THE INFLUENCE OF THE CAMPUS BUILT ENVIRONMENT ON THE FIRST-YEAR STUDENT EXPERIENCE

by

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(Under the Direction of Erik Ness)

ABSTRACT

The campus built environment is an omnipresent force at an institution of higher education. That force is influential during a student's transition into the post-secondary system. Literature on this subject suggests that understandings of the relationship between the campus built environment and the student experience are limited and demand additional exploration. This research sought to explore that influence through a qualitative case study of the first-year experience of on-campus student residents at a major research university in the southern United States. Findings for the study are the result of document data collection, nine site observations, and seven participant interviews.

INDEX WORDS: Facilities, built environment, spaces, places, first-year, transition, lived experience, academics, recreation, residential, dining, campus layout, higher education

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DEDICATION

For my son, Jonah. You were here when I started this journey and I never imagined that you'd be gone by the time I finished. This dissertation, along with the Jonah Elliot Clark Memorial Scholarship, are just two of the lasting memorials to you, buddy.

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CHAPTER 1

INTRODUCTION

"The discourse on the built environment of the university campus now needs to address explicitly the relationship between the "places" provided on-campus and the quality of the student learning experience" (Jamieson, 2003, p. 121).

Campus facilities and the built environment permeate all aspects of college life (academics, residential, dining, recreation, etc.) and are integral to the student experience. The built environment of a campus should be considered the foundation that provides the space for a university to fulfill its very mission. The sections that follow contextualize the importance of the built environment and justify my decision to further examine the role it plays in the lived experiences of first-year, undergraduate students who reside at a major research university.

A useful starting point is the vernacular used to bound this research. It is important to note at the onset that the terms "built environment," "physical space," "buildings," and "facilities" are often used interchangeably in the reviewed scholarly literature as well as by the professionals who design, operate, and maintain it. By extension, the built environment also refers to the exterior spaces on a campus such as the grounds and landscaping. Even the strategy for utilizing the campus layout and the

deliberate selection of facility locations based on their purpose is considered part of the built environment. For the purpose of this study, these same terms will maintain their accepted and broad equivalency as a general reference to the buildings, landscape, and infrastructure across a campus. Only when I discuss a specific functional or categorical usage (such as a residential student housing complex or an academic lecture hall) will a distinction be made.

I conducted this case study investigation at the University of Georgia, a four-year, public, research (Carnegie classification R1: very high research activity), and residential institution in the southeastern United States. The University of Georgia was founded in 1785 and their motto, “the birthplace of higher education in America,” implies the age, complexity, and diversity of the facilities that contribute to the overall built environment of the massive, hilly campus. Indeed, the floor space of the campus exceeds 17 million square feet spread over 100 acres and 400 individual facilities. Located in Athens, Georgia, this quintessential college campus abuts and borders the downtown portion of Athens directly to the north. Reiterating the archetypical nature of its “college town” feel is the moniker given to Athens as the “Classic City.” The academic mission of The University of Georgia is as ambitious as its campus is large, having evolved into to eighteen schools and colleges covering a wide range of degree seeking programs and intense research capabilities.

As Peter Jamieson stated in his 2003 study, the intersection of student experience and the built environment is an underexplored topic in higher education research. In the two decades since, campuses continue to evolve, grow, and recapitalize their physical assets, yet research into this sector has not kept pace.

Although research and professional literature has been devoted to the built environment, the majority is specifically directed to campus planning and to maximizing efficiency of academic spaces. Many institutions have at least one historical work published that pays homage to the development of the campus and the facilities contained therein. Indeed, there is a rich history surrounding the physical campuses and it serves as a point of pride and prestige for many institutions. Similarly, volumes have been written about the student experience, although that topic can be contextualized into almost limitless categories depending on the variables of interest. To Jamieson's observation, the confluence of these two sectors lacks any substantial weight and needs further exploration. Perhaps that need for additional research is timelier now due to a recent, unforeseen global event that has unfolded over the past few years.

The COVID19 pandemic and its impact on the higher education landscape presents a unique opportunity for research about the campus built environment. What leaders and decision makers thought they knew about the built environment and its influence on students is now different in a post-COVID19 world. With the sudden and almost absolute abandonment of students on campus in the spring of 2020, the importance and traditional roles of physical space were severely tested, even questioned. Cramped and overstuffed classrooms gave way to virtual instruction. The very basic premise of in-person, resident instruction was challenged as even dormitories emptied out nationwide in a matter of weeks. Upon returning to campus months later (and in some cases even longer), faculty, staff, and students became all too aware of the physical space they and others occupied. Suddenly, there was much more interest in heating, ventilation, and air conditioning (HVAC) terms such as "air

exchange rates," "HEPA filtration," and "ultraviolet purification" as the campus community looked for reassurance that spaces were safe to occupy. Cleanliness of the built environment became a much more important priority as well. Indeed, the higher education community found ourselves amid a real time paradigm shift concerning higher education facilities and the attention that they receive from all levels of the campus community. Whether that shift is permanent or temporary remains to be seen. And if that shift to the virtual classroom and online delivery maintains its trajectory, it becomes very important to understand the tradeoffs associated with a reduction in an on-campus presence within the built environment. One thing is for certain, the campus built environment shapes the student experience and is an ever-evolving aspect of college life going all the way back to its colonial roots.

Those roots are relevant. A warranted examination of the history of higher education reveals the importance of physical space and the way it has evolved over time. Planning for the early campuses borrowed from European traditions, with Cambridge and Oxford being the frontrunners as far as influence for the American model in the early days. While some colleges began with modest accommodations that included few buildings with little thought given to form or function, others were purposefully built with the student experience in mind. In 1801, the trustees of South Carolina College (now the University of South Carolina) held a competition and invited the best architects and designers to provide their plans for the new college (Turner 1984). Not long after, in 1817, Central College (now the University of Virginia) started work for constructing a campus based on a deliberately planned design by Thomas Jefferson (Dober, 1992; Turner 1984). At the heart of these plans – and others, was

optimizing the student experience, although historians will point out that college leaders and administrators changed the focus of that experience from time to time.

Post-civil war expansion of higher education was fueled by a pivot toward the sciences that demanded new space be appropriate for such pursuits. With the additional funding available from the Morrill Land-grant Act of 1862 (and later 1890), colleges were created and expanded. Then, in the 20th century at the conclusion of World War II, a significant enrollment boom was ushered in as the Montgomery GI Bill (officially named the Servicemen's Readjustment Act of 1944) funneled both funding and returning veterans onto college campuses (Muthesius, 2000).

Despite commonalities, individual institutions maintain their own campus identity. For this case study, I focused on the campus of the University of Georgia. Founded in 1785 and located in Athens, Georgia, the University of Georgia has its own unique built environment. The campus grew significantly under the leadership of University President Alonzo Church, who presided over the University for thirty years from 1829 until 1859. Under Church's leadership and vision, the campus expanded from a small cluster of buildings into a larger group of facilities arranged around an open quadrangle. In all, eight new buildings were added during this time (Dyer, 1985).

The next notable expansion of the UGA campus occurred as a result of proceeds from the Morrill Land Grant Act. Under the legislation, the State of Georgia received approximately 270,000 acres in scrip to sell, which raised $243,000 for the establishment of a state college of agriculture. The state trustees decided to establish the agriculture college in Athens and operate it in conjunction with the university.

The aforementioned watershed moments and policy implementations are just a few of the many factors that have influenced the growth of the higher education built environment in the United States. Due to geographical diversity, differing missions, variation in size, and individual funding models, no singular physical master plan has endured nor has one been emulated as the standard for higher education campuses. Rather, trends and emerging ideas from the subsequent generations of architects and administrators shaped the collegiate built environment. Today's administrators are the custodians of these spaces and places, which are inherited environments that must be operated and maintained. But as administrators look toward leaving their own legacy of improvements on these campuses, perhaps the biggest contribution higher education researchers can make is in advancing the scholarship of understanding how students themselves are influenced by the built environment – and use that understanding to inform administrators to make more knowledgeable, student centric decisions and improvements.

But analyzing the influence of campus spaces on students is a complex research problem. College campuses are likened to small cities in terms of facilities, infrastructure, and outdoor hardscapes. Students interact with the built environment around them on a perpetual basis – both actively and passively. They have limited choice in some of those interactions and most facility interactions are dictated by required class schedules, housing situations, dining selection, recreational activities, and routes of travel between all these variables. The complexity of this dilemma is further increased due to the uniqueness of each student's schedule, living arrangement, and even their pre-college factors such as sociodemographic characteristics and

socioeconomic status. While pre-college factors cannot be controlled during this research per se, it is important to recognize their existence in tandem with this research and be aware of the possible influence or inequity that they may bring. Due to the diversity in student populations on campus, researchers should also “seek to better understand how different populations experience on-campus living, with the intention to address inequity” (Graham, Hurtado, & Gonyea, 2018, p.266).

In order to begin to frame the research problem, a deeper understanding of facilities themselves is required. Higher education facilities are a shared resource amongst the entire campus community. Certain colleges and departments have assigned space, while the campus population at large enjoys the benefit of common spaces and installed utility infrastructure. The built environment – again, a term used to define and generalize all the physical space on campus, is the catalyst that allows all other activity, both academic and nonacademic, to take place on campus. Kuh, Shuh, and Whitt (2005) described the effect, “through buildings, signs, and the landscape of the campus, the physical environment communicates messages that influence students’ feelings of well-being, belonging, and identity.” This academic and social integration became an important concept to this research. The built environment therefore has unlimited potential to have an impact on the sense of “community” or “belonging” of students and warrants further attention to achieve a better understanding of the implications it has on the larger student experience.

There is little doubt that facilities play an increasingly important role in higher education. This assertion is validated by higher education leaders such as former University of Connecticut President Susan Herbst. She summed up her thoughts on

campus planning and infrastructure when she said “Colleges and universities are places where young people become adults and find their passion, but also places deeply held in the hearts and memories of our alumni. So, it is important that our campuses are functional, academically effective, of value to the local area, and also beautifully unique” (Herbst 2016). An important concept that Dr. Herbst highlighted in the above quote is the abstract idea of “place.” As this research explores the higher education built environment and its spaces by viewing them through the optics of the student experience, these spaces begin to transform into places. Temple (2009) suggested that higher education space becomes place through the transformation of physical capital into locational capital, and the subsequent creation of social capital. This idea of different types of capital helps to explain the evolution of space into place but does not address the influence of such places on the student experience. I further refined Temple’s model by constructing a new theoretical framework by linking in Van Manen’s (1990) qualitative theoretical framework of “the four existentials” that helped inform this study of the influence of the built environment on the student lived experience by understanding the vectors through which the experience occurs. These combined theories are at the heart of my research questions, and I revisit this framework often.

The impact of the built environment imprints itself very early in a student’s postsecondary career. The first encounter with these spaces is often during the recruitment phase and campus visits when students are assessing the merits of attending a particular institution. The most notable experiences that prospective students report having during their college visits are related to the appearance of the campus and the impression of its facilities. Research suggests a link between the built

environment and a student's choice to enroll (Price et al, 2003; Reynolds & Cain, 2006). In fact, The Carnegie Foundation for the Advancement of Teaching reported that 62 percent of prospective students indicated that the most influential factor during a campus visit was the appearance of the campus grounds and buildings (Guckert, 2003). Clearly, the first impression that the campus makes is a lasting one and one that carries significant importance in the overall decision in selecting which college to attend. Virtual tours of the campus built environment and online access to facilities information allow the institutions to favorably highlight facilities that can promote positive reactions during the recruiting phase.

Problem Statement

In recent years, higher education facilities have assumed amplified importance in recruitment, academics, and research as major institutions compete for prestige, funding, and enrollment. Despite intensive and thoughtful master planning, I argue that higher education institutions and university systems do not fully understand the influence of physical space on their students' lived experience which leads to inefficient or problematic decisions when creating, improving, or maintaining the built environment. Strange & Banning (2001) note that "among the many methods employed to foster student learning and development, the use of the physical environment is perhaps the least understood and the most neglected" (p. 30). Physical space has the potential to impact all stages of a college student's experience including recruitment, persistence, and outcomes, so it is critical that campus leaders better understand and make informed decisions about the planning, maintenance, construction, and operations of

the campus built environment. Past scholarly inquiry, with some exceptions, has focused largely on academic space, specifically the functionality, layout, and other aspects that seek to maximize better pedagogies and learning outcomes. It is critical to further expand and explore this topic (as recommended by numerous scholars) in order to contribute to the discipline of higher education so that the higher education enterprise achieves a better understanding of student-centric challenges related to the broader built environment so administrators, faculty, and staff can provide an opportunity for improvement. This research also highlights “what works”.

Research Questions

The purpose of this qualitative case study is to understand how the campus built environment influences first-year college students and their lived experience. I was particularly interested in examining first-year, undergraduate students who reside at a major public research university, as such students form a large portion of the enrolled population that live on campus. The logic for selection of first-year, resident students is simple - their collegiate pursuits provide for the most intensive facility usage across the entire spectrum of the university’s built environment. They also traditionally spend more time on campus to include a residency percentage higher than that of more senior undergraduate and graduate students. Furthermore, major research universities provide a backdrop for a more diverse set of facilities and on a larger scale than other typographies and typically have a minimum first-year residency requirement (with some exceptions). This presents the opportunity for a wider range of potential inquiry, and any common themes that emerge on this type of campus would likely resonate throughout

the stratification. While generalization is not a specific goal of this qualitative research, the results may be transferable to other institutions based on commonalities that I found amongst the different academic disciplines, residential situations, and other variable characteristics that I conclude are agnostic of the actual specific campus setting.

My research leveraged a qualitative case study approach to explore the students' lived experiences when interacting with the built environment. The guiding research questions for this study were as follows:

1. How do undergraduate students on a research university campus interact with facilities and the built environment?
2. How do undergraduate students perceive the influence of campus facilities and the built environment on their lived college experience?

Conclusion and Significance

The built environment of a higher education campus has the potential to meaningfully influence the first-year student experience. The significance of this research cannot be overstated because the findings of this study help us to expand our understanding of the influence that the built environment has on these students. The findings act as a catalyst for recommended improvements to facilities and planning from a student-centric perspective. It is imperative to understand the student experience in order to identify barriers and challenges so we can provide an opportunity for improvements while encouraging future research into the spaces that students occupy nearly every minute of every day while pursuing their educational goals. Additionally, this research is significant because the results further inform how a university may

differentiate itself from its peers and improve its “brand” and prestige by identifying poor elements of its built environment as perceived by its customers, the students. Furthermore, the framework provided by this research is potentially useful for other researchers to branch out into future investigative actions amongst the expanded stakeholder populations on campus including staff, faculty, and research personnel in order to capture the influence of the built environment on their experiences as well.

This research also informs administrators of the benefits of the built environment. These are important because careful consideration must be made to identify any tradeoffs as they look to find the right balance between virtual and traditional instruction. If you take students out of the physical classroom, you also potentially take them out of the broader physical campus and risk losing all the interactions that come with having an in-person presence.

In conclusion, the campus physical space undoubtedly has an impact on many students, although the nuanced mechanisms are not fully understood nor are those impacts clearly captured by the existing literature, at least in a qualitative form. This study is important because it informs researchers and policymakers by filling in some of those scholarly gaps, providing further insight into how the campus built environment influences students.

CHAPTER 2

A REVIEW OF THE LITERATURE AND THEROETICAL FRAMEWORKS

"Without focused attention to places, what will become of them—and of us?" (Gruenwald, 2003, p. 646)

This literature review explores the higher education built environment and the student experience, and how they relate through campus place-consciousness. The campus built environment is not a singular subject within higher education. Rather, it encompasses a wide variety of sectors, which is why it often seems ubiquitous. The physical space of a college campus is omnipresent, existing everywhere in all places at the same time. Its influence is therefore woven into the fabric of the discipline of higher education and the student experience. However, untangling that influence in order to thoroughly examine it is quite a challenge.

In Haggan's (2015) review of Temple's (2014) book, *The Physical University: Contours of space and place in higher education,* Haggan aptly states that "the campus is the physical manifestation of the university" (p. 73). Thus, it is important to understand the campus in its *physical form* (the first relevant component of this research and literature review) before diving into the intersection between such space and the broader student experience. There are several closely related sectors of literature which

consider the physical built environment. These sectors include higher education history, campus operations, and the work associated with the sense of campus community that is fostered by the built environment. The second relevant component of my research, the *student lived experience*, is well documented but not necessarily as it relates to the physical characteristics of the campus. Conceptually, my study fits into what has already been done by merging a deep understanding of the built environment with the student lived experience in order to make meaning. This nascent concept has the potential to spawn further research that could act as a catalyst for achieving complex understandings and new perspectives on this subject, as well as informing policy and decision making associated with resource allocation of the built environment – decisions that become more fiscally important as enrollments fluctuate, or budgets are reduced. Furthermore, this study provides insight to the built environment's influence of other higher education research topics such as recruitment, persistence, and outcomes – all facets of the student experience.

Historical Background on Campus Space

"Every college and university has a story to tell about itself – about its mission, its history, its traditions, its aspirations. The institutional story is told through the campus." (Chapman, 2006, p.xxiii)

What Chapman is saying in the above quote can be summarized as the institutional saga, or perhaps more modernly referred to as the institutional "brand." He goes on to say that "place matters because it is the tangible expression of institutional

identity" (p. xxi) which is developed over time and has roots in the history of the campus. Thus, the literature review begins by examining the historical context of the campus built environment. That context is filled with stories of brick and mortar, of planning and construction, but also of injustices that were part of the collateral damage as old campuses expanded and new campuses broke ground.

With the establishment of Harvard College in 1636 and subsequent founding of William and Mary (1693), Yale (1701), and what would later become Princeton (1746), the model and order of colonial higher education was established. The American archetype would be that of multiple smaller colleges which were geographically dispersed, each growing over time to parallel demand and innovation. While the structures and facilities themselves took influence from the English institutions at Oxford and Cambridge, the scale was smaller (although still large by colonial American standards), and the campus often consisted of only a handful of buildings that were mostly utilitarian. In fact, Tolles (2011) pointed out that colonial campuses were physically arranged so that all their functions could be interrelated as closely as possible within individual structures or within groups of buildings. Unfortunately, many of the initial buildings on early colonial campuses have been razed or destroyed, thus complicating the job of historians who have worked to document and understand the early campuses. Luckily, archival work has illuminated their efforts and researchers and historians are able to enjoy a robust accounting of these schools (Dober, 1992; Fink, 2015; Turner 1984).

As the demand for higher education increased and access expanded, the need for efficient and effective space became a priority for administrators and trustees as

evident by the implementation of careful campus planning and design. Moving into the post-revolutionary and antebellum era, new institutions were able to give explicit attention to the student experience during initial campus design and construction. The physical plan for the University of Virginia, as promoted by Thomas Jefferson when it opened its doors in 1825, called for “academic villages.” Thus, we begin to see a departure from colonial colleges as larger institutions developed and expansion occurred. Unfortunately, the legacy of slavery is also intertwined with the expansion of the higher education campus during this time, so an acknowledgement and a critical lens needs to be applied to that aspect the built environment.

Enslaved labor was exploited at many institutions for both construction and maintenance of the built environment, and not just confined to the south (Wilder, 2019). Related to the actual use of slave labor is the fact that numerous institutions relied on the Atlantic slave trade for revenue generation that fueled the expansion of higher education campuses. Higher education developed a dependence on slavery and its associated merchant wealth to bankroll the establishment and expansion of higher education campuses (Carp, 2008; Wilder, 2013; Anderson and Span, 2016). Thus, both the labor to build and the money to finance buildings (and expand the campus footprint) were influenced by slavery. Enslaved labor provided the motive force for the construction while the slave trade itself helped financed the effort. Anderson (2016) gave a frank and sobering picture of this legacy,

> Virtually every institution of higher education founded before the abolition of slavery was built and maintained, in some form, by the labor of free and enslaved blacks. Blacks were on college campuses, not as students, but as cheap sources

> of labor that both directly and vicariously taught whites enrolled and working in these spaces that blacks were inferior and subordinate and they were superior and leaders. (p. 653)

A specific example of the exploitation of slave labor used to construct campus facilities is documented at the University of Virginia, which rented enslaved people to build the institution's first facilities (Carp, 2018). Additionally, Wilder (2013) traced the wealth generated for the establishment, development, and expansion of early institutions back to profits from the Atlantic slave trade. Sadly, but not surprisingly, books and literature on the histories of specific institutions written in the later part of the 20th century do not mention the dependency and use of slavery when constructing or maintaining the built environment. This includes the histories of prestigious universities now understood to have used slaves (whether owned or rented by the institution) such as the University of Virginia (Dabney, 1981), Harvard University (Morrison, 1995), and even the campus selected as the subject of my case study, the University of Georgia (Dyer, 1985).

After abolition, slavery was replaced by a different type of injustice - oppression and segregation within the campus physical space. Jim Crow and *Plessy v. Ferguson* only strengthened such segregation. Despite physical growth of campuses, racial integration did not occur on the UGA campus until 1961 with the admission of two African American students, Charlayne Hunter and Hamilton Holmes. Fittingly for this research, an entire physical building on the historic north campus of UGA bears the names of these two brave pioneers, the Holmes-Hunter Academic Building. The disparity in access wasn't the only inequality faced by black students. Predominately

black institutions of the early 20th century were disproportionately and purposely underfunded with respect to their facilities, which prevented a level playing field for academic access and outcomes (Thelin, 2011).

In the years nestled between the Civil War and World War II, gothic building designs and the revival of the quadrangle dominated campus construction. A number of schools including Yale University, University of Pittsburg, Bowdoin College, University of Pennsylvania, and the United States Military Academy at West Point utilized this style. Princeton University stands out from the group as it saw tremendous growth during this period and was resolved to use the Gothic style almost exclusively (Turner 1984). Another notable gothic-inspired campus, Trinity College (now Duke University), was the topic of Wharton's (1991) case study that highlighted inequities within the built environment of that campus. She used the contrast of Trinity's east and west campuses to highlight the disparity between the perception of men's and women's roles and access to higher education during the early 20th century. The western (men's) portion of Trinity was heavily influenced by Gothic Architecture while the eastern (women's) campus was a combination of the more utilitarian style with an added mix of the less ornate Beaux-Arts style. The funding and prestige were heavily skewed toward the men's campus at Trinity which demonstrates another problematic feature of the higher education campus. The unequal treatment of men and women resulted in a disparity in the delivery and quality of the education they both received. The differences created an inequity in the experience between the two genders which often occurred even within the same institution, and clearly demonstrates that the importance of the built

environment as an influential factor to the student experience even in the late 19th and early 20th centuries.

The Morrill Land Grant Act of 1862 was also an important event for the further expansion of higher education campuses. Federal land was granted to each state and subsequently sold off with the proceeds funding higher education. Revisionists and other historians (Johnson, 1981; Sorber & Geiger 2014; Nash 2019) have been critical of the actual success versus the perceived success of the legislation, but it is quite clear that the Act was the catalyst for an expansion of campuses across the country. In some cases, the money was used for the purchase of land. While this provided a much needed infusion of cash for higher education institutions, there was a dark side to the progress. It is prudent to acknowledge the negative aspect of this legislation on certain populations. In this case, the legislation had a horrific impact on the indigenous people who had already (and for some time) occupied the land sold out from underneath them by the federal government in collaboration with the various states whose higher education institutions would benefit greatly. As a result of the federal intervention and the demand for their land which was to be sold, Native American tribes were subjected to forced dislocation onto far away reservations, at a great price to their culture and well-being (Stein, 2020).

The post-World War II era created the “baby boom”, but also another boom. Higher education experienced a “building boom” as a result of the influx of student veterans returning from war and eager to exercise their G.I. Bill benefits. Other marginalized demographics who had long struggled to gain access found themselves with new opportunities as well. Thus, higher education campuses became more diverse

in the post war years as enrollments climbed which necessitated a variety of new facilities in which to house students, conduct classes and research, and provide amenities such as recreational opportunities. According to Turner, the facilities themselves became more diverse, reflecting the diversity of the post war campus as a whole in the 1950s and 1960s.

As noted, the built environment is not limited to academic spaces. Residential facilities also evolved, but did so differently depending on typography. Women's seminaries and colleges differed from men's colleges in their approach to residence facilities. Well-established women's institutions, such as Mount Holyoke, considered life outside of academic facilities important in order to regulate behavior and maintain discipline (Gordon, 1990). Historian Helen Lefkowitz Horowitz explored the built environment of women's colleges of the late 19th and early 20th centuries by examining the "Seven Sisters" institutions of Mount Holyoke, Vassar, Smith, Wellesley, Bryn Mawr, Barnard, and Radcliff. She documents the evolution of campus student housing shifting from smaller, shared, scattered, and home-like "cottages" to larger and deliberately planned residence halls. Indeed, the model for designing with the intent to shape the student experience is evident with Mount Holyoke, which added space not through new standalone buildings, but by "extending the central structure and attaching wings" (Horowitz, 1984, p. 26). In another example, Radcliffe broke from the tradition of housing students in smaller cottages or sharing housing within the community in favor of larger residence halls. For Radcliffe administrators, they recognized the positive aspects and value of the student experience that the residence halls could offer. This shift in the built helped establish an "esprit de corps" as well as loyalty to the college (Horowitz,

1984). Keeping students on campus also allowed for careful supervision and adherence to the rigid schedule that these women's colleges were known for. In this regard, the built environment was used as a deliberate tool to not only influence the student experience, but to consciously and deliberately control it.

Thus, the history of the American higher education campus built environment is told as both a tale of individual institutions as well as a set of interconnected stories sharing certain common traits over time. In the literature I found a juxtaposition of specific campus sagas intertwined with emerging trends that thread styles and themes in a way that bonds the physical spaces of institutions together during certain eras.

The Built Environment through Campus Operations

"The campus serves the institution not only by satisfying physical needs, but by expressing and reinforcing these ideals or goals." (Turner, p. 304)

Campus operations includes all the services offered by an institution. An institution is charged with providing everything from academic space, environmental controls, adequate housing accommodations, dining opportunities, transportation, safety, etc. The built environment and its upkeep, is integral to providing these services. However, institutions struggle due to suboptimal funding models for the maintenance of these spaces and there is plenty of evidence to support this assertion. In fact, recent surveys of major universities report that deferred maintenance and deferred capital renewal needs are estimated in the hundreds of millions of dollars at many institutions (Carlson, 2012). The Association of Higher Education Facilities Officers (APPA) and the

National Association of Campus and University Business Officers (NACUBO) indicated a nationwide deferred maintenance backlog in excess of $26 billion (Kenney, 2005). In addition, new construction, for all its aesthetic appeal and modern advantages, still requires life cycle funding and attention else it also becomes relegated to just another problematic building. One association recognized this challenge when stating that "aging and deteriorating facilities will have a negative impact on the ability of universities to fulfill their missions in teaching and research" (CAUBO 2000, p. 47). Clearly, there is a link between providing quality campus facilities and the ability of the university to deliver on its operational mission.

As institutions have grown over time, so have the required costs associated with their upkeep. The operations and maintenance of campus buildings, grounds, roads, utility, and technology infrastructure represent between 20 and 30 percent of the total operating costs of most colleges (Chapman, 2006). Yet, additional investments which add to the total square footage of physical space continue as institutions chase prestige and improved rankings. Nearly two-thirds of all funds spent on campus facilities are applied toward new construction instead of addressing the enormous backlog (Basu, 2011). Reports collected from across the U.S. indicate institutions spent $12 billion on facilities in 2014, with $9.5 billion in new construction alone (Abrahamson, 2015). Meanwhile, existing space is at risk of decay. An additional pressure on higher education facilities maintenance and operations is the rapidly rising costs of utilities such as electricity, water, and gas. Even small increases in these costs, when spread over millions of square feet across a campus, adds pressure to already stretched budgets and can cause further growth in maintenance backlogs as institutions must

decide to pay the electricity bills versus putting adequate funding towards maintenance and renovations. With building input costs such as energy, construction, and maintenance experiencing significant price escalation in recent years, institutions feel even more pressure to find efficient ways to manage their physical space.

Neglect of the campus built environment is more problematic than just impacting academic functionality or student comfort. The physical campus also expresses intended and unintended messages to the campus population. Factors such as the cleanliness of the grounds, the upkeep (or lack thereof) of facilities, the location of student services, and availability of open community spaces is part of a message-sending process, or what Strange and Banning (2001) called “non-verbal cues” about what the institutional values. These cues can have a devastating impact of campus image and its identity. Thus, neglect and poor planning send negative signals to students which can influence their perception of the institution’s commitment to a positive on-campus experience and risk contributing to student attrition or the feeling of marginalization. With the rising cost of tuition comes an expectation that students are getting a good product and good experience for their money, and poor facilities conditions are antithetical to this logic.

A university campus needs spaces designed to generate interaction, collaboration, physical movement, and social engagement as primary elements of the student learning experience (Jamieson, 2003). Jamieson focused on designing more effective on-campus teaching and learning spaces – certainly a nod to understanding and improving the built environment. However, as I found in a significant portion of the literature, the focus of such work is truly on improving pedagogies by acknowledging the

importance of the physical space and altering it to optimize academics and student learning outcomes (Veltri et al, 2006). For example, the recent move from traditional teacher-centered pedagogies to technology-driven methods have necessitated alterations in the built environment to cater to these flexible, student-centered approaches which are broadly recognized as “active learning”. This approach uses collaborative techniques which push traditional curriculums and physical classrooms to their limits, often requiring more space per student (Kober, 2015). Thus, Jamieson’s contribution puts him squarely in the realm of exploring the on campus built environment and the quality of the student learning experience.

Others focus on the scale of the built environment (Kuh et al, 2005). Kuh emphasizes the human scale that is required to foster student success. He acknowledges the relationship between properly sized facilities and their influence on students. Kuh argues that the spaces do more than just provide a place to learn. He notes the positive effect of promoting environments that foster informal reactions and the development of what Temple would later call “social capital”. The scale of the campus, according to Kenny (2005), connects campus size back to the concept of growing the campus community through the built environment when he states that “physical compactness allows students and faculty to walk more easily from one place to another, encouraging interaction and community, and reinforcing a sense of place and institutional identity" (p. 105). As my findings illustrate, the scale of the built environment becomes difficult to address for larger universities – and students are quick to point out these challenges and frustrations. The recent trend of higher education systems using consolidation of physical campuses to gain efficiencies will likely add to

the growth in class size and campus size as the result of reorganization into fewer, but larger institutions. Van Manen (1990) explores this topic of size and scale as well, although he uses the term “spatiality” or “lived space” as one of his four existentials. My research leans heavily on Van Manen’s larger framework, which I discuss later as part of my research design for this study – specifically when I explore how students experience the campus built environment.

Temple’s (2009) work used a small scale pilot survey to explore how physical space contributes to its academic work. The design was a simple random selection of staff and students. He found that students identify strongly with their college and that their sense of identity provides the basis for personal and academic development. Temple also found that there was support for the idea of a “message sending” view of the campus design. For example, there was a feeling that “the look of the place” helped shape attitudes toward the campus. Terms such as “modern look” and “sense of spaciousness” were repeated in the responses which Temple claimed helped the campus population construct their own mental spaces and positively shape their experience, even to help “people feel good about themselves” (Temple 2009). He ultimately arrived at the conclusion that physical design features seem to be important in ensuring positive interactions. He then recommends further study using his framework of the ways physical capital is transformed into locational capital and ultimately into the creation of social capital. It is from Temple’s framework that I expand upon to make a connection between the built environment and the student lived experience.

Complementing Temple's study, Hill and Epps (2010) examined the influence of the classroom environment in a different, but interesting way. Hill collected data using a survey from 237 students in two concurrent but separate sections of the same course, essentially creating a control group and treatment group. The first section was conducted in a newly renovated classroom (new flooring, paint, and furniture) while the other was conducted in an older, unrenovated space. Not surprisingly, the renovated classroom received more positive feedback which influenced the perceived effectiveness of the instructor and pedagogies, as well as increased satisfaction of the course. Despite the extremely small sample size, the Hill study suggested the existence of an influence between factors associated with the built environment and the student experience, holding all other factors constant.

Space demand in higher education facilities is influenced by exogenous and endogenous factors. Assessing these factors is important to ensure overcrowding does not impact the ability of students to secure adequate housing, reserve seats in relevant courses, or receive other services that are dependent on sufficient physical space. Exogenous influences (originating from outside the institution) and endogenous influences (originating from within the institution) are often difficult to predict and are constantly changing (Temple & Barnett, 2007).

To fill these spaces in a more equitable way, colleges and universities are also competing for and increasingly diverse student candidate pool. In order to attract changing demographics and, perhaps more importantly, to ensure an adequate and welcoming environment for diverse populations, the requirements for the physical facilities need to keep pace with admission goals (Kenny, 2005). Again, understanding

the student experience through the lens of the built environment helps achieve a more diverse, equitable, and inclusive environment. A university whose beginnings were as a predominantly or solely white institution must recognize that it must do more than just eliminate segregation. The built environment must also be evaluated for inclusiveness by removing legacy signs and symbols of oppression, as well as other barriers to success.

