S J Quinney College of Law
UNIVERSITY OF UTAH

ARCHITECTURAL PROGRAM

23 MARCH 2012

VCBO/SMITHGROUP JJR
architecture

University of Utah S.J. Quinney College of Law
DFCM Project No. 11292750

SmithGroupJJR
901 K Street, NW, Suite 400
Washington, DC 20001
202-842-2100

VCBO
524 South 600 East
Salt Lake City, UT 84102
801-575-8800

Signatures:

David W. Pershing
President, University of Utah
date

Arnold B. Combie
Vice President for Administrative Services
date

Patricia Ross
Chief Strategy Officer for the Office of the
Senior Vice President of Academic Affairs
date

Hiram Chodosh
Dean, S.J. Quinney College of Law
date

Michael G. Perez
Associate Vice President
Facilities Management
date

John McNary
Director, Campus Design and Construction
date

Cory Higgins
Director, Plant Operations
date

Eric Browning
Campus Planner, Facilities Planning
date

Jennifer Still
Project Manager
Campus Design and Construction
date

Rick James
Project Manager
State of Utah Division of Facilities and Construction
Management
date

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Steering Committee
David Pershing, President, University of Utah
Patricia Ross, Chief of Strategy Officer, University of Utah
Hiram Chodosh, Dean, S.J. Quinney College of Law, University of Utah
Kathleen Morgan, Director of Administrative Services, S.J. Quinney College of Law, University of Utah
Rita Reusch, Director of Library and Computer Services, S.J. Quinney College of Law, University of Utah
Matthew Hemsley, Executive Director of Institutional Advancement, S.J. Quinney College of Law, University of Utah
Michael Perez, Associate Vice President, University of Utah Facilities Management
John McNary, Director, University of Utah Campus Design and Construction
Jennifer Still, Construction Manager, University of Utah Campus Design and Construction
Eric Browning, Planner, University of Utah Facilities Planning
Bruce Gillars, Director of Space Planning, University of Utah
Myron Willson, Director, University of Utah Office of Sustainability
Rick James, Project Manager, State of Utah Division of Facilities and Construction Management

Design Team
Tom Butcavage, SmithGroup
David King, SmithGroup
Joanne Breznay, SmithGroup
Peter Brunjes, VCBO Architecture
Sean Thompson, VCBO Architecture
Whitney Ward, VCBO Architecture

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01.executive summary

Description

The University of Utah S. J. Quinney College of Law plans to break ground for a new building in 2013. Founded in 1913, the College of Law is currently housed in three different structures, and the main law building was constructed in 1963. The configuration and condition of the existing buildings does not adequately support modern legal education methodologies or the College's current innovative programs. These new programs require new types of spaces and contribute to the College's national presence and stature as a "Top-Tier" law school among the top fifty law programs. The College of Law is noted for its high caliber students, faculty and scholarship and its distinctively low student/faculty ratio. The new building project will resolve the lack of appropriate facilities which currently inhibits the College from advancing forward, producing the next generation of leaders in law and government, serving the University, the State of Utah, the national and the global community, and addressing the legal issues of our time. The new building's components are listed to the right, with their associated programmed net and gross square footage.

Program Summary

	Proposed Program		
Department	**NSF**	**NSF/FTE**	**GSF**
Instructional	13,000	29	20,635
Administration	6,960	15	11,048
Faculty	2,460	5	3,905
Law Library	19,180	43	30,444
Students	3,000	7	4,762
Other/Support	10,340	23	16,413
Common Areas	9,970	22	15,825
Advanced Research Areas	33,260	74	52,794
Total	**98,170**	**218**	**155,825**

Site

The building site will be located on the southwest corner of the University campus, formed by the intersection of University Street and South Campus Drive. Site development shall be consistent with the 2008 University Master Plan, updated in 2010 and the draft South West Precinct Plan dated January, 2012.

Project Scope

The project will include the following:

Building

Construction of a new law school building of 155,825 gross square feet.

Outdoor Elements

Construction of an entry courtyard at the corner of University Street and South Campus Drive. Construction of a law school courtyard and outdoor recreational area, located to the north and east of the new building.

Demolition

Demolition of the existing buildings on the proposed site.

Utilities

Connection to existing utilities, as needed for the project and re-locate other utilities that conflict with the building footprint and site areas.

Project Cost

The following cost estimate has been created to reflect the goals, facility performance requirements, programmatic space requirements, quality and character of the new Law School.

These requirements include:

- The University of Utah requires the facility achieve 40% cost savings over a baseline ASHRAE 90.1 facility, as defined in LEED 2009.
- The University of Utah requires the facility provide metering and data capture to achieve the Measurement and Verification credit as defined in LEED 2009.
- A robust technology package has been provided for.

The program cost summary is outlined below. The cost estimate is in March, 2012 dollars.

	Total Cost	Cost / SF
Total Construction Cost	$46,575,884	$298.80
Total Soft Costs	$13,745,307	$88.18
TOTAL PROJECT COST	**$60,321,191**	**$386.98**

Project Vision

Innovation, through student-centric, experiential training, collaborative leadership in research, and new models of direct service, and impact on the next generation of leaders, the critical issues of the day, and the broader community represent the two core commitments of the new building.

The project vision articulates the qualities of the new building that will guide future planning and design. Innovation and impact reflect both internal characteristics and activities and external outcomes. Both words relate to the College of Law's desire to match, leverage, and sustain its core commitments, rich traditions, and current success. The program for the new building is developed in order to meet the following objectives:

Project Objectives

- Express the College of Law's fundamental values and facilitate its dynamic programs through distinctive architectural design.
- Advance student-centric, innovative legal education methodologies.
- Develop a responsive model of legal education, focusing on the problems of our day through collaborative research, innovative pedagogy, and direct public service.
- Respect the environment and conserve resources, achieve significant energy efficiency, inspire sustainable and responsible practices.
- Maximize the potential for use of space, assigning multiple activities to dynamically shared spaces and providing inherent flexibility.
- Establish an interactive relationship between the College of Law program and its architecture so that each fundamentally challenges and shapes the other.
- Create a lively campus gateway, contributing to the University's development consistent with the Master Plan guiding principles.

An innovative and responsive planning and design approach is required in order to meet these objectives. New ways of allocating and configuring space will support internal programmatic innovations geared toward student-centric instruction, leadership development, and collaboration. Consistent with a parallel external commitment, spaces for multidisciplinary programs, joint projects, and training are envisioned. Providing access to resources through a unique, flexible combination of functions, leveraging technology, and incorporating exemplary sustainable design practices will produce a highly effective and efficient new facility.

The values that inform project objectives result from a continuum and strong traditions based on almost a century of engagement between students, faculty, alumni, and staff. The project is an exciting opportunity to take the next step, build on the College's exceptional foundations, crystallize and sustain the College of Law's success as a preeminent institution of legal education—one uniquely dedicated to improving on classical methods and directing its resources to improve the human condition.

Process

The programming process took place from November 2011 through January 2012. The projected was guided by a committee that included representatives from DFCM (Utah State Division of Facilities Construction & Management), the University of Utah, and the College of Law. Programming input was obtained from the building committee and from College of Law, students, faculty and representatives from its administrative departments.

The process included:

- Input on the project vision and objectives during an initial kick-off meeting and subsequent sessions.
- Interviews with program component representatives regarding space needs.
- Meetings identifying utility, infrastructure and building system requirements.
- Meetings that established site criteria, priorities, and compliance with Campus Master Plan considerations.
- A sustainable design charrette with participation from the University's Sustainability Director, the DCFM Energy Program Director, and representatives from the College's Wallace Stegner Center for Land, Resources and the Environment.
- A session focused on branding in order to identify opportunities to integrate architectural design with mission and experience.
- A preliminary review of programmatic space needs and cost projections within project budget parameters.
- Detailed documentation, which was reviewed and approved by the College of Law, University of Utah, and DFCM project team members.

02.site considerations

Climate analysis

The following climate analysis will inform the site and project design and promote a site responsive design.

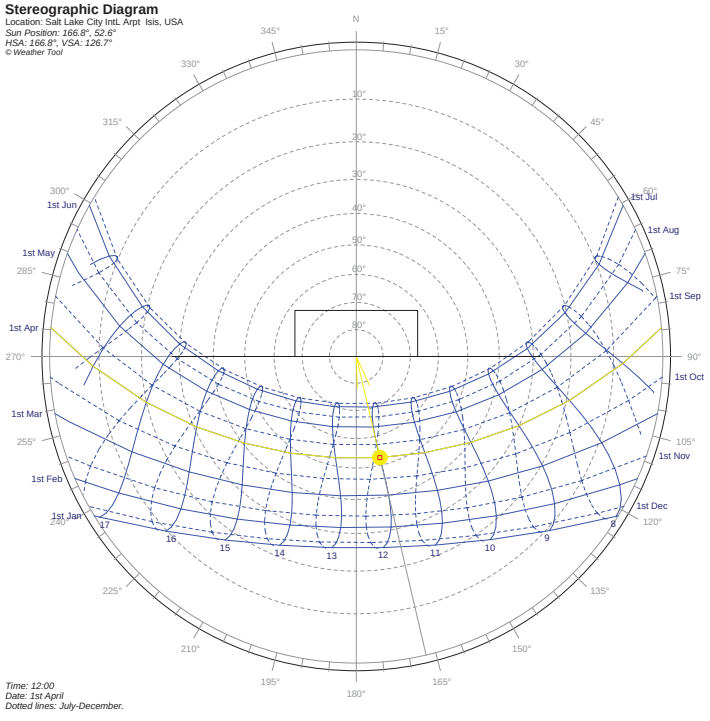
"Salt Lake City is located in the Salt Lake Valley, a northern Utah valley surrounded by mountains on three sides with the Great Salt Lake to the northwest. The Wasatch Mountains five miles (eight kilometers) to the east have peaks to nearly 12,000 feet (3,660 meters) above sea level. Their orographic effects cause more precipitation in the eastern part of the city than over the western part. The Oquirrh Mountains seven to eight miles (eleven to thirteen kilometers) to the southwest of the city have several peaks above 10,000 feet (3,050 meters). The Traverse Mountain Range at the south end of the Salt Lake Valley rises to above 6,000 feet (1,830 meters). These mountain ranges shelter the valley from storms from the southwest in the winter, but are instrumental in developing thunderstorms which can drift over the valley in the summer.

Besides the mountain ranges, the most influential natural condition affecting the climate of Salt Lake City is the Great Salt Lake, about 10 miles (12 kilometers) northwest of the city. This large inland body of water, which never freezes due to its high salt content, moderates the temperatures of cold winter winds blowing from the northwest and helps drive a lake/valley wind system. The warmer lake water during the winter and spring also contributes to increased precipitation in the valley downwind from the lake—the 'lake effect.'

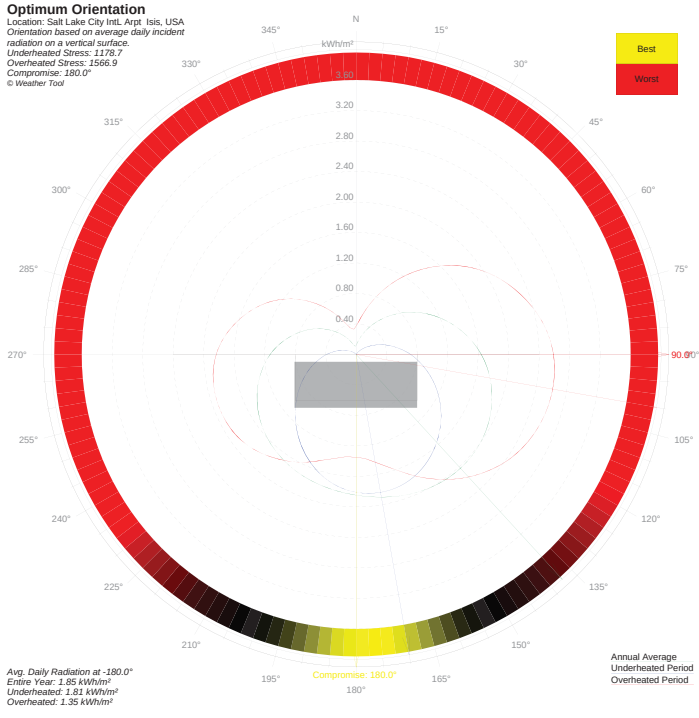
The combination of the Great Salt Lake and the Wasatch Mountains often enhances storm precipitation in the valley.

Salt Lake City normally has a semi-arid continental climate with four well-defined seasons. Summers are characterized by hot, dry weather, but the high temperatures during this season are usually not oppressive, since the relative humidity is generally low and the nights usually cool. July is the hottest month with an average maximum reading in the low 90s F. (30s C.). The highest temperature on record is 107º F. (42 °C.). January is the coldest month with an average daily minimum around 20º F. (-7 °C.). The lowest recorded temperature is -30º F. (-34 °C.)"

http://www.slcgov.com/info/area_info/climate.htm



Annual Solar Diagram
Salt Lake City, Utah



Optimum Orientation Diagram
Salt Lake City, Utah

Solar Access

Salt Lake City has an average of 125 sunny days per year. The sun can be very strong in the summer and provide warming relief in the winter. Due to the Wasatch Front to the east, solar exposure on the east is minimized, as the sun is higher in the sky by the time it rises over the mountains. Solar exposure from the west, however, can be very harsh in the summer months as the low sun can reflect off the Salt Lake and cause additional glare in the valley. As shown in the diagram above, the optimal solar building orientation for Salt Lake is almost directly south and the ideal building form is rectilinear with the long facades facing north and south. This orientation minimizes the negative effects of the lower east and west sun and maximizes the controllable south sun. The proposed project will have the primary facade facing south.

Salt Lake City Area (ThreadEx Station)
Monthly Totals/Averages Precipitation (inches) Years: 1981-2010

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Average	1.24	1.25	1.79	1.99	1.94	0.98	0.61	0.69	1.21	1.52	1.44	1.41	16.09

National Climatic Data Center

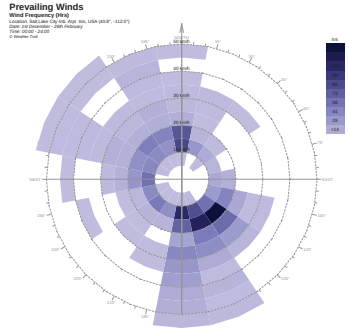
Precipitation

Precipitation is generally light during the summer and early fall and heavier in the spring. The annual average precipitation ranges from about 16 inches (406 mm) at the airport to more than 30 inches (762 mm) in higher elevations. May is typically the wettest month of the year and July is the driest month. Between December and March the majority of the precipitation is in the form of snow. Snow accounts for about one third of the annual precipitation in Salt Lake City.

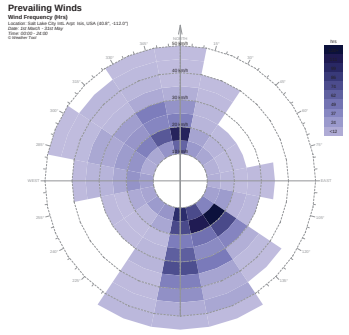
Wind Impacts

Winds are usually light in Salt Lake City, with a mean speed 8.8 mph (14.2 kph). There are occasional high winds associated with storms or easterly winds blowing out of the canyons. These canyon winds effect the University of Utah campus more than downtown Salt Lake City and may impact the project site. The overall prevailing wind direction is from the south-southeast.

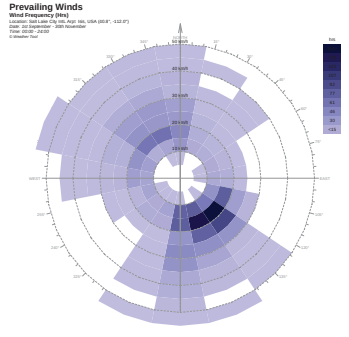
The University of Utah has distinct wind patterns due to the location near the Wasatch Front and nearby canyons. There is currently a wind study in progress at the adjacent Thatcher Addition to Chemistry. The study will reveal site specific wind patterns and will be available during project design stages.



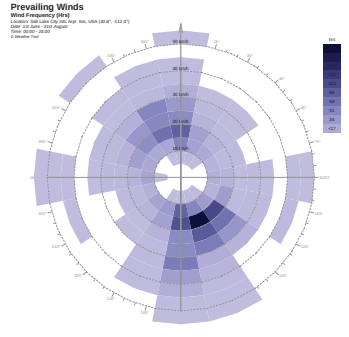
Winter Winds



Spring Winds



Summer Winds



Autumn Winds

Salt Lake City Area (ThreadEx Station)

Monthly Totals/Averages Temperature (degrees F)

Years: 1981-2010

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Max.	37.6	43.3	53.9	61.8	72.1	83.2	92.8	90.8	79.4	64.9	49.7	38.2	64.0
Min.	21.6	25.3	33.7	39.6	47.8	56.5	64.9	63.7	53.3	41.4	30.7	22.7	41.8
HDD*	1094	863	651	433	204	45	2	2	77	367	737	1063	5538
CDD**	0	0	0	4	50	198	439	390	124	8	0	0	1214

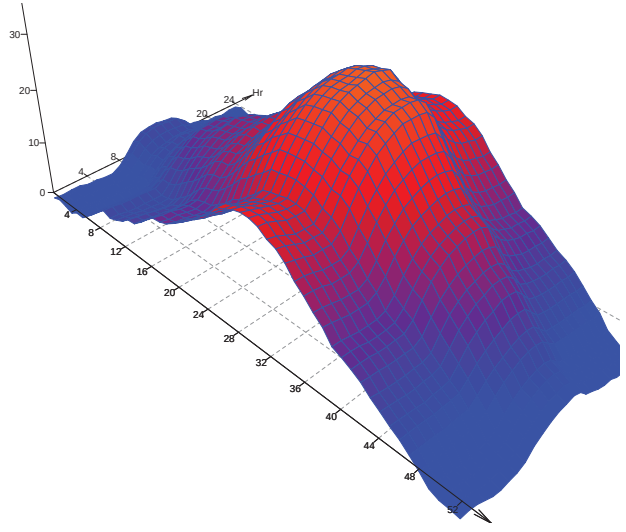
* HDD stands for Heating Degree Days
** CDD stands for Cooling Degree Days

National Climatic Data Center

Temperature

Due to Salt Lake City's four distinct seasons, a wide range of temperatures exist in the Valley. The temperatures typically range from the upper 90's in the summer to the teens in the winter.

The mean diurnal temperature range is about 30°F. in the summer and 18°F. during the winter. Temperatures above 102°F. (39°C.) in the summer or colder than -10°F. (-23°C.) in the winter are likely to occur.



Weekly Temperature Variation

Salt Lake City, Utah

Site Design

A site criteria exercise, presented by Campus Planning, was completed by the Steering Committee to identify the key site priorities for the College of Law. The outcome of the exercise was the identification and prioritization of site design elements and goals. In order of priority, these goals are as follows:

- Create a Positive Image and Iconic Campus Gateway that projects the Law School Vision of Innovation and Impact
- Sustainable Solar Orientation: an East to West Axis
- Pedestrian Access: ADA Friendly with and Clear Wayfinding
- Enables Connectivity with and Engagement of Main Campus
- Vehicular Access: Drop-off and Service
- Contributes to a Vibrant Campus Edge
- Promotes Connectivity with Downtown via TRAX, Bus and Auto
- Adjacent Parking
- PAC 12 Environment and Eminence
- Contributes to and Complies with Campus Master Plan

This analysis helped solidify and clarify the key site priorities for the College of Law facility. As the design progresses these goals should be achieved.

Site Description

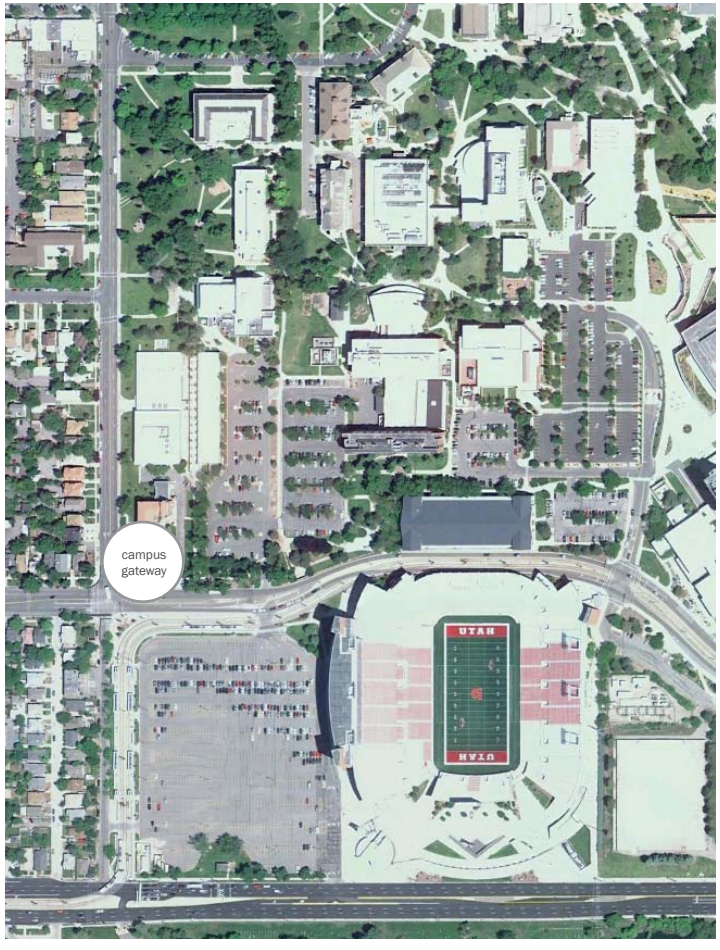
The site for the future College of Law is located in the south side of the West Precinct of campus. The site is flanked by the Fieldhouse to the east, South Campus Drive to the south, University Street to the West and the existing Law School and Law Library to the north. The project site encompasses Carlson Hall and a large area of surface parking. In addition, there is over thirty feet of topography change from the lower west side at University Street to the higher east side near the Fieldhouse.

The project site is predominantly located on campus and as such needs to meet the various goals of the Campus Master Plan and more specifically the draft South West Precinct Plan. These goals include:

- Create a Campus Gateway
- Improve Pedestrian Paths
- Interface with the new Chiller Plant

In addition to precinct planning goals, key site design components need to be addressed:

- Access: Transit, Pedestrian, Vehicular, Service
- Site Design Principles
- Site Zones
- Site Branding and Wayfinding



Campus Gateway

The new College of Law facility shall be designed to frame the corner of South Campus Drive and University Street and engage pedestrians coming from TRAX, automobiles entering campus from this location and create a physical and visual gateway to campus.

The image to the left illustrates the gateway plaza location that should be framed by the College of Law facility.

The gateway will enhance pedestrian access and accessibility while creating a recognizable and enjoyable place on campus.

Improved Pedestrian Paths

The Precinct Plan defines a number of improved pedestrian paths, including the improved path along University Street, an improved accessible route along South Campus Drive from University Street to the tunnel, improved accessible pedestrian paths from the tunnel to the walkway south of the Thatcher Addition to Chemistry and an improved walkway from the tunnel north to President's Circle. As site improvements occur that would affect or enhance any of these walk ways, the vision as defined in the Precinct Plan shall be achieved.

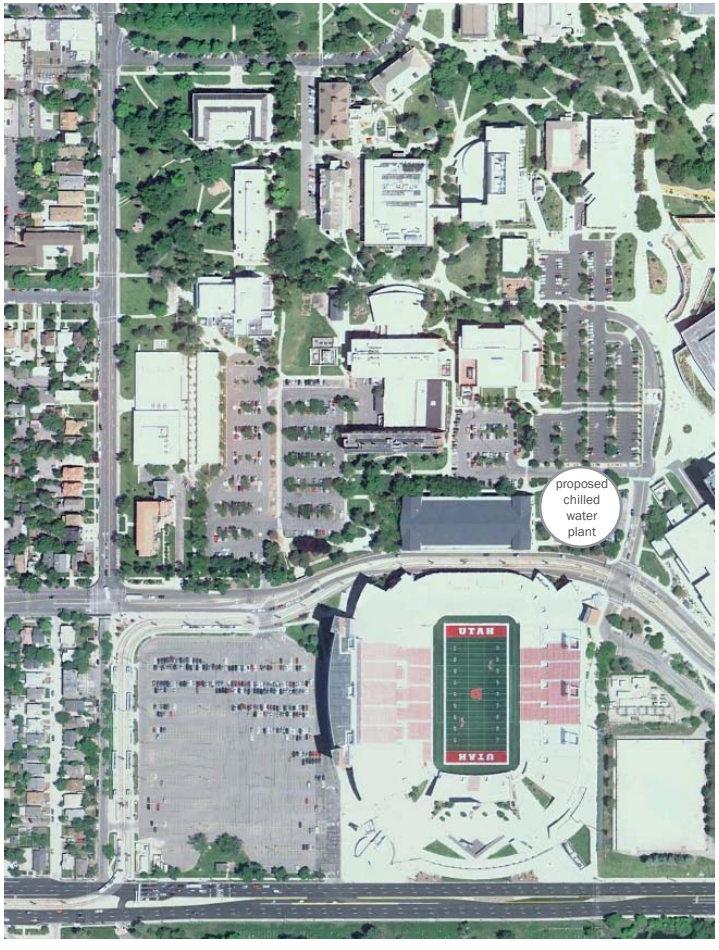
Interface with the New Chiller Plant

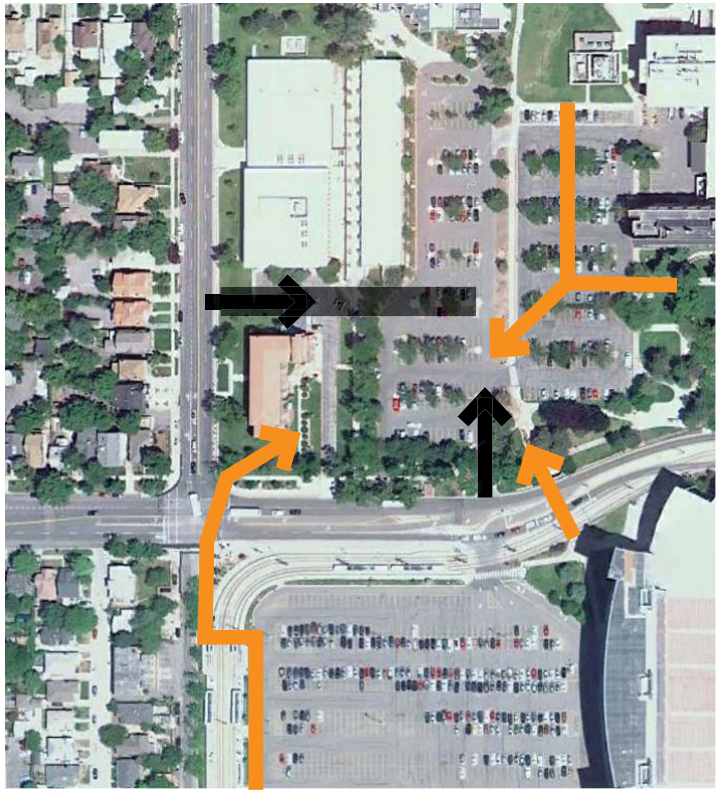
A new chilled water plant is slated to be constructed in this area of the West Precinct. The new chilled water plant is in the design phases concurrent with the College of Law. The new facility should be designed to tie into the new chiller plant. In the event that the plant is not fully operational before the new facility opens, a temporary cooling system shall be provided.

The piping or tunnels associated with the new chiller plant should be considered with the site design and building location.

Transit Access

The existing Utah Transit Authority light rail and transit systems provide convenient access to the College of Law facilities. Located south of the Law facility, the University TRAX line stops at the south side of South Campus Drive. The primary pedestrian route from the TRAX stop cuts through the football stadium parking lot, northwest, to the pedestrian underpass. A secondary route of travel is available via a ramp from the station to the intersection of 400 South and University St. However, the sidewalk on the north side of South Campus Drive does not currently provide convenient pedestrian access to the area of the proposed facilities. This area should be addressed to open up the intersection corner for pedestrian access to the plaza and ceremonial front door to the building and campus.





Legend

- pedestrian access
- vehicular access
- service access drive

Two existing bus stops are located along the north side of South Campus Drive and along the east side of University Street. The University of Utah and UTA may need to explore relocating these stops to accommodate safe vehicular and pedestrian circulation routes, due to the new building configuration. These bus stop locations should be studied to work in conjunction with the overall site pedestrian and vehicular circulation.

Pedestrian Access

The building should be oriented to enhance the pedestrian experience on campus as well as around the project site. There are two primary pedestrian convergence points on the site, one at the campus gateway at the intersection of University Street and South Campus Drive and the second primary pedestrian area is at the east side of the site where the tunnel pedestrian path, the path to campus south of the Thatcher Addition and the pedestrian path to President's Circle intersect. The first point is the face of campus to visitors and the public, and the second point is the primary pedestrian connection to the rest of campus.

The site needs to be developed to provide ADA-compliant access to all programmed spaces and provide accessible routes of travel to the campus. The design team needs to consider the interface of this site with the existing campus conditions, many of which are not ADA compliant.

Vehicular Access

Vehicular access to the parking areas north of the site need to be maintained. The vehicular access for the site shall align with the vision for vehicular access within the Precinct, as presented in the South West Precinct Plan.

Service Access

The service access is also addressed in the draft Precinct Plan. A service drive will be located with the pedestrian path connecting from the site to President's Circle and then to either South Campus Drive or University Street on the north side of the site. Again, the service access defined in the Precinct Plan should be adhered to as the site development progresses.

Site Design Principles

The design of the site should be an extension of the building design to connect the user with the environment beyond the building walls. The landscape and building design team should focus on creating indoor/outdoor relationships and creating synergistic spaces that provide public, semi-public and private spaces.

Indoor/Outdoor Relationships

In order to achieve the goal of creating connections with the site beyond the building, consider both the experience of the user inside the building perceiving the environment beyond as well as the user outside the building looking in. Because of the grade changes on the site, special consideration will need to be given to the building and site design relationship to link the indoor experience with the outdoor experience. In addition, opportunities to link the building and site with views, especially toward the west should be considered.

Scale of Spaces Respond to Use

The design of the various outdoor spaces need to respond to the projected use and the desired level of public/private space. For example, the entry space at the campus gateway should respond to the scale of the intersection, be developed in an appropriate scale to be perceived as a campus gateway, and be developed as a public space that can accommodate several groups of people. While the scale of the entry plaza should be grand enough to feel like a campus gateway, design details should also respond to the scale of the single pedestrian. Smaller, more intimate conversation spaces should be included within the larger, more public spaces. An example of this may include the incorporation of seating areas for the outdoor café space within the large entry plaza.

Flexible Spaces

The site, like the building, needs to be designed to provide flexibility of use. The outdoor spaces should be designed to create a variety of spaces to support day-to-day activities as well as special events – gatherings, forums, presentations, conferences, graduation gala events, etc. The site should be flexible to provide areas for a comfortable, private exchange between a small group as well as a more formal, organized gathering, such as a study group, team meeting, or gala event with several participants.

Site Zones

Several distinct site areas need to be orchestrated to work seamlessly with the architectural design and the campus beyond while addressing the need for multi-functional outdoor spaces. These include the following areas:

- Campus Gateway and Entry Plaza at the intersection of South Campus Drive with University Street
- The Campus Front Door
- The South Campus Drive interface
- The Roof Plaza
- The Backyard

Campus Gateway and Entry Plaza

The location of the College of Law building, at the intersection of South Campus Drive with University Street, provides a unique opportunity as a pedestrian gateway as well as an icon to the public. In order to maximize this opportunity, the scale of the intersection needs to be carefully considered from a vehicular standpoint as well as the scale of the pedestrian entering the campus and building. The plaza space should celebrate the iconic entrance to the campus and provide a gathering space and outdoor study/seating space for law students and the public alike. This corner needs to address the intersection with a plaza space

that will welcome the public to the campus and to the College of Law facility while maximizing the opportunities presented by the grade change. Depending on the final building elevation, the plaza grade transition may include a space with a grand staircase, amphitheater-style steps or terraces for casual sitting, keeping in mind that the site needs to be developed to provide ADA access to all programmed spaces.

