CONSULTING TEAM

STANTEC
Jim Chatas Principal in Charge
Patrick Callhoun Senior Planner
David Rose Senior Planner
Justin Weiber Project Manager
Craig Necci Designer
Lauren Van Der Akken Designer
Keelia Kentor Planner

ICON Architects
Todd Mitzel Principal in Charge
Lori Johnson Project Manager
Lee VanOrsdel Library Consultant

PARTICIPANTS

Significant contributions to this report have been made by members of the University’s administration, faculty, staff and student body. The brief list on this page mentions some of the contributors who have played an exceptional role in this process to date.

LIBRARY STEERING COMMITTEE
UNIVERSITY OF NORTH DAKOTA

Tom Di Lorenzo Provost
Stephanie Walker Dean of Libraries
Dave Chakraborty Assistant Vice President of Facilities
Shelby E. Harker Steering Committee
Sally Dockter Steering Committee
Lauretta Betting Steering Committee
Taylor Nelson Student Government Representative
Chris Wetch Project Manager, Facilities
Lori Swinney Director, CILT
Tim Prescott Math Department
Lisa Burger Student Academic Services
Marcia Mikkola Associate Professor, Steering Committee

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MESSAGE FROM THE DEAN OF LIBRARIES

VISION STATEMENT:
THE CHESTER FRITZ LIBRARY
RENOVATION FOR A 21ST CENTURY RESEARCH LIBRARY

The Chester Fritz Library (CFL) is the largest of the 7 University of North Dakota Libraries, and serves as the central research library for the majority of the campus. UND’s original landmark library building was dedicated on October 13, 1961; an addition was constructed and opened in 1981. The CFL has served as UND’s center for intellectual inquiry and discovery for 55 years.

Beginning in the mid-1990s, academic research libraries have changed dramatically, especially since the rise of electronic journals and books and the massive growth of web-based services. The current space is no longer optimal for meeting the needs of present-day students, faculty, and staff. This renovation is intended to redesign the space to allow it to be adaptable and flexible, to suit current and evolving needs.

While print books and works in other non-digital formats remain valuable, we need to find ways, such as use of compact shelving, to reduce the footprint of lesser-used collections and open the space to allow more collaborative work. As an example, our existing floor space is approximately 55% utilized for print collections; among our peers with new or recently renovated spaces, this number is closer to 25% or less. More space is available in these other libraries for people – for gathering, group study, quiet study, technology use, creative work, and other purposes; such space is lacking in the existing facility.

This renovation should be in keeping with, and further strengthen, the newly-revised Mission, Vision, and Values of the CFL.

MISSION
The Chester Fritz Library inspires learning, teaching, and research excellence by connecting communities, within and beyond the University, to the world’s knowledge.

VISION
The Chester Fritz Library is recognized as an open and accessible learning environment that continually innovates to advance research, scholarship, and information discovery.

VALUES
User-centered: Chester Fritz Library provides research services and scholarly content to meet current and future needs of its users
Inclusiveness: Chester Fritz Library provides a welcoming environment for all and promotes diversity within its collections, programs, and services
Innovation: Chester Fritz Library values risk-taking to meet the evolving needs of students and scholars
Collaboration: Chester Fritz Library partners with academic departments, other libraries, scholars, and others to create programs and support research
Integrity: Chester Fritz Library supports information discovery and knowledge creation with authenticity and high principles

It is useful to keep in mind UND’s Strategic Priorities, as laid out in Exceptional UND, and to consider how each of these might be exemplified in a renovated CFL:

ENRICH THE STUDENT EXPERIENCE
The students themselves have asked, loudly and clearly, for improved study space. They appreciate the many smaller spaces, such as Willerson Commons, but surveys have yielded a clear desire for a larger space, dedicated exclusively to academic work – and the students themselves have identified the need for a renovated CFL. A renovated CFL will enrich the overall student experience at UND.

ENCOURAGE GATHERING
Students have expressed a strong desire to gather and work in groups in the CFL, but have clearly stated that current facilities are in need of updates. They appreciate the social space of the Memorial Union and other spaces, but strongly desire a space to gather, in large and small groups, to work on their academic and creative projects. A renovated CFL will offer improved gathering spaces, for large and small group work, as well as spaces for quiet reflection once gathering time is done.

FACILITATE COLLABORATION
A redesigned CFL will encourage students to collaborate and work together on scholarly and creative endeavors. The building and its furnishings and technological accoutrements should all facilitate collaborative work.

EXPAND UND’S PRESENCE
A renovated CFL will expand UND’s presence in the community, and allow for greater collaboration with other institutions across the city, the state, and beyond.

ENHANCE QUALITY OF LIFE
A renovated CFL will enhance the quality of life for the students, faculty, and staff of UND, by providing an environment that will inspire learning, scholarly gathering, creative work, and community outreach. This collaboration will also encourage the community to come to campus and engage in our works, blending their input with ours to create new community-wide endeavors.
PROJECT GOALS

ENGAGE USERS BY PROVIDING WHAT THEY WANT
RETAIN USERS BY ENSURING ACCESS TO WHAT THEY NEED
DELIGHT USERS WITH OPPORTUNITIES TO DISCOVER THE UNEXPECTED

PROJECT GUIDING PRINCIPLES

BE THE ACADEMIC HEART OF CAMPUS
BALANCE THE NEEDS OF ALL USERS
IMPROVE ACCESS TO KNOWLEDGE SUPPORT
PROMOTE RESEARCH, FOCUS, COLLABORATION, CREATION AND DIALOG
NIMBLY SUPPORT CHANGING COLLECTIONS AND OPERATIONS
BLEND LEARNING AND SOCIAL
OPERATE EFFECTIVELY, EFFICIENTLY AND SUSTAINABLY
INTRODUCTION
Located at the heart of the University of North Dakota’s historic quad, the Chester Fritz Library (CFL) represents the heart of academic life on campus. Originally constructed in the early 1962, the facility was expanded in 1982, but has not undergone any extensive renovations since that time.

The Chester Fritz Library is in need of reinvention in order to improve its functionality, efficiency and relevance to learners and researchers for generations to come. Through the planning process, the investigation, research and user engagement provided the insight needed to develop an implementable plan for the future of the Chester Fritz Library.

A REIMAGINED CHESTER FRITZ LIBRARY WILL MEET THE CHANGING NEEDS OF USERS AND THE DEMANDS OF EVOLVING EDUCATIONAL AND PEDAGOGICAL PRACTICES.

EVOLVING LIBRARY TRENDS
As emerging technologies and changing pedagogies necessitate different learning modes, college and university libraries have begun trending toward reallocating their existing spaces from book storage to user-focused space for research, collaboration and extending learning beyond the classroom.

In keeping with that trend, UND has begun to look for opportunities to accommodate more user-focused spaces, support improved collection management and meet the needs of varied users. This study looks at evolving common standards for library space allocation and space use, as well as benchmarking data comparing UND with aspirational institutional peers in order to identify and quantify those opportunities.

Over the past 10 years, library space planning has evolved towards shifting the distribution of space types within libraries rather than increasing or decreasing the total square footage of the facility. This reallocation of space has been driven by how data and information is used and accessed and changing modes of learning and working.

These drivers necessitate spaces that are:
- Flexible – able to be utilized for a variety of activities
- Fluid – able to be adapted to a variety of uses with relative ease
- Dedicated – able to support specialized needs
- Accessible – able to be utilized by a wide group of users, community oriented

The result is an academic library that is less focused on collections storage and more on supporting varied user needs with spaces that:
- Emphasize user and collaboration space
- Minimize area allocated to book storage
- Provides partnership opportunities with other University learning partners
- Allow for new space types, such as multimedia and maker spaces
- Support a variety of modes for users to access support, services, information, resources and amenities

The graphic below illustrates this evolving space distribution. UND seeks to move towards this evolving space allocation in order to create library spaces supportive of their mission and goals.

WHO WAS CHESTER FRITZ?
An alum of UND, Chester Fritz attended the institution from 1908 to 1910. After leaving UND, Fritz became an international trader in precious metals, spending most of his life in China and Europe. Fritz bestowed many gifts to UND: he established an endowment for the professorships, financed construction of the institution’s auditorium, as well as both the 1961 original library and the later 1980’s library addition.

In 1961, in only his second visit back to UND in the 50 years since he had been a student, Fritz spoke at the dedication of the library: “It is an interesting experience to come back to the home pasture, and especially after long absences,” he said. But the occasion gave him “a peculiar kind of pleasure, the kind of pleasure that comes from knowing that a long-term debt is finally about to be paid off.” Giving UND a library, he said, was “partial repayment to the state of North Dakota for the training I received in its public school system.”

Chester Fritz died on July 28, 1983. He is buried in Memorial Park Cemetery in Grand Forks.
FRAMEWORK
PLAN PROCESS

PROCESS/SCHEDULE
- Gather background information: March 25
- Opinion survey: April
- Workshop #1: Stakeholder Input: April 28 - May 1
- Define vision/guiding principles: June
- Develop Departmental Program: June
- Develop Planning Scenarios: August-September
- Workshop #2 – Planning Charrette: December 8-11
- Refine preferred planning option: December-January
- Reviews and approvals: March
- Publish: April

DEFINING THE LIBRARY MASTER PLAN
Before data collection and analysis for the Library began, UND and Stantec worked to define the master plan process. The resulting plan must serve as:

- A framework to inform design
- A tool to support planning and funding
- A starting point for reimagining services, operations, support and collections.

STAKEHOLDER ENGAGEMENT
Engaging stakeholders as part of an open and inclusive planning process was a high priority for UND. In order to garner input from as many stakeholders as possible, Stantec conducted an online opinion survey in April of 2015 and two workshops: one stakeholder input workshop from April 28 - May 1 of 2015, and one planning charrette from December 8-11 in 2015. Input from these efforts informed the vision, goals and guiding principles for the master plan process.
CHAPTER 1 - FRAMEWORK

ONLINE OPINION SURVEY

An online opinion survey aimed at capturing user input regarding the existing Chester Fritz Library was administered in April 2015. Sent via email to UND students, faculty, staff and administration, the survey was managed by Stantec and gave stakeholders the chance to identify what works, what doesn’t work and what’s missing from the existing library facility. The survey was available online for one week and a total of 736 responses were received. A full summary is in the appendix.

PLANNING WORKSHOPS

In addition to the survey, stakeholders had the opportunity to participate in a series of workshops conducted from April 28 to May 1 in 2015. In addition to conducting public open forums, Stantec, in partnership with a library operations consultant, met with select focus groups and the steering committee to tour library facilities, identify issues, preferences and possibilities for the Library’s future, as well as to introduce new approaches to some of the issues and concerns surrounding the existing facility.

A second workshop was conducted from December 8 - 11, 2015. The goal of these meetings were to confirm and refine the approved planning concept, the implementation plan, the furniture prototyping plan, to preview the Engagement Center concept and to solidify user and workgroup communications and buy-in.

ASPIRATIONAL BENCHMARKS

In an effort to provide an apples-to-apples benchmark comparison of how the Chester Fritz Library stacks up against library facilities at other institutions, the UND Library Steering committee identified a number of university libraries that it considers aspirational peers: the Taylor Family Library at the University of Calgary, the Hunt Family Library at North Carolina State University and the Mary Idema Pew Library at Grand Valley State University. Stantec collected space allocation data from each of these institutions to create a comprehensive quantitative comparison with these facilities.

What works?

Librarians are excellent and always very helpful.

Open access to books is good. Though the collection needs significant improvement if we want to call CFL a research library.

The group study rooms, if you can get in one.

The “fish bowl”. It is a really cool space that makes me feel like I am at an Ivy League school.

When it is open 24 hours

Interlibrary loans, the staff, special collections.

The Fish Bowl

What doesn’t work?

The odd layout makes it difficult to access the library itself from the outside.

Study rooms are often occupied with just two people.

The welcome desk should be welcoming at the front door and not a level up, 200 feet away.

Students chat too much in the study areas.

There are no “social” or “loud” spaces.

The biggest problem is the entry.

Too few outlets

Lack of books. We rely way too heavily on Interlibrary Loan for a flagship research university.

Lack of a café, outdated furniture, etc.

Taylor Family Library
University of Calgary

Hunt Family Library
North Carolina State University

Mary Idema Pew Library
Grand Valley State University
ESTABLISHING THE VISION, GOALS AND GUIDING PRINCIPLES

Stantec worked closely with members of the Library steering committee to determine three key components of the framework phase of the UND Library Master Plan: establishing the Institution’s vision for the Library’s future, its goals for the planning process and its guiding principles for the overall master plan.

Based on the Library’s mission, the VISION represents the ideal representation of the values that will shape the Library’s future.

The GOALS outline key elements of the planning process that must be included in order for the plan to be considered a success.

The GUIDING PRINCIPLES for the library facility provide a framework for each of the individual projects that make up the overall plan. Each project defined in the Chester Fritz Library master plan was measured against the GOALS and GUIDING PRINCIPLES.

EXCEPTIONAL UND

Completed in 2012, the UND Strategic Plan, “Exceptional UND” lays out five strategic initiatives for advancing the institution. The goals and guiding principles of the Chester Fritz Library master plan align perfectly with these five “strategic priorities”:

- Enrich the Student Experience: Exceptional UND enriches the student experience by providing an environment that is challenging yet rewarding, and full of resources and opportunities to prepare the next generation of leaders.
- Encourage Gathering: By cultivating connections, improving facilities, and amplifying the student voice, we encourage gathering through initiatives such as Orientation and Welcome Weekend and visionary building projects at the School of Law, School of Medicine & Health Sciences, and Athletics.
- Facilitate Collaboration: Exceptional UND promotes innovative and productive collaboration among all sectors of the university community, from interdisciplinary academic programs to extracurricular activities, and supports close partnerships with state leaders to serve the public.
- Expand UND’s Presence: Exceptional UND promotes a vibrant relationship with the Grand Cities by partnering with community organizations, fostering creative endeavors, and extending academic programs.
- Enhance Quality of Life: Exceptional UND invests in its most important asset – our people. We promote life balance, provide opportunities for career and personal development, celebrate diversity, art and culture, and maintain an environment of openness and appreciation.

PROJECT VISION

Mission

The Chester Fritz Library inspires learning, teaching, and research excellence by connecting communities within and beyond the University, to the world’s knowledge.

Vision

The Chester Fritz Library is recognized as an open and accessible learning environment that continually innovates to advance research, scholarship, and information discovery.

