Vending Area</td>
<td>A space for vending machines</td>
<td>355</td>
<td>1</td>
<td>355</td>
</tr>
<tr>
<td>Weaving Room</td>
<td>A space for clothing design students to complete weaving projects</td>
<td>1598</td>
<td>1</td>
<td>1598</td>
</tr>
<tr>
<td>Work Room-Staff</td>
<td>A space for sorting/distribution of mail, copy projects etc. for staff only</td>
<td>120</td>
<td>1</td>
<td>120</td>
</tr>
<tr>
<td>Work Room-Students</td>
<td>A space for cutting, gluing, model building and project work, etc.</td>
<td>1185</td>
<td>1</td>
<td>1185</td>
</tr>
</tbody>
</table>

* Numbers do not reflect potential for sharing spaces, ex. Offices of multiple graduate students

<table>
<thead>
<tr>
<th>Circulation Factor</th>
<th>1.28</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Square Footage Needs</td>
<td>90484.48</td>
</tr>
</tbody>
</table>