An existing historically-significant stone wall currently flanks the corner. It is anticipated that a portion of this wall may be removed and the end of the wall may return into the plaza space, with appropriate preservation and remediation efforts to provide continuity between the existing and proposed wall sections. The removal of a portion of the wall and reconstruction of a historically-consistent relocated wall return will open the corner to pedestrians arriving at this corner and open the corner as an iconic public space. It is anticipated that there will be a café located in conjunction with this entry plaza, which will help invigorate the space with activity. The plaza should accommodate outdoor seating for the café and provide spaces for casual interaction.

The Campus Front Door

The current Law facility does not provide an adequate front door to the campus side of the facility. An opportunity exists to provide semi-public plaza space at the east or north side of the proposed College of Law building. This space can serve as an informal gathering space for students, as well as a front porch for the College of Law building to acknowledge the campus beyond. Students should be able to easily find the front door from the campus side from cues in the architecture as well as cues in the site and landscape. This space may also serve as the terminus/ node for the main east-west walk and north-south walk from the campus, and should provide an interesting feature and/or focal point to engage the users of the walk. This is a great opportunity to integrate branding into the site design, consistent with the building design and draft Precinct Plan.

South Campus Drive Interface

The grade change between the west side and the east side of the site is significant, over 30 vertical feet. Obviously this grade change creates a challenge for the accessibility of the facility as well as the overall accessibility of the campus beyond the College of Law facility. The area between the building and South Campus Drive needs special attention in order to create a space that provides a user-friendly accessible route while still addressing the building facilities and street with a design that is well-suited to a campus gateway setting.

Roof Plaza

Plaza space on upper roof terraces will provide a private area for College of Law students, faculty, and guests to enjoy the outdoors. It will be accessible from a common space that serves an auditorium and other event spaces. The roof garden area should be designed to provide a comfortable, multi-functional space to accommodate such uses as barbecues, outdoor events, galas, and study space on a day-to-day basis, including a semi-enclosed area for use in inclement weather. The plant materials should create an environmentally-friendly roof that is both comfortable and welcoming for users.

Irrigation lines should be coordinated with the Architect and Mechanical Engineer so there are no pressurized lines on the roof, in order to minimize potential water damage to the facility in the event of a system break.

The Backyard

The College of Law users have indicated interest in a multi-functional recreational zone, where students might be able to take a short break from their studies for an informal game of pick-up basketball. This space should be planned in conjunction with the draft South West Campus Precinct Plan, as the space requirements for this use need to be coordinated with the adjacent uses. The parking area within the core of the precinct may be considered to accommodate some recreation uses, including basketball.

Landscape design

The hardscape and planting materials used in the site design should tie this project to the existing campus. The materials should complement the building and enhance the facility as the Campus gateway. Consideration should be given to the selection of the materials and construction detailing, to contribute to the overall sustainability of the project and to minimize extensive long-term maintenance.

Sustainable Design Considerations

Given the College of Law's commitment to the multidisciplinary study of natural resources and environment law and policy, it is fitting that this facility is rooted in sustainable principles. The possibility for engaging the College's Wallace Stegner Center for Land, Resources, and the Environment in the sustainable approach, design and implementation of site and campus elements, may exist. Specifically there are opportunities for study and policy impact regarding water use laws in relationship with the site and building design. Other opportunities may also exist and should be explored.

Consider the following sustainable site possibilities:

- Re-use existing materials from the site demolition in the site features and design
- Re-use of existing parking lot pavement as base course under pavement or fill material

- Use of porous pavement materials
- Specify high albedo materials – lighter and textured materials diffuse reflected heat and reduce heat gain
- Utilize high fly-ash concrete
- Provide covered and secured bicycle facilities
- Utilize local materials, where feasible
- Select materials with life cycle in mind

A sustainable landscape will consider the following:

- Heat-island reduction
- Shading on south/west sides to reduce solar heat gain
- Incorporation of native and water-wise plant material
- Grouping plant materials with similar water requirements

Native and locally-adapted plant material can add identity to the facility, representing the local Utah climate. Plant material should be selected for its functional use as well as educational and aesthetic purposes. Functional uses may include framing views, providing shade to reduce heat gain, creating a pedestrian scale against the building façade, creating a ceiling of tree canopies to define a particular space and directing users to entrances and key site features. Aesthetic uses may be to provide color and texture for year-round interest, provide aromatic scents in pedestrian areas, and provide interesting patterns or rhythm to contribute to the synergy of a space or represent the native plant material in an urban setting.

Irrigation

The overall goal of the irrigation system is to reduce the amount of water, both used and wasted, to the extent possible, in an effort to develop a “water neutral” campus. This can be accomplished through the following means:

- Efficient irrigation system design
- Irrigation system zoned for plant material type
- Irrigation system that is climate responsive
- Use of secondary water (non-treated well water is available for landscape irrigation)
- Implement alternate irrigation means and/or methods to reduce the overall amount of water consumed (e.g. use disposed chiller water as water source)

Site Branding and Wayfinding

As the site design progresses, the use, quality and character of the College of Law should be conveyed. This place making will engage the University community as well as visitors and provide a unique identity for the College of Law that begins on the site and draws one into the facility.

The brand and/or identity of the facility as represented in the Branding section of Building Requirements also apply to the site and exterior building design.

Subsurface Conditions

At the time of this study, site specific subsurface investigations are not available. Information from the adjacent Thatcher Chemistry Building Addition would indicate the existence of sandy silts mixed with layers of clay and cobbles. The stratigraphy of these soils is not uniform and should not be relied upon to be directly transferable to the site. Experience in adjacent excavations has discovered areas of large cobbles, pockets of sand and the occasional boulder. These types of anomalies are not unexpected in an alluvium that has been eroded and filled many times during the course of time.

Site Utilities

Utility and service equipment (i.e., mechanical vents, transformers, generators, loading dock, dumpsters) should be located on the site so as to be screened from the main flow of vehicular traffic and pedestrian zones with a solid screen. This may include the incorporation of screen walls to conceal the equipment.

Existing Utilities

The site currently has or is near all utilities necessary to serve the building. These utilities currently service the existing Carlson Hall and Quinney Law School from the east. The proposed project will require that these utilities be relocated beyond the new footprint. Utilities that are available are sanitary sewer, culinary water, secondary water for irrigation, natural gas and high temperature water. A central chiller plant is currently being studied that would also serve this project.

These utilities are at the end of laterals serving the area. Construction of the new building will not significantly impact services to adjacent areas. Listed below are specific utility requirements.

Sanitary Sewer: The Salt Lake City master plan for sanitary sewer is capable of accepting the flow from this project. The final site configuration will possibly require the relocation of the main 8 inch diameter sewer line which passes through the edge of the site.

Culinary Water: The existing water service to this area is a combination of water lines that remain from the original military base and from more recent University installations. In general, the military base installed 6 inch diameter piping serving smaller buildings and fire hydrants. The University has subsequently installed 10 inch diameter piping that serves newer structures. The existing military base era piping should be removed where it is encountered by the new site construction. It is to be reconnected to newer University distribution systems as appropriate.

Secondary Irrigation Water: The University is currently installing secondary irrigation water that will be available for the proposed project. The location of the new piping is east of the anticipated site and should not be impacted by this project. This project is to make use of the this secondary water for irrigation services.

Natural Gas: There is an existing campus gas meter that is served by Questar. This meter is currently located on the north side of Carlson Hall. The new construction will require that this meter set and University distribution piping be relocated. All new piping is to be polyethylene with anodeless risers. All underground distribution valves are to be polyethylene and are to be located in 2 foot by 2 foot concrete boxes with solid lids per University utility standards.

Relocation of the meter will require adjustment to the legal easements granted to Questar.

High Temperature Water: The existing service lines to Carlson Hall will be removed. Analysis of the distribution system is to verify adequate capacity for the proposed structure. All new high temperature piping is to be installed according to current University standards. All new underground piping is to be Thermacor or equivalent.

Chilled Water: It is anticipated that the new project will be served by a new central chilled water plant. Distribution mains to the project are to be placed underground. The material for these mains is to be per University standards at the time of construction.

Storm Drainage: Retention of storm drainage water is of importance to the University to meet the goal of zero storm drainage discharge from the campus. This site is on the western edge of the University and therefore should retain its storm water discharge. Retention should be achieved through the use of bio-swales or underground recharge chambers. The determination of the choice of retention methods is to be determined based upon the final site positioning of the building and the aesthetic of the green space setback.

03.building requirements

Architectural

- Mission
- History and Growth
- Function
- Organization
- Flexibility, Adaptability
- Form
- Space Utilization
- Code Impact

Mission

Mission Statement

> *The mission of the S.J. Quinney College of Law at the University of Utah is to achieve academic excellence in the professional education of lawyers, to advance knowledge through the dissemination of high quality legal scholarship, and to perform valuable public service to the University, the State of Utah, our nation, and the global community. It is the law school's further mission to maintain and enhance our national presence as a preeminent institution of legal education, while recognizing our special obligation as the state law school to the Utah community and the Utah State Bar.*

Beyond its core mission, the College of Law is committed to build justice in local, national, and international communities in several concrete ways: through the generation of knowledge and insights from superior legal scholarship on the critical legal questions of our time; the development and application of superior academic and professional training for the next generation of leaders in the legal profession, business, and public service, and the direct delivery of highly effective public service at local, state, national, and global levels of engagement.

The College strives to direct these contributions of scholarship, training, and service to improve the impact of law on major issue-areas, including:

- The environment, with emphasis on the sustainability of natural resources, use of energy, and the threat of climate change;
- Health, with focus on developments in new life and biosciences;
- Crime and the system for prosecuting it, defending the accused, and protecting victims;
- Democracy, the rule of law, and the resolution of conflict in the broad field of global justice;
- Family, and the regulation of identity and intimate social relationships;
- Innovation in technology and the arts;
- The new economy in the wake of the financial crisis; and
- Other emerging areas of broad significance.

The College strives to reinforce classical legal education through a commitment to innovation, intimate learning environments, and dynamic training pedagogies for strengthening critically important professional capacities within the profession, including:

- Service, leadership, and decision-making
- Competence in other disciplines
- The effective use of technology
- Transnational problem-solving
- Advanced research and factual investigation
- Value-driven engagement and self-confidence of students

The College strives to channel extraordinary service to local, state, national, and global communities through:

- The leading service of faculty in pro bono or advisory capacities, engagement with news media, testimony before state, national, and international bodies
- Clinical programs
- The pro bono initiative
- Research service and professional training partnerships through think tanks and extra-mural research and training grants to support sustained programs, including a new National Criminal Justice Academy, and
- The creation of a national service academy to identify human resource capacities for domestic and global service and to improve the ability of the educational program to meet those needs.

The new building will directly support the foregoing mission and exciting programs.

In particular, spaces for collaborative research, supported with new sources of external funding, and experiential training, expanded through diverse models of service learning and intense

simulation (with the long-term vision of a teaching hospital for law) are key strategic elements in the design of a new facility. Excellence is increasingly seen as a result of an intertwined commitment to innovation and impact: innovation as a process of improving the modalities of legal education (research, teaching, and service) and impact as an external goal (informing key issues through research, producing the next generation of leaders, and filling major needs of underserved communities) inform the building program.

Key architectural commitments generated from this mission encompass:

- Pervasive, multi-use design that transcends traditional categories, thus conceiving of the entire facility coterminous with the mission, e.g., all spaces are learning, research, and service spaces;
- Student-centric designs, including more space and flexible furniture for students both within and outside the classroom;
- Collaborative research spaces, integrating students and faculty in proximate, multi-use environments;
- The centrality of the library as the core of knowledge creation, storage, and dissemination;
- Nimble technology to capture and push forward innovations that leverage modern technology in simulation, academic learning, the dissemination of research, the expansion of the school's global presence, and other objectives;
- Environmental sustainability in energy, materials, landscaping, water, and the educational experience of a sustainable building (though sensory feedback systems on usage, for example);
- Enabling architecture for the physically disabled well beyond the ADA requirements to achieve full access without the appearance of accommodation;
- Providing a major venue for elevating debate on the critical issues through a 400-plus-person conference center on the top floor;
- Incorporation of a work-hard, play-hard and family-supportive ethos, with recreational spaces and family oriented spaces to serve parents with young children;
- Provision of public spaces for the bar and broader community, e.g., library service for lawyers or pro se litigants, open public outdoor spaces, internal café and food service, etc.;
- The development of a professional training academy, e.g., the National Criminal Justice Academy, within the law school, thus co-locating advanced professional training with J.D. curricula; and
- Serving as a 21st Century Gateway entrance for the campus, given the site's key location across from the stadium trax station.

Through these architectural commitments, the College will be able to advance its mission, build on its rich traditions and reputation, and realize its most ambitious vision for the future of legal education, informed research, innovative training, and direct service to the broader society.

History and Growth

Consideration of the College of Law's history and growth relative to its facilities requirements yields the following observations:

- Expanding enrollment and overall population is only one among a number of factors driving the need for new or expanded facilities.
- ABA accreditation requirements and evaluation committee comments have influenced facilities decisions at several points over time.
- The College of Law's national reputation, student profile, faculty scholarship, and student input, and the changing nature of legal education and law library evolutions have all repeatedly impacted facility requirements.

The College of Law traces its history to 1852, when a plan for expanding the University proposed "establishing a Law School." In 1907, when "almost 50 students had expressed an intent to major in law rather than the expected 10 or 12," the University recognized a Department of Law under the jurisdiction of the School of Arts and Sciences. At that time the program consisted of a four year AB degree with the last two years covering the law courses. The law school was established in 1913, when the first LLB degrees, requiring three years of study, were awarded. Many of the courses for the Law School's enrollment of 75 students in three classes were conducted downtown. The completion of the John R. Park Administration Building in 1914 facilitated the movement of the law school from downtown to the campus. In 1926, the ABA approved the College of Law when the requirements for faculty hiring, admissions standards, law library collections size, and the law program itself being a full-time three-year program were met. During the decade of 1925-35, the focus of the law school was on classroom instruction, training the general practitioner with an emphasis on private law. At this time, the key activities of the law school occurred in the Park Building classrooms. The 1930's saw the beginnings of scholarly activity at the Law School. During this period, consideration was given to beginning a law review, an indicator of status in American law schools however the depression economy prevented this expenditure. In 1931, the Alumni Association was formed to solidify ties with 200 students who had graduated since 1913.

In 1935, the University Library building was completed and the Library moved from the Park Building, allowing for an expansion of Law School space. Accreditation inspection comments and a 1937 student petition reference the physical facilities, mentioning

seating in classrooms, and the law library. Professional operation of the law library began in 1939, when the library collection was organized and expanded.

While many law schools suspended operations during World War II, the Law School did not close but classes were consolidated and the small student body changed in composition to “women, Japanese internees, and males unsuited for military service.” A vastly different student body returned in 1945: predominately veterans in their late 20’s and early 30’s. Enrollment patterns fluctuated widely; in just over a decade the College of Law went from near-collapse to 355 students in 1948. By 1950, enrollment dropped to 264, and in 1955 enrollment stabilized at 161, which was to change only slightly over the rest of the decade. While the decline is attributable to the graduation of veteran’s classes it also reflects a tightening of standards. In 1955 the student body consisted largely of Utah residents. In 1949 the first Law Review was published, and during the 1950’s, faculty writing expanded greatly. This commitment to scholarship enhanced the College of Law’s reputation at the University and nationally.

By the mid 1950s, improvement to physical facilities became a priority. Classrooms were too few and inappropriate, faculty offices were inaccessible, there was no space for after-class discussions. In 1957, John Hervey reported on facilities conditions to the ABA, and the most serious problem was the law library, in terms of both collections and reader space. The 1957 report included the comment “unless adequate plant facilities be provided within the next five years.... it is the intention... to recommend that the school be dropped from the approved list.” In 1961 the legislature appropriated funds for a new building which was completed in 1963.

The initial reaction to the 1963 building which provides 37,200 nsf and 54,200 gsf, was extremely positive. In contrast to the cramped Park Building, the new building offered well-designed classrooms, comfortable and accessible faculty offices, and student study and conversation areas. However the 1963 building would soon prove to be too small – designed for 15 faculty and 300 students, a boom in College enrollment coincided with the building opening.

By 1969, renovations to the 1963 building were initiated, primarily converting law library space to faculty offices. Also in 1969, space in the adjacent Carlson Hall building was converted to use for the College of Law. While the specific functions within Carlson Hall have changed over time the College continues to occupy about 2900 nsf in that building. Law library space continued to be converted, and the need to replace and expand space for the library as well as the continuing need for additional facility offices were priorities for a new building/expansion project.

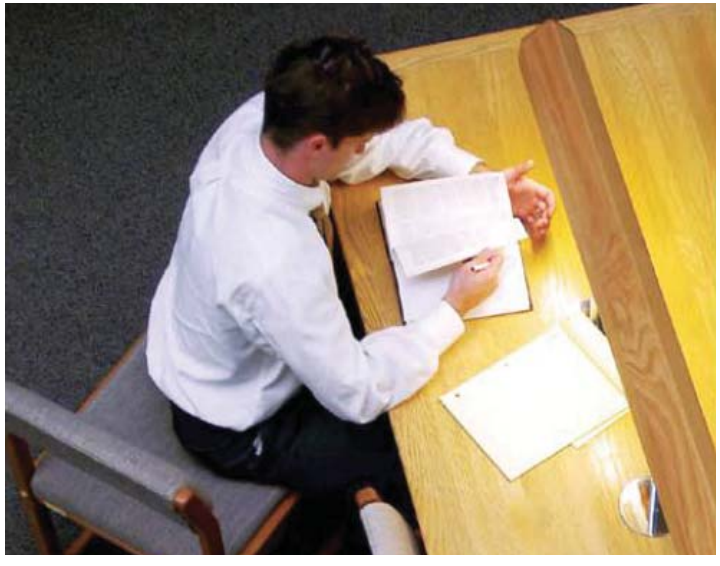
In 1982, construction was completed for a new law library providing 29,000 nsf and 36,300 gsf, which was named for S.J. Quinney in 1997. Renovations to the 1963 building have continued since that time. In 2001, the S.J. and Jessie E. Quinney Foundation made an extremely generous pledge to the endowment and the entire College was named for S.J. Quinney.

In 2003, the College commissioned a Master Plan study to evaluate expansion alternatives: the physical facilities were considered inadequate, not serving the College of Law mission and inappropriate given the academic quality and reputation of the school. The following conditions were noted in ABA accreditation review:

- Facility constraints inhibit programs and curricular innovations.
- The facilities have been stretched to the limit, and their inadequacy hinders the advancement and success of the Law School.
- Classrooms do not facilitate current teaching methodologies.
- Faculty offices are isolated from students and the life of the school.
- The existing facility cannot appropriately incorporate current technologies.
- Accessibility requirements and current life safety code requirements are not met.
- Building systems have outlived their useful life and are inefficient and inconsistent.

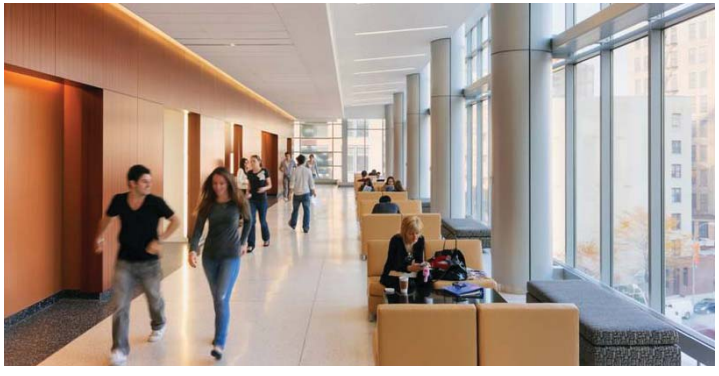
The 2003 study evaluated numerous options for expansion: five new on-campus locations; relocation to downtown; replacing existing buildings with a new building in the same area; six alternatives combining renovation with expansions. At that point, no recommendation was set forth, although it was concluded that either locating a part of the law school off-campus or decentralizing programs in different locations was not viable.

In May, 2009 an updated facilities study was completed that evaluated a narrower set of alternatives: a new building on either the existing building site or the Carlson Hall site, and two renovation and expansion alternatives.



In June 2009, an ABA site visit Team produced an evaluation report, with the following observations and recommendations:

- The law school facility clearly limits the school's curricular ambitions. Much of the space is not conducive to skills courses which require different functional spaces and technical support as opposed to traditional courses.
- The Team noted that little student activity occurred in the hallways and in common rooms and questioned whether the inadequate facilities fail to promote student intellectual interaction outside the classroom.
- The facilities provided for student organizations are wholly inadequate.



- The quarters provided for the editorial staffs of the law journals and the moot court board, for example, consist of renovated closets in the basement, and there are two few to accommodate everyone at the leadership levels of those organizations.
- The College of Law's physical plant is in overall poor condition. For example, the halls are very narrow, the myriad twists and turns where parts of the law school building have been added and/or repeatedly renovated.
- The building is long and narrow, and consists of two floors with a large central open space under a skylight. This configuration of the law library presents some practical problems in the terms of noise, traffic flow, scarce book storage, limited capacity for 350 or 87.5% of the enrollment for the current year.
- There is no dedicated space for clinical or professional skills training, or for collaborative student work in the new "think tank" and "practicum" courses. Skills exercises are conducted in seminar rooms which are equipped with video equipment), classrooms, the courtroom and offices.
- Very limited space is available for academic centers and other special programs. The Wallace Stegner Center for Land Resources and the Environment is housed in a single office in the main building occupied by the Associate Director of the Center. The new Utah Criminal Justice Center and Iraq Project are housed in adjacent Carlson Hall.

- Some faculty members believe that the shortcomings of the facilities affect the ability to recruit new faculty and students, and make it more difficult to connect with alumni and the community. Faculty and students stated that the physical space limitations and overcrowding has a negative impact on morale and discourages student presence at the law school beyond class attendance.
- There is wide consensus among the students, faculty, administration and site inspection Team that the current physical facilities are holding back the progress of the law school. The law school is creating and expanding academic centers, innovative programs, and professional skills training – all of which require specialized space, faculty and staff to reach their full potential.

Building on the 2003 and 2009 studies, a Pre-Programming Facility Study was completed in 2010. The study sets forth concept-level space requirements for an increased student population of 450 FTE and provides site and concept-level planning alternatives. The Pre-Programming Study recommends a new building of 98,000 net square feet (nsf) and 155,500 gross square feet (gsf), compared to 69,000 nsf and 94,000 gsf found in the existing buildings. The recommended space allocation was determined to be appropriate following evaluation of benchmarking data and facilities developments at relevant peer institutions. The Architectural Program defines detailed numeric and qualitative space requirements based on the parameters established by the Pre-Programming Study.

According to the widely-cited US News and World Report 2011, the College of Law is currently ranked as a “Top Tier” program, #42 out of more than 180 law schools. The college has the third lowest faculty to student ratio, behind only Yale and Stanford. There were 1,277 applicants for 268th incoming class of 2010, and 128 students were enrolled.

Function

People

The College of Law is a vibrant learning community with both well-established expertise and exciting new projects on the critical issues of our time. There is a prevailing sense of connection among students, faculty and administration, fostered by the College’s small size, remarkably low student-faculty ratio, and open and service-oriented atmosphere.

With a total enrollment of approximately 400, each class numbers approximately 135. Students come from over 115 colleges and universities; their average age is 28 with a range of 20-57. Approximately 90% of entering students served or worked in leadership positions, 15% have advanced degrees in other fields, and 60% speak at least one foreign language fluently. Students are drawn to the Salt Lake City location. As the State Capital and Intermountain Region’s largest city it offers a wide range of professional opportunities while adjoining a breathtaking natural environment with unparalleled recreational venues.

Faculty are honored locally, nationally and globally for their outstanding contributions. The awards recognize excellence in teaching and a deep commitment to scholarship and service. The

46 full-time faculty include law library faculty. In addition there are approximately 55 adjunct and part-time clinical faculty and three visiting faculty.

Law School administrators include specialists in a wide range of disciplines. The Dean oversees all College of Law academic business and financial aspects, and closely interacts with the Associate Deans. These include the Associate Dean for Academic Affairs, Associate Dean for Faculty Development, Associate Dean for Student Affairs, and the Associate Dean for Admissions and Financial Aid. Externally-oriented offices include Alumni Relations and Development, the Media Specialist and Marketing, the Events Office, the Travel Coordinator, and the Communications department. The Admissions Office includes a Financial Aid Officer and relates to both prospective and existing students, sharing a student orientation with the Registrar and Student Services and with the Professional Development Office. The Administrative

Services department and Information Technology serve the entire College of Law community. The Quinney Law Library administration includes faculty and staff who provide administration, information access, circulation, information delivery, information technology, teaching, collection building and maintenance and technical processing and access services functions. The new building should support the College of Law administration's collaboration as a unified team.

Legal opinion leaders regularly visit the College, participating in a variety of lectures, presentations and symposia. These experts include national and global legal scholars, legislators, judges and government officials. College of Law faculty frequently collaborate with University departments across a range of disciplines. Public visitors to the College include Clinic clients, Utah Bar and public patrons of the law library. Visitors will also include participants in College of Law sponsored advocacy training programs for external constituencies.

The University of Utah College of Law is the heterogeneous core of a cosmopolitan community, committed to diversity and to the belief that plurality of perspective, view point and experience greatly enriches the learning process. The College's student body, faculty and administration, an intelligent, high-achieving and ambitious group, come from all over the United States and many parts of the world.

The new building must embrace the concept of ability over disability. Rather than an afterthought or added layer, the design should seamlessly integrate provisions for people with disabilities.

The provisions will address the physical environment, approaching, arriving, orienting, and moving through it; the visual environment, including daylighting, artificial lighting, visual contrasts, and way finding; the acoustical environment; the thermal environment; the electronic environment including communications, digital access, and life safety provisions; and the chemical environment, addressing emissive or toxic materials. Many provisions will parallel the sustainable design features that will also be integrated in the new College of Law.

Activities

The activities that will occur in the new College of Law can be broadly categorized as instruction, experiential learning and training; leadership development and advanced research programs; study, research, and scholarship; interaction and collaboration; Administrative services; and events.

Instruction, Experiential Learning and Training

The College of Law has a notable tradition of intimate learning experiences, in formal and informal settings. First-year foundation courses include Civil Procedure, Constitutional Law, Contracts, Criminal Law, Property and Torts and are mainly taught in larger tiered classrooms, usually of 50 to 75 person capacity. The Legal Methods course uses simulated cases to teach analysis, research, writing and other lawyering skills and occurs in small, flexible spaces ranging from 15 to 30 person capacity. Legal Methods includes sessions with teaching associates in groups of four students. The Upper Division curriculum includes specialized courses and seminars in areas of skill, doctrine policy, and theory; many occur in small classrooms and seminar rooms, in sizes ranging from 8, 11, to 15 or 25 person capacity. A wide variety of special skills courses, ranging from drafting to negotiation in transactional settings, and from trial practice to intensive deposition simulations in litigation, require specialized formats and technology-enabled recording and observational capabilities.

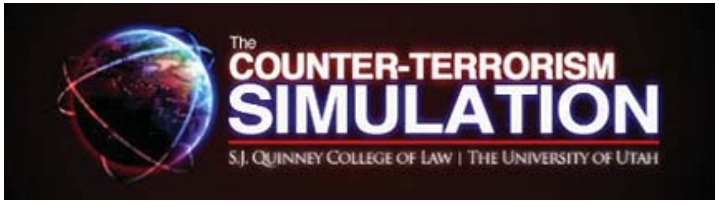
Legal instruction utilizes the Socratic method, in which the professor and students engage in dialogue within the classroom. The purpose is to learn critical thinking through participation and observation and the U-shaped format facilitates this method. Increasingly, the law school curriculum utilizes a variety of group work learning methods, requiring a variety of associated instructional environments. These include informal collaborative learning, wherein groups form within the classroom for the duration of a single class; more formal collaborative learning, with groups established for a longer duration, working together inside and outside the classroom; and informal study teams collaborating outside the classroom. Classrooms in the new College of Law have been programmed to facilitate this method, incorporating associated systems and technology requirements. A variety of small group work rooms have also been allocated for these activities.

Upper Division students apply academic learning skills through clinical experiences and through Think Tanks, the Pro-Bono Initiative, and the Law for America service program. While many of the activities have occurred outside of the existing College of Law building, the new building will be designed to accommodate increasing on-site Clinical programs. Clinical programs require specialized settings: under faculty supervision, students serve as practicing attorneys. The spaces within this area will accommodate live client meetings while facilitating the preservation of security and confidentiality of processes and records, as well as accommodating simulation and training formats. For the new building, the advanced research areas have been planned to incorporate provision for these requirements. Accordingly the Pro-Bono Director and Pro Bono Initiative Fellow will be located in the advanced research areas. Student workspace for storage, secure file storage for clinical work, and a seminar room for student training will be located nearby. While the Pro-Bono office is currently very student-centered and interacts more frequently with students than the public, the design should consider the likelihood of increased public interaction and provide for clinic-specific reception to direct visitors to the appropriate location.

The College of Law utilizes technology to enhance internal and external communications, to distribute research, and to advance learning objectives for students. The Information Technology staff continues to develop robust strategies to promote effectiveness in institutional programs. The approach to technology design in the new building should strengthen classical teaching methods while allowing for experimentation and sharing of new techniques. Student-centricity should be highlighted, including sharing information, individual work and responses, with the ability to capture, share, and evaluate performance. The building infrastructure must be designed to accommodate existing technologies as wells as adapt easily for future technologies; in general, portable and flexible devices are preferred. Broadcasting is a desired capability, to extend the law school presence out and to invite external activities into the school.

The College of Law has established an Innovation in Legal Education Program which will be housed in the advanced research areas. The program expands on simulation technologies, and places students central to all activities. As the design of the new building develops, the Innovation in Legal Education participants will provide detailed input on provisions for educational technology.

The new building will contain a training facility for external participants mirroring student programs with active professional training. The program will require a classroom space configured as a mock courtroom, of 25-person capacity, and 10 smaller break-out spaces for skills simulation. Training outside trial practice, including negotiation and mediation training is also intended. Typically, the programs will be 5-day duration, and associated food service, reception, break-out, and short-term work space will be provided.



Leadership Development and Advanced Research Programs

The College of Law's academic program emphasizes leadership development and training by providing a wide variety of opportunities. There are three student-edited journals, the Utah Law Review, Journal of Land, Resources and Environmental Law, and Journal of Law and Family Studies. Over fifteen special-interest student organizations engage in community and collaborative work as well as social events. Moot court and other skills competitions including advocacy, negotiation, mediation and new ventures allow College of Law students to compete nationally while developing these skills. Students receive advanced research training through Think Tanks, Quinney Fellowships, and directed research on projects related to topical issues associated with programs and centers. The new building will provide an innovative environment to foster leadership development and expand its commitment to advanced research training and student-centricity. The advanced research areas will combine law school functions and spaces in new ways and facilitate a high level of collaboration among students and faculty.

Students engaged in these activities will be provided with highly functional workspace, adjacent to faculty offices and to a variety of research modules. The research modules are planned to provide the type of collaborative resources needed to support these activities: conference and meeting space, dedicated assignable

project space, workspace for clinics programs and centers staff and fellows, and support functions including administrative personnel and storage.

The advanced research areas will be immediately adjacent to law library collections, reference librarians, IT staff and support areas to create a focused, dynamic and collaborative setting. They will be highly visible and accessible to building common areas which provide more informal opportunities for interaction and collaboration. The intended outcome of offering innovative training within an engaging environment is to provide exciting interdisciplinary opportunities, broaden skills, enhance education, and prepare college students to become leaders in law and public service.

The Wallace Stegner Center for Land, Resources and the Environment is one example of centers and programs activity that will occur in the advanced research areas. The center represents a concrete manifestation of the College of Law's commitment to the multi-disciplinary study of natural resources and environmental law and policy. The Stegner Center offers degree programs, a specialized curriculum, and awards and fellowships. The Center's faculty produce scholarship on a broad range of environmental topics.

