It is clearly evident that Emory University is eager to transform Dobbs University Center into a student-focused, energy-filled gathering place that cultivates a welcoming, dynamic and collaborative learning community. We find it remarkable - and quite frankly refreshing - to see how aligned the values of students, staff and administrators actually are when it comes to Campus Life at Emory. The entire campus community not only has a robust commitment to learning, but also a deep commitment to collaboration, creative problem-solving and enthusiastic idea-sharing.

It is obvious that Emory’s leadership is committed to including students in the process of discovering the best uses for the 21st Century Dobbs University Center. In the course of six months, Perkins+Will has conducted countless stakeholder meetings with hundreds of students and staff, representing a broad variety of campus constituents and communities. Our team met regularly with the Core Group and the Steering Committee to collaborate and develop the ultimate strategy for this study. The following pages describe this interactive process and our professional recommendations for moving the Dobbs University Center toward a thriving, energetic, rejuvenated student-focused Campus Center.

Executing a detailed feasibility study is challenging and rewarding work. We congratulate Emory University on completing this very successful process and the results of this significant investment of time and resources. Like you, we look forward to seeing the conclusions of this effort successfully embodied in a thriving University Center that will serve the needs of students for generations to come.

Warm regards,

Jeff Stebar
Principal
Perkins+Will
The building currently known as "The DUC" is actually made up of one building with three significant additions and multiple renovations.

- The original 1927 building served as Emory University’s auditorium. That portion of the building appears to be located in the center of the building where the current Mary Gray Monroe Theater resides.
- Archived drawings, prepared by the Atlanta firm of Ivey & Crook in 1948, indicate a significant expansion of the auditorium. This building addition was dedicated as the first student union at Emory University. The Alumni Memorial Building was completed in 1950 in honor of members of the Emory community that were lost at war.
- In 1970, the Atlanta firm of Cooper Barrett Skinner prepared documents further renovating and expanding the building. It was renamed the Alumni Memorial University Center (AMUC). This addition of the name “University Center” reflected a paradigm shift toward a broader community concept with the intent of bridging what was seen as a gap between faculty, staff and students.
- The next significant building expansion occurred through documents dated 1984 by the Atlanta firm of John Portman Associates. This addition, serving an expanding student population, roughly doubled the footprint and volume of the building. With this addition, the name of the building changed again. The R. Howard Dobbs University Center, or DUC, opened in 1986.
- Emory archives produced drawings for several more DUC renovations. Parts of the building appear to have been renovated in 1989, 1995 and 2001.

The DUC currently houses:
- The main board-dining hall, seating 504 students
- Mail and Copy Services
- A Faculty Dining Room
- Eagles Landing – The SGA and Student Organization area
- A retail coffee and donut shop (Dunkin’ Donuts)
- Emory Alliance Credit Union and (4) ATM’s
- (2) dedicated student lounges
- Winship Ballroom, seating 213 people (Banquet Configuration)
- The Mary Gay Monroe Theater, seating an audience of 120, and Theater offices
- All or part of 11 different Campus Life Offices
- Kaplan Test Preparation Center
- Approximately 10,000 sf of reservable meeting and reception space. Of this 10,000 sf, roughly 2,700 sf is included in The Harland Cinema with a sloped floor and fixed seating for 192.

When it was built, the Dobbs University Center was the right solution; but it was created for a different population in a different era. While it adequately served the Emory University campus community for many years, it is now time for a rejuvenated facility that will meet the expectations of today’s and tomorrow’s student population, support 21st Century holistic learning, and reinvigorate the cultural heart of the campus.

Cor prudentis possidebit scientiam.
The wise heart seeks knowledge.

- Emory University motto
Proverbs 18:15
Executive Summary

In August of 2013 Perkins+Will was asked to prepare a feasibility study for the Dobbs University Center as well as a potential Multi-purpose Center.

Put simply, the tasks were to:

1. Determine the appropriate use and size of the University Center to meet Emory’s strategic goals for Campus Life.
2. Study three different options to meet the demand for a large Multi-purpose event space, seating a full Emory University class and related attending support staff (approximate seating for 1,600 people in lecture configuration)
3. Provide a total project cost forecast for the preferred option.

In the course of the past eight months, Perkins+Will worked with Emory representatives to collect information from a broad range of students, staff and stakeholders to help determine the best approach for Emory. Guiding the process described in the following pages, it was determined that the most flexible and cost effective method to reach Emory’s Campus Life goals for the University Center is for Emory to:

Renovate and Add: Demolish the 1982 West DUC portion of the DUC; Fully renovate the 1927 and 1948 “East DUC” portions of the building; and rebuild a more Student-Centered University Center.

Provide Efficient Service Access: Relocating the loading dock to the lowest level of the DUC provides ease of movement for food service palettes, theater sets and catering support for large events. Covering the underground dock with a planted plaza creates a welcome north-side entry for students approaching the DUC from adjacent Residence Halls.

Expand Dining: Expand Board Dining and add retail dining to draw a diverse range of students and staff to the DUC

Include a Multi-purpose Center in the DUC: The Large Event meeting space will be located within the DUC. At its largest, the ballroom will seat 1,600. But it can also be divided, providing flexibility for multiple event types and sizes.

Create a Welcoming Environment: The new DUC will be filled with light and lounge space. It will become the “Living Room of the Campus”, providing a welcoming place for students to meet and study. Architecturally it will fit the campus context in scale, materials and fenestration.

Continue the Commitment to Sustainability: The new and renovated DUC will provide an opportunity to bring the student center in line with Emory’s commitment to environmental stewardship. With new mechanical systems, a properly insulated building envelope, and appropriate strategies for controlling solar heat gain, the revitalized DUC will achieve significant energy savings. Reduction in impervious paved areas and proper treatment of roof areas will better deal with storm water while careful selection of landscape materials will reduce demand for irrigation.

The result is a 210,000 square foot, state-of-the-art, thoughtfully planned, University Center uniquely suited to Emory’s Campus community. The Total Project Cost forecast of the future DUC is $98 million.
While the building footprint and raw area of the current DUC appear to be statistically significant, the building faces a number of substantial obstacles and, as a result, functions very poorly. Deficiencies include:

**LOADING DOCK**
The loading dock and service area are located one level below Dobbs Market, the primary location for undergraduate board dining services – and one level above the Faculty Dining Room. Because the loading dock is on a separate level from the food service areas, large pallets of food need to be moved via elevator to the appropriate locations. However, the service elevator is undersized and a full pallet will not fit on or into the elevator. Therefore, each food pallet needs to be broken down prior to loading onto the elevator. With food deliveries consisting of multiple pallets each day, this requires a staggering investment in labor to facilitate what is typically a simple and straightforward operation. Instead of minutes, this process now takes hours. Further complicating the service access is the pressure that comes from the concurrent use by the Post Office as well as UPS deliveries.