Community and the Built Environment

"Through the contribution of space to the creation of a sense of community, and thus of place— in the sense of space which (in higher education settings) is intimately bound up with the ways in which we live and understand ourselves, about our ideas of what is valued and validated, as well as what we (think we) know and do." (Temple, 2009, p. 22)

Scholars suggest that the built environment and the student lived experience are tied together via the campus sense of community (Temple 2009; Chapman 2006). Therefore, the concept of community formation is integral to the discussion on the built environment. Does the mere fact that a building exists invite the opportunity for community? Chapman (2006) described the importance of deliberate planning of the built environment such that it has an impact on the sense of community and thus a positive influence on the student experience. He stated:

> In this case, the physical form of the university may be linked to institutional effectiveness (and indeed efficiency) indirectly, through its role in assisting in

> community formation. This physical support for community formation, and hence (I argue) social capital creation, might be done in various ways. Designing a campus on a human scale is one approach, with attention to design details such as pleasant places to sit and talk, which encourage social interactions and connectivity. (p. 180)

Additionally, Temple (2009) pointed out that there is a link between the university's physical form and academic effectiveness. Indeed, physical space is strongly associated with the ability to form community, and in it, the student's ability to understand themselves and their experiences.

Schlossberg's (1989) marginality and mattering research leveraged the idea of community to explain that students who engage in the campus community experience a sense of mattering. Students who experienced a sense of community felt that they were a part of a more inclusive and caring environment which affected their student experience in a positive way. A study by Rullman and Harrington (2014) used the student union to explore the relationship between facilities and community building. They state that "if learning is social, and a sense of community is vital to the learning process, then students need to feel a part of the community to take full advantage of all possible learning experiences" (p. 44). They reported that the very purpose of a campus student union facility is to provide a space to access student support services, programs, and offices designed to mitigate feelings of isolation and enhance the overall feeling of belonging. The emphasis placed on a college union facility conveys that the institution is responsive to student needs and invites students into a community with others who care about them.

Other researchers have monitored trends in student and parent preferences related to campus life (Howe & Strauss 2003; Kenney 2005). They conclude that today's generation of students want to engage in campus activities that reinforce a sense of destiny and community. Students emphasize the quality of campus life as one of the top factors in deciding where to attend. The authors recommended that campuses need to recognize these desires and provide spaces designed to foster a vibrant and exciting student experience and campus life because students place value in recreational amenities and conveniences. Some have described this as the "country club factor" (Kenney, 2005) and institutions feel compelled to provide these requested perks. Whether it is simply "keeping up with the Joneses" or an escalating amenities arms race, the fact remains that the inclusion of luxurious perks plays a role in the planning and construction of facilities, especially dining, housing, and recreation spaces. In fact, according to a 2000 report, 64 percent of funding spent of facilities construction ($9.6 billion) went to such nonacademic facilities (Agron, 2001).

The built environment is the catalyst that allows all other activity – both academic and non-academic, to take place on campus. Kuh et al (2005) describe the effect as "through buildings, signs, and the landscape of the campus, the physical environment communicates messages that influence students' feelings of well-being, belonging, and identity." Chapman (2006) describes a similar concept he calls "emotional resonance" about how the physical campus can ignite deeper feelings that magnify the purpose of the environment and tie campus community members together.

Temple (2009) also introduces the concept of location capital which aids in the creation of a particular university physical setting and stimulates high-quality

interactions among teachers and students. These interactions, conditioned by the physical environment itself (presented by Temple as a form of physical capital), give rise to the community which exists within the institution, and helps to form its culture. He argues that these phenomena transform the simple idea of space into a more meaningful sense of place. Temple also leverages studies on physical space from outside of higher education to elucidate his concepts on the social impact on the student experience – noting that the ordering of space in buildings is really about the ordering of relationships between people (Hillier and Hanson, 1984), thus acknowledging through his work that the intelligent use of space influences a person's sense of community.

Pascarella and Terenzini (1991) confirmed that living on campus was "the single most consistent within-college determinant of the impact of college" (p. 611). Pascarella's observation informed the research design of this study by influencing the decision to focus on those students who actually live on campus. They later explained that the social environment of residence halls is qualitatively different from off-campus living, concluding that residence halls lead to enhanced social, cultural, and extracurricular involvement (Pascarella et al., 1994). Indeed, their suspicions were more than validated via the responses from the participants in my study, which are presented in later sections. In contrast, Mayhew et al. (2016) concluded that studies of on-campus residence did not generally support claims of positive impact on the student experience. However, that does not necessarily mean that living on campus is not a net positive. In examinations of the relationship between residential learning communities and students' experiences and persistence during the first year of college, data from 2,678 students who lived in residence halls indicated that while the residential learning communities did

not improve students' academic achievement and persistence directly, they did indirectly improve students' success by enhancing their integration into college and appreciation for their collegiate community. (Pike et al., 1997).

Researchers also suggest that findings of marginal impact are the result of interactions with the built environment (specifically residential spaces) becoming less immersive (Gemmill & Peterson, 2006). In the past, living on campus was associated with pervasive communication and interactions among peers within the institution. Today, the use of social media and high-speed wireless internet makes it much easier to interact with family and friends across long distances. Thus, on-campus students may not rely as exclusively on those within their physical environment for social engagement. To combat this, Kuh et al. (2005) reported that interior and exterior spaces should be adapted to reduce the psychological size of the campus and to encourage participation in campus and community life.

However, exposure to the campus community and integration into its culture still matters. Using multi-institutional survey data from first-year students, Graham's (2018) study investigated the relationship of residential status with engagement and perceived gains in learning and development. Although Graham's results indicated that on-campus residency only has small positive effects, he concluded that students are more likely to identify with college life "simply by virtue of eating, sleeping, and spending their waking hours in the college campus" (p. 145).

The 'boundaries' between the physical and the virtual spaces associated with higher education have become less clear as a result changing student demands (Ellis & Goodyear, 2016) and will challenge the notion and importance of the campus

community. Some types of students prefer greater flexibility in order to fit study around other aspects of their lives, including their jobs, childcare considerations, and communing times. COVID-19 further complicated this challenge by demonstrating that virtual learning is possible through remote conferencing software, although the efficacy of such arrangements is still being studied.

The Student Lived Experience

“There is an old image of the core activity of the university, coined at Williams College, the image of ‘Mark Hopkins on one end of a log and a student on another.’ All that is really needed for education is a great teacher and a ready student.” (Keohane, 2006, 54)

The above epigram about educator Mark Hopkins is often attributed to President James A. Garfield. It points out the core functions of higher education are to teach and to learn. While a romantic notion, long gone are the days of one-on-one instruction. As the scale and diversity of instruction have expanded over the centuries, so too has the student experience. Additionally, Temple and Fillippakou (2007) argue that space requires more attention in regards to the academic mission:

> Consideration of space in higher education has commonly taken place either in the context of space planning, or in the context of campus master-planning and architecture, rather than being seen as a resource to be managed as an integral part of teaching and learning, and research, activities. (p.12)

Edwards (2000) punctuates the idea when he states “universities have the almost unique challenge of relating the built fabric to academic discourse ... the university environment is part of the learning experience and buildings need to be silent teachers” (p. vii).

Kuh et al. (2005) researched strong performing colleges and universities, specifically aimed at what those institutions do to promote student success and positive experiences. Their project, referred to as the Documenting Effective Educational Practice (DEEP) project, reported that environments need to be created or adapted for educational enrichment. They point out campus spaces need to serve as gathering places, specifically designed to induce an experience of student-faculty and student-student interaction. Gruenwald (2003) stressed the importance of understanding space and providing it for academic success. He wrote “learning to listen to what places are telling us—and to respond as informed, engaged citizens—this is the pedagogical challenge of place-conscious education” (p. 645).

An emerging topic relating to the student experience and academic facilities is exploring how technology impacts traditional notions of the built environment. As Chapman warned, “emerging technology will test the basic notions of how brick and mortar institutions deliver knowledge in the physical campus setting” (2006, p.53). This concern was described by Duderstadt (2000), “as the constraints of time and space – and perhaps even reality itself- are relieved by information technology, will the university as a physical place continue to hold its relevance?” (p.237). Additional work by Christensen & Eyring (2011) highlighted the theory of disruptive innovation to the field of higher education, where online institutions and learning tools are challenging the future

of traditional higher education, including the traditional campus experience. Accelerating this shift, the global pandemic of COVID19 necessitated a pivot away from traditional, in-person instruction to an online model which challenges the need for academic physical space. At a minimum, the pandemic forced institutions to rethink how they utilize such space. Whether the shift to online and hybrid approaches were temporary or part of a more systemic shift remains to be seen.

Furthermore, the academic mission is influenced by the condition of the spaces in which the students actively learn. Well-maintained and cared-for premises appear to provide benefits of psychological security and support feelings of belonging, and thus commitment to learning. Good environmental conditions such as temperature, humidity, noise control, and lighting are all prerequisites for learning. This apparent connection between day-to-day maintenance and the academic mission should be a concern of institutional administrators (Temple and Fillippakou, 2007).

The student lived experience is a well-researched topic. However, the student lived experience is often the dependent variable in such work. The focus piece of interest for such research is typically the independent variable, such as the factors that change and have the ability to shape the student lived experience. In higher education research, I found all manners of topics concerned with the influence on the student experience. Homelessness (Ambrose, 2016), academic major (Sheperd et al, 2010), and student services (Buultjens and Robinson, 2011) are just a few examples of a much larger list of topics that use the lens of the student experience to explore various aspects of higher education. However, what is most useful is the contribution that these

unrelated student experience pieces provide in terms of the mechanics of conducting lived experience research.

Van Manen's (1990) work *Researching the Lived Experience: Human Science for an Active Sensitive Pedagogy* captures fundamental principles of qualitative research. Magrini (2012) distills Van Manen's methods down into three distinct stages. The first stage consists of gathering life experience material. Next, the researcher focuses on identifying and interpreting essential themes within the descriptions gathered during the first stage. The third and final stage is that of practical application where the research suggests ways for inspiring improved practices and processes. I examine Van Manen's literature further as I transition to the topic of theoretical frameworks proposed for this research.

Literature on coping mechanisms is another facet of the student lived experience. My research investigated how the built environment influences students, and some of those influences that related to the built environment resulted in negative experiences and stress. I found several studies related to the ways in which students cope with distressing phenomenon (Deasy et al., 2014; Teixeira et al., 2022). Most commonly, these include academic and financial stressors, but living arrangements, time management, and social pressures exist. The latter of these stressors are influenced by the campus built environment. In fact, Deasy et al. (2014) reported that commuting to and around college (identified in 13% of respondents), sharing accommodations (7.2%), and making new friends (6.7%) were all sources of student stress that relate to the campus built environment. This is important to my research because the campus layout, residential facilities, and the community forming aspect of the campus are just some of

the factors I explored. While maladaptive behaviors are a common method of coping, physical activity was reported as an alternative method of coping in the literature. Access to quality recreational facilities (gyms, intramural fields, etc.) is just one way the campus built environment can have a positive impact of how students choose to cope with stress. Unlike some stressors, the institution's administration can seek to better understand and alleviate certain negative aspects of the built environment. Alternatively, the campus can provide positive means of coping with stressors through the convenient access to facilities that research has shown to reduce stress and improve the student experience.

Theoretical Frameworks

Two frameworks offer lenses through which to explore the built environment and the student experience. Temple studied the physical space on campus and how it is perceived by students. Additionally, a theoretical framework proposed by Van Manen's (1990) lifeworld existentials offers a chance to study the lived experience. Temple argues that space is converted into place through the formation of community through various forms of capital. Van Manen submitted there are four lifeworld existentials: lived body, lived time, lived space, and lived human relations. I use these as guides to reflection upon the data produced by combining both notions, thus conceptualizing how the built environment influences the student lived experience.

Temple's Space into Place

"Few conceptual frameworks exist for understanding the connections between the physical form of the institutions and their academic effectiveness — and perhaps their sense of place." (Temple & Barnett, 2007, p. 6)

Temple explained that space is "a result of the decisions and actions of its designers, its users, those who manage it in various ways and those who look after it" (p. 209) and that "place" is what people do with the space that they inhabit. The core constructs that undergird Temple's theory involve certain types of "capital" such as physical capital, locational capital, and social capital. He theorizes that the transformative process of turning space into place occurs when physical capital is transformed into locational capital, and then into social capital, which can be used to produce a positive academic effect.

Physical Capital

Starting with physical capital, Temple theorizes that higher education space is a type of physical asset for the campus. Physical capital encompasses all of the physical characteristics of the built environment, meaning its setting, unique design, constructed edifices, historical features, scale, internal spatial relationships, and the level to which it is properly maintained. Physical capital is the fundamental asset that is often thought of as the "brick and mortar" part of the campus built environment, although even natural geographic features can be considered part of the physical capital of the campus if they are noteworthy enough for consideration. These may include a river running through campus, an institution perched on a hilltop overlooking a valley, etc.

Locational Capital

Temple next identifies locational capital, which has its origins outside of higher education (Gould 2007; Cohen & Fields, 2000). Although birthed from economic research in the business sector, the concept that certain activities have added value when they occur in specific locations also holds true when applied to the field of higher education. The recent global pandemic of COVID19 punctuates this idea in more ways than one. First, the *built* environment fosters a *learning* environment where the *location* itself is home to inquiry and provides access to knowledgeable faculty. The pivot to online learning, it could be argued, diminished location capital for higher education institutions. Secondly, equitable barriers that location capital seeks to overcome quickly became apparent during COVID19. While large proportions of the students have the privilege of a home environment that provides an opportunity for continuous engagement with studies, many students live in circumstances that are not conducive (Belluigi et al., 2020). Clearly then, the existence of a particular university physical setting, which stimulates high-quality interactions among faculty and students, can be thought of as creating locational capital (Temple 2009).

Social Capital

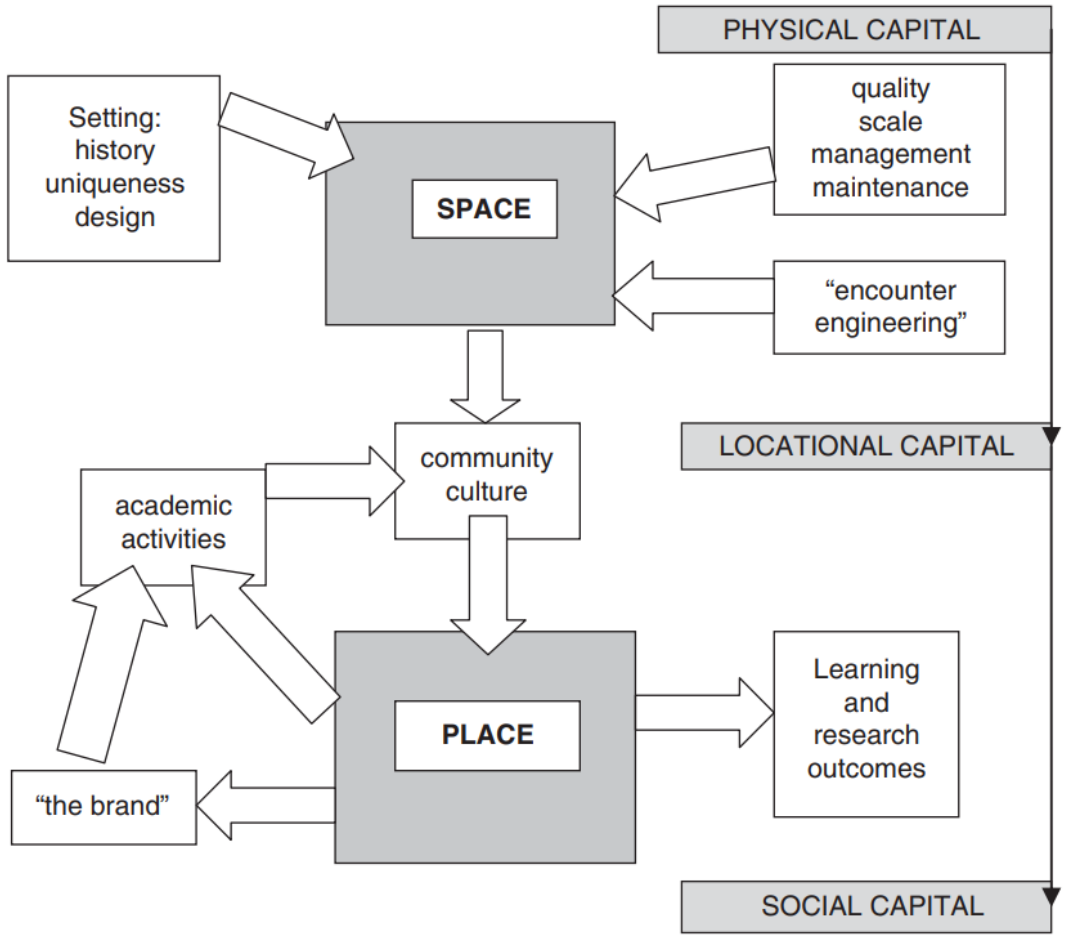
Research suggests (Lesser, 2000; Preston, 2004) that social capital leads to stronger institutions and contributes to their effectiveness. Temple built on this work and makes the connection between the physical space on campus and institutional effectiveness through the former's role in community formation. The physical space contributes to community formation through the built environment in multiple ways. Simply supplying accessible and undesignated space on campus encourages

community and creative utility to take hold through the development of social capital. Chapman (2006) alluded to the social importance of such community spaces, “the quad is a theatrical transaction in which people, space, and architecture are the players” (p.xvii). It has also been proposed that the physical form of the university is important in supporting its integrated nature, intellectually and socially (Temple and Barnett, 2007). The result of creating social capital, according to Temple’s theory, is improves institutional effectiveness.

Figure 1 illustrates how the physical, locational, and social capital align within the campus built environment and summarizes the interconnections with other characteristics across the enterprise, ultimately transforming simple spaces into meaningful places (Temple, 2009).

Figure 1

Temple's Capital Framework



The aforementioned forms of capital are assets to institution. Figure 1 also illustrates the interconnections that emerge as space transforms into place as these "capital" resources influence the institution's population. For example, the setting (history, uniqueness, design) begin as elements of the campus space but as physical capital transforms into location capital and social capital, the community culture develops and the institutional brand takes shape. The conclusion that Temple reached,

and what informs my analysis of the built environment, is that there is an interaction between space and the university community, during which time both are changed. Physical design features are important in ensuring that this interaction is a positive one, although Temple stops short of specifically suggesting that these physical features are transformative on their own. The transformation (space into place) takes place through the conversion of physical capital into locational capital and the subsequent creation of social capital. Temple's theory provides a useful framework for additional inquiry into the place-consciousness of higher education. Temple's theory focuses on the net result (output) in terms of the built environment impacting academic effectiveness and institutional performance. For my research, I need to supplement his theory in a way that allows for inquiry beyond just focusing on academic effectiveness. I argue that Temple's "Learning and research outcomes" box from Figure 1 can be replaced with an alternative output depending on what questions are asked of study participants. In my case, this will be something broader related to the student experience.

Van Manen's Theory of Lifeworld Existenials

"The *sense of place* is a personal phenomenon, having much to do with our own experiences and cognitions as with the physicality of the environment." (Chapman, 2006, p.xxii)

As I explore these higher education spaces and places by viewing them through the optics of the student, I propose the need to better understand the vectors through which students experience these phenomena. Temple (2009) suggested that space

becomes place through the transformation of physical capital into locational capital and the subsequent creation of social capital. This idea of different types of capital helps explain the evolution of space into place, but does not address the influence of such places on the student experience. Chapman's above quote is a perfect way to conceptualize the need to synthesize Temple's theory with an experiential component. I believe that the missing piece is Van Manen's (1990) theory. Thus, I refine Temple's model by leveraging another framework, by linking Van Manen's qualitative theoretical framework of "the four existentials" that will help inform us of the influence of the built environment on the student lived experience. These existentials also act as a guide for reflection during the research process. Van Manen (1997) identified four fundamental themes within qualitative research. Lived space (spatiality) is simply felt space. It is the existential theme that refers us to the physical world in which human beings move and find themselves at home. Lived body (corporeality) relates to the phenomenological fact that humans inhabit physical bodies and experience the world through bodily senses. Lived time (temporality) is the experience of time, the perception of which seemingly speeds up and slows down depending on emotions. The constructs of past, present and future constitute our lived time or temporal landscape. Lived human relation (relationality) is the lived relationships we forge with others that often occurs in the interpersonal space that we share with them.

Van Manen's lifeworld existentials have been used in various qualitative research studies exploring lived experience in the research areas of nursing, health, and education. Indeed, there is broad applicability of these existential themes to many areas of social science because humans experience life through similar pathways. The value

and utility of this framework is quite useful in higher education research as well. These fundamental themes of van Manen's theory have the capacity to capture every event that a student experiences. The taxonomy was useful for developing interview questions by ensuring consideration was given to all the ways in which a student may experience the campus built environment. Additionally, the existentials were valuable for organizing the research data so that emerging themes are identified and categorized in a useful manner to illustrate findings. Each time a student provided an example of an interaction with the built environment, it seemed to fit into one of van Manen's lifeworld existentials. The following sections will discuss each one of these existentials and how they relate to a student's interaction with the built environment.

Lived Body

The physical campus has evolved considerably over time. The early "Oxbridge" model (referring to Oxford and Cambridge) of the colonial era included a residential college that embraced living and learning through the colocation of students' sleeping quarters, dining halls, lecture halls, tutor residences, and common areas. Students lived, worked, studied, and socialized together (Fink & Inkelas, 2015). Accommodations eventually evolved into the Jeffersonian "academic village" model which largely influenced the campuses of today (Chaddock, 2008; Chapman, 2006; Woods, 1985). However, no matter the setting, the environmental factors of the campus built environment are most often collected via the interaction with the lived body. For example, the way an old classroom smells, the noise from the HVAC unit in our classroom during an exam, the temperature and humidity in the library, etc.

Lived body (corporeality) relates to the fact that humans inhabit physical bodies and experience the world through bodily senses. Corporeality refers to our physical body or bodily presence in our everyday lives, including all that we physically feel, reveal, conceal, and share through our lived body. We are always present in the world and interacting with the world through our body, or as Van Manen stated, the concept of lived body "refers to the phenomenological fact that we are always bodily in the world" (p.102). It is through our lived body that we communicate, feel, interact, collect pieces of information about our surroundings, and experience the world (Rich et al., 2013). This is the most fundamental and tactile way in which we experience the built environment – through our senses. When recalling experiences through our four senses, we typically recount the negatives or the extremes. We can recall the time we were the coldest or hottest, or perhaps the loudest noises we have ever heard.

Lived Space

Lived space (spatiality) is simply felt space. It is the existential theme that refers us to the physical world in which human beings move and find themselves at home. Van Manen (1990) explained that "lived space is felt space… It is largely preverbal; we do not ordinarily reflect on it. And yet we know that the space in which we find ourselves affects the way we feel" (p.102). Spatiality explores both how the spaces we find ourselves in can affect the way we feel and shape the way we make meaning about those spaces. The way we feel can conversely affect the way we experience a particular space (Rich et al., 2013). This is more abstract than corporeality (which we can feel through our senses). We experience spatiality through our presence and participation in the physical world. It is simply adding a constructivist lens on the

physical space around us to make some sort of meaning out of the environment we find ourselves occupying.

For example, we often experience space empirically, such as being alone in a large lecture hall and aware of the size and emptiness of the space yet a separate feeling when compared to touching or smelling it. Contrarily, we may find ourselves in a tiny elevator or crowded bus with other people and acutely aware of the smallness of the space as we experience it which may result in opting for the stairwell or driving ourselves next time. We are not formally measuring or calculating the volume of the largeness or smallness of the space, but we are inherently aware of it and making meaning of it. The recent pandemic has brought this existential awareness to the forefront of our daily lives as we consciously and subconsciously social distance, avoid crowds, and perform real-time risk mitigation related to the way we feel our lived space and its associated safety. Additionally, felt space also allows us to understand the appropriateness of the built environment for certain tasks. When choosing where to study for an exam, the library is an adequate space because we know that the conditions in that space are conducive for the task. It feels like a place where studying should take place (this concept is comparable to Temple's *location capital*). Kuh et al. (2005) emphasized the importance of the "human scale" to place consciousness. They found that high-performing institutions kept living units, classrooms, and meeting places small to the extent that it was possible, which facilitated positive feelings of the felt space.

Lived Time

Lived time (temporality) is the experience of time, the perception of which seemingly speeds up and slows down depending on emotions. The constructs of past, present, and future constitute our lived time or temporal landscape. Temporality can be understood as time while we experience it. This is composed of a subjective understanding of time – the way we feel and interpret time, not to be confused with objective time or clock time. It refers to how we experience our surroundings and the world on a temporal level. Factors influencing temporality include our mood which can determine how we experience time and moments. Similarly, but conversely, certain demands placed on us by time can also affect our mood. (Rich et al., 2013). Thus, the effect of time is without a specific vector or direction but van Mannen argues that lived time influences how we experience events.

We can experience the same event differently by simply adjusting our perception of time. The built environment contributes to the factors surrounding our perception and experience with subjective time. Time seems to speed up during an interesting lecture in a space where we are comfortable (adequate lighting, sufficient heating/cooling, and comfortable furniture) but somehow drags on during a boring lecture or if the space is otherwise uncomfortable (noisy, too hot/cold, uncomfortable accommodations). A classic example of subjective time or lived time involves watching a pot of water boil. While staring at the water, it seemingly takes longer than if one were to occupy the time doing something else while waiting. The same event takes the same amount of time but is temporally experienced quite differently by altering our perception of time. Another

example is how some students report that their first semester flew by while others suggest it took forever and dragged on and on.

Lived Human Relations

Lived human relations (relationality) are the lived relationships we forge with others that often occur in the interpersonal space that we share with them. The influence of relationality imparts itself by altering how we experience events (Rich et al., 2013). Our lived human relations are social and communal, meaning we find a connection with sociology and the community in which we live through these experiences. According to Chapman (2006) community is “a method and a behavioral system that the campus is organized to facilitate by providing the places that foster discourse, debate, collaboration, and social interaction” (p.xxv).

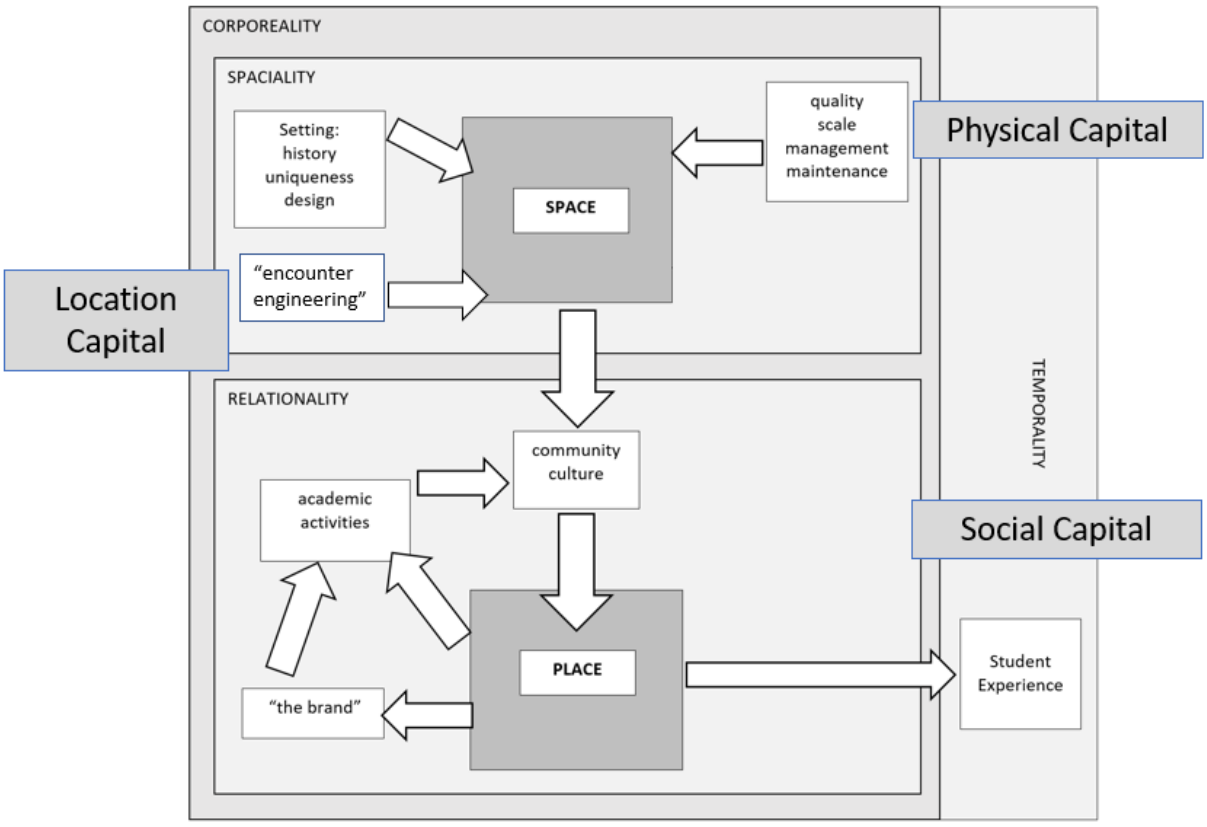
Students interact with a broad range of actors on a college campus (resident advisors, faculty, staff, graduate assistants, staff, and fellow students), and those interactions have the potential to influence how they experience the built environment. An engaged resident advisor or social roommates could foster a culture that leads to a positive experience in a residence hall. Alternatively, an absent resident advisor or lack of friendly roommates could relegate the residence hall experience as just a place to sleep. The meaning of an event may change if one were to experience it with another person vice experience it alone. Experiencing a walk across campus between two classes may not seem as troublesome if we were to do so with a group of friends.

Theoretical Framework

A theoretical framework is defined as a network or “plane” of linked concepts (Jabareen, 2009). I built my theoretical framework to by combining two frameworks, thus creating a framework most relevant to this specific case study. I accomplished this by combining Van Manen’s lived experience theory with a modified version Temple’s “space into place” theory (where I replaced “learning and research outcomes” with “student experience”). I then further refined the combination of these theories by complementing Temple’s idea of physical, locational, and social capital with Van Manen’s idea of “four exetensials.” Upon completion of the study, I will demonstrate the extent to which this combined framework explains my case. The relevance and possibilities for future (and perhaps altered) use of this framework will also be explored once its efficacy for this case is understood and evaluated. The graphical representation of this novel theoretical framework is illustrated in Figure 2 below.

Figure 2

Combined Temple-Van Manen Theoretical Framework used for this study



Conceptually, I gathered data on the student experience by exploring the built environment's transition from simple space to place using the four existentials (corporeality, spatiality, relationality, and temporality) as catalyst for the ways in which student make meaning about their interactions with the built environment. These existentials are the vehicles that provide a physical or psychological connection to the campus. They represent the lens through which we will peer in order to capture the student experience.

Conclusion

An important aim of this study is to advance the understanding of the influence that the campus built environment has on college students. The literature review provided a rich history of the evolution of the built environment in order to provide context for how higher education arrived at the current model for its physical space. Part of that history, and painful legacy, is that of oppression for the sake of progress as we improved and expanded our academic campuses. The oppression impacted African Americans, Native Americans, and women. Moving beyond the past while recognizing that problems still persist, the built environment offers an opportunity to turn space into place through the planning and operations of the campus space, leading to the development of community which influences the student experience. By examining that experience through Temple's framework and Van Manen's four existentials, the goal of this research is to explore the ways in which student interact with the built environment and how they perceive the influence of those interactions on their higher education experience.

I chose to focus on the built environment as it relates to the student experience. How I understand and organize the literature is by connecting the historical, operational, and social aspects of the built environment. I argue that the historical components (saga), operations components (effective planning, teaching, and learning), and social components (sense of community) must exist together in order to provide the best chance for a positive student experience within the physical space on campus.

According to Temple (2007), "the role that space plays in the dynamics of creating productive higher education communities is not well understood, and needs

further study" (p. 6). I found little evidence of collaboration between academic faculty and facilities management leadership to better understand the influence of space on students, which I believe creates a negative impact. Both of these parties coexist within the higher education community and are intimately interested in their spaces yet their relationship is non-existent at best, or adversarial at worst. Temple also noted that interactions between the built environment and teaching and learning are not well understood, and where connections are made, the observations are casual and anecdotal. Considering that the teaching and learning mission is critical to the student experience, more effort should be made to collect firm evidence.

Although it is poorly understood, I believe that there is a clear link between providing quality campus facilities and the ability of the university to provide a positive student experience, and ultimately, to meet its mission. The research design that follows explains how I define and confine the types of capital that contribute to "quality campus facilities".

CHAPTER 3

RESEARCH DESIGN

"The primary purpose for undertaking a case study is to explore the particularity, the uniqueness, of the single case." (Simons, 2009, p.3)

Methodology

First and foremost, this study represents the pursuit of knowledge about the built environment and the student experience. Epistemology, or the study of knowledge, concerns itself with the methods used to acquire knowledge. Epistemological understanding is important because it influences the ways in which researchers frame their efforts in their attempt to discover knowledge and make meaning (Moon & Blackman, 2014). Crotty (2003) described epistemology as "the theory of knowledge established in the theoretical perspective and thereby in the methodology" (p.3). Thus, the connection between knowledge acquisition and the methods used for that pursuit is clearly acknowledged by scholars. It is then prudent and responsible to first discuss how my epistemological perspective influenced my proposed qualitative methodological approach. Different perspectives on epistemology hinge on the perceived relationship between subject and object. How do the subjects and objects of this study interact to

make meaning? To answer this question, and to ensure selection of the best epistemological approach, we examine possible perspectives.