Values

- User-centered: Chester Fritz Library provides research services and scholarly content to meet current and future needs of its users
- Inclusiveness: Chester Fritz Library provides a welcoming environment for all and promotes diversity within its collections, programs, and services
- Innovation: Chester Fritz Library values risk-taking to meet the evolving needs of students and scholars
- Collaboration: Chester Fritz Library partners with academic departments, other libraries, scholars, and other to create programs and support research
- Integrity: Chester Fritz Library supports information discovery and knowledge creation with authenticity and high principles

GOALS

- Engage users by providing what they want.
- Retain users by ensuring access to what they need.
- Delight users with opportunities to discover the unexpected.
FRAMEWORK
VISION, GOALS & GUIDING PRINCIPALS

GUIDING PRINCIPLES
Be the Academic Heart of Campus
• Clearly communicate this facility is first and foremost a place for learning.
• Provide resources, services and spaces that support all disciplines and encourage interdisciplinary activities.
• Through a robust collection, inspiring spaces for study and collaboration, engaging activities and relevant amenities, be the first choice for extending learning outside the classroom.
• Visibly strengthen the presence of the CFL on the quad, providing views to activities within as well as visual and physical connection to the outdoors.

Balance the Needs of All Users
• Prioritize space for users and academic activities while maintaining appropriate space for changing collections and support.
• Ensure appropriate environments are available for different audiences, separating high activity spaces from quiet spaces.
• Continue to incorporate representative input from all users - students, faculty, staff, operations, administration and community - in the design process.

Improve Access to Knowledge Support
• Lower the threshold for access to services for students, faculty and other users. Ensure services are identifiable, approachable and co-located to support a holistic approach.
• Improve access to, and wayfinding throughout, the building.

Promote Research, Focus, Collaboration, Creation and Dialog
• Provide a significant number and mix of study and collaboration spaces for different users and uses throughout the building.
• Provide spaces and resources for focused research - faculty, graduate and undergraduate.
• Ensure spaces for different use types are designed to clearly communicate the preferred activities and sufficiently separated to control noise.
• Coordinate programs and activities between the Chester Fritz Library and the Engagement Center.
• Provide a welcoming, comfortable, quiet reading room.
• Deliver ubiquitous access to technology, data and power.
• Provide access to cutting edge technologies for experimentation and project work.

Nimbly Support Changing Collections and Operations
• Ensure continued access to important collections, both physical and digital.
• Provide spaces to support the changing collection defined by the Library, with different densities of storage, different levels of access and appropriate environments for the varied materials.
• Design space for archival collections that will improve access, display, maintenance and restoration.

Blend Learning and Social
• Provide opportunities to gather, have dialog and study in different social environments, with food, drink and space for needed breaks.
• Encourage students to stay on campus through a blend of space, support, and amenities.
• Provide active learning environments capable of serving as both advanced library instruction space and meeting space.
• Be perceived as a place for learning with social amenities, not a student union with some books.

Operate Effectively, Efficiently and Sustainably
• Logically locate services and functions to improve effectiveness.
• Update building systems to increase energy efficiency, reduce operating expenses and improve the user environment.
• Be implemented with a focus on fiscal sustainability, both immediate and long term.
ENGAGEMENT CENTER STUDY
Over the course of the Library Master Plan Study, it became apparent that there is a need for a place dedicated to bringing scholars from all disciplines together for active collaboration, intense conversation and collegial creativity. UND is home to dozens of undergraduate and graduate programs, serving students from all over North Dakota, the Plains region, the nation and the world in fields ranging from Engineering to Nursing, Business to Aviation, English to Music. While these students have access to the expertise, space and tools needed to excel in their selected program of study, there is a need for a trans-disciplinary space that can allow for collaboration between fields, conversation among scholars and engagement for graduate and international students. Thus, the Engagement Center Study was born.

This donor-funded facility - recognizing that the challenges of the 21st century and beyond will be solved by multidisciplinary teams and thinkers from different backgrounds, working together effectively, communicating openly and drawing the connections between varied fields of study - will be a place where all of campus is invited to make connections outside their program of study.
CHAPTER 2 - DISCOVERY

OVERVIEW

INTRODUCTION
To bridge the gap between current conditions and the preferred future vision of the Chester Fritz Library and provide the information needed to support the decision making process and later design efforts, the planning team engaged in extensive discovery over several months. Each type of data required different methodologies to successfully collect and understand the existing conditions.

DISCOVERY NEEDS
Vital information collected and analyzed as part of the discovery process included the following:

- **Facility Condition**: Building envelope, heating and cooling systems, plumbing, electrical, technology, finishes and accessibility.
- **Site**: Buildability, utilities, climate, access, architectural context, views and landscape.
- **Internal Factors**: Library operations plans, collection management plans, funding plans, phasing requirements.
- **External Factors**: Government document requirements, Historic Commission, other UND planning and projects.
- **User Needs and Expectations**: Multiple user categories, quiet vs. active space, study needs, research needs, collections access, technology, social space and food.
- **Engagement Center**: A unique project bridging academic, social and collaborative activities from undergraduate to graduate students from all disciplines. This donor-funded facility lies between the library and student union both physically and conceptually.

DISCOVERY METHODOLOGY
The methodologies used to collect information and engage stakeholders included the following:

- **Facility Assessments**: Review of existing information, interviews with facilities operations staff, walkthroughs of the building, specialized assessment of CFL infrastructure.
- **Tours**: Walkthroughs of key spaces and related operations in the CFL and other related campus buildings.
- **Observations**: Viewing users and their reactions in the CFL and other study spaces, impromptu interviews.
- **Benchmarking**: Bringing current best-practice spaces and models for review and comment.
- **Surveys**: Online survey to reach a larger audience and validate observations and hypotheses.
- **Research**: Review of changing regulations, current trends, technologies and collections management.
- **Workshops**: Intensive sessions with small groups focused on both common needs and common solutions.
- **Town Hall Meetings**: Open, large group sessions, first to discuss goals and gather information, later to share planning concepts.
SITE FACTS

- UND founded in 1883
- Campus: 550 acres, 244 buildings
- 11,000 parking spaces
- Historic District: 127 acres, 56 contributing buildings

INTRODUCTION

Although the proposed changes to the Library are focused on the interior, the impact of the Engagement Center, coupled with the goal to improve access and wayfinding, requires a thorough analysis of the surrounding site.

OVERVIEW

Established in 1883 as a land grant university, UND is the oldest and largest university in North Dakota. The center of campus is located about 1.5 miles west of downtown Grand Forks, extending approximately 1.5 miles east to west. The English Coulee River runs through the center of campus, defining the western edge of the academic core and historic district.

CAMPUS CONTEXT

The Academic Core of campus is defined by traditional elements, including a central, easily identifiable location, a majority of historic and academic buildings, and a traditional campus quad. The Chester Fritz Library is located in the center north end of the Academic Core of campus – squarely centered in the historic district along University Avenue.

In 2009, the Academic Core, along with a portion of the campus north of University Avenue and east of the English Coulee, was registered as a historic district. Totaling approximately 127 acres, this district includes 86 buildings, 56 of which are significant to the designation. Both the Chester Fritz Library and the surrounding site are part of this district. The University is cognizant of this issue and has involved the local and state Historic Commissions in the planning process.
The quad can be divided into three zones in relation to the Library. The Near Zone is very open, with few trees and a significant east-west pedestrian traffic. It also contains the Soaring Eagle Prairie and sculpture. The Middle Zone, extending south the length of Merrifield Hall, is large and broken up by stands of mature trees, limiting views to the south. The Far Zone, fronting the original Carnegie Library, opens up again and has significantly less foot traffic given that there are few buildings to the south.

Although the CFL holds a prominent place at the north end of the campus quad, it has always had an odd relationship to the quad. The original 1962 building was only planned to be approached from the north, with only a loading dock facing the quad. The 1982 addition provided an entry from the quad, but did little to improve the “back of the building” appearance.
PEDESTRIAN ACCESS

The Library is ideally located for access from all other campus zones, but considered difficult to access, partly due to the main level being several feet above grade. The ceremonial entrance from the north tower was the only entrance until 1982, when it was modified to provide wheelchair access. The result is that both the north and newer south entries are not aligned with any other floors in the building, not connected to each other and not easy to navigate, creating confusion for visitors.

VEHICULAR ACCESS

Vehicular access to the library is from the east only, along Centennial Drive. Modifications to Centennial Drive and Second Avenue currently being researched need to take into account both pedestrian access as well as service vehicle access and very importantly, parking for community members and those who may have mobility issues.

When alternate sites for the Engagement Center were analyzed, only two locations for loading zones were identified as workable – to the west of the building and in the current area to the southeast.
ARCHITECTURAL CONTEXT

To support the guiding principle to be the academic heart of campus, the library should visibly strengthen the presence of the CFL on the quad – through relating to the existing context as well as providing views both in and out of the building. To ensure continuity, this analysis includes an understanding of the material palettes, scale, form and entries on the other buildings fronting the quad.
Navigating around layers of underground utilities is a given on almost any campus. Although there are no sites adjacent to the Library completely free of underground utilities, three zones were found to have limited potential for inference. The largest of these also has a buried foundation from a long-demolished building.

CLIMATE
The location of the building – both on campus as well as in North Dakota – presents unique challenges. Prevailing winds can be fierce and hammer the building from due north 11 months of the year. Protection from these winds is important on any exterior elements that are planned.

SOLAR
Solar exposure is not a significant problem currently due to the smaller windows facing east, south and west. Any proposed addition trying to improve views to the quad will create significantly more solar exposure, requiring thoughtful screening.
CHAPTER 2 - DISCOVERY

SITE SELECTION FOR THE ENGAGEMENT CENTER

The outcome of site selection analyses for additions clearly limits the potential locations for the Engagement Center to four locations, all with challenges and opportunities. The one with the least complication is to the southeast of the Library (Site “C”), although this requires site remediation for a buried foundation and will impact the Soaring Eagle Prairie.

PRAIRIE

The Soaring Eagle Prairie is a gift of time, art and hard work, reintroducing some of the prairie landscape to a campus that was originally prairie. Efforts by volunteers and the facilities department since 2000 have created a unique place of relaxation, learning and activity on the quad. Located immediately south of the Chester Fritz Library, the Soaring Eagle Prairie will need to be carefully considered and incorporated into the design, if impacted by the project.

HISTORIC PRAIRIE
INTRODUCTION

The Chester Fritz Library is the largest library in the state of North Dakota and the primary research facility for UND and the region. Supporting more than 225 fields of undergraduate study and over 100 graduate degree and certificate programs, the Chester Fritz Library provides services to approximately 15,000 students and more than 800 faculty members. It is centrally located on the UND campus at the heart of the historic quad. Collegiate Gothic in style and constructed in 1962, the library building is a campus landmark with an iconic 82-foot tower recognizable throughout campus. The facility was expanded in 1982 with an addition to the western facade, but has not undergone any extensive renovations since that time. The building is in need of modernization and spatial reallocation in order to meet the demands of current educational and pedagogical practices.
CHAPTER 2 - DISCOVERY

FACILITY OVERVIEW

FACILITY CONDITION ASSESSMENTS

To maximize allocated funds and minimize duplication of effort for proposed projects in the Library, deferred maintenance and systems replacement ideally should occur when spaces are renovated for programmatic reasons. To do so, it is imperative to understand the physical condition of the building and its systems. The planning team used a combination of interviews, analysis and tours of the building to determine a baseline for the Library.

As a first step in the process, the planning team met with Facilities Staff familiar with the systems in the building. The meetings provided an in depth understanding of the challenges of the aging systems in both the original building and the addition.

The planning team walked the building to validate the condition of the systems and review architectural and potential code compliance issues. Engineering teams also independently assessed the condition of the existing mechanical, plumbing and the electrical systems. Simultaneously, the University was performing a campus-wide assessment of all buildings to catalog deferred maintenance and needed capital improvements.

To ensure the master plan recommendations were fiscally grounded, cost models were developed for system replacements and capital improvements. The detailed mechanical and electrical systems studies performed as part of this project, including costs, are in the appendix. The campus-wide assessment report is available from the University.

FACILITY CONDITION ASSESSMENT FINDINGS:

For most systems, the Library is essentially two completely separated buildings: East, dating from 1962; and West, from 1982. Some systems have been updated in each building, but many original units and components remain.

The campus-wide assessment, completed in September, 2015, rated the library in “Fair Condition”, indicating that normal improvements for a building of this age are required – replacement of original systems that have exceeded their expected lifespan.

The rating for the library using the nationally recognized Facility Condition Needs Index benchmark is 0.34, meaning that the project 10-year facility renewal costs are 34% of the replacement value of the building. With a construction-only building replacement value of $45.1 million, the approximate value of all one-time and recurring system expenses is approximately $15.4 million.

The findings from the combination of studies, interviews and observations include:

BUILDING STRUCTURE:
- The structure is reported to be solid, with deterioration of steel in areas with enclosed cooling towers. East is a reinforced concrete structure with waffle slabs. West is the same, with increased reinforcing in the fourth floor archives and a steel roof deck.

BUILDING ENVELOPE:
- The exterior brick walls and stone coping are in good condition with only typical maintenance issues. While both buildings are insulated, the amount is minimal; improving this situation will be difficult, given the construction type and need for humidity control.
- Windows are original, in need of typical maintenance, inefficient and allow air infiltration; insulated windows show signs of fogging and should be replaced where needed. Most window units are operable; the University prefers non-operable units to maintain temperature and humidity control.
- Exterior doors are typically original and should be replaced during renovations.

INTERIORS:
- Doors are original and in need of updated hardware for accessibility.

Replacement is recommended during renovations to meet current rating and egress requirements.

- Finishes are older and many are past the end of life. Carpet in certain areas is worn and a potential trip hazard. Wall, floor and ceiling finishes should be replaced as part of any renovation.
- Stairs and railings are original and should be upgraded to the extent possible to comply with current codes.
- Elevators are original and due for replacement. The service elevator is unreliable.
DISCOVERY

FACILITY OVERVIEW

MECHANICAL SYSTEMS:
- Difficulties with air quality, thermal comfort, humidification, controllability, and ventilation were noted in several areas throughout the entire building.
- East: The original dual duct air handling unit was converted to a VAV unit in 2004 and rebuilt in 2012 with new coils and fans. Ductwork is original, but was retrofitted to support the VAV system. It can continue to serve, but should be replaced with a single duct system as the east building is renovated. The cooling tower needs to be replaced and should be considered for relocation to prevent future deterioration of the tower structure.
- East: Piping and pumps for the perimeter heating system, the water loop, and the steam loop are due for replacement. Water heaters are also due for replacement.
- East: The office area DX system is insufficient and due for replacement.
- East: The humidification system is nonfunctional and needs to be replaced.
- East: Controls are mostly pneumatic and should be upgraded to a modern DDC system as part of renovations.

- West: The building is served by a unitary heat pump system connected to a heat exchanger / cooling tower to maintain loop water temperature. Heat pumps were replaced in 2011. The cooling tower was replaced in 1998, is functioning but at the end of life, and should be replaced during renovation. West service and electrical equipment and panels are original, near the end of life and should be replaced during renovation. The assessment recommends a single service and main switch to meet current standards and improve safety.
- West: Piping and ductwork for the perimeter ceiling radiant panel heating system are reported in good condition; pumps are due for replacement. Water heaters are also due for replacement.
- West: The humidification system in the fourth floor vault needs to be replaced.