**BOARD DINING**
Dobbs Market kitchen and serving area is on the third floor. Unlike retail dining, board dining with a meal plan requires a single access point to control operation. Access from the lower levels to the servery is through narrow winding stairs or an outdated elevator. The elevator is in poor condition and frequently breaks down, making ADA access to the serving area problematic. The Dobbs Market dining area is tiered into several seating platforms. Walking from the food serving area to a seat, carrying a full tray of food while trying to locate an open table or friendly face, is troublesome and awkward. Current seating configurations do not support collaboration or community activities. The room does have adequate daylight from several skylights, but there are only a few narrow windows that provide very limited views to the outside. Because first-year students are required to use the Board Dining meal plans, the DUC does not support collaboration or community activities. The area is quite generous, the quality and configuration of the space as well as the poor acoustic properties make it nearly unusable as a place for students to gather, study, and hang out. Because of it’s awkward relationship to the tiered seating for Board Dining, Coke Commons feels and acts more as a large space that is to be merely circulated through.

**WAYFINDING**
The architectural relationship between the East DUC and the 1982 addition makes wayfinding between the two sides of the building troublesome. Not only are the two sides of the building aesthetically incongruent, but the path from one place to the next is unclear. During student interviews, we heard that several students didn’t know how to find their way to Dean Nair’s office. There is a desperate lack of clarity in the way one travels through the building which contributes to a cold un-welcoming atmosphere in the building.

**ACCESSIBILITY**
The Americans with Disabilities Act (ADA) became Federal Law in 1990. While it now seems commonplace for buildings to function with handicapped accessibility in mind, that was not the case when the 1982 expansion was added to the Dobbs University Center. Emory has made thoughtful modifications to the DUC and campus surroundings to accommodate accessibility. But toilet rooms, hallways, stairs and major entries still suffer. Like wayfinding, inadequate ADA accessibility is a stumbling block to creating a University Center environment that is welcoming to all.

**MECHANICAL SYSTEMS**
Multiple building additions translate to multiple mechanical and electrical systems. According to our conversations with Campus Engineering, building systems are sorely outdated and represent a patchwork of repair work. “Where the two buildings join, it leaks like a sieve” one Emory staff member noted. In particular, the mechanical systems are in very poor condition. The control systems were installed in 1994 - 20-years ago - and multiple controls systems (from multiple providers) are serving the building. All control systems need to be replaced. Air handlers on west side were installed in 2007. The reheat systems don’t work, so humidity control is not working in the building. There are un-insulated supply ducts on the west side. The Theater has it’s own separate systems. Campus utility service surround the building, and one major line runs directly under the footprint of the 1982 Addition. It is likely that some utilities will have to move.

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**Study Participants**

**EMORY UNIVERSITY TEAM**
- Michael Mandl, Executive VP, Business & Administration
- Ajay Nair, Senior VP & Dean, Campus Life
- Matthew Early, VP, Campus Services
- Eric Bymaster, Assistant VP, Finance & Ops/Campus Life
- Jen Fabrick, University Architect
- James Johnson, University Landscape Architect
- Dave Furhman, Sr. Director, Food Service Admin
- David Payne, Sr Director, Business & Administration
- Ben Perlman, Director, Dobbs University Center
- Julie Moran, Capital Planner, Planning Design & Construction

**DESIGN TEAM**

**Perkins+Will**
- Jeff Stebar, Student Life Principal
- Katie Pedersen, Sr. Project Manager
- Vance Cheatham, Design Principal
- Alex Wu, Student Life Planning + Programming
- Josh Vel, Sr. Project Architect
- Leo Alvarez, Landscape + Urban Design Principal
- Zan Stewart, Landscape Architect
- Envision Strategies
- Rob White, Food Service Consultant
- Palacio Collaborative
- Michael D. Palacio, Construction Cost Consultant
- Uzun+Case
- Jim Case, Structural Engineering Principal
- Matt Kantner, Structural Engineer
- Kimley-Horn & Associates
- Greg Mazey, Civil Engineering Principal
- Nottingham Brook & Pennington
- Neil Wyche, Principal, Lead Mechanical Engineer
- Tim Trotter, Lead Electrical Engineer
Benchmark Statement

After identifying and prioritizing shared values and goals in our first work session, Perkins+Will worked with Emory University to craft a clear, concise benchmark statement that articulates goals and imperatives for the revitalized DUC. Since then this statement has been used to establish and maintain a consistent direction for the feasibility study.

The revitalized University Center will enhance Emory’s Learning Community in the following five ways:
1. It will be welcoming to all students,
2. Provide inspiring dining,
3. Foster collaboration,
4. Embrace large events + meetings, and
5. Provide a “uniquely Emory” image + character.

IMPRESSIVE 1: Welcoming to all students
• Students First: prioritize the allocation of space, activities, programs, etc, around student perspective and experience
• Inviting to upperclassmen, graduate students, professional students and alums as well as underclassmen.
• Displays and values the identities that make up the student body
• Easy to navigate
• Instills a sense of community and campus pride.
• Formal and informal living room of the campus

IMPRESSIVE 2: Inspiring Dining
• Innovative morning to late-night board and retail dining with healthy options and variety
• Unites the campus community through a common dining experience
• Varied and flexible seating arrangements
• Supports sustainable operational practices
• Supports and respects the need for a variety of dietary needs and choices

IMPRESSIVE 3: Collaboration
• Student Life Offices are co-located
• Share common resources and spaces
• Model collaborative and team-based methodologies

IMPRESSIVE 4: Large Events and Meetings
• Capacity to seat an entire undergraduate class (+/- 1,600 people)
• Meeting rooms seating 50-people or more
• Flexible multi-purpose spaces that serve a variety of activities
• Support space for table storage, stage equipment, lighting, sound system
• Convenient and efficient back-of-house service access with support space for catered events

IMPRESSIVE 5: Image + Character
• Respects and enhances the campus aesthetic.
• Features an inviting combination of spaces for both lively social events and quiet study activities
• Encourages students to linger
• Communicates the legacy and traditions of Emory University while offering opportunities for discovery.
• Promotes a seamless connection between interior and exterior environments.

After identifying and prioritizing shared values and goals in our first work session, Perkins+Will worked with Emory University to craft a clear, concise benchmark statement that articulates goals and imperatives for the revitalized DUC. Since then this statement has been used to establish and maintain a consistent direction for the feasibility study.