The three main perspectives, according to Crotty, include epistemological objectivism, constructionism, and subjectivism. Objectivism assumes that reality is independent of the human mind and is waiting to be discovered (the meaning exists within the object). It exists apart from the operation of any consciousness. Subjectivism asserts that the development of knowledge depends on how people perceive reality (the meaning exists within the subject). The third perspective, constructionism, rejects the former positions and insists that meaning comes into existence through human engagement with the world (the meaning exists because of the interaction between object and subject). A constructionist perspective believes that the interaction between object and subject is crucial (Lee, 2012). Therefore, in constructionism, truth, meaning, and knowledge come into existence as we engage with the realities in our world and interact within it.

In qualitative research, different groups of people are thought to construct their own unique realities and perspectives, which in turn, allow these social constructions to influence how they interpret their world (Johnson & Christensen, 2017). The campus built environment, which is the focus of my research, is an interactive setting that lends itself to individual interpretations as students navigate its wide range of facilities and cultivate their personal experiences with and within these spaces. The act of experiencing the campus is “not a casual encounter for those who go there with a purpose” (Chapman, 2006, p.xxii). The epistemological approach for my proposed research must then align with a constructionist epistemology whereby different

individuals construct meaning of the same object, environment, or phenomenon in different ways. Choosing otherwise would interfere with the natural process of inquiry through incongruences between epistemological orientation and methodological approach (Van Manen, 1997).

Marshall and Rossman (1995) suggested several goals of qualitative research, with one of those goals being to describe poorly understood phenomena. The phenomenon I researched, and therefore understand and better describe, is that of the influence of the higher education built environment on the student experience. Furthermore, another aim of a qualitative study is to also assess the varied views and perspectives of the participants (Creswell, 2009; Lodico, Spaulding, & Voegtle, 2009; Yin, 2014). Therefore, this study is appropriate for a qualitative approach rooted in a constructionist epistemology. However, one question remains: what type of qualitative study is most suited for my inquiry?

Relative to other qualitative approaches, case studies focus largely on context and on the subjects' interactions, often over a defined period of time or during a specified event. According to Yin (2014), a case study design is justified and appropriate when the researcher seeks to collect descriptive data focused on understanding contemporary events. Yin also pointed out that the researcher should have no influence or control over participant behaviors. This study is aligned with Yin's guidelines because it concentrates on a particular event which is not disturbed by the researcher's involvement.

In case study research, the subject and the object comprise two critical components (Thomas, 2011). The subject is constrained, according to Thomas, as a

local knowledge case, a key case, or an outlier case. Selection of students from a single university campus for a case study limits the subject of my research to a local knowledge case unless a compelling argument can be made for why the particular student population or campus is a key case or outlier case, and I do not intend to make such a case. Yin (2014) also addressed different types of cases, but he broadened his instances into five categories: critical cases (testing a theory), unusual cases documenting unique circumstances), common cases (investigating common or typical occurrences), revelatory cases (tackling previously unexplored phenomena), and longitudinal cases (exploring how conditions change over time). The subject of this study, based on Yin's descriptions, qualifies as a common case. Combining Thomas and Yin's guidance, this study is then categorized as a local knowledge, common case application of the case study methodology.

The next piece, the object, creates the analytical frame in a case study. It is the mechanism through which the case is viewed. The object in my research is the influence of the campus built environment, which is comprised of the facilities, grounds, and spaces through which the students experience the university. Together, the students, the campus, and their interaction form the case.

A case study is unique because it is not explicitly a methodological choice, but rather a choice of what is to be studied. In other words, the recognition of a case and the decision to study that case comes first. Stake (2005) emphasized this point: "whatever methods we choose to study the case. We could study it analytically or holistically, entirely by repeated measures or hermeneutically, organically or culturally, and by mixed methods—but we concentrate, at least for the time being, on the case"

(p.443). For me, I chose what is to be studied and it happens to broadly resemble a singularity, a case. The case is the phenomena of a specific subset of students (first-year undergraduates) experiencing a specific physical campus and how such interactions influenced their experience.

Despite differences of opinion in the preferences of case study form amongst researchers (Thomas versus Yin, for example), some characteristics of case study research are ubiquitous. Evidentiary sources and data collection instruments, along with access to them, need consideration when investigating the feasibility of using a case study approach, no matter which school of thought to which you prescribe. Techniques such as interviews, observations, document analysis, and archival work all contribute to the data development. Fortunately, the availability and applicability of these tools posed no issues for my research topic. The students who populate the campus provided a ready-made, built in sample from which to observe, question, and interview. Observations were a convenient way to supplement these data, and the campus space is quite accessible (with a few exceptions that I had to overcome by requesting access to certain buildings or areas of certain buildings). Of course, many more design decisions must be adjudicated when undertaking a case study approach such as adequate sample size, composition of participants, number of interview questions, and the specific venue in which the subject and object are to be studied. Following Stake's (2005) guidance, those decisions do not necessarily need to be made at the onset but, for the sake of this prospectus, I attempted to select as many research design decisions as possible, where appropriate.

I perceive the biggest strength of case study research is that it provides a flexible platform, which is especially important with a broad scope such as my research topic. Although there are some constraints in what constitutes a case, there is flexibility in the method. Simons (2015) points out that case studies are also responsive to shifts in focus. Consider that a defining characteristic of a case study is the unit of analysis. The unit of analysis is defined by the researcher depending on the research questions and access. But case studies are also bounded systems (Smith, 1978; Merriam, 1998; Simons 2009; Stake, 1995; Yazan, 2015) with a focus and commitment to the singularity. These bounds distill the milieu down to a discreet set of distinctive attributes that narrow the case study research. I argue here that the campus built environment is, in fact, sufficiently bound for a case study despite its large scale. I bound the case and system even further when considering only a single campus where all participants have an opportunity to engage in a similar manner (even if it is highly likely, if not certain, that they will all engage differently). Refining down to a distinct and specific set of participants further bounds the case, in this instance we focus on first-year resident students. For comparison, I found a case study related to the built environment – it examined faculty and student transition into a newly renovated academic building and explored the implications of the built environment upon the professional practice and relationships of faculty and students (Kuntz, Petrovic, & Ginocchio, 2012). Note that this example has a much smaller unit of analysis, a single building. However, I am confident of my bounded parameters but still guarded against conflating factors such as the campus' close proximity to the downtown Athens area, which is also part of the student

experience but whose built environment is outside the reach of both the scope of this study and of the influence of the institution's administration.

Data-Gathering Methods

I used a constant comparative methodology (Merriam & Tisdell, 2016) to understand the impact facilities have on students from interpretations based on actual student experiences and perspectives. The simultaneous data gathering and analysis was guided by Bogdan and Bilken's (2011) framework and suggestions. The methodological case study approach for this research design leveraged fieldwork such as document data collection, observations, and semi-structured interviews to gather the data.

Case Study Site

As part of data collection, Creswell (2009) provided an explanation about how qualitative researchers need to intentionally select both the specific setting and the participants in a deliberate fashion. Otherwise, the researcher may not achieve the proper data nor an understanding of the phenomenon under investigation. I previously discussed the specific setting (The University of Georgia) which is an integral component to the data gathering. The University of Georgia was selected for several reasons. First, I have a unique perspective of the UGA physical campus that I believed added value to the study. My knowledge of the immense campus allowed me to immediately relate to the student participants because I have set foot in nearly every single building on campus. This allowed me to focus on the responses, stories, and phenomena that the students were describing in real time during the interviews. I had

immediate context and history of the building or area of campus in which they were relating data to me. Second, there was a certain level of convenience of access to the spaces, maps, plans, and other documents since I worked at UGA for over 5 years in the Facilities Management Division by the time the data collection phase began. I was able to leverage current and previous relationships with faculty and staff to add an extra layer of depth to the understanding of this case study site as compared to an unfamiliar campus.

Methodologically, I collected via a three-step process involving document collection, observations, and interviews. In order to capture the broad nature of the built environment, I organized observations and interview questions into one of the five "facilities focus areas." The first four focus areas include academic facilities, residential facilities, dining facilities, and recreational facilities. The final area, campus layout, is the omnipresent underpinning of the other focus areas and ties them all together while proving a category for aspects of the built environment that may not fit neatly into the other four areas. Focus areas allow for consistent and careful examination of each aspect of campus facilities. This is necessary due to the individualized nature of the college experience. The same two students will experience the same campus completely different based on required class schedules, housing assignments, dining selection, recreational activities, and routes of travel between these influential variables.

Academic Spaces. The academic spaces of a university contribute to the teaching mission of an institution. Academic spaces greatly vary in size and function, but their purpose is to provide the space to deliver knowledge to the students through a broad array of pedagogies.

Residence Halls. There are 29 residence halls on campus. Of those 29, 14 allow first-year students. The university strongly advocates for all first-year students to live on campus. In fact, the only exceptions for residing on campus as a first year student is if you graduated from a high school in one of the 5 surrounding counties to the University, and you must attest that you will continue to remain at that address. Two types of residence halls exist on campus, low rise and high rise. This study involved participants from each type.

Recreational Facilities. There is one central student physical recreational facility on campus, the Ramsey Center. The complex is 500,000 square feet and boasts many options for physical activity. The campus intramural fields are a natural extension of the Ramsey Center and are located close by, serving as the open space for all intramural and club sports. The Tate Student Center is recognized as the main facility for student social recreation. It offers a bustling food court, theater, arcade, student support units, and gathering space for special events.

Dining Halls. The university serves students' dietary needs through one of five main dining halls or via a large food court of franchised vendors at the Tate Student Center. Several self-serve and mostly autonomous cafes dot the campus along with a dozen coffee shops tucked into academic buildings such as the Main Library, Miller Student Learning Center, and the Science Learning Center (among others).

Campus Layout. The Campus Layout is the foundation for how all the other elements of the built environment interact. Navigating the campus may seem like a routine chore, but it influences what time a student leaves their dorm, where they eat, what classes to schedule, and many other decisions. Physical capital and location

capital often inform the campus master plan through the use of a well thought out campus layout that optimizes all the physical attributes (including natural constraints) of the location. Thus, while a bit more abstract than a brick and mortar facility, the campus layout is indeed a tangible part of the campus built environment.

Document Data Collection

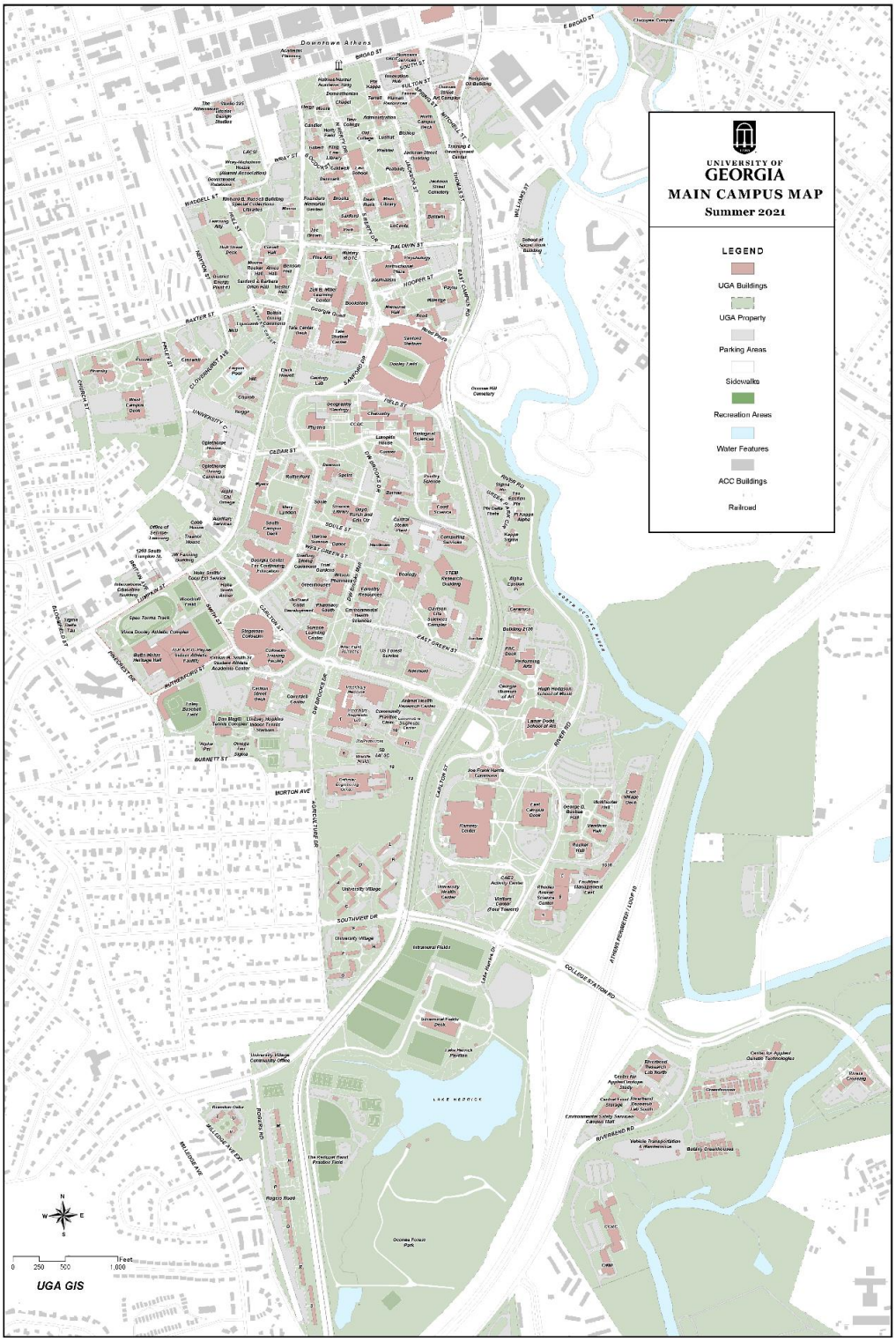
Figure 3 below illustrates the size of the University of Georgia's main campus and provides a visual representation of the campus layout. The campus also includes several outlying clusters of facilities not shown on the map (a separate Health Sciences campus lies a few miles west, a Veterinary Teach Hospital a few miles east, and many agricultural sites dot the surrounding area), but all participants in this study resided and attended classes on the main campus depicted in Figure 3. Figure 3 represents the first document collected for this study and represents one of a three-part approach to document data collection:

1. Relevant documents collected before observations and interviews. These were used to define the case study parameters. I orientated myself and this study with a collection of campus maps, which were useful when mapping out locations of the participants' residence halls and generalized areas of expected facilities experiences by major. The publicly accessible side of the UGA Office of the University Architect's (OUA's) website proved useful for gaining access to the current maps, but also contained legacy maps that demonstrated the growth of the UGA campus over the decades. These were helpful in determining the longitudinal sprawl and temporal development of the campus to help inform some of the otherwise questionable locations for certain facilities.

2. Relevant existing documents collected based on revelations from the observations and interviews. I solicited these documents afterward in order to add rich context to my own descriptive observations and help color the participants' responses. These documents included the specific floorplans for each participants' residence hall (note: some floorplans not embedded into the study are located in Appendix A). Such floorplans, ages, associated construction information, and square footage, came from the UGA Facilities Management Division's (FMD's) digital and physical plans rooms. FMD provided me with access to these online sites. I extracted additional information on the buildings from FMD's computerized maintenance management software (CMMS) referred to as AIM, a product licensed through a company named Assetworks that tracks maintenance issues and other facilities centric metrics.
3. Newly created illustrative documents (photographs) that I generated in response to participant feedback and data. These documents assisted in visually bringing the campus to life and became valuable references in telling the story of this case study.

Figure 3

University of Georgia Campus Map



Observations

I conducted observations to witness the various ways in which students interact with the built environment and to aide in the development of the interview questions. A qualitative observation involves watching potentially relevant phenomena and capturing those events using detailed field notes without a predetermined agenda or knowing in advance what exactly will be observed (Johnson and Christensen, 2017). Observation data collection occurred first and the records of those observations were analyzed to help develop the interview questions. I chose observations as a tool in order to identify patterns of interaction, challenges with campus layout, and interesting phenomenon which may not be captured during the interview process but could warrant either refinement of the research or additional inquiry. I, as the observer for this study, took on the role of a "complete observer" because of the open access nature of the environment being observed. This approach also minimized the changes in behavior of those observed (Johnson and Christensen, 2017). By observing students in various campus built environment settings, I identified and uncovered interesting situations and interactions that may otherwise not be considered nor explored through traditional development of interview questions.

Observations also provided the opportunity for thick descriptions by focusing on actual interactions with the built environment. Ponterotto (2006) dissected the origins of thick description and attempted to define the term which led him to conclude that a thick description "accurately describes observed social actions and assigns purpose and intentionality to these actions, by way of the researcher's understanding and clear description of the context under which the social actions took place" (p. 543). He went

on to say that “thick description leads to thick interpretation, which in turns leads to thick meaning of the research findings for the researchers and participants themselves, and for the report’s intended readership” (p. 543). I initially set the number of observations at five. I performed one for each of the five focus areas representative of academic, residential, dining, recreation facilities, and the campus layout. As the observations unfolded, I determined that three additional locations were necessary to address perceived gaps and capture the nuances within the five focus areas, bringing the total number of observations to nine. For example, while planning for the residential observation at a low rise dorm, the stark difference between a high rise and low rise dorm became apparent. So, I added a second observation to include a high rise dorm due to fundamental physical differences between the facilities, which I hypothesized would create differences in the how the students interact with and perceive them. This logic also applied to dining facilities and recreational facilities. Upon completion of the only planned observation of a dining facility, it made sense to select an additional location across campus. The recreational facility observation also expanded to include both a wellness facility (Ramsey Student Wellness Center) and a more socially centric one (Tate Student Center). Adding the observation of the campus layout brought the total site observations to nine.

The specifics of what I observed were not as defined as how I observed them. I spent time in these locations to observe the physical condition of the facilities, but more importantly to observe students’ interactions with the built environment to understand how they navigated them, how they engaged inside them, etc. For example, if there were students sitting on the floor in a hallway, were they waiting for the next class to

start, were they studying, or were they socializing? The observations helped me understand what shortfalls may be present in that space (lack of adequate seating or gathering spaces).

I used a protocol for observations to ensure consistent gathering and documentation so that such observations could be utilized in the development of questions for the in-depth interviews (see Appendix B). That protocol included choosing a day and time when student activity would be maximized. It would provide little value if observations were conducted on a Sunday morning in an academic building because few student interactions could be studied if the observation approach was not deliberate. As strategic as the observations were, I did not constrain them by a time limit. Rather, each one continued until I felt enough data had been recorded. The resulting spectrum of durations lasted between 30 minutes up to an hour. I attributed the variance to the style of observation, static versus kinetic. For static observations (academic facilities, dining facilities), I sat and observed, repositioning within the environment only as appropriate to observe a variety of phenomena. The kinetic observations (campus layout, residential facilities, recreational facilities) involved constant movement within the environment. Photographs taken during the observations provide a pictorial accounting for the areas visited. These are meant to be representative of the broader locations within each focus area in this case study to allow the reader to visualize the space. The photographs included in this study are all original content taken during the actual observation field work using an iPhone XR.

Semi-structured Interviews

I used semi-structured interviews as the second method of collecting data. I selected the participants for the interview phase from the pool of interested participants identified in the recruitment phase. The semi-structured interviews involved a prepared list of topics and questions (see Appendix C). As the interviewer, I followed that list during the interview but also ensured that the questions permitted open responses by the participants so that the conversation remained flexible enough to allow the interview to develop in ways that could not have been anticipated during the development of the interview protocol (Brown and Danaher, 2019). Semi-structured interviews represent the ideal format for gathering the information because of the experiential nature of the campus built environment. Open ended questions not only capture the experiences but may also compel the participant to provide context and interpretation of their answers. The interview protocol utilized probing questions with the purpose of identifying individualized experiences of interest relevant to the research questions.

The semi-structured interviews took place at various locations across campus. In fact, I asked each participant to recommend a physical location on campus that was convenient for them to meet, or perhaps holds special meaning to them, or has influenced their experience at the University of Georgia. This tactic put the participant into the frame of mind where they are already immersed into the built environment at a location that holds some type of personal significance or level of familiarity. It also serves as a segue to some of the open-ended questions. We would typically meet outside of the venue they selected then walk to a meeting space within that location, which I always ensured was predetermined and reserved once the participant selected

the venue. The actual sit-down interview space varied depending on location, but all were either a conference room, classroom, or other common area that offered a level of seclusion and privacy for our conversation. I used a voice recording device to audibly capture the interview discourse. The duration of each interview varied amongst participants, but each was initially scheduled for one hour. The open ended questions in the interview protocol encouraged narrative answers, so each session was highly dependent on the student's propensity for verbal conversation and their catalogue of experience relevant to the questions being asked. The average interview length lasted 45 minutes with a range of 31 minutes to slightly over an hour at 63 minutes.

Qualitative research data gathering aims to achieve data saturation, which is difficult to predict during the planning stages of a study. Patton (2015) recommended 8 interviews as a minimum for qualitative studies. Saturation occurs when the data collection no longer produces new information about the topic being studied and further collection in unlikely to produce additional insights (Merriam and Tisdale 2016, Lincoln and Guba 1985). In this study, data saturation occurred at all data sources. First, I based the final number of interviews on achieving saturation from a broad pool of participants from various academic majors and residential housing assignments. Additionally, memoing (discussed further below) between interviews proved to be helpful in determining when saturation was reached. I determined that I had achieved interview saturation by the conclusion of my 7th interview and observation saturation by the conclusion of my 8th observation. Secondly, observation saturation occurred after adding additional observations beyond what was initially planned, as described earlier in this section. Finally, I achieved document saturation by thoroughly researching the floor

plans of residence halls, maps, and documenting physical characteristics of facilities with photographs. Appendix A includes additional floorplans relevant to student housing assignments, but not specifically referenced in the interview responses or findings.

Participants

Upon securing final approval from the Institutional Review Board (IRB), I recruited research participants during new student orientation sessions that took place prior to the fall semester in July and August of 2022. At the new student orientation, the university provides a designated location for student organizations and student centric units to set up displays and tables. New student orientation is a mandatory event for incoming first-year undergraduate students. In order to strategically recruit first-year students for this research, I requested and was assigned a table from the New Student Orientation group for the event, which is housed in the Office of Undergraduate Admissions. This recruitment effort proved successful, and I engaged with 40 incoming freshmen students that were interested in participating in the research. As the fall semester concluded, I reached out to all 40 of the potential participants from the list of interested students I had curated during the orientation sessions. I offered each participant a gift card to an online retailer to incentivize their participation.

After sorting through duplicative majors, repeat residence halls, ensuring adequate gender representation, and eliminating those who failed to respond upon re-engagement, a final group of 7 participants remained who satisfied the major, gender, and residence hall constraints. I focused more on the diversification of these characteristics rather than an increased number of participants. I wanted to ensure a broad representation of the first-year class, and therefore a representative reflection of

the built environment in which they interact. If this study would have only selected engineering students, or allowed a disproportionate amount of business students, then it would have severely limited the results to the handful of facilities in that specific college, who also tend to live in the same residence halls and frequent the same dining facilities. To avoid such narrow insights, I purposely sought participants from different undergraduate majors and who live in different residence halls. See Table 1 for a summary of participants, which also provides a succinct review of each student's major, gender, and type of residence hall.

Table 1

Summary of Participants

Name	Major	Gender	Residence Hall Type
John	Business	Male	High Rise
Heather	Political Science	Female	Low Rise
Adam	Genetics	Male	High Rise
Paul	Biology	Male	Low Rise
Jenna	Economics	Female	Low Rise
Tabitha	Food Science	Female	High Rise
Renita	Human Development	Female	High Rise

Data Analysis

I began by preparing the raw interview data for qualitative analysis. I transcribed my audio files of each transcript into text documents using an electronic transcription service that then were then able to be exported into a .docx format. I next uploaded the audio files and transcriptions into Atlas.ti and prepared for the initial coding. I maintained participant confidentiality by using pseudonyms for each student, which were not

associated with any version of their actual name or appearance. I took care not to include any other identifiable information although gender, residence hall name, and academic major were retained to demonstrate the deliberate effort to canvas the most diverse set of participants possible. Even though I had already reviewed each interview transcript as part of my memoing approach, I re-read each transcript again to refamiliarize myself with the data and to verify the accuracy of the transcription before the formal coding process began.

Data analysis for qualitative research transforms interviews or visual notes into useful material so that we can interpret it and make meaning from it (Flick, 2014). Yin states “data analysis consists of examining, categorizing, tabulating, testing, or otherwise recombining evidence, to produce empirically based findings” (2014, p. 132). One tool that supports the data analysis process is the establishment of a memoing strategy session between each interview (Creswell, 2013; Shufutinsky, 2020). Memoing between interviews helped to digest and organize the interview data considering the interviews were conducted over a 4 week time period at the end of the 2022 Fall semester. The memoing was a valuable approach that assisted in keeping the individual interviews from blurring together during the data collection phase. Memoing assisted in informing pattern recognition in real time, which resulted in strengthening the categories identified during coding. Memoing also included the taking of photographs of relevant locations identified during the review of transcripts. Each memoing session resulted in taking additional field photographs based on interesting or new comments about a particular place on campus. These photos complement the conceptual findings portion of this study, which can be found in chapter 4.

I used coding to analyze the interview transcripts which was aided by the coding software Atlas.ti for this research. The interview data represented the bulk of the substantive data from the three data sources discussed in the previous section (observations, document analysis, and interviews). I applied an a priori method to deductively code the interview data into pre-established codes that I developed before I even interreacted with the data. For each open ended response from the interview questions, I identified one or more of the five facility focus areas of the campus built environment (academic, residential, dining, recreation, and campus layout) and used these areas as an initial categorization of the data. Using Atlas.ti, these individual quoted passages received one of the deductive codes by highlighting (color) and labeling (code). These focus area segments received a red color and associated code (one of the focus areas). Additionally, I applied a second color to the same segment, green, based on Van Mannen's four existentials (corporeality, relationality, spatiality, and temporality) depending on the vector of how the particular focus area was experienced. Finally, a third color, blue, was applied to each segment based on Temple's framework of type of capital and a code was also assigned (physical, locational, and social capitals). Thus, each coded section included at least three different identifiers: type of facility, the way in which it was experienced, and type of capital is leveraged. The results of these three rounds of initial coding are illustrated in Table 2 below.

Table 2

Coding Summary

	Academic	Residential	Recreation	Dining	Campus Layout
Location Capital	9	5	4	1	3
Physical Capital	21	19	12	8	46
Social Capital	4	17	14	3	9
Corporeality	12	13	3	2	7
Relationality	5	16	14	3	9
Spatiality	17	9	10	6	46
Temporality	8	1	2	2	12

Note: The darker shades indicate the primary capital and existential for each of the focus areas.

The top down deductive coding approach helped me organize the vast amount of interview data, which allowed me to understand the relative weight of each focus area, existential, and type of capital based on how often is was repeated. Integrating my research questions required an additional round so that these data would be directly tied to the question they informed. Each segment was assigned to one or both research questions. So, an additional code was assigned to represent that a particular segment supported a research question. The first research question asks “how do students interact with the campus built environment,” so related segments of data were given a code for “interaction.” The second research question asks “how do students perceive

their interactions," so again a code was used to indicate if a response supported "perception."

I also used a round of inductive coding once the resultant deductive data was organized as described above. The inductive coding allowed for more nuanced themes to emerge. This also promoted cross cutting of the data across the focus areas, since themes such as "choice" or "frustration" could apply to comments associated with any of the focus areas.

Quality, Reliability, and Trustworthiness

Qualitative scholars have described a variety of way to ensure quality. Tracy (2010) listed key elements that must be addressed to ensure quality qualitative work. She highlighted eight areas that demand attention during a qualitative study which include a worthy topic, rich rigor, sincerity, credibility, resonance, significant contribution, ethics, and meaningful coherences. Since I already relied heavily on Yin's influence for case study guidance, his approach also seemed relevant to explore. Yin's suggestions to case study research argued that the quality of a case study is measured in relation to four typical tests: construct validity, internal validity, external validity, and trustworthiness or reliability (2014). Because my qualitative research design is not looking to validate a single truth, I focus on trustworthiness and reliability as a measure of quality. To achieve trustworthiness in a qualitative study, the conclusions presented are based on thorough evidence and with enough detail that convinces the reader that the conclusions make sense (Firestone 1987). To further improve trustworthiness, Creswell (2009) advocated implementing the process of member checking. This

technique, which this study implemented, involves the process of providing participants or “members,” with the opportunity to approve or “check” the interpretation of the answers they provided. Each participant in this study agreed that I may contact them again, via email or phone call, to verify information or request additional insight, as appropriate in the months after our in-person interviews. Member checking was limited in this study to circumstances where post-interview interpretation yielded an ambiguous or uncertain understanding that was not addressed or realized during the actual interview. In those cases, the participants were contacted in order to resolve that specific portion of a response.

To ensure this study achieved a remarkable level of trustworthiness, I leveraged a case study protocol to achieve repeatability and allow for future comparisons with other institutions. I included the final versions of the observation protocol and the interview protocol in the appendix, which creates an overall case study protocol that provides a roadmap for subsequent researchers and institutions to implement should they choose to repeat this process in their own environments. Denzin (1978) and Patton (1999) described four types of triangulation, of which this study deployed theory triangulation and data source triangulation. Theory triangulation was applied through the earlier discussed combination of two distinct theoretical schemes by Temple and Van Mannen to enable interpretation of the phenomenon in question. I leveraged data source triangulation to further strengthen the trustworthiness through the use of observations, interviews, and document analysis. Due to the complexity of my research questions, no single data source was robust enough to capture the full nuance of the phenomenon. Data source triangulation provides a more complete picture by combining

several sources of data to tackle the same questions (Stake, 1995). When two or more of these sources converge on a finding, the results allow for a more thorough analysis and more credible findings.

Researcher Positionality

Having previously served as a Director for the Facilities Management Division at the University of Georgia for five years and now as the Senior Director for Finance and Administration of a major College on that campus, I have a unique and advanced perspective on campus facilities. I am also passionate about gaining a profound understanding and improving the built environment so that I can make better decisions and compel senior administrative leadership to do the same. The risk of this experience is that I am predisposed to my own priorities of what I feel is important in terms of campus facilities and infrastructure. During the interviews for this study, I was careful to not ask leading questions that are in search of a predetermined solution or discreet issue that I may want to corroborate for professional purposes. I allowed the observations and interview responses to guide the research so that the truth in the student narratives remained the driving force for conclusions, not my own positionality. Creswell and Miller (2000) point out that credibility can be added to a study through the use of peer debriefers.

Limitations

This study was broadly focused on the experiences of first-year undergraduate students. It was done so without direct consideration of pre-college factors, experiences, socio-economic, or socio-demographic characteristics. However, an effort was made to ensure a diverse participant population according to gender, major, and residence location to avoid any type of homogenous census. Indeed, systemic challenges along socio-demographic lines were addressed during the literature review, but I only explored the influences of the built environment based on experiences during the first year and the research was agnostic of any previous influences, at least directly.

Another limitation relates to the observations. As observations proceeded, it was impossible to truly know if the students I was observing were first-year, resident undergraduates who are the focus of this case study and represent the entirety of the participant pool for the semi-structured interviews. Thus, no inferences could be made specifically to my cohort of interest, at least solely based on observations. Rather, observations provided broader insight to how students, in general, interact with the physical spaces and what challenges they may face in doing so.

Conclusion

In conclusion, the campus built environment undoubtedly has an impact on students, although the mechanisms are not fully understood nor are those impacts clearly captured by the existing literature. This case study research is important because it informs scholars and policymakers of the impacts and provide further insight

into how facilities influence the student experience. The study used a set of research questions that ask:

1. How do undergraduate students on a research university campus interact with facilities and the built environment?
2. How do undergraduate students perceive the influence of campus facilities and the built environment on their lived college experience?

The research design uses a case study approach performed on a major public university campus in the southeastern United States, informed by observations and a total of 7 purposefully selected semi-structured interviews. The rigorous and deliberate interview protocol sought candid and honest experiences from students based on questions aimed at exploring student experiences with the campus built environment and perceptions of those experiences. I applied deductive and inductive coding to the data in multiple steps to produce themes. The goal of this design was to produce quality data, findings, and conclusions to inform scholars of the influence of facilities and the built environment on the student experience.

CHAPTER 4

FINDINGS AND DISCUSSION

The findings for this study are presented in several ways. In the first section, I report descriptive findings on how students interact with the built environment based on observations, maps, and floor plans, according to the five facility focus areas (academic facilities, residential facilities, dining facilities, recreational facilities, and the campus layout). In the next section, I discuss the conceptual findings, which are heavily based on the semi-structured interview data. The descriptive data were useful in informing the first research question, and the conceptual data were useful for answering both research questions. Analyzing qualitative data involves "the process of making sense out of the data. And making sense out of data involves consolidating, reducing, and interpreting what people have said and what the researcher has seen and read – it is the process of making meaning" (Merriam, 1998, p. 178).

Descriptive Findings

The descriptive findings of this case study leverage the data collected from the observations, maps, floor plans, and photographs. I made observations in various locations across campus that were aligned with the five facility focus areas. I retrieved maps and floorplans from the Facilities Management Division's (FMD) digital plans

room, made available by access granted to me from FMD. All photographs are original to this research, which I took based on observations locations and interview responses.

The College of Veterinary Medicine (CVM) provided the first data through an observation of an academic facility. The principle CVM facility is on the south part of main campus and is where most of the undergraduate Biomedical Physiology and professional pre-clinical courses are taught. Upon the first morning class change period, I immediately noticed a strange phenomenon in the hallways. Outside of one of the larger classrooms was a female restroom towards which several students were speed-walking. It did not take long for a line to queue out the door and into the hallway. There was noticeable frustration on the faces of the female students who were waiting to get into the rest room. Some students even chose to leave the line and search for additional rest rooms elsewhere. One student was overheard saying “I guess I’ll have to hold it” when she apparently gave up on waiting in the line. I inquired with staff as to why there was such a problem with the restrooms. The consistent overcrowding of the rest rooms (especially at the beginning of each semester) is a result of a demographic change that has been decades in the making. The college simply had yet to adjust, although they now seem to recognize that there is a problem. An electronic kiosk in the main lobby provided additional context to the issue. The kiosk had recently replaced the dozens of class composites (framed photos) of each graduating class that used to hang on the hallway walls. As I scrolled through the images on the kiosk, it became apparent that a demographic shift in the class composition began at CVM in the early 1970s. Until 1975, all cohorts of students at CVM were almost exclusively male. Women began to pursue enrollment in the 70s and by 1988, half of each class was female. The trend continued

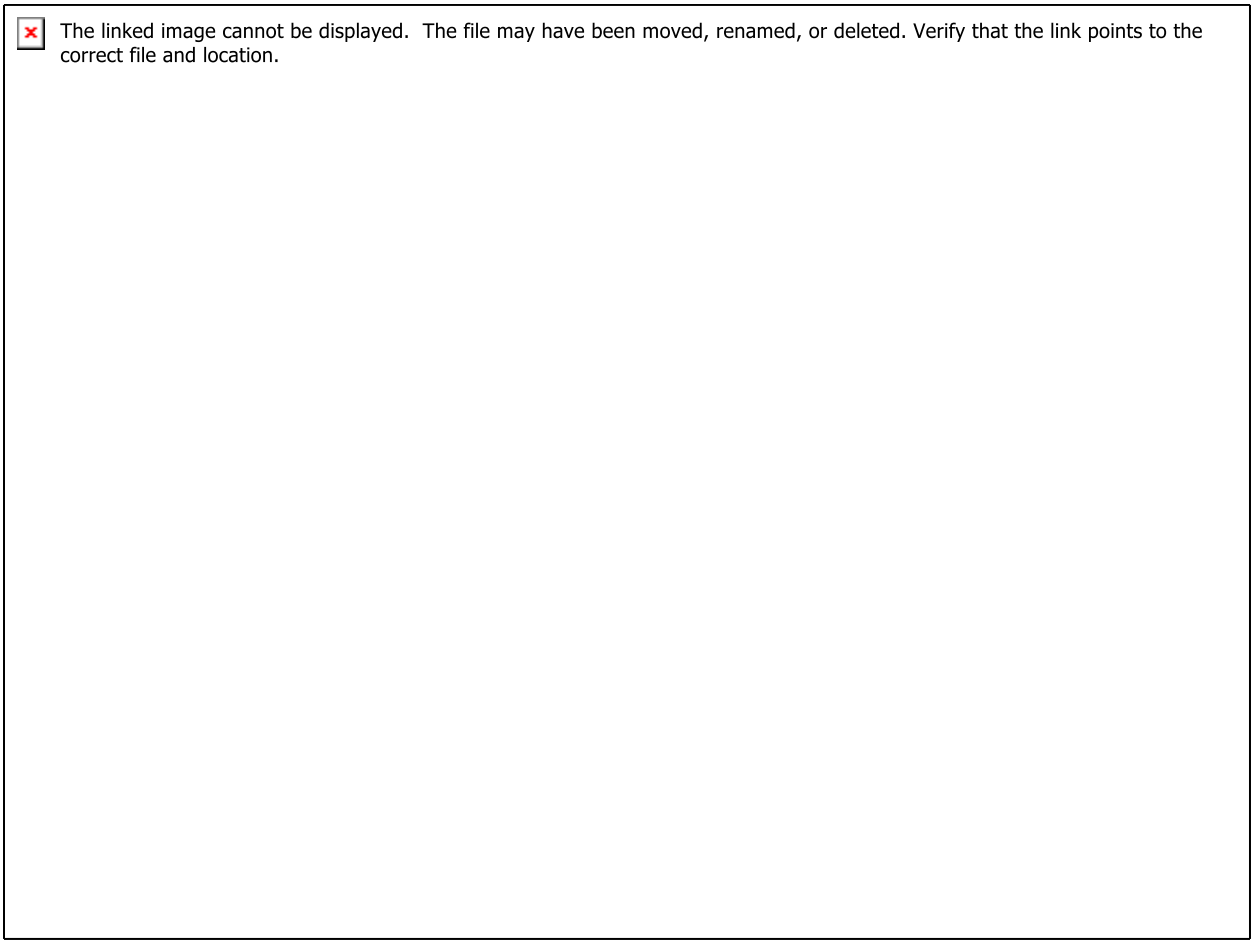
and the facilities (specifically the restrooms) themselves remained unchanged, despite the inversion in the numbers of students by gender. By 2002, a majority of each new class was female. In 2022, the entering class was 75% female. This, of course, resulted in an imbalance in the number of toilets available for enrolled females versus the current enrollment of males. The issue was further compounded by an ambitious increase in cohort sizes in recent years (by more than 50%) that put further strain on the imbalance of male to female rest rooms.

The academic observations also included spending time in an auditorium style classroom. Several characteristics of the space seemed less than optimal. For example, the age and size of the furniture was problematic. I witnessed several students who were obviously uncomfortable with the small size of the antiquated fold down, theater style seating. A little flip up “desk” was no larger than a textbook and all but maybe 10 seats were accommodating to right handed students, meaning the vast majority folded up from the right side which would make writing left handed quite a chore. Also, students were noticeably limited on how many items they could have on the small desk surface. Most tried to keep a laptop balanced on the small flip up desk while nestling a textbook or note pad in their lap. Sightlines inside the wide, curved classroom were challenging and a bit awkward. As a student sits closer to the side walls, it becomes difficult to view the large-screen monitors because the angle is too sharp to properly view the screen. Power cords for phones and laptop computers were strung about everywhere as students tried to connect to some of the floor mounted plugs. Even the HVAC was a distraction to me. The air pressure was too positive and created a whistling sound as it rushed out through the cracks under and between the doors. In

fact, a large “whoosh” sound could be heard whenever anyone entered the room because they had to push the door open against the air pressure imbalance, creating an audible surge of air. Students even brought their own blankets because the HVAC in that classroom is notorious for blowing cold air without proper moderation. Luckily for future students, the design to renovate this classroom is in progress with construction anticipated in the next two years, much to the delight of the faculty who acknowledged the difficulties delivering lectures in the space. Figure 4 illustrates the physical characteristics of the space.

Figure 4

College of Veterinary Medicine Auditorium: densely furnished, dated seats



The dining facilities observations occurred at two different locations. The first observation was at the East Campus Dining Facility (also known as Joe Frank Harris Dining Facility or The Village Summit) which occurred during lunchtime the week before Thanksgiving. The facility was completed in 2005 and serves the East Campus Village area of campus. The dining space is on the second floor of the facility. A long set of wide stairs ascends through the atrium to the second-floor registers where students swipe their meal plan cards or pay for their meal.

Figure 5

Joe Frank Harris Dining Commons, Exterior (East Campus Village Dining): modern and clean look

Figure 6

Joe Frank Harris Dining Commons, Interior (East Campus Village Dining): open two-floor atrium with plenty of natural light

As a first-time visitor, the scene within the eating area was a little chaotic but not over-crowded, and I observed it all in with a few quick laps around the buffet style layout that includes multiple serving stations. To me, the food itself was of an acceptable quality and variety, although I did hear one student comment to his friend that the dessert was disappointing because they had “no chocolate desserts.” I noticed students dining alone but most were engaged at tables in groups of two, three and sometimes

four. What appeared to be a track and field team from Florida State University congregated together in their warm-up uniforms. It was interesting to see UGA students engaging with them for quick chats or questions about where in Florida they were from. I estimated the facility was at 70% capacity. Overall, the observation set a baseline for how and what students experience when dining in facilities on campus.

The second dining facility observation took place at Bolton Dining Commons, which is just across the street from the Tate Student Center on the complete opposite side of campus from the East Campus Dining Facility. Due to its convenient location to major academic, recreational, and residential facilities, Bolton is often referred to as the busiest of the dining facilities on campus. I entered at approximately the same time of day as the East Campus Village dining facility although I already found myself in a line just to get past the cashier. By my estimation, this facility was closer to 90% capacity.

Figure 7

Bolton Dining Commons Exterior: often cited as the busiest dining facility

Figure 8

Bolton Dining Commons, Interior: patrons able to watch food prep

The style of dining was the same as the other dining facilities on campus with the semi self-service buffet style, albeit with different themed stations from dining hall to dining hall. The patrons at this dining facility seemed a bit more deliberate about getting in, eating, and getting out. I observed most of the same interactions, but they somehow seemed accelerated here, even bordering on chaotic during the lunch rush. I hypothesized that the distance from a student's residence hall would impact their ability to dine at their preferred facility, so the campus layout and time constraints could be

variables influencing the decision whether or not to eat in a specific or preferred dining facility.

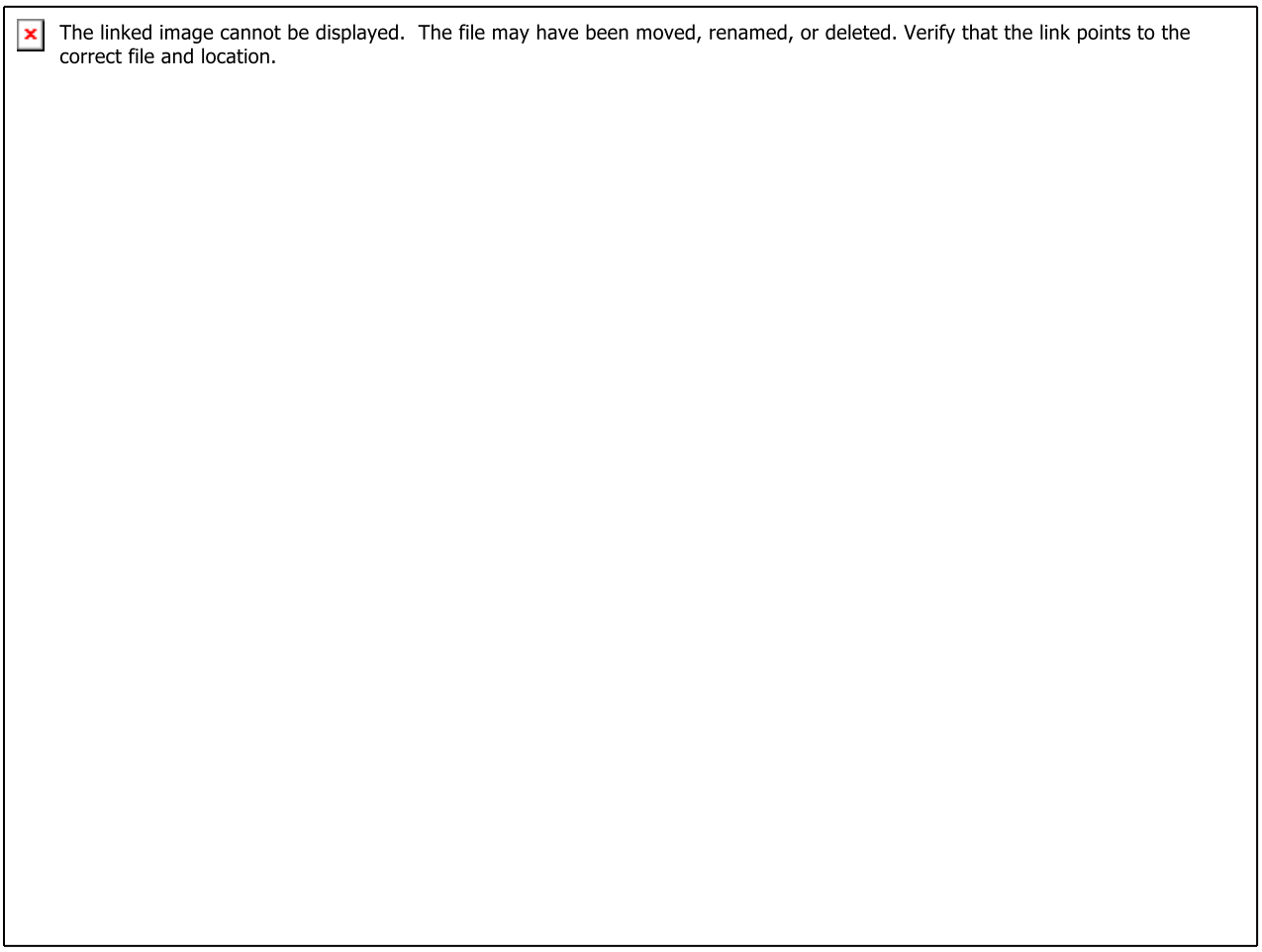
The recreational facilities observations also took place at two different locations. The first was at the student athletic recreational facility, also known as the Ramsey Center. The building itself is expansive in size but dated in aesthetics. It was built to serve as an alternate site for some events at the 1996 Summer Olympics which were being hosted 90 miles away in Atlanta, Georgia. The color scheme in portions of the building still reflect that period. There are turquoise and salmon accents still visible in the facility. This was a popular color pattern at the time and there was a desire to have the facility be more neutral in appearance which is why the more traditional “red and black” of the Georgia Bulldogs scheme was not used. Rebranding efforts from Campus Recreational Sports and the Athletic Association have renovated and masked much of the original colors in the common use areas, but evidence of its mid-90’s heritage still exists.

Figure 9

Ramsey Center, Exterior: somewhat dated from the mid-1990s but rebranding efforts have helped transform the interior

Figure 10

Ramsey Center, Interior (Lobby): recently replace skylight in main atrium, rebranded to UGA colors vice the original 1996 Olympic color scheme



It became apparent who were regular users of the facility and who may have been visiting Ramsey for the first time simply based on who was wandering and who was moving with a purpose. Capacity wise, the weight rooms had space and empty equipment available for use, but I could tell there were wait times for the most popular equipment. I had a brief, unplanned discussion with a student waiting on a piece of equipment who said he wished they had more free weight stations and that he

sometimes goes to an off-campus gym during peak times because of the crowd. He also mentioned his dissatisfaction because he had to pay to park his vehicle whenever he drove himself to Ramsey. I saw evidence of students working out in pairs or even small groups, although plenty of users appeared to be working out alone. Some activities compelled visitors to congregate, such as the pick-up game of basketball going on in what is called “gym central”, which is a large collection of adjoining basketball courts with a massive skylight overhead. Others were sharing a racquetball court that was located next to an indoor rock-climbing wall. The number of recreation and entertainment options at Ramsey Center was quite impressive. A quick peek into the mechanical spaces revealed industrial sized boilers, hot water tanks, HVAC equipment, and other various infrastructure that supports this massive facility.

The Tate Student Center is considered the heart of campus student life. Observing the activities at the Tate was challenging but also one of the most informative observations. This observation occurred after most classes had concluded for the day and right before dinner. I wanted to see the full spectrum of what students do in this facility at a time when it would be the most active. Indeed, the activity level was almost overwhelming to observe due to the broad nature of student engagement. The food court was very busy as many students chose to forego the dining facility across the street (Bolton Dining Commons) for some take out, chain-style food. The coffee shop (Starbucks) line had doubled in the 5 minutes I stood near it. I also noted that there was an organized event that evening titled “Paint N’ Pour” sponsored by the Engagement, Leadership, and Service Department. The event featured an activity of mini canvas painting paired with free hot chocolate and cookie dough. Groups of seemingly random

students congregated together at community tables, booths, and lounge areas. Small study groups quizzed each other. Other students were busy playing billiards. Still others sat alone reading. It was clear that the Tate Student Center was critical to developing a sense of community by providing access to appropriate space for students to socialize.

Figure 11

Tate Student Center, Exterior: centrally located, accessible from all sides and from multiple levels

Figure 12

Tate Student Center, Interior: open and flexible use space

Nothing about the students' activities felt compulsory or obligatory. Rather, the students seemed all seemed to be present in the moment and there on their own accord. In fact, the vibe was different altogether than compared to during normal class hours. There didn't appear to be any faculty of administrators around, and only a handful of staff. At this point in the day, the Tate Center had completely transitioned to the student's domain for the evening.

Residential facilities observations occurred at a high-rise facility and a low-rise facility, both of which are owned and operated by the University. Access for these observations was provided by University Housing, whose representative escorted me through the facilities so that I could enter the living floors and common areas behind access control devices. The two residential facilities in which I observed were Russell Hall (coed, capacity of 1,000 students on 10 floors) and Myers Hall (coed, capacity of 410 students on 4 floors). A representative floorplan of each type is presented in Figures 16 – 17 and 21 – 23 for comparison purposes. Much like the photographs, the intent of the floorplans is to provide context to the built environment. The floorplans punctuate that residence halls are more than a place for students to simply study and sleep. Notice the community spaces present on the facility floorplans. In the case of Russel Hall, the facility is more than a black and white floorplan, it provides spaces to foster the sense of community through shared areas and amenities.

Russell Hall is a very large high-rise facility that stretches 10 stories into the sky. It had undergone a major $60M renovation in 2019. The observation took place in the late afternoon when most classes were completed. I observed students entering and exiting the lobby, mostly in small groups which indicated a level of social interaction as many students were likely headed out for the evening meal. Russell has a lot to offer residents and even boasts an academic center where classes take place, along with spacious study rooms for residents. The facility is outfitted with shared laundry, kitchens, and lounges on almost every floor. While Russell Hall is a coed building, the living wings on each floor are grouped for specific genders.

Figure 13

Russell Hall Main Lobby: bright, open, modern, creative, and welcoming

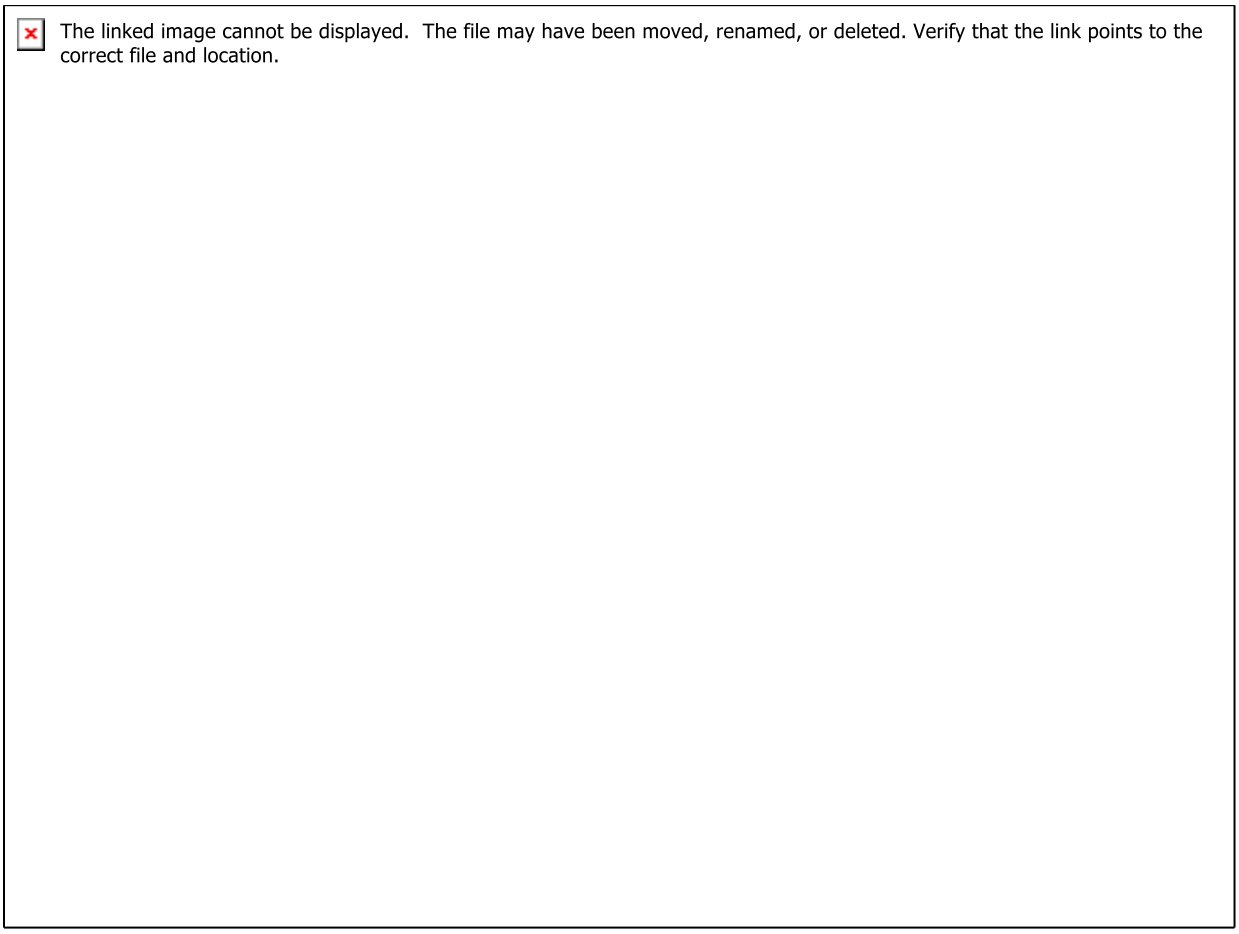


Figure 14

Russell Academic Center: modern, functional, and flexible

Figure 15

Russel Hall, Common Area, Shared Kitchen: clean and convenient amenities

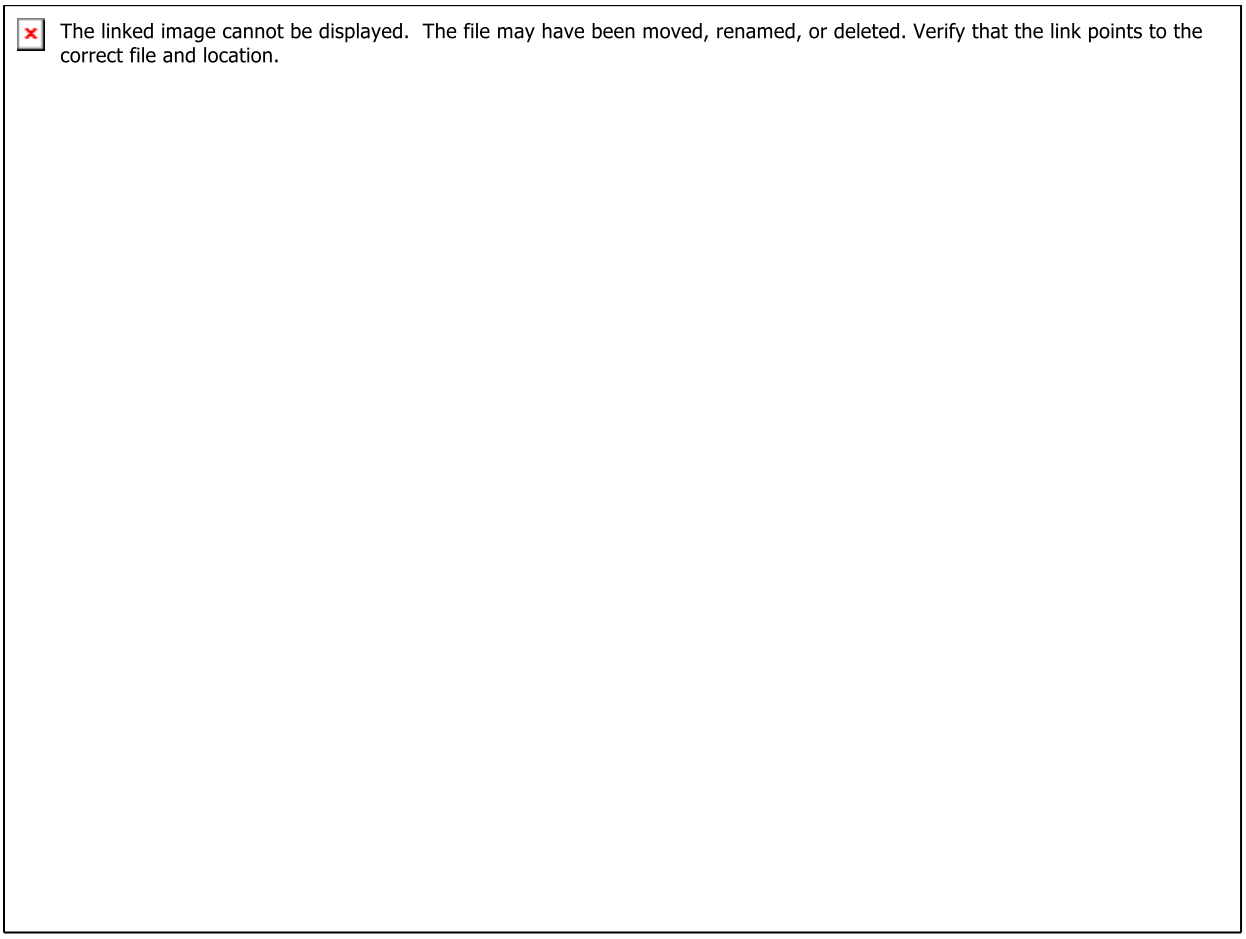


Figure 16

Russell Hall, Partial Representative Floorplan (1 of 2)

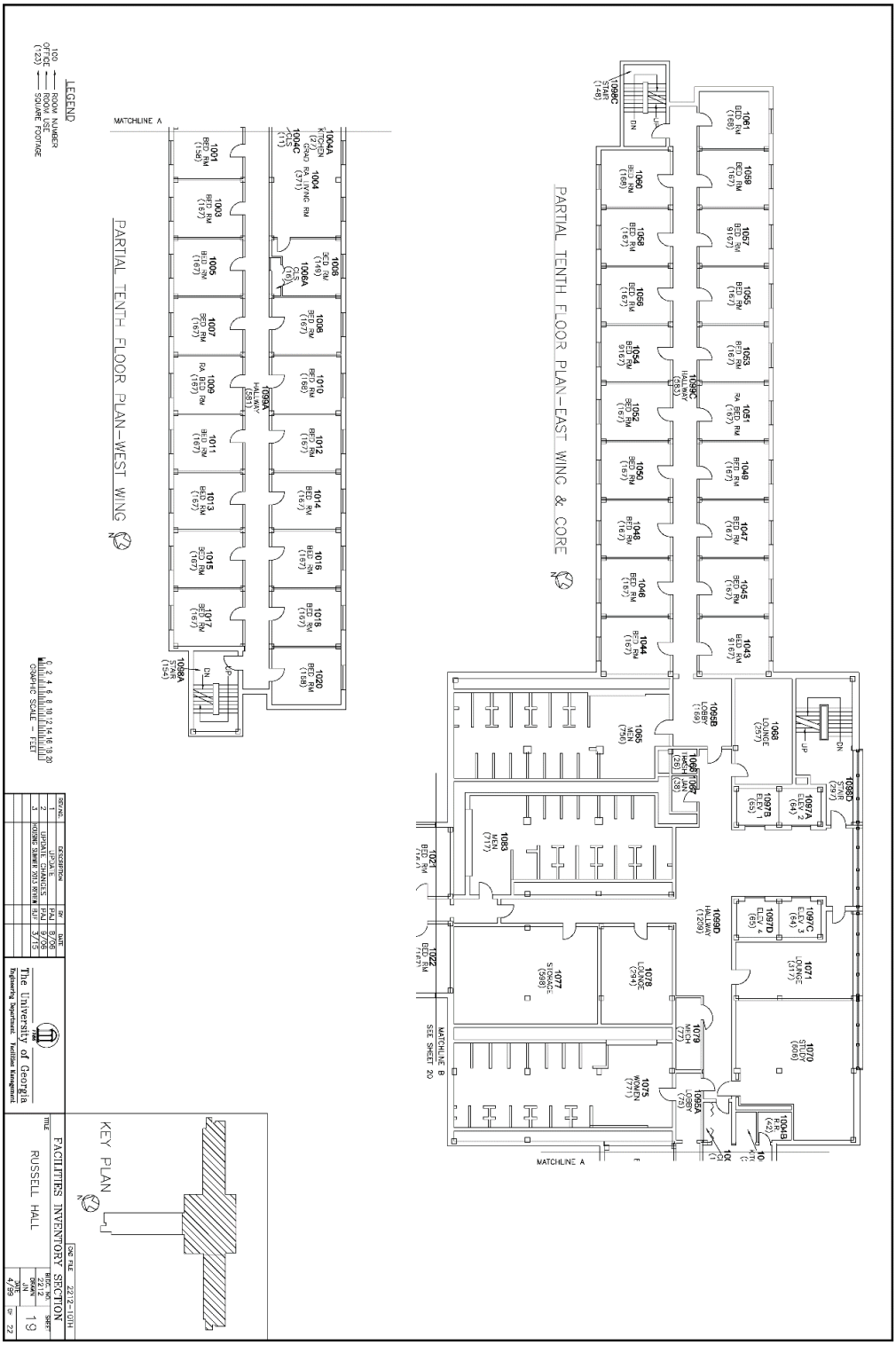
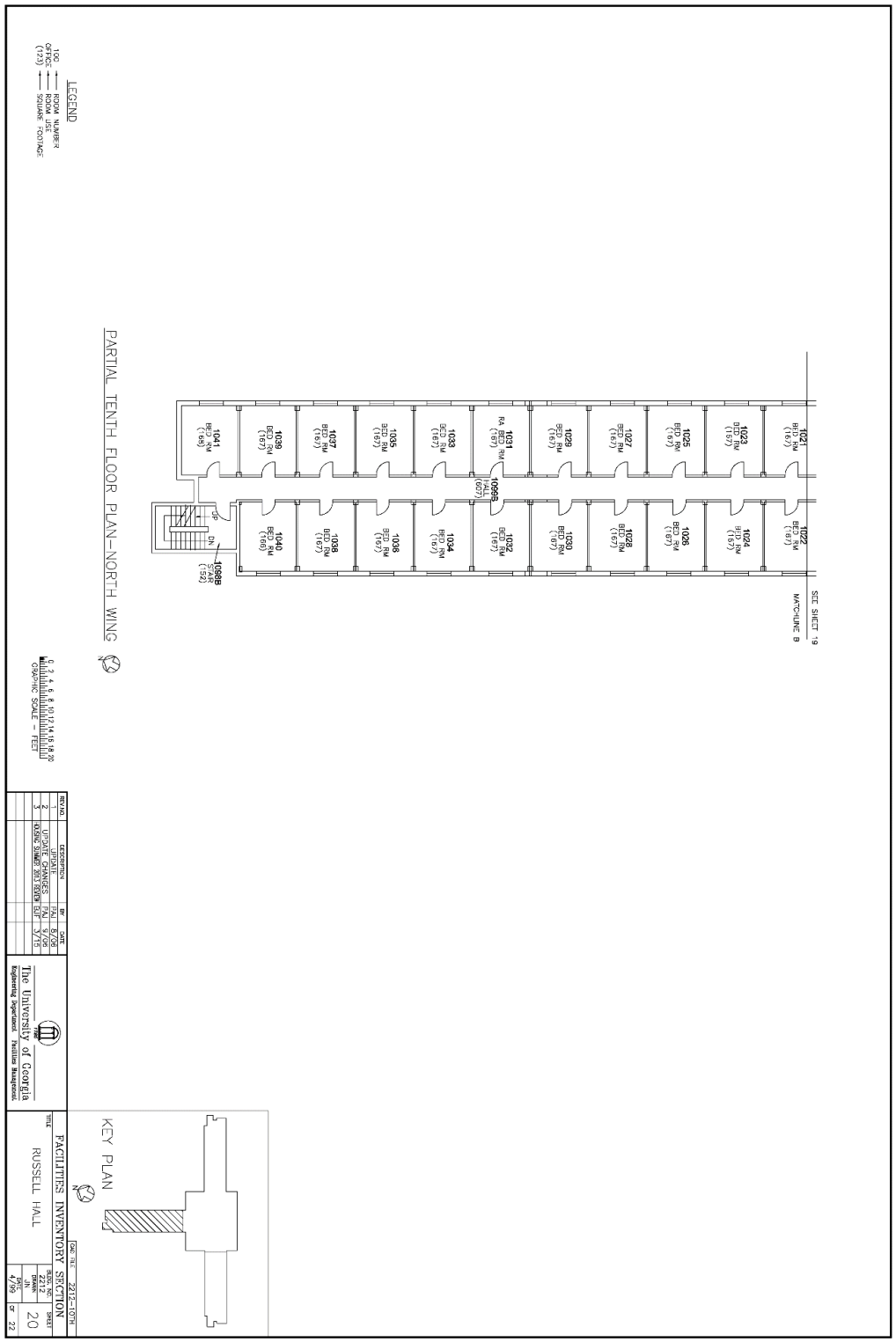


Figure 17

Russell Hall, Partial Representative Floorplan (2 of 2)



The second Residential observation occurred at Myers Hall. This facility is a low-rise residential dormitory with 4 floors of coed living space. The location is more convenient to the central part of campus than most other dorms, but it is also one of the oldest active dorms, constructed in 1954. The observation proved more useful in understanding the layout and condition of the facility than it did for understanding the students themselves, but some student interactions were witnessed. Upon entering, I observed a student playing a piano in a common lounge area and several students studying at tables in a separate common study area, all located on the first floor. The second through fourth floors are nearly identical and include a shared study area, lounge, and laundry. The individual rooms do not have bathrooms, so each floor also provides community men's and women's bathrooms with showers. The residential foot traffic in and out of the building was light but steady. All the doors in the living corridors were closed, giving it an apartment complex or hotel feel. Aside from the piano playing, the dorm was rather quiet at approximately 4pm on a weekday. I was impressed by the level of cleanliness and lack of clutter. All of the furniture seemed well taken care of and modern despite the age of the facility itself. Myers Hall sits on the edge of what is known as Myers Quad, which is the site of large campus events such as ESPN's popular Saturday morning College Football show "College Gameday". Photos of Myers are shown in Figures 18 – 20. The representative floorplans (Figures 21 – 23) are consistent with Russel Hall in terms of the availability of shared community space and amenities.