- West: Controls are a mix of older DDC and pneumatic and should be upgraded to a modern DDC system as part of renovations.

ELECTRICAL SYSTEMS:
- Both buildings are served by a single transformer, over 30 years old, damaged and due for replacement and potential relocation to accommodate the project.
- Each building has its own service fed from the transformer. East service was upgraded in 2011, but all downstream equipment and panels are obsolete and past end of life, and should be replaced during renovation. West service and electrical equipment and panels are original, near the end of life and should be replaced during renovation. The assessment recommends a single service and main switch to meet current standards and improve safety.
- A 63kW emergency generator provides power for lighting and one elevator. The generator is over 30 years old and undersized to meet current UND emergency power loads and should be replaced during renovation.
- Outlets are insufficient for current needs. Receptacles should be added as part of any work in the building.
- Lighting fixtures are typically upgraded to T8 fluorescent lamps, but the fixtures are original and due for replacement. Controls should be upgraded to motion and daylight sensors to reduce energy use. All lighting - interior, exterior and emergency should be upgraded during renovation to reduce energy use and maintenance costs.
- Communications infrastructure and equipment rooms should be upgraded during renovation to meet current UND standards.

LIFE SAFETY SYSTEMS:
- Neither building is sprinklered; both are on the capital improvement schedule for sprinklering. Only a limited standpipe system is installed in stairwells.
- Outside of obsolete panic hardware, no egress issues were observed; as a matter of fact, the layout of the two buildings has resulted in more than a sufficient number of egress stairs, beneficial for renovations.
- Fire alarms were upgraded in 2007 and are in good condition. The system should be upgraded to provide improved message notification as part of renovations.

UTILITIES:
- Steam mains were recently replaced. A single electrical service is provided along the south edge of the building, fed from the west. Most utilities enter the building in the southwest corner.

PLUMBING SYSTEMS:
- Piping and most fixtures are original in both buildings and due for replacement. Waste lines are reported as deteriorating. Most toilet rooms are original and not ADA accessible.
CHAPTER 2 - DISCOVERY

FACILITY OVERVIEW

FACILITY TOURS
When touring the Library to understand the condition of the building structure, systems, envelope and finishes, the planning team took both guided and unguided tours of the building to better understand the operations, acoustics, aesthetics, user preferences, challenges and opportunities in the existing space.

The planning team also toured other buildings on campus to understand the operations of potential academic support partners, space challenges, student habits and preferences, as well as how similar challenges are being addressed.

FACILITY TOUR FINDINGS
The following is a short list of the findings from the building tours:

- **Wayfinding:** While complicated in many older buildings, wayfinding in the Library is particularly challenging. The entries are not on level with any other floors, and the access to the second level is confusing. Multiple people commented that it is easy to get lost in the building and difficult to services or find the way out. Any renovations should strive to simplify wayfinding and improve navigation.

- **Aesthetics:** Both buildings generally appear as they did when new, with little change to appearance. Finishes are dated, lighting causes glare and furniture is inflexible and heavy. Surveys confirmed this with comments from alumni that the library hadn’t changed since they were students.

- **Workflow:** Offices and service desks are generally laid out as they were in the 1980s, not supportive of changing workflows and operations in modern academic libraries. Workflow is compromised by back office layout and a loading dock that is midway between the first and second floor.
• Acoustics: Throughout the library, hard surfaces, large reading and study rooms, and wall construction complicate sound control, making noise separation challenging. The result is that users have to be very quiet to avoid disturbing others, leaving the entire library a very quiet place where collaborative work is difficult to accomplish.

• Tours of other facilities included older and recently updated spaces in Memorial Union, Merrifield Hall, McCannel Hall, Wilkerson Hall, and O’Kelly Hall. Recently updated areas and furniture in the lower level of the Memorial Union and Wilkerson Hall are proving popular for students looking for a place to study alone, work together, meet, use technology, and have access to amenities. Access to ample writable surfaces, large displays, power, easily reconfigured furniture, and comfortable work areas encourage use by providing options not available in traditional library settings. These ideas were noted as desirable in some fashion for both the Chester Fritz Library and the new Engagement Center.
EXISTING SPACE ALLOCATION

Typical of 19th and 20th century libraries, a majority of space in the Chester Fritz Library is dedicated to the storage of books and other materials. Approximately 55% of the available floor area is occupied by stacks, many of which contain materials that are outdated or available online.

General seating, including lounge seating, individual carrels, group tables and study rooms, accounts for just over 15% of the total floor area. There is little public gathering space outside of entry corridors. Instructional space is limited to a single, undersized classroom and meeting rooms not typically used for classroom function. Recent reconfigurations on level two have begun to provide more area for seating, which has proven successful.

<table>
<thead>
<tr>
<th>Space Type</th>
<th>CFL Existing</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collections</td>
<td>59,500</td>
<td>55%</td>
</tr>
<tr>
<td>General Seating</td>
<td>16,400</td>
<td>15%</td>
</tr>
<tr>
<td>Public Space</td>
<td>3,600</td>
<td>3%</td>
</tr>
<tr>
<td>Instructional</td>
<td>2,680</td>
<td>2%</td>
</tr>
<tr>
<td>Study</td>
<td>6,050</td>
<td>6%</td>
</tr>
<tr>
<td>Tutoring/Support/Success</td>
<td>1,090</td>
<td>1%</td>
</tr>
<tr>
<td>Library Admin. &amp; Staff</td>
<td>16,200</td>
<td>15%</td>
</tr>
<tr>
<td>Support (Storage)</td>
<td>3,030</td>
<td>3%</td>
</tr>
<tr>
<td>Total Net Available</td>
<td>108,550</td>
<td>100%</td>
</tr>
</tbody>
</table>
Benchmarking libraries at peer institutions with aspirational programs provides valuable information regarding new service models, technologies, aesthetics, and most importantly, space allocations. Understanding state-of-the-art facilities will help UND modify its existing space to best serve the needs of changing users.

The UND Library Steering Committee identified a number of academic libraries it considers its aspirational peers. Three were selected for benchmarking: the Taylor Family Library at the University of Calgary, the Hunt Family Library at North Carolina State University and the Mary Idema Pew Library at Grand Valley State University.

Staff from the Library have toured some of these and other facilities to get a firsthand understanding of what is working, what isn’t and what can be successfully implemented at UND. Stantec analyzed space allocation data from each of these institutions to provide a benchmark comparison of how UND’s space use stacks up against the leading edge facilities in North America.

The Library’s current space configuration is vastly different from those of its aspirational peers. Most noticeably, the CFL has 56% of its assignable square footage dedicated to collections, compared to the 18% average of the benchmark facilities. Conversely, general seating and public spaces at the benchmark facilities averages 36% of total space, where the CFL provides only 15%.

Although the CFL – like most 20th century libraries - is inherently a flexible, open building, the new benchmark facilities have the benefit of being designed around a very different balance of space. Due to the limitations of the existing CFL, Stantec has recommended target space ratios that will significantly change the space, but in a way that is attainable.
CHAPTER 2 - DISCOVERY

BENCHMARKING

Hunt Family Library
North Carolina State University

Taylor Family Library
University of Calgary

Chester Fritz Library
University of North Dakota

Mary Idema Pew Library
Grand Valley State University

Collections
General Seating
Public Space
Instructional
Study
Tutoring/Student Success
Staff
INTRODUCTION

Because the university library plays such an important role at a research institution, and because there are many long-held beliefs about what a library is, engaging stakeholders as part of an open and inclusive planning process was a high priority for UND. In order to garner input from as many stakeholders as possible, Stantec approached engagement from several angles, including an online survey, user group workshops, planning review workshops and four open-invitation town hall meetings, extending from April to December 2015. Input from these efforts provided invaluable insights into the needs of different user groups and informed the definition of the vision, goals and guiding principles for the future Chester Fritz Library.

ONLINE OPINION SURVEY

To collect input from as many stakeholders as possible, an online survey was distributed to the entire University community – students, faculty, staff and administration. Users were asked to provide information about their library use habits, preferred study spaces, needs and opinion of the existing library. Multiple choice questions allowed users to rate spaces and experiences, and essay questions allowed people to expand on what works, what doesn’t and what is needed.

Over 730 responses were collected, analyzed and summarized to share with the Steering Committee and other stakeholders as part of the planning workshops. Respondents identified a variety of issues with the existing facility, including lack of technology, poor wayfinding, need for academic support, a need for more and varied study spaces, out-of-date collections and food. While opinions and needs varied greatly, several common themes emerged, as indicated in the summary responses listed to the right.

The full survey report is available from the Library on request.

This is important:

- **98%** Quiet study areas
- **90%** Schedulable group spaces
- **85%** Non-scheduled group spaces
- **85%** Connection to nature
- **82%** Access to open computers
- **70%** Academic success support
- **65%** Food service
- **62%** Social space
- **40%** Convenient access to gov docs

The CFL works well for:

- Studying alone **65%**
- Group work **35%**
- Socializing **20%**

Library facilities:

- **85%** Food
- **35%** Upgraded study spaces
- **65%** Seating
- **65%** Food service
- **65%** Social space
- **65%** Bistro
- **65%** Food
- **65%** Coffee

What works?

- Librarians are excellent and always very helpful.
- Open access to books is good, though the collection needs significant improvement if we want to call CFL a research library.
- The group study rooms, if you can get in one.
- The “fish bowl”. It's a really cool space that makes me feel like I am at an Ivy League school.
- When it is open 24 hours
- Interlibrary loans, the staff, special collections.

What doesn’t work?

- Study rooms are often occupied with just two people.
- Too few outlets
- Lack of a café, outdated furniture, etc.
- The odd layout makes it difficult to access the library from the outside.
- The welcome desk should be welcoming, at the front door and not a level up, 200 feet away.
- Students chat too much in the study areas.
- There are no “social” or “loud” spaces.
- Lack of books. We rely way too heavily on Interlibrary Loan for a flagship research university.
- The biggest problem is the entry.
- Food and updated furniture
- Lack of books
- Outdated furniture

What’s missing?

- **Food and coffee**
- Food
- A Stanford D-school.
- An Academic Success Center.
- Updated collections and plenty of spaces for individual and group study
- Food and updated furniture
- Outlets. Once again, outlets.
- A computer help desk
- A Café

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DISCOVERY
USER ENGAGEMENT

PLANNING WORKSHOP AND TOWN HALL MEETINGS
The first series of workshops, focused on information collection, was conducted in late April, 2015. Over the course of one week, Stantec, in partnership with a library operations consultant, met with representative focus groups and the steering committee to listen to existing issues and concerns, prioritize needs, share best-practice ideas and review the state-of-the-art in academic libraries and learning commons.

Workshops consisted of:
• Exercises to define goals, guiding principles, service types, user types and learning support partner opportunities.
• Reviews of survey data, existing and preferred space typologies, and best practice facilities.
• Open discussions of desired experiences, collections issues, funding concerns and the varied needs of undergraduate and graduate students, faculty, library staff and others.
• Tours with facilities and library staff to understand building condition, library operations and space needs.

User Groups included:
• Steering Committee
• University facilities operations staff
• Students – undergraduate and graduate
• Potential Knowledge Partners – writing center, tutoring, academic support, etc.
• Library staff and leadership
• Faculty – humanities, math, arts and sciences

Two town hall meetings were held during the week to ensure any interested parties had an opportunity to hear about the project, understand the goals and share their thoughts. Typical of projects where significant changes to long-held traditions are being proposed, these were lively sessions. Participants expressed both excitement and concern regarding changes in the collections, level of activity and types of engagement being proposed for the Library. Attendance by a reported from the Grand Forks Herald ensured the larger community was made aware of the important discussions taking place regarding the CFL.

PLANNING CHARRETTE AND TOWN HALL MEETINGS
After development and refinement of planning concepts with the Steering Committee and library leadership, a second series of workshops was held to allow stakeholders an opportunity to review, comment on and validate proposed ideas. These groups were focused on specific operations, functions and spaces, rather than user groups.

Workshops consisted of:
• Review of planning progress and space organization, including integration with the site and the proposed Engagement Center addition.
• Discussion of impacted infrastructure, users, collections, spaces, workflows and operations.
• Confirmation of academic support partners, including support for students and faculty.
• Preliminary implementation plans, including temporary relocation of staff and collections.
• Review of archive collections, conservation goals and preferred high-density storage.
• Development of furniture prototyping ideas to test new concepts, spaces and services prior to building design.
DISCOVERY
USER ENGAGEMENT

Focus Groups included:
• Steering Committee
• Collections – print and digital, including general, government document and reference
• Knowledge Partners
• Special Collections – archives and conservation
• Scholar’s Area – faculty and graduate students
• Furniture prototyping
• Library Staff
• Service Model – ILL, technical services, reference, circulation, IT, etc.
• Facilities and infrastructure
• Town Hall Meetings – two additional opportunities for large group review and comment

OUTCOMES
Significant amounts of data, information and insights were collected, discussed and used to inform the planning process, from development of the Guiding Principles, to the allocation of space for users to the organization of spaces to make the Library intuitive to use for all. Some of the key outcomes included:

User Types Definition
• Definition of user types and subsets, each with common and unique needs, schedules and expectations
• Student – undergraduate, graduate, resident, off-campus, parent with child, successful, struggling, online, etc.
• Community Member – genealogist, senior, individual, group, etc.
• Researcher – faculty, student, corporate, academic, etc.
• Library Staff – front of house, back of house, technical, service, reference, etc.

Importance of research needs
• Varied access to collections – work with faculty to determine what should be readily accessible and what can be stored in high-density stacks.
• Space for research – quiet, comfortable, away from active areas, with access to support.

Collections and funding issues
• The library will be successful as a research institution only if the space improvements are accompanied by improvements in collections management and funding for resources.

Must haves
• Navigation – make it easy to enter the CFL and find what you need.
• Classrooms/meeting rooms – provide more space for academic and community use.
• Group study rooms – there can never be enough of these spaces.
• Ability to offer extended hours, even 24/7 for parts of the building.
• Future flexibility – ability to easily test new ideas, involve new partners and rapidly adapt space as needs change.
• Infrastructure – address aging building systems, power, data, thermal comfort, air quality, lighting, acoustics, etc.
• Amenities – provide appropriate spaces, food and opportunities to combine social and learning to encourage use – without duplicating the student union.
• Simplify interaction – focus on user expectations for service, reducing the number of service desks, making help easy to find and offering service in new ways.
• User adaptable spaces – movable furniture, whiteboards, study rooms, ample technology to allow users to make the space work for them regardless of how they want to work.

• Bring knowledge support partners into the CFL – services only, offices will remain elsewhere.

Common themes
• Spaces for all – spaces and support should be available and appropriate for all users – not just students, not just faculty.
• Generate interest in learning and the University – with future, current and past students.
• Metrics – test new ideas, track results, measure successes, adapt as needed.
• Separation of activities – ensure that spaces for different activities with different noise levels are separated and easily identified.
• Parking and accessibility is an issue.
• Connecting with the community – ensure the library is inviting and easy for community members to use, whether parent, K-12 student, or senior citizen.
• Collections – develop a thoughtful collections storage, management and reduction plan.
• Be very careful to not make the CFL a “union with books” – this needs to be clearly a Library.
INTRODUCTION
A successful Library requires alignment between the facility, operations and collections. While developing the service plan prior to the facility plan is ideal, this is often not possible. At UND, this planning exercise is leading the efforts of the CFL leadership in analyzing how to best support users changing needs. A certain level of flexibility is planned to allow testing of new approaches as part of upcoming detailed design and to allow changes over time.

CURRENT ISSUES
Currently, the CFL operates under a very traditional service plan. Although faculty and others frequently state that they receive excellent service from CFL staff, the Library staff’s ability to provide high level service is not enhanced by the existing service layout and organization.

Access Services: Upon entry into the Library, the first thing seen is Access Services, which provides circulation/returns/fine payments, ILL drop-off/pick-up, and numerous other services. The desk is somewhat intimidating, and the space for staff in which to work is quite poor, cramped, and ill-designed. The desk’s height makes it difficult for staff to see waiting patrons and vice-versa, particularly if they are absorbed in another task.

Reference Services: In addition to Access Services, immediately on entry, one sees the Reference desk straight ahead. The station lacks aesthetic appeal and is surrounded by mismatched surplus bookshelves. Signage has been added in an attempt to make the space more inviting, with limited results.

Technology Support: There is a need for a technology help desk. The existing station is furnished with a worn, ill-suited high-top desk, which lacks the proper ergonomic alignment for a computer station and is not welcoming to users.

Library Staff Workspace: Reference offices, technical services offices and ILL are poorly located, housed at the periphery of the building, segregating them from the central activity of the Library. These spaces have not been comprehensively redesigned or renovated since 1981, making them outdated and poorly suited for current library functions.

SERVICE GUIDING PRINCIPLES
The following are guiding principles developed during the Framework phase of the master plan that speak specifically to library service and operations:

- Prioritize space for users and academic activities while maintaining appropriate space for changing collections and support.
- Make the CFL the clear first stop for student academic support, including tutoring, writing, presentation, research, multimedia and digital new media.
- Knowledge support partner space will be nimble, approachable and focused on providing direct service. Back-of-house space for knowledge partner staff will remain elsewhere, with the CFL providing minimal perch and support space.
- Visibly communicate the role of librarians as collaborative partners in knowledge acquisition and creation, with well-equipped spaces for providing reference consultation.
- Lower the threshold for access to services for students, faculty and other users. Ensure services are identifiable, approachable and collocated to support a holistic approach.
- Improve access to, and wayfinding throughout, the building.
- Logically locate services and functions to improve effectiveness.

PREFERRED SERVICE PLAN OFFERINGS
While details remain to be worked out, the CFL leadership has developed a list of services offerings and ideal service models to be introduced, tested and modified as time and funds permit:

Reference/Technology Support: A combined reference/technology desk, where 2 or more staff may sit to offer service. The station would be a clearly demarcated and staffed by highly trained students and reference librarians.

Peer Support: Highly trained students will offer basic Access and Information Services with the ability to call upon librarians for detailed research assistance and advanced support. An estimated 50% of questions received at the Information Services desk involve ‘easy’ queries, such as a simple title look-up, event information or equipment location, minimizing the need for this station to be staffed by a librarian full-time. Additional funds will be needed to provide the student staff needed to implement this service model.

Knowledge Partners: A ‘shared’ service model, whereby tutors from the Writing Center or Instructional Designers from CILT would be available at specific hours. Access to the services would begin on the main floor, but could be provided throughout the building in shared spaces depending on need.

Testing Center: There is no specific need for the existing Testing Center to remain in the Library. The Testing Center space could be re-purposed for any of a number of other research or study-related purposes – for example, a One Button Studio, Group Study Space, Group Digital Work Space, Instructional Space, etc.

Library Staff Workspace: CFL leadership has reconfigured the organizational chart of the Library considerably, necessitating a redesign of existing office space. Most notably, Technical Services and Systems will require considerable updating, and ILL will need to be relocated closer to Collections.
TRENDS IN SERVICES

• As libraries take on roles beyond that of the traditional “book box”, users have higher expectations of the services available at these facilities. As a result, many libraries are employing a variety of services models, often adapted from those utilized in other industries:

• One-on-one consultation: The proliferation of self-service online stations enables users to do more transactions independently. In this situation, in-person service is focused and more in-depth, with staff assisting users as they navigate through online platforms.

• Roaming assistance: Staff is available at the time and in the location where users are most likely to need assistance, such as finding a particular title in the collections or assisting with technological issues at a service station.

• Centralized service center: A one-stop location where multiple services can be accessed at once, reducing the need for referrals and creating a more fluid user experience.

• Remote self-service: Users can meet needs by employing online tools and applications, regardless of their location.
**CHESTER FRITZ CURRENT COLLECTION**
- Largest library in North Dakota
- As of 2015, owned 1.6 million volumes
- Provides access to approximately 28,000 online journal subscriptions
- Owns over 20,000 electronic books
- Serves as a US patent and trademark and federal government document depository
- Special Collections department collecting documents related to regional history and genealogical resources
- Three other UND branch libraries (energy and environmental research, geology and music) are associated with the Chester Fritz facility

**EXISTING SHELVING**
Approximate linear feet of shelving, including archives

<table>
<thead>
<tr>
<th>Level</th>
<th>Linear Feet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 1</td>
<td>32,100</td>
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<tr>
<td>Level 2</td>
<td>13,300</td>
</tr>
<tr>
<td>Level 3</td>
<td>38,800</td>
</tr>
<tr>
<td>Level 4</td>
<td>21,800</td>
</tr>
<tr>
<td>Total</td>
<td>106,000</td>
</tr>
</tbody>
</table>

That’s approximately 20 miles of shelving (a line of books stretching from the library to Arvilla, ND) on over 61,000 square feet of floor space (the size of a football field)

Assuming a density of 9 volumes per LF, that’s a capacity of 954,000 volumes

**INTRODUCTION**
As with the service and operations plan, the library leadership at UND is currently evaluating the collections and funding in order to develop a collections management plan. The facility master plan concepts will provide adequate area for current collections, including space for high-density shelving to allow for increase in user seating space. The Library has provided the following as part of their ongoing collections study:

**CURRENT ISSUES**
Currently, the CFL operates under a somewhat dated collections model – one which we are in the process of updating and upgrading. We have, like all academic libraries, moved toward purchasing many more e-journal and database packages, and toward such formats as streaming video/media. Consequently, we’ve seen far fewer funds devoted to print-based resources and other traditional media, such as microfilm/fiche/cards, DVDs, and more. By and large, this hasn’t been severely problematic. Many faculty do strongly wish we had a larger book budget, but many more have made requests for additional databases, research datasets, streaming media services, and other resources in various non-print formats.

The Chester Fritz Library recognizes that there are strong needs in multiple areas. In some disciplines, more funds are indeed needed for monographs; in most, there is a need for stronger collections in newer formats. The ‘collections formula’ under which we operate allocates funds to specific departments depending on a variety of factors: size of programs, graduate vs. undergraduate programs, etc. However, this formula has not been updated since the 1970s. This is not uncommon; however, it is unacceptable. Much has changed at UND since the 1970s. The Head of Collections, Randy Pederson, now sits ex officio on the Curriculum Committee, to hear about programs and courses as they are being developed. As well, the Reference Department recently had each librarian review a recent research article on changing collection formulae. We will be developing a new formula over the next year.

Meanwhile, we’ve had a frozen budget since 2008, with regular ‘one time’ infusions of funds from the Provost’s Office, of $300,000 or more annually. This has left the CFL vulnerable, especially during difficult budget times, when ‘one time’ funds may not be available. During one particular year, the CFL was obliged to empty its unrestricted donor funds to avoid major cancellations. We also face the issue common to academic libraries, of regularly rising prices: the American Library Association estimates that database prices increase 6-8% annually. No library has a budget that increases at this rate.

UND is striving to become a Tier 1 Research Institution. The CFL believes we’re a key part of this; faculty seeking research grants require strong library resources and multiple new services, such as support for research data management, digital humanities, and more. However, it should be noted that the lowest budgeted ARL library has a collections budget more than twice UND’s current collections budget. UND is working on multiple strategies to cut costs, and redesign some services/units, while simultaneously increasing revenue and the budget, with grant writing, fundraising, and multiple other strategies.

A full-scale ‘collections plan’ will involve major updates to the ways in which we determine what we purchase or subscribe to, how we allocate our budgets, what partnerships we seek to develop, how we stay up-to-date in the fields in which we teach and do research, and how we build revenue to assist with supporting our own budget needs. However, in the meantime, we also must determine what must be done with existing collections, in the renovated building.
CHAPTER 2 - DISCOVERY

PREFERRED COLLECTIONS PLAN

The Library leadership provided a preferred direction for collections management, including known challenges:

We will continue to utilize the relatively newly-received report from Sustainable Collection Services to make data-driven collections decisions. We will continue to carefully make de-accessioning decisions based upon multiple factors, including usage, appropriateness to UND teaching/research/learning, local/regional importance, availability elsewhere in the region or from ILL partners, and the like. We will utilize ALA/ACRL standards. We plan to reduce the floor space for collections over 55% to approximately 25%, with a desire ultimately to further reduce to the more standard level of 18-20%.

On Level 1, we will have a large proportion of compact shelving. This will house government documents and lower usage collections. We are unsure at present whether this should be all staff-access only or partially open, our inclination, for purposes of allowing the most possible storage, is to make it staff-access only, but this has staffing implications. However, if we anticipate well, the staffing implications should be relatively small. To provide rapid access, we will ensure that we always have at least 2 staff members on duty at all hours, usually via Access Services. During daytime hours, there are generally at least 4-6 people on duty in Access Services, including student staff. At night, there will always be 2, usually more. One person will thus be able to go immediately to retrieve materials at all times. We would not anticipate any wait times of over 10-15 minutes, barring lost materials. Most retrievals would likely be faster.

Regardless, on Level 1, we definitely will require at least a fairly large proportion of lockable compact shelving areas for archival collections. As we would strongly like to be able to house some archival collections on this level, as Archives & Special Collections is the greatest physical ‘growth area’ in most academic libraries, and UND is no different. If we go entirely with secured, staff-access-only compact shelving, this also gives us flexibility in terms of how much area is ultimately dedicated to what types of materials.

On level 2, which is anticipated to be the busiest/noisiest floor, we will have a very small Reference collection. Currently, we have been reducing this to a footprint of 50% of its current size, by moving some materials into the circulating collections, withdrawing others, and retaining a relatively small collection. The Reference Collection should be re-evaluated, with input from faculty and others, at least every 3 years, to ensure it remains vital and current. We anticipate that this print Reference Collection will shrink considerably over time, as we purchase additional materials in electronic formats; remaining print reference materials will remain on lower shelving near the Reference Desk on the 2nd floor.

Also on Level 2, we will remove all remaining print journals. Some are being withdrawn, if we have a reliable, permanent electronic copy. If we do not, as print journals are generally low usage, we will move all remaining print journals to the compact shelving on Level 1.

Government documents will be placed in compact shelving on Level 1, with some individual exceptions for specific materials that are held in the Archives, or that are higher usage and may go in with regular collections. By and large, however, the vast majority of government documents will be on Level 1, in the compact shelving. Also, we are currently working closely with NDSU; some of our government documents in specific areas are being transferred to them, and some of theirs are being transferred to us. Each of us specializes in certain areas.

There is a vault, but it is not on Level 1, and we do not anticipate adding a vault to Level 1. It is on Level 4, as part of Special Collections. We intend to retain that vault as is. This will continue to hold our most valuable Special Collections and items most in need of strong security.
INTRODUCTION
The Engagement Center is a proposed donor funded project to provide the space and environment needed on campus to enhance interpersonal dialog, foster engagement and create opportunities for problem solving across disciplines. Originally envisioned as a building separate from the library, the CFL master plan created the opportunity to address both at once and find opportunities for each to enhance the other.

The resulting building will be physically and philosophically connected to the Chester Fritz Library and is planned to be the first step in the redevelopment of the academic heart of campus.

ENGAGEMENT CENTER DRIVERS
The drivers of the Engagement Center, as articulated by the donors, are clearly complimentary and similar to those of the Library:

The challenges of the 21st century and beyond will be solved by multi-disciplinary teams and thinkers from different backgrounds, working together effectively, communicating openly and drawing the connections between varied fields of study.

The University of North Dakota is home to dozens of undergraduate and graduate programs, serving students from North Dakota, the Plains region, the nation and the world. From Engineering to Nursing, Business to Aviation, English to Music, students have access to the expertise, space and tools needed to excel in their selected program of study. There is no place dedicated to bringing scholars from all disciplines together for active collaboration, intense conversation and collegial creativity.

The new Engagement Center will be a place where all of campus is invited to make connections outside their program of study. A place providing more than just quiet study, more than just food, more than just group tables. A place where face to face conversation, brainstorming and debate is encouraged. A place where people from all disciplines bring their knowledge together to solve bigger problems.

GUIDING PRINCIPLES
The study for the Engagement Center, developed in concert with the Chester Fritz Library Study, resulted in the creation of unique, yet complimentary Guiding Principles for this project as well. For the Engagement Center to be considered successful, resulting building must:

Facilitate dialog, collegiality and informal learning

• Provide space that encourages creativity, collaboration and problem-solving across disciplines
• Provide different environments for gathering, whether socially or intellectually
• Encourage people to meet, listen and talk to each other – FACE TO FACE

Be a hub of activity at the heart of the academic core

Enhance existing and create new major pedestrian pathways

• Create a new, vibrant presence on the quad
• Activate the Library while remaining distinct from it

Create connections for graduate and international students

• Provide dedicated spaces for these students where social life and intellectual life can intersect
• Visibly encourage connections between cultures, across disciplines, to the greater community and to the world

Use space, activities and technology to encourage conversation, not build walls’

• Provide space for programs and activities that draw from all disciplines and all corners of campus
• Provide cutting edge technologies for creativity, idea development and team work
• Support the whole person, with connections to the outdoors, access to daylight, social amenities and access to food and drinks
INTRODUCTION
Once data is collected, input is received, information is analyzed and guiding principles are developed, the planning team develops a series of planning options, each with conceptual budgets, implementation plans, sketches and studies. These options are presented to the stakeholders for input, tested against the guiding principles and goals and refined to arrive at a preferred option for further development.

CONCEPTUAL PLAN DEVELOPMENT
Stantec developed three conceptual plans for the Chester Fritz Library and Engagement Center, each with a significantly different approaches to arrival, internal organization and connection between buildings. To ensure the Guiding Principles were followed as closely as possible, all options have common themes regarding acoustic separation, implied activity levels, improved wayfinding, allocation of space for users and connection to the outdoors.

During development, the three conceptual plans in this chapter were presented to the Steering Committee for review.

PREFERRED OPTION REFINEMENT
When measured against the Guiding Principles, Planning Option A became the clear leader and was selected as the preferred direction for the project. Ideas from the other options, as well as new ideas brought to light during review, were incorporated into Option A as part of the plan refinement.

This plan was reviewed and further refined during the second series of workshops and presented to the campus community as part of open town hall meetings held at the same time.

In addition to the workshops, further meetings were held with the University leadership, library leadership and donors to better understand and refine the Engagement Center concept in light of the selected approach to the Chester Fritz Library. Amenities, services and space types were balanced between the two buildings.

PROJECT GOALS
The following goals were recommended by a participant in the first town hall meeting and were adopted as the underlying goal for the project.

- Engage users by providing what they want
- Retain users by ensuring access to what they need
- Delight users with opportunities to discover the unexpected

PROJECT GUIDING PRINCIPLES
The guiding principles, summarized below, were developed early in the process and refined at the recommendation of faculty, staff and members of the Steering Team. If this project is to be considered successful, it must:

- Be the Academic Heart of Campus
- Balance the Needs of All Users
- Improve Access to Knowledge Support
- Promote Research, Focus, Collaboration, Creation and Dialog
- Nimble Support Changing Collections and Operations
- Blend Learning and Social
- Operate Effectively, Efficiently and Sustainably

BASE CONSIDERATIONS
As part of the planning process, Stantec worked with library stakeholders and representatives to identify base considerations that needed to be addressed regardless of which planning options were selected.

Site
- Improve the appearance of CFL from the south
- Engage the “Near Zone” of the quad, capturing foot traffic
- Complete the Quad with an appropriate façade and entry, architecturally contextual and complimentary
- Keep and rebuild the Soaring Eagle Prairie

Collections
- Develop a collections management plan focused on quality, access and academic relevance, not quantity of print materials
- Improve space and environment for archives and conservation of important materials
- Provide high-density shelving to increase space for users and academic support
- Provide different levels of accessibility to collections based on subject, format and need

Building
- Simplify wayfinding throughout building and improve entry sequence
- Ensure a easily identifiable point of welcome and information is visible upon entering the library
- Improve building systems and occupant comfort
- Provide access to food and drink
- Establish logical and efficient zoning to promote additional uses and separate noise levels
- Store print materials efficiently to provide more space for users
- Ensure daylight and views are for people, not books
- Provide power and data everywhere
- Provide instructional and meeting space, including maintaining the East Asian Room
- Provide opportunities for displaying art and collections
- Create an effective loading and service area

Screen the loading and service area
Address limited nearby parking
Screen the loading and service area

Address limited nearby parking
EXPLORATION

CONCEPT DEVELOPMENT

Study
• Increase seating quantity, flexibility and options
• Provide a variety and quantity of group study rooms
• Provide active space for collaboration, socializing and presentation
• Provide contemplative space for quiet work and study
• Provide instructional/meeting space for internal and external stakeholders

Support
• Provide space and support for knowledge partners to bring supplemental learning and skills development to users
• Provide space and support for all users, including faculty and graduate students
• Provide access to more computers and technology in varied environments
• Provide flexible, collaborative library staff workspace

Engagement Center
• Provide an environment that is clearly about collaboration - between undergraduate students, graduate students, international students and faculty
• Focus on the human element of learning and communication, not technology
• Establish an effective relationship between CFL and Engagement Center – strong connection, good flow, complimentary functions and esthetics
• Establish a significant presence and a clear entry to Engagement Center from the Quad
• Improve the appearance of CFL complex from the Quad

Implementation
• Test and refine concepts and new service models prior to detailed design
• Be implementable over time to maximize available funding
• Minimize impact on operations during construction
• Plan the project to provide maximum benefit to users as early as practical

CONCEPT STUDY SKETCH MODELS
DEVELOPING SPACE TYPOLOGIES
As programmatic activities and uses were identified for the library, typologies were established to define the spaces that would support these activities. These typologies, based on past experiences, benchmarking and best practice facilities, were presented to stakeholders and used in the development of program areas and planning options.

- Collections: books, videos, micro materials etc. on shelves
- General Seating: open areas of seating
- Public Space: incl. gallery, auditorium, food service etc.
- Instructional: Classrooms
- Study: Enclosed study spaces
- Tutoring/Student Success: skills development, coaching, support
- Staff: library staff offices, workspaces and storage

COLLECTIONS
Overview
Collections that may be browsed independently by patrons, including oversized items, special collections. Materials will be stored on a variety of shelving types, including full-height metal shelving arranged in rows.

Spaces, Technology & Equipment
shelving, displays, seating

Access
varies: materials can be handled/browsed, special collections may require additional staff/security

Service & Staffing
monitored by staff

Adjacencies
staff spaces, processing, study space

GENERAL SEATING
Overview
A variety of open user spaces including lounge and open table seating, general computing, collaborative work spaces, and individual workstations.

Spaces, Technology & Equipment
soft seating, computer stations with desktop computers, power outlets, movable furniture

Access
open

Service & Staffing
roaming support

Adjacencies
distributed throughout building, including near lobby, print areas, open stacks and study areas
CHAPTER 3 - EXPLORATION

PUBLIC SPACE

Overview
Flexible, open space that can be used for programming and events, informal gathering and general circulation. Should accommodate multiple furniture arrangements and allow for presentations.

Spaces, Technology & Equipment
- power, video displays, projection surfaces, soft seating, audio amplification

Access
open

Service & Staffing
roaming assistance

Adjacencies
welcome desk/concierge, student success

INSTRUCTIONAL

Overview
Can include flexible classrooms, computer labs and seminar rooms for student and faculty instruction and events or breakout from a larger class.

Spaces, Technology & Equipment
- flexible furniture, presentation equipment (projector and screen/monitor), work surfaces, vertical writable surfaces, computer stations

Access
- varies: bookable, open to general use when not booked

Service & Staffing
- reference and instruction, technology support

Adjacencies
- student success, study, general seating, collections

STUDY

Overview
Includes semi-enclosed and enclosed spaces for quiet individual work, side-by-side work, group study, collaboration and presentation practice. Spaces vary in size and furniture types.

Spaces, Technology & Equipment
- power outlets, writable vertical surfaces, hard and soft seating, flexible furniture, monitor or projection, work table

Access
- varies: open, some bookable

Service & Staffing
- room booking, roaming support, technology service

Adjacencies
- student success, collections, instructional, staff, general seating
<table>
<thead>
<tr>
<th><strong>TUTORING/STUDENT SUCCESS</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Overview</strong></td>
<td>Includes Writing and Tutoring Center, offering a mix of spaces and services to support students with their coursework and general skills.</td>
</tr>
<tr>
<td><strong>Spaces, Technology &amp; Equipment</strong></td>
<td>Service point, writing surfaces, open work areas with flexible furniture, enclosed large and small group study areas, variety of hard and soft seating, large flexible computer lab/classroom, staff offices and shared work spaces, computer stations for side-by-side and individual work, consultation rooms</td>
</tr>
<tr>
<td><strong>Access</strong></td>
<td>Self-contained and open to all students during posted service hours</td>
</tr>
<tr>
<td><strong>Service &amp; Staffing</strong></td>
<td>One-on-one consultations, small group events, instruction, events, peer tutors, staff operations</td>
</tr>
<tr>
<td><strong>Adjacencies</strong></td>
<td>Visible from main entry and general seating areas</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>STAFF</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Overview</strong></td>
<td>Includes offices, meeting rooms, break areas, workstations and shared processing/work areas with enclosed spaces for individual administrators, individual workstations for staff and open work areas for a variety of library processing activities</td>
</tr>
<tr>
<td><strong>Spaces, Technology &amp; Equipment</strong></td>
<td>Monitors, desktops/laptop stations, work surfaces, task lighting, visitor seating, shelving/cabinets, shelving, storage, writable surfaces, tables/seating, food prep area</td>
</tr>
<tr>
<td><strong>Access</strong></td>
<td>Varies: owned by individual, open to staff</td>
</tr>
<tr>
<td><strong>Adjacencies</strong></td>
<td>Print/copy, collections</td>
</tr>
</tbody>
</table>
As part of the planning process, a high-level program was established to determine approximate capacities, adjacencies and layouts. Reflecting the identified percentage targets for each space type, the program works to move the renovated facility toward those targets.

There is flexibility built into the program, allowing the amount of space allocated to collections to be reduced based on reductions in print collections and converted to general seating or study space. The library leadership plan to adjust space use accordingly in the future.

It is important to note that while this program provides a solid starting point for the general direction of the library layout, the square foot numbers are generalized and will change as the project moves through schematic design and as operational plans and collection plans are finalized.

<table>
<thead>
<tr>
<th>Space Type</th>
<th>Renovated Chester Fritz Library</th>
<th>Engagement Center</th>
<th>Combined Area</th>
<th>Targets</th>
<th>Existing</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Level 1</td>
<td>Level 2</td>
<td>Level 3</td>
<td>Level 4</td>
<td>Total</td>
</tr>
<tr>
<td>Collections</td>
<td>17,500</td>
<td>900</td>
<td>8,800</td>
<td>7,800</td>
<td>35,000</td>
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<tr>
<td>General Seating</td>
<td>2,650</td>
<td>7,750</td>
<td>8,500</td>
<td>5,250</td>
<td>24,150</td>
</tr>
<tr>
<td>Public Space</td>
<td>1,450</td>
<td>2,300</td>
<td>4,500</td>
<td>2,450</td>
<td>10,700</td>
</tr>
<tr>
<td>Instructional</td>
<td>0</td>
<td>2,900</td>
<td>880</td>
<td>1,350</td>
<td>5,130</td>
</tr>
<tr>
<td>Study</td>
<td>1,800</td>
<td>3,550</td>
<td>5,250</td>
<td>1,700</td>
<td>12,300</td>
</tr>
<tr>
<td>Tutoring/Academic Support</td>
<td>0</td>
<td>10,000</td>
<td>2,300</td>
<td>0</td>
<td>12,300</td>
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<tr>
<td>Staff</td>
<td>9,450</td>
<td>8,850</td>
<td>0</td>
<td>1,100</td>
<td>19,400</td>
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<tr>
<td>Support (Storage)</td>
<td>2,100</td>
<td>450</td>
<td>500</td>
<td>1,000</td>
<td>4,050</td>
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<tr>
<td>Total</td>
<td>34,950</td>
<td>36,700</td>
<td>30,730</td>
<td>20,650</td>
<td>123,030</td>
</tr>
</tbody>
</table>
OPTION A HIGHLIGHTS

The concept for Option A is based on the architectural term Piano Nobile, or Noble Floor, whereby the most significant functions are traditionally placed above grade, providing better views and security, and creating a sense of importance for the contained functions. Support functions are typically located on the ground floor.

The library, like almost every building on the Quad, already employs Piano Nobile, requiring users to ascend to the second level to access services. Unfortunately, the original building never had an entry from the south and the one provided in the addition created significant wayfinding issues, especially between floors.

This concept continues Piano Nobile with improved wayfinding, placing the most active spaces and academic support on level 2, reserving level 1 for high-density storage, which the slab on grade floor can support. Ascending to the upper floors, users enter quieter, research and study-centric spaces. The Engagement Center provides a new entry from the Quad, but with a less significant Piano Nobile effect, allowing for universal access for users with disabilities. Aligned with the North tower, this new circulation path provides views to all floors and services, improves wayfinding and increases foot traffic, making learning services visible.

PROS
- Clarifies entry and circulation
- Screens loading dock
- Brings natural light into the center of the library
- Minimizes division between halves of original buildings
- Engagement Center has clear and separate identity
- Slab-on-grade supports load of mobile shelving on level 1
- Great views from Engagement Center to the Quad

CONS
- Level 2 as main destination vs. Universal Design
- CFL and Engagement Center not fully integrated
- Views from CFL to quad blocked by Engagement Center

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- Slab-on-grade supports load of mobile shelving on level 1
- Great views from Engagement Center to the Quad

CONS
- Level 2 as main destination vs. Universal Design
- CFL and Engagement Center not fully integrated
- Views from CFL to quad blocked by Engagement Center
CHAPTER 3 - EXPLORATION

CONCEPTUAL PLAN OPTION A

Level 1
- North and South entries
- High density collections
- Quiet seating
- Staff area
- Loading

Level 2
- Administration and staff area
- Main security point
- Information Commons
- Student support, skills development, knowledge market
- Reference support and collections
- Technology rich

Level 3
- Scholar’s Floor, quieter seating
- Major browsable collections
- Faculty and Grad support
- Instructional space

Level 4
- Community Floor
- Archives, conservation and special collections
- Conservation lab and vault
- Limited browsable collections
- Major mechanical systems remain

Collections
General Seating
Public Space
Instructional
Study
Tutoring/Student Success
Staff
EXPLORATION
CONCEPTUAL PLAN OPTION B

OPTION B HIGHLIGHTS
Option B was studied to determine the best way to provide access into the library which does not have any floors at grade. The second floor is several feet above grade (Piano Nobile) and the first floor is approximately two feet below grade. This scheme strives to improve accessibility by connecting users to the main atrium space with minimal travel.

The first point of interaction is located on the first level of the library in the midst of an open gallery/lobby aligning the North Tower entry with the new Engagement Center entry to the south. Like Option A, this approach uses this single atrium to improve wayfinding, visually connecting all floors to provide views to all floors and services.

Option B places the quieter research and study centric spaces on level 2, thus providing close proximity between researchers and the collections stored on level 1 as well as adjacency to the “fishbowl”, which remains a quiet study room.

Placing the active collaborative spaces on level 3 aligns these functions with the upper level of the Engagement Center, encouraging movement between and use of both spaces for student interaction.

The Engagement Center provides a new entry from the Quad, but with a less significant Piano Nobile effect, allowing for universal access for users with disabilities. Aligned with the North tower, this new circulation path provides views to all floors and services, improves wayfinding and increases foot traffic, making learning services visible.

PROS
- Clarifies entry and circulation
- Screens loading dock
- Brings natural light into the center of the library
- Minimizes division between halves of original buildings
- Engagement Center has clear and separate identity
- Slab-on-grade supports load of mobile shelving on level 1
- Great views from Engagement Center to the Quad

CONS
- Level 3 information center and knowledge partners not immediately accessible or visible on entry.
- Main level of Engagement Center not integrated with active floor of Library.
- Noise from levels 1 and 3 may be problematic for those working quietly on level 2.
- Views from CFL to quad blocked by Engagement Center

Special Collections
Information Commons
Scholar’s Floor
Archive and Entry Gallery
## Exploration

**Conceptual Plan Option B**

**Level 1**
- North and South entries
- Main security point
- High density collections
- Quiet seating
- Staff area
- Loading

**Level 2**
- Scholar’s Floor, quieter seating
- Major browsable collections
- Faculty and Grad support
- Instructional space

**Level 3**
- Administration and staff area
- Information Commons
- Student support, skills development, knowledge market
- Reference support and collections
- Technology rich

**Level 4**
- Community Floor
- Archives, conservation and special collections
- Conservation lab and vault
- Limited browsable collections
- Major mechanical systems remain
EXPLORATION
CONCEPTUAL PLAN OPTION C

OPTION C HIGHLIGHTS
Option C, uses the existing library and the Engagement Center to create a public “Piazza”, creating distinct entries for each facility as well as an outdoor organizing element to function as a gathering space and a home for the Soaring Eagle Prairie.

As with Option A, this concept continues Piano Nobile concept in the Library, with improved wayfinding, placing the most active spaces and academic support on level 2, reserving level 1 for high-density storage. Ascending to the upper floors, users enter quieter, research and study-centric spaces. The main circulation for the Library remains a new atrium connecting a new south entry with the North Tower, visually connecting all levels of the CFL. Loading and service is relocated to the west side of the building.

The Engagement Center in this scheme is envisioned as a tall, single story addition to the Library, directly attached to the south west wall and connected only at level 2 via a mezzanine projecting into the volume of the Engagement Center. This reduces the need for egress stairs and other infrastructure support in the addition, with little horizontal connection between the buildings.

Significant challenges include the potential difficulty of separating different functions and noise levels in the Engagement Center and limited space for synergies between the programs in each building. In addition, the south elevation of the CFL remains mostly unchanged, presenting a less-than-welcoming appearance from the Quad.

Pros
- Clarifies entry and circulation
- Brings natural light into the center of the library
- Minimizes division between phases of original buildings
- Engagement Center has clear and separate identity
- Slab-on-grade used for mobile shelving on level 1
- Great views from Engagement Center to the Quad
- Highly efficient and flexible Engagement Center
- Plaza is a great opportunity to connect CFL and Engagement Center to the campus and the Quad

Cons
- Separate entries to each building
- Minimal connection between buildings due to floor alignment
- Level 2 as main destination vs. Universal Design
- Some views from CFL to quad blocked by Engagement Center
EXPLORATION
CONCEPTUAL PLAN OPTION C

Level 1
- North and South entries
- High density collections
- Staff area with loading

Level 2
- Main security point
- Information Commons
- Student support, skills development, knowledge market
- Limited Collections
- Technology rich

Level 3
- Scholar’s Floor
- Major browseable collections
- Faculty/Grad Center

Level 4
- Special Collections
- Staff and Vault
- Limited General Collections
- Major mechanical systems remain
INTRODUCTION
The Steering Team selected **Option A** as the recommended approach, with a connection to the proposed donor-funded Engagement Center to the south. Stakeholders agreed this approach most successfully embodies the guiding principles and vision developed at the beginning of the process, providing the most flexibility for future changes. The design team refined the concept and finalized the implementation road map to create manageable stages of work and minimize disruption during construction.

STATISTICS
Chester Fritz Library
- Approximately 156,000 gross square feet renovation
- Renovation scope: Public space renovations; office renovations; instructional space renovations; collections relocation; heating and cooling system upgrades; technology, power and lighting upgrades; elevators, stairs and toilet rooms
- Approximately 2,500 square feet new construction: New south entry/connector to the Engagement Center; site work for service drive; parking
- Collections: Approximately 94,500 linear feet of shelving proposed, both compact and standard density; approximate capacity of 850,000 volumes.

2 renovation projects:
- CFL East Wing, levels 1-4 renovation, approximately 74,700 gross square feet
- CFL West Wing, levels 1-4 renovation, approximately 81,700 gross square feet

Engagement Center
- Approximately 12,000-13,000 gross square feet new construction
- Scope: 2 story building; site work for entry, grading, associated utility connections. Building will contain large areas for study, collaboration, conversation and events, with support space. Will be connected to the Chester Fritz Library to the north.

Implementation Plan:
The following steps outline the proposed changes to the Chester Fritz Library and the construction of the Engagement Center. The detailed implementation plan follows the overall concept plan.
- Stage 1 – CFL Furniture and services prototyping, level 2
- Stage 2 – Engagement Center new construction
- Stage 3 – CFL East wing, levels 1-4 renovation
- Stage 4 – CFL West Wing, levels 1-4 renovation

GUIDING PRINCIPLES ALIGNMENT
The proposed approach creates a framework for a design that will succeed in meeting the overall planning goal to:

**ENGAGE USERS BY PROVIDING WHAT THEY WANT.**

**RETAIN USERS BY ENSURING ACCESS TO WHAT THEY NEED.**

**DELIGHT USERS WITH OPPORTUNITIES TO DISCOVER THE UNEXPECTED.**

Each of the following Guiding Principles was used to guide the development of the recommended plan.

- **Engage Users by Providing What They Want:**
- **Retain Users by Ensuring Access to What They Need:**
- **Delight Users with Opportunities to Discover the Unexpected:**

BE THE ACADEMIC HEART OF CAMPUS
- The plan significantly improves access to the library from both north and south, creating welcoming, accessible entries, simple navigation throughout the entire library and high visibility of service points.
- Resources, spaces, services and support for learning are located to be easily identifiable, approachable and flexible to easily accommodate changes in service and support models in the future. Study spaces will allow users from all disciplines to work and create together.
- The classic appearance of the Library will remain, with resources, study seating and learning spaces—both active and quiet—easily identifiable and clearly visible.
- Physical collections will remain accessible in a reduced footprint, allowing for a variety of study and collaboration spaces. Social amenities, provided in the Engagement Center, will encourage users to extend their use of the building without disrupting quiet zone of the building.
- The Engagement Center will create a significant presence from the Quad as well as hide service access to the CFL, creating a complex with two front facades.

BALANCE THE NEEDS OF ALL USERS
- This master plan is just the START. This framework will inform the future design, but it will require additional input from users as it progresses through the full design process.
- As the need for additional user spaces and academic activities increases, the quantity of the print collection is decreasing. Increased users space will be provided by transitioning space currently occupied by print materials. Open shelving on the upper floors for ready access to frequently used collections and mobile compact shelving on the first floor will store significant numbers of infrequently access items.
- The levels will be zoned to clearly communicate different uses and desired levels of activities and noise, with minimal need for signage.
IMPROVE ACCESS TO KNOWLEDGE SUPPORT

• First and foremost, the plan provides a clear “starting point” for service on every level, all similar in appearance and visible from the main atrium. These ASK! zones will be clearly marked, human scaled and welcoming, encouraging users to approach to ask any question.

• The Knowledge Market and the Technology Development Lab will bring important learning support services to a single, visible and approachable location on campus.

• Space for support services will be approachable, adaptable and allow the University to provide peer-to-peer mentoring. Home offices for knowledge partners will be elsewhere, with teamwork space provided for mentors and tutors.

• Reference and research librarians will be visible and in close proximity to other knowledge partners to create a holistic center for knowledge support.

PROMOTE RESEARCH, FOCUS, COLLABORATION, CREATION AND DIALOG

• Users have different space needs, often throughout the day. The Library will provide with a mix of seating types, study spaces, instructional spaces and technologies.

• Zoning of activities and sound levels allows users to self-select where to work with a clear understanding of the preferred use of the space.

• Quiet areas for focused research will be provided on levels 1, 3 and 4, where access to collections and support is readily available.

• Power, data, technology and furniture options will be provided for easy use everywhere.

• Space for brainstorming, academic play, experimentation and presentation will be provided in both the Library and the Engagement Center.

• Environments that encourage face-to-face communication will be emphasized, especially in the Engagement Center.

NIMBLY SUPPORT CHANGING COLLECTIONS AND OPERATIONS

• Access to information is paramount, whether print or digital. High density shelving on level 1 means the CFL can accommodate the current collection while providing increase space for user seats. As the nature of the collection changes and less space is needed for print materials, these spaces can easily be converted to additional user seating.

• The ability to rotate and display print and other physical collections will be supported in the new plan. Input from the faculty will ensure well-curated access to what is needed by keeping important materials available.

• Improved environmental control and storage systems will allow for increased archive storage. A Conservation Lab will allow the library to not only preserve collections, but restore them as well.

• The central atrium and additional open wall space will allow art and special collection items to be displayed for all.

BLEND LEARNING AND SOCIAL

• As a UND student said, the Library must be perceived as a place for learning with supporting social amenities, not another student union with some books.

• The focus of the library will be academic, with spaces and clear cues where group activities and social learning are encouraged.

• The needs of different user types – undergrad, graduate, faculty, library, community, students with children, etc. – informed the planning and zoning of spaces. Different levels of activity, enclosure and separation will provide spaces suited to the needs of each.

• The Engagement Center will blend learning and social by providing café service, creating a buzz that will extend throughout the active level 2 areas of the library.

• The CFL will have a variety of technologypowered instructional spaces, ranging from small seminar rooms to a large active learning classroom and a reimagined East Asian Room. These spaces will support both academic and community uses.

• The central atrium and additional open wall space will allow art and special collection items to be displayed for all.

OPERATE EFFECTIVELY, EFFICIENTLY AND SUSTAINABLY

• Extended hours anticipates different uses throughout the day and night. The building will be zoned to allow the Library to limit access to select areas depending on time of day, reducing operating expenses while still providing study and collaboration space.

• Staff office areas will be reconfigured to provide better access to daylight, with teams organized to streamline their processes. Technical and interlibrary services will be on level 1, with administrative, reference and access services on level 2. A new receiving area on level 1 will simplify receiving and processing.

• Support functions will be placed on all four levels, providing easily located service points and monitoring of activities. Service points will be smaller, approachable desks where users can ask almost any question and expect help.

• The new lightfilled atrium space will provide a visual link between floors and improve wayfinding by creating a single strong orientation element. To connect people to the outdoors, areas near windows will generally be prioritized for users and staff, with collections moving inboard.

• Heating, cooling and humidity control, important to both occupants and print materials, will be updated to meet current standards and reduce energy costs. Improved lighting and acoustics will be used to create different environments for different uses. Plumbing will be upgraded to reduce water use and meet current ADA standards.
**RECOMMENDATIONS**

**PROTOTYPING CONCEPT**

**PROTOTYPING**

An important first step in this project was to prototype a small space in the library to test new approaches to space and operations BEFORE design is complete. A conceptual layout was created for the northeast portion of level 2, in front of the current circulation desk. Furniture vendors were provided this information and developed furniture plans to install temporarily for Library and user review and comment. New ideas for peer mentoring, academic and research support, computer seating, study areas and technology have been implemented to test what works and what doesn’t, as well as gather input from users.

By prototyping spaces, furniture and new approaches to service and support, the Library and knowledge partners will be prepared and able to more easily transition to the new space when complete. Prototyping will also inform the design process, allowing the team to better match the space to future operations rather than past models.

Ultimately, the objective of this project is to activate the Level 2 entry area in a way that supports Library Master Plan guiding principles, creates excitement for future improvements and supports Exceptional UND.

**Enrich the Student Experience**

Provide an environment that is challenging yet rewarding, and full of resources and opportunities.

**Encourage Gathering**

We thrive by gathering and sharing, challenging and exploring, supporting and understanding.

**Facilitate Collaboration**

Exceptional UND enhances support for interdisciplinary teaching, cutting-edge global research, teamwork, and creative activity; promotes innovative and productive collaboration.

**Activity/Noise**

- Zoned by activity/noise
- Minimize power runs to furniture
- Areas can be outfitted independently

- User Seats: 140 +/-
- Shelving: 1,700 lf +/-
- Computers: 40 +/-
RECOMMENDATIONS

PROTOTYPING CONCEPT

The furniture, study space and equipment concepts considered range from the simple chair to computer equipped furniture to floor-to-ceiling whiteboards and highly interactive media creation technology. Ideas were gleaned from other libraries, work spaces, social spaces, furniture companies and best-practice facilities.

These concepts were selected not only for their applicability to short term prototyping, but for their ability to support long-term changes in use developed by the users themselves.

Prototype components
- Study rooms
- Study alcoves

Prototype components
- Group study/lounge areas
- Quiet study seating

Prototype components
- Collaboration area
- Computer seating

Prototype components
- Ask Us Zone
- Consultation and mentored support
RECOMMENDATIONS
BUILDING MASTER PLAN
CHESTER FRITZ LIBRARY LEVEL 1

LEVEL 1 - COLLECTIONS, OPERATIONS AND RESEARCH

VISION AND GOALS
Level 1 of the Chester Fritz Library will provide...

- Welcoming access from the historic North Tower Entry
- Visibility and improved wayfinding
- A single point of service and support
- Access to over 9.5 miles of print collections
- Quiet study and research space, supported by staff and technology
- Ample technical services work space near an improved loading dock
- Access to daylight for staff and users

The plan proposes to renovate the East Wing first, minimizing interruption of access to collections and allowing staff to remain in the building until later stages of construction. The Implementation Plan provides additional detail.

SPACE AND FUNCTIONAL DETAILS

Public
- The North Tower Entry will be reopened to the library, providing a welcoming, wheelchair accessible entry from University Avenue.
- The new northsouth atrium will provide space for welcoming displays, bringing daylight down to level 1 and make the activities and services on level 2 immediately visible.
- A grand stair and new elevators will service all four floors from a central public space.
- Adjacent spaces will include study rooms, user seating, a service point and an area for consultation and use of multimedia.
- Benefits include: improved wayfinding; a common building core for user needs; improved collections management; and prioritization of daylight for users, not books.

General Seating
- General user seating will be limited, as the focus of this floor is on collections, operations and research.
- An area for consultation and supported use of older technology, including microform and video equipment will be immediately adjacent to the service point and the main atrium.
- Smaller areas of general seating, both individual and group, can be located strategically throughout the open collection zone.
- A reduced area of general seating means more space on level 1 dedicated to quiet study spaces and collections.

Study
- Study and research spaces include both enclosed and open study areas for individual and small group use. Spaces can be either open or reserved for extended use, depending on library policy.
- Study spaces will be technology-enabled for research, presentation or collaboration.
- Located on the north wall, the spaces will have access to daylight and views.
- Benefits include: a quiet location with ready access to vast print collections; views to the outdoors; and nearby staff support.

Collections
- Level 1 will house the majority of the Library’s physical collections, with varying levels of access depending on the needs of the library and the collection type.
- Over 51,000 linear feet – about 9.5 miles – of high-density mobile shelving will house approximately 450,000 volumes, including federal government documents, state documents, print journals and low circulation collections.
- Collections in the east wing are planned to be fully user accessible. Collections in the west wing are planned to be fully user accessible. Collections in the west wing are planned to be limited or staff-only access.
- A secure high-density storage room will contain legacy format materials, including microform, video, audio and special collections not required to be in the level 4 archives. This space will be located in the center of the building to maximize daylight for people and be adjacent to the staff office suite for easy access.
- Benefits include: modifiable levels of user access based on library and user needs; improved collections management; and prioritization of daylight for users, not books.

ASKI
- A centrally located ASKI Zone, visible upon entry from the North Tower or elevators, will provide support for all users.
- Functions include a staffed welcome/help desk, consultation area, printing and self-checkout.
- This zone can be staffed to provide welcoming, general information and support, with additional expertise available as requested.

Staff
- Departments located on level 1 include Acquisitions & Bibliographic Control, Interlibrary Loan, Periodicals and Government Documents. Workspace will be directly adjacent to the ASKI Zone, secure collections room and the storage/staging area.
- Staff work space will be enlarged and reorganized, locating storage and collections inboard, with staff workstations and offices outboard for views to the exterior.
- Staff support spaces will include workrooms, conference rooms, collaboration areas and a breakroom, balanced between levels 1 and 2.
- A new receiving area will bring deliveries directly to level 1, with immediate access to a large storage and staging areas.
- Benefits include: co-location of departments with complimentary functions; access to daylight and views; direct access to shipping and receiving; and visual control from one office suite to almost all of level 1.

Support
- Toilet rooms will be upgraded to meet current codes and accessibility requirements.
- New elevators will be centrally located to provide clear vertical circulation.
- Mechanical and electrical rooms will remain, with equipment modified as needed to meet building needs.
- Heating, cooling, lighting and electrical will be updated to meet current standards.
- A new service/loading yard will bring deliveries directly to level one, hiding service vehicles between the CFL and the Engagement Center.
CHAPTER 4 - RECOMMENDATIONS

FACILITY MASTER PLAN
CHESTER FRITZ LIBRARY

collections (high density / vault)
collections (high density/limited access)
collections (high density/open)
staff/technical services
(staff, ii, gov docs, periodicals, workrooms)
mech.
study/research
staff
consult/viewing
entry gallery
 Mech.
cafe
student commons
outdoor seating
outdoor seating
storage/staging
storage/loading
entry
collaboratory

collections
17,500 sf
2,600 sf
1,900 sf
1,450 sf
800 sf
1,800 sf
1,900 sf
9,450 sf
2,100 sf
100 sf
24,950 sf
4,700 sf

FIRST LEVEL
SCALE = 1/16" = 1'-0"

CHAPTER 4 - RECOMMENDATIONS

net assignable area
proposed CFL | engagement center
LEVEL 2 – LEARNING COMMONS

VISION AND GOALS

Level 2 of the Chester Fritz Library will provide...

- A space that gives students a sense of ownership – that the "Academic Heart of the University" is theirs and adaptable to meet their needs - a truly interdisciplinary space dedicated to the creation of knowledge, learning beyond the classroom and discovery across disciplines.
- A highly active, extend hour space for collaboration, academic support and access to library services and resources.
- A clear, welcoming starting point for all services and support.
- Visibility and improved wayfinding from both the North Tower Entry and the Engagement Center to the south.
- The CFL Knowledge Market, offering the full gamut of learning support and skills development, including research, presentation and writing.
- Varied user seating and spaces – open and enclosed, active and quiet, all technology-enabled – for individual and group study, tutoring, consultation and content creation.
- Technology enabled instructional spaces for library and other use.
- Adaptable spaces that can meet the changing needs of users throughout the day and semester.
- Access to daylight for staff and users.
- Ample work space for library staff and administration.

The plan proposes to renovate levels 1 and 2 of the east wing first, providing early access to the Knowledge Market and ample general user seating before construction is complete. The Implementation Plan provides additional detail.

SPACE AND FUNCTIONAL DETAILS

Public

- New grand stairs will bring visitors from the North Tower Entry directly to level 2 for access to services and study space.
- The new, 1,700 SF light-filled north-south atrium will increase foot traffic and provide visibility and access to the activities and services on level 2.
- The adjacent 600 SF connector to the Engagement Center will provide access from the Quad.
- The atrium or connector is the ideal location for technology display, including a large video wall for library display and student activities.
- A grand stair and new elevators will service all four floors from a central public space.
- Adjacent spaces will include an ASKI zone, study rooms, collaboration areas, user seating, knowledge partners and area for consultation.
- Benefits include: improved wayfinding; a common building core for user movement, services and support; a clear pathway from University Avenue through to the Quad.

General Seating – Information Commons

- The Information Commons will contain over 7,700 square feet of varied user seating, with access to power, technology and library services for between 200-300 users.
- To promote a sense of ownership, the space will provide mobile whiteboard, chairs and tables to allow students to adapt the space to their needs and to transition easily from individual to group work throughout the day.
- Unscheduled, technology-enabled group work alcoves will be provided throughout the space.
- As the central student-directed study space in the building, the Information Commons will be surrounded by quiet study space, content creation studios, instructional spaces, and reference and technology support.
- While visible from the atrium, the Information Commons will be sufficiently separated and zoned to permit focused work.
- Benefits include: adaptable space that can change use throughout the day, quick access to services, support, technology and instructional spaces.
Study
- Over 3,500 square feet of study zone provides both enclosed and open spaces for individual and small group use.
- Spaces can be either open or reserved for extended use, depending on library policy and will be technology-enabled for research, presentation or collaboration.
- The Study zone located in the northwest corner will provide ample daylight and be far from more active spaces, allowing for focus. 1-button studios will provide spaces for individuals and groups to develop digital content and practice presentation skills.
- The Study zone located adjacent to the Knowledge Market and the Ask! Zone means quick access to quiet spaces for consultation and academic support.
- Benefits include: a quiet location with ready access to knowledge partner and library support and views to the outdoors.

Instructional
- A total of 2,900 square feet of instruction rooms on level 2 will include a large, mid-size and several small spaces for bibliographic instruction, tutoring and other uses. All instruction spaces will be technology-rich.
- The large room will provide seating for up to 48 students in a more traditional setting.
- The mid-size room will seat approximately 24 in an active learning environment.
- The small instruction spaces in the Knowledge Market will provide seminar-style instruction and tutoring space for up to 16 users.
- The instruction rooms will be accessed from more active environments to minimize disruption for those studying quietly.
- Benefits include: quick access from the library entries and the Engagement Center; visibility to simplify wayfinding; varied sizes to ensure availability of the right sized space.

Collections
- Level 2 of the CFL will undergo the most significant transition in function, with most collections be relocated to other parts of the building to provide more space for users.
- The print reference collection is proposed to be reduced by at least 50%, with remaining materials located adjacent to reference librarian support for easy access.
- Course reserves and interlibrary loan shelving will be located behind the ASK! Zone for quick access for staff.
- Popular reading collections and new books will be strategically located throughout level 2 – and potentially the Café in the Engagement Center – to increase visibility and access.
- Benefits include: more student seating on the most active level of the building; placement of collections in quieter areas to both absorb sound and indicate which areas are for quiet study and research.
Knowledge Market/ Academic Success

- Totalling 10,000 square feet, the Knowledge Market will be the hub of access to outside-the-classroom learning, making visible the University’s commitment to develop the whole student, capable of transforming information into knowledge, working with teams and communicating effectively.
- This zone provides a single point of access to support for reference and research, IT needs and peer-mentioned skills development, including writing, presentation and multimedia content-creation.
- At over 5,500 square feet, the core of the Knowledge Market will surround the central atrium. To the west will be the main ASK! Zone for the building, including access services, reference services and IT support. Knowledge Partners will be east of the atrium, with a combination of access points, open seating and enclosed study spaces. Visibility between spaces is paramount.
- The Fishbowl will retain its grandeur while being transformed to support the Knowledge Market as a collaborative work area for small groups. As a separate space, it can change in use from quiet during the day to active in the evening.
- The Knowledge Market will be surrounded by a variety of instructional spaces, support services, study rooms and access to food and social spaces in the Engagement Center.

Benefits include:
- the ability to adapt from general seating to academic support throughout the day, immediate visibility and access upon entering the Library, and a level of activity that will encourage students to request assistance without feeling intimidated.

ASK!

- The main ASK! Zone for the Library will be located adjacent to the level 2 atrium.
- It will serve as the main welcome desk for visitors and as a starting point for all library services.
- Functions also include a nearby consultation area, printing and self-checkout.
- It’s location in the atrium near the grand stairs and elevator will ensure easy wayfinding to all services and floors.

Staff

- Departments to be located on level 2 include Library Administration, Access Services, Library Systems and Reference. Workspace will be directly adjacent to the ASK! Zone.
- Knowledge Partners (writing center, academic support, etc.) will have home offices elsewhere, but will have hoteling space for staff when in the Library.
- Staff work space will be enlarged and reorganized, locating storage and support rooms inboard, with staff workstations and offices outboard for views to the exterior.
- Staff support spaces will include workrooms, conference rooms, collaboration areas and a breakroom, balanced between levels 1 and 2.

Benefits include:
- co-location of departments with complimentary functions, access to daylight and views, and visual control from one office suite to almost all of level 2.

Support

- Toilet rooms will be upgraded to meet current codes and accessibility requirements.
- New elevators will be centrally located to provide clear vertical circulation.
- Heating, cooling, lighting and electrical will be updated to meet current standards.
- A large storage room will be provided on level 2.
RECOMMENDATIONS
BUILDING MASTER PLAN
CHESTER FRITZ LIBRARY LEVEL 3

LEVEL 3 – SCHOLAR’S FLOOR
VISION AND GOALS
Level 3 of the Chester Fritz Library will provide...

- A space dedicated to scholarly research and quiet study, set above and apart from the noisier, active areas of the Library and Engagement Center
- Access to over 3 miles of print collections
- Ample seating and study rooms with access to daylight
- Focused support for faculty and graduate students throughout the Technology Development Lab, providing resources from the Center for Instructional and Learning Technologies and the Office of Instructional Development
- Access to graduate and international student gathering space on the upper level of the Engagement Center.
- Technology enabled instructional space for library and other use

The plan proposes to renovate levels 3 and 4 of the east wing together immediately following renovation of levels 1 and 2, providing early access to quiet study space. During construction, the west wing will remain available for uninterrupted use. The Implementation Plan provides additional detail.

SPACE AND FUNCTIONAL DETAILS
Public
- A grand stair and new elevators will bring visitors through the central atrium to the gallery space on the third floor.
- This gallery, approximately 4,500 square feet, will provide quiet seating, area for art exhibitions, and circulation to the graduate student areas of the Engagement Center.
- Public space will be separated from quieter zones using a combination of enclosed rooms and strategically placed stacks. Adjacent spaces will include a small ASKI Zone, study rooms, a new quiet reading room, the Technology Development Lab and collections.
- Benefits include: improved wayfinding, a common building core for user movement, services and support; a clear pathway from University Avenue through to the Quad.

General Seating
- General seating space on level 3 will provide over 8,500 square feet dedicated to quiet study for over 250 users. Seating will be placed at the perimeter to provide daylight and views to users.
- To promote a sense of ownership, the space will provide mobile whiteboards, chairs and tables to allow users to adapt the space to their needs.
- A mix of schedulable and unschedulable, technology-enabled group work spaces will be provided throughout.
- As the central quiet reading space in the building, this zone will be integrated with stacks and broken into smaller areas to provide acoustic separation.
- Benefits include: clear indication that this is an area for quiet study; adaptable space that users can adapt to meet their needs; ready access to relevant print collections.

Study
- Over 5,200 square feet of level 3 is dedicated to enclosed group study space and an ultra-quiet reading room.
- The function of the reading room is proposed to be moved from the Food Bowl to level 3 in keeping with the reasoning of the library around levels of activity and noise.
- Schedulable rooms adjacent to the Technology Development Lab will provide space for focused work and practice.
- Group rooms can be either open or reserved for extended use, depending on library policy and will be technology-enabled for research, presentation or collaboration.
- Benefits include: quiet study space away from the highly active areas of the Library.

Instructional
- A multipurpose instruction/meeting room for up to 32 users is proposed, providing for academic, library and community functions.

Collections
- Level 3 will provide almost 9,000 square feet dedicated to print collections, with over 17,000 linear feet of browsable shelving.
- The well-curated collections, developed with faculty input, are proposed to include, but not be limited to: Arts, Humanities, History, English, Business, Social Sciences, Philosophy, Criminal Justice and Native American Studies.
- Stacks at the perimeter of the collections zones, especially adjacent to the gallery space, can include front-facing shelving to allow display of art books.
- User seating is proposed to be integrated with collections, breaking down the scale of the space and providing acoustic separation.
- Benefits include: access to a significant print collection; placement of stacks to absorb sound and indicate level 3 is for quiet study and research.

技术发展实验室/学术成就
- The Technology Development Lab (TDL) will provide approximately 2,300 square feet of space for instructional technology use, training and support.
- Proposed knowledge partners in the TDL include the Center for Instructional and Learning Technologies (CILT) and the Office of Instructional Development (OID).
- Located directly above the Knowledge Market, the Technology Development Lab will provide similar services, but focused on the needs of graduate students, researchers and faculty.
- The Center for Instructional and Learning Technologies and the Office of Instructional Development will have home offices elsewhere, but building will bring their services and support to users in a place with easy access and extended hours.
- The TDL will be surrounded by a variety of technology-enabled group work and study rooms.

ASK!
- A small ASKI Zone is proposed in the central atrium/gallery to provide support and a set of eyes on the floor.
- Functions also include a printing and self-checkout.
- Staff
- Hoteling work space for CILT and OID staff will be provided in the Technology Development Lab for staff in the library.

Support
- Toilet rooms will be upgraded to meet current codes and accessibility requirements.
- New elevators will be centrally located to provide clear vertical circulation.
- Heating, cooling, lighting and electrical will be updated to meet current standards.
- Storage will be provided on level 3.
LEVEL 3 – SCHOLAR’S FLOOR

VISION AND GOALS
Level 4 of the Chester Fritz Library will provide...

- A space dedicated to the extended mission of the Chester Fritz Library, including archives, conservation and community use.
- Space for secure, climate controlled archival storage and conservation of the important and growing archive collections of the University Libraries.
- Improved community space, including an updated East Asian Room, improved Special Collections Reading Room, space for users with children and space to better display unique art, artifacts and collections.
- Access to over 4.5 miles of print collections
- User seating and study rooms in both open and limited-access areas with access to daylight

The plan proposes to renovate levels 3 and 4 of the east wing together immediately following renovation of levels 1 and 2, providing early access to community-focused. During the work on the east wing, the west wing will remain available for uninterrupted use and storage of archival materials. The Implementation Plan provides additional detail.

SPACE AND FUNCTIONAL DETAILS
Public
- The grand stair and new elevators will bring visitors through the central atrium to the community-focused space on level 4.
- The atrium/gallery on level 4 will bring daylight into the core of the building and provide over 2,000 square feet of seating, area for art exhibitions, and prefunction space for the East Asian Room.
- Public spaces will provide access to study spaces for students with children and community-focused spaces, including a reading room and the East Asian Room.

Benefits include: improved wayfinding, especially for infrequent visitors; a common building core for user movement and space for display and activities.

General Seating
- General seating includes both open seating looking to the northeast and limited-access seating in the Special Collections Reading Room.
- The Special Collections Reading Room, approximately 3,100 square feet and staffed by the archives department, will provide quiet reading and research space for over 50 users, with access to the University Archival Collections. A drop-off for personal belongings will be provided at the entry to ensure the security of the collection.
- Approximately 2,100 square feet of open seating in the east wing of level 4 will provide a variety of seating and study spaces for 60-70 users.
- Benefits include: clear indication that this is an area for community use and students with children; ready access to relevant print collections.

Study
- Approximately 1,700 square feet of study space will be provided on level 4 to provide for student and other group study needs.
- One space will be equipped to meet the needs of students bring their children when they study.
- A small reading room is proposed to provide space for groups of 16-20, including use as a children’s room for book readings.

Collections
- Approximately 1,800 square feet of space is proposed to house open stacks for the Children’s Literature Collection. The adjacent reading room will provide space for book readings for young children.
- The current archive vault and adjacent workroom are proposed to be combined into a single 6,000 sf climate-controlled vault for improved archival storage of rare and important documents.

- Stacks in the high-bay portion of the vault are proposed to be replaced with high-density compact shelving to improve capacity and accessibility. This will require additional analysis of the building structure.
- The Special Collections Reading Room will contain shelving to house frequently accessed special collections, including the University’s Norwegian bygdebøker collection.
- Benefits include: secure, climate controlled storage for valuable documents; storage of less valuable documents to limited access stacks on level 1, allowing the Library to increase its holding as expected; increased opportunity for display of special collections and artifacts.

ASK
- A small ASK! Zone is proposed in the central atrium/gallery to provide support and a set of eyes on the floor. This may be minimally staffed, as this floor is expected to be less frequently used. Functions also include a printing and self-checkout.
- Staff
- The Department of Special Collections is proposed to remain on level 4, including both office space, workroom and a new Conservation Lab.
- The office will be located immediately adjacent to the entry to the Special Collections Reading Room, providing a secure check-in point for visitors.
- An ASK! Zone is proposed in the Reading Room to provide visual control and immediate support. The main office for the staff will be in an adjacent enclosed space.
- The Conservation Lab, approximately 400 square feet, will provide space for the restoration and maintenance of special collections, with direct access into the archive vault. A viewing window is proposed to allow visitors to watch undergoing restorations from the reading room.

Support
- Toilet rooms will be upgraded to meet current codes and accessibility requirements, with new toilet rooms proposed to serve the East Asian Room and the Special Collections Reading Room.
- New elevators will be centrally located to provide clear vertical circulation
- Mechanical and electrical rooms will remain, with equipment modified as needed to meet building needs.
- Heating, cooling, lighting and electrical will be updated to meet current standards.
FACILITIES MASTER PLAN
CHESTER FRITZ LIBRARY

CHAPTER 4 - RECOMMENDATIONS

archives and conservation

STAIR

WOMEN
MEN

STAIR

ELEV

collections

special collections reading room

workroom/collections (vault)

conservation lab

mechanical

storage

toilet

servery

kit.

stor.

conser-

ervation

lab

roof

mechanical

special collections reading room

office

meeting

(east atrium)

ask!

ask!

ask!

roof

mechanical

mechanical

collections (vault)

collections

study

tutoring/student success

staff

support

third floor

FOURTH LEVEL

net assignable sf

proposed CFL

engagement center

proposed CFL

engagement center

proposed CFL

engagement center

CHAPTER 4 - RECOMMENDATIONS

67
THE NEED FOR PERSONAL ENGAGEMENT

The University of North Dakota recognizes that the challenges of the 21st century and beyond will be solved by multidisciplinary teams and thinkers from different backgrounds, working together effectively, communicating openly and drawing the connections between varied fields of study.

UND is home to dozens of undergraduate and graduate programs, serving students from North Dakota, the Plains region, the nation and the world. From Engineering to Nursing, Business to Aviation, English to Music, students have access to the expertise, space and tools needed to excel in their selected program of study. However, there is no place on campus dedicated to bringing scholars from all disciplines together for active collaboration, intense conversation and collegial creativity.

The new Engagement Center will be a place where all of campus is invited to make connections outside their program of study. A place providing more than just quiet study, more than just food, more than just group tables. A place where face to face conversation, brainstorming and debate is encouraged. A place where people from all disciplines bring their knowledge together to solve bigger problems.

Developed as a separate concept, but programmatically linked to the Library, the Engagement Center will be fully donor funded and planned to be completed prior to the renovation of the Chester Fritz Library.

Level 1 will provide...
- A significant, welcoming entry from the Quad
- Connection to the active Knowledge Market on level 2 of the Library
- An active, lively blend of social amenities and learning supporting both the Engagement Center and the Library
- A café, steps on which to sit and a fireplace to encourage users to stay
- Supportive technology for collaboration and space for creative endeavors
- Extended hours for study
- Varied, flexible user seating to encourage collegiality, conversation and group work
- Access to outdoor patios that will connect users to the Soaring Eagle Prairie and activate the north end of the Quad.

Level 2 will provide...
- Quieter space more attuned to the needs of graduate and international students
- Connection to the quieter Scholar’s Floor of the Library
- A large multipurpose room for social and academic events, presentations and conferences, with an adjacent reception space
- A secluded graduate and international student lounge for study, scholarly conversations, small group meetings and socializing. Set apart from the activity of the main level, this space will fulfill a campus-wide need of the more mature student desiring connections with others, but with few places to gather.
**ENGAGEMENT CENTER MAIN LEVEL**
- Main Entry
- Student Commons
- Café
- Facility director
- Connector to Library
- Collaboratory
- Outdoor Seating
- Loading
- Building Support

**ENGAGEMENT CENTER Upper Level**
- Reception/Activity room
- Prefunction Gallery
- Connector to Library
- Graduate & International Student Gathering
- Stair to Roof Garden
RECOMMENDATIONS

VISION AND GOALS
The proposed conceptual site plan locates the Engagement Center to the south of the Chester Fritz Library, giving it a central location on the quad in the heart of the campus. Its location not only enhances the quad, but also the existing library, providing new programmatic opportunities for the south entrance into CFL at multiple levels.

• Improve the appearance of the Library and engage the Soaring Eagle Prairie as a more significant element of the site.
• Improve accessibility to the Library for all users, including the community.
• Improve service access and loading to the Library, hiding the service drive as much as practical to improve the appearance of the library from the Quad.
• Create inviting outdoor spaces to encourage use during the limited months when the weather is appropriate.
• Minimize the impact of the renovation and new construction on the campus infrastructure.

SITE COMPONENTS
• Locate the majority of the new construction to the southeast of the library where the least number of existing underground utilities are located.
• Provide parking on Centennial Drive, including short-term, accessible and staff parking.
• Regrade the site between the Library and the proposed Engagement Center to create a service drive that brings loading to level 1 of the library rather than halfway between levels.
• Regrade the site south of the proposed Engagement Center to reduce the vertical distance between the main levels of both buildings.
• Create outdoor patios east and west of the Engagement Center, protected from the wind, to encourage students to gather outside longer during the academic calendar.
• Given the impact that construction of the Engagement Center will have on the current location of the Soaring Eagle Prairie, a redesign of the prairie should be coordinated with those who volunteer for its upkeep. The new design should tightly integrate the prairie with the buildings and celebrate both the people and the sculpture that made it possible.

SITE PLAN
1. Barrier Free Parking
2. Loading/Service
3. Study Plaza
4. Entry Plaza
5. Soaring Eagle
6. Prairie Landscape
7. Existing Trees
The Soaring Eagle Statue by Turtle Mountain Chippewa artist Bennett Brien was installed at the UND campus in the fall of 2000. Gifted by Colonel Eugene E. Myers, a University of North Dakota (UND) alumnus and benefactor, the statue, which depicts an eagle lifting off a dead tree, is a symbol of generosity and connection to the earth.

In 2000 and 2001, Vice President of the Student Body Kristy Berger and faculty members Glinda Crawford and Kathleen Brocke catalyzed the idea of Soaring Eagle Prairie garden - a collection of native prairie plantings intended to remind visitors to the UND campus of its connection to the prairie landscape. Designed as more of a landscaped garden with specimen plants rather than a wild flowing native prairie, it sits just south of the Chester Fritz Library.

The Soaring Eagle Prairie played a key role in the site planning for the project. With significant construction proposed for the area, the new site must respect the original intent of the garden while integrating it with the experience of the new building.
RECOMMENDATIONS

CONCEPTUAL RENDERINGS
CHAPTER 4 - RECOMMENDATIONS

LEVEL 3 | VIEW LOOKING TOWARD NORTH TOWER

LEVEL 3 | VIEW LOOKING TOWARD ENGAGEMENT CENTER

LEVEL 2 | VIEW LOOKING TOWARD ELEVATORS
To create a grand scale space on the main level of the Engagement Center, the upper level of the Engagement Center aligns with the third floor of the Library and the main level is several feet below the second floor of the Library. The result is a high ceiling and good visibility from the south entry of the Engagement Center to the north tower entry of the Library.
RECOMMENDATIONS
IMPLEMENTATION PLAN AND COST MODEL

INTRODUCTION
To ensure continued access to collections, study space, library staff and other resources throughout the construction process, an implementation plan was developed as part of the planning process. The proposed process is divided into 4 stages, from the least costly and intrusive to the most. At each stage, access to at least half of the Chester Fritz Library will be maintained, minimizing relocation issues.

IMPLEMENTATION PLAN GOALS
- Be flexible enough to allow stages to be combined if desired. The Engagement Center, for example, can be built before the Library is renovated, or simultaneously.
- Focus on lower cost/higher impact improvements first to ensure continued enthusiasm for this multi-year project. The first two stages, Prototyping and the Engagement Center will not negatively impact use of the Library, but will create opportunities to test out new space and service concepts.
- Takes advantage of the existing architecture, structure, heating and cooling systems and power distribution system. The 1982 addition is essentially a separate building, allowing the work on the east wing to occur without impacting access or services to the west wing.
- Address deferred maintenance and infrastructure issues over time during building renovations to minimize redundant work and expenses.
- Be cost effective: breaking the project into manageable stages, allowing work to proceed while fundraising continues.

CONCEPTUAL COST MODEL
The cost model for the Library is based on square foot renovation and construction costs for similar type spaces. Different base costs were applied to correspond to the extent and complexity of work, with areas of low, mid and high levels of renovation. Costs from the infrastructure projects identified in the facility condition assessment were also considered.

Due to uncertainty regarding project schedules, cost projections are based on current costs and do not incorporate escalation factors.

STAGE 1 - PROTYPING IN LEVEL 2 NORTHWEST
- New furniture, floor finishes, electrical outlets, technology.
- Update service desk (optional).
- Scope developed by UND and furniture vendors.
- Refer to the Prototyping section of this chapter for more information.

STAGE 2 - ENGAGEMENT CENTER
- 12,13,000 square feet new construction.
- Build connector to CFL with new loading dock to CFL level 1. This is anticipated to be funded as a separate project.
- Resolve utilities issues, service drive, site and Soaring Eagle Prairie. Replace main transformer feeding CFL and EC (currently due for replacement). Costs for deferred maintenance items.
- Refer to the Engagement Center section of this chapter for more information.

Conceptual Cost Model
The Engagement Center is a fully donor funded project, with a current Project Cost cap of $6,000,000. As the University progresses through design, the project scope and area will be re-evaluated to keep this building on budget.

| Construction Cost | $4,300,000 |
| Owner Cost        | $1,700,000 |
| Total Project Cost| $6,000,000 |
| Gross Area        | 12,000-13,000 |
| Total Project Cost per GSF | $460-500 |
RECOMMENDATIONS

IMPLEMENTATION PLAN AND COST MODEL

STAGE 3 - CFL EAST

- Temporarily separate East and West Buildings, retain access to West Building through existing south entry.
- Temporarily relocate collections from East Building, retain shelving offsite for reuse.
- Temporarily relocate technical services to remote location, library administration to CFL West Building.
- Interior demolition of East Building, including central stair, loading dock and original elevator. Abate any hazardous materials identified.
- Open floor for new atrium along new north-south axis.
- Retain mechanical rooms 109 and 410.
- Retain East Asian Room and adjacent support space.
- Full interior renovation of East Building:
  - High density shelving on level 1. Reuse existing shelving if practical.
  - New atrium connecting levels 1-4. New stairs at north entry tower, new elevators to all levels, new stairs connecting levels 2-4.
  - Retain existing HVAC AHUs (recently upgraded). Replace dual ducts with new single duct system, including replacement of office area DX unit and connection into main building HVAC. Upgrade controls to DDC. Replace humidification system.
  - Replace perimeter heating system, related piping, pumps and steam loop. Replace cooling tower in north tower.
  - Upgrade plumbing supply and waste lines and renovate toilet rooms to meet current codes. Replace hot water system.
  - Install fire protection sprinkler system and pump.
  - Replace electrical switchgear, distribution panels, wiring, lighting and controls related to CFL East Building.
  - Replace power outlets and technology infrastructure related to CFL East Building.
  - Replace doors and hardware; repair windows.
  - Replace finishes and furniture.
- Reconnect to West Building on all levels and Engagement Center on level 2.
- Construct new accessible and visitor parking on Centennial Drive.

Conceptual Cost Model (escalated to 2020)

- Construction Cost: $15,100,000
- Owner Cost: $5,900,000
- Total Project Cost: $21,000,000
- Gross Area: 74,700
- Total Project Cost per GSF: $281
RECOMMENDATIONS

IMPLEMENTATION PLAN AND COST MODEL

STAGE 4 – CFL WEST
- Temporarily separate East and West Buildings, decommission original south entry.
- Temporarily relocate collections from levels 1-4, retain shelving offsite for reuse.
- Temporarily relocate staff to CFL East Building and/or remote location. Levels 2 and 3 seating area along west wall may be ideal.
- Temporarily relocate special collections vault contents to remote location.
- Interior demolition of levels 1-3 west including original elevator and adjacent stairs, as well as south entry lobby. Retain level Vault Room 436 and mechanical room.
- Full interior renovation of levels 1-4 west.
  - High density shelving on level 1 and level 4 vault. Reuse existing shelving if practical.
  - Renovate level 4 vault to fully contain conditioned air.
  - Replace cooling tower and make up air units in level 4 mechanical room. Upgrade controls to full DDC system.
  - Upgrade plumbing supply and waste lines and renovate toilet rooms to meet current codes.
  - Install sprinkler system.
  - Replace electrical switchgear, distribution panels, wiring, lighting and controls. Connect both buildings to single service and main switch. Replace emergency generator with appropriately sized unit for both buildings.
  - Replace power outlets and technology infrastructure.
  - Replace doors and hardware; repair windows. Upgrade fire separation doors between east and west buildings.
  - Replace finishes and furniture.
  - Reconnect East and West Buildings.
  - Relocate staff and collections to final locations.

Conceptual Cost Model (escalated)
Assumed Project Cost $21,000,000
Gross Area 81,700
Total Project Cost per GSF $260