The Division of Campus Life catalyzes a distinctive, caring, inquiry-driven, ethically engaged, polycultural, and socially just community of students, faculty, staff, alumni, families, and visitors that imagine and lead positive transformation in the world.

- Campus Life Vision Statement 2013
The Forming a More Perfect Union Process

Perkins+Will uses a highly interactive and proven student and stakeholder engagement process. This valuable collaborative method helped build unity in the midst of Emory’s significant campus diversity as it engaged a wide variety of campus communities, groups, and stakeholders.

WORK SESSION 01
The primary goal of Work Session 01 was for the Design Team to listen and gather information about the institution. The Design Team facilitated three types of events:

1. A brainstorming session to help the Steering Committee approve a benchmark or vision statement that describes the goals of the project. This benchmark statement is used to help make decisions for the remainder of the process through construction.

2. Departmental/programming interviews to determine the recommended spaces for the building (typically 10-20 group meetings).

3. Focus groups to hear what stakeholders want out of this project (number of sessions was determined by Emory University).

In anticipation of Work Session 01, the Design Team gathered information that had not yet been distributed.

WORK SESSION 02
The primary goal of Work Session 02 was to present the space program list and initial ideas about the building concept in floor plan format for feedback from Emory University representatives. We also reviewed detailed Site Analysis and very basic massing sketches. We reviewed the Benchmark Statement to confirm that everyone was on the same page. This was the opportunity to see if the Design Team had heard all the information accurately from Work Session 01.

WORK SESSION 03
The Design Team presented revised information on the space program list and preliminary building concept layouts. This information was tied to preliminary budget estimates. With the addition of cost information to the project, it is often necessary to adjust expectations and directions to find the best value for the project. Work Session 03 involved an approval of project direction by the Steering Committee and feedback was received from student groups through a Town Hall Session.

WORK SESSION 04
Beginning with a review of content, the draft report was reviewed with the Core Group, the Steering Committee, the President’s Cabinet and through student Town Hall sessions.

WORK SESSION 05
A final presentation and approved recommendation was made to the stakeholders.

Perkins+Will uses a highly interactive and proven student and stakeholder engagement process. This valuable collaborative method helped build unity in the midst of Emory’s significant campus diversity as it engaged a wide variety of campus communities, groups, and stakeholders.
## Space Program Summary

### PROGRAM TOPICS

<table>
<thead>
<tr>
<th>EXISTING DUC</th>
<th>PREFERRED DUC CONCEPT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Board Dining</td>
<td>504-seat Board Dining</td>
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<tr>
<td>Retail Dining</td>
<td>Two retail Concepts</td>
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<tr>
<td>Ballroom / Multi-purpose Space</td>
<td>213-seat Winship Ballroom (Banquet style seating)</td>
</tr>
<tr>
<td>Meeting Rooms</td>
<td>10,000 sf meeting, limited flexibility</td>
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<tr>
<td>Theater</td>
<td>Existing Theater seats 90-120</td>
</tr>
<tr>
<td>Loading Dock</td>
<td>Compromised Loading Dock</td>
</tr>
<tr>
<td>East Dobbs University Center</td>
<td>Outdated and Inefficient</td>
</tr>
</tbody>
</table>

### Retail Dining Two retail Concepts Coffee

- **Existing:** 504-seat Board Dining
- **Preferred:** 800-seat Board Dining

### East Dobbs University Center

- **Existing:** Outdated and Inefficient
- **Preferred:** Full Interior Demolition + Renovation

### East Dobbs University Center + Multipurpose Center Feasibility Study

- **Existing:** 137,340 sf (Projected)
- **Preferred:** 210,884 sf

### Other OSLS Student Groups - 1,260

- **8.1** Student Involvement Lounge: 3,128
- **8.2** Volunteer Emory: 541
- **8.3** Student Govt Assoc: 1,260
- **8.4** Other OSLS Student Groups: 4,000
- **8.5** Student Unions: 9,106
- **8.6** Barkley Forum: 9,246
- **8.7** Emory Wheel: 5,948

### Building Support

- **8.1** Building Support: 6,101
- **8.2** Volunteer Emory: 541
- **8.3** Student Govt Assoc: 1,260
- **8.4** Other OSLS Student Groups: 4,000
- **8.5** Student Unions: 9,106
- **8.6** Barkley Forum: 9,246
- **8.7** Emory Wheel: 5,948

### Building Support

- **9.1** Building Support: 4,918
- **9.2** Volunteer Emory: 1,260
- **9.3** Student Govt Assoc: 4,000
- **9.4** Other OSLS Student Groups: 9,106
- **9.5** Student Unions: 9,246
- **9.6** Barkley Forum: 9,246
- **9.7** Emory Wheel: 5,948

### Total Assignable Square Feet

- **99,390**
- **Preferred:** 6,682

### Non-Assignable Areas (Projected)

- **4,031**
- **Preferred:** 7,000

### Total Gross Area (Net incl. Outdoor Program Area)

- **137,821**
- **Preferred:** 7,000

### See appendix for detailed program information
Emory University’s Division of Campus Life cultivates a welcoming and dynamic community that is committed to modeling and teaching holistic well-being, ethical leadership, civic engagement, cultural humility, and global citizenry by providing a supportive and responsive foundation for an evolving campus community to develop skills necessary for lifelong success and positive transformation in the world.

- Campus Life Mission Statement 2013

The proposed Landscape design for the new Student Center at Emory University is made up of five components: 1) the Arrival Plaza, 2) Pierse Promenade Extension, 3) the Central plaza, 4) the Courtyards, and 5) the Connector. These components will be linked by materiality, plantings, and stormwater management. The design intent is for these spaces to reinforce master plan strategies and to create new spaces to be used daily for activities including large events, civic gathering, outdoor classes, respite, and circulation while managing all site water.

1. ARRIVAL PLAZA
Bounded by Elenorae Raoul Hall to the east and Ignatius Few Hall to the west, the Arrival Plaza is a series of spaces that reinforce campus gathering and circulation. A reconfigured drop off will greet visitors where Eagle Row intersects with Asbury Circle. From the drop off a pedestrian promenade/firelane will lead guests toward the Student Center south mediating grades at acceptable ADA slopes. An updated quad and plaza to the east of Ignatius Few Hall acts as a pivot point for pedestrians from the drop off and the new student center.

2. THE PIERCE PROMENADE EXTENSION
An extension of the existing Pierce Promenade, this walkway connects Means Drive and McDonough Field. The new extension will include a green roof component over the entrance to the loading dock and a grand staircase to mitigate grade at McDonough Field. ADA circulation at the staircase will occur interior to the Student Center.