Figure 18

Myers Hall, Exterior and Main Entrance: mid-century construction but with less of the mid-century modern look of other facilities built during that time.

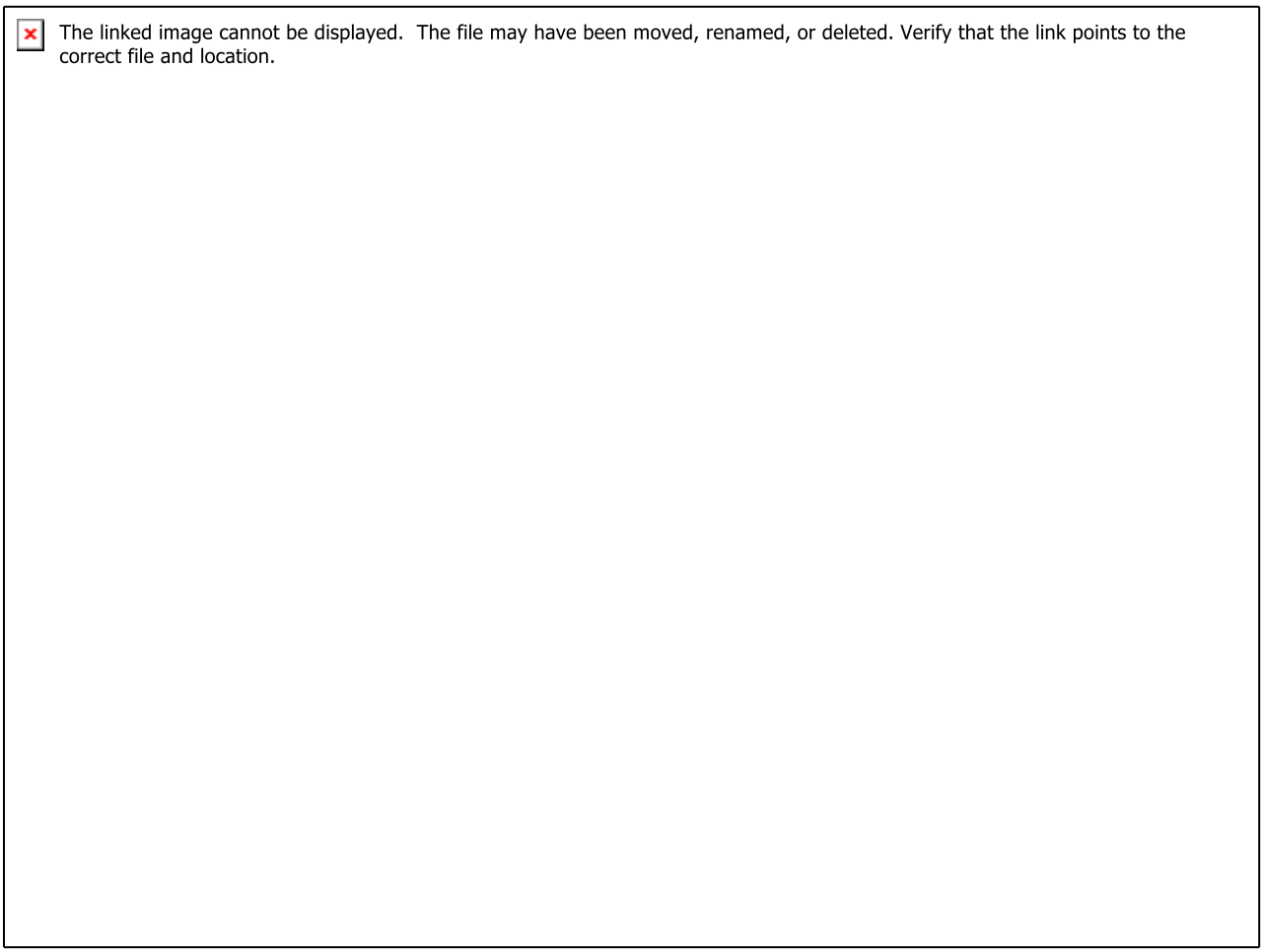


Figure 19

Myers Hall, Main Lobby: light pours into the hub of the shared community spaces

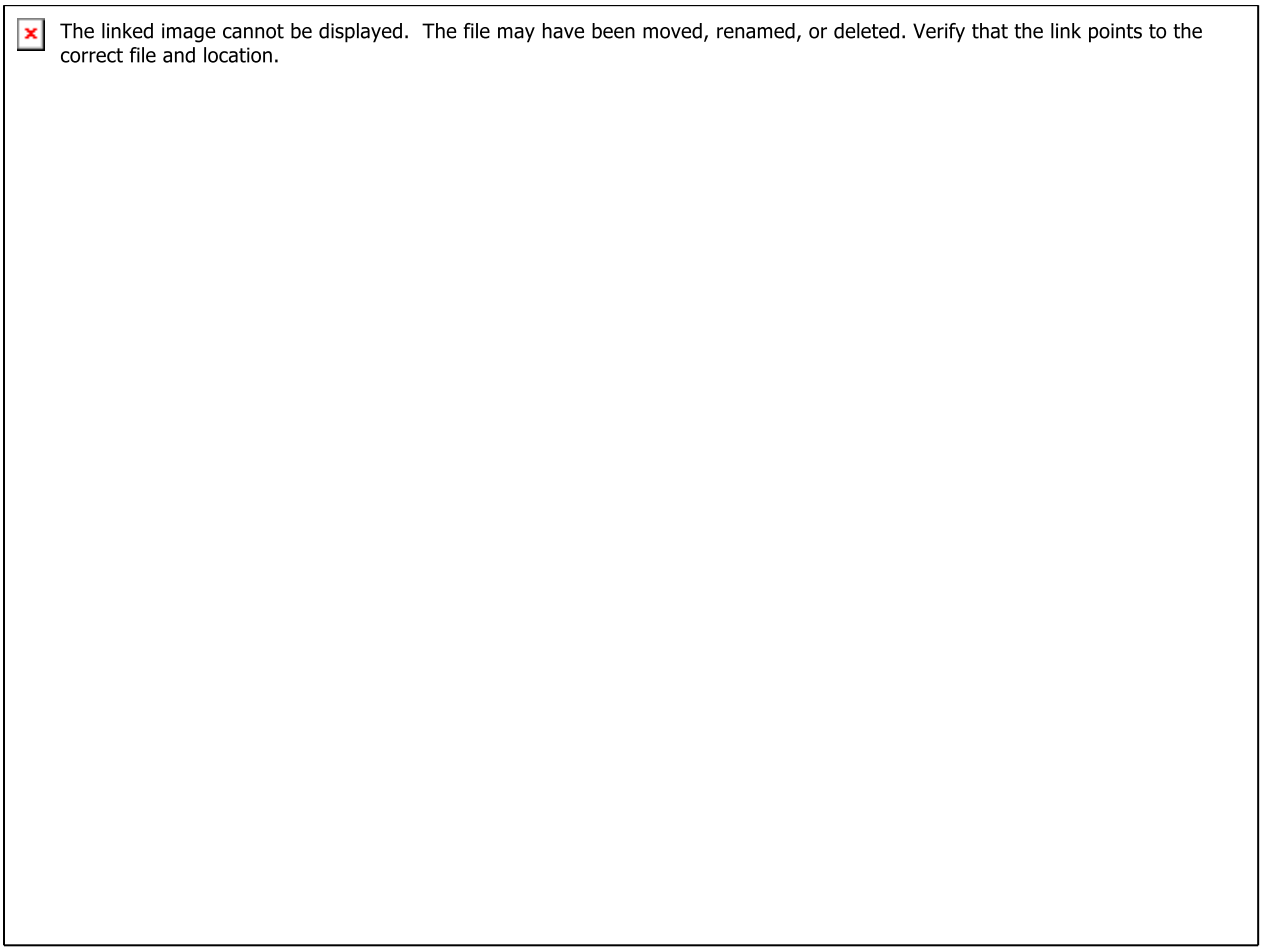


Figure 20

Myers Hall common Area: laundry facilities are just a few of the onsite amenities

Figure 21

Myers Hall, Partial Representative Floorplan (1 of 3)

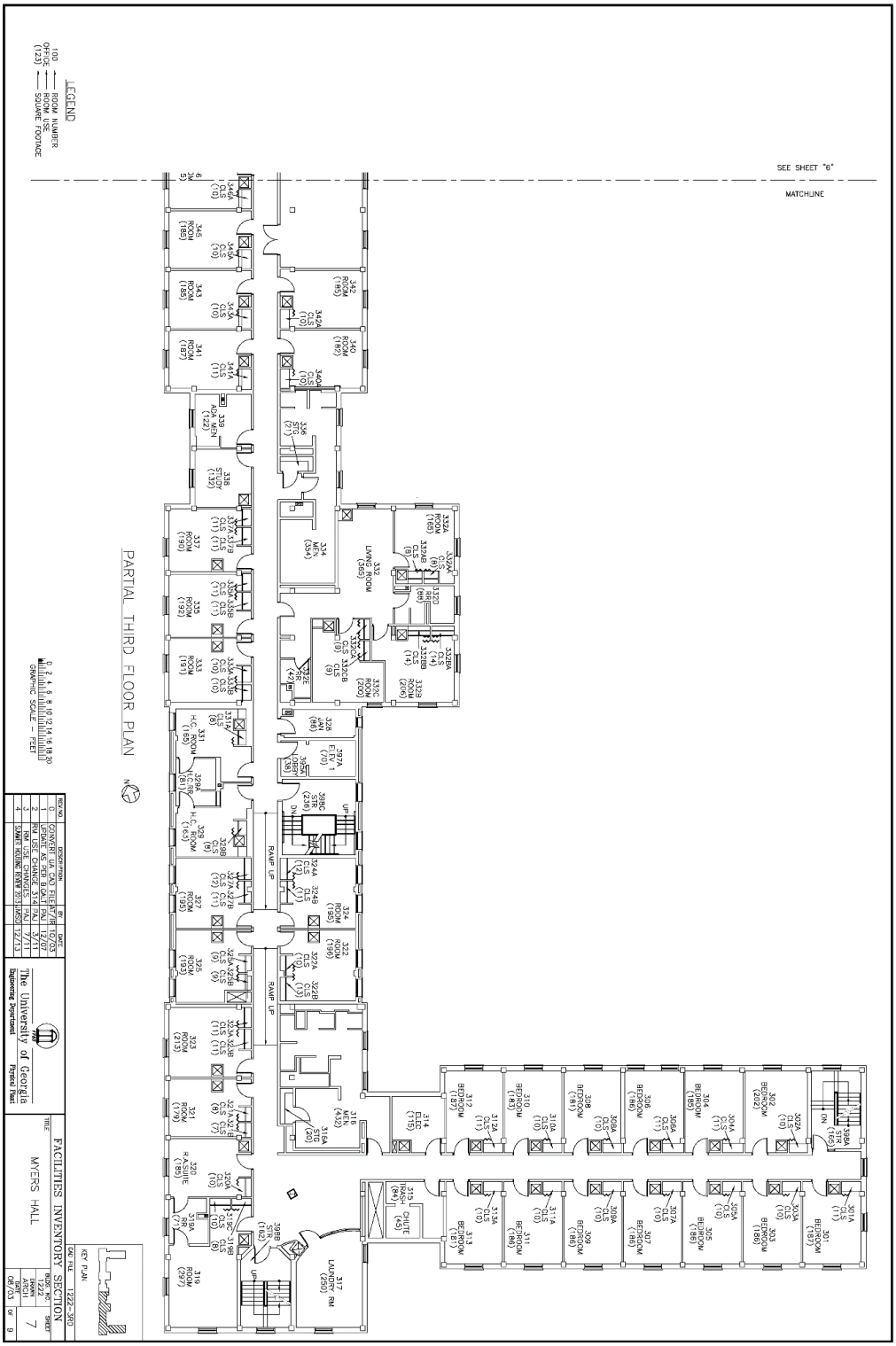


Figure 22

Myers Hall, Partial Representative Floorplan (2 of 3)

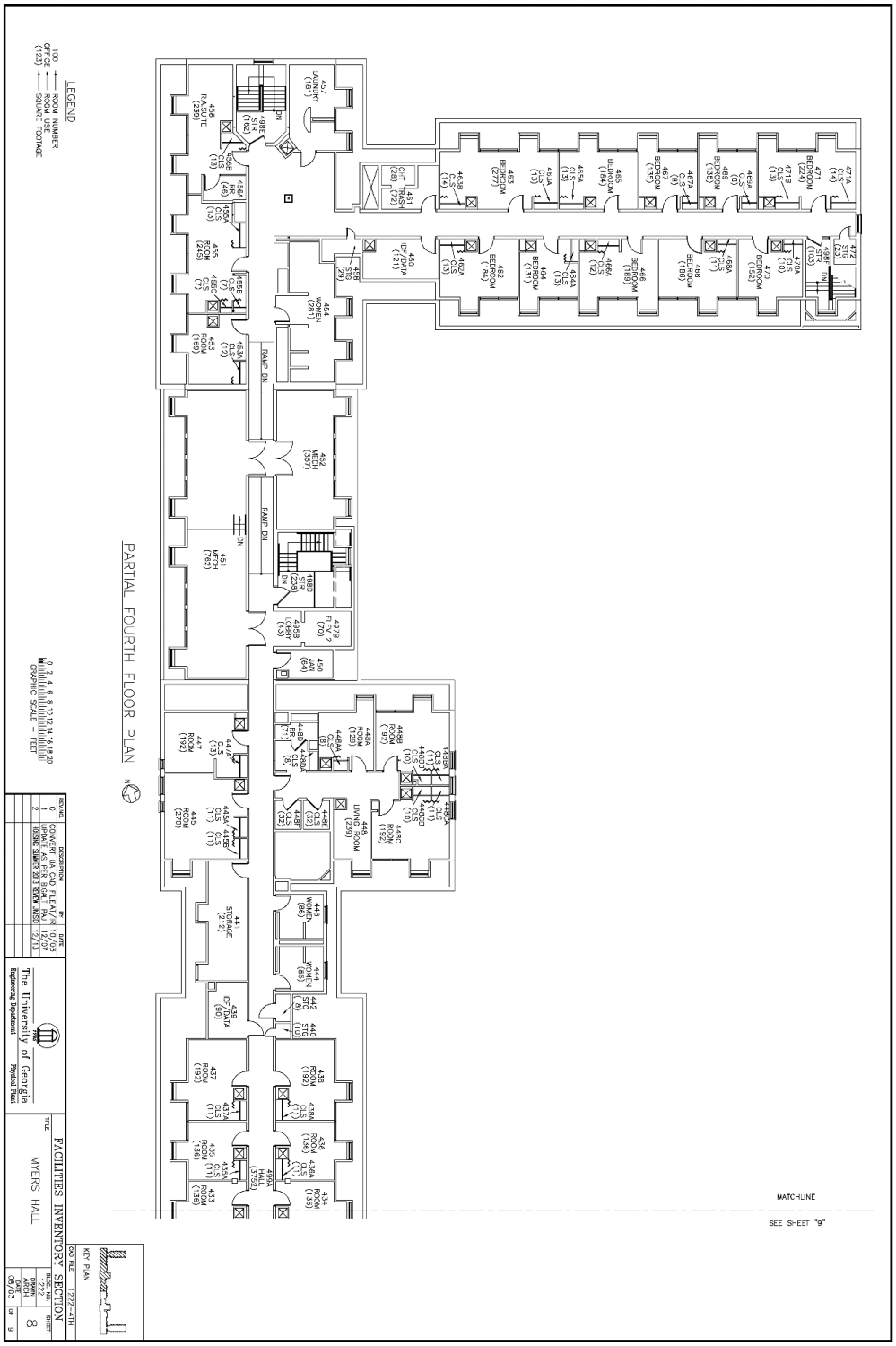
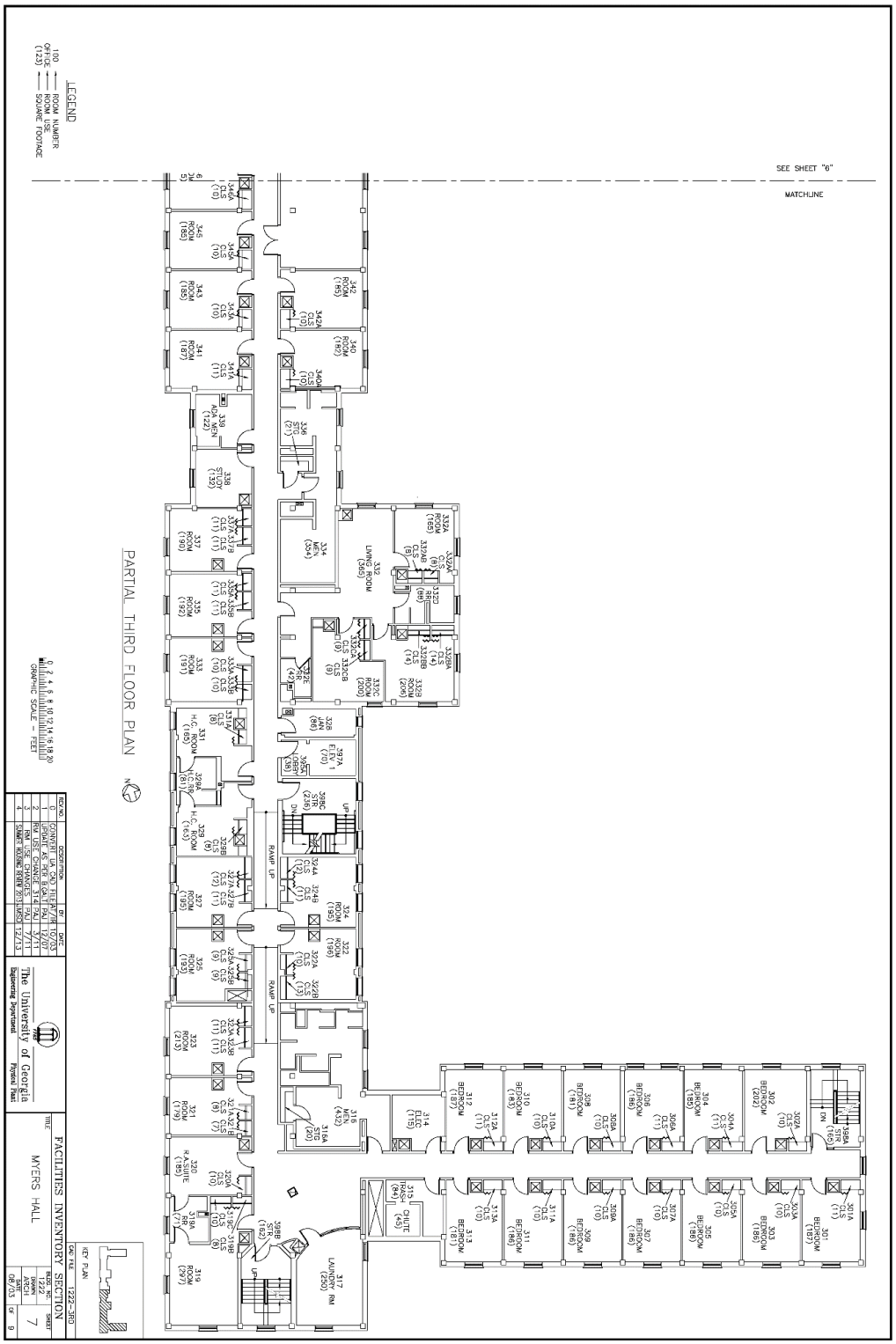


Figure 23

Myers Hall, Partial Representative Floorplan (3 of 3)



The observation of the campus layout provided insight into the grand scale of the built environment. The first and most obvious challenge with the campus layout is choosing how to get from place to place in the most efficient manner. The two decisions that students must consider are (1) mode of transportation and (2) route. Students were observed navigating the campus in many ways, but the majority selected walking as the mode of transportation. Other forms of getting around include the campus transit system (bus), bicycles, electric scooters, and personal vehicles. I chose to perform the observation of the campus layout with a "windshield tour," asking a colleague to drive a predetermined route while I sat in the passenger seat observing and taking notes.

While observing students navigate the campus, the exterior lighting infrastructure stood out. Despite the observation taking place during the daylight hours, the amount of lighting fixtures (specifically the stand-alone light poles) became apparent. It prompted me to think about what how the campus appeared after dark and if lighting influenced the students' interactions after nightfall. So, I noted that safety and security should also be explored as part of the impact of the built environment.

As a vehicle-based observer, I noted a distinct difference in the volume of traffic and commute time depending on the class exchange schedule. During time of day when classes were in session, it was quite convenient to get from one end of campus to the other. However, once classes let out, the traffic escalated significantly which also greatly increased the commute time. To explore this phenomenon further, I retraced my route during the 15 to 20 minutes in between classes. To travel the exact same distance of a portion of our route (again by car), it took 11 extra minutes to cover the same 1.5 miles. I theorized that this additional commute time would also translate to the busses

since they used the same roads and face the same traffic challenges during class exchange, which is when students use the busses the most. The impact on students, I surmised, was added stress and uncertainty as they travelled from class to class. In many cases, it could be quicker to walk than to take the bus.

For some facility types, there are multiple locations across the campus layout, although some congregating of like facilities does exist in certain pockets. For example, residential facilities tend to be grouped together in clusters. Overall, there are far more academic buildings than any other type, while dedicated recreational facilities tend to be the largest but fewest in number. The scarcity of recreational facilities means that the distance to them tends to be the furthest from any given point. This could present a barrier for those looking to utilize those facilities as they may have to travel across campus, then back again depending on the location of their residence hall in relation to the recreational facility. The observations across all focus areas added value to the development of descriptive data and helped inform the direction and scope of the semi-structured interview questions that would provide the conceptual findings.

Conceptual Findings

Integrating the interview responses into the conceptual framework allows a deeper understanding of how students interact with and understand the influence of the built environment and helps inform our conclusions. Recall, I developed a framework that accounted for different types of experiential interactions (leveraging Van Manen's four existentials) then used the notion of various forms of capital that Temple believed transformed space into place. For each of the five built environment facility focus areas,

I applied the interview deductive coding results onto the combined Temple-Van Manen conceptual framework based on the weight of each type of capital and vector of experience. The weight is simply the frequency that each type of capital was mentioned, along with a qualitative determination of the strength of the response in terms of its perceived influence. The vector is based on which of Van Manen's existentials that most closely aligns with the response.

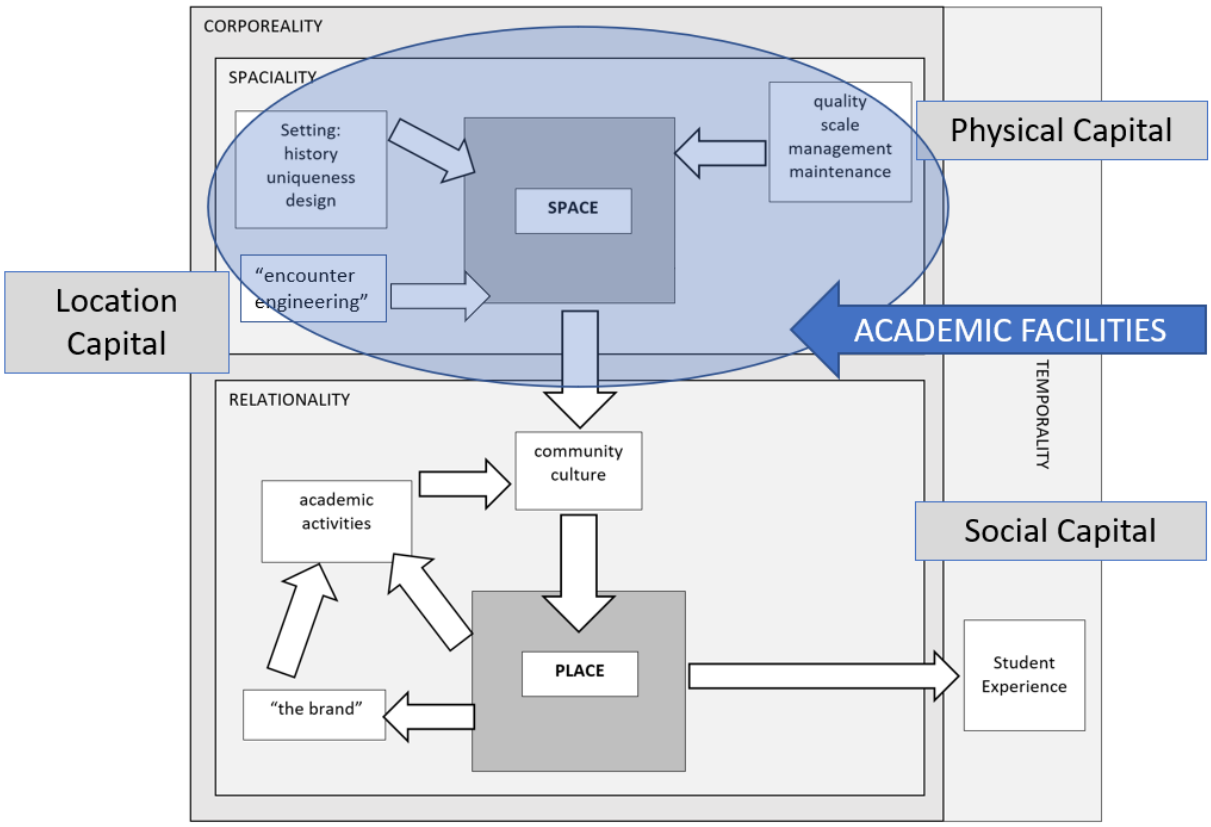
Academic Facilities

"I feel like the buildings on this campus, they're either super state of the art or they really need a lot of renovation." (Tabitha)

The conceptual findings indicate that academic facilities were most closely associated with physical capital followed by location capital, and mostly experienced through the vector of spatiality followed by corporeality, as illustrated in Figure 24.

Figure 24

Perception of Academic Facilities



Somewhat surprisingly, students feel that they have little choice in what academic facilities they interact with. While they do choose their academic major, that selection of an academic major heavily determines which academic facilities they experience after their matriculation. The theme of choice emerged as a relevant aspect of the built environment, as is demonstrated in subsequent focus areas. The location and facilities in which they attend classes are constrained by the required coursework for a particular major, which have limited offerings and occur at predetermined places on campus. This logic extends to non-major specific core courses, as well. However,

student choice does become a consideration in elective courses, at which time the course location and facility become variables for consideration, in addition to the actual course content. When required courses offer flexibility in the order or timing of their completion, students consider if that course fits into their proposed schedule based on the offered time slot, but also based on the location on campus by considering how it aligns with other required courses on their schedule. This phenomenon of evaluating schedule development and feasibility is explored in more detail in a later facility focus area, the campus layout.

Students took note of the physical condition of academic facilities. The campus in this case study encompasses 18 colleges, each with different sized buildings or groups of buildings that host their academic, research, and service missions. The physical capital that these academic facilities represent manifests itself (for good and for bad) as students interact with this facility focus area. The students noted the recognition of lived space (spatiality). In particular, students referred to the Chemistry Building several times as being “cramped”, and its low ceilings and dark, windowless hallways resulted in negative feelings that made the facility seem old and inadequate for a discipline as cutting edge as modern chemistry. Participants also recognized a distinct difference between “old” and “historic.” Due to the age of the university, some buildings date back to the early 19th century. The participants demonstrated an appreciation for the historic nature and preservation of these buildings, but it is the condition of certain facilities, not necessarily the age, that make them feel old. Student participant Tabitha reported that:

> I took a look as I sat in a Russian class in Joe Brown Hall. And that one [building] is a little scary. And it just really shows where UGA puts their money because the

> food science building, the new food science labs that I took a tour of, they look really nice. I mean, there's like the back of the food science building which is old and then there's the new part that they added on, which is like the labs are nicer. And so, there's like this contrast all across campus.

The truth is many buildings on the campus are showing their age, and even advanced indications of decay. These older buildings face several challenges. First, the price tag to renovate or modernize older buildings is typically cost prohibitive because of the expense to bring them up to current codes and standards. It is sometimes cheaper to tear them down and rebuild as new construction. Secondly, they are considered historical. Even mid-20th century facilities are subject to historical preservation efforts, so changes to the aesthetics in any meaningful manner is prohibited in most cases while also being labor intensive (thus quite expensive). So, the university is left with aging buildings that cannot be torn down but are too costly to renovate. The Psychology Building, constructed in 1959, is one such building, and it produced several negative responses from participants. Again, Tabitha points it out another of her observations (see Figures 25 and 26):

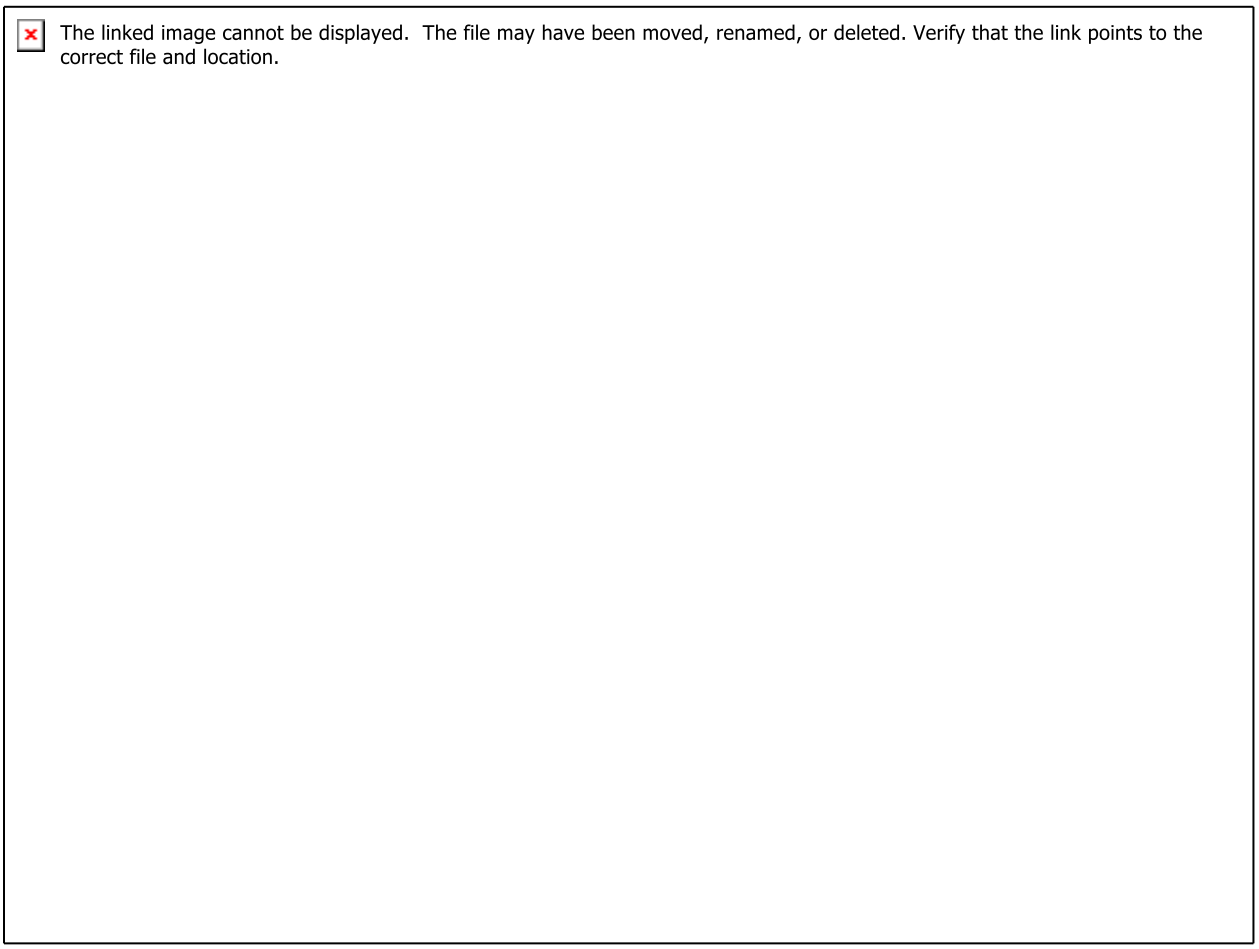
> Psychology Building, that one is also very worn down. My roommate also takes a psychology class there and she's like, it looks like a psych ward because the hallways are really narrow and like the classrooms are small.

Figure 25

Psychology Building, Exterior: dated mid-century architecture and small windows. Note the complete lack of windows on the north elevation (left side of photo).

Figure 26

Psychology Building Interior Corridor: sterile, narrow, and dimly lit institutional appearance



Renita echoed the concerns about aging infrastructure and dated aesthetics pertaining to the Physics Building (Figures 27 and 28), “the physics building is a little low rent. The physics building, when you walk in there, whether it’s the hallways or the classrooms, is not too presentable. On the inside… just you can tell that it’s old.”

Figure 27

Physics Building Exterior, Main Entrance: dated mid-century architecture, inefficient single pane windows

Figure 28

Physics Building, Main Lobby: better natural light but low ceilings, wood paneling, and interior brick flooring suggest a building from another time

Similarly, but pertaining to a different building, Baldwin Hall was constructed in 1938 and Paul stated (see Figures 29 and 30):

> I don't know, something about Baldwin Hall is just bad especially considering the location where my class was in it. Because I had an anthropology class there but it's such a weird way to get to it. You have to you go in and you go under the stairs. You get down a set of stairs in this like low lobby area. And you have to go

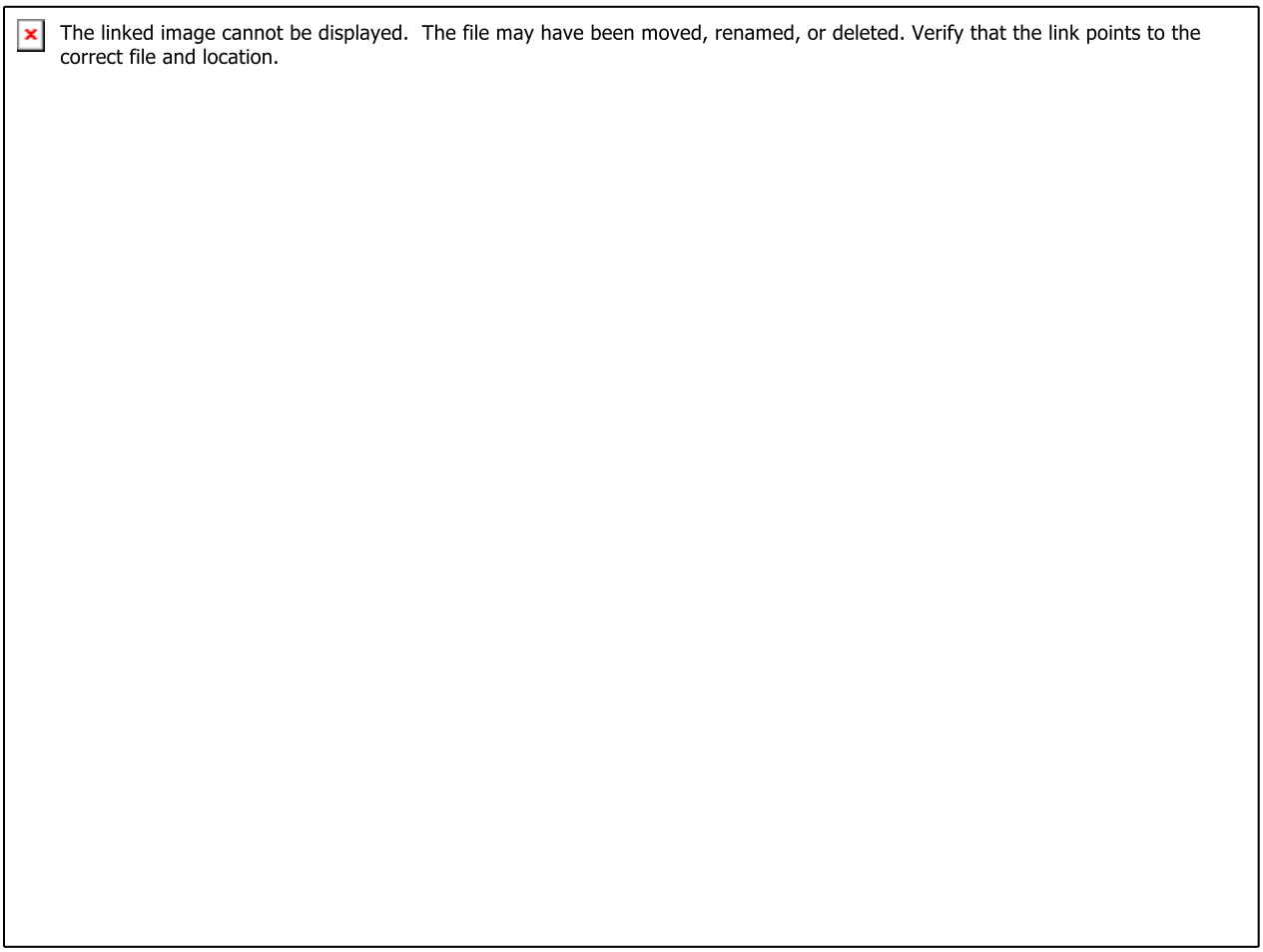
down this really tiny pathway all the way down to the end and then the classrooms just right there nestled in this really far back corner. It just kind of feels weird to get to.

Figure 29

Baldwin Hall, Exterior: historic marker outside main entrance

Figure 30

Baldwin Hall, Interior: odd layout with multiple sets of stairs and low ceilings. Lack of natural light



Another participant, Adam, went beyond the physical appearance of a building, stating that the environmental conditions inside the Chemistry building were troubling:

> yeah, they're pretty bad in the chemistry building. I know that building is really old. Like sometimes it'd be really hot in there or something even though it's really cold outside. And the air is like a little musty.

Contrariwise, students did provide praise for newer academic facilities. The Zell Miller Learning Center, constructed in 2003, was named after former Georgia Governor and higher education supporter Zell B. Miller. It is a 234,000 square foot building consisting of five floors and a diverse academic mission from organized classroom and meeting space to individual and group study areas. Paul gave praise to this newer academic facility in particular:

> Honestly, I spent so much time at the Miller Learning Center just in those little like study rooms you know, and also the Science Library. I really like that, like, especially those little cubicle things they have, which is like your own little like room area and you just put your stuff in.

This sentiment was shared by Adam, who responded similarly when asked which academic facility was his favorite or influenced him the most,

> Definitely the Miller Learning Center. I spent like eight hours, like studying, especially during the finals time, in MLC and the environment there is like, especially once you go up, it gets quieter. So, I like the fourth top floor and it's like, just quiet and like easy to study.

But some students reported that the very same building, Miller Learning Center, was often too busy or that the group study rooms were nearly always full during peak times.

Figure 31

Zell B. Miller Learning Center, Exterior: large windows, attractively landscaped

Figure 32

Zell B. Miller Learning Center, Interior: individual study carrels, group study rooms to the left, and bright

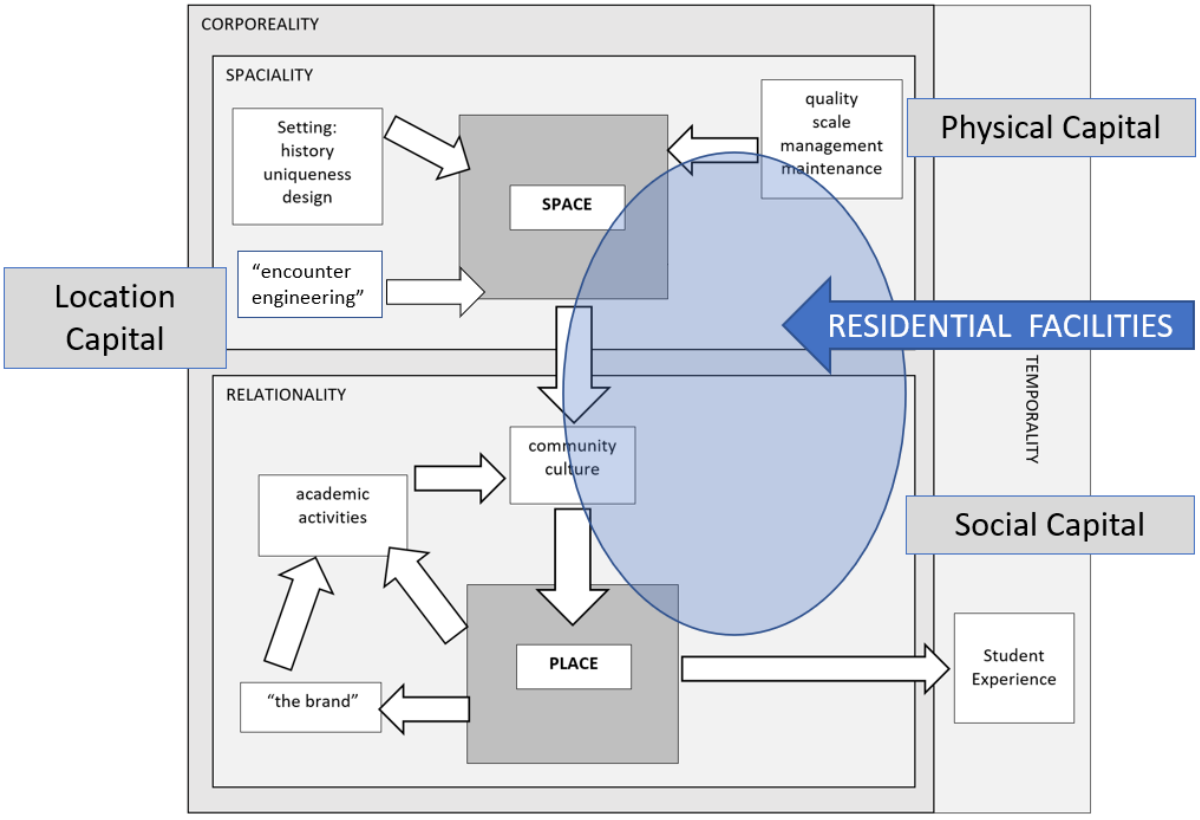
Residential Facilities

“The building is very diverse, especially the people on my floor. So, I enjoyed that because it led me to learn about other people and feel comfortable around them.” (Heather)

Residential facilities were most closely associated with physical capital and social capital, and mostly experienced through relationality. Figure 33 below illustrates the influence of these living spaces.

Figure 33

Perception of Residential Facilities



Students have more decision-making autonomy in what residential facilities they choose than compared with academic facilities. Some limitations exist, including cost and availability. The cost limitation is especially impactful because merit based financial aid does not always include consideration for student housing, thus leaving lower income students to seek need-based financial aid or additional student loans to make up the difference for housing. So, the cost limits the choices for some students, and by extension creates differences and inequities in their residential housing experience. The various residential housing price points influence the building's location, quality, and density of occupancy. Other factors influence residence hall selection. For example, those registering later have fewer options and may not be able to have much choice in their residence hall decision at all. Several students indicated they registered for housing late, which constrained their choices by limiting their possible residence hall locations to only those buildings that were not at full occupancy. The particular floor inside a residence hall can sometimes be selected but availability decreases the longer a student waits to register. Lastly, some students chose their residence based on where their friends from high school wanted to stay.

Regardless of how they chose their first-year residence accommodations, it is clear that the decision is based on limited information at a time when they have almost no experience with the campus. However, once assigned, the residence hall becomes the center of gravity for the students. Students in this case study are required by policy to live their freshman year on campus. They then have the opportunity to choose to live off campus beginning their sophomore year. Given this decision point, one question in the interview protocol was asked to specifically address this option and solicit a

response about whether or not they would remain on campus the following year or seek housing accommodations elsewhere. Tabitha talked through her decision-making process:

> Part of that decision [to stay on campus] was being close to all of what UGA has to offer for one more year because I feel like a lot of the community is built around being in a dorm or close to all the actual events. So, I wanted another year where I could be in that environment before moving off. I feel like you have to have established connections to like, make, social plans, I guess. Versus like there's more organic meetings on campus. So that and the cost I guess dorm living is pretty like I guess it's I if I paid the same as my dorm price, I'd be living further from campus, which I didn't want.

Paul responded by indicating he actually wanted to remain in the same dorm next year, although try and upgrade to a more private option, "actually, I want to try to get a single in Myers. Especially since I won't have a car to drive." Another factor influencing students' decisions to move off campus involve financial considerations. Heather had already begun the budgeting process and weighing the tradeoffs in cost and convenience:

> Well, you know, if you find the right apartment, the price is pretty much adding up. But for me personally, I feel like it would be more convenient for me to live on campus. I'm looking to live at East Campus Village. But I'm looking because one I don't know how to cook. So, I think the dining hall having a so close to me really did help me this year. And the East Campus Village dining hall was pretty good, different. So that's one and two. It's also because I'm a political science. And the

> first semester of school I kind of just wanted to dip my feet in the sand and just know how everything works. And now I feel like sophomore year, especially I want to join clubs, and I want to kind of be involved on the campus and I feel like you can't be involved if you're not really knowing what's going on. I feel like me actually being here on campus, I get easier word about what's happening.

Jenna had a desire to stay close to campus, but found an alternative that worked for her whereby she recognized the value of the campus community that she has become a part of:

> I am already in an apartment. I signed a lease. So, my apartment, it's like downtown Athens. So, I still wanted to be near the college area, the college community. I need my own space. Yes, I need my own space. I would say like that's really important.

In fact, the majority of participants indicated that they will be staying on campus for their sophomore year, all of which cited the desire to stay connected into the campus community as at least a partial factor in their decision. Even one of the students planning to move off campus to a fraternity house said that the influence of the campus community was part of the reason because of the relationship he formed within that community. These are all examples of how social capital and relationality influence the ways in which students experience the campus-built environment.

Similar to academic facilities, students distinctly remember some of the subpar physical characteristics of their residential built environment. Tabitha reported that:

> I also think that in the study lounges in building 1516 [residence hall] air conditioners don't always work, and so I can I can feel like the system turned on and off so it gets like really hot then really cold during a study session.

In a different residential facility, Paul found frustration over something as routine as the bathroom functionality:

> Fixing the showers. So, there's been like three main issues with the showers… four main issues actually. So there' like one of the unisex room bathrooms that's right across from me. But for the first while it would just spray water all over you from the hose because it wasn't connected. And then you couldn't turn it off all the way so it's constantly dripping. And they finally just fixed that. But now, when you turn on the shower section, the bath still goes. Okay, so the water pressure is really low on the actual shower section. It's really annoying, but it's filling up the tub part now. Oh, it's just it doesn't even do that and you can't you can't set it to like fill up like I tried. But it just kept draining. And then in the regular bathrooms, the main issue there is the showers. You have to have it on cold for it to be hot. I found that you have to turn it all the way to hot and then you can turn it back to cold and then it'll turn hot, which was really weird for figuring out the cheat code. Okay, so that's kind of frustrating.

Students also appreciate when upgrades are made to the residential spaces they occupy. Jenna acknowledged a relatively minor renovation that added value in the form of a positive perception inside of her low-rise dorm:

> I like my dorm. They actually redid the floors before for my class [arrived], specifically before I came, so I think a lot of people really liked that in my dorm.

> They redid the flooring and renovated the whole floor. It was just like a bad like, it was like tile before and was just not a good look. But now it's wood. So, it just like looks nice. It feels nicer.

Insight into the residential facilities includes a healthy dose of social capital through the experience of relationality. Dorms provide and foster the environment for such connections to occur. Jenna describes the atmosphere:

> So far, I've met like I was saying before, a lot of good people and a nice crowd in my dorm because a lot of what like specifically my RA does and they do a good job trying to get everyone together in the lobby once in a while and de-stress things like a donut party. They try to make efforts for everybody to meet and I will say I've met people through that. And also knowing people from high school. I'm still friends with quite a lot of people from my high school. So, I'll say like having that support network has been nice, but then also meeting new people. So, you can meet a lot of folks from your residence hall. Yes. Where the majority have come from just interactions with those kind of RA meetings and things like that, I would say that for sure. I also like on the first day of moving I like their doors were open so I was like go introduce myself and then your kind of that week like are like "oh do you want to get lunch."

The social and location capital provide opportunities for students to immerse themselves into the community by providing the space and encouragement to socialize. According to Paul, "because if I'm like feeling bored, I'll just go sit on the lobby and hope someone walks by. Okay, start talking to them." Some reported the perception of community based on the type of dorm they lived in. For example, a high rise versus a

smaller dorm facility. Jenna, who lives in a smaller size dorm, commented that she believed the built environment was conducive to the development of community by comparison, “also, compared to like the big high-rise dorms. I like the aspect of it’s closer knit like obviously.” However, that perspective was similarly echoed by students who live in the high-rise dorms. For example, Renita though that the “study rooms in Russell Hall, I would say I spent a lot of time in those, just like it’s expensive to live in Athens and to like go do fun things so me and my friends would just like sit in study rooms and just like hang out and talk.” Another resident of the high-rise dorms, John, discussed the atmosphere as open and inviting, “at Creswell people leave their doors open. I wouldn’t say it’s like a huge party, but people will leave their doors unlocked. Like we have people open our doors and say hi, but usually they’re just friends. I have met many people on my floor.”

But not all participants found social engagement on their floor of residence. Renita encountered a clique mentality on her floor due to social engagement that she was not part of, so she cast a larger net in order to leverage the social capital and relationality within her dorm, “I’m somewhat engaged with the people on my floor. It was a little awkward. I didn’t rush and almost every girl on my hall did. And so, it’s kind of was a separation from that point on and so I’m more associated with people on other floors that also are not in sororities.”

The need for additional, sometimes basic, amenities and services within their residence halls concerned almost every student interviewed. Complaints ranged from not enough laundry capacity, need for more bathrooms, limited community kitchen spaces, lounges, etc. However, the most consistent comment was access to dedicated

study spaces. Heather said, “so I’ve been told that there were study rooms on each hall, but since there were so many people admitted in and we ran out of room, there’s only one study room and the whole building, and it’s on the second floor.” In contrast, Adam spoke about the positive influence and appreciation of having multiple study rooms on his floor in dorm, “so on every floor they have three or four study rooms. They have like a big study rooms whiteboards. I use them all the time.” There are obviously inconsistencies with amenities from building to building, which is to be expected based on the age of each residence hall, but the availability (or lack thereof) was a common theme, especially within residential facilities

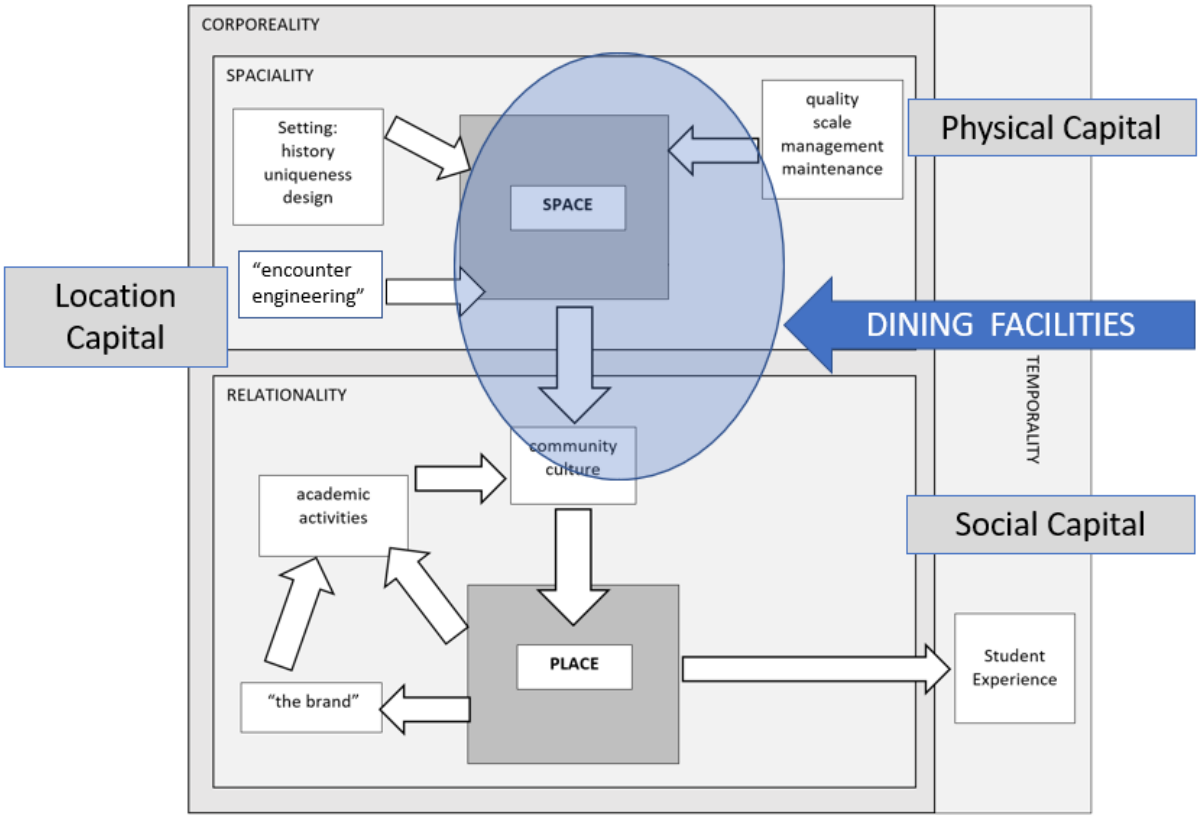
Dining Facilities

“In the dining halls, that also makes you feel like a community because you’ll see someone you know, meet someone, you’ll sit with a new group of people sometimes because you know one person… she’s like I’m sitting here, come meet my friends.” (Jenna)

Dining facilities were most closely associated with physical and social capital, and mostly experienced through the vector of spatiality and relationality (see Figure 34).

Figure 34

Perception of Dining Facilities



College students have many choices in where they dine, how they dine, and how much they pay for their food. The participants in this study almost exclusively ate at the institution's dining facilities, which they indicated was a function of their limited mobility due to lack of personal transportation that could efficiently take them off campus. Each participant had also purchased some level of on-campus dining package. The campus offers four main dining halls on the central campus: Bolton Dining Commons, Joe Frank Harris (also referred to as The Village Summit), Snelling Dining Commons, and Oglethorpe House Dining Commons (commonly called Ohouse). Students are not constrained to use a particular location for their meals. Each dining facility offers a

somewhat unique setting, as well as a slightly different variety of food – although some menu items are universal across campus. The facilities range in age and appearance, and all the student participants indicated a personal favorite for a variety of reasons.

The location of residence halls influenced which dining facility the students chose for meals. Despite indicating a preference for a dining hall further away, several students reported that they just ate at the closest one due to time constraints. One participant (Jenna) said she has decided to move off campus for the beginning of her second year because, in part, she was disappointed with the dining options on campus. If she moved off campus, then she could cancel her meal plan and use the money to cook in her apartment or go out to restaurants easier than travelling from her dorm to downtown:

> I did kind of get sick of it but we haven't talked about the dining hall yet but I do get sick of that. I like cooking my I need like food that's not just dieting or food. So, I think if I was paying as much for dorm facilities and Dining Hall Pass and that would translate to an apartment that I could just do my opinion. I would rather do that. Yeah.

Despite some criticism of certain dining facilities, the access to other dining halls across campus generally led to each student finding a dining facility that they preferred. Additionally, some make it a point to shuffle around to multiple dining facilities (Tabitha):

> And Snelling is close to where my classes where. I have calculus around lunchtime so I pretty much eat there a lot. I will say that I got sick of Joe Frank Harris dining hall pretty quick so right now I like Ohouse, it has a lot of options. Ohouse is probably number one, Bolton is probably close to the bottom because

> it's so busy, but it's one of the newer facilities honestly. I think Joe Frank is what Bolton wishes it was because it's less people. It's like the same claustrophobia is like Snelling. It's a lot of people all the time. So, I think that it's just a lot of people all the time and the lines are longer for things.

Adam stated that his favorite was "Oglethorpe House Dining. Yeah, definitely. I spent so much time there. Yeah. It's also crowded at Bolton. What's the worst dining facility? Mine is Snelling." John spoke to the positive aspect of having multiple options, "I would say the accessibility to the dining halls, relative to the dorms and just the fact that there's multiple, multiple locations on campus."

Students recognized the value of the dining halls beyond their main mission of simply feeding people. Heather expanded on this notion when she discussed where she spends the majority of her time:

> Like where I spend my time? I definitely would say the dining halls, specifically Bolton, I go there a lot because it's close in proximity to my dorm room right there. And I think especially as a college student sometimes when you're just in your little room, when you're sitting or you're frustrated, it's a good way to just like go and distract yourself. I definitely see how it comes because you eat a lot when you're stressed and all those things. So, the dining hall was definitely my friend. And it's a great way to socialize with people. Also, I know that I would be like, Hey, you want to have lunch?

The location capital of the dining halls influences the student's sense of community as well. These physical places feel like a gathering place which encourage interactions and encounters.

Within the dining focus area, the theme of “choice” emerged inductively. Students consistently brought up the factors that led them to select one dining hall over another. This ranged from location, available menu options, crowd levels, and even more social influences such as where their friends frequented.

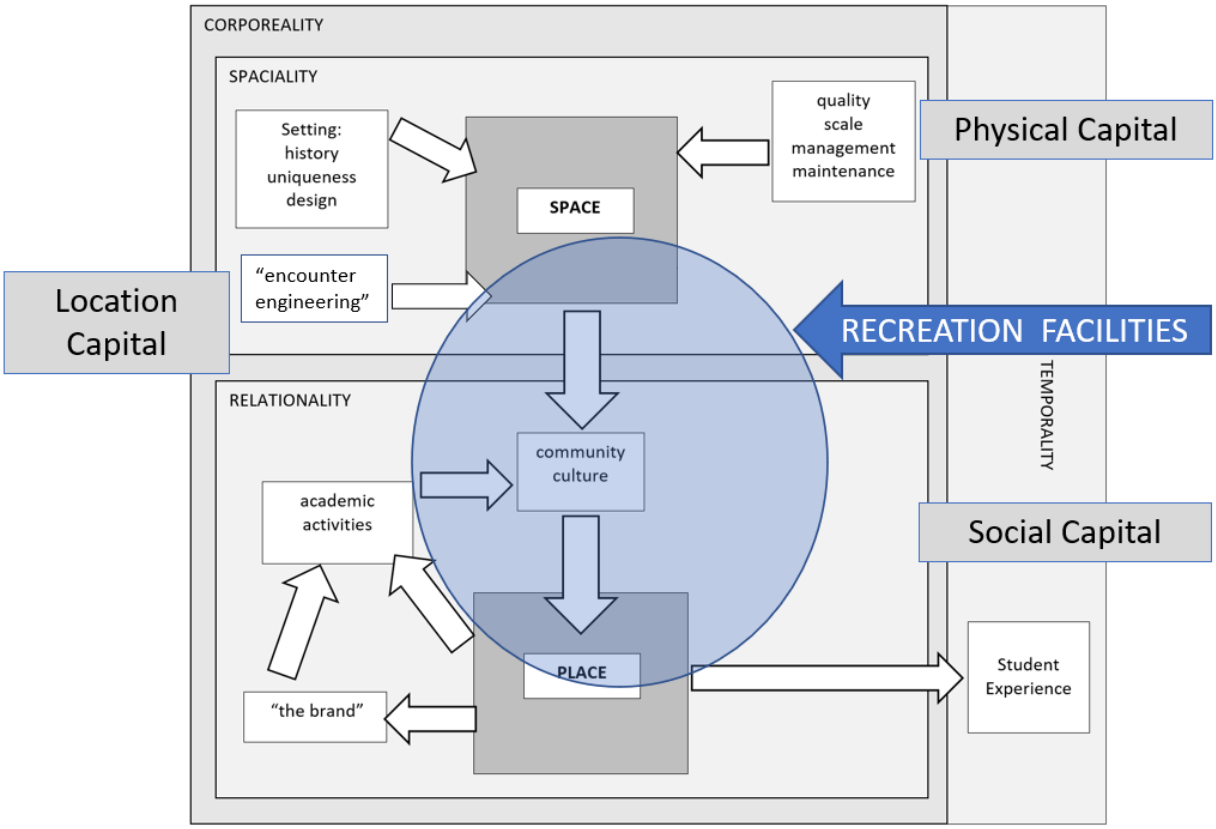
Recreational Facilities

“It’s a really cool building [Ramsey Recreation Center]. Really nice building. It’s a little intimidating and I can see why it can be for a lot of people.” (Jenna)

Recreational facilities were most closely associated with physical capital and social capital, and mostly experienced through the vector of relationality since most participants indicated taking friends to these facilities or meeting up with them there (see Figure 35).

Figure 35

Perception of Recreational Facilities



Students interact with these physical spaces and the people in them through lived relations. Jenna's response supported the idea that interactions with the recreational facilities are experienced through relationality, here she is speaking about the Ramsey Center, which is further detailed later in this section:

> I've only been there with friends, I've never been there alone. It's a good thing to do with your friends you know. It encourages like your friends to go. I will say like the facilities there are really, really nice. I went there also for Ramsey Palooza, which was like the engagement fair there. And they did a good job trying to get

> kids like to join intramural sports and stuff like that, which was really nice. So that got me interested.

There are no shortages of recreational opportunities on campus. The recreational options within the built environment are especially appealing to students because it offers a break from the stress of academics. For the institution, the challenge is to provide not only the space to conduct recreational activities, but also the programs and people, and to do so in a manner that appeals to a diverse group of students with a wide range of interests. The study found that the two main facilities which provide the conduit for such activities include the Ramsey Center and the Tate Center.

The Ramsey Center was constructed in 1995 in anticipation for the 1996 Summer Olympics, whose main host city was in nearby Atlanta, Georgia, approximately 90 miles to the west of Athens. Serving as the main health and fitness building on campus, it is a 500,000 square foot behemoth of a facility situated on the east side of campus. A common frustration associated with the Ramsey Center was its location. This turned out to be a common complaint, one whose influence is covered in more detail later. But the physical distance from one place to another impacted Renita's spontaneity of enjoying recreational activities across campus:

> Yeah, I'll go to like Ramsey Center sometimes, but I do say that it is something that I have to take out a chunk or block of time in my schedule to do that because I do have to get on the bus go all the way to Ramsey. So, you have to be more deliberate than you would about going to other places or clubs. You know how you would maybe say oh, I'll go to the gym but sometimes when you realize how far it is you then think no… you kind of have to think about a little more. I don't

> really like how far away it is. It is a little bit annoying. And I would probably say a lot of other people feel that way.

Location and crowding aside, the participants viewed Ramsey as more than just a building in which to exercise or work out. The facility provides the space and opportunities for social interactions as well. In fact, all participants who indicated that they use the Ramsey Center said they typically did so with friends. Tabitha said:

> I do like using Ramsey. I go to the gym like, once, twice a week. They have really nice like, my friends and I will like rent out you know, badminton rackets or volleyballs and just like, we'll go play every once in a while. The IM fields [intramural fields] tennis courts. I'm there for club tennis but just like regardless, like I go out and hang out with my friends there. And at the IM fields my friends and I will play like no-tackle like football.

Interestingly, recreational opportunities extend to other facilities which may not immediately come to mind. When discussing the availability of pianos for students at the Hodgson School of Music, Tabitha reflected on the positive mental health influence of those spaces, "they have like, you know, pianos and practice rooms. Yeah. So, you can just go in there whenever you want. And, you know, grab a piano if it's open and you know that encourages you. So, the recreation stuff encourages, you know, healthy lifestyle that encourages healthy mental health."

The Tate Center, almost equally as impressive in its size as Ramsey, is the main campus' student center (sometimes referred to as the student union), and is a facility recognized by the students as being highly influential in the development of community. It provides many types of spaces appropriate for a variety of needs, and in an

environment with a reported high level of safety and inclusion. It is a convenient location to rendezvous with friends and classmates. Jenna said about the Tate Center:

> There's a good atmosphere of like mixing of people talking and chatting, but then also people doing work and there's food and it's always nice to have that while you're working. And I would say there's a lot of obviously these offices and stuff like you can always ask anybody anything.

Tabitha agreed. She specifically pointed out the social influence of the Tate Center and how it has impacted her experience:

> Tate Plaza and like all of that area is very conducive to [meeting people], it's a very like solid like meeting place and I even like the pool tables. You, like constantly meet people in and out of there. There have been a couple of instances where it's just like my friends and then we like meet up with another group. It's like this, you know, this place to meet up. I think even if you're not meeting anyone there, those spaces make you feel like there's the potential for to, and might even encourage you to do so. Yeah, I guess it's like a catalyst, it's like a good like social energy.

Reflection upon these comments underscores the importance that the built environment brings to the student experience by providing the physical and social capital so that students can interact with these facilities through lived human relations. When broadly asked what building was their favorite place to be on campus (across all focus areas), the majority of students in this study reported that it was the Tate Center.

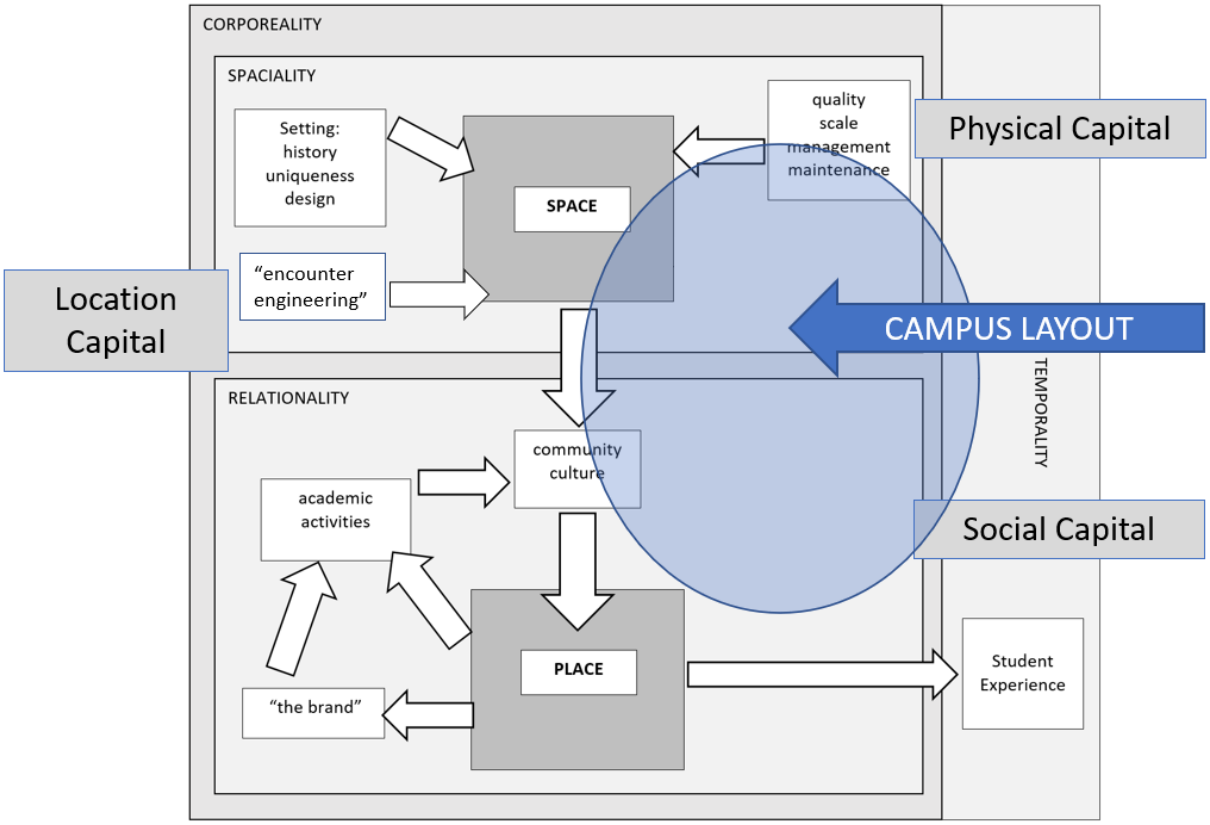
Campus Layout

“It’s huge here.” (Renita)

The campus layout was most closely associated with physical capital, and mostly experienced through the vector of spatiality (see Figure 36).

Figure 36

Perception of the Campus Layout



Students experienced frustrations and challenges adjusting to the size and layout of a major university. The ways in which students interact with the campus layout are

infinite. However, students often attempt to find the most efficient path of travel from point A to point B. Natural and man-made structures act as barriers to that navigation. The campus layout is perhaps the focus area where students have the most autonomy to decide their interactions with the built environment. Thus, the discussion on the campus layout provided the most (and varied) insight into how the built environment influences the student experience. In many of the conversations with first-year participants, issues related to the campus layout were prevalent concerns. Throughout these conversations, participants remained candid about what aspect of the built environment impacted them, and which did not.

Surprisingly, students were more aware of the influence of the campus layout than I had anticipated. In fact, the campus layout was the last focus area I added when designing the research, so it was almost an afterthought. Based on student feedback, the location of a student's residential hall in relation to their classes, dining, and recreational facilities has a significant impact on how they rate their student experience during their first year. Rather than one focus area being more influential, it is the spatial interaction between each of these areas via the campus layout that garnered the most interesting discussions and phenomenon, including frustrations. The size of the campus creates logistical constraints for some students. Tabitha voiced displeasure with the location of her dorm in relation to other buildings on campus, "I don't go back to my dorm like pretty much ever like in the middle of the day because I'm like, it's not worth going."

Jenna had a differing opinion because she was satisfied with the location of her dorm and embraces walking as a mode of transportation:

> I will say like it's a really nice and walkable campus, which I really like walkability. The freshman dorms are really perfectly placed like, centered in like the central campus. We can all walk anywhere from our dorms and it's very convenient.

Students were asked to describe their daily campus "commute" in order to prompt them to discuss their interactions with the layout of the physical campus. The topic of campus busses came up while they described navigating the campus. All recognized the need for busses, but few looked forward to taking them, especially in between classes. One student chose to avoid buses altogether after her initial experiences and opted to just walk everywhere, noting the beauty of the grounds as motivation to do so. Renita pointed out the positives of navigating the campus by foot, "so it's really nice and it's a beautiful campus like I really enjoy. Honestly like I like walking to classes because it's always like well put together."

In reference to the size of the physical campus, Heather joked, "there's this thing like the freshman 15 (pounds). I still don't know how you get the freshmen 15 walking around this campus." On the other hand, Jenna reported the benefit of the bus system under certain circumstances:

> I will say that if I'm going somewhere farther, I really liked the bus system. I think you'd say that I'm really good with the buses. They're really convenient. And come at good times. I know people say they are slow or that they run late. That happens obviously, but it hasn't happened to me as much so I think it's been okay. And I will say that I walk everywhere else. Yeah, the hills can be like kind of a lot in the summertime.

When asked if the campus built environment influenced their decision on where to attend college, Tabitha immediately connected the size and feel of the campus back to her desire for community, which she recognized at UGA during her visits,

> It definitely influenced my decision. Pretty much every other school I applied to was a small-town college town environment and I definitely wanted to be around like a bunch of like, young people like that. Sense of community kind of things.

John's response to the same question focused on the aesthetic appeal of the campus in his decision to attend UGA, "it was just beautiful here. And I know that shouldn't be a primary reason which it wasn't. But I mean, that was just another bonus point, honestly." The landscaped aspects of the campus influenced Jenna, who said, "I would definitely say I really like how green it is and how they are there's a good mix of like buildings and also they try to preserve as much as of the greenery as they can." The landscaping led Paul to say that "I definitely like the fact that the groundskeeping is really nice. Just walking to North Campus, it's just like very just serene."

In addition to the size, appearance, and layout of the actual campus, students also stated that the surrounding built environment of the town of Athens influenced their decision making. Adam compared UGA to other institutions he was considering, Georgia Tech and Mercer:

> So, like compared to other colleges, I like the bigger campus kind of idea as it feels like everything's a lot more spread out. And like Georgia Tech, where they're like, they're in the middle of the city, they're in Midtown Atlanta, so everything kind of goes vertical. Yeah, and there's a lot of crime there as well compared to other places. So just like this widespread campus than compared to

> Mercer. I don't know, UGA looked a lot better. I like the access to like, the downtown area right there that kind of consider that part of campus because it's so convenient. For some places you don't have that opportunity.

Others shared the sentiment about the adjoining town and its built environment was a positive influence in their decision to attend UGA. Jenna agreed, "You know, Athens in itself is a college town. I liked that aspect of it. And it's small, but it doesn't always feel so small. It can offer many things." Adam appreciated the location capital that comes with the proximity to the town of Athens, barely making a distinction between the North Campus and the connected downtown area of the city, "I really like the North Campus. Especially like the town and stuff… they have like a lot of nice grass places."

Despite all the beauty of the outdoor spaces on campus, natural characteristics of the campus limit how the built environment is constructed, managed, and experienced. This limited how Tabitha experienced the campus, specifically the hills:

> I will say how hilly the campus is, I didn't expect that so I did bring my bike to campus and I took it out twice. And it was before classes started. And I just like couldn't even I feel like a pretty competent bike rider. I could not. There is no way during when campus is actually like bustling around that like it's a bikeable campus at all, especially with the hills and like the lack of bike paths. It's just like, especially on like the main parts of campus. It's dangerous, too dangerous. It's just like, not practical, which I didn't expect.

When students select their classes, they think about many variables as they build their schedule each semester. They consider more than just the class start time. The campus layout itself influences their decisions. Heather said:

> Yes, I definitely thought about the layout while registering for classes. Now that I kind of have more of a better idea of where things are on campus. I can tell myself, okay, I can do this or I can't do that. I want to make time for this bus or I can walk this way at this time. A prime example is I have a class on Tuesdays and Thursdays. And the first thing I did was to look where it's at because I'm not going to be walking 20 minutes, even leaving at 7:15 to get there. That means you're waking up early. That definitely did play a part.

Tabitha evaluated the risk of making it to class on time, "if the bus isn't there at the right time or whatever, I just know this is gonna be a tight one. But I wanted those two classes back to back so I'm just gonna deal with it." Similarly, Renita struggled with the distance she had to navigate to get the classes she wanted next semester, "I mapped it out and I have three in a row and it's like a 16-minute walk between two of them. So, I'm hoping for the best"

Sometimes, the campus layout presents constraints that are just too much to overcome. One student used the bus routes to map out distances and time required to travel from class to class within the given timeframes. She decided against taking a certain class because she was uncomfortable about her ability to consistently travel from one class to another without being tardy or stressed. Jenna was disappointed when she discovered that she simply could not make a particular class offering work due to the limited time and long distance she would have to travel between classes:

> This coming semester, I did have a really nice class that I would have liked, but it's too close to the time for the next class and I can't take it because of the distance. Yeah, so I would say those kinds of things do happen for sure, which is

> disappointing, it is. I mean, you can't get everything, but I would say yeah, for sure location played a role in my decisions.

Even when students can squeeze their classes together, they acknowledge the pressure of navigating the campus layout, Adam said, "so Wednesday's was very busy for me this semester. I had like 15 minutes to get from the Science Learning Center to North Campus for Spanish and Caldwell Hall and then back to SLC for like another lab."

The campus layout also impacts how students choose to spend their free time and experience the university's recreational offerings. Heather was candid:

> Recreationally, I hate it. There's like no sugarcoating it. It's obvious that East Campus Village is for the athletes, but everything good kind of sits over there in a way, other than Tate Student Center, in my personal opinion, and it's kind of really annoying because it's like if I wanted to work out, I would have to literally walk 30 minutes to get to the workout. That's already a workout itself. Or take a bus, it's very deliberate. You can't just be like, I'm kind of bored I'm gonna go workout. I gotta figure out what bus or walk or how's the weather? So, yeah, I've heard this several times with especially east campus. The Ramsey Center specifically, was one of the biggest headaches.

In some cases, the distance between facilities is just too much to try and manage for students. One student, John, abandoned the idea of using the student recreation center and was compelled to purchase a gym membership:

> The Ramsey Athletic Center is like a 35-minute walk for me. One facility that I wish was closer in proximity to everything, it seems like it's so far off campus is the Ramsey Center. It's that's resulted in me purchasing a gym membership at

some place off campus and having to ride with my friends in the car. That was a little inconvenient.

Several students suggested that the university should consider building a second student wellness center (a second “Ramsey Center”) on the other side of campus to help alleviate their access frustrations.

Participants voiced safety concerns related to the layout of the built environment. Based on the observation phase of the campus layout, questions pertaining to the campus outdoor lighting infrastructure were included in the interviews. Based on those questions, students expressed that the exterior illumination was problematic when navigating the campus after dark. This is another example of how student experience spatiality. To a several participants, there were areas on campus that felt underlit and thus not as safe as other parts of campus. These concerns from many of the participants led me to follow up with the campus facilities unit. I was pleased to learn that this was instance where the campus administration was actively addressing the students’ concern related to the unsafe feeling about the lighting as night. The university is in the process of adding and upgrading the lighting on campus as a direct result of student input, by way of the student administrative council.

One participant, Heather, reported feeling unsafe in the East Campus Village area, “they have the little you know, the famous lights with the circle and the pole. But there’s a lot of places on campus that are just dark, like literally dark. Oh, so that’s really scary.” The lack of lighting in some areas prompted students to make deviations from the straightest path between two points. Renita spoke about her strategy for avoiding dark areas of the campus built environment at night:

> It's a little sketchy. Like I don't like going anywhere at night by myself. But I feel safe, like with other people and then, I will say that going up to Russell Hall, I always have to cut through Creswell because I'm kind of scared that the road is pretty dark.

Tabitha agreed, "but walking back from main campus after a late study session or something, there's a lot of parts on campus that aren't properly lit and are like right next to the road which are like you're going in between buildings which are not that lit either." John also echoed the sentiments of his peers, but conceded "it's hard to cover every area, especially when you're cutting through some. But you're cutting through some pathways that are surrounded by trees or you're going down a set of stairs. Yeah, that's a little scary."

The immense size of the university lends itself to the establishment of discreetly named areas, almost neighborhoods, within it. For example, the oldest and most historic portion of the campus is often simply called "North Campus" by students. It is understood that this means the area bound by Broad street to the north, Lumpkin Street to the west, East Campus Road to the east and (generally) the main library to the south. Other neighborhoods include East Campus Village, the Tate area (a moniker used for the broader outdoor areas and facilities surrounding the Tate Student Center), and South Campus. Within these subsets of the campus, students identify with them as a smaller community, not just of facilities. They see clusters of related space, people, and activities that have come to define them. The social capital then mixes with the physical capital and a transformation takes place according to the conceptual framework where spaces become places. The clues to such a transformation are present, subtly

embedded in the responses of the participants. Heather confirms this in one of her responses (emphasis added):

> I think my favorite *place* would probably have to be just East Campus Village, in general. Every time I go there I feel so great and smiley because I've either eaten good food or have gone to Ramsey. And just, you know, obviously this plays a part, but I've met a lot of *good people* that live in East Campus Village. And so, I just enjoy being around them and the *environment*.

When asked about how the built environment influenced his first year experience on campus, Paul's answer made no real distinction between the physical campus and the campus community, demonstrating that Temple's theory of turning physical space into place elevates the built environment into something more:

> I'd say it [the built environment] is definitely very positive. And, you know, it led me to kind of just feel like welcome that I feel like, free to kind of just be how I want to be you know, I'm not as worried about like, Oh, what are people thinking about me? You know, here I just kind of feel like free to just do what I want to be myself. I feel a lot more just like, overall, I'm able to make friends better, you know, because just the environment feels like something that's like, you can just do what you want and have fun now.

The insight gained from the students strongly indicated that the campus layout is an omnipresent component of the built environment which manifests itself as a strong influence on the student experience, with concerns over locations, distance, and safety being the most prevalent. Regarding the broader campus layout, the student participants' experiences seemed to follow a similar pattern - students initially arrived in

the campus built environment, explored it, identified challenging aspects of it, sought alternatives, and then finally optimized their interactions within the layout that resulted in an individualized daily routine where they “salted to taste” based on their preferences and priorities. Heather provided perhaps the most valuable insight on the campus layout’s influence, “I’ve learned that I found the things that I like and that I don’t like… the places that I want to go to and the places that I don’t like. And I’ve kind of started to start making comfort in those areas. So, the outlook has become positive now.”

CHAPTER 5

CONCLUSIONS

"I think it [the built environment] has been the source of all the positives and all the negatives." (Tabitha)

This chapter discusses and interprets how my qualitative findings connect to my theory and to the exiting literature to draw conclusions. This study aimed to add value to the discipline of higher education by combining descriptive data and conceptual data through the lens of the student experience using multiple data sources including student voices, via an expanded framework to capture and understand those voices. In this chapter, I revisit the combined Temple-Van Manen framework to illustrate and synthesize the overall thematic findings. Then, I organize a discussion around the research questions to draw conclusions about how the campus built environment influences the first year student experience. Finally, I close with and implications to policy and practice, while suggesting recommendations for future research.

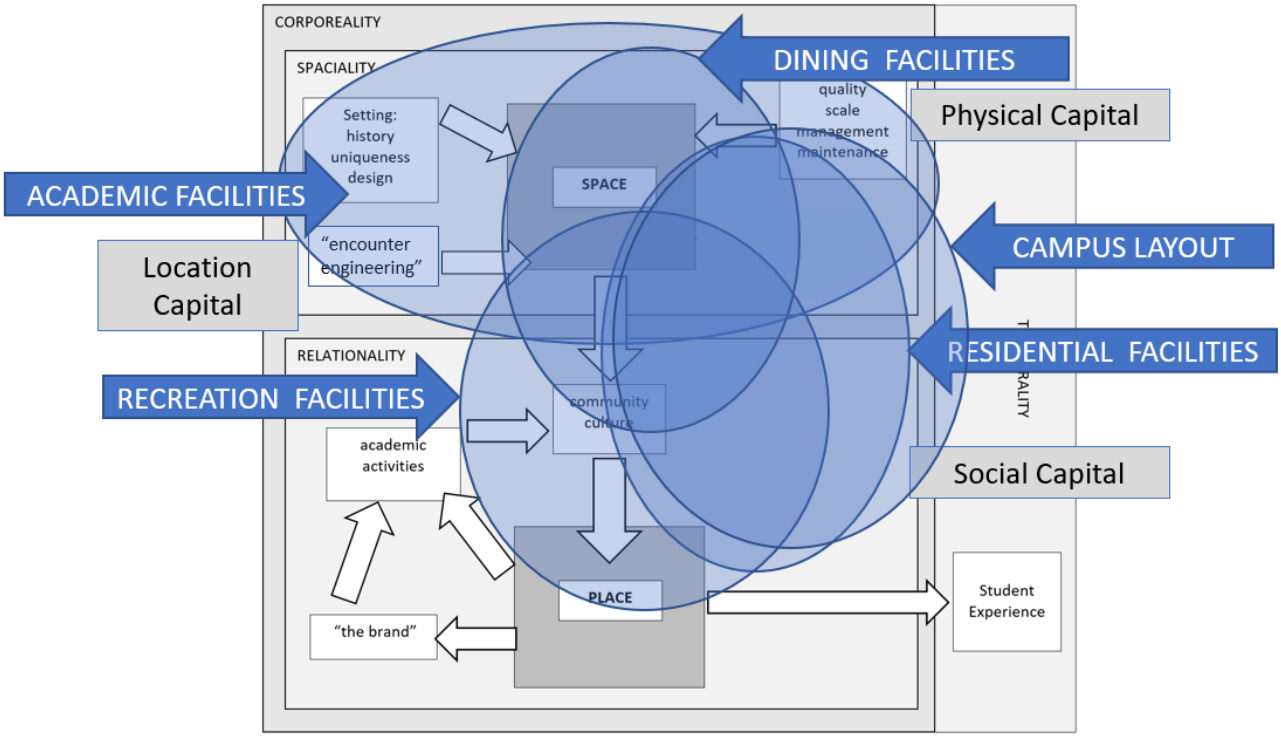
Combined Temple-Van Manen Framework

The campus built environment is an intimidating topic that figuratively, and quite literally, covers a lot of ground. However, careful protocols, memoing, and multi-step

coding helped to keep the data manageable and organized. The combined Temple-Van Manen Framework developed for this study provided a convenient and digestible approach for data analysis and reporting. This is a new and expanded application for Temple's (2009) framework. Notably, Temple applied his base theory to a single, small case study, attempting to measure the academic effectiveness as the output. I expanded on his notion and applied place consciousness and its influence on the student experience of first year campus residents, and changed the output from "academic effectiveness" to the "student experience." This approach widened the aperture of previous research and resulted in the following figure that illustrates how students interact with the built environment (via Van Manen's existentials) and how students perceive the influence of those interactions on their experience (via Temple's capitals). Combining all of the individual facility focus area findings from Chapter 4 onto a singular combined Temple-Van Manen theoretical framework provides a broad visual to the thematic findings. This is identical to how I presented the individual facility focus areas earlier in the Chapter 4 findings, but in a comprehensive overview in Figure 37.

Figure 37

Combined Perceptions of Facility Focus Areas

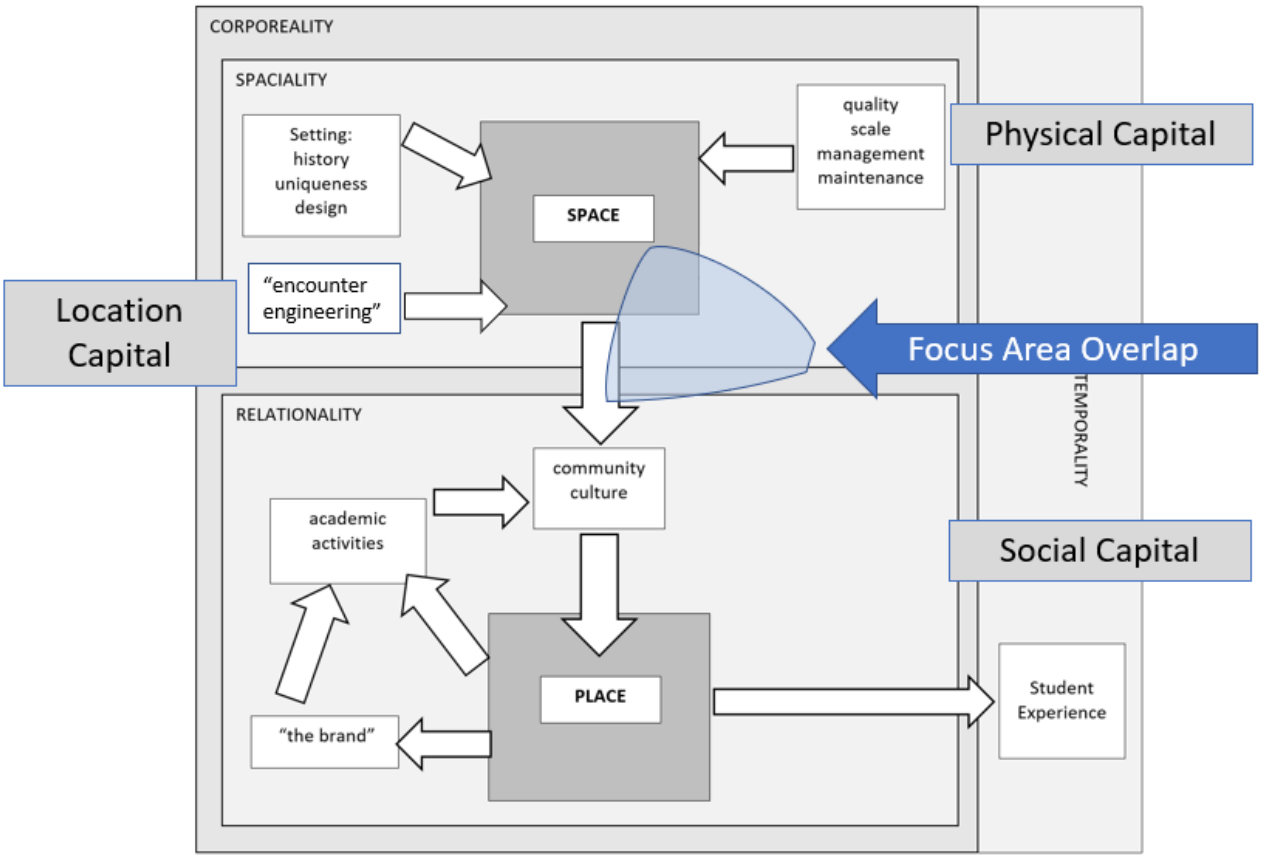


The overall thematic findings conclude that: (1) academic and dining facilities occupy the top half of the framework, indicating a vector of spatiality and an influence of physical capital and location capital, (2) residential facilities and the campus layout occupy the right half of the framework, indicating vectors of spatiality and relationality along with the influence of social capital, and (3) recreational facilities occupy roughly the middle of the framework, indicating the vector of relationality and the influence of social capital as part of the formation of community culture. Each individual facility focus area's oval is based on the qualitative weight from the interview coding results,

researcher observations, and document analysis. While the above combined diagram was not initially intended to be a Venn Diagram, the Venn concept provides a convenient way to understand the figure. Interestingly, the confluence of all five facility focus areas overlap in a small zone (see Figure 38) roughly between where “space” transforms into “place” very much near the “community culture” portion of the Temple framework, while touching a portion of three out of the four Van Manen existential vectors (corporeality, spatiality, and relationality).

Figure 38

Isolated Overlap Area



The above illustrations emerged from a deductive approach. Inductively, other themes also emerged as the data began to inform how the built environment influenced the student experience beyond the proposed framework. The interview data revealed an emergence of concerns and frustrations over facility locations, facility conditions, availability of facility choices. These themes are repeated across all the facility focus areas. Recall that other studies (Hill & Epps, 2010) only accounted for the influence of physical facility characteristics on the student experience. In my research, the physical capital (and thus environment) is one of three types of capital investigated. Lesser's (2000) and Preston's (2004) work suggests that social capital leads to stronger institutions and contributes to their effectiveness. Indeed, I found that social capital proved important, and was a significant factor in the transformation of space into place.

How Students Interact with the Built Environment

The first research question asked how students interact with the built environment. Van Manen's theory afforded the lens through which to evaluate the "how" of those interactions by examining the application of his existentials. These existentials represent the varies modalities that students interact with the built environment. Spatiality (felt space) and relationality (lived relationships) represented the majority vectors by which students interact with the campus. Spatiality topped three of the focus areas, and relationality followed up in second by leading two focus areas. One of these two existentials represented the primary way students interacted with the built environment in all five of the focus areas. This is important because, as stated numerous times, the campus built environment is more than just brick and mortar. It

becomes more because of the importance of the three-way intersection of the 1) physical campus with 2) spatiality (how a space feels) and 3) relationality (the relationships developed within that physical space). Corporeality (the physical environment experienced through a student's five senses) represented the second most prevalent wat to experience space for two of the focus areas. Temporality (perceived time) was the second most coded existential in just one focus area, and the least likely way students experience the built environment.

How Students Perceive the Influence of the Campus Built Environment

After exploring the ways in which students interact with the campus built environment, the next research question looked to understand how they perceive such interactions and what influence such interactions had on their experience. This was explored via the framework but with a focus on the types of capital rather than the existentials. Regarding Temple's capital theory (physical, location, and social), each of the five facilities focus area prompted responses related to all three of these various forms of capital from Temple's conceptual framework, but it was the physical capital that dominated the dialogue. Students were very aware of the brick and mortar physical spaces around them, which validates the Hill and Epps (2010) study which was discussed earlier. Recall, the Hill and Epps study concluded that students taking an identical class but in two different physical environments perceived a better experience in the higher quality classroom due almost entirely to the improved physical and environmental conditions.

Moreover, students in this study appreciated it when they had the opportunity to select the facilities in which they would interact and did so based on the physical condition and the physical location of those spaces. The students perceived their own level of influence as a factor in how the campus itself influenced their experience, because they felt more in touch with the campus built environment when they were able to curate and self-select their interactions. Thus, the existence of choices within their built environment emerged as a theme that they perceived to positively influence their experiences.

Across all focus areas, social capital was the next most influential type of capital. Students highlighted how social interactions were important during their first year and were able to make the connection of those interactions and social capital back to the influential nature of the campus built environment. Social capital was especially strong with influencing how students experienced recreational and residential facilities, which makes sense given the social and interactive nature of those facilities and activities. I also found validation of Temple's theory of "space into place" using social capital, as illustrated in Figure 38. I assert that if designed, maintained, and utilized properly, the lines between the physical built environment and the community environment become blurred (in a positive way) in their influence on first year students. The findings not only compliment, but reinforce other earlier research (Howe & Strauss, 2003; Kenney 2005) that students want to engage in campus activities that result in the sense of community. My research highlighted that the higher education built environment itself fosters vibrant and exciting student experiences and campus life by providing the space for community to develop, and students acknowledged this in their responses. This study shows that

many of those interactions are formative. The physical space of a campus plays a meaningful role during a student's journey to self-authorship, growth, and community formation. This finding is also in alignment with the study cited earlier by Kuh et al (2005) who conducted their "Documenting Effective Educational Practice" (DEEP) project. They concluded that campus spaces need to serve as gathering places, specifically designed to induce an experience of student-faculty and student-student interactions.

Somewhat surprising, students did not infer as much importance of location capital as I expected them to do. Locational capital was present in all focus areas but only appears noteworthy within academic facilities, lending itself to the "feeling" that learning best takes place in spaces purposefully created to foster learning. Instead, physical and social capital aspects of the campus built environment more often flavored their responses to a larger extent than did location capital. The mobility of modern students and their ability to access information wherever they may be is one possible explanation for the lack of emphasis that I discovered in regard to location capital. Modern students may therefore have a higher tolerance for learning in unconventional spaces and in non-traditional ways, perhaps partly attributed to the shift in remote learning during the COVID period where such alternatives became necessary.

Other themes

So, how does the campus built environment influence first year college students? Riley summed it up by saying, "I think it's just allowed me to like be a part of something bigger than I am and like, like open my perspective to like how many opportunities there

are as well." This case study demonstrates that the long arc of a student's college experience bends toward the built environment in many respects. I intended to explore how students interact with the built environment and how it those interactions influence the student experience. The results were not quite what I expected because of the nuanced and personalized nature of interacting with the campus, as indicated by other themes that developed.

Variances in the types of facilities and the locations of facilities emerged as an important aspect of the campus built environment. Early on, I acknowledged that this case study would not be directly transferable to other campuses. At the time of my early acknowledgement, I narrowly meant that the results at the University of Georgia may not be universally translatable to other universities, even those of similar characteristics, because of the specific nature of UGA's specific campus, layout, population, and other parameters. What I learned is that even students immersed in education and college life on the exact same campus do not have a similar experience with the built environment as their same-year peers. Chapter 4 included a finding that students typically "salt to taste" while trying to optimize their interactions with the built environment. This does pose a challenge to any broad and sweeping built environment recommendations as a result of this study because of the individualized nature of the experience. However, that very same individualized customization stands as a proxy for the issues with the built environment because it reveals the facilities that students deem as problematic (either through avoidance or alterations in their daily routine).

Having choices and alternatives was another theme. These give the students options to find a combination of facilities that appeal to them across all the facility focus

areas. There is no single building that is universally loved, or hated, in any of the categories. In fact, the findings in Chapter 4 demonstrated several examples of where the same building or the same part of the campus were viewed positively by one student yet negatively by another. Students gravitate toward aspects of the campus built environment that appeal to them or are efficient for them. For example, the findings indicated that while students were critical of certain dining facilities, their overall dining hall experiences we generally favorable because alternatives and multiple options exist. In contrast, the recreation experience was much more polarizing. Despite being an exceptional facility, and considering everything it has to offer, having one central recreational athletic facility (the Ramsey Center) triggered negative comments because there were no comparable alternatives. The location of the facility was deemed too problematic by some students.

Implications for Policy and Practice

The results of this study also offer opportunities to refine policies and practices. Campus leadership should strongly consider inviting student representation to the conversations when developing the scope for new facilities, their locations, and their functionality. Despite all the best intentions and following industry best practices for design and construction, the student voice is needed to compliment these decisions.

An eye-opening example of this collaboration developed rather serendipitously during this study. While planning for a major renovation of an auditorium style classroom (the very same space I visited during the CVM facility observation in Figure 4), the staff of the college decided to invite a group of students to one of the design

meetings after most architectural and furniture choices had been made. This occurred outside of my research but provides a provocative example of the promise and potential of my recommendations. The staff presented several concepts for the space layout in the auditorium (choices that were based off of faculty feedback and preferences) to the students. The students pointed out several design decisions that were less than optimal from their perspective. This was from the perspective of students who would have to spend hours in that space. Their feedback was so compelling that the furniture and layout choices were refined based on the student recommendations. This, of course, required extra re-work and time, but provides a strong example of the value of the student voices that should be considered when making changes or improvements to the built environment. This “best practice” should be considered on future facility renovations.

Higher education administrators have an opportunity to harness the findings of this study by incorporating the following recommendations, regardless of the specific campus:

1. The institutional Office of Instruction should consider inviting student stakeholders during discussions on facilities renovation initiatives. Specifically, annual “Classroom Enhancement” and “Laboratory Enhancement” initiatives provide centralized funding to colleges across campus for the renovation of student centric spaces beyond what the allocated repair and rehabilitation (or equivalent) funding can provide. Having students participate in both the selection of the spaces to receive these funds

and participation in the actual design decisions would provide another relevant and valuable perspective.

2. Universities should consider an evaluation for extending the period of time in between classes to allow for a suitable amount of time for students to navigate the campus built environment. Findings indicated that rushing from one class to the next creates stress for students and sometimes negatively influences their ability to select and attend desired classes. The spatiality (and temporality, at least tangentially) emerged as a major concern negatively impacting the student experience.
3. Share these findings with campus equivalents of the University Architects, Facilities Management Division, the Office of Instruction, and the Office of Student Affairs. The novel insights shared by the student participants provide valuable perspectives that should be considered in future administrative and planning discussions.
4. Share and coordinate study results for possible publication with APPA, which is the industry organization for higher education facilities management.

Future Research

Future research of higher education's built environment needs to point in several directions. First, this research amplified the voices of first-year students on a traditional university campus. But as higher education continues to evolve, leaders and decision makers must be mindful of the aspects of the college experience that may vanish if a shift occurs towards even more online courses or if on-campus residency requirements

are relaxed for first year students. If higher education continues to experience an increased demand for more online learning, higher education researchers need to thoroughly investigate the tradeoffs of such a shift in light of the positive, community forming effects of the built environment highlighted which are reported in this study.

There are opportunities to expand this research by narrowly concentrating on perhaps one specific facility focus group. Such research would be complemented by a deeper understanding of pre-college socio-economic or socio-demographic factors that were left largely unaccounted for in this wider case study. By focusing on specific populations, we would improve our understanding of differences and challenges that create inequities amongst traditionally marginalized groups. This approach to future research on the campus built environment could isolate and identify potential barriers that still exist today by magnifying the experiences of those specific student populations. Alternatively, a comparative case study between groups of students that focuses on their differences in interactions, perceptions, and influences amongst those groups would help inform how inequities persist when compared to previous studies cited earlier (Anderson & Span, 2016; Wharton, 1991; Wilder, 2013).

Also, consider that the influence of the built environment of a higher education campus is not limited to the students' experience. The very same buildings that create challenges for students are also utilized by faculty. Research space, in particular, is susceptible to obsolescence and needs a robust strategy for maintenance or renovation to keep the pace with the advancements in technology and the demand for increasing research expenditures of a major R1 institution such as UGA. Thus, a similar study

focused on academic and/or research faculty would be valuable and complementary to this study.

In closing, the campus built environment is a critical resource to be managed as an integral part of the student experience. The conclusions of this study help to provide a new perspective while informing us of how students interact with the campus built environment and how students perceive the influence of such spaces. The study also demonstrates the importance that we must place on our understanding of the student perspective when making decisions about the campus built environment *and how it contributes to the development of community*. It would be prudent to increase our consideration for these voices and these data whenever we consider the targeted and ongoing enhancement of the built environment of our higher education campuses.

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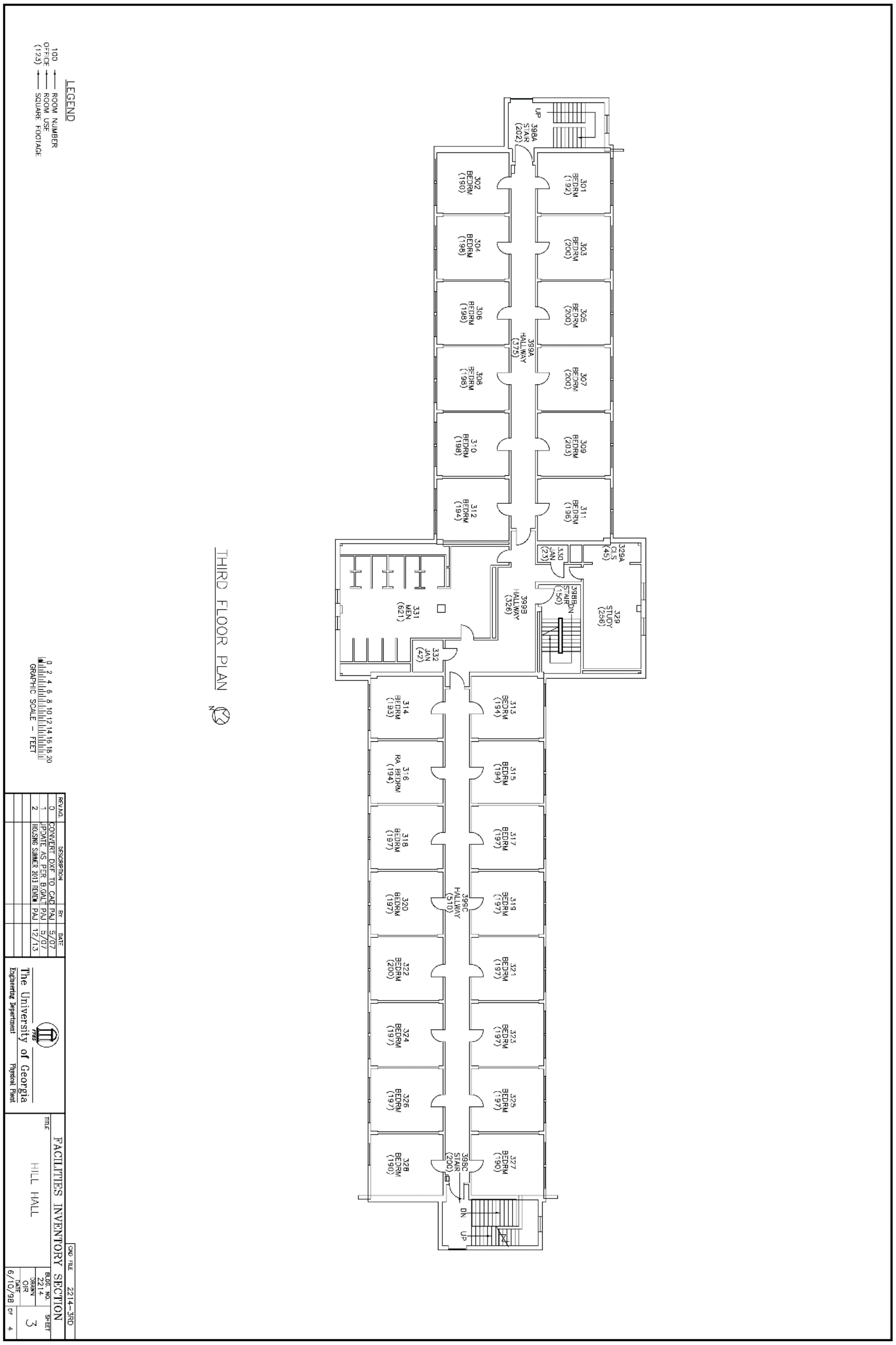
Appendix A

Additional Residential Facilities Floorplans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The University of Georgia
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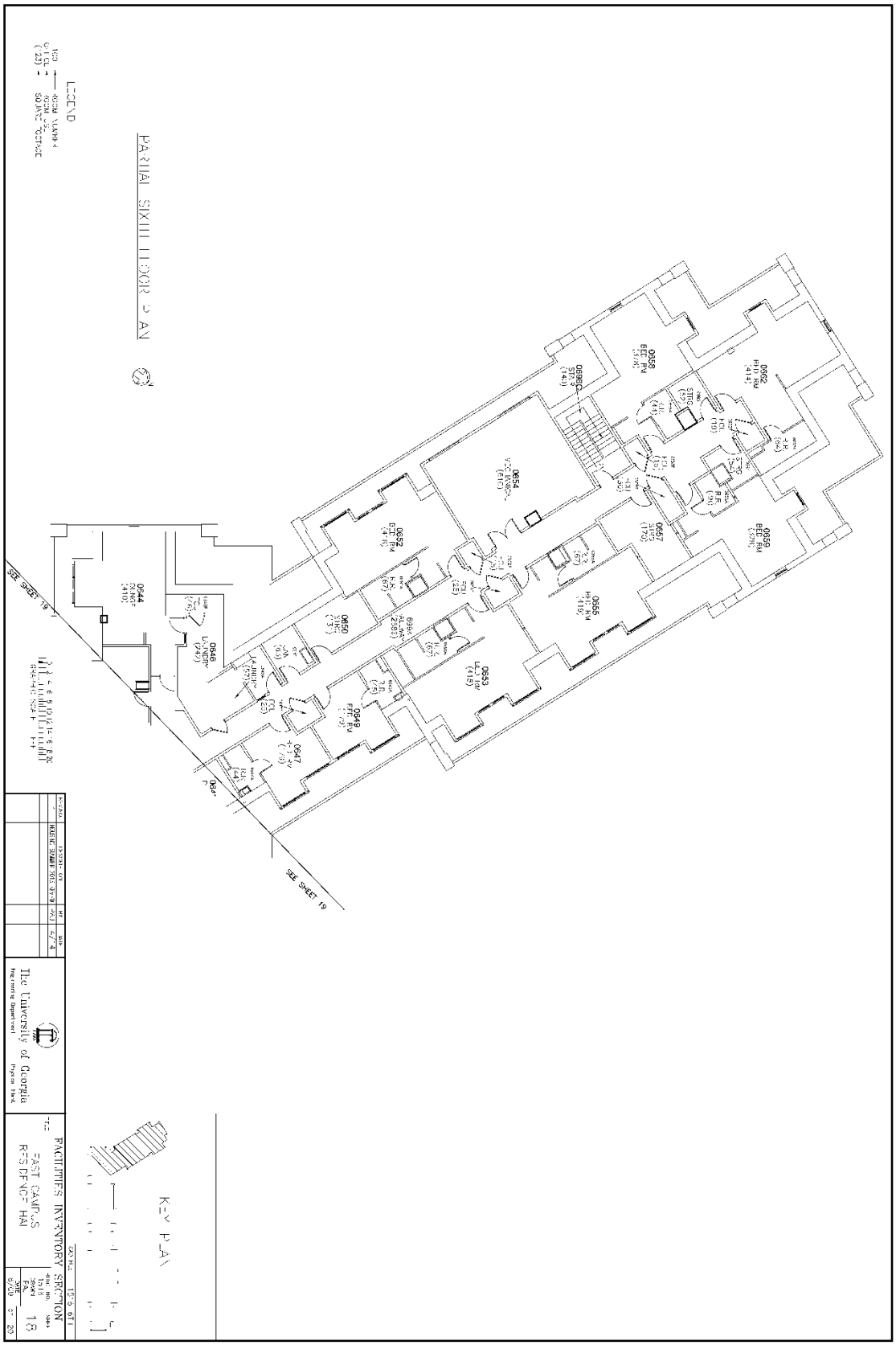
HILL HALL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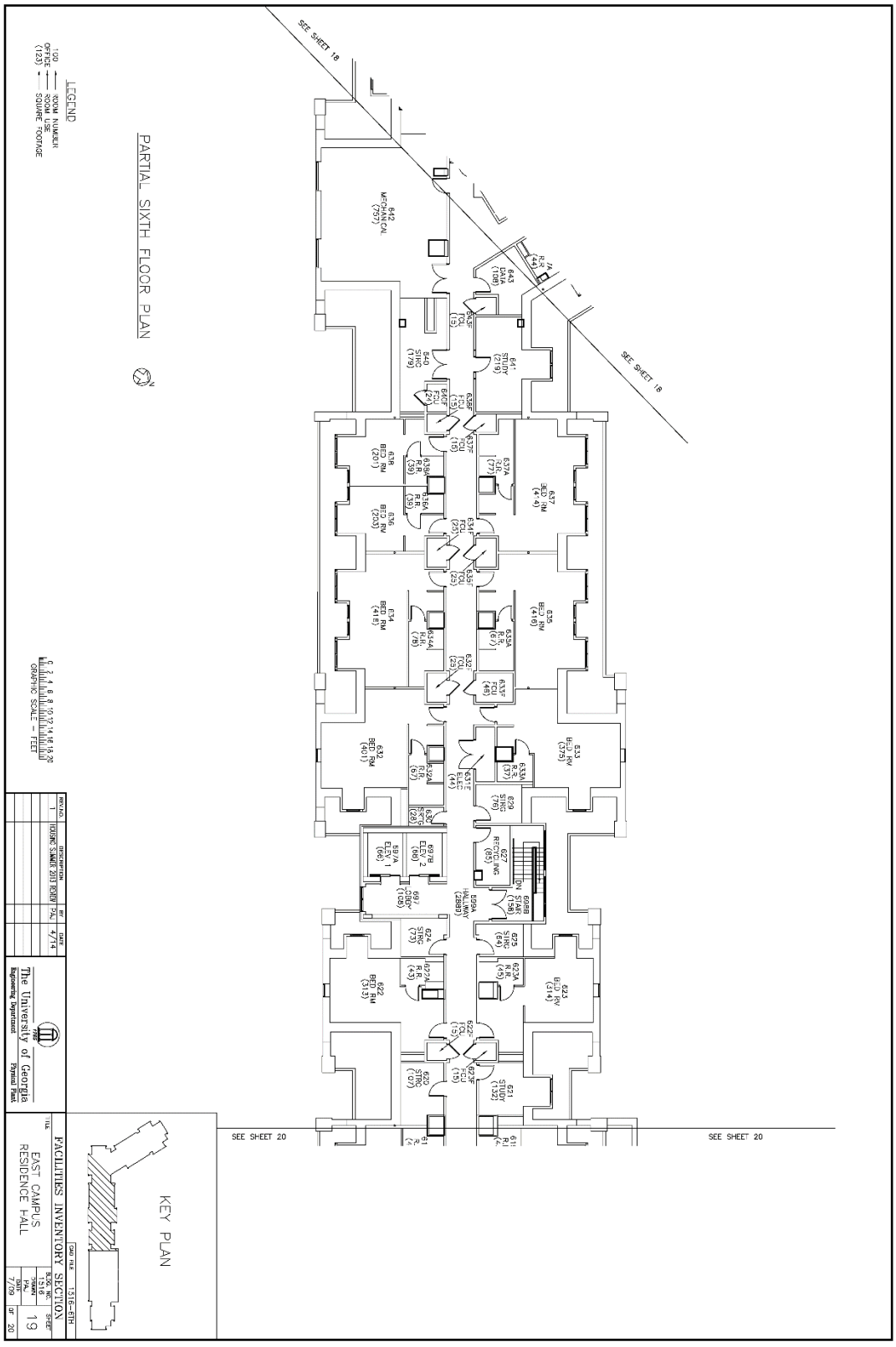
RESIDENCE HALL
The University of Georgia
SEE SHEET 19
SEE SHEET 19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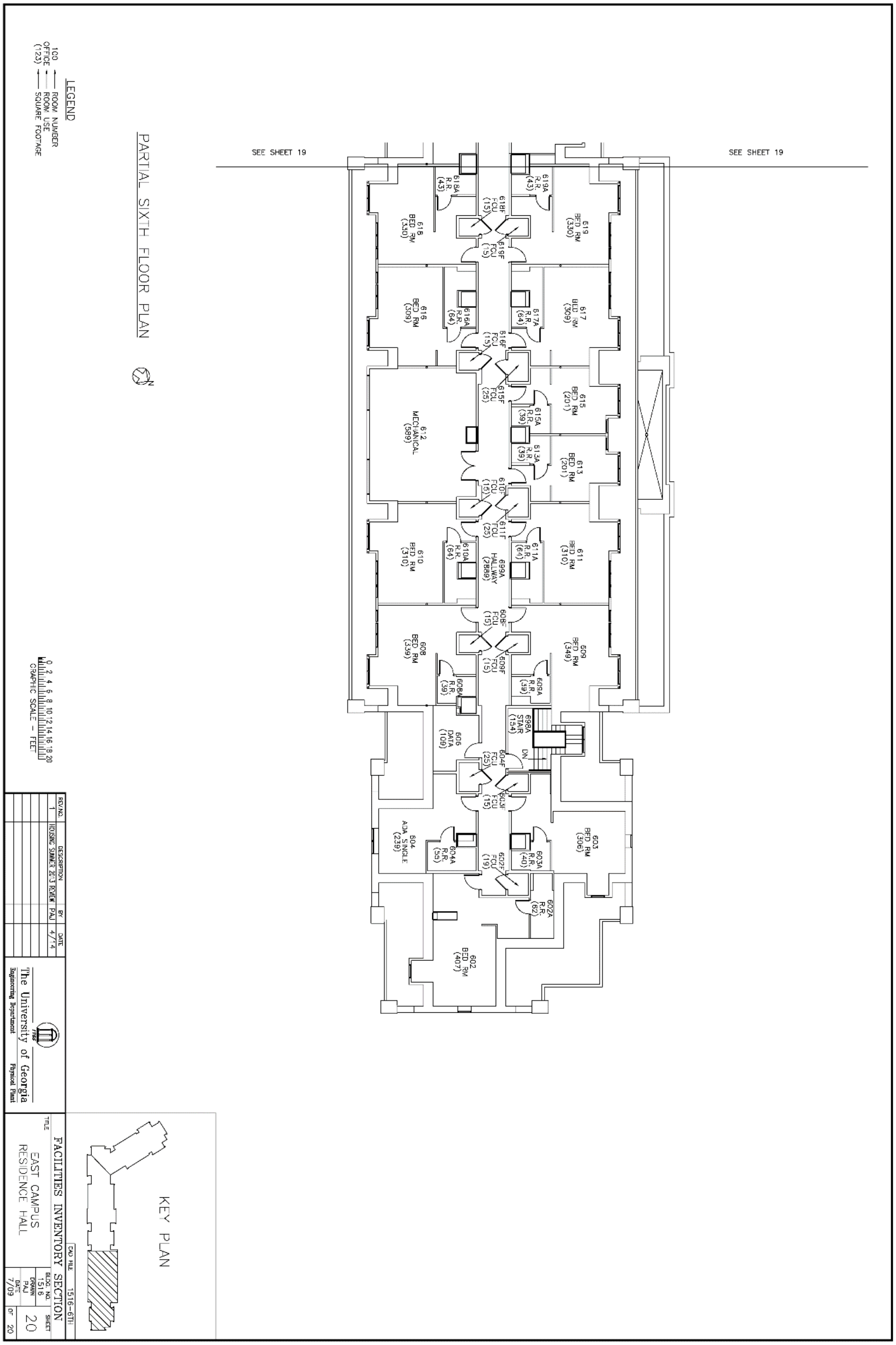
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Engineering Department
Physical Plant
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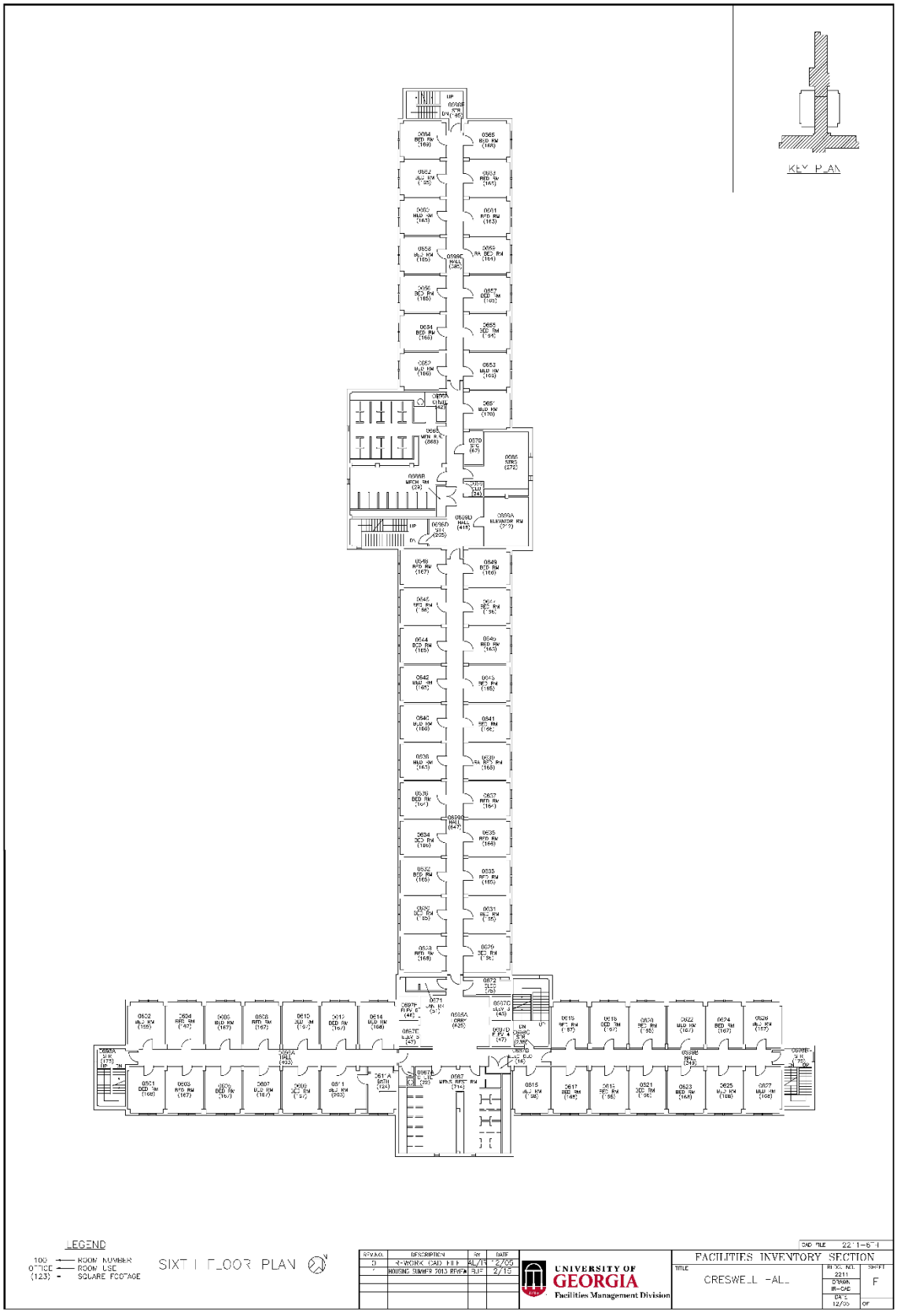
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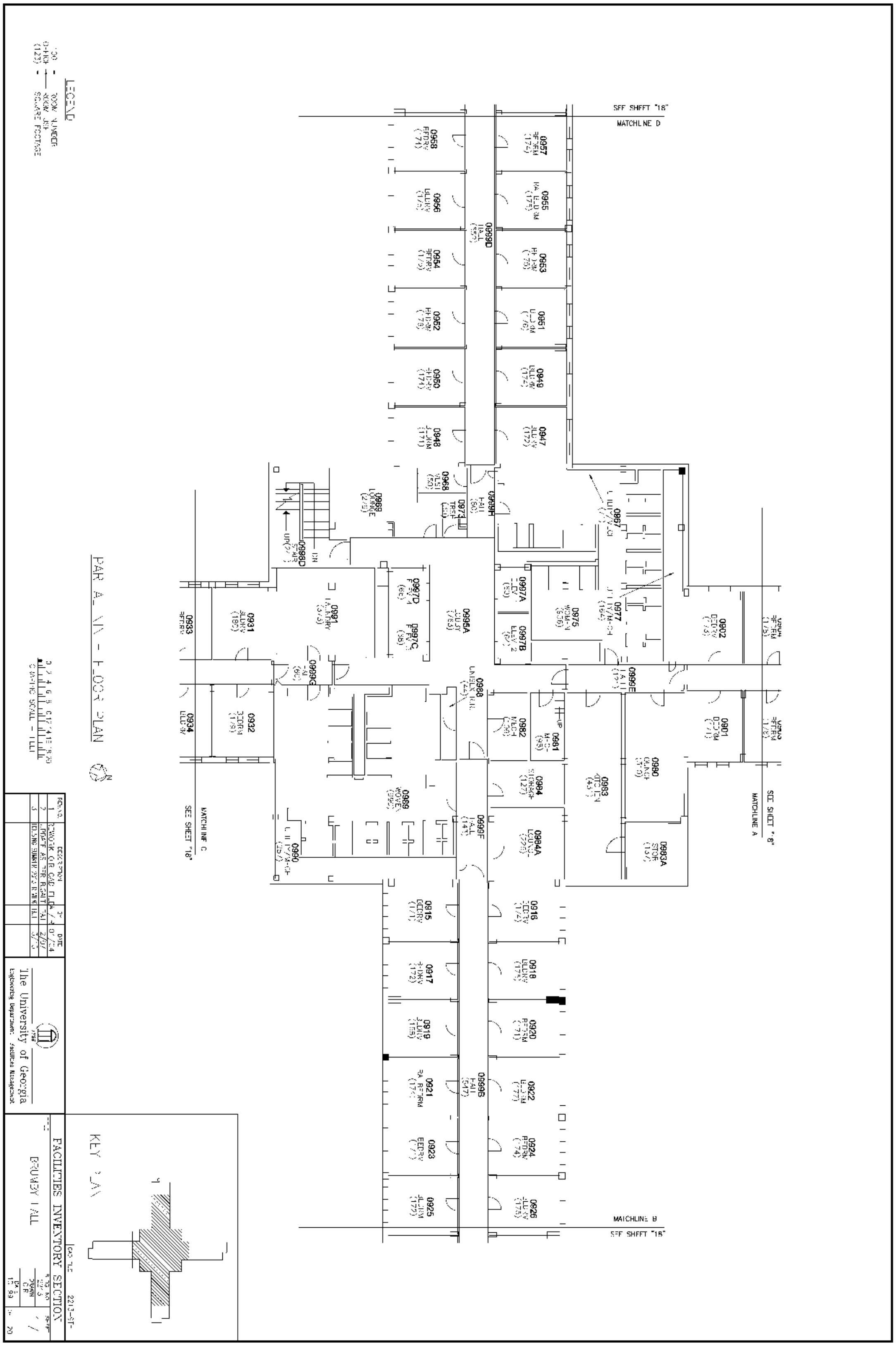
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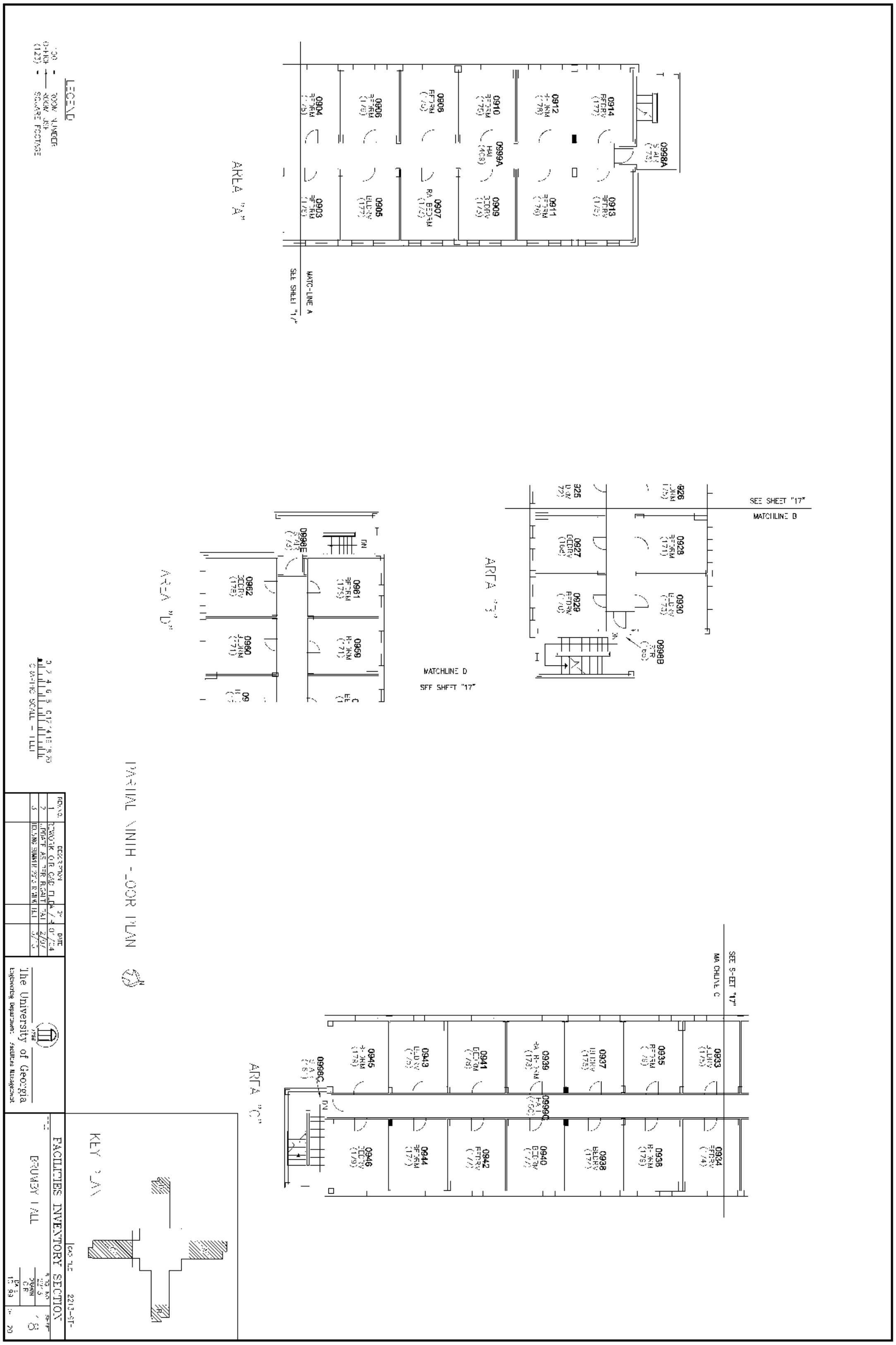
MATCHLINE D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The University of Georgia
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MATCHLINE D

Appendix B

Protocol for observations

The observation protocol was developed to promote consistency across the five facility focus areas.

1. The goal is to acquire research data that helps this study understand the influence of the built environment on the student experience.
2. The observations will inform the interview protocol and its line of questioning.

General Guidelines and Considerations:

1. For each focus area, scout at least 3 locations. When scouting, consider how different a place would look at different times of the day/week.
2. Obtain faculty/staff permission to observe before attempting to attend any class or event.
3. Do not enter any facility or area that is not open to the general campus population, unless permission is first obtained.
4. Select a date and time that yields the highest potential to observe interesting and relevant phenomena within the focus area.
5. Select a space inside the location that offers the most pathways for observable data. This could be a centralized location that captures several angles.

Relocation within the space is permitted if a central location is not appropriate or fails to produce the intended amount of data.

6. Remain a non-participant (passive) observer so as not to interrupt the organic movement or conditions that would otherwise interrupt the natural progression of events within the space.
7. Minimize engagement with occupants, but do not be rude.
8. There is no set time duration, however, observe for a minimum of 30 minutes if possible.
9. Record all observation sessions. Taking notes is preferred or recording notes whenever possible to avoid distracting the events and spaces being observed.
10. Note items such as capacity, wait times, lines, accommodations, environmental conditions (HVAC, lighting, etc.), physical conditions (carpet, paint, smell, age, etc.).
11. Ensure the observation meets expectations. Note any shortfalls or gaps that arise that may warrant additional observations. Scheduling follow up observations at other locations within the same facility focus area may be necessary.
12. Take photographs. Interior and exterior pictures should be taken. Do not be invasive or focus on individuals. Capture the broad characteristics and activity of the space rather than discreet events or specific people.

Specific Facility Guidelines and Considerations:

Residential

1. Obtain floor plans whenever possible to help plan the observation.
2. Contact University Housing prior to observation to avoid misunderstandings.
3. Obtain an escort for access to all areas other than common areas.
4. Do not enter occupied student living spaces.

Academic

1. Request permission from faculty members before entering any active classroom. This should be coordinated well in advance of any session being observed.
2. Ascertain if the population is undergraduate or graduate.
3. Note style of academic space: traditional, collaborative, etc.
4. Assess furniture layout and functionality. How do these impact the pedagogy?

Dining

1. How effective is the layout?
2. Cleanliness

Recreational

1. Inquire with Recreational Sports to determine maximum occupancy and peak usage times.
2. Obtain permission to conduct the observations in advance if you want to avoid paying entrance fees (if applicable to the facility).

Campus Layout:

1. Plan the route in advance.
2. Observe during class change.

3. The investigator rides in the passenger seat to avoid distracted driving and maximize note taking.
4. Think like a student. There is limited time between classes to navigate the campus so put yourself in their shoes when considering what is relevant and interesting.

Appendix C

Interview Protocol and Script for Semi-structured Interviews

**** Interview Protocol ****

Broad Areas:

Student experience with facilities and the built environment.

Student perception of facilities and the built environment.

**** Begin Script ****

You had previously expressed interest in participating in this research, which led to this interview. I want to verify that you still voluntary consent to the interview today.

This is a semi structured interview with open ended questions, this is conversational in nature so we may get off topic but I will bring it back when appropriate. The purpose of this interview is to explore how facilities and the built environment of a campus impacts students during their first year transition into higher education.

You can stop the interview at anytime

If there is a question that I ask you that you would prefer not to answer, just let me know

There are no correct or incorrect answers and I may be writing down information as we speak.

Are you ready to begin?

Please state your name.

What is your ethnicity?

What is your major?

In which residence hall do you live?

Educational background-

Where did you go to high school and describe the school? What were the facilities like?

How did they support/impede your academic goals?

*Compare and contrast the facilities at your high school versus those at your college?

Describe your selection process for college?

Describe your campus visits (if any, not just UGA)?

What factors influenced your decision to attend UGA?

*Did the campus layout, facilities, appearance, etc. impact your choice?

What is the first thing that comes to mind when I ask about the campus built environment?

What were the most useful facilities during your first semester? Think about the facilities or places that had an impact on you.

What was it about those facilities that supported your educational goals?

Describe any facilities or aspects of the physical campus that were substandard.

How did those substandard facilities impact your experience?

Did you feel safe on campus?

What about lighting at night?

Think about the physical space in your learning spaces and classrooms, how did environmental factors such as air conditioning, heating, and lighting impact you?

Tell me about the type of residence hall you live in?

Describe your on campus “commute”.

Describe your experience with the campus layout.

How did you feel about the distances between classes, recreation, dining, etc.

What frustrated you about the campus layout?

How did the campus layout impact your selection of classes? Your ability to get to consecutive classes on time? Your decision on where to reside?

What would you change about your college campus layout or facilities?

What was the biggest challenge in navigating the campus?

What was the furthest distance you had to travel from your residence hall to a class or from a class to a class? How did that impact you?

Do you anticipate living off campus next year? * What factors influenced your decision to move off campus?

Tell me about your dining experiences on campus? Were there dining facilities you used more than others? Why? How did that impact you?

What recreational facilities did you use?

How did those recreational facilities impact your experience? Made friends?

Encouraged healthy lifestyle?

Did you have a car on campus? If so, how did parking impact you?

What impact did grounds and landscaping have on you?

What did grounds and landscaping add or detract from your experience?

Did you have any interaction with facilities maintenance personnel?

How satisfied were you with maintenance/repairs to facilities?

How did campus construction and expansion impact you?

Do you feel a part of the campus community?

What facilities that supported your sense of belonging or community?

What characteristics of the built environment contributed to a sense of community?

What is your favorite space on campus and why?

How do you think that the campus built environment influenced your student experience?

*Wrap it Up!

Is there any additional information you would like to add?

Do you have any questions for me?

**** END SCRIPT