Study, Research, and Scholarship

One significant advantage of its small size is the ability for the College of Law to provide a high level of access to resources, service and support. Taking full advantage of this characteristic, the new building will seamlessly integrate the law library. Rather than a single space with a single entrance, the law library will be integrated throughout the entire College of Law. Collections will be distributed vertically and organized to facilitate access especially to the advanced research areas containing faculty and student research and work spaces. This programming approach recognizes the need for a variety of adaptable study and research settings in order to respond to user preferences, and to the specialized requirements associated with the law library's role as a public facility and federal documents repository.

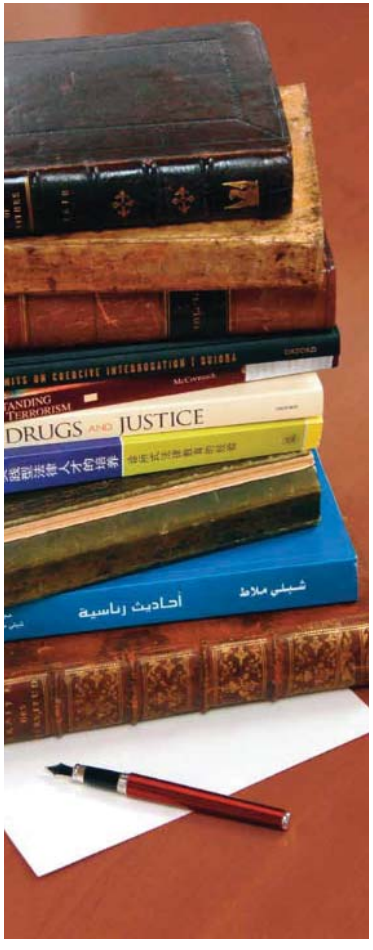
Student study and research settings will include the active research areas, collaborative group study rooms, and more quiet and focused areas. Faculty offices are also planned to facilitate concentrated individual research activity, while also

being proximate to more collaborative spaces housing centers, programs, and project endeavors.

A ground floor reading room adjacent to public use collections and a research assistance service point will facilitate use of the law library by public, community, alumni, and University patrons. An exceptional law library with great space will be well-used by the College of Law and the broader community.

Law librarians and library staff provide multiple functions and will be located to create a highly accessible level of library support and interaction. The public reading room will be adjacent to a primary service point near circulation and reference and IT service points. Law library administration and technical services librarians and staff will also be located near these areas. Reference librarian's offices will be positioned within the advanced research areas in order to engage with students and faculty, directly participating in the outcome-based research projects.

The planning approach recognizes the evolving nature of the law library. As print collections are replaced by multiple electronic formats, librarians serve as instructors, train researchers, and provide multiple services to students and faculty. These activities will be a focus of the new building's configuration.



Interaction and Collaboration

The key qualities of “innovation” and “impact” have both internal and external connotations; these parallel the types of interaction and collaboration intended as a primary consideration for the new building. Internal characteristics comprise the College of Law’s commitment to students, to their academic and professional success and to the quality of their experience. Spaces have been carefully programmed to respond to this commitment.

Programmatic elements will be arranged to create a dynamic atmosphere, and common areas should facilitate chance encounters, and encourage students, faculty and staff to linger. Variety is key: open and transparent areas will combine with more intimate and enclosed areas so as groups form and discussions continue, appropriate spaces are accessible and available. Visitors to the College of Law including members of the University community, the broader public attending events, and participants in external training programs will be encouraged to utilize these spaces and to engage with the law school community in formal and informal settings.

Students, faculty and staff regularly spend much of the day and evening in the building: by providing appropriate amenities including food service, lounges, and recreation and wellness facilities, the College of Law can greatly enhance opportunities for community interaction. The program includes provision for a streamlined café-type food service operation, cognizant of the operational challenges and scale economies associated with the relatively small population. This facility has been planned as an expanded coffee-bar operation, with the ability to offer breakfast and lunch options prepared off-site. Dining seating areas should be open to building common areas rather than enclosed, consistent with creating an overall dynamic atmosphere.

Specific spaces have been planned to allow students to primarily engage with students, and faculty and staff with other faculty and staff, recognizing that these groups have particular concerns that require the ability to conduct discrete interactions. An enclosed student lounge furnished with recreational and fitness equipment will be provided. The lounge will provide students with a space to relax and interact on a daily basis as well as a place to host student events. A faculty and staff lounge will serve for daily activity, outfitted for reading, casual interaction and dining. The lounge should be strategically located in order to draw people in. As the location for daily mail, coffee, newspapers, periodicals,

etc, it should function as a frequent daily destination. The faculty and staff lounge may also be configured as a space for symposia, faculty presentations, meetings with prospective faculty, and workshops. More structured faculty meetings will occur in the multi-purpose events space. The multi-purpose events space and courtroom/auditorium will serve a wide variety of internal College of Law activities as well as outreach programs.

Administrative Services

The College of Law administration engages in a wide variety of activities. As a close-knit collaborative team, the service-oriented administration fosters the College of Laws prevailing sense of community.

Dean's Office

The Dean engages in all major academic, business and financial activities. The Dean's suite should represent the Dean's primary administrative position and should have sufficient privacy to preserve confidentiality. At the same time, it should be in a central, prominent position accessible to faculty, visitors, and students. The Dean works closely with the Associate Deans and with the Executive Director for Institutional Advancement, whose office is within the Dean's suite. The Executive Director oversees and collaborates with many of the staff in External Relations, which should be located nearby.

Accounting

The Accounting department should also be located near the Dean's suite. Accounting collaborates with many departments, but most directly with the Dean and Library Director. One assistant deals specifically with Development. The Dean's conference room is used extensively and should be configured for a wide variety of meetings and small-scale College of Law gatherings and events.

External Relations

The External Relations area includes several departments which work closely together: Alumni Relations and Development, Communications, Media, Marketing, Events, and Travel.

Alumni Relations coordinates alumni activities, encouraging support and participation. They are involved in numerous events and special programs. Development handles gifts and endowments. External Relations/Media and Marketing is responsible for internal and external communications, tools and publicity. The Events staff coordinates and directly manages the wide variety of College of Law events. The Travel Coordinator arranges travel for College of Law faculty, staff and visitors. External Relations staff interact closely with both centers faculty and staff and with other External Relations staff, directly involved in Centers-related events, publications, and fundraising. The Media Specialist produces content-related and promotional videos and is co-located with a specialized media studio.

The External Relations area will be include an open collaboration area, a conference room for frequent meetings with visitors, a workroom for large-scale mailings and document production, and storage rooms for a variety of documents and materials.

Admissions

The Admissions office assesses applicants on the basis of quantitative and qualitative criteria. Prospective students and their families visit for information, orientation, and tours. The office should be located so that visitors receive a positive impression of College of Law activities. The Financial Aid Office is located within the Admissions office and interacts with prospective and enrolled students. The office should be located near the Registrar and Student Services office as records and information-sharing between these offices regularly occurs.

Registrar/Student Services

This office includes the Associate Dean for Student Affairs and the Registrar. The Associate Dean for Student Affairs assists students with a variety of issues and provides information, personal counseling, and referrals. The Associate Dean's office should be highly accessible to students, who should have the ability to gain easy access without the barrier of a formal reception area. At the same time, the ability to maintain complete acoustic and visual privacy is required.

The Registrar works closely with the Associate Dean for Student Affairs and these offices should be adjacent. The Registrar maintains course enrollment, grading and academic assignments and assigns classrooms and instructional spaces. Student records must be maintained by this office and sufficient secure, adjacent file storage is required.

Professional Development

The Professional Development office assists College of Law students and alumni in identifying professional goals and in finding satisfying employment. Professional Development staff teach job search skills and create relationships between students, alumni and employers. A direct adjacency to high student traffic is desired to encourage spontaneous meetings. Law firms visit the Professional Development office to conduct on-campus interviews, and at least six small, well-appointed rooms should be available for this purpose. Three interview rooms have been dedicated within the Professional Development office, and three small group study rooms should be located nearby. One room should be provided with technology to facilitate long-distance interviews. Interview rooms may also be used for study space during exams, group study sessions, as well as assisted exam accommodation.

Information Technology

The Information Technology department primarily focuses on student requirements and classroom technology IT offices will be located within a help desk area, which should have an “Apple Store feel” with 20 student workstations, providing formal and informal assistance. The Help Desk area and IT staff serve all spaces and users in the building and should be centrally located and accessible. IT staff should have easy access to a central A/V control room which will house classroom/events space recording, A/V, lighting and sound system controls. The Director of Technology Initiatives is associated with the Center for Innovation in Legal Education and that office will be located in the advanced research areas near faculty involved with the center.

Administrative Services

Administrative Services staff serves a wide variety of College of Law administrative functions. One staff member will function as the primary building receptionist and will be located at the primary ground floor service point. Another staff member will serve as receptionist for Student Services and the Dean. The Director oversees this department and the faculty assistants, and frequently meets with faculty and administration.

Faculty Assistants

Each Faculty Assistant works directly with 6-7 faculty members, and assists with other faculty as well. Primary tasks include copying, coordinating travel and scheduling, ordering books, and acting as a liaison with the law library. Students visiting faculty typically contact the Faculty Assistants to receive graded exams and schedule exam review sessions with faculty. One Faculty Assistant works directly with the Associate Dean for Academic Affairs and the Associate Dean for Faculty Development whose offices should be located near that workstation. Faculty Assistant workstations should generally be grouped together on multiple floors, and located very near faculty offices.

Grants and Contracts

The Grants and Contracts Officer works closely with faculty and Center staff to develop proposals and implement grants, also interacting with Marketing and External Relations. The office should be located near Centers and faculty.

Events

A wide variety of internal and external events of various sizes regularly occur in the existing College of Law building and these activities are expected to dramatically increase within the new building. An “events level” is envisioned for the uppermost level allowing participants to ascend through and experience College of Law activity spaces, and to allow the events spaces, associated interior break-out spaces and exterior terraces to take advantage of the spectacular views. The events spaces will consist of a 250-person capacity courtroom auditorium. An operable partition to the rear and the court well space at the front will permit the occupancy to increase to 400. This will allow the renowned annual Stegner Center Symposium to be held within the new building.

Other College of Law conferences will be able to utilize the space at the 250 to 400-person capacity. The auditorium will also be available for use by other University groups, as currently there are few such spaces available on campus.

The primary use of the courtroom/auditorium is as presentation space, however it will also be configured as an appellate courtroom: students will frequently use the space for moot court practice and for competitions, and the Utah Supreme Court visits the College of Law at least once a year. The courtwell space is sized to allow a jury set-up although the majority of proceedings will utilize the appellate courtroom configuration. Broadcast and sophisticated presentation technology will be provided.

Two areas will work in concert with the courtroom/auditorium: a large break-out area and a flat-floored multi-purpose space. The breakout area will enhance the courtroom/auditorium’s capacity, although its primary use is as a pre-function and reception area. This space should be inviting and attractive with plenty of windows and access to natural light. The multi-purpose space is comprised of three spaces which serve as flexibly-configured 50-person classrooms. Operable partitions between these rooms will allow them to also serve as presentation, reception, and dining spaces of various sizes and configurations. The events spaces will be served by appropriate support facilities including a catering storage and set-up area and sufficient furniture and equipment storage spaces to allow for the multiple intended configurations.

Events spaces should be designed to enhance the experience of participants and encourage involvement. While the intention is to engage events participants in general College of Law activity, some degree of privacy is required and disruption of events should be avoided. In addition to the primary events spaces, regular workshops and symposia will occur in the faculty and staff lounge and an adjacent catering kitchen and service area will be provided. The catering and service area should also be proximate to building common spaces for more informal gathering and events. The Dean's conference room is also configured to serve smaller-scale events, meals, and gatherings.

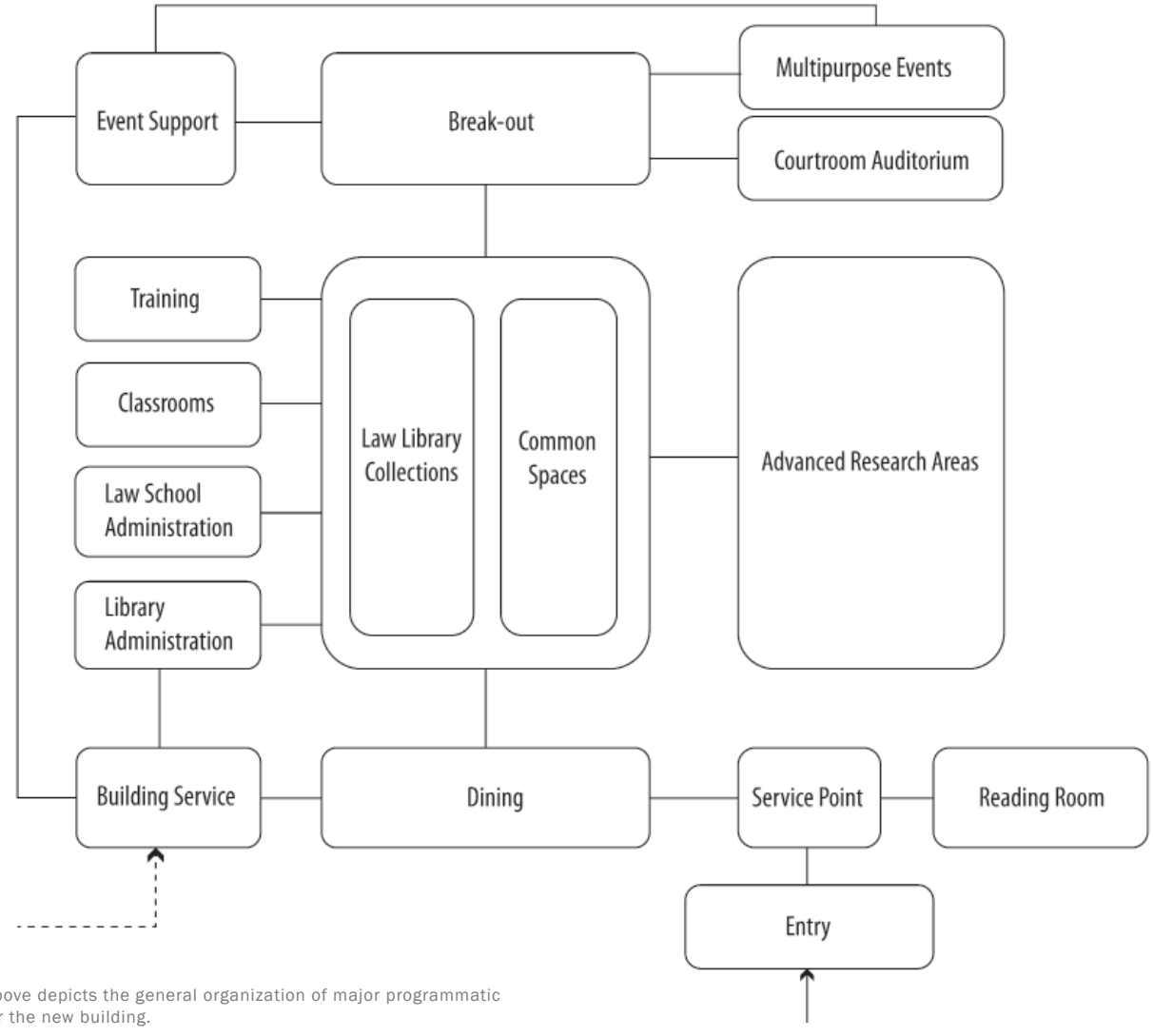
This multiuse design concept not only increases the utilization of spaces but also meets the goal to "maximize the potential for use of space, assigning multiple activities and providing inherent flexibility".

Organization

At the major entry, a service point will contain reception, security, law library circulation, and reference and IT assistance functions. A public reading room will be located nearby, and the café/dining area will be situated near building service access. Law library administration and technical services will also have easy access to building service, given frequent delivery of law library materials.

Law library collections and building common spaces will form the core of the new building, distributed on all levels and directly relating to both the advanced research areas and to classrooms, the training facility and law school administrative areas, all assumed to occupy multiple levels.

Events spaces including the courtroom/auditorium, multi-purpose events space, break-out, and associated support functions will occupy an upper level, to take advantage of spectacular views and to provide event participants the opportunity to engage with the College of Law's activities. Event support must have easy access to building service areas with an appropriately-sized freight elevator.



The diagram above depicts the general organization of major programmatic components for the new building.

Flexibility, Adaptability

The new building should remain a flexible, adaptable resource over time, for both the short term and the long term.

Short term flexibility will provide numerous advantages and will be achieved in a number of ways. Spaces have been allocated and envisioned to serve multiple uses in order to create an overall dynamic environment, reduce the total square footage requirement, conserve resource use associated with operations, and maximize space utilization. Examples include instructional spaces, which also function as events areas, simulation and training rooms as well as group meeting and work rooms. The new building's robust technology infrastructure will greatly enhance multiple uses of these spaces. Within the advanced research areas, research modules are meant to be easily reconfigurable to facilitate a variety of collaborative and individual workspace needs that will change as programs, centers, and clinics continuously evolve over time. An additive alternate for demountable glass partition systems has been identified to facilitate this level of adaptability for these areas. A raised floor system has also been identified as an additive alternate for use in the research areas, and for the 50-person classrooms/multi-purpose events space. This system permits furniture and spatial arrangements to be readily reconfigured while maintaining easy access to power and data and systems, allowing these to easily adapt over time. A system of operable partitions that maintains appropriate sound transmission levels has been identified for use in the 50-person classrooms/multi-purpose events spaces to allow for a variety of configurations.

Flexibility within the research areas is meant to encourage cross-fusion of disciplines. While the topically-focused individual centers and programs have specialized concentrations, activity and outcomes should be widely visible creating a multi-disciplinary network and sharing of knowledge, processes, and ideas. Several of the building systems described above, especially the raised floor system, will facilitate both short- and longer-term flexibility. While the raised floor system requires a greater initial investment, it provides the ability to readily adapt configurations and building systems with significantly less associated costs for future modification. Legal education in general is currently undergoing significant transformation, affecting instructional, research, and office and support functions. The provisions for flexibility and adaptability will facilitate incorporation of new pedagogues and requirements that are likely to continue to develop.

The law library collections storage strategy will provide for efficient use of resources and will provide an effective means for logical future expansion of other law school functions. The overall size of print collections has been reduced as materials are increasingly available in electronic format and as the preference for this format continues to increase. Print collections will be mainly housed in efficient compact shelving. The shelving will be distributed as a visually identifiable and readily accessible resource and will be immediately adjacent to building common areas, near the research areas, classrooms, and administrative spaces. This prime location for collections both signifies the law library as a

core knowledge asset and provides the means for logical/ready expansion of adjacent functions as the physical space needed for print materials may continue to decrease over the longer term.

Future expansion potential should also be identified beyond the initial building, and demonstrated through the project's site planning and design stages. This will serve multiple purposes. Law schools typically require some level of expansion on average every 20 – 25 years, even without increases to enrollment. Perhaps more significantly, the College of Law continues to increasingly provide programs and services for external public, government, and University constituencies. While several of these activities have occurred off-site, the new building is planned, through provisions for multiple uses and by dedicating a relatively modest amount of space for external events and training, to accommodate these functions. The potential for significant expansion of external programs and services exists, with the potential for significant advantages to the College of Law, in terms of its influence; ability for students to participate in significant activities, national profile, and associated financial benefits. Should the expansion potential of these programs and services be realized, expansion of the new building would be required.

Form

The new building's exterior and interior design should express the College of Law's fundamental values and enhance the experience of students, faculty, and staff, the University community, the broader Utah community, and national and global visitors.

The values that the design should convey include:

- Commitment to student-centricity
- Determination to achieve positive outcomes, addressing major questions of our time
- Pride in history of intimate learning and close community
- Stature as a preeminent institution of legal education
- Connection to the preservation of justice and traditions of the law
- Civic purpose and dedication to service
- Respect for the environment and connection to the spectacular natural setting

The exterior design must fulfill the University Master Plan vision, and contribute to creating a network of vibrant, defined campus spaces. The site location relates to the historic campus core of President's Circle and the new building may incorporate both lighter colored masonry materials in order to express that connection along with the pervasive red brick of much of the campus, which conveys warmth and human scale. Incorporating lighter masonry materials may also link the visual identity to the classic aesthetic of law school buildings and civic structures. The sense of permanence and timelessness is desired.

A degree of transparency is also desired, contrasting solidity with an open and welcoming demeanor. The site is extremely prominent and the new building must serve as a campus gateway and University and civic icon. This aspect represents a significant design challenge, reconciling the qualities of monumentality and approachability, creating memorable, iconic building forms while positively shaping campus space.

The new building must interact closely with the exterior and site, strengthening campus circulation patterns and providing a variety of compelling, usable and active outdoor spaces at building entries, circulation intersections and campus nodes, and at multiple building levels.

The building should respond to the environment and the setting, without necessarily visually emphasizing its sustainable technologies or materials. Instead the connection to Utah's remarkable landscape may be a more subtle response, creating analogies between the shapes and forms found in nature and

the expressive, dynamic College of Law programs. Sustainability should be expressed by the longevity and timelessness of the exterior, and the flexibility of the interior.

The law library should inspire the design of the new building's interior. Library collections will be visual focus and the corresponding interior should convey the dignified traditions and permanence associated with legal research and the law. College of Law students in particular have expressed their desire that the new building's design be overtly part of that continuum, deriving pride and inspiration from those visual associations. These qualities may be accomplished through use of warm natural materials especially wood and a design approach that emphasizes solidity, permanence, and professional dignity and durability.

It is important to create visual connections between spaces and activities, incorporating transparent glass surfaces especially through building common spaces, collaboration spaces, the advanced research areas, and many of the instructional spaces. This objective will serve multiple purposes: creating an active, dynamic environment, promoting general awareness of the range of activities, maximizing the potential for spontaneous interaction, generating connections between specific endeavors to establish a learning network, and broadening observation of and participation in more structured instructional opportunities.

While portions of the building will have more monumental qualities or the active buzz of a newsroom, creating a variety of intimate spaces is also required. Students and faculty prefer a wide variety of settings for instruction, study, research and interaction and each of these space-types should include warm and engaging areas.

Spatial configurations, furniture and equipment should be conceived of as responsive and adaptable to multiple uses and to requirements that are expected to change over time. The interior design should seamlessly assimilate furniture and architecture to create unity and continuity.

Design features should include an integrated approach to provisions for varying abilities, and the design should maximize access to natural light and the spectacular views for all building occupants.

Space Utilization

One driver of the overall space requirements is the anticipated increase in the College of Law's enrollment, which has been fairly steady at 400 FTEs (full-time equivalents). The new facility is planned to accommodate 450 FTEs, and spaces including those for instruction, administrative support, faculty, and student study and research have been projected accordingly. The total amount of space required for the new building is projected in terms of NSF (net square feet) and GSF (gross square feet). Definitions of NSF and GSF are in accordance with the National Center for Education Statistics (NCES) Facilities Inventory and Classification manual (FICM). In summary, NSF consists of the space required to accommodate a specific function, while GSF consists of all the spaces contained in a building including space for occupant circulation, and space housing building systems, structure and support. The relationship between NSF and GSF is termed "efficiency" and the typical factor (NSF/GSF) for a new professional-level academic facility ranges from 55% to 65%. The factor for the new College of Law building has been established at 63%. This projection reflects the desire for the new building to include sufficient interactive spaces and public areas and appropriate space for high-performance mechanical, electrical and plumbing systems. Several building components, including the courtroom/auditorium and multi-purpose events space are considered assembly spaces with large numbers of occupants and large associated space requirements for egress, restroom, and building systems. The recommended efficiency factor accounts for the requirements of these spaces.

Code Analysis

The following code analysis is based on the 2009 International building code. The following current codes should be used in the design of the new facility.

- International Building Code
- International Plumbing Code
- International Mechanical Code
- National Electrical Code
- International Fuel Gas Code
- International Energy Conservation Code
- International Fire Code

Code Analysis

98,170 nsf/155,825 gsf.

Building assumed to be 6 stories tall with the top floor being A-3 occupancy.

- Occupancy types: B and A-3 (Sect. 303 and 304)
- Required separation between B/A-3: 2 hours
- Seismic Category: D
- Design Wind Speed: 90 mph
- Assumed the building has greater than 30' of clearance on all four sides.
- Fully sprinkled building per section 903.2.1.3 and 903.2.11.3
- Type of construction: I-B
- Number of floors and allowable area per floor per occupancy type (Table 503)
  - Type B - 11 stories, unlimited area
  - Type A-3 - 11 stories, unlimited area
- Fire resistance rating requirements of building elements (Table 601):
  - Primary Structure - 2 hours, 1 hour at roof structure per footnote "a"
  - Bearing walls, exterior - 2 hours
  - Bearing walls, interior - 2 hours, 1 hour at roof structure per footnote "a"
  - Nonbearing walls and partitions, exterior - 0 per table 602 (greater than 30' separation on all sides)
  - Nonbearing walls and partitions, interior - 0
  - Floor construction and secondary members - 2 hours
  - Roof construction and secondary members - 1 hour
- Elevator required as accessible means of egress per section 1007.2.1.

Sustainable Design

The College of Law has a strong tradition of advancing sustainability efforts with a focus on the study of natural resources and environmental policy, promoting public knowledge and understanding. The nationally-recognized Wallace Stegner Center for Land, Resources, and the Environment has led and served as a platform for these initiatives.

The College of Law building will promote and facilitate the University of Utah's campus-wide commitment to sustainable design. The new building will inspire and support the college's work and dedication to improving the environment. Sustainability goals include setting LEED Platinum as the basis of design while working toward net-zero energy consumption in accordance with The 2030 Challenge.

Codes and Standards

The minimum codes and standards that guide the sustainable design of new buildings include current editions of the following:

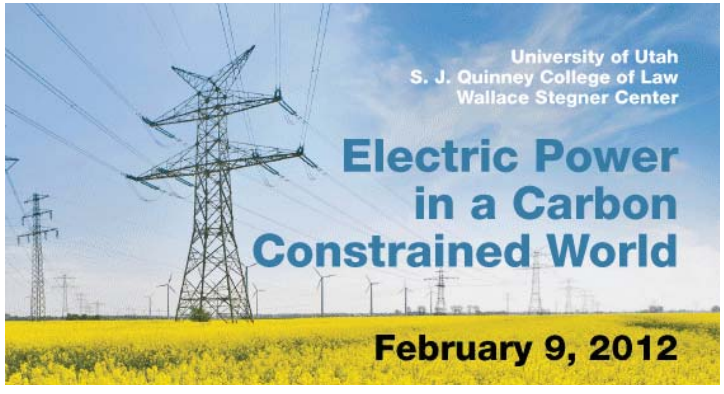
- DFCM High Performance Building System (Current Edition)
- University of Utah Design Standards and Guidelines
- LEED for New Building Design and Construction
- ASHRAE 90.1
- ASHRAE 55
- ASHRAE 60.1
- Architecture 2030: The 2030 Challenge

S.J. Quinney College of Law - Commitment to the Environment

During the pre-programming sustainability charrette and subsequent discussions the sustainability goals for the project were established. They are as follows:

- The building will use LEED Platinum as the basis of design.
- The new building will be aesthetically green.
- The facility should engage students, becoming a medium for the education process.
- The goal for the project is to work toward net-zero energy consumption in accordance with The 2030 Challenge.

These goals were confirmed and expanded on in the program level sustainability charrette.



A Leader in Sustainable Practices

The new University of Utah S.J. Quinney College of Law will meet LEED Platinum and the 2030 Challenge. This will result in an energy consumption of sixty percent better than average, or around 35 kbtu/sf. (The final energy use target will be provided by the project design team as the energy model progresses.) This incredibly ambitious energy use target will result in a new facility that is a national leader in efficient design, provide a platform for national recognition and present unique teaching and learning opportunities for the entire campus.

It is important that the energy reduction strategies be both cost effective and functional. Elements such as a high performing building envelope and efficient lighting and mechanical system designs are key to the building performance. Beyond these design and construction measures, occupant behaviors and building operations become key to the ongoing success of the building efficiency.

Other sustainability practices that should be studied include:

- Integrate cascading water re-use strategies both inside and outside the building
- Consider gray water re-use where feasible
- Assess the potential for black water treatment on-site
- Provide ample, safe and secure bicycle storage areas near or within the building
- Explore the integration of operable windows for comfort
- Integrate occupancy sensors at power strips
- Provide Energy Star rated equipment throughout the facility
- Explore options for enhanced regional material selection
- Team with the College of Architecture to assess sustainable material options and construction processes
- Integrate indoor/outdoor relationships to enhance the users connection to the environment
- Promote an active lifestyle through the design of the facility
- Engage the building users in the sustainable operations of the facility

A Positive Learning Environment

The new facility shall be a teaching and learning tool. It should provide valuable information, systems and experiences that allow the students and faculty to engage with the building while encouraging collaboration within the campus community. Examples of this may include, but are not limited to:

- Promote inter-disciplinary activities and learning opportunities
- Engage students in the design of the facility, allowing them to explore and assess sustainable design strategies for the facility.
- Provide accessible information on the building operations and resource consumption
- Design building systems to be visible and accessible for student study and interaction

- Engage the Stegner Center faculty, students and staff at the early design phases to create learning opportunities related to specific curriculum items

Reduce Operations and Maintenance Impacts

Currently, the State of Utah pays for the ongoing maintenance and operations of campus facilities. It is important that the facility be designed and constructed to operate as efficiently as possible to ensure the future financial costs are minimized. This will challenge the design team to create a technologically advanced, energy efficient facility that is operationally effective.

In addition, the facility may want to pursue LEED for Existing Building Operation and Maintenance in the future. The new facility should be designed to facilitate and promote the adoption of the practices outlined in this rating system.

An Enabled Facility

It is important to point out that although this project has lofty sustainability goals, there are technological and budgetary constraints. Creating a facility that enables future improvements, whether it be the addition of renewable energy or the integration of storm water re-use within the facility is very important to the ongoing success of the building.

The building skin and structure will long outlive the users and systems within it. It is important that the interior be flexible to prolong the life and contributions of the facility.

In addition, new building systems are continually being developed and refined. The building shell should be designed such that when a system reaches the end of its useful life a new, more efficient and effective system should be able to be installed with minimal modifications.

Integrate Life Cycle Cost Analysis

The School of Architecture is interested in teaming with the design team and other interested parties to conduct a life-cycle cost analysis on the building components and systems. The design team should plan to dedicate time to work with the students and faculty to produce a viable life-cycle cost analysis for key building elements and construction processes.

The scope of this assessment is currently unknown and will need to be defined with the School of Architecture at the beginning of the design process.

The Building as a Beacon

The most effective and sustainable facility is the one that people want to be in. A building that is loved will have a longer life and be a more beneficial space for the campus community.

The new College of Law facility should be a beacon for legal education and the campus. It should draw users in by creating an engaging exterior experience and them keep them there through the inviting, comfortable and inspiring spaces within the building.

One message that has been re-iterated time and again that this should be a space that “inspires great thoughts.” This should be a facility that fosters growth and promotes legal education for the next fifty years and beyond.

Encourage Sustainable Behaviors

The sustainable design features of the facility, along with the Office of Sustainability behavior modification programs should work together to promote more sustainable behaviors. A number of sustainable programs that should be considered once the building is operational include:

- A building-wide automobile use reduction program
- An enhanced waste management program that includes moving toward a paperless facility and food waste management.
- A green cleaning program
- Energy consumption reduction competitions
- Ongoing building commissioning
- Life-cycle cost analysis confirmation program

The University of Utah S.J. Quinney College of Law facility should be a demonstration of environmentally aware design, construction and operations practices.

DFCM Sustainable Design Requirements

The State of Utah Division of Facilities and Construction (DFCM) has developed a High Performance Building Rating System (HPBRS) which requires all state projects to achieve LEED Silver Certification. This program also requires specific LEED credits to be achieved. These include:

- WE Credit 1.1: Water Efficient Landscaping: Reduce by 50%
- EA Credit 3 Enhanced Commissioning
- EQ Credit 3.1 Construction IAQ Management Plan: During Construction
- EQ Credit 4.1: Low-Emitting Materials: Adhesives and Sealants
- EQ Credit 4.2: Low-Emitting Materials: Paints and Coatings

In addition, the HPBRS requires the project team to hold a sustainability charrette. Two sustainability charrettes have occurred through the project process, the first during the pre-programming phase and the second in December of 2011 as a part of this programming effort. The entire project team, including the steering committee, design team, energy modeler, mechanical and electrical consultants, Energy Program Director from the DFCM, Sustainability Director from the U as well as the project managers from the University of Utah and DFCM were present at the programming level charrette. The sustainable design goals and key considerations discussed during these charrettes are presented in the previous S.J. Quinney College of Law Commitment to the Environment section.