3. THE CENTRAL PLAZA
Just south of where the Pierce Promenade extension meets the former Asbury Circle and to the west of the main entrance of the Student Center is the Central Plaza. This large event space provides for multiple uses via its flexible program design. Components include a small amphitheater on the back side of the McDonough Field Stage, a series of planted terraces that lead to the entrance of the Woodruff PE Center, and architectural lighting colonnade along the west side to define the plaza’s edge, space for fire truck turn around and parking for tour buses. The space is broken by a few islands of planting and seating so that the scale is relative to the campus while still providing a plaza of considerable size. To the south of the plaza, an entrance terrace and ADA path welcomes students and staff from Asbury Circle.

4. THE COURTYARDS
Central to the two halves of the student center are the North and South courtyards, divided only by the interior pedestrian corridor. Between the corridor and Pierce Promenade is the North Courtyard which offers an opportunity for exterior dining underneath a bosque of shade trees. South of the corridor, the South Courtyard is protected on three sides by the student center. This space will be an area for ideas and communication through informal meeting spaces and movement. A series of terraces lead from the south up to the courtyard and offer places for study, reading, and collaboration. Limited planting will soften the spaces hard edges.

5. THE CONNECTOR (FUTURE PHASE)
To address parking access for large events, the team prepared conceptual improvements to the path between the DUC and Peavine Parking Deck. The Connector starts west of the DUC’s Central Plaza and runs along the south side of McDonough Field. A covered arcade guides staff, students and guests between the Woodruff PE Center and Tennis Courts. The arcade protects pedestrians from inclement weather and will be lit at night. The arcade culminates in a vertical circulation tower to the west which transitions movement from the higher elevation of the walkway to the lower level drop-off in front of WoodPEC. The drop off at this entrance will be reconfigured to ease traffic congestion. This work will be addressed in a future phase. It’s construction cost is not included in the DUC’s Project Cost Forecast.
In order to respond to user needs and site conditions, the Emory Campus has been evaluated with respect to more than 30 site-specific criteria. These studies have led Perkins+Will to develop strategies that help define an Emory-specific landscape design concept.
The Student Center is the vehicle to achieve the statement the campus desires to make about student life.

- Ajay Nair, Sr. Vice President and Dean of Campus Life, Emory University

HARDCAPSE MATERIALS:  
FUTURE PHASE
1. Emory std brick pavers (Vehicular): Whitacre-Greer, ‘Emory Blend’, in various sizes and colors, Sand setting bed, 6” reinforced concrete subslab, 6” aggregate base
3. Exposed aggregate concrete (Pedestrian): ‘Emory Std Mix’ - Scored in 2’ grid, 5” reinforced integral color concrete, 4” aggregate base
7. Architectural Arcade: Metal/glass structure that shades the pedestrian walk below; higher end.
8. Elevator Tower: Two-level elevator, Glass enclosed, stair wrapping elevator, Integral color concrete surrounds

HARDCAPSE MATERIALS:  
INCL. in DUC-PREFERRED
1. Concrete pavers (Vehicular) ‘Hannover’ precast concrete pavers, in various sizes and colors, sand setting bed, 6” reinforced concrete subslab, 6” aggregate base
2. Exposed aggregate concrete (Vehicular): ‘Emory Std Mix’ - Scored in 2’ grid, 6” reinforced integral color concrete, 6” aggregate base
3. Exposed aggregate concrete (Pedestrian): ‘Emory Std Mix’ - Scored in 2’ grid, 5” reinforced integral color concrete, 4” aggregate base

PLANTING MATERIALS
9. Shrub Planting Areas: 3 gallon, 24” o.c. average
10. Lawn
11. Roof Garden: including deep soil profiles to support growth of large trees and the added structure to support them over the loading dock, waterproofing and drainage layers

All trees shown are 4” caliper
The proposed concept establishes a highly active outdoor courtyard at the historic front door of the East DUC – where Coke Commons is currently located. Responding to its strong central axis, the proposed new addition includes an active and energetic indoor commons as a bookend to the historic East DUC entry façade; joining an active indoor space with an equally active outdoor plaza. Although the rejuvenated DUC will employ a more contemporary architectural flavor, the addition will be carefully designed to blend with the scale and materials of East DUC, Dobbs Hall, and other surrounding historic structures.

One of the most requested characteristics for the new DUC was daylight and transparency. Plan layouts are established to facilitate clear and intuitive way-finding throughout the rejuvenated facility. Accordingly, the new DUC will feature large amounts of glass on its exterior and much more transparency on its interior. Clear and identifiable entries are established along major pedestrian paths and are intended to become beacons to the campus community.

Located in the perfect spot on campus, with pedestrian arrival from all directions, the rejuvenated DUC will in effect have “four front doors”. Because highly active, central campus university centers like this one have no “back door” for service access, the proposed concept moves service access to a below grade location; covered with a fully landscaped pedestrian plaza. Pedestrian access from all directions will merge seamlessly with interior circulation systems that organize the plan diagrams.

The location of Board Dining on the lower level serves to maintain an efficient connection to back of house service zones as well as provide an active view to the activities of the plaza. Locating the Theater on this same level provides for the same critical connection to the loading dock and further strengthens the connection to performances at McDonough Field. Retail food venues as well as other retail components such as the Post Office and the Coffee Shop are located on level two. This is intended to provide for an active zone that supports the lounge space and provides convenience to the resident hall students to the North. The Multi-Purpose Center is located on level three with the pre-function oriented on the West edge to create yet one more connection to McDonough Field, while allowing the structure to be lifted thereby providing increased ceiling height. Access to the Multi-Purpose Center Space will be through a series of open and gracious stairs arranged within the main circulation path. Exiting for the large number of occupants will be through a series of enclosed exit stairs as well as an exterior set of stairs to the North that will bring occupants to grade at level two along the North edge of the building.

Intended to go beyond establishing a dynamic hub of student activity for the Emory Campus, the rejuvenated DUC is the final lynchpin allowing Emory to realize the goal of establishing the Freshman Village precinct.

Please note that the attached diagrams are intended to convey basic conceptual layouts, orientation and massing, and are not intended to indicate final locations or exact sizes of program elements that will be included in the ultimate built project.
This diagram overlays the footprint of the existing DUC with the proposed building footprint.

This diagram describes the relationship of back-of-house service to front-of-house pedestrian access.

Conceptual Massing Study - Bird's Eye View
Unique Considerations

1982 ADDITION
Part of the work of this study was to determine if there is value in keeping all or part of the existing DUC. It was quickly determined that the pre-1982 portions of the building - the original Alumni Memorial University Center (AMUC) or “East DUC” - have both aesthetic and historic value for the University. The 1982 addition, however, functions poorly and is considered visually unfriendly and aesthetically antithetical to the elegance of Emory University’s campus architectural character.

In some cases, there is economic value in gutting a building, stripping its skin, and re-using the structure for a future renovation. So we evaluated a scenario where we would save most of the original building structure, some of the exterior walls and the existing loading dock. In this case, the building would receive all new mechanical, electrical, plumbing and fire protection systems, new exterior skin and all new interior finishes and architecture.

We found that the arrangement of the 1982 building structure limits future design opportunities and does not lend itself to developing efficient usable space. If unchanged, the loading dock would remain in an awkward location, compromising the university’s design and construction investment. The anticipated cost savings for re-using the structure was only 1½ to 2% of the overall forecasted construction cost. As a result, it is determined that the best approach for the future DUC is to gut and renovate the “East DUC” and demolish the 1982 addition to replace it with a more efficient, welcoming and architecturally attractive University Center.

MULTI-PURPOSE CENTER (MPC)
A flexible program space with capacity to seat an entire university undergraduate class (1,600 people) and with the ability to be partitioned to accommodate smaller meetings does not currently exist on campus; it is desperately needed. The space will likely be used for banquets, performances, concerts, distinguished guests, speakers, dances, symposia, university conferences, alumni functions and as a back-up rain location for large outdoor events. A key aspect of this study was to determine if the Multi-purpose venue should be inside the DUC or in its own stand-alone building.

Three scenarios were considered:
1. Incorporate the Multi-purpose venue into a renovated DUC,
2. Renovate Woodruff PE Center gym so that it can be more quickly converted into a large event venue

Our study indicated that renovating Woodruff PE Center gym was the least expensive option (approx. $5mil construction to renovate the gym space only). However, it would also be the least flexible option in terms of both space and operations. Since WoodPEC is already an active PE Center, an added layer of gym scheduling would likely add complexity for Emory rather than relief.

There are many benefits to a stand-alone conference center. Its proximity to WoodPEC and Peavine parking deck provides opportunities for easy community access and support for summer camps and large sports events. On the downside, a stand-alone building is expensive to construct ($25-30mil in construction) and certain efficiencies (like stairs, elevators, toilets, operations and maintenance) are lost when the space program is divided between two buildings - the DUC and the MPC.

Ultimately, the most effective approach is to include the Multi-purpose Center space program within the University Center. This approach provides for efficient use of space as well as construction and operations dollars. Support systems and common spaces like stairs, elevators, bathrooms and lounges can serve dual purposes for Student Life activities and event planning. Summer conferences will benefit from housing in close proximity to meeting space and DUC administration can monitor building maintenance and operations under one roof.

Multi-Purpose Ballroom
The adjacent diagrams show conceptual arrangements of a 17,000 sf multi-purpose ballroom space, similar to what has been programmed in this study.

A large support space will be used for chair and table storage between events. For catering support during events, ample power and water is available to support warming cabinets and catering staff. The ballroom and support space should be in close proximity to elevator access to the loading dock for large event supplies.
Improvements over Theater Emory’s current space conditions includes performance space to seat an audience of 90-130. The Mary Gay Monroe Theater, the preferred DUC concept accommodated in the DUC. Similar to the current size of the theater way finding. SE violation of the Freshman Village residence halls.

- Slip access for three semi-trucks and one box truck
- Secure sliding parking for 5 cars
- Two 25yd trash compactors, composting and recycling area
- Emergency generator and transformer vault
- Ambule theater set-building and storage area adjacent to the dock to allow for easy materials drop-off
- Service elevator access to move food and supplies to 2nd floor retailers
- Service elevator sized to facilitate moving theater sets above
- Driveway access shared with service drive room adja-cent Freshman Village residence halls, limiting conflicts with pedestrian traffic.
- Increased shipping & receiving of mail / UPS packages

LOADING DOCK
Efficient back-of-house service access is critical to the success of any University Center. Our conceptual approach for the loading dock at the new DUC provides for the following:

- Access occurs at the lowest level of the building, adjacent to the board dining kitchen and food storage
- Dock area is fully covered with a planted plaza, screening unsightly back-of-house activities and providing a pleasant approach from the Freshman Village residence halls
- Potential for ticket sales at the DUC’s Information Desk to provide an inviting Box Office experience and aid in theater way finding.
- Reception/pre-function space adjacent to the theater
- Proximity to retail food access as well as a warming kitchen to support event catering
- Proximity to the ballroom/large-event space with opportunities to host theater conferences and summer camps.

PARKING FOR LARGE EVENTS (1,600 PEOPLE)
As a land-locked institution, parking is an important topic to consider when a change to the campus structure occurs. The availability of the DUC’s large-event venue will not only benefit Emory’s students and staff, but is likely to attract summer camps and conferences and lure community interest as well. Parking at Emory is a campus-wide consideration that involves agreements with local agencies. A separate detailed transportation study is recommended. In the meantime, we offer some initial thoughts on parking related to the transformed DUC.

On-campus visitors with campus parking privileges – For events occurring during the daytime (9am-5pm) the parking demand is expected to be met in existing parking facilities. Off-campus visitors without campus parking privileges – Two scenarios are anticipated:

- During the daytime (9:00am – 5:00pm), parking is provided at Emory’s Briarcliff Property. In this case, shuttle or valet service is required.
- During weekends and evenings (beyond 9:00am – 5:00pm), It is predicted that parking capacity would be available in existing campus facilities. For planning purposes, according to our interpretation of the current DeKalb County zoning code, parking requirements for the new multi-purpose meeting space are 1 car per 25 sq ft. With 17,000 sq ft programmed for the ballroom, the University should plan to accommodate 680 cars.

THEATER
Emory Theater Department is the only academic group that has a permanent residence in the University Center. Founded in 1982, Theater Emory has used the Mary Gay Monroe Theater as home base for the duration of their existence. To remain competitive, Theater Emory needs to deliver four productions each year. Productions typically rehearse for 4-6 weeks followed by a 2-week run. During Work Session Two, the Steering Committee indicated that space for Theater Emory should continue to be accommodated in the DUC. Similar to the current size of the Mary Gay Monroe Theater, the preferred DUC concept includes performance space to seat an audience of 90-130. Improvements over Theater Emory’s current space conditions are planned in the following ways:

- Set building and storage rooms are located on the DUC’s lowest level, adjacent to the loading dock with easy access to a service elevator, amply sized to move sets and stage equipment. The elevator will arrive in close proximity to the Theater to simplify set-moving.
- Fully ADA Accessible performance and back-of-house support space

Emory University
Dobbs University Center + Multipurpose Center Feasibility Study

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Emory University
Dobbs University Center + Multipurpose Center Feasibility Study

31
Architecturally significant entrances create entry beacons and invite visitors to experience the university center.

**Next Steps**

A number of items have been conceptually captured in this study that should receive detailed consideration during the design phase for the new DUC. Among these are:

- Building and campus vertical circulation
- Parking, Valet, Access to shuttles
- Building and campus ADA access
- Storm water and utilities
- Furniture and equipment
- Specialty furniture
- Audio Visual millwork considerations
- Artwork and specialty items
- Building and campus security
- Connection to technology infrastructure
- Use of wireless technology
- Temporary Facilities
- Telephone and cable TV requirements
- Special technologies and AV systems - Fixed & Flexible
- Catering for large events
- DUC Information desk - consider shared use for theater ticketing
- Back of house / Service access
- Sustainable operations: recycling, composting, building maintenance.
- The location and relocation of large equipment – for instance emergency generators.
- Secure parking for VIP guests
- Building and campus way finding
Engineering Considerations

Our team of seasoned Civil, Structural, Mechanical, Electrical, Plumbing and Fire Protection engineers were asked to review the campus utility infrastructure and DUC existing conditions to make recommendations informing the engineering approach to the preferred concept. Their observations and recommendations follow here.

CIVIL AND SITE UTILITIES

The steam tunnel that runs North and South carries the bulk of the campus steam. It is likely to be expensive to move.

• The steam tunnel is close to the surface at the north end of the site.
• The tunnel manholes on the west end of the site are rather shallow. It will be important to keep the finished grade of the plaza higher in that location.
• Turman Residence Hall has steam access from the west but the lines are quite old (c. 1982) and need to be replaced.
• The steam line that feeds the old AMUC (East DUC) runs under the Portman addition is converted to hot water that feeds the East building. This system will need to be temporarily back-fed if it decided the East building needs to remain operational during initial demolition.
• New steam service will be required to serve the Turman Residence Hall and the new DUC facility from the existing steam tunnel. New piping distribution will be sized to serve the new and renovation construction.

Chilled water service is distributed from the east side of the site with separate piping entrances for the historic east DUC, the west DUC addition, and Turman Residence Hall. Additional capacity is not available in this existing service. A new larger DUC building will require a new chilled water service to provide adequate capacity for the scope of new and renovation construction. This service can likely be extended from the existing chilled water main located on the south side of the DUC site.

A potential extension of 20 kV circuits to serve the residence halls from the north is possible.

A potential re-route of power to the residence halls from the north is possible.

Sanitary sewer lines are shown on the school of medicine survey.

The grease interceptor will have to be replaced and will need access by local city inspectors.

Storm Water:

• Dekalb County requires a “new building” project to bring everything up to current code.
• Storm water management will require a sub-grade vault.
• If McDonough field is used as a temporary dining facility then there could be an opportunity to incorporate a subgrade detention grid in that location. Other possible locations include the current footprint of McTyeire Hall.

Electrical lines (20 kV) are buried roughly 5' below grade through the Portman addition. These lines serve this building and extend on to serve the residence halls. The lines would need to be relocated out of the new addition footprint.

Sanitary sewer lines are shown on the school of medicine survey.

The grease interceptor will have to be replaced and will need access by local city inspectors.

Storm Water:

• Dekalb County requires a “new building” project to bring everything up to current code.
• Storm water management will require a sub-grade vault.
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Utility Study - See Appendix for more detailed information.
Fire Lane Study - See Appendix for more detailed information.

P R O P O S E D  B U I L D I N G  O N E R I N G  
P R O P O S E D  2 0  W I D E  F I R E  A C C E S S
P R O P O S E D  2 0  W I D E  F I R E  A C C E S S

**PERKINS+WILL**

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**STRUCTURAL**
- Dekalb County is likely to adopt the new code. The new IBC has a systems-based approach to seismic upgrades.
- Changes to the interior walls of the East DUC may not trigger a seismic upgrade as the majority of the seismic systems are located at the perimeter walls.
- Voluntary upgrades are much less restrictive as they represent an improvement over the existing condition.
- There may be an interest in taking out a bay in the floor. If this becomes a design goal, taking out a bay will have less impact, in terms of seismic upgrade, than removing a whole floor.
- The upper floors of the East DUC are designed for lighter loads – most suitable for small meeting and office space.
- For new construction, there is not a preference for steel over concrete. Emory has traditionally gone with whatever system is most cost-effective.
- The landscaped plaza above the loading dock is likely to be reinforced concrete and shall support loads for fire truck access above.
- Spaces should be programmed to avoid undermining existing building foundations and the need for permanent shoring & underpinning.

**ELECTRICAL**
- The Electrical systems in the DUC renovation should be a new 480V/277 volt, 3 phase electrical service. Each new main switchboard should be fully enclosed, metal clad, dead front, circuit breaker type. Ground fault protection should be provided on the main circuit breakers and all feeder breakers in the main switchboard.
- Each main switchboard should feed 480 volt main circuit breaker distribution panels and main lug only lighting panels.
- All 120 volt receptacles and miscellaneous equipment will be fed via dry type transformers. Each dry type transformer will feed a 208/120 volt distribution panel which will in turn feed main lug only branch circuit panels.
- Revise “comply with the latest UL standards” to “comply with the latest UL and NFPA 780 standards.”
- Emergency Power: Provide a new diesel driven generator set to power life safety components, telecom equipment, elevators, and miscellaneous food service equipment.
- Metering: Each new padmount transformer should have a GE KV2C meter with electronic demand register and pulse initiator output option. In addition to this meter at the transformer, each new main switchboard should be provided with a digital power meter integral to the gear.
- Lightning Protection: Provide a new UL Master Label type system for each new facility. Any existing system to be reused will have to be altered as necessary to comply with the latest UL standards.
- Lighting: All lighting intensities should be based on the Illuminating Engineering Society lighting standards. Design should meet ASHRAE/IES 90.1/2010 as adopted by the Georgia Department of Energy and Emory University. Interior lighting in this facility should mostly consist of a combination of LED and fluorescent light fixtures. Fluorescent sources will utilize T8 or T5 lamping with high efficiency electronic ballast.
- Lighting Controls: All spaces should include provisions for automatic shutoff. Relay logic controls should be kept to a minimum. Utilize motion sensors in all areas where feasible. Relays may be used in large, open spaces where motion sensing may be impractical. Spaces which incorporate audio visual systems should be provided with programmable dimming which is interfaced with the room AV control panel. Perimeter lighting zones should be circulated separately and controlled by interior switching or dimming photocells for daylighting controls.
- Fire Alarm: Each building will be provided with a new, discreetly addressable, digital, supervised fire alarm and voice evacuation system similar to the Notifier NFS 3030 system. Remote graphic annunciators will be incorporated at main entrances.
- Site Conditions: The existing copper and fiber infra-structure that feeds the DUC is routed thru a ductbank fed from an existing Telecommunications Manhole located at the northeast corner of McTyeire Hall. The ductbank enters the DUC on the north side of the Portman Addition just east of the covered loading dock. Any new work in the vicinity of McTyeire will require a new telecommunications handhole and a new fiber/copper ductbank entrance to the new DUC.
- Building Services: A new UTS Entrance Room (ER) will be created on the lowest floor of the new construction. In addition to the ER there will be distributed Telecommunication Rooms (TRs) developed in centrally located areas for telecom distribution. New rooms will be stacked per Emory UTS guidelines. Backbone conduits will be installed from the new rooms to the existing spaces to allow interconnection with existing distribution. Cable trays will be installed for horizontal distribution on each level. All boxes and raceways will be provided as part of the contract. Emory UTS will provide all cabling and installation of equipment.
MECHANICAL + PLUMBING

1.0 Plumbing
- Main system will have steam fired hot water generators, (two, one for kitchen, one for domestic)
- Solar hot water pre-heat is acceptable as long as the panels are not visible.
- A new dual reduced pressure zone backflow preventer installed in parallel is recommended inside the building at the 4" domestic water entrance.
- A new dual pressure regulating valve (PRV) assembly is recommended at the water main entrance in the building.
- Domestic Cold, Tempered, Hot, and all Return water piping is recommended to be type ‘L’ hard drawn copper tubing with wrought copper sweat type fittings. All solder is required to be lead free.
- Domestic Tempered (110 degree) water will be provided to all toilet batteries, and public spaces throughout the building. The kitchen will be served with 140 Degree Hot Water.
- Exterior non-freeze wall hydrants (NFWH) will be spaced approximately 75 feet around perimeter of building.
- Hose bibs and water outlets should be provided in all restrooms, janitor’s closets, and mechanical rooms.
- Sanitary and Storm Drain piping and fittings should be cast iron pipe.
- Waste water from the kitchen is grease-laden and should be routed thru a prefabricated exterior grease trap. Vent piping from the kitchen should be routed through the roof separately.
- All restrooms, showers, janitor’s closets, and mechanical rooms should have floor drains with cast iron bodies and trap primer connections.
- Mop Basins and floor drains will be provided in the Janitor’s Closets
- Sump Pumps will be provided in the elevator pits with an oil alarm system to prevent oil and hydraulic fluid from being discharged into the sewer system
- The building steam will supply two steam hot water generators set for an outlet temperature of 140 degrees. A thermostatic mixing valve will be installed to reduce the water temperature to the public spaces to 110 degrees.
- All plumbing fixtures will comply with the Emory University Design Guidelines for flow and flush rates. Dual flush, flush valves will be provided on water closets, sensor operated pint flush urinals will be used, lavatories will have sensor operated Moen faucets, and sink faucets will low flow Moen faucets.
- The water pressure on Emory campus is typically between 80psig and 130psig. This pressure will be sufficient to supply the domestic water system without the need for a booster pump. The proposed 4" water entrance for the DUC Building will allow a maximum demand flow rate of up to 250 GPM to be used for the Plumbing Systems in the Building

2.0 Mechanical
2.1 Heating and cooling will be provided by district utilities.
- Heating: Building heating energy will be provided from the campus steam distribution system. The existing facility is served from steam main piping entering building on the north side of the site. Underground steam service may need to be relocated and resized for the expanded DUC renovation program. The estimated cooling demand for the building is approximately 600 – 700 tons capacity.
- Cooling: Building cooling service will be provided from the campus chilled water distribution system. The existing facility is served from chilled water mains entering building on the north side of the site. Underground chilled water service may need to be relocated and re-sized for the expanded DUC renovation program. The estimated cooling demand for the building is approximately 600 – 700 tons capacity.
- The HVAC systems in the DUC renovation should be a four-pipe design with heating water and chilled water distribution loops in each building. Air system selection and zoning is based on the functional occupancies and pressurization requirements of the programmed spaces. Applied air handling systems will be modular, horizontal air supply units with gas-fired heater to temper the outside air.
- Carb mounted, up-blast grease exhaust fans on the roof will ventilate the kitchen hoods.
- Grease duct routing should be as direct as possible with short lateral runs and easily accessed clean-outs at bends.
- Carb mounted, up-blast exhaust fan on the roof will exhaust the dishwasher equipment.

2.3 Kitchen Ventilation Systems
- Kitchen Exhaust Hoods should be designed for supplemental make-up air ducted directly to the perimeter of each hood. The grease exhaust duct will be a manufactured, insulated double-wall metal stack, factory-built for use with Type 1 kitchen hoods as described in NFPA-96
- Filtered Make-up Air will be provided by roof mounted centrifugal supply units with gas-fired heater to temper the outside air.
- Carb mounted, up-blast grease exhaust fans on the roof will ventilate the kitchen hoods.
- Grease duct routing should be as direct as possible with short lateral runs and easily accessed clean-outs at bends.
- Carb mounted, up-blast exhaust fan on the roof will exhaust the dishwasher equipment.

2.4 Fresh air intake requirements will provide opportunities for heat recovery

2.5 HVAC controls are currently a hybrid system and in very poor condition. New controls will meet the campus standard.
Sustainable Design, Construction + Operations

Emory University has a well-established commitment to sustainable construction and operations practices and a deep desire on the part of both students and staff to continue this commitment. A LEED Silver certification is indicated in the project guidelines. The design team believes that LEED Gold is possible within the established project budget.

FIRE PROTECTION

- A new fire sprinkler system will be installed to provide coverage for the entire building. The sprinkler system interface with the building fire alarm system.
- The sprinkler system should consist of fully automatic sprinkler to cover the entire building, a standpipe system with connection in each exit stair and in the building to cover the entire floor area, and a fire pump to supply 100 psi water pressure at the top of the standpipe.
- The fire pump will be located in a one hour rated room with fire sprinkler water entrance. The fire pump should be a horizontal split case pump.
- A dry sprinkler system should be installed to cover the loading dock area. The system should consist of a dry pipe valve and riser mounted air compressor.
- Each floor of the building will be a separate sprinkler zone with zone control valves located in the stairwell with the standpipe.
- A double detector check valve backflow preventer will be installed on the sprinkler system to prevent the back flow of water into the potable water system outside the building.
- A post indicator valve should be mounted in the yard to be visible and accessible from the fire department approach to the building. The PIV should be 40 feet from the building and connected to the fire alarm system.
- A fire department connection will be provided on site within 40 feet of a fire hydrant and connect to the building’s sprinkler system downstream from the fire pump.

SUSTAINABLE DESIGN, CONSTRUCTION + OPERATIONS

A number of elements will contribute to the sustainable design, construction and operation of the future DUC. Here are a few to keep in mind as the project moves forward into design:

- Efficient/ high performance building envelope design
- Anticipated building materials reuse + Construction waste recycling
- Daylighting + Lighting Systems + views
- Installation of roof mounted photovoltaic solar array for power production
- Installation of roof mounted thermal panel array for solar assisted production of domestic hot water
- Installation of HVAC energy recovery systems with enthalpy wheels to precondition the ventilation/make-up air requirements with the building general exhaust air
- Installation of “low-flow” grease exhaust hoods in food service spaces to reduce the kitchen ventilation requirements
- Composting + recycling practices along with reduction of food + paper waste
- Improved indoor air quality
Dining + Food Service

Beyond simple sustenance, food is an crucial part of the shared academic experience. Since everyone needs to eat, dining spaces provide opportunities to bring seemingly disparate individuals and groups together. Excellent collegiate dining provides a variety of spaces - large gathering rooms as well as small intimate nooks - for students to share ideas in a welcoming dining environment.

Dining Vision Statement

WORLD CLASS DINING
• Stronger emotional connection; less transactional
• Fresh ingredients, authentic world flavors, culinary focus
• Leader in sustainable practices

EMERGING THEME: COME TOGETHER
• Celebrate diversity of the campus community
• Food brings people together (not just those on meal plans)
• Comfortable environment that fosters interaction
• Flexible setting for variety of uses (eat, study, hang out)
• Supports late-night gathering

KEY COMPONENTS
1. Large-scale community dining (Dobbs Market Replacement)
2. Robust, complementary retail options for dine in and take away
3. Catering support available at Cox Hall for on-site events

Daylight, views to the exterior, and the use of natural materials create warm and inviting dining areas.
Mix of Dining Concepts

**BOARD DINING**
- All You Care to Eat format
- Diverse menu appealing to all ages
- Mix of comfortable seating environments, including outdoor
- Efficient service flow
- Easy access to dish return
- Take out option

**RETAIL DINING**
- Restaurant-quality choices and spaces
- 2 Concepts + Coffee:
  - Good coffee in a comfortable, coffee house setting
  - Retail food that will attract a diverse population during meal periods
- C-Store with fresh food, snacks, beverages and spirit items.
- Late night option.

**CATERING SUPPORT**
- Event catering will continue to be provided through Cox Hall
- The transformed DUC will have a catering kitchen (for warming cabinets, meal staging, etc.) adjacent to the large event space

Multi-Purpose Ballroom

The adjacent diagrams show conceptual arrangements of a 17,000 sf multi-purpose ballroom space, similar to what has been programmed in this study.

A large support space will be used for chair and table storage between events. For catering support during events, ample power and water is available to support warming cabinets and catering staff. The ballroom and support space should be in close proximity to elevator access to the loading dock for large event supplies.
Logistics + Schedule

LOGISTICS
The Dobbs University Center houses a wide-range of essential campus services that must remain easily accessible and functional during construction. The good news is that a full year of design will provide ample time to develop a temporary relocation plan as well as potential construction phasing strategies. Following are some of the key elements that should be considered:

- Temporary Dining and Food Service Operations (75% of current space will be needed for temporary facilities)
- Temporary relocation of Student Programs and Services (50% of current space will be needed for temporary facilities)
- Temporary relocation of Student Org space (50% of current space will be needed for temporary facilities)
- Temporary rerouting of mail service and package delivery
- Temporary relocation of Theater Emory prep and production space (100% of current space will be needed for temporary facilities)
- Temporary Credit Union (90% of current space will be needed for temporary facilities)
- Temporary Copy Center (90% of current space will be needed for temporary facilities)

CONCEPTUAL PROJECT SCHEDULE
As a point of reference, and for planning purposes only, the following conceptual schedule is suggested.

<table>
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<th>Design Documentation</th>
<th>Construction</th>
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<tbody>
<tr>
<td>2015</td>
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<td>Program</td>
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<td>Schematic Design</td>
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<td>Design Development</td>
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<td>Construction Documents</td>
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<td>Construction</td>
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<td>Temp Facility Setup</td>
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<td>Demolition</td>
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<td>Turn-over</td>
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<tr>
<td>Move-in</td>
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<tr>
<td>Open!</td>
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</tbody>
</table>

Clear circulation connected with open lounge spaces, retail, and meeting rooms give the university center a sense of activity and vibrancy.
Open circulation, daylight, and natural materials are critical elements of the 21st Century university center.

<table>
<thead>
<tr>
<th>Typical Soft Costs</th>
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<tbody>
<tr>
<td>Professional Consultant Fees</td>
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<td>CM Pre-construction Fees</td>
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<td>Emory Campus Services Fees</td>
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<td>Geotechnical Testing</td>
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<td>Signage + Way finding</td>
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<td>AV equipment allowance</td>
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<td>Furniture, Furnishings + Equipment</td>
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<td>USGBC Registration + Certification</td>
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<td>Building Commission</td>
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<table>
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<th><strong>Construction Cost Forecast</strong></th>
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<td><strong>Cost/SF</strong></td>
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<td>New Construction - West DUC Addition</td>
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<td>Site Work and Infrastructure</td>
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<td>Below-grade loading dock with planted plaza above</td>
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<td>Kitchen Equipment</td>
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<td>Abatement + Demolition DUC</td>
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<td>Relocation + Temporary Facilities</td>
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<td>Project Soft Costs</td>
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<td><strong>Forecasted Total Project Cost</strong></td>
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*Forecasted Total Project Cost*: $98,503,406

*Cost forecasted to start of construction on 2015.06.01 - Add escalation of 5.5% per quarter beyond anticipated start date.
Comfortable furniture, openness to multiple levels, and views to the exterior are critical aspects in creating successful lounge and study space.

Appendix

The following sections contain backup materials further describing the information collected in the course of this study.

1. Process
2. Benchmarking
3. Space Program
4. Site Analysis
5. Building Concept
6. Engineering Notes
7. Food Service
8. Construction Cost Forecast