Other requirements of the State of Utah HPBRS include:

- Projects will be built to a 50 year life-span
- Life-cycle cost analysis should occur for key equipment and building systems.
- An energy model will be completed to demonstrate the building performance
- Meters and sub-meters must be included to allow the ongoing tracking of building energy performance with the Energy Star Portfolio Manager Program.

University of Utah Sustainable Design Requirements

Beyond the State requirements, the University of Utah Office of Sustainability has been implementing sustainability initiatives on campus. Among those initiatives is the requirement for all new construction projects on campus to achieve the following LEED credits:

- EA Credit 1 Optimized Energy Performance, Achieve 15 points, 40% energy reduction over code baseline
- EA Credit 5 Measurement and Verification, Enhanced building system metering. This will include overall building gas, water, electricity metering as well as building lighting, plug load and major mechanical system metering.

In addition to the stated requirements above, the University of Utah is working toward improving facility performance and reducing the environmental impact of the campus on many fronts. The following are facility goals that align with the University of Utah requirements.

Reduce Energy Consumption

Reducing energy consumption, and ultimately carbon emission reduction is a top priority for the University of Utah. In 2008, President Michael K. Young signed the American College and University Presidents' Climate Commitment (PCC) on Earth Day 2008.

> *"Signing the PCC is well aligned with the mission of the University of Utah and shows leadership befitting Utah's flagship institution of higher education. Fulfilling the commitment to achieve climate neutrality by reducing net carbon emissions at the U to zero will accelerate the education and research efforts needed to re-stabilize the Earth's climate while leading the U to greater environmental and economic sustainability."*
>
> *- President Young*

This commitment to achieve climate neutrality is guiding many of the energy conservation efforts on campus, including the requirement for the building to perform 40% better than code and requiring measurement and verification for all new facilities. These two requirements work in tandem to ensure an efficient facility during design and construction and then to provide the data necessary to monitor the ongoing performance of the facility. A number of programs are in place to help achieve energy consumption reductions beyond the facility design, including:

- Smart equipment purchases. All new equipment for the facility as well as new equipment in the department should be assessed for energy efficiency and life-cycle costs.
- Implement a behavior modification program. The University Office of Sustainability is working on a variety of behavior modification programs and will work with the S.J. Quinney College of Law to develop a program for the building.
- Ongoing training. The University of Utah Facilities Management Department will provide ongoing facility maintenance and training to ensure the systems are operating optimally.
- Renewable Energy Campaign. The Associated Students of University of Utah (ASUU) has created a fund that allows a portion of the campus energy to be purchased from wind generated sources. Any individual or program on campus can contribute toward this renewable energy purchase program to offset carbon emissions. This is encouraged for the new Law School to offset emissions and work toward a net zero facility.

Work toward water neutrality

The University of Utah would like to become a water neutral campus.

> *Essentially, this would mean that the university main campus would set a target water budget (gallons/year) based on the annual rainfall volume for the contiguous campus acreage. The goal would be to stay within that water target annually. sustainability.utah.edu/green-campus/water/neutral-campus.php*

In addition, the 2008 Campus Master Plan states that all building within the central campus area, where the new Law School will be located, should pipe all storm water to a cistern to be held for re-use. There are currently legislative barriers to storm water re-use within Utah, and therefore is not included in the current scope of work. This conflict between the Master Plan vision and the legal realties of water use on campus may provide a valuable and unique opportunity for the Law School to engage with the sustainable design of the facility and campus while impacting State wide legislation.

Recycling

The University of Utah has a Campus wide recycling program that recycles newspaper, cardboard, mixed papers and bottles and cans. Additional recycling programs exist for electronic waste. The new facility should be fully equipped with recycle bins to contribute to the campus recycling program. Additionally, an operational material waste reduction program should be explored.

Sustainable Transportation

The University of Utah promotes alternative transportation by providing all students, faculty and staff a UTA transit pass. The TRAX stop at the stadium and the two bus stops near the intersection of South Campus Drive and University Street are conveniently located for the Law School users and visitors to use transit and reduce automobile trips to and from campus.

In addition, bicycle transportation is encouraged. The new facility shall have secure and accessible bicycle storage and shower facilities to promote bicycle transportation to and around campus.

Branding

Over the past few decades, branding has played an increasing role in design, and the idea of what a “brand” is has become widely understood. Brand is much more than a logo, and is evident in many aspects of an organization—from the language of brochures, to the way phones are answered, to the feelings evoked by physical spaces. With this new understanding comes an evolution of the design and construction processes. In the best spaces, branding is infused into the DNA of the architecture from the earliest sketches, and is quietly evident in every aspect of a finished building. When it’s done correctly, branding embodies the soul of a space.

Certainly, brand identity should be apparent in visual cues like signage, donor recognition, way finding and classroom indicators. But these are only part of the story. These traditionally branded elements become stronger when combined with a branded approach to the overall design. Materials, scale, proportion, style, artwork, exhibits—even the quality of the sound—can all help convey the brand in unexpected ways. It is this comprehensive approach to branding that defines a building and sets it apart. Ultimately, a well-designed, well-branded building spurs people to some kind of action. The building first generates a feeling in them, which becomes an experience, which leads to an action. A building can literally produce positive change in the lives of its inhabitants: students, faculty and community members.

The College of Law building should be imbued with its brand, and its distinctive qualities must be articulated. First, it is about the law, at the heart of which is human conflict and resolution. While the College of Law is deeply rooted in the storied tradition of law, it nimbly adapts to major changes in the modern legal process: greater transparency, increased participation and a tendency toward creative, less formal resolution.

The first goal in branding the new building should be to make clear that this is a law school, but not just any law school: The University of Utah S. J. Quinney College of Law. Differentiating the school from its competitors is key to defining the brand in every aspect. There is a parallel to retail and commercial entities, who inherently understand that their respective audiences must have experiences in their spaces, which in turn prompts their audiences to action. Institutions are coming around to this idea more slowly. The College of Law must define its brand and communicate it clearly, through visual indicators and intended experience.

The following aspects begin to define the brand. The power of the core, of being balanced in the center, both in terms of its curriculum and its world view. A legacy of volunteerism and service, which informs the College’s relationship to external society. A global perspective, with a focus well beyond its borders and a strength in foreign languages. An ease of collaboration with other campus departments, with government and with business.

A fertile space for creativity, entrepreneurship and innovation. A work hard/play hard dynamic, with world-class recreational opportunities for students and faculty. And, an intimate size as one of the nation's smallest high-caliber law schools with low teacher student ratios and ample opportunities for real, hands-on practice.

The College of Law sees the world through an open, humanistic lens, in which it embraces diversity and welcomes the collision and collaboration of differences. In its approach to conflict resolution, the school promotes engagement, not neutrality. The College's practices reflect this approach by stressing mediation of conflict, especially in regards to environmental and international law. Curricular focus includes environmental law, the intersection of life sciences and law, criminal and global justice, family law, and the role of law in the new economy.

The College stands for innovation—new ways of thinking and unexpected ways of harnessing technology—as well as impact—on its students, its community, the world and the issues of the day. The College maintains a balance between an internal orientation with student-centric policies and student-integrated decisions, and an external worldview, with an ongoing legacy of service to the greater community and a commitment to improve the condition of human life.

Given the complexity of the message, the branding of the new building can be approached in layers, with the overarching themes more permanently represented in the architecture, and themes that may evolve or change over time contained within more transitory elements. Considerations include ample use of traditional materials like dark woods and stone, but sometimes in unexpected ways. Because of the school's emphasis on environmental law, a strong idea could be to directly incorporate qualities of the natural environment. This approach might contextualize the brand's connection to the unique Utah landscape.

A powerful consideration could be to instill the space with symbolic elements of conflict resolution and tension, which would offer sensory cues about bridging ideas and differences. Ultimately, law is language, so it makes sense to infuse the space with this truth. While traditional books are central to the College of Law brand, the school is also committed to technological advancements. Showcasing technology in unexpected ways can help communicate this strength. Lastly, it is important that the building not become commercialized. Donor recognition should go beyond the conventional wall to something more meaningful and the space should be recognize financial as well as other types of contributions.

The College of Law brand is already strong. The purpose of the new building is to enhance, evolve and amplify the brand. In the end, the new building must tell the rich story of College of Law—and tell it in a way that engages the school's many and distinct audiences. Current students, faculty and staff, prospective students and faculty, alumni, the University as a whole, business and community leaders and visitors must all feel something which speaks to them within this new space. And ultimately, this feeling should lead each of them to act.

Events

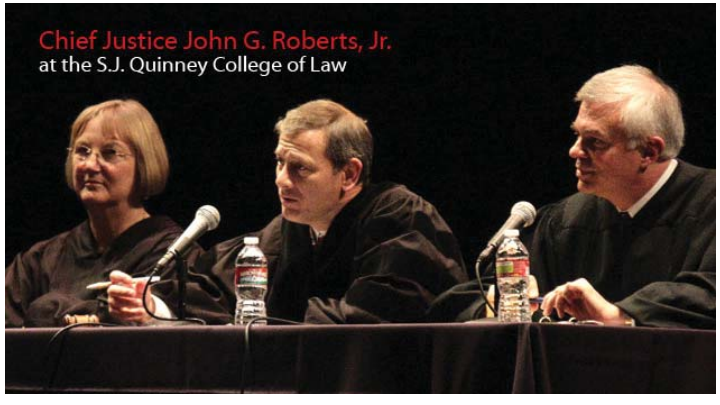
The program for the new building includes both multipurpose and dedicated events spaces. Events spaces create logistical complexities and special attention during planning and design is warranted. It is recommended that the project design team include specialized experience in event and food service logistical design.

Flexibility is a key consideration. Currently the College hosts several annual events and the number of events will significantly expand. The ability to conduct concurrent sessions, break-out sessions and to more effectively provide food service is desired. In order to accomplish these objectives, the facilities must incorporate both specialized components and flexibility.

The activities of participants from arrival, registration, and gathering must be considered and a primary goal is to create a positive experience. A reception area has been programmed, which will be adjacent to both of the main events spaces, that including the courtroom/auditorium and the multipurpose events space. This will provide for greeting and registration, comfortable access, facilitate catering, orientation to support functions including coatroom and restrooms, and lounge seating. Access from the catering prep kitchen should be possible without disturbing conference participants.

Because the multipurpose space will facilitate multiple configurations adequate furniture storage must be provided. Provisions for equipment including audio/visual systems must support the multiple set-ups.

The three primary events spaces can work together, or independently, for a wide range of types of events. For example, a lecture in the courtroom/auditorium could be preceded by a reception in the break-out area and a dinner in the multipurpose space. Or, a moot court competition could occur in the courtroom/auditorium while two simultaneous, independent activities are occurring in the multipurpose room, configured as two separate spaces. The types of events and logistical requirements should be considered in detail, to maximize the potential and effective function of the programmed spaces.



Audio Visual Systems & Lighting

Within the courtroom auditorium, effective theatrical lighting and complementary audio visual systems is paramount. Live webcasting, panel discussions, live video feed to break-out spaces, audience participation, and lecture will all be hosted in this space.

The breakout areas may also be used for the same purposes as above. All audio-visual equipment needs to work in tandem with lighting and have the flexibility to accommodate different room configurations.

The ability to utilize an in-house public address system for events both inside and outdoors will be an asset. For example, if an event is taking place in the conference center with a reception outside the front doors on the main level, it will be necessary to communicate to those outside that dinner is being served at the upper level events area.

Equipment & Storage

Given the anticipated number and frequency of events, it is assumed that the facility will be permanently outfitted with furniture for each of the intended set-ups in the multipurpose room. Storage of those items will need to be easily accessed. Additionally, a freight or large service elevator will be needed to move equipment between floors. The ability to store furniture is also needed for the break-out space which may be outfitted as a lounge or for registration, and for receptions and catering. An ample sized coat room should be located near the main entry area or near the events spaces.

Exterior Spaces

Outdoor spaces should also be planned to serve multiple events. Flexible seating arrangements, audiovisual needs, and maintaining a sense of privacy should all be considerations. An exterior sound system is also desirable.

Kitchen / Prep areas

A prep-type kitchen will be needed near the building common areas and an additional prep area to service the events level. Hand-washing stations, ample power to handle hot boxes and warming ovens, dry storage areas for pre-event load-in of food stuffs, and rolling, flat surfaces are needed for flexibility and functionality.

Often caterers will need to load in several hours prior to the start of an event or conference. Ample storage space for the service items as well as dry goods would be ideal. Access should be out of the public view with access to back of house elevators and service corridors, and could be adjacent to the loading dock area, outfitted with wide doorways.

Back of House

Storage space for event props, tables, linen, plates, glassware, floral arrangements, signage and the like is needed for College of Law events, and for outside groups utilizing the space. Vendors will need to load in during the day and store these items before they will be able to access the meeting rooms or public areas for set up. Often these items end up in a hallway or closet. Dedicating some space, potentially adjacent to the loading area to accommodate these items would be ideal.

Structural

Structural

The characteristics of the structural framing system(s) shall complement the overall architectural footprint and contribute to the functional requirements of the programmed space. Special considerations shall be given to enable future flexibility of interior spaces such that the major structural elements do not hinder significant restrictions to future programming. Close interaction with other design professionals can result in implementing prudent economical structural decisions. Often such decisions affect other aspects of the overall building cost. Often the least expensive structural solution may not prove to be the least expensive overall building cost.

General

The structural opportunities which can significantly affect the overall performance and budget of this facility must be completely understood. Such opportunities include the unique site, the mixed use of office, classroom and extensive library spaces, the desire for atrium type open space and the need for a large courtroom/ auditorium space. Additional considerations must include the vertical mixed use of program spaces including different size classroom spaces, the desire for future flexibility of spaces, and mitigation of floor vibration for human perceptibility, significant lateral design loads and the constructability on a restricted site. Additionally the site soils characteristics on site present a unique challenge when selecting the foundation system. The soils report offers alternate solutions depending upon actual column loads.

Each foundation system should be carefully evaluated to help ensure the most efficient system is utilized in design. This is very important when the soil characteristics vary widely across the site.

Close contact with the Owner and Owner's representative(s) will result in meeting the expectations and user desires for the structure with respect to both vertical and lateral loads. It is important to realize that code force levels represent the absolute minimum requirements for life safety and do not require an essential facility. Therefore higher force levels may need to be used as design constraints in order to meet the College's performance expectations for this specific structure. Sound structural decisions can affect buildings longevity in resisting everyday gravity loads and significantly enhance the building's performance during a seismic event. This is the definition of sustainability.

The strong emphasis on sustainable design must also be incorporated into the design process. The structure should utilize materials that are readily available and can be procured in reasonable fashion for this specific location. Efficient use of structural materials can also result in sound sustainable design. Consideration should also be given to the availability of skilled labor in each particular material type. Seasonal characteristics can also affect material selections.

Ease of future expansion of the building should be considered as the structural system is chosed. Interior expansion joints may be required depending upon the final configuration of the floor plan layout. Seismic expansion joint(s) may be required to prevent

the structure from damaging itself during a seismic event. Care should also be given to the thermal expansion properties of the structural framing members.

Blast Protection and Progressive Collapse design measures are outside the scope of this design. Although these stringent design measures are not a program requirement it is noted that efficient sound design methods significantly increase a structure's inherent ability to resist such forces. Redundancy and sound connection design are economical methods for increasing the structures ability to resist blasts and provide for progressive collapse. In high seismic regions such as the Salt Lake Valley, seismically strengthened structures done well can also go a long way in protecting the building against progressive collapse.

Design Criteria

The 2009, (2012 if adopted at the time of design) International Building Code will be used as the minimum code and standard for this project. This includes the current editions of the standards referenced by the 2009 International Building Code. This project will also have to conform to the latest DFCM Standards and the University of Utah Design Standards for Structural Engineering. (Chapter 5) The final design criteria and material strengths are to be clearly shown on the final structural documents. Listed below are some minimum required structural design criteria and material strengths. These criteria and strengths will continue to be evaluated as the design process evolves. This building is to be classified as Category III occupancy per the IBC 2009 Code.

Floor Live Loads:

- Office 80 psf
- Library * 125 psf
- Library Stack Areas * 250 psf
- Corridors and Lobbies 100 psf
- Classrooms 80 psf
- Partition Loads ** 20 psf

* Vibration control areas (6,000 micro inches per sec.)

** Those locations where partitions are expected to be relocated.

Roof Live Loads: (Snow)

- Snow Ground Load Pg=44 psf
- Snow Importance Factor I=1.15
- Exposure Factor Ce=1.0
- Thermal Factor Ct=1.0
- Rain on Snow Surcharge 5 psf

Snowdrift accumulation at valleys, parapets, offsets in roofs, and adjacent to courtroom and other penthouse locations shall be considered.

Additional roof Live Loads may be in conjunction with roof garden and plaza gathering areas.

- Roof Plaza 100 psf

Wind Loads:

- Equivalent Wind Speed 90 mph
- Exposure Type C
- Importance Factor 1.0

Exposure C shall be used for elements and components including the exterior window/wall systems.

Seismic Loads:

- Short Period Mapped Acceleration Ss =x.xxx
- Long Period Mapped Acceleration S1 =x.xxx
- Soil Site Class X
- Short Period Site Coefficient Fa = x.x
- Long Period Site Coefficient Fv = x.x
- Spectral Response Acceleration SDS = 2/3 * Fa * Ss
  = x.xxx
- Spectral Response Acceleration SD1 = 2/3 * Fv * S1
  = x.xxx
- Seismic Importance Factor I = 1.25
- Response Modification Coefficient

Shear Wall	R = X	(Frame)
Shear Wall	R = X	(Bearing)
Moment Frame	R = X	
Braced Frame	R = X	

- Seismic Response Coefficient Cs=x.xxx (Frame)
  Cs=x.xxx (Bearing)
- Dead Loads of Structure W
- Seismic Design Category D
- Base Shear (Strength Design) V = Cs * W
  =0.xxxW (Frame)
  =0.xxxW (Bearing)
- Base Shear (Working Stress Design) V = Cs * W
  =0.xxxW (Frame)
  =0.xxxW (Bearing)

Miscellaneous Loads:

Blast Loading was not a required design parameter for this project. Additionally, there are no specific requirements to satisfy progressive collapse.

Working Stresses for Materials:

- Concrete (28 day strength min.)
  - Footings 4,500 psi
  - Foundation Walls 4,500 psi
  - Slab on Grade 4,000 psi
  - Structural Slabs 4,000 psi
  - Columns 4,000 psi
  - Slabs on Stl. Deck 3,500 psi

- Reinforcing Steel ASTM 615 Grade 60
  - Fy = 60 ksi
- Structural Steel
  - Wide Flange Shapes ASTM A992
  - Other Shapes and Plates ASTM A36
  - Steel Tube Columns ASTM A500 Grade B (46ksi)

Other minimum codes and standards that apply to the design of this project include current editions of the following:

- International Building Code (2009)
- AISC Code with Commentary
- ACI 318 Code
- AISI Cold Formed Steel Specifications
- ANSI/AWS D1.1 Welding Code
- S.J.I for Steel Joists and Girders
- SDI for Steel Decking

Structural System Description

The following systems description is based on a 5-6 story 155,825 square foot above grade structure over slab on grade. Due to the slope of the site partial basements may be incorporated to house mechanical equipment. The overall area for each floor and total building areas are described in detail in other sections of this program. The typical floor to floor heights will range between 20'-0" at the first floor to 17'-0" for the upper 3 floors. The top floor which is to be a courtroom/auditorium may have a taller floor to floor height. The basement floor to floor height is 16'-0" as to adequately house mechanical equipment. The connecting corridor/atrium which separates the office function from the classroom functions will include bridges to access across on each level.

The primary framing grid for the office portion of the building should be efficient as to optimize framing materials and still provide a flexible platform to satisfy architectural constraints. The classroom wing may require unique column spacing's such as to accommodate different classroom sizes and provide column free spaces for large classrooms. The space between the classroom wing and office administration portion will house the central law library. This will be incorporated around the atrium. Column spacing for the library should be sufficient to economically support library loads while providing vibration free space. Perceptible vibrations in reading and research areas cannot be tolerated.

The floor and roof framing systems will most likely be of structural steel. Due to potential long spans and flexibility in column spacing structural steel should be the best option. Steel columns will be used to support the gravity loads.

Roof Design

The roof over the moot courtroom will most likely be of steel open-web joists and joist girders supporting steel metal decking. This is due to potential longer spans to create column free spaces inside the courtroom. Steel wide flange sections may also be used where necessary. Steel columns will support the gravity loads from the high roof.

The main roof will also serve as a plaza area for gathering and greenery. Due to the heavier loads the framing will be of wide flange steel with a composite metal decking supporting concrete fill. Steel beams and girders will support the gravity loads and transfer these loads to steel columns.

The roof area should be designed to accommodate future photovoltaic panels, including potential shade structures over the plaza areas.

Floor Design

Due to the nature and usage of the building it is suggested that the floor system be of wide flange steel construction supporting a composite metal deck. Steel wide flange sections shall be spaced at an efficient spacing as to optimize the section and satisfy all aspects of the design loads, including vibration characteristics. Girders shall be located such that minimal interference with mechanical systems is maintained. Investigating light weight verses normal weight concrete can influence other important structural decisions with respect to fire ratings, column loads and vibration characteristics.

Elevator or mechanical penthouses should be of wide-flange construction and support concrete fill.

Lateral Design

The lateral resisting system will best be satisfied with a perimeter steel moment frame. Additional moment frames will be necessary at large openings in floor and roof diaphragms. Moment frames are most economically efficient when located at the perimeter and in a regular fashion. Moment frames also provide complete access and ultimate flexibility for future interior remodels.

In the event that it is architectural acceptable to expose steel braced frames at the perimeter of the structure and accommodate steel braced frames in the at strategic locations in the interior, such a lateral system should be investigated. All things being equal steel braced frames can be more economical. It is paramount that the lateral elements stack vertically from the roof to the foundation level.

The Atrium area and library should be constructed out of structural steel. Large open spaces are best satisfied with steel construction. Access bridges are also best satisfied in steel construction. Special care should be taken in the design of bridge elements as to not create weak points during seismic events or allow perceptible vibrations during exiting periods.

Refer to other sections of this program for special requirements with respect to fire ratings and area separations.

Building Skin Design

The attachment and detailing of the exterior skin can be satisfied in many ways. Careful coordination between professionals can mitigate high cost solutions. Reducing the dimension to the edge of slab from the beam centerlines has a direct impact on cost.

Exploring cost differences, construction schedule differences between "field" construction and off site "panelized" construction. The lateral system for the structure has a significant impact on exterior control joint dimensions and configuration. The building skin will not be used as a structural member or provide lateral support for the structure.

The building skin and it's attachment to the primary structure should also be designed to minimize thermal bridging at the exterior insulation and promote a seamless building envelope.

Foundation Design

A final soils report for the project is not yet available. The following section is based on the Geotechnical Engineer's preliminary findings and familiarity with the construction site. The final report will provide alternate foundation options depending upon the final column and wall loads.

It is anticipated that the foundation system could be of conventional spot footing and continuous footing construction. In order to support high column loads engineered structural fill will be required below the footings. The depth of the structural fill will be dependent upon the actual column loads and will be between 3 and 5 feet thick. The fill should extend outward from the bottom of the footing as per the final soils investigation report. Replacement fill will help control differential settlements and allow for higher bearing pressures. Anticipated soil bearing pressures should range between 3,500 psf and 4,000 psf.

Alternate solutions for foundation design can be met with Geo-Piers or a structural mat foundation. Geo-Piers can mitigate low bearing pressures and minimize differential settlements. Pier design and the number of piers required will be dependent upon the column and wall loads. The final soils investigation will identify the allowable bearing pressure below the Geo-Piers. Should the over-excavation and size of the spot footings warrant the use of a structural mat foundation, design values can be found in the final soils investigation. It is noted that the amount of over-excavation and replacement fill will be reduced if a mat foundation is utilized. Differential settlements are greatly reduced with a mat design.

Groundwater or liquefaction is not anticipated to be a factor in design. Additionally no active faults pass through the site area.

The unique characteristics for this structure is the opportunity to "daylight" the lower level in strategic locations along the West Elevation. The East Elevation may be partially below grade. This transition is a result of the grade change across the building site. Special consideration must be implemented such that the retaining wall(s) on the East side of the structure are designed to resist any seismic surcharges as a result of a seismic event. A tieback permanent shoring system may not be possible due to the significant amount of sub-grade utilities and other conflicts to the east.

Equipment and Mechanical Considerations

The majority of the mechanical equipment is to be located at the Basement Level. This provides a central location for special design requirements. It is assumed that the vertical circulation of air and other mechanical or electrical equipment will be in identified shafts. These shafts can be economically provided when identified early in design. Horizontal distribution of the utilities can be easily achieved with coordination of the steel framing system. Attachment to the underside of the floor system can easily be achieved.

Areas where the mechanical equipment has motors, fans or other moving parts may cause unwanted noise and vibration. Noise levels can be achieved in wall systems as identified by the architect. Vibration concerns must be achieved by providing isolated systems between the equipment and the structural floor. Such areas must be evaluated by both the mechanical engineer and structural engineer to ensure that proper mitigation techniques have been implemented.

Special consideration must be taken where the mechanical systems are located on a composite steel slab. This condition may exist if mechanical systems are located on the roof or otherwise incorporated into the design. Additionally special consideration must be taken where this equipment is adjacent to sound sensitive or vibration sensitive areas.

Vibration

Vibration is a nuisance and can provide a detrimental working environment for learning and research. Different areas of the building require different levels of vibration control. Utilizing a composite floor structure greatly enhances the ability for vibration mitigation. Increasing the level of vibration control can be achieved quite economically with column and beam spacings, or increasing the depth of the structural member. The minimum level of vibration control is identified to be 6,000 micro-inches / second. Additionally, the anticipated foot paces per minute are expected to be 75. It is suggested that this criteria not be reduced in the office areas such that future programming is not restricted to the teaching and research areas. This issue warrants further exploration during the design phase relative to future building flexibility vs. construction costs.

Quality Control

Quality control can best be achieved through close coordination and communication between design professionals. All required testing and inspections for structural materials and processes are to be clearly identified on the contract documents. Timely site observations and review of shop drawings can mitigate conflicts before they happen.

Sustainability

Standards

The referenced standard utilized in the development of sustainable design includes current editions of the following:

- LEED-NC for New Construction Reference Guide.

The structural systems utilized can take into consideration the Credits available in the Materials & Resources and Innovation in Design sections.

Materials & Resources:

This section offers opportunities for the structural engineer to contribute to the sustainable design and resource management for this important project. Close coordination with the General Contractor can result in the managing of construction waste, reducing waste, and the potential re-use of material on future stages of construction. Structural sizes can be normalized and result in multiple uses during construction.

The incorporation of reuse material and recycled material provides opportunities for construction savings as well as benefiting regional companies. These materials can include exterior brick, concrete masonry units, structural steel, and concrete mixes (fly ash quantities) to name a few.

Perhaps the strongest effort will be in the efficiency of design. This should result in the need for less material than found in an inefficient design. The efficient layout and use of structural materials can result in overall less structural steel, structural concrete, and impact to the existing site. Although there may not be Credit Points directly associated with this effort, the overall impact on the economy in the production of less is a very important part of Sustainable Design. Buildings designed to last well into the future are the very essence of sustainable design. This structure will be designed to meet and even exceed the latest standards in earthquake design.

Innovation in Design

Opportunities exist in this area if our ability to exceed noted values in the Materials & Resources Section above. If a very aggressive Construction Waste program is instituted where we can divert 95%, an additional Credit can be achieved. This would be very aggressive but potentially achievable.

Additionally, reducing the overall height of the building reduces building shadow and reduces the overall material use. Reducing the amount of building damage following a seismic event also has potential for innovation credits. This may increase the overall demand capacity in the structural frame, but provide a more sustainable structure.

Mechanical

Applicable Codes and Standards

Conform to the latest edition of the following codes and standards, or the requirements defined in this program, whichever is more restrictive:

- 2009 IBC
- 2009 IMC
- 2009 IPC
- 2009 IFC
- 2009 IECC
- University of Utah Design Standards, January 2011, or most current at beginning of design
- Division of Facilities Construction and Management (DFCM) Design Criteria, June, 2009

Available Utilities

High Temperature Water

High temperature water is available from the central campus system.

Reference University of Utah Design Standards, Chapter 8, for specific requirements for connections to or modifications of the University's High Temperature Water System.

Anticipated peak demand is 3,000 mbh, and service size is 2-1/2"

Chilled Water

Chilled water will eventually be available from the new southwest chiller plant. However, completion of that plant may not correspond with the project completion date.

Anticipate that central chilled water will not be immediately available when the building is completed, but will be shortly after, provide temporary chiller, and coordinate location of future central plant connection

Anticipated demand is 300 tons, and anticipated service size is 6".

Culinary Water

Extend a 3" culinary line and an 8" fire protection line to the project site from a new 8" line. It is anticipated that the water pressure is approximately 80 psig.

Sanitary Sewer

Sanitary sewer size will be 6".

Storm Sewer

Storm water will be routed to the south.

Natural Gas

There is no natural gas demand anticipated for the new building.

General Requirements

Temperature

Reference University of Utah Design Standards, 6.2.6.1

Outdoor design temperatures: winter 0°F

summer 97DB/62WB °F

cooling tower 70WB °F

	Temperature				Noise
	Summer		Winter		RC Mark II RC(N)
Room Type	Occupied	Unoccupied	Occupied	Unoccupied	
Open Public Areas	75	85	72	65	35 – 40
Private Offices	75	85	72	65	30 – 35
Open Offices/Shared Space	75	85	72	65	35 – 40
Conference Rooms	75	85	72	65	25 – 30
Reading Rooms	75	85	72	65	25 - 30
Classrooms	75	85	72	65	25 - 30
Mock Courtroom	75	85	72	65	35 - 40
Restrooms	75	85	72	65	n/a
Storage	80	85	60	55	n/a
Copy Rooms	75	85	72	65	n/a
Mechanical Rooms / Penthouse	80	80	55	55	n/a
Elevator Rooms	80	85	60	55	n/a

Hours of Operation:

Day of Week	Occupied	Unoccupied
M-F	0700 – 2200	
Sat	0800 - 1600	
Sun/Holiday	1000-1600	

Humidity

Humidification is not required in normally occupied spaces, but the spaces should be maintained at 45% maximum in the summer.

Specific humidity level and control are required at the rare book room.

Measurement and Verification

Reference Chapter 13 of the University of Utah Design Standards

Energy meters to provide local as well as remote readouts, using Modbus RTU protocol

Install continuous metering equipment for the following uses:

- High Temperature Water: Ultrasonic digital flow meter, equal to Fluxus ADM 7407, providing the following information: HTW Flow rate, supply and return temperature, instantaneous energy flow rate, totalized energy flow rate
- Chilled Water: Ultrasonic digital flow meter, equal to Fluxus ADM 7407, providing the following information: Chilled water flow rate, supply and return temperature, instantaneous energy flow rate, totalized energy flow rate
- Additionally, coordinate with electrical engineer for electrical panel submetering for lighting and plug circuits.

Note that all three available points of LEED EA Credit 5: Measurement and Verification must be achieved.

Project Documentation

Provide a design narrative that includes the following:

- Basis of design, including all information required to prepare the design
- Sequence of operation of all systems, as well as their interaction with other systems
- System description, including operating parameters and assumptions
- A description of the methods used by the design team to achieve sustainability, including the integrated design process; and a description of the results, i.e. a description of the sustainable elements included in the design. Include in this section how the requirements of this program were met.
- Results of the energy simulation, with a design energy performance standard for the building.

Internal Loads

The following internal loads form the basis for load calculations:

Room Type	ASHRAE 62.1 Classification	People (Pers/sf)	Ventilation (cfm/sf)	OH Lights (Watts/sf)	Equip (Watts/sf)	Other
Open Public Areas (Circulation, Lobbies)	General: Corridors	0.000	0.078	0.5	0.00	
Private Offices	Office Building: Office Space	0.008	0.130	1.1	0.85	
Open Offices	Office Building: Office Space	0.005	0.111	1.1	0.75	
Conference Rooms	General: Conference/meeting	0.050	0.403	1.3	0.25	DCV
Reading Rooms	Public Assembly: Libraries	0.010	0.221	1.2	0.25	
Classroom	Education: Classroom (age 9 +)	0.050	0.806	1.4	0.25	DCV
Public Restroom	Table 6-4: Toilets-public	0.000	n/a	0.9	0.00	Exhaust at 75 cfm/fixture
Private Restroom	Table 6-4: Toilets-private	0.000	n/a	0.9	0.00	Exhaust at 50 cfm/fixture
Storage	General: Storage	0.000	0.156	0.8	0.10	
Copy Rooms	Table 6.4: Copy, print rooms	0.000	n/a	1.5	5.00	Exhaust at 0.50 cfm/ft2
Mechanical / Penthouse	Misc: Electrical equipment rooms	0.000	0.078	1.5	tbd	
Elevator Rooms	Misc: Elevator Machine Rooms	0.000	0.156	1.5	tbd	Ventilate for temp/odor control

Notes:

- Demand Controlled Ventilation (DCV) in zones with significant variation in occupant loading, or ventilation rates >0.30 cfm/sf
- Ventilation rate per ASHRAE 62.1-2007, with additional 30% to comply with LEED Ventilation Credit
- Lighting Power Density per ASHRAE 90.1-2007
- Equipment Density per standard design practice

People:

- 250 Btuh, sensible
- 200 Btuh, latent

Equipment:

- 1 laptop PC @ 50 W each per person in lecture halls and classrooms
- 1 desktop PC @ 125 W per seat in offices
- 1 copier @ 300 W per 10 people in office groups

Energy Efficiency

The following energy efficiency requirements apply:

- Achieve 15 points under Energy and Atmosphere Credit 1-Optimize Energy Performance (EAc1) of LEED-NC v3.0, which equates to a 40% reduction of energy costs.
- Achieve LEED Platinum rating.
- Achieve an annual energy use index (EUI), before renewables, of 35 kbtu/sf

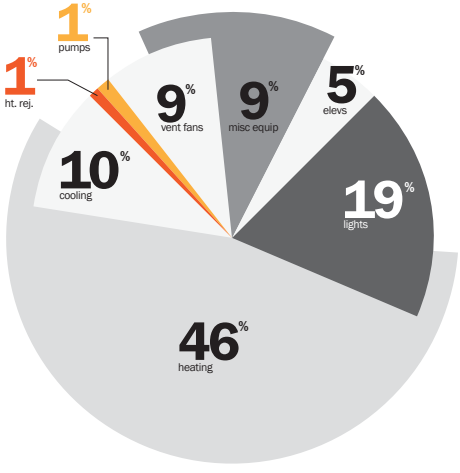
The following are goals, but are not required

- Provide as much on-site renewable energy as is cost-effective, based on life cycle cost analyses under the FEMP rules based on 10 CFR 436.
- Design in accordance with the Architecture 2030 Challenge, which is a 70% reduction in EUI as compared to a regional CBECS data baseline. CBECS only provides a national level EUI for higher education. On a regional level, the distinction between K-12 and higher education is not made. The current national annual EUI for higher education is 120 kbtu/sf.
- Reduce CO2 emissions related to building energy consumption by 50%, compared to current Campus standard

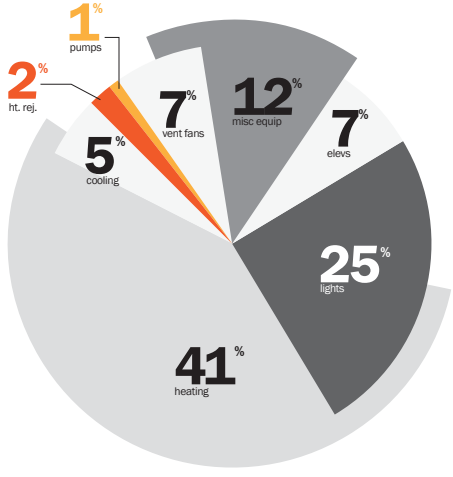
Energy Modeling

In order to evaluate the potential to meet the project goals and requirements, as well as to establish a credible Baseline and Proposed energy cost, a preliminary energy analysis has been performed in accordance with LEED Reference Guide for Green Building Design and Construction – 2009 Edition: EAc1. Results of the analysis are summarized below, and simulation output reports, are offered as an appendix.

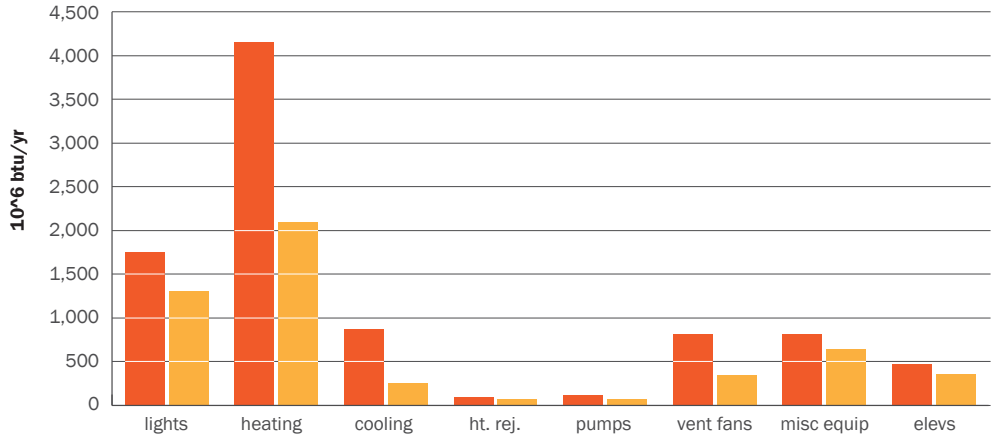
LEEDv3.0 **Baseline** Energy Consumption
(55 kbtu/sq.ft./yr.)



LEEDv3.0 **Proposed** Energy Consumption
(55 kbtu/sq.ft./yr.)



LEEDv3.0 **Estimated** Annual Energy Consumption per End-Use



	lights	heating	cooling	ht. rej.	pumps	vent fans	misc equip	elevs
LEEDv3.0 Baseline	1,758	4,154	875	102	118	821	819	475
LEED Proposed	1,310	2,095	256	79	78	349	646	357

	Annual Energy Cost ($)	Annual CO2 Emissions (x10^6 lb)
Baseline	171,000	136.2
Proposed	97,500	85.3

Because the energy analysis was performed at such an early stage of the project, some of the assumptions and definitions used for the preliminary energy analysis may be obsolete or require revision during the design process. Therefore, it should be noted that, in part, the analysis was used to demonstrate the relative feasibility of reaching the energy efficiency goals/requirements of the project, particularly LEED EAc1, and to develop a preliminary group of energy efficiency measures that may be appropriate for the project.

A general description of EEM's applied to the Proposed Design model, to achieve an annual energy cost savings of 40%, are summarized below.

Envelope

	Baseline	Proposed
Walls	R-15.6	R-26
Roof	R-20.8	R-30.8
Window to wall ratio	40%	40%
Fenestration Assembly U-factor	0.450	0.434
Fenestration SHGC	0.400	0.268
Fenestration Shading	N/A	18" overhang on all windows on the South, East, and West facing walls

Electrical Systems & Process Loads

- Overall Reduced Lighting Power annual energy consumption of 25% (includes reduced lighting power densities, occupancy sensors, and daylighting controls)
- Lighting occupant sensor controls
- Daylighting controls in public areas
- Regenerative elevator drives
- Energy Star rated office equipment for all computers, monitors, copiers, printers, and laptops. (30% reduction assumed for office spaces)

	Baseline	Proposed
Average Lighting	1.36 w/sf	1.01 w/sf
Regenerative Elevator	74 kW	52 kW
Average Plug load	0.59 w/sf	0.50 w/sf

HVAC & Plumbing Systems

- Chilled beams HVAC system
- Improved Supply Air Fan Efficiency
- Improved Hydronic Pump Efficiency

	Baseline	Proposed
HVAC System	ASHRAE 90.1-2007 Appendix G System #7: VAV with Reheat	Chilled Beams, served from Campus chilled water system
Average Supply Air Fan Efficiency	1.05 w/cfm	0.746 w/cfm
Average Hydronic Pump Efficiency (Chilled Water)	n/a	10.9 w/gpm
Average Hydronic Pump Efficiency (Heating Water)	19 w/gpm	19 w/gpm

Additional strategies to consider include:

Envelope

- Improve air barrier and leakage control

Electrical Systems & Process Loads

- Reduce lighting power densities, both general and task/ accent
- Increased occupant sensor controls for lighting
- Increased day lighting controls

HVAC & Plumbing Systems

- Solar thermal (water)
- Increased demand controlled ventilation
- Low Flow Plumbing Fixtures

Occupant Measures

(Note that occupant measures cannot generally help to achieve LEED EA c1 points, but can affect EUI):

- Attend integrated design workshops
- Sub-metering/competitions
- Thermostat control (wider temperature range)
- Plug load control (Energy Star, shut down)

This analysis also assumes that the proposed design will utilize a new central plant to provide chilled water to the building, and use the existing central plant to provide high temperature water. The new chilled water plant is currently undergoing a feasibility study and is expected to be built before this project is completed. The LEED modeling protocol for central plants detailed in the document, "Treatment of District or Campus Thermal Energy in LEED V2 and LEED 2009 - Design & Construction" dated August 13, 2010 has been used. The new central plant equipment is assumed to be ASHRAE 90.1-2007 minimum efficiencies, selected per ASHRAE 90.1-2007 appendix G, and assumed to serve this project only.

Additionally, the following comments apply:

- Thirty percent increased ventilation rates have been applied to the analysis, consistent with LEED EQc2.
- No exterior lighting has been included in the analysis.
- Cooking equipment and case refrigeration that may be included in the design of the cafe have been modeled directly as part of the process load definition(s).
- The occupancy schedule used in modeling was as follows:

	% of Full Load	
Time	**Weekday**	**Weekend**
0000 – 0600	0	0
0600 – 0700	10	0
0700 – 0800	50	0
0800 – 1200	100	0
1200 – 1300	30	0
1300 – 1600	100	0
1600 – 1700	50	0
1700 – 1800	10	0
1800 – 2400	0	0

Potable Water Consumption

Comply with the requirements of University of Utah Design Standards, Chapter 6.

Waterless urinals are not acceptable.

Ventilation/Indoor Air Quality

Comply with ASHRAE Standard 62.1-2007, Ventilation for Acceptable Indoor Air Quality, as well as LEED IEQ Credit 2 (30% increased ventilation) for minimum ventilation requirements. Reset the outdoor air intake flow and/or space or zone airflow as operating conditions change, in accordance with Section 6.2.7 of the Standard, for the zones noted as DCV in the space summaries.

Design a ventilation system that results in an air change effectiveness greater than or equal to 0.9 as determined by ASHRAE 129-1997. Follow recommended design approaches in ASHRAE 2009 Fundamentals, Chapter 32.

Develop and implement an IAQ Construction Management Plan that includes the use of high efficiency filters (Minimum Efficiency Reporting Value (MERV) = 8, as determined by ASHRAE 52.2-1999), at each return air grille for systems used during construction.

Provide MERV 5 pre-filters and MERV 13 final filters at central air handlers upon completion of project.

In addition to toilet exhaust, provide separate exhaust system for janitor closets and dedicated copy rooms at the rate of 0.5 cfm/sf, and demonstrate that the rooms are maintained at a negative pressure of 0.03" wg relative to adjoining spaces.

Commissioning

Reference University of Utah Design Standards, Chapter 6, Section 6.2.18, and DFCM Design Requirements for commissioning.

Coordinate with commissioning agent retained for the project, and comply with requirements for building commissioning detailed in DFCM Solicitation for Commissioning Services

Systems

Provide central station custom or field built-up air handlers with cooling and heating coils as required to meet minimum ventilation standards. Use backward-inclined centrifugal fans with variable speed control. Locate air handling equipment indoors in a penthouse mechanical room with adequate service clearance. Locate prime-source mechanical equipment (i.e. chillers, pumps) in basement or penthouse mechanical room.

Provide single duct air distribution to 4 pipe chilled beams in all zones. Use variable speed return/relief fans.

At a minimum, use constant volume primary, variable volume secondary pumping for the heating water system, variable volume primary only pumping for chilled water, and constant volume primary only pumping for condenser water. Use redundant pumps for all systems.

Provide HOA switches on all pumps and fans

Air Handler

- 4” double wall construction
- 4.0” TSP
- MERV 7 filter bank, face velocity = 375 fpm
- Multiple backward inclined, 12 blade direct drive plenum fans
- Heating coil: 5/8” diameter 0.035” thick tubes, 2 rows, 6 fpi, 450 fpm face velocity
- Chilled water coil: 5/8” diameter 0.035” thick tubes, 4 rows, 10 fpi, 450 fpm face velocity

Heating Water

Serve building from campus high temperature water system, with shut off valve and vents and drains as detailed in Chapter 8 of the University of Utah Design Standards. Locate building service, isolation valves and heat exchanger in basement mechanical room, inside ventilated reinforced concrete vault. Install all pumps and drives outside the vault.

Generate building heating hot water through a shell and tube heat exchanger. Maximum allowable pressure drop on each side of the heat exchanger is 10 ft w.c.

Design heating water transport energy consumption as follows:

	Maximum Water Transport Energy	
LoadL	**(bhp/mmbh)**	**(W/gpm)**
Full Load	2.50	19
50% Load	1.15	10.7

Chilled Water

Chilled water will be provided from the campus chilled water system. Isolate the campus system from the building system with a flat plate heat exchanger, and assume campus supply temperature = 45°F.

Design the building side chilled water for 15°F temperature rise, using variable volume primary-only pumping and two-way valves.

Design the chilled water transport energy consumption as follows:

	Maximum Water Transport Energy	
Load	**(bhp/ton)**	**(W/gpm)**
Full Load	0.05	10.9
50% Load	0.04	8.7

Air Distribution

Document fan sizing calculations with zone by zone load calculations

Document critical path supply duct pressure loss, and show process used to review fittings and duct sizing in order to minimize fan pressure requirements.

Use automatic dampers on exhaust fans in lieu of barometric dampers.

Document that transport energy consumption meets the following criteria:

Load	Maximum Air Transport Energy (bhp/1,000 cfm)
Full Load	1.0
50% Load	0.30

Require pressure testing of all duct systems in accordance with 2009 IMC

Reference University of Utah Design Standards, 6.2.6.13 – Provide each space with individual room temperature control. Provide zoning plan during schematic design review that indicates proposed zoning plan for review and approval by Campus Planning staff.

Plumbing

Reference University of Utah Design Standards, Chapter 6 for plumbing requirements.

No automatic lavatory or flush valves are allowed.

Provide electric storage heaters for domestic water heating. Do not use high temperature water system as heat source.

Provide water softener for all chilled water and heating water makeup, as well as for domestic hot water. If softener is located in an inaccessible location, provide remote filling option for salt brine.

Fire Protection

Provide fire sprinkler protection throughout building. System to comply with NFPA, campus fire marshal building official and IBC requirements and State of Utah Fire Marshal requirements.

A fire pump is not anticipated, because the flow and pressure requirements can likely be met from the campus system. Conduct a fire flow analysis per DFCM criteria during the design phase to confirm this assumption.

Provide individual floor control assembly, including zone check assembly, at each floor.

- Sprinkler Occupancy Hazard Classifications are as follows:
- Office and Public Areas: Light Hazard.
- Service Areas: Ordinary Hazard, Group 1.

- Mechanical Equipment Rooms: Ordinary Hazard, Group 1.
- Building Service Areas: Ordinary Hazard, Group 1.
- Electrical Equipment Rooms: Ordinary Hazard, Group 1.
- General Storage Areas: Ordinary Hazard, Group 1.

Minimum Density for Automatic-Sprinkler Piping Design: As follows: (Reduce Design areas with quick response heads when applicable and increase design area as required for pitched ceilings.

- Light-Hazard Occupancy: 0.10 gpm over 1500 sf
- Ordinary-Hazard, Group 1 Occupancy: 0.15 gpm over 1500 sf

Maximum Protection Area per Sprinkler: As follows (except as modified by authorities having jurisdiction)

- Office Space: 225/400 sf
- Storage Areas: 130/400 sf
- Mechanical Equipment Rooms: 130 sf
- Electrical Equipment Rooms: 130 sf
- Other Areas: According to NFPA 13 recommendations, unless otherwise indicated.

Components and Installation: Capable of producing piping systems with 175-psig minimum working-pressure rating, unless otherwise indicated. All piping and components are Schedule 40 minimum, and of domestic manufacture.

Class I, standpipe system design shall be designed assuming 150 psi available at fire department connection. Pressure and required flow shall be provided by fire pumper truck.

Provide fire sprinkler protection throughout building. System to comply with NFPA 13, campus fire marshal, building official and IBC requirements and State of Utah Fire Marshal requirements.

Controls

Provide Direct Digital Control (DDC) system. Reference University of Utah Design Standards, Chapter 6 and Chapter 13 for general DDC requirements

Integrate the mechanical and electrical systems. Provide microprocessor to microprocessor communication between the DDC and variable frequency drives, air handler(s), electrical distribution, lighting, emergency generators, UPS system and building power. Additional points shall be made available for non-mechanical/electrical monitoring that may be required by the engineering department.

Provide written sequence of operation on drawings for all systems controlled by the DDC system. Provide graphical representation of sequence of operations on the Building Automation System graphics.

Label the areas served by air handlers and other fan systems on the BAS graphics.

Provide temperature sensors at airside inlet and outlet of all terminal units.

Electrical

Codes and Standards

Codes which are applicable to the design of the electrical systems are listed below. Comply with each of the latest adopted publications. They are part of project requirements by reference and are not restated in this narrative.

- ASHRAE 90.1 Energy Code
- DFCM, Division of Facilities Construction and Management, Design Criteria
- EIA/TIA, Electronics Industries Association/ Telecommunications Industry Association
- IBC, International Building Code
- IESNA, Illuminating Engineering Society of North America
- NFPA, National Fire Protection Association (applicable sections including but not limited to):
- NFPA 70, National Electrical Code
- NFPA 72, National Fire Alarm Code
- UL, Underwriter's Laboratories
- University of Utah Design Criteria
- USGBC LEED 2009NBD+C
- Utah State Fire Marshal Laws, Rules and Regulations
- Standard Broadcast Wiring and Installation Practices", as excerpted from "Recommended Wiring Practices," Sound System Engineering, (2nd Edition), D. Davis

Site Utilities

Electrical

The new building shall be served from the campus 12,470V distribution system in conformance with the University of Utah design standards and in coordination with the campus utilities master plan and other concurrent projects. The current plan is to demolish Carlson Hall, with the new building taking over that location plus some area to the east. This area of campus is served from feeder F71 from the Stadium Substation, with a loop tie through feeder F75 back to the same substation. The existing 12,470V feeder into Carlson Hall shall be removed with associated switch and transformer, back to Manhole 221B that sits to the northeast of the existing building. The switch in this manhole can then be reused, with a new feeder to the new Quinney Law Building. The feeder shall terminate in a new pad-mounted 15 kV

switch that will in turn feed the new transformer(s) for the project. The existing feeder F71 currently has the capacity for the new building, however, it should be noted that there is concern with the capacity of the Stadium Substation, from which the feeder originates. Funding for a separate capital improvement project to upgrade Stadium Substation capacity is a high priority for the campus, and the substation upgrade project should be in place by the time the new building comes on line. The design team shall verify the capacity of the substation and feeders at the time of design. It should also be noted that the existing 15 kV duct bank serving this area runs in a east-west direction, directly north of the existing Carlson Hall. Based on current design approach, it is not anticipated that the new construction will disturb this line, however, this shall also be verified during the design phase, with the duct bank being relocated if necessary. All new medium voltage work shall conform to the latest University of Utah design standards, and be approved by the Campus Design and Construction Electrical Engineer and the Electric Shop.

The medium-voltage feeder for the building shall terminate in a pad-mounted switch with protected ways to serve the building transformers and at least one spare way for future use. Pad-mounted switches may be either solid dielectric type or less flammable liquid-filled. Provide pad-mounted transformers in an outdoor, screened enclosure with good access for maintenance. Two pad-mounted transformers are preferred, one for 277/480V service and the other for 120/208V service. Dry-type step-down transformers should be avoided, but will be required on the emergency and standby distribution.

Telecommunications

It is preferable on campus to provide telecommunications service entrances from two separate directions in order to establish redundant paths. Manholes M21, M22 and M23 are all close to the new building (they are located north and east of the existing Carlson Hall). Provide a minimum of two 4" conduits from two of the manholes into the building main telecommunications room. The existing telecommunications duct bank serving this area runs in a east-west direction, directly north of the existing Carlson Hall (paralleling the 15 kV duct bank). Based on current design approach, it is not anticipated that the new construction will disturb this line, however, this shall be verified during the design phase, with the duct bank being relocated if necessary Coordinate the final site telecommunications design with University of Utah OIT department.

Building Service and Distribution

Main Service

The main electrical room shall be indoors as close as possible to the pad-mounted transformers for building. The main switchboards shall be provided with digital metering that is connected to the Campus central power monitoring system via network data lines, per the new campus metering standard. Include specifications to program the new building into the existing metering software and data base.

Motor Control Centers

Provide motor control centers for areas where 3 or more motors are grouped. All 3-phase motors shall be provided with phase-loss protection. Provide variable frequency drives where required for mechanical equipment in compliance with DFCM and Campus requirements.

Panelboards

New panelboards shall be provided in new, vertically stacked electrical rooms. The new electrical rooms shall be centrally located as much as possible, while taking into account other building and architectural considerations. These rooms shall be dedicated to electrical distribution and shall not be used for storage or any other purposes. Consideration shall be given to the ease and accessibility of running new and future conduits out of each room, for example, do not lock the room between stairs, elevators, restrooms, etc. that would make future work difficult. If inaccessible ceilings surround the room, then stub (5) spare 3/4" conduits from each panelboard to accessible ceiling areas. Dedicate an area of each room for current and future riser conduits or busways so that wall-mounted equipment shall not impede vertical distribution. Panelboards serving normal lighting and appliance circuits shall be located on the same floor as the circuits they serve.

Spare Capacity

Switchboards, panelboards, transformers and other distribution equipment shall be provided with approximately 50% spare capacity and spaces/spares for future growth and flexibility. Electrical equipment rooms shall have 25% additional space for future equipment. Design system to minimize shutdowns for future additions or work.

Branch Circuits

Branch circuits shall be loaded to no more than 80% of what is allowed by NFPA 70. Where outlets are intended for a specific piece of equipment, the load of the outlet shall be based on the equipment nameplate. Otherwise, allow no more than 6 convenience outlets per circuit or 4 outlets per circuit serving workstation computer terminals. Outlets with dedicated branch circuits (one outlet per circuit) are required for vending machines, copy machines, break room counters, A/V cabinets and other locations likely to have equipment requiring dedicated circuits.

Each branch circuit homerun shall have no more than 3 circuits per raceway. All branch circuits shall be provided with a dedicated neutral conductor for each phase conductors. Shared neutral conductors are not allowed.

Conductors

All conductors shall be copper. Conductors for branch circuits shall be sized to prevent voltage drop exceeding 3% at the farthest load. The total voltage drop on both feeders and branch circuits shall not exceed 5%. When calculating the voltage drop, the load shall be assumed to be 80% of the ampacity of the branch circuit and feeder conductors.

Raceways:

All wiring shall be run in raceways, minimum ¾"C. Type MC or AC cable is strictly prohibited. Provide cable tray system so that station cable raceways do not extend more than 50' max to cable tray. Conduits shall stub to the cable tray. Include pull strings in all empty conduits. Include raceway for all audio/visual, security, voice/data and other technology systems whether furnished as part of the construction contract or furnished by the Owner.

Equipment and Furniture

All equipment and furniture identified in the program documents, whether it is furnished in this contract or a separate contract, shall be provided with power and raceway rough-in for complete operation. Coordinate furniture connections with furniture systems suppliers.

Fault Current and Coordination

New equipment shall be adequately rated for the amount of available fault current. System coordination shall be studied, and fuses or breakers selected to ensure minimum system outage due to overloads or fault currents. Breakers with adjustable long time, short time, instantaneous and/or ground fault settings shall be set at levels for optimum system coordination, while also taking into consideration the safety of the maintenance personnel. Include an arc flash study for each distribution point in the system, with printed labels indicating arc flash energy levels that can be applied to the equipment when construction is complete.

Transient Voltage Surge Suppression

Provide surge protective devices (SPD's) and "noise" protection at service equipment (each main) and on branch panelboards in the facility which serve computer terminals. SPD units may be integral to the panelboard or switchboard, or individually mounted "stand-alone" units. However, if individual units are used, they shall be placed immediately adjacent to the panelboard or switchboard to minimize the effects of increasing clamping voltages due to excessive lead lengths.

Outlets

The following shall be used as a general guideline:

- Offices: For each workstation, provide one outlet dedicated to computer terminals and one normal outlet, and one additional normal outlet for every 10' of wall space.
- Conference and Board Rooms: One outlet for every 10' of wall space, plus one outlet dedicate to computer terminals on two walls. Provide floor outlets underneath conference room tables.
- Classrooms: Outlets for audio-visual equipment at instructor's location, plus outlets on walls at 10' intervals. For computer classrooms, provide outlets for each student seat or computer terminal.
- Moot Courtrooms: Follow the State and Federal guidelines for outlet placement, keeping in mind that these rooms will also be used as instruction and lecture spaces.
- Student Seating/Study Areas: Outlets on walls at 10' intervals, plus floor outlets where cords would not reach walls.
- Lounges/Breakrooms/Kitchenettes: GFI Outlets on dedicated circuits every 4' on counter top plus dedicated outlets for refrigerator, microwave, and disposal (switched at counter top), plus one outlet for every 10' of other wall space in room.
- Telephone/Data Closets: At least 6 quad outlets on emergency power with circuit density to allow for at least 40 VA per square foot.
- Electrical Rooms: At least one outlet on emergency power.
- Restrooms/Shower Rooms: One GFI outlet near each lavatory counter top.
- Corridors, Lobbies: Provide at least one outlet every 25', on alternating sides of the corridor or lobby.
- Stairs: One outlet at the landing of each level.
- Storage Rooms (small), Janitors Closets: One outlet.
- Building Exterior: One WP/GFI outlet near each entrance.
- Other Areas: Refer to individual space plan data sheets, and where not defined coordinate requirements with user during design.

Grounding

All feeder and branch circuit raceways shall include an insulated equipment grounding conductor. Provide an additional insulated/isolated grounding system throughout all 120/208V panelboards and associated feeders in compliance with Campus standards. Provide a grounding riser system throughout the telecommunications closets, with grounding bus bars mounted accessible in each closet. All grounding systems shall be bonded together per NEC requirements.

Emergency Service and Distribution:

Provide an emergency generator for the new building. Locate generator outdoors in a screened area with weather-protective, sound-attenuating housing and skid-mounted, double-walled tank. Fuel supply shall be minimum 18 hours at full load. Design at least two transfer switches: one for emergency and one for standby loads. Annunciate alarms adjacent to fire alarm panel. Design generator distribution panel with digital metering. The following shall be provided with emergency power:

- Emergency egress and exit lighting
- Fire Alarm
- Elevators (where required by IBC)
- Smoke Control Systems (if required)
- Communications rooms – outlets, lights and air conditioning
- Electrical rooms – lights and outlets
- Security systems

Lighting

General

Comply with illuminance levels and uniformity criteria of IESNA and its Recommended Practices. For exterior lighting, indirect lighting, and other specialized task lighting provide point-by-point plot of illuminance establishing conformance with the Recommended Practices. Except for specialized applications, provide lighting with a minimum efficacy of 90 lumens per watt. Provide maximum 10% THD electronic ballasts. In addition, design lighting with a CRI exceeding 85, except in storage, mechanical, electrical, and similar nonpublic applications. Where appropriate, minimize number of lamp types utilized. Use 4' T-8 lamps with CRI of 88 or greater wherever possible. Provide lamps complying with EPA TCLP requirements.

Strong consideration shall be given to LED lighting technologies. LED fixtures should be considered as replacements for any recessed downlights, accent lighting, task lighting and could possibly be used for general ambient lighting. Per the University design standards, any dimming that is required shall use LED lighting. Fluorescent dimming not allowed on campus.

Comply with ASHRAE 90.1 requirements, except that overall energy target requirements should be exceeded by 40% as per the University sustainability guidelines.

Provide lighting control to harvest daylighting where practical, to control based upon occupancy, and according to programmable scheduling as applicable to the application.

Parking and Pedestrian Lighting

Use only campus standard lighting fixtures for walkways, parking and roadways, compatible with the campus surroundings. Control exterior lighting utilizing combination photocell and time schedule control.

Parking areas shall comply with RP-20-98, except that the minimum illuminance shall exceed 1 footcandle with a 15:1 uniformity. Pedestrian areas shall comply with RP-8 (average to minimum uniformity ratio less than 4 to 1), except that the average horizontal illuminance shall be increased to 1 footcandle and the average vertical illuminance to 1 footcandle. For each of these areas design two level lighting so that from 11:00 PM to dawn the illuminance level reduces to .6 footcandles minimum. Consider “dark sky” issues in application of luminaires.

Interior Lighting

In general, utilize low-glare fluorescent lighting with electronic ballasts. Select luminaires for areas where VDTs are planned which are designed to minimize veiling reflections, and provide multilevel lighting control and task lighting to reduce the illuminance on the VDT. In addition, in rooms with audio visual (including all classroom and instruction spaces), provide lighting with variable or switched levels as indicated with a separate controlled zone to reduce glare and illuminance on the audio visual display. In rooms with projectors, provide a separate bank of lighting control switches or station near the instructor position for ease of controlling lighting during presentations. Any dimming shall be accomplished using LED lighting.

Lighting Control

Select occupancy sensors for the appropriate applications and control for daylight harvesting. Specify dual technology ceiling mounted directional sensors in private offices and other rooms with manual off switches. Specify ultrasonic sensors in restrooms. Specify programmable lighting control with manual timed overrides in all common areas such as open offices, corridors, lobbies, and similar areas. Carefully evaluate areas of the building that have natural day light and design appropriate methods of daylighting control, suitable for the type of space. Continuous dimming, stepped switching and simple on/off schemes should all be part of the design.

Emergency and Egress Lighting.

Provide exit lighting to comply with IBC. Design emergency lighting for means of egress to 1 fc minimum to comply with IBC. Include emergency lighting in restrooms, electrical rooms, vaults and communication rooms.

LIGHTING AND LIGHTING CONTROL REQUIREMENTS			
	Ave. Illumination Levels In Footcandles (Fc)		
Space	AMBIENT	TASK	**Control Requirements**
Public Circulation and Lobbies	20 FC	N/A	On/off with occupied schedule and manual override; daylighting where provided
Private Offices	30 FC	50 FC	Occupancy sensor and manual switch, daylighting where provided
Open Staff Work Areas	30 FC	50 FC	On/off with occupied schedule and manual override; daylighting where provided
Copy Rooms	30 FC	50 FC	Occupancy sensor and manual switch
Conference Rooms	10 FC - 50 FC	N/A	Occupancy sensor and multi-scene variable control
Classrooms, Training Rooms	10 FC - 50 FC	N/A	Occupancy sensor and multi-scene variable control
Libraries	50 FC - stacks 30 FC - seating	50 FC - seating	On/off with occupied schedule and manual override; daylighting where provided
Moot Courtrooms	10 FC - 50 FC	N/A	Occupancy sensor and multi-scene variable control
Mechanical / Penthouse	30 FC	N/A	Occupancy sensor and manual switch
Elevator Rooms	50 FC	N/A	Manual switch
Restrooms	30 FC	N/A	Occupancy sensor
Kitchenettes/Break Rooms	30 FC	50 FC	Occupancy sensor and manual switch
Storage Rooms	30 FC	N/A	Occupancy sensor and manual switch
Outdoor Walkways	1 FC	N/A	Photocell on/off
Outdoor Entrances	10 FC	N/A	Photocell on/off, emergency power

Fire Alarm

Campus Fire Alarm and Life Safety:

Comply with Utah State Fire Marshall's "Rules and Regulations", the IBC and University of Utah Design Standards. Only FCI as distributed by Nelson Fire Systems is allowed on campus. Provide an addressable system capable of networking with the campus system and reporting back to central campus fire alarm system in building 301 via data network cards. Provide smoke detection throughout all corridors and pathways of egress, with strobe lights visible from all locations except private offices. Provide horns to comply with NFPA including for higher ambient noise requirements. Provide duct detectors and fan shutdown where required by NFPA and the IMC, including detection of smoke at all return air shafts serving multiple floors. Monitor flow and tamper switches per the fire sprinkling design. Coordinate location of the building annunciator with the Campus fire marshal. All other detectors and functions shall comply with the referenced codes and standards.

Telecommunications Raceways

Riser Distribution

Provide stacked telecommunications closets to serve each floor of the building. Comply with EIA/TIA and campus Netcom requirements in the sizing and locating of these rooms. Increase room size for A/V, TV and other systems that may be located in these rooms. Coordinate equipment layout and wall space with the Campus. Locate closets such that when cabling is routed through the raceway system provided, the distance shall not exceed 290 feet to the furthest outlet. Provide a minimum of four 4" conduits from the MDF to the stacked IDF locations and four 4" sleeves between floors. If possible, stack the MDF below the IDF's. Provide both normal and emergency circuits to each IDF, 3 each, with one fourplex per circuit. Include at least (1) 2" conduit to the roof for antennae and/or satellite dish.

Horizontal Distribution

Provide a cable tray distribution network throughout each floor and into the IDF closets. Extend the cable tray around inside of the IDF closet to allow cables to be routed within the room. Consider ease of access to the tray system when the building is in full operation. Limit cable tray routing to be above corridors, common and similar areas. Where ceilings are exposed or inaccessible, then provide a bridge of equivalent conduit connecting the cable trays in the accessible ceiling areas. It shall be the designer's responsibility to size the cable tray and raceway system for the intended cabling installation. Do not load the cable tray and raceway system to more than 50% of what is allowed by cable fill requirements of NFPA 70.

Voice/Data Drops

Each voice/data outlet location shall consist of a 4" square box with mud ring and two 3/4" conduits stubbed to the nearest cable tray. Refer to program space plans for quantities and coordinate exact locations with the users during design. As a minimum, provide one voice/data drop for each workstation, fax machine, copy machine, desk, computer terminal and teaching station. Where wireless networks are being considered, still allow sufficient empty raceways for future hardwired connections should the wireless system have insufficient bandwidth for evolving applications.

Sustainable Design - Electrical

General

The following general areas are being addressed in the electrical design in order to meet sustainable design criteria:

Light Pollution Reduction: Provide exterior lighting using full cut-off luminaires. Do not exceed 80% of the lighting power densities for exterior areas and 50% for building facades and landscape features as defined in ASHRAE/IESNA Standard 90.1-2004, Exterior Lighting Section.

Optimize Energy Performance: The lighting power density for the project shall be at least 30% better than the requirements listed in ASHRAE/IESNA Standard 90.1-2004. The most energy efficient lamp and ballast combinations that are feasible for the project should be used. Give consideration for maintenance and lamp replacement according to campus standards shall. A variety of lighting control methods and lighting power reduction techniques shall be considered, based on type and use of each space, including the following:

- Corridors and Common Areas: Provide a lighting relay control system that controls lights based on time of day occupancy. For after hours, override switches may be used that turn lights on for no longer than one hour at a time.
- Enclosed Spaces (offices, conference rooms, equipment rooms, etc.): Provide occupancy sensors with local "off" override switches.
- Daylighting Areas: For corridors and common areas with daylighting, provide indoor photocells to turn on/off artificial illumination, or to provide stepped switching based on the amount of natural daylighting available. For normally occupied interior spaces, consider the use of a photocell and continuous dimming.
- Exterior Areas: Control exterior lighting through a photocell and timeclock combination. Campus environments should have a minimal level of security lighting throughout the dark night hours.
- Task/Ambient Lighting: Energy consumption can be greatly reduced by reducing the ambient lighting and providing additional, separately controlled lighting for individual tasks.

Measurement and Verification: It is a new University of Utah standard to include the measurement and verification requirements on all new buildings. Coordinate with the mechanical engineer in developing the M&V plan, and then provide additional metering in appropriate locations to support the M&V plan.

Controllability of Lighting: Maximize the use of lighting controls by ensuring that at least 90% of the occupants have individual controllability of lighting in their respective work area. Where open office furniture is used, then separately switched task lighting mounted in the systems furniture is preferred. For shared multi-occupant spaces, provide variable lighting controls to allow adjustment that meets group needs and preferences.

System Commissioning

As part of the LEED and High Performance Building Rating System, commissioning shall be an integral process of the project. Participate fully with the Commissioning Agent during design and construction. The contractors shall be part of the commissioning. As a minimum, the following systems shall be included in the commissioning process:

- Medium voltage equipment (transformers, switches, cables)
- Main switchgear
- Lighting Control Devices and Systems
- Generators and Transfer Switches
- Motor Controllers
- Variable Frequency Controllers
- Fire Alarm Systems
- Security Systems

Technology/audio-video systems

Introduction

This Program provides a narrative description of technology systems for the S.J. Quinney College of Law on the University of Utah campus. The narrative description is not a technical specification, and does not include line diagrams, installation details, and equipment lists with manufacturer and model information. Rather, the narrative descriptions identify functional requirements for each technology system, and form the Basis of Design for the selected architectural and engineering team (A&E team) to prepare construction documents for bidding by contractors.

Prepare the construction documents, including drawings and specifications, to specify the construction of all technology systems in conjunction with all other building systems and construction activities. Specify technology system construction documents to facilitate the technology systems installation contractors becoming direct sub-contractors to the project general contractor, similar to the installation for other building systems, rather than third tier sub-contractors to other trade sub-contractors.

Codes and Standards

Codes which are applicable to the design of the technology systems are listed below. Comply with each of the latest adopted publications. They are part of this program by reference and are not restated in the program narrative.

- ADA, Americans with Disabilities Act
- DFCM, Division of Facilities Construction and Management, Design Criteria
- EIA/TIA, Electronics Industries Association/ Telecommunications Industry Association
- IBC 2000, International Building Code
- NFPA, National Fire Protection Association (applicable sections including but not limited to):
- NFPA 70, National Electrical Code
- NFPA 72, National Fire Alarm Code
- UL, Underwriter's Laboratories
- University of Utah Design Criteria
- Utah State Fire Marshal Laws, Rules and Regulations
- Standard Broadcast Wiring and Installation Practices", as excerpted from "Recommended Wiring Practices," Sound System Engineering, (2nd Edition), D. Davis
- Courtroom Technology Manual, Administrative Office of the United States Courts

Sustainability

Design technology systems to maximize sustainability. Specify Energy Star compliant equipment where appropriate models are available including, but not limited to, video monitors and audio power amplifiers. In addition, specify control systems to be programmed to power off AV systems unused for extended periods of time, and to execute global AV system shutdowns at an Owner designated time of day.

Infrastructure

For the purposes of this project, infrastructure is generally defined to be all preparatory work required to accommodate the planned technology systems. Specifically, infrastructure includes raceway systems (conduit, boxes, enclosures, and miscellaneous cable pathways), 120 VAC power, mechanical systems for the dissipation of heat generated by technology systems, structural supports and backing to support the weight of technology system devices, and architectural barriers/equipment access for compliance with the American's with Disabilities Act, and general architectural standards.

All infrastructure related design requirements are to be identified by the technology systems designer for the other members of the A&E team using National CAD standard formatted Reference drawings. The Reference drawings are to be used for coordination between A&E team members, and not to identify construction requirements for contractors. The infrastructure requirements identified on the Reference drawings are to be integrated into the construction drawings prepared by the individual architects and engineers.

For example, all 120 VAC power requirements and raceway system requirements identified by the technology systems designer on the Reference drawings will be specified in the Electrical systems construction drawings by the project electrical engineer in preparation for construction by the project electrical contractor. Similarly, upon identification of AV system equipment heat loads by the technology system designer in the Reference drawings, all mechanical systems needed to dissipate the heat generated by AV system equipment will be specified by the mechanical engineer in the mechanical system construction documents in preparation for construction by the mechanical contractor. Finally, all structural and accessible related requirements identified by the technology systems designer on the Reference drawings will be specified in the Architectural construction drawings by the project architect, in preparation for construction by the general contractor. Please note that cable is not included in infrastructure, and that all technology systems cable will be specified by the technology systems designer along with all technology systems equipment, for installation by the appropriate technology systems contractor.

Structured Cabling Systems

General

Voice/data cabling (structured cabling systems) will be furnished and installed. Systems will include copper station cabling, copper and fiber backbones, all terminations, wall plates, patch panels, cross connects, racks and cable management.

Voice and data service will originate from the designated campus demarcation, and will be comprised of a combination of copper cabling, and single and multimode fiber. This cabling will terminate in the main telecommunications room (TR). From the main telecommunications room, a backbone of copper cable, and a combination of multimode and single mode fiber cabling will be provided to each subsequent intermediary TR on each of the floors for voice and data signal distribution. Copper, horizontal station cable will be provided to each of the voice/data outlet from the corresponding intermediary equipment room in support of individual users.

Backbone Cabling

Backbone cabling shall consist of fiber and copper cable. Fiber cable shall be hybrid cable with a minimum of 12 strands single mode and 24 strands of 50 micron laser enhanced multimode fiber. All fiber shall be installed in inner duct. Copper cable shall be category 3 multi-pair cable with a minimum of 50 pair cable. A minimum of 3 each 3" conduits shall be provided between each TR. All fiber shall be home run to the main equipment room.

Horizontal Cable Distribution

Horizontal cabling will be provided from each voice-data outlet to the nearest TR on the same building level. All horizontal cable will be category 6 UTP plenum rated cable. The cable will be terminated to face plates at the workstation and rack mounted patch panels at the TR. All conduits will be minimum 1" in diameter with a double gang junction box and single gang mud ring. Faceplates shall be single gang. Wire basket cable tray will be provided for cable in accessible corridors.

Telecommunications Outlets

For non-teaching spaces, design each typical voice/data outlet with two each category 6, RJ45 data outlets. More or fewer outlets may be required to serve specific needs in specialty areas. In classroom and lab areas provide one each category 6, RJ46 data outlet for each student seat, and two each category 6, RJ45 data outlets at each teaching station. In computer labs, design one each category 6, RJ45 data outlet for each computer station. All outlet wall plates shall be one gang with provisions for up to six RJ 45 outlets labeled to comply with University of Utah standards. Match color of electrical devices. Cable each RJ45 data outlet with a 4 pair Category 6 cable. If systems furniture is installed coordinate location of 3 each RJ45 outlets with cabling for each workstation.

Wireless Network

The building will have wireless coverage throughout the building and immediately adjacent outdoor areas. Data outlets with 1 category 6 drop will be provided within the building in coordination with owner personnel for all wireless access points required.

Telephone Outlet

Design telephone outlets for pay phones, elevator panels, wall phones and other required uses. Design 4 pair Category 6 cable in a suitable plate for the application.

Voice & Data System Active Electronics and Passive Devices

All active voice and data system electronics including, but not limited to, hubs, routers, servers, PBX's, etc... will be provided from a separate budget and are not part of the construction budget. All passive devices including, but not limited to cabling, termination devices, wall plates, patch panels, connectors, open frame equipment racks, cable runway, and cable management systems are part of the construction budget.

Security Systems

General

All security systems will comply with established campus standards. Systems will annunciate alarm conditions to, and be completely monitored by, the University of Utah campus police department.

Card Access

An extension of the existing campus access control system will be provided at all designated and all perimeter entry/exit points. This "on-line" access system shall be extended to select interior spaces/classrooms where it is desired to have remote and/or time and calendar locking capabilities. All card readers will be the proximity type, and will comply with established campus standards. All card readers will report to central door controllers and be networked with the existing campus system. Coordinate door hardware to minimize the aesthetic impact to the appearance of the building.

Video Surveillance

A complete video surveillance system will be provided for visual monitoring and recording of all building entry/exit points, at select main building thoroughfares, elevator lobbies, and at select sensitive interior areas. Pan/tilt/zoom cameras will be specified for viewing of owner designated subject areas, and installed in appropriately rated enclosures. Signals from cameras will be connected to a central switching/multiplexing system. Building monitoring of the video camera shall use LCD flat panel monitors. All camera images will be digitally recorded by DVR's that are local area network accessible.

Intrusion Detection

A complete intrusion detection system will be specified for electronic monitoring and status reporting of all building entry/exit points, select building thoroughfares, and at select sensitive

interior areas. Sensing devices will include door position switches, motion sensors, and where/if appropriate, glass break sensors. All sensing devices will report to a zoned monitoring panel for specific location identification of an alarm condition. The intrusion detection system will be integrated with the video surveillance system for priority viewing of security breach areas.

Emergency Phones

Emergency (Blue Light) telephones will be specified. Provide density and alarm annunciation based on established campus standards. At a minimum, locate telephones in outdoor parking and pedestrian areas at highly visible location.

Audio and Video Systems

General

Audio and video systems will be specified in full compliance with established campus standards. System equipment will be specified for consistency with manufacturers and models identified by the University of Utah College of Law. All video systems will be digitally based, deploying HDBaseT transport and switching technology. All video systems will be fully compliant with high definition content protection (HDCP) standards.

75 – Person Classrooms

75 - person classrooms will be provided with fully integrated audio, video, and control systems. Audio systems will amplify the spoken word from presenters, and amplify program audio originating from media source playback devices. The spoken word originating from presenters will be captured using wireless, lapel microphones and/or lectern-mounted gooseneck microphones. Once captured, the audio signal will be processed and amplified to a speaker system. Additionally, several ceiling mounted microphones will be provided to capture student questions for lecture recording, lecture streaming, distant communication, and voice reinforcement inside the room in a mix-minus configuration.

Several media source devices will be provided. These devices will include, but not be limited to, wired connections to portable computers, wireless connections to tablet computers, computers resident in teaching stations, DVD players, television tuners, and connections to the central control room. Audio originating from source devices will be selected, processed, and amplified to a speaker system. In compliance with the Americans with Disabilities Act, a wireless assisted listening system will be provided.

Two electric roll-up, tensioned cabled, 16:9 or 16:10 video projection screens will be provided for the display of media content. Projection screens will be sized using AV industry-wide accepted standards for the nearest and furthest viewers. Carefully coordinate projection screen locations with seating layouts to assure appropriate viewing sight lines. Specify projectors with a minimum native resolution of 1920 X 1080 in a 16:9 format or 1920 X 1200 in a16:10 format. As with screen sizing, apply AV industry-wide accepted standards in calculating the required light output for each projector to assure that images

will not be “washed out” by ambient room lighting. Additionally, specify an approximate 21.5” LED monitor with a native resolution and aspect ratio that matches the specified projectors for use on the lectern. At the Owner’s direction during the design process, some rooms may be provided with the ability to write electronically (annotate) over displayed images. Video systems will be equipped with matrix switchers to allow for the display of separate images on the dual projection screens and lectern monitor.

Fully integrated control systems will be provided for control of all audio and video system functions and room lighting systems. The resident user interface (UI) will be a touch panel located at the teaching station. Additionally, specify the capability for faculty wireless tablet computers to be used as the UI. Program UI graphics specific to the room in which it is deployed. To the extent directed by the Owner during the design process, specify that single control commands will result in the execution of multiple AV system, lighting system, and, if applicable, motorized window covering events (Macros). Program all control system processors to be networked with the building-wide control system management software and central control room.

Specify an Ethernet network camera video feed and audio system output from each classroom for use by the central control room and the Legal Education and Innovation Center. In addition, specify an HD quality robotic camera video feed, accompanying audio output, and room media content feed for lecture capture and streaming.

Auditorium / Courtroom

The Auditorium / Moot Courtroom will be provided with fully integrated audio, video, and control systems as described above in the 75 – person classroom narrative. This space will also be provided with additional robotic cameras and courtroom specific AV system enhancements. The courtroom specific AV system enhancements will include attributes as identified in the Courtroom Technology Manual as published by the Administrative Office of the United States Courts. Extend audio and video signals into the adjacent pre-event space using appropriate speaker systems and large flat panel LED monitors.

50 – Person Classrooms / Multi-purpose & Events Space

50 - person classrooms / multi-purpose & events space will be provided with fully integrated audio, video, and control systems. Audio systems will amplify the spoken word from presenters, and amplify program audio originating from media source playback devices. The spoken word originating from presenters will be captured using wireless, lapel microphones and/or lectern-mounted gooseneck microphones. Once captured, the audio signal will be processed and amplified to a speaker system. Additionally, several ceiling mounted microphones will be provided to capture student questions for lecture recording, lecture streaming, distant communication, and voice reinforcement inside the room in a mix-minus configuration.

Several media source devices will be provided. These devices will include, but not be limited to, wired connections to portable computers, wireless connections to tablet computers, computers

resident in teaching stations, DVD players, television tuners, and connections to the central control room. Audio originating from source devices will be selected, processed, and amplified to a speaker system. In compliance with the Americans with Disabilities Act, a wireless assisted listening system will be provided.

Two electric roll-up, tensioned cabled, 16:9 or 16:10 video projection screens will be provided in each room for the display of media content. Projection screens will be sized using AV industry-wide accepted standards for the nearest and furthest viewers. Carefully coordinate projection screen locations with seating layouts to assure appropriate viewing sight lines. Specify projectors with a minimum native resolution of 1920 X 1080 in a 16:9 format or 1920 X 1200 in a16:10 format. As with screen sizing, apply AV industry-wide accepted standards in calculating the required light output for each projector to assure that images will not be "washed out" by ambient room lighting. Additionally, specify an approximate 21.5" LED monitor with a native resolution and aspect ratio that matches the specified projectors for use on the lectern. At the Owner's direction during the design process, some rooms may be provided with the ability to write electronically (annotate) over displayed images. Video systems will be equipped with matrix switchers to allow for the display of separate images on the dual projection screens and lectern monitor.

Fully integrated control systems will be provided for control of all audio and video system functions and room lighting systems. The resident user interface (UI) will be a touch panel located at the teaching station. Additionally, specify the capability for faculty wireless tablet computers to be used as the UI. Program UI graphics specific to the room in which it is deployed. To the extent directed by the Owner during the design process, specify that single control commands will result in the execution of multiple AV system, lighting system, and, if applicable, motorized window covering events (Macros). Program all control system processors to be networked with the building-wide control system management software and central control room. Specify infrared sensors to monitor the position of folding partitions which separate individual rooms, and notify the control system to automatically re-configure the AV and lighting systems based on the quantity of combined room sections.

Specify an Ethernet network camera video feed and audio system output from each classroom for use by the central control room and the Legal Education and Innovation Center. In addition, specify an HD quality robotic camera video feed, accompanying audio output, and room media content feed for lecture capture and streaming.

35 – Person Classrooms

35 - person classrooms will be provided with fully integrated audio, video, and control systems. Audio systems will be used to amplify program audio originating from media source playback devices only. However, in order to facilitate lecture recording, lecture streaming, and distant communication, the spoken word originating from presenters will be captured using wireless, lapel microphones and/or lectern-mounted gooseneck microphones, and ceiling mounted microphones will be provided to capture student questions.

Several media source devices will be provided. These devices will include, but not be limited to, wired connections to portable computers, wireless connections to tablet computers, computers resident in teaching stations, DVD players, television tuners, and connections to the central control room. Audio originating from source devices will be selected, processed, and amplified to a speaker system. In compliance with the Americans with Disabilities Act, a wireless assisted listening system will be provided.

One electric roll-up, tensioned cabled, 16:9 or 16:10 video projection screen will be provided for the display of media content. The projection screen will be sized using AV industry-wide accepted standards for the nearest and furthest viewers. Carefully coordinate the projection screen location with seating layouts to assure appropriate viewing sight lines. Specify a projector with a minimum native resolution of 1920 X 1080 in a 16:9 format or 1920 X 1200 in a16:10 format. As with screen sizing, apply AV industry-wide accepted standards in calculating the required light output for each projector to assure that images will not be “washed out” by ambient room lighting. Additionally, specify an approximate 21.5” LED monitor with a native resolution and aspect ratio that matches the specified projector for use on the lectern. At the Owner’s direction during the design process, some rooms may be provided with the ability to write electronically (annotate) over displayed images. Video systems will be equipped with matrix switchers to allow for the display of separate images on the projection screen and lectern monitor.

Fully integrated control systems will be provided for control of all audio and video system functions and room lighting systems. The resident user interface (UI) will be a touch panel located at the teaching station. Additionally, specify the capability for faculty wireless tablet computers to be used as the UI. Program UI graphics specific to the room in which it is deployed. To the extent directed by the Owner during the design process, specify that single control commands will result in the execution of multiple AV system, lighting system, and, if applicable, motorized window covering events (Macros). Program all control system processors to be networked with the building-wide control system management software and central control room.

Specify an Ethernet network camera video feed and audio system output from each classroom for use by the central control room and the Legal Education and Innovation Center. In addition, specify an HD quality robotic camera video feed, accompanying audio output, and room media content feed for lecture capture and streaming.

35 – Person Classroom with Video Conferencing

In addition to the AV system equipment and capabilities described above in the 35 – person classroom narrative, one 35 - person classroom will be provided with additional equipment required for video conferencing. The additional equipment will include HD robotic cameras positioned to capture the images of instructors and students, and several large screen LED flat panel monitors

positioned so that the instructor and students can monitor the outgoing and incoming video images. All audio, video, and control system equipment will comply with the Utah Educational Network standards.

25 – Person Classrooms / Simulation Rooms

25 - person classrooms will be provided with fully integrated audio, video, and control systems. Audio systems will be used to amplify program audio originating from media source playback devices only. However, in order to facilitate lecture recording, lecture streaming, and distant communication, the spoken word originating from presenters will be captured using wireless, lapel microphones and/or lectern-mounted gooseneck microphones, and ceiling mounted microphones will be provided to capture student questions.

Several media source devices will be provided. These devices will include, but not be limited to, wired connections to portable computers, wireless connections to tablet computers, computers resident in teaching stations, DVD players, television tuners, and connections to the central control room. Audio originating from source devices will be selected, processed, and amplified to a speaker system. In compliance with the Americans with Disabilities Act, a wireless assisted listening system will be provided.

One electric roll-up, tensioned cabled, 16:9 or 16:10 video projection screen will be provided for the display of media content. The projection screen will be sized using AV industry-wide accepted standards for the nearest and furthest viewers. Carefully coordinate the projection screen location with seating layouts to assure appropriate viewing sight lines. Specify a projector with a minimum native resolution of 1920 X 1080 in a 16:9 format or 1920 X 1200 in a16:10 format. As with screen sizing, apply AV industry-wide accepted standards in calculating the required light output for each projector to assure that images will not be “washed out” by ambient room lighting. Additionally, specify an approximate 21.5” LED monitor with a native resolution and aspect ratio that matches the specified projector for use on the lectern, and specify multiple large screen, LED flat panel monitors for use during simulation exercises. At the Owner’s direction during the design process, some rooms may be provided with the ability to write electronically (annotate) over displayed images. Video systems will be equipped with matrix switchers to allow for the display of separate images on the projection screen, lectern monitor, and simulation monitors.

Fully integrated control systems will be provided for control of all audio and video system functions and room lighting systems. The resident user interface (UI) will be a touch panel located at the teaching station. Additionally, specify the capability for faculty wireless tablet computers to be used as the UI. Program UI graphics specific to the room in which it is deployed. To the extent directed by the Owner during the design process, specify that single control commands will result in the execution of multiple AV system, lighting system, and, if applicable, motorized window covering events (Macros). Program all control system processors to be networked with the building-wide control system management software and central control room.

Specify an Ethernet network camera video feed and audio system output from each classroom for use by the central control room and the Legal Education and Innovation Center. In addition, specify multiple HD quality robotic cameras, an accompanying audio output, and room media content feed for recording, streaming, distant communication, exterior room monitoring, and simulation training.

Seminar & Group Study Rooms

Each room will be provided with fully integrated audio, video, and control systems. Specify a large, LED flat panel monitor sized in compliance with AV industry-wide standards based on viewing distances for room seating layouts. Video system signal switching, processing, and distribution will be provided to select video sources and route the signals to the flat panel monitor. Resident source devices will not be provided. Rather, specify connection panels at multiple locations on walls and in furniture in each room to accept various audio and video signal types. In addition, specify wireless connections to tablet computers, TV tuners and connections to the central control room.

Provide an audio system in each room for the playback of media content with audio. Voice reinforcement systems will not be provided. Speakers will be attached to the large, LED flat panel monitors. Audio system digital signal processors and power amplifiers will be provided for processing and distribution of audio signals originating from input connection panels and wireless tablet computers. Audio originating from source devices will be selected, processed, and amplified to the speaker system.

Simple, integrated control panels will be wall-mounted in each room to facilitate user control. All audio and video system control functions, and possibly lighting control functions, will be accessible via the control panel. All control system processors will be networked with the campus-wide control system management software.

Provide an audio system in each room for the playback of media content with audio. Voice reinforcement systems will not be provided. Speaker systems will be comprised of recess mounted, ceiling distributed loudspeakers. Audio system digital signal processors and power amplifiers will be provided for processing and distribution of audio signals originating from input connection panels. Several ceiling mounted microphones will be provided to capture student interaction for recording, streaming, distant communication, and exterior room monitoring.

Fully integrated control systems will be provided for control of all audio and video system functions and room lighting systems. The resident user interface (UI) will be a touch panel located at the teaching station. Additionally, specify the capability for faculty wireless tablet computers to be used as the UI. Program UI graphics specific to the room in which it is deployed. To the extent directed by the Owner during the design process, specify that single control commands will result in the execution of multiple AV system, lighting system, and, if applicable, motorized window covering events (Macros). Program all control system processors to be networked with the building-wide control system management software and central control room.

Facility-wide Digital Signage System

A digital signage system will be provided throughout the building. Approximately 46" diagonal LCD flat panel monitors will be located at elevator lobbies, public lobbies, and select other locations on each floor with appropriate mounting hardware. Small form factor central processing units will be located at each monitor position for IP addressable, Ethernet distribution of content and basic monitor control. The digital signage system will integrate with the campus digital signage network and software. The digital signage system will also include provisions for visual signage of public address announcements for compliance with the American's with Disabilities Act; provisions for displaying information from the building automation system; and provisions for displaying audio and video content from the central control room.

Facility-wide Paging System

A zoned public address system will be provided. Although specified primarily for emergencies, the public address system will also be suitable for use regarding building closing, and other similar announcements. The public address system will be integrated with the facility telephone system. This will allow zone or all call selection and announcements to be made via designated telephone sets. Power amplifiers and speaker systems will be provided as appropriate for individual spaces utilizing a constant voltage, 70 volt distribution system.

TV Distribution System

An RF TV distribution system will be provided for distribution of audio and video signals throughout the building. The TV distribution system will be provided with cable, amplifiers, splitters, directional couplers, terminators, outlets, and connectors. The system will be the broadband type, for distribution of low resolution, modulated audio and video signals onto a carrier frequency. A minimum 750 MHz bandwidth will be specified, and all outlets will be provided with between +5 and +10 dBu at each building television outlet.

AV Control Room

Provide a central control room for all building AV systems. The control room will serve as a central hub for signal distribution for all rooms with AV systems, as well as the building connection point to distant locations. Equip the control room with studio quality audio monitors, multiple LED flat panel monitors, and control system user interfaces to facilitate the control of AV equipment within the control room, as well as AV equipment in all AV systems throughout the building.

Specify a fiber optic matrix switching for signal distribution and routing between the control room and all AV systems throughout the building, as well as exterior building destination/sources and local broadcasters. Additionally, specify basic audio and video signal mixing, live switching, editing, and production systems. Include equipment for "help desk" AV system support services.

Clock System

Provide battery operated clocks throughout the building, and a GPS receiver/transmitter at a central location. Specify clocks to be correctable by the GPS receiver/transmitter via a wireless connection directly to each clock.

Commissioning

Commissioning Role

The state of Utah will hire a Commissioning Agent (CxA) as a part of the project team. The CxA will be engaged in the project from design development through construction and final training and be available to the owner through the one year warranty period, after substantial completion. The initial role of the CxA is to verify that the project design meets the Owners Project Requirements (OPR), as outlined in this document and subsequent owner documents, as well as the building systems Basis of Design (BOD). This will be completed through reviews of the construction documents at the design development and construction document phases of the project design. The CxA does not have the power to make or approve changes to the design, but they will suggest modifications and clarifications to be made to the project design, which will be coordinated and implemented by the project team.

The Commissioning Agent will also observe and track the installation of building systems to provide the owner verification that the building systems are installed and functioning efficiently and properly prior to building occupancy. According to the State of Utah Preamble for Commissioning, “The CxA is not to replace the design architect and engineers in verifying that the work is constructed per the plans and specifications. They are to supplement the efforts of the design team. Close communication and coordination between the design team, the CxA and DFCM is required. It is the intent for the design team to continue to do both interim and final inspections noting items that do not comply with code or with the contract documents.”

Commissioned Systems

Per the State of Utah Requirements, the following systems will be commissioned:

- Electrical Systems
- Mechanical and Plumbing Systems
- Operable Building Control Systems
- Audio and Visual Systems
- Telephone and Data Systems
- Building Security Systems
- Elevators and Conveyance Systems
- Scheduled or Occupancy Sensor Lighting Controls
- Daylight Dimming Controls
- Refrigeration Systems
- Emergency Power Generators and Automatic Transfer Switching
- Uninterruptible Power Supply Systems

- Life Safety Systems (fire alarm, egress pressurization, fire protection, smoke evacuation)
- Domestic and Process Water Pumping and Mixing Systems
- Equipment Sound Control Systems and Testing
- Paging Systems
- Renewable Energy Generating Systems
- Building Envelope Performance and System Installation

In addition to the above systems, the security and hardware systems will be commissioned.

Envelope commissioning on previous projects has achieved substantial energy and emissions savings and is becoming standard practice on all new projects. Both the University of Utah and the State of Utah DFCM are working toward creating envelope commissioning standards. As the project design progresses, these standards shall be adhered to.

04.space requirements

The following are detailed descriptions of the eight programmatic areas of the new law school: Instructional, Administration, Faculty, Law Library, Students, Other, Common Areas and Advanced Research Areas. Included within these descriptions are itemized space lists, adjacency diagrams and detailed room data sheets.

Program Summary

Department	Proposed Program		
	NSF	NSF/ FTE	GSF
Instructional	13,000	29	20,635
Administration	6,960	15	11,048
Faculty	2,460	5	3,905
Law Library	19,180	43	30,444
Students	3,000	7	4,762
Other/Support	10,340	23	16,413
Common Areas	9,970	22	15,825
Advanced Research Areas	33,260	74	52,794
Total	**98,170**	**218**	**155,825**

A. Instructional (Also refer to ARA's)

Space Code	Room / Space Name	NSF Each	Proposed Qty.	Total NSF
A100	Instructional			
A101	Large Classroom - 75 seats	1,950	2	3,900
A102	Medium Classroom - 50 seats/Events	1,500	3	4,500
A103	Small Classroom - 35 seats	1,050	2	2,100
A104	Courtroom/Seminar Room - 25 seats	750	3	2,250
A105	AV Control Room	250	1	250
	Total Instructional NSF			**13,000**
	Net to Gross Factor			0.63
	Total Instructional GSF			**20,635**

B. Administration

Space Code	Room / Space Name	NSF Each	Proposed Qty.	Total NSF
B100	Accounting			
B101	Director Office	150	1	150
B102	Accounting Specialist Workstation	90	3	270
B103	Files/Meeting Room	150	1	150
	Accounting Total			**570**
B200	Administrative Services			
B201	Director Office	150	1	150
B202	Storage/Files/Supplies	60	1	60
	Administrative Services Total			**210**
B300	Admissions			
B301	Waiting Area/Reception	100	1	100
B302	Associate Dean Office	150	1	150
B303	Associate Director Office	150	1	150
B304	Administrative Program Manager Office	90	1	90
B305	Admissions Assistant Workstation	90	1	90
B306	Financial Aid Officer Office	90	1	90
B307	Conference/Work space	250	1	250
B308	Storage/Files	100	1	100
	Admissions Total			**1,020**

Space Code	Room / Space Name	NSF Each	Proposed Qty.	Total NSF
B400	Dean			
B401	Waiting Area	100	1	100
B402	Dean's Office	250	1	250
B403	Executive Director for Institutional Advancement Office	150	1	150
B404	Executive Assistant Workstation	90	1	90
B405	Conference/Pantry	500	1	500
B406	Dean's Files	60	1	60
	Dean Total			**1,150**
B500	External Relations			
	Development/Alumni Relations			
B501	Director Alumni Relations Office	150	1	150
B502	Executive Assistant Office	90	1	90
B503	Shared Storage	100	1	100
	Development/Alumni Relations Total			**340**
	Communications/Marketing			
B504	Director of External Relations Office	150	1	150
B505	Director of Marketing Office	150	1	150
B506	Contact Manager Workstation	90	1	90
B507	Communications/Marketing Storage	100	1	100
B508	Assoc. Director Stegner Center External Relations Office	150	1	150
B509	Growth Center External Relations Workstation	90	1	90
	Communications/Marketing Total			**730**

Space Code	Room / Space Name	NSF Each	Proposed Qty.	Total NSF
	Events			
B510	Senior Event Coordinator Workstation	90	1	90
B511	Event Coordinator Workstation	90	1	90
B512	Student Workspace	50	2	100
B513	Events Storage	100	1	100
	Events Total			**380**
	Travel			
B514	Travel Coordinator Workstation	90	1	90
	Travel Total			**90**
	Media			
B515	Media Studio	190	1	190
	Media Total			**190**
	Growth			
B516	Staff Workstation	90	1	90
	Growth Total			**90**
	Support			
B517	Collaboration/Entry	100	1	100
B518	Conference Room	150	1	150
B519	Workroom/Storage	250	1	250
B520	Pantry	60	1	60
	Support Total			**560**
	External Relations Total			**2,380**

Space Code	Room / Space Name	NSF Each	Proposed Qty.	Total NSF
B600	Professional Development			
B601	Waiting Area	100	1	100
B602	Director Office	150	1	150
B603	Career Counselor Office	90	1	90
B604	Academic Coordinator Workstation	90	1	90
B605	Interview Rooms	100	3	300
B606	Storage/Pantry	60	1	60
	Professional Development Total			**790**
B700	Registrar/Student Services			
B701	Waiting Area	100	1	100
B702	Registrar Office	150	1	150
B703	Associate Dean Office	150	1	150
B704	Academic Coordinator Workstation	90	1	90
B705	Shared Meeting Room	100	1	100
B706	Storage	250	1	250
	Registrar/Student Services Total			**840**
	Total Administration NSF			**6,960**
	Net to Gross Factor			0.63
	Total Administration GSF			**11,048**

C. Faculty (Also refer to ARA's)

Space Code	Room / Space Name	NSF Each	Proposed Qty.	Total NSF
C100	Faculty Support			
C101	Faculty/Staff Lounge	1,500	1	1,500
C102	Pantry	200	1	200
C103	Storage	200	1	200
C104	Adjunct Faculty Space	560	1	560
	Total Faculty NSF			**2,460**
	Net to Gross Factor			0.63
	Total Faculty GSF			**3,905**

D. Law Library (Also refer to Common Areas and ARA's)

Space Code	Room / Space Name	NSF Each	Proposed Qty.	Total NSF
D100	Library Administration			
D101	Library Director Office	150	1	150
D102	Office Assistant Workstation	90	1	90
D103	Conference Room	250	1	250
	Administration Total			**490**
	Reference			
D104	Librarian Office	150	6	900
	Reference Total			**900**
	Technical Services			
D105	Technical Services Workstation/Workroom	1,000	1	1,000
D106	Librarian Office	150	2	300
	Technical Services Total			**1,300**
	Library Administration Total			**2,690**
D200	Law Library Circulation/Service			
D201	Circulation Desk/Reference/IT Help Desk	300	1	400
D202	Circulation Manager Office	150	1	150
D203	Assistant Circulation Manager Workstation (Sills)	90	1	90
D204	Reserves Collection	150	1	150
	Law Library Circulation/Service Total			**790**

Space Code	Room / Space Name	NSF Each	Proposed Qty.	Total NSF
D300	Collections			
D301	Compact Shelving	10,500	1	10,500
D302	Open Shelving	2,800	1	2,800
	Collections Total			**13,300**
D400	Rare Books			
D401	Rare Book Collection	400	1	400
	Rare Books Total			**400**
D500	Reading Room			
D501	Reading Room	2,000	1	2,000
	Reading Room Total			**2,000**
	Total Law Library NSF			**19,180**
	Net to Gross Factor			0.63
	Total Law Library GSF			**30,444**

E. Students (Also refer to Common Areas and ARA's)

Space Code	Room / Space Name	NSF Each	Proposed Qty.	Total NSF
E101	Student Lounge	1,000	1	1,000
E102	Student Storage	6	230	1,380
E103	Nursing/Quiet Room	60	2	120
E104	Dressing Room/Shower	100	4	400
E105	Childcare Room	100	1	100
	Total Students NSF			**3,000**
	Net to Gross Factor			0.63
	Total Students GSF			**4,762**

F. Other/Support

Space Code	Room / Space Name	NSF Each	Proposed Qty.	Total NSF
F100	Courtroom/Auditorium			
F101	Breakout/Pre-Function	1,500	1	1,500
F102	Courtroom/Auditorium	4,620	1	4,620
F103	Judge's Chambers/Storage/AV	200	1	200
F104	Events Storage	600	1	600
F105	Catering Pantry	550	1	550
F106	Catering Storage	50	1	50
F107	Coat Room	50	1	50
	Courtroom/Auditorium Total			**7,570**
F200	Training Center			
F201	Waiting/Lounge	200	1	200
F202	Staff Workstation	50	1	50
F203	Hoteling Station	50	2	100
F204	Training Room - 35 seats	1,050	1	1,050
F205	Storage	60	1	60
	Training Center Total			**1,460**

Space Code	Room / Space Name	NSF Each	Proposed Qty.	Total NSF
F300	Building Support			
F301	Receiving/Staging	300	1	300
F302	Library/Mail Storage	150	1	150
F303	Building Storage	150	1	150
F304	Café Storage	150	1	150
F305	Building and Grounds Storage	60	1	60
F306	AV/Media Closet	50	6	300
F307	MDF Room	200	1	200
	Building Support Total			**1,310**
	Total Other/Support NSF			**10,340**
	Net to Gross Factor			0.63
	Total Other/Support GSF			**16,413**

G. Common Areas

Space Code	Room / Space Name	NSF Each	Proposed Qty.	Total NSF
G100	IT (Also refer to ARA's)			
G101	Director Office	150	1	150
G102	Staff Workstation	90	3	270
G103	IT Storage Room	250	1	250
G104	Reference Help Desk	50	1	50
	IT Total			**720**
G200	Study Space			
G201	Group Study - 4 person	100	3	300
G202	Group Study - 6 person	150	3	450
G203	Group Study - 8-10 person	250	1	250
G204	Student Work/Study Space	50	75	3,750
	Study Space Total			**4,750**
G300	Student Activities			
G301	Student Dining Seating	1,500	1	1,000
G302	Café	300	1	300
G303	Café Storage/Prep	100	1	100
G304	Vending	100	1	100
	Student Activities Total			**1,500**

Space Code	Room / Space Name	NSF Each	Proposed Qty.	Total NSF
G400	Building Commons			
G401	Building Commons	3,000	1	3,000
	Building Commons Total			**3,000**
	Total Common Areas NSF			**9,970**
	Net to Gross Factor			0.63
	Total Common Areas GSF			**15,825**

H. Advanced Research Areas

Space Code	Room / Space Name	NSF Each	Proposed Qty.	Total NSF
H100	Seminar Rooms			
H101	Seminar Room - 15 seats	500	4	2,000
	Seminar Rooms Total			**2,000**
H200	Faculty Offices			
H201	Faculty Office	150	40	6,000
H202	Growth/Flex Office	150	5	750
	Faculty Offices Total			**6,750**
H300	Faculty Support			
H301	Waiting Area	100	4	400
H302	Administrative Support Workstation	90	8	720
H303	Administrative Support/Reception Workstation	90	2	180
H304	Copy/Print Room	100	4	400
H305	Copy Technician Workstation	50	2	100
H306	Pantry	60	4	240
	Faculty Support Total			**2,040**

Space Code	Room / Space Name	NSF Each	Proposed Qty.	Total NSF
H400	Stegner Center Research Module			
H401	Stegner Work/Meeting Room	250	1	250
H402	Stegner Conference Room	250	1	250
H403	Stegner Fellows Office	100	2	200
H404	Stegner Additional Flex Space	100	1	100
H405	ADR Director Office	150	1	150
	Stegner Center Research Module Total			**950**
H500	Center for Innovation in Legal Education Research Module			
H501	ILE Work/Meeting Room	250	1	250
H502	ILE Conference Room	250	1	250
H503	ILE Staff Workstation	90	1	90
H504	ILE Additional Flex Space	210	1	210
H505	ILE Director Technology Initiative Office	150	1	150
	Center for ILE Research Module Total			**950**
H600	Future Center 1 Research Module			
H601	Work/Meeting Room	250	1	250
H602	Conference Room	250	1	250
H603	Grants Specialist Office	150	1	150
H604	Additional Flex Space	150	1	150
	Future Center 1 Research Module Total			**800**

Space Code	Room / Space Name	NSF Each	Proposed Qty.	Total NSF
H700	Future Center 2 Research Module			
H701	Work/Meeting Room	250	1	250
H702	Conference Room	250	1	250
H703	Flex Space	300	1	300
	Future Center 2 Research Module Total			**800**
H800	Program 1 Research Module			
H801	Work/Meeting Room	250	1	250
H802	Conference Room	250	1	250
H803	Training Center Staff Office	100	1	100
H804	Additional Flex Space	200	1	200
	Program 1 Research Module Total			**800**
H900	Program 2 Research Module			
H901	Work/Meeting Room	250	1	250
H902	Conference Room	250	1	250
H903	Flex Space	300	1	300
	Program 2 Research Module Total			**800**
H1000	Journal/Student Organization 1 Research Module			
H1001	SBO Work/Meeting Room	250	1	250
H1002	Journal/Student Org Conference Room	250	1	250
H1003	Student Org Storage Room	100	2	200
H1004	SBO Storage Room	100	1	100
	Journal/Student Org 1 Research Module Total			**800**

Space Code	Room / Space Name	NSF Each	Proposed Qty.	Total NSF
H1100	Journal/Student Organization 2 Research Module			
H1101	Work/Meeting Room	250	1	250
H1102	Conference Room	250	1	250
H1103	Editorial Assistant Workstation	90	1	90
H1104	Additional Flex Space	210	1	210
	Journal/Student Org 2 Research Module Total			**800**
H1200	Clinic 1 Research Module			
H1201	Work/Meeting Room	250	1	250
H1202	Conference Room	250	1	250
H1203	Program Manager Office	150	1	150
H1204	Assistant Workstation	90	1	90
H1205	Additional Flex Space	60	1	60
H1206	Director Pro-Bono Office	150	1	150
	Clinic 1 Research Module Total			**950**
H1300	Clinic 2 Research Module			
H1301	Work/Meeting Room	250	1	250
H1302	Conference Room	250	1	250
H1303	Flex Space	300	1	300
	Clinic 2 Research Module Total			**800**

Space Code	Room / Space Name	NSF Each	Proposed Qty.	Total NSF
H1400	Group Study			
H1401	Group Study - 4 person	100	3	300
H1402	Group Study - 6 person	150	3	450
H1403	Group Study - 8-10 person	250	2	500
	Study Space Total			**1,250**
H1500	Student Work/Study Space			
H1501	Student Work/Study Space - Journals	50	40	2,000
H1502	Work/Study Space - Editors	80	15	1,200
H1503	Student Work/Study Space - Programs	50	60	3,000
H1504	Student Work/Study Space - Centers	50	25	1,250
H1505	Student Work/Study Space - Clinics	50	60	3,000
H1506	Student Work/Study Space - Student Research	50	20	1,000
H1507	Student Storage	6	220	1,320
	Student Work/Study Space Total			**12,770**
	Total Advanced Research Areas NSF			**33,260**
	Net to Gross Factor			0.63
	Total Advanced Research Areas GSF			**52,794**

A. Instructional (Also refer to ARA's)

Space Code	Room / Space Name	NSF Each	Proposed Qty.	Total NSF
A100	Instructional			
A101	Large Classroom - 75 seats	1,950	2	3,900
A102	Medium Classroom - 50 seats/Events	1,500	3	4,500
A103	Small Classroom - 35 seats	1,050	2	2,100
A104	Courtroom/Seminar Room - 25 seats	750	3	2,250
A105	AV Control Room	250	1	250
	Total Instructional NSF			**13,000**
	Net to Gross Factor			0.63
	Total Instructional GSF			**20,635**

student-centric

impact

innovation

flexible

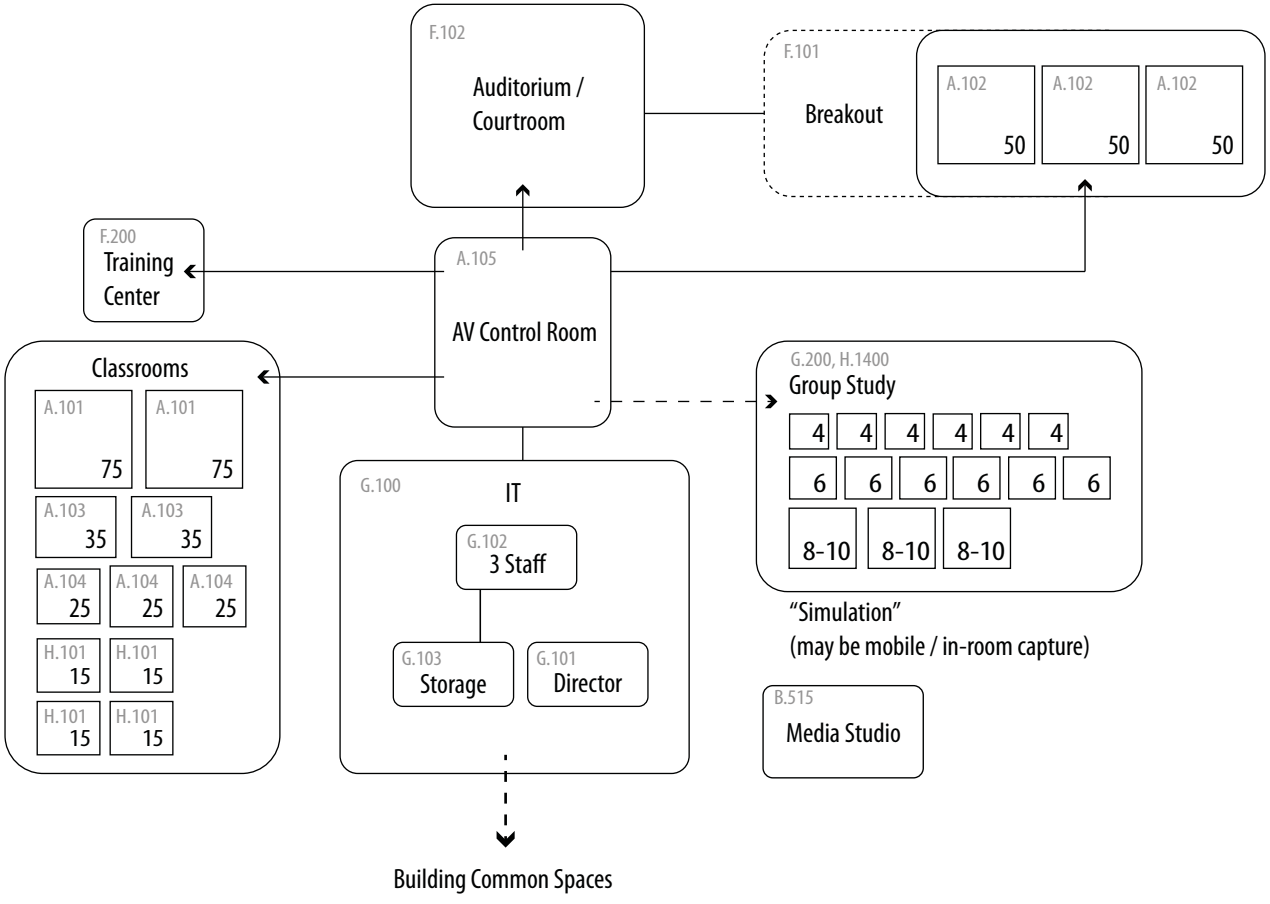
multi-use

The proposed instructional program is based on a detailed analysis of the existing classroom utilization patterns, as well as the projected enrollment growth from 400 to 450 students. Current classroom utilization indicates many small classes are often held in large classrooms creating an inefficient use of space. Providing more appropriately sized classrooms will help alleviate these inefficiencies. The projected enrollment growth creates the need for some larger classrooms. Typically, half of a year cohort needs to be accommodated in one sitting, thus determining the 75-seat tiered classroom capacity.

The variety of smaller flat-floor classrooms reflects a prevailing trend in legal education toward smaller classes with flexible furniture arrangements - from traditional lecture rows, to Socratic U-shapes, to clusters or groups. In addition to the dedicated classroom spaces, a training center, and several small group study and project work rooms are planned near the traditional classrooms and within the research areas. Many of the smaller work/study rooms will have a high level of transparency to encourage interaction, visibility and a sense of community. Common areas such as corridors, lounges and lobbies should also be considered for their informal, after-class instructional potential.

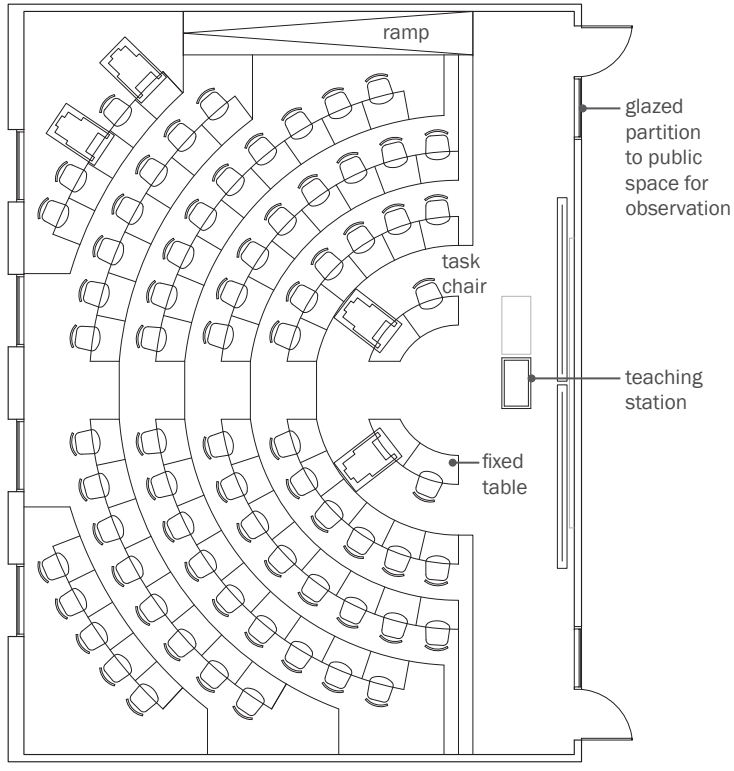
All of the proposed classrooms will be considered multi-use spaces, available for events, group study, staff meetings and other gatherings when classes are not in session. The three 50-seat classrooms in particular are intended to be located adjacent to one another, with movable partitions between each of the rooms to allow for increased capacity. Flat floors, flexible yet advanced IT infrastructure and durable finishes will allow these rooms to be used for a variety of functions. Detailed operations management and careful scheduling practices will ensure the ultimate efficiency of these spaces.

Relationship Diagram | Classrooms, AV Control Room



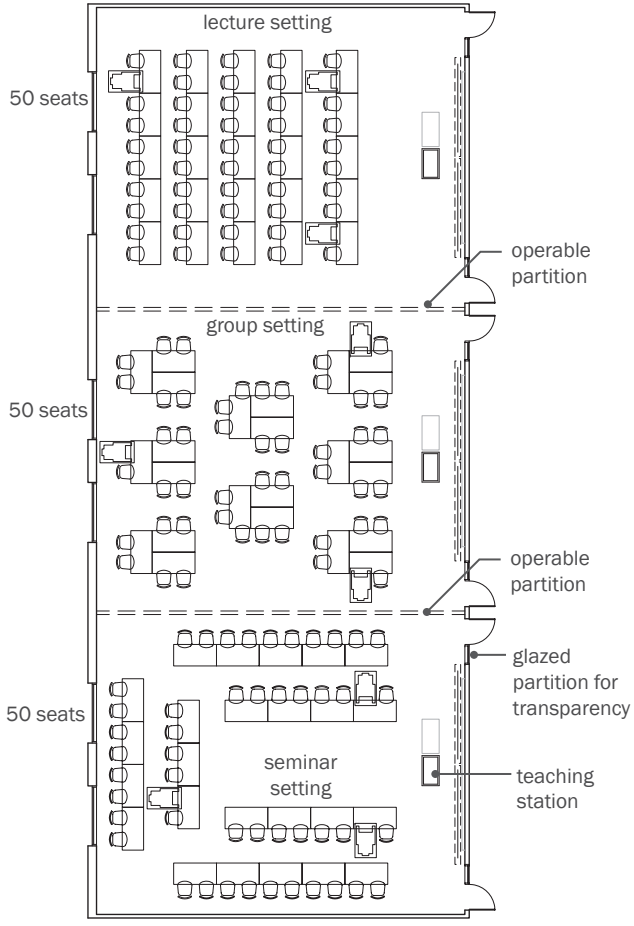
A.101 Large Classroom - 75 Seats

Area:	1950 sf
Quantity:	2
Function:	Instruction
# of Occupants:	Up to 75
Adjacency:	Near Common Areas
Floor Finish:	Carpet with rubber base
Wall Finish:	75% Painted gypsum 25 % Wood panel Acoustic wall panels Glass wall to corridor
Ceiling Finish:	50% Painted gypsum 50% Narrow spline premium acoustic ceiling tile
Doors:	Sound rated wood door with side lites
Furniture / Equipment:	Fixed tables, mobile task chairs, mobile teaching station, whiteboards
Acoustics	Enhanced acoustical performance for sound isolation
Ceiling Height:	10’ minimum
Windows / Daylighting:	Required
Mechanical:	Low noise, vibration control Thermostat 72 - 75F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor, Direct/Indirect lighting, Power/Data at seats and lectern, Fully integrated A/V and Control systems, Microphones and speakers, Wireless assisted listening system, 2 projectors and 2 electric roll-up projection screens with dual image projection capability, Touch panel UI and 21.5” LED monitor at lectern, Lecture capture and streaming capability

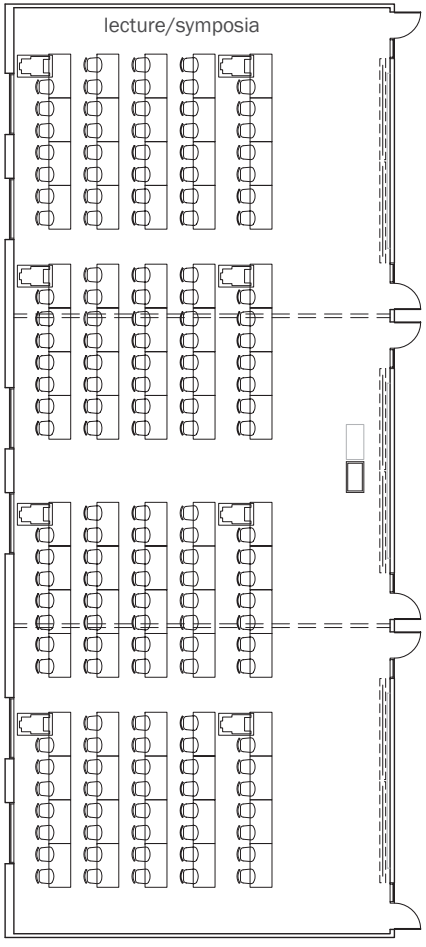


A.100 Instructional
A.102 Medium Classroom - 50 Seats / Events

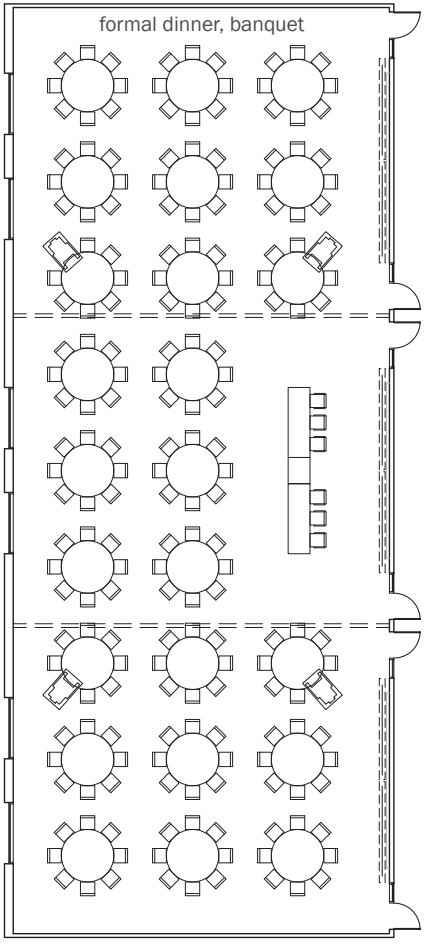
Area:	1,500 sf
Quantity:	3
Function:	Instruction in multiple formats, events of multiple sizes and formats
# of Occupants:	50 in individual Instructional spaces, Approximately 412 in one combined Events space
Adjacency:	Furniture storage, Courtroom/Auditorium and Breakout/ Pre-function Space, Catering and Events support
Floor Finish:	Raised floor, Carpet with rubber base
Wall Finish:	75% Painted gypsum 25% Wood panel Operable partitions Acoustic wall panels Glass wall to corridor
Ceiling Finish:	50% Painted Gypsum 50% Narrow spline premium acoustic ceiling tile
Doors:	Sound rated wood door with side lites
Furniture / Equipment:	Mobile desks, mobile task chairs, mobile teaching stations, whiteboards
Acoustics	Enhanced acoustical performance for sound isolation
Ceiling Height:	10' minimum
Windows / Daylighting:	Required
Mechanical:	Low noise, vibration control Thermostat 72 - 75F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor, Direct/Indirect lighting, Power/Data at seats and lectern, Fully integrated A/V and lighting control systems, Microphones and speakers, Wireless assisted listening system, 2 projectors and 2 electric roll-up projection screens with dual image projection capability, Touch panel UI and 21.5" LED monitor at lectern, Lecture capture and streaming capability, Infrared sensors for operable partitions



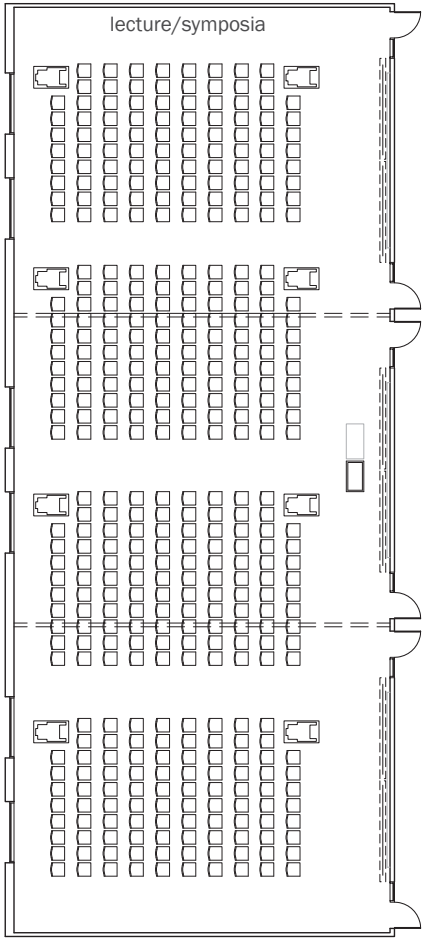
Medium Classroom - 50 Seats / Events
Alternate Layout



Medium Classroom - 50 Seats / Events
Alternate Layout

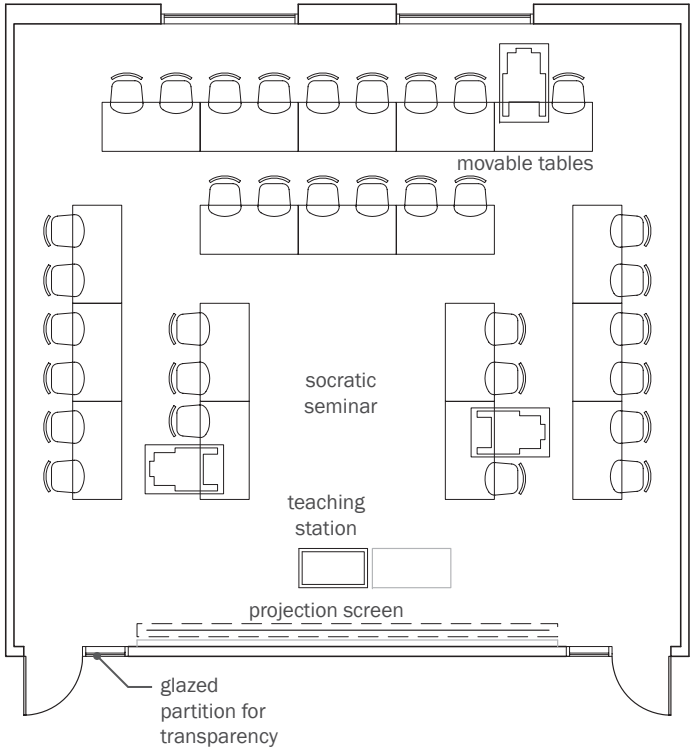


Medium Classroom - 50 Seats / Events
Alternate Layout

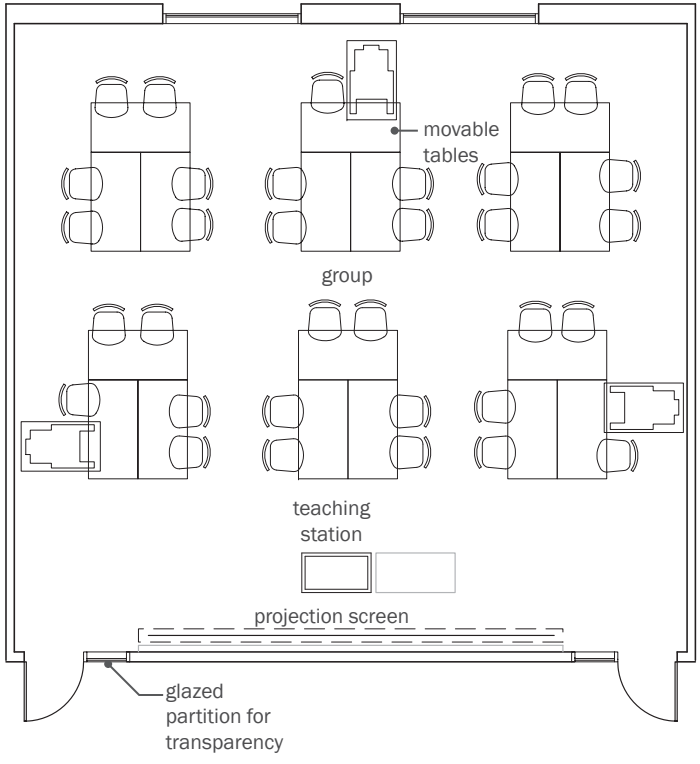


A.100 Instructional
A.103 Small Classroom - 35 Seats

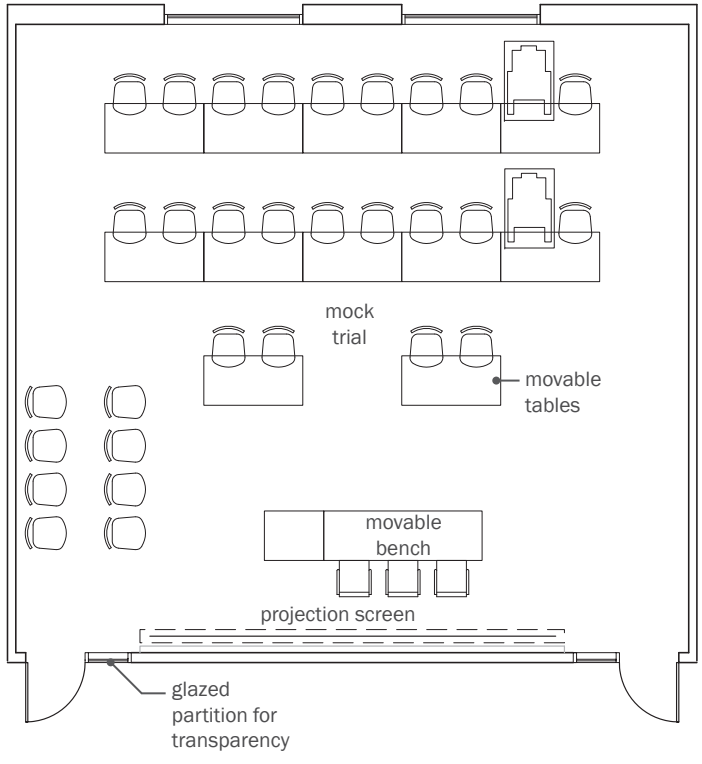
Area:	1,050 sf
Quantity:	2
Function:	Instruction in multiple formats, 1 room equipped with distance learning technology
# of Occupants:	Up to 35
Adjacency:	Near Common Areas
Floor Finish:	Carpet with rubber base
Wall Finish:	75% Painted gypsum 25% Wood panel Acoustic wall panels Glass wall to corridor
Ceiling Finish:	50% Painted gypsum 50% Narrow spline premium acoustic ceiling tile
Doors:	Sound rated wood door with side lites
Furniture / Equipment:	Mobile desks, mobile task chairs, mobile teaching stations, whiteboards
Acoustics	Enhanced acoustical performance for sound isolation
Ceiling Height:	10' minimum
Windows / Daylighting:	Required
Mechanical:	Low noise, vibration control Thermostat 72 - 75F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor, Direct/Indirect lighting, Power/Data at seats and lectern, Fully integrated A/V and lighting control systems, Microphones and speakers, Wireless assisted listening system, 1 projector and 1 electric roll-up projection screen with dual image projection capability, Touch panel UI and 21.5" LED monitor at lectern, Lecture capture and streaming capability. One room also equipped with video conferencing equipment including cameras and flat panel monitors throughout the room.



Small Classroom - 35 Seats
Alternate Layout

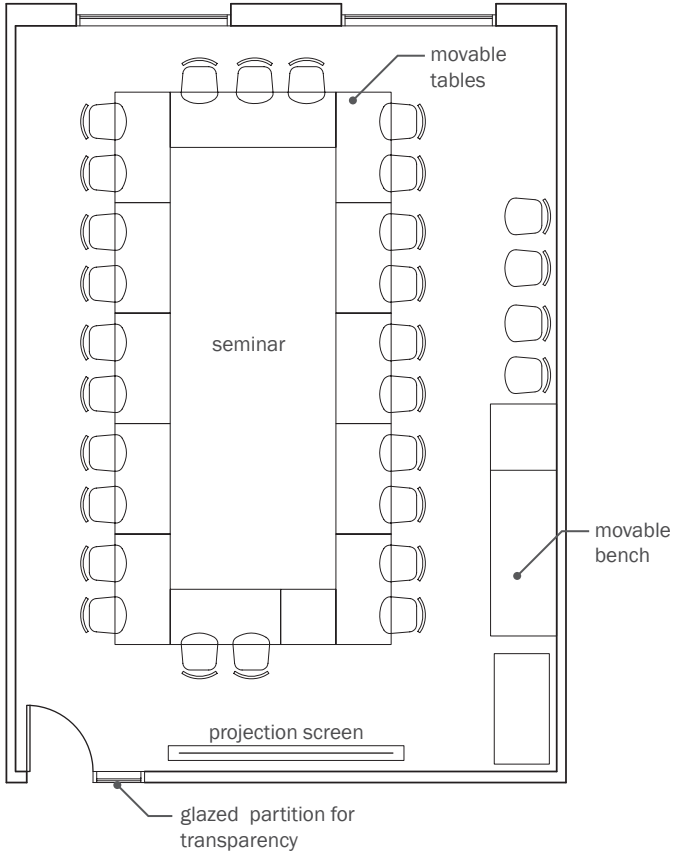


Small Classroom - 35 Seats
Alternate Layout

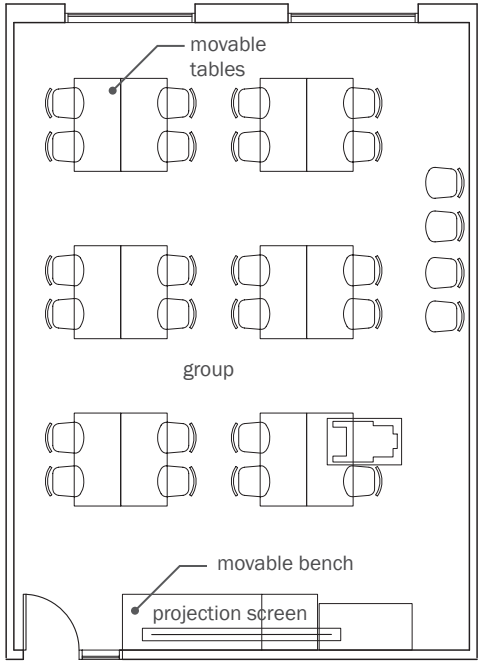


A.100 Instructional
A.104 Courtroom / Seminar Room - 25 Seats

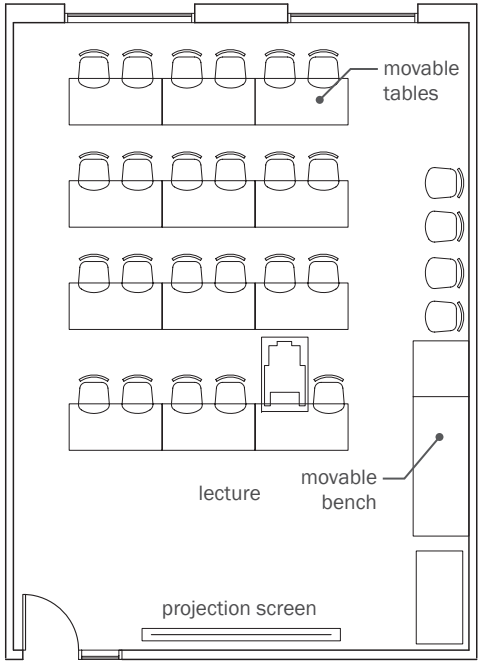
Area:	750 sf
Quantity:	3
Function:	Instruction in multiple formats, simulation
# of Occupants:	Up to 25
Adjacency:	Near Common Areas
Floor Finish:	Raised floor, Carpet with rubber base
Wall Finish:	75% Painted gypsum 25% Wood panel Acoustic wall panels Glass wall to corridor
Ceiling Finish:	50% Painted gypsum 50% Narrow spline premium acoustic ceiling tile
Doors:	Sound rated wood door with side lites
Furniture / Equipment:	Mobile desks, movable judge's bench, task chairs, whiteboards
Acoustics	Enhanced acoustical performance for sound isolation
Ceiling Height:	10' minimum
Windows / Daylighting:	Required
Mechanical:	Low noise, vibration control Thermostat 72 - 75F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor, Direct/Indirect lighting, Power/Data at seats and lectern, Fully integrated A/V and lighting control systems, Microphones and speakers, Wireless assisted listening system, 1 projector and 1 electric roll-up projection screen with dual image projection capability, Touch panel UI and 21.5" LED monitor at lectern, Lecture capture and streaming capability



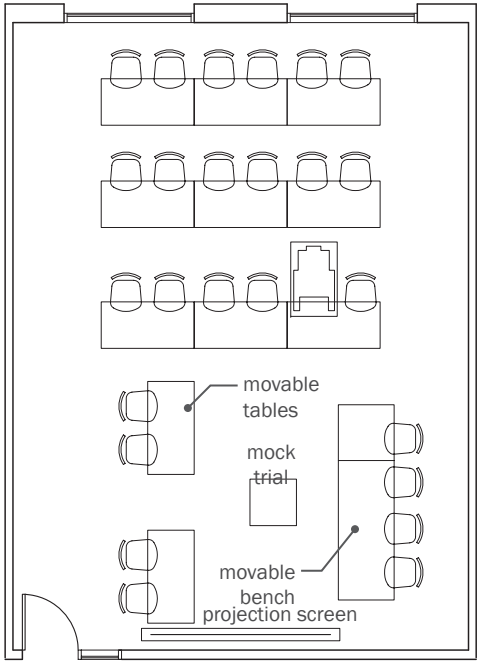
Courtroom / Seminar Room - 25 Seats
Alternate Layout



Courtroom / Seminar Room - 25 Seats
Alternate Layout

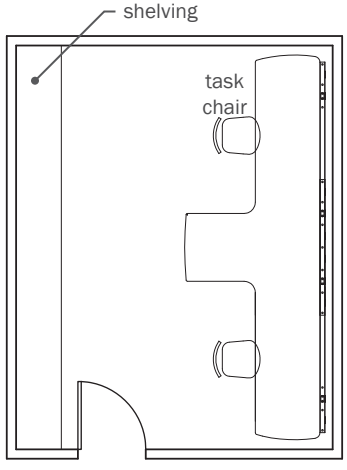


Courtroom / Seminar Room - 25 Seats
Alternate Layout



A.100 Instructional
A.105 AV Control Room

Area:	250 sf
Quantity:	1
Function:	Central hub for signal distribution to all AV-equipped rooms, connection point to distant locations
# of Occupants:	up to 2
Adjacency:	Center of building, Near Classrooms
Floor Finish:	Carpet with rubber base
Wall Finish:	Painted Gypsum
Ceiling Finish:	Narrow spline premium acoustic ceiling tile
Doors:	Hollow metal door
Furniture / Equipment:	Shelving, technical furniture to accommodate AV equipment, 2 task chairs
Acoustics	NA
Ceiling Height:	9’ minimum
Windows / Daylighting:	None
Mechanical:	Thermostat 72 - 75F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor, Direct/Indirect lighting, flat panel LCD monitors, control consoles, 2 computer workstations, other control panels



B. Administration

Space Code	Room / Space Name	NSF Each	Proposed Qty.	Total NSF
B100	**Accounting**			
B101	Director Office	150	1	150
B102	Accounting Specialist Workstation	90	3	270
B103	Files/Meeting Room	150	1	150
	Accounting Total			**570**
B200	**Administrative Services**			
B201	Director Office	150	1	150
B202	Storage/Files/Supplies	60	1	60
	Administrative Services Total			**210**
B300	**Admissions**			
B301	Waiting Area/Reception	100	1	100
B302	Associate Dean Office	150	1	150
B303	Associate Director Office	150	1	150
B304	Administrative Program Manager Office	90	1	90
B305	Admissions Assistant Workstation	90	1	90
B306	Financial Aid Officer Office	90	1	90
B307	Conference/Work space	250	1	250
B308	Storage/Files	100	1	100
	Admissions Total			**1,020**

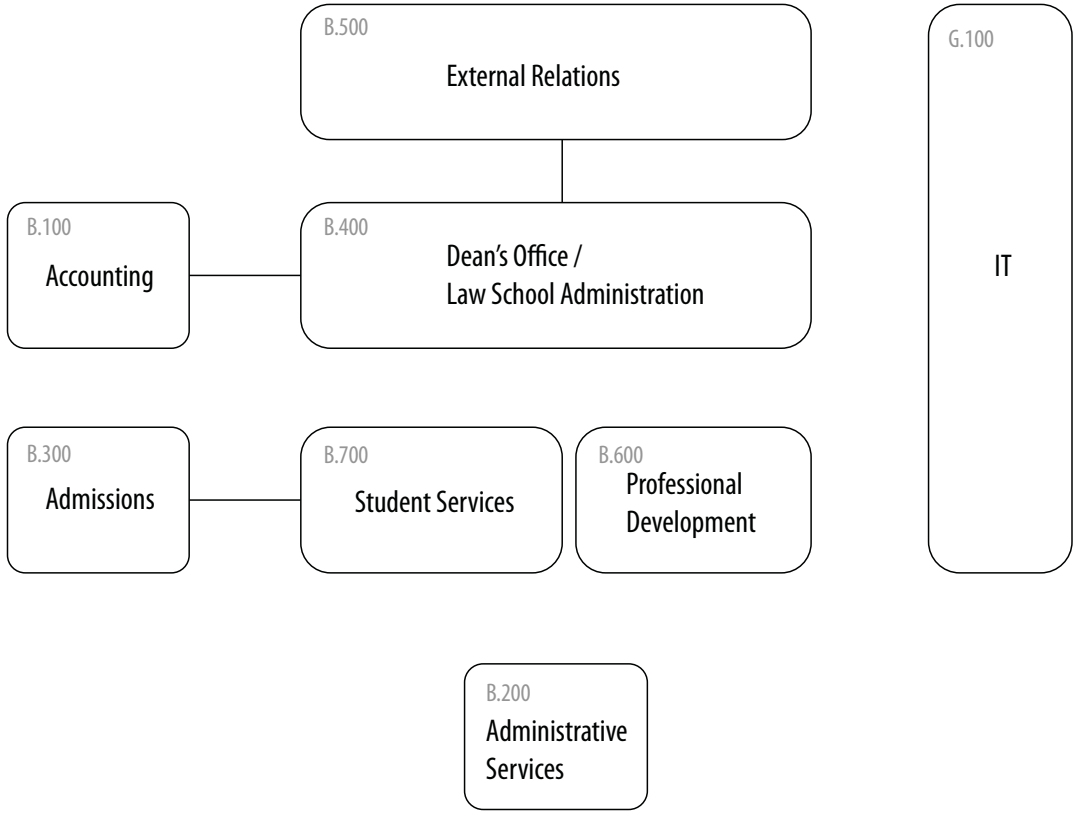
Space Code	Room / Space Name	NSF Each	Proposed Qty.	Total NSF
B400	**Dean**			
B401	Waiting Area	100	1	100
B402	Dean's Office	250	1	250
B403	Executive Director for Institutional Advancement Office	150	1	150
B404	Executive Assistant Workstation	90	1	90
B405	Conference/Pantry	500	1	500
B406	Dean's Files	60	1	60
	Dean Total			**1,150**
B500	**External Relations**			
	Development/Alumni Relations			
B501	Director Alumni Relations Office	150	1	150
B502	Executive Assistant Office	90	1	90
B503	Shared Storage	100	1	100
	Development/Alumni Relations Total			**340**
	Communications/Marketing			
B504	Director of External Relations Office	150	1	150
B505	Director of Marketing Office	150	1	150
B506	Contact Manager Workstation	90	1	90
B507	Communications/Marketing Storage	100	1	100
B508	Assoc. Director Stegner Center External Relations Office	150	1	150
B509	Growth Center External Relations Workstation	90	1	90
	Communications/Marketing Total			**730**

Space Code	Room / Space Name	NSF Each	Proposed Qty.	Total NSF
	Events			
B510	Senior Event Coordinator Workstation	90	1	90
B511	Event Coordinator Workstation	90	1	90
B512	Student Workspace	50	2	100
B513	Events Storage	100	1	100
	Events Total			**380**
	Travel			
B514	Travel Coordinator Workstation	90	1	90
	Travel Total			**90**
	Media			
B515	Media Studio	190	1	190
	Media Total			**190**
	Growth			
B516	Staff Workstation	90	1	90
	Growth Total			**90**
	Support			
B517	Collaboration/Entry	100	1	100
B518	Conference Room	150	1	150
B519	Workroom/Storage	250	1	250
B520	Pantry	60	1	60
	Support Total			**560**
	External Relations Total			**2,380**

Space Code	Room / Space Name	NSF Each	Proposed Qty.	Total NSF
B600	**Professional Development**			
B601	Waiting Area	100	1	100
B602	Director Office	150	1	150
B603	Career Counselor Office	90	1	90
B604	Academic Coordinator Workstation	90	1	90
B605	Interview Rooms	100	3	300
B606	Storage/Pantry	60	1	60
	Professional Development Total			**790**
B700	**Registrar/Student Services**			
B701	Waiting Area	100	1	100
B702	Registrar Office	150	1	150
B703	Associate Dean Office	150	1	150
B704	Academic Coordinator Workstation	90	1	90
B705	Shared Meeting Room	100	1	100
B706	Storage	250	1	250
	Registrar/Student Services Total			**840**
	Total Administration NSF			**6,960**
	Net to Gross Factor			0.63
	Total Administration GSF			**11,048**

collaboration
accessible resources
student-centric
outcomes

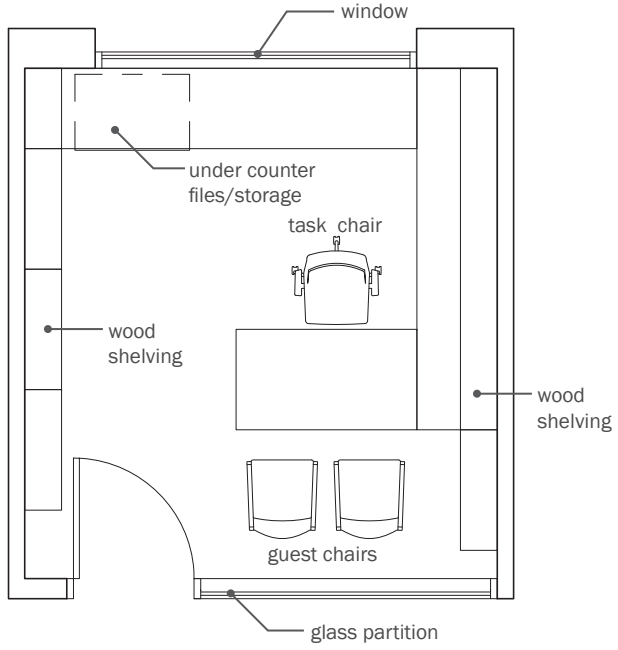
Relationship Diagram | Administration



B.100 Accounting

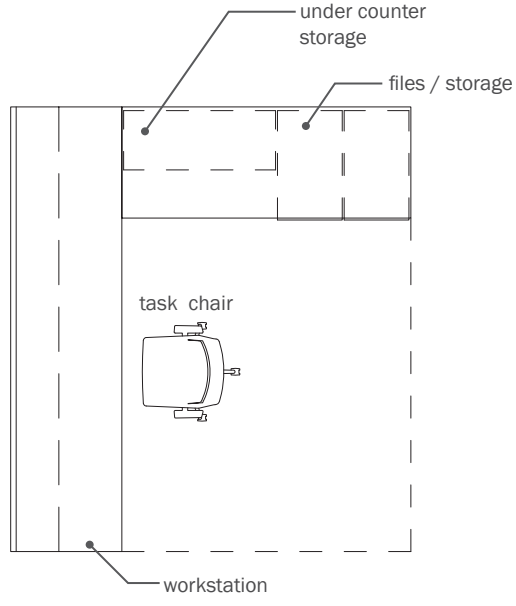
B.101 Director Office

Area:	150 sf
Quantity:	1
Function:	Administrative activity, small meetings, receiving visitors
# of Occupants:	1, plus 1-2 guests
Adjacency:	Near Accounting staff, support
Floor Finish:	Carpet with rubber base
Wall Finish:	75% Painted gypsum 25% Glass
Ceiling Finish:	Narrow spline premium acoustic ceiling tile
Doors:	Sound rated wood door with side lites
Furniture / Equipment:	Director's Office package, including workstation, task chair, 2 guest chairs, built in wood shelving and file storage
Acoustics	N/A
Ceiling Height:	9' minimum
Windows / Daylighting:	Required
Mechanical:	Thermostat 72 - 75F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor Direct/Indirect lighting Power/Data at workstation



B.102 Accounting Specialist Workstation

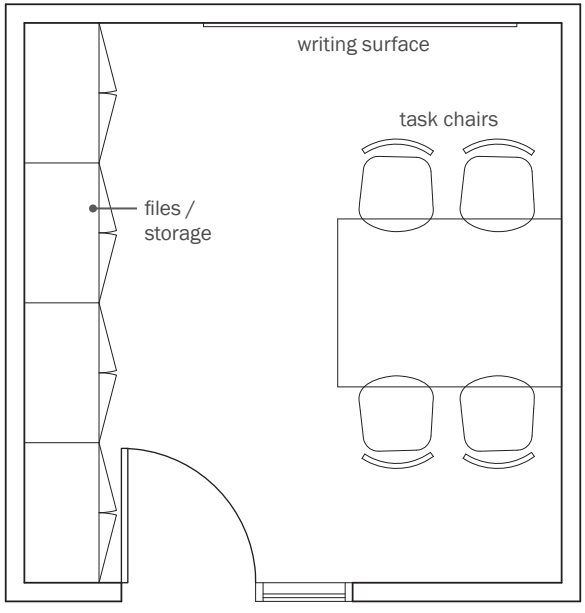
Area:	90 sf
Quantity:	3
Function:	Administrative activity
# of Occupants:	1
Adjacency:	Near Accounting staff, support
Floor Finish:	Carpet with rubber base
Wall Finish:	Painted gypsum
Ceiling Finish:	Narrow spline premium acoustic ceiling tile
Doors:	N/A
Furniture / Equipment:	Staff Workstation package, including workstation, task chair and file storage
Acoustics	N/A
Ceiling Height:	9’ minimum
Windows / Daylighting:	Where feasible
Mechanical:	Thermostat 72 - 75F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor Direct/Indirect lighting Power/Data at workstation



B.100 Accounting

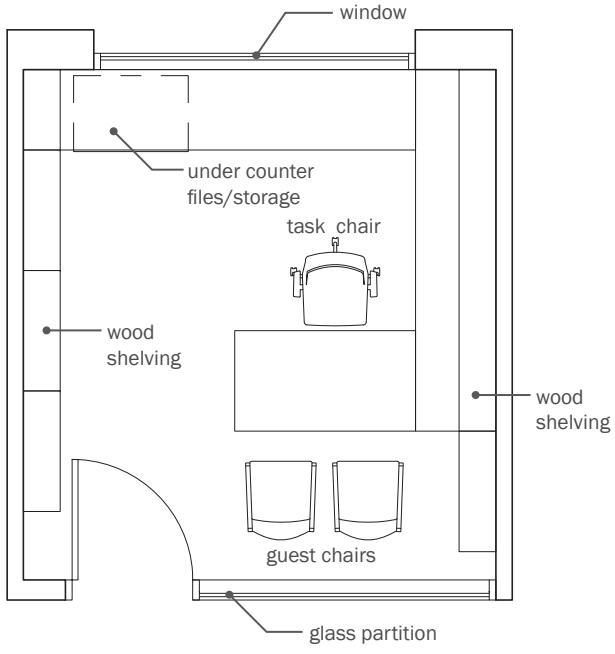
B.103 Files / Meeting Room

Area:	150 sf
Quantity:	1
Function:	Flexible workspace, filing, small meetings
# of Occupants:	Up to 4
Adjacency:	Near Accounting staff, support
Floor Finish:	Carpet with rubber base
Wall Finish:	Painted gypsum
Ceiling Finish:	Narrow spline premium acoustic ceiling tile
Doors:	Wood door
Furniture / Equipment:	Work table, 4 task chairs, file storage, writing surface
Acoustics	N/A
Ceiling Height:	9’ minimum
Windows / Daylighting:	Where feasible
Mechanical:	Thermostat 72 - 75F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor Direct/Indirect lighting Power/Data at table



B.201 Director Office

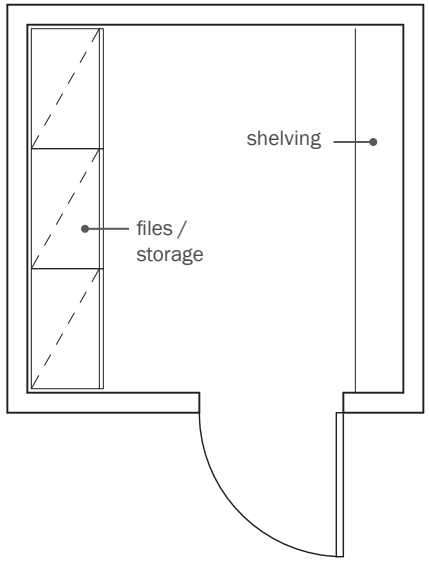
Area:	150 sf
Quantity:	1
Function:	Administrative activity, small meetings, receiving visitors
# of Occupants:	1, plus 1-2 guests
Adjacency:	Convenient to meeting with Faculty and Law School Administration
Floor Finish:	Carpet with rubber base
Wall Finish:	75% Painted gypsum 25% Glass
Ceiling Finish:	Narrow spline premium acoustic ceiling tile
Doors:	Sound rated wood door with side lites
Furniture / Equipment:	Director's Office package, including workstation, task chair, 2 guest chairs, built in wood shelving and file storage
Acoustics	N/A
Ceiling Height:	9' minimum
Windows / Daylighting:	Required
Mechanical:	Thermostat 72 - 75F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor Direct/Indirect lighting Power/Data at workstation



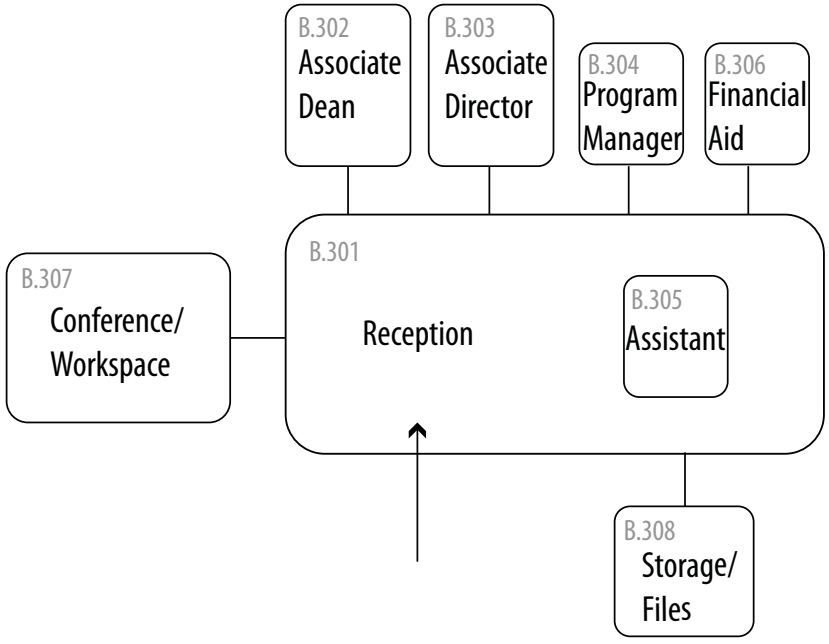
B.200 Administrative Services

B.202 Storage / Files / Supplies

Area:	60 sf
Quantity:	1
Function:	Storage, filing
# of Occupants:	0
Adjacency:	Near Administrative Services Director's Office
Floor Finish:	VCT with vinyl base
Wall Finish:	Painted gypsum
Ceiling Finish:	Narrow spline acoustic ceiling tile
Doors:	Wood door
Furniture / Equipment:	File cabinets, shelving
Acoustics:	N/A
Ceiling Height:	9' minimum
Windows / Daylighting:	None
Mechanical:	Thermostat 60 - 80F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor Direct/Indirect lighting



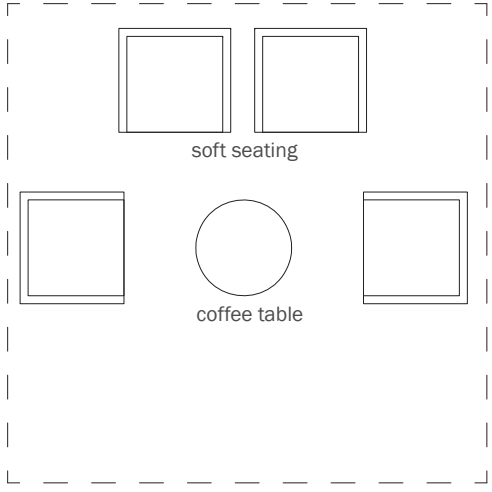
Relationship Diagram | Admissions



B.300 Admissions

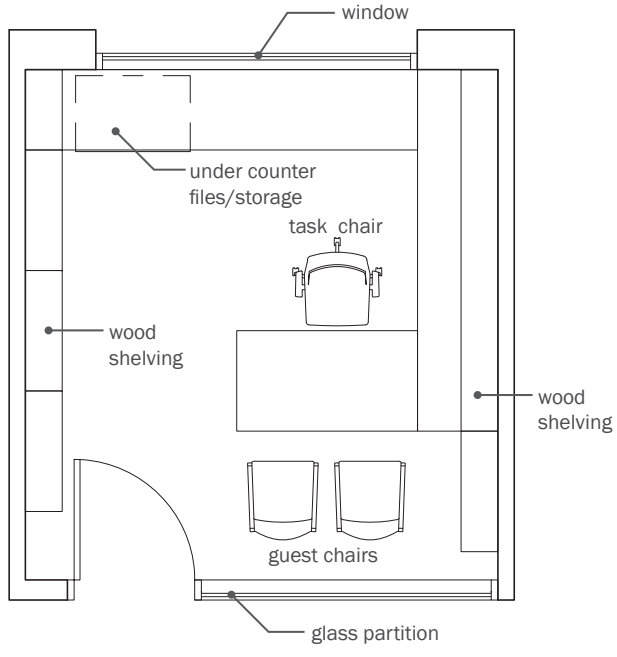
B.301 Waiting Area / Reception

Area:	100 sf
Quantity:	1
Function:	Temporary waiting
# of Occupants:	Up to 4
Adjacency:	Accessible from public circulation, near Admissions staff, support
Floor Finish:	Carpet with rubber base
Wall Finish:	Painted gypsum
Ceiling Finish:	Narrow spline premium acoustic ceiling tile
Doors:	N/A
Furniture / Equipment:	4 lounge chairs, coffee table
Acoustics:	N/A
Ceiling Height:	9’ minimum
Windows / Daylighting:	Where feasible
Mechanical:	Thermostat 72 - 75F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor Direct/Indirect lighting



B.302 Associate Dean Office
B.303 Associate Director Office

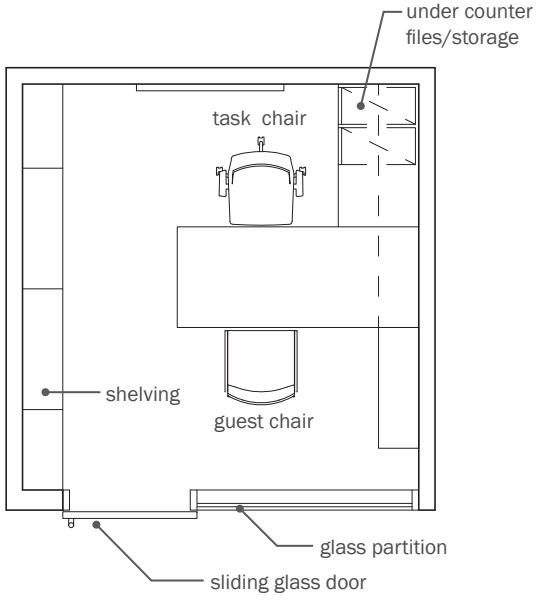
Area:	150
Quantity:	2
Function:	Administrative activity, small meetings, receiving visitors
# of Occupants:	1, plus 1-2 guests
Adjacency:	Near Admissions staff, support
Floor Finish:	Carpet with rubber base
Wall Finish:	75% Painted gypsum 25% Glass
Ceiling Finish:	Narrow spline premium acoustic ceiling tile
Doors:	Sound rated wood door with side lites
Furniture / Equipment:	Director's Office package, including workstation, task chair, 2 guest chairs, built in wood shelving and file storage
Acoustics:	N/A
Ceiling Height:	9' minimum
Windows / Daylighting:	Required
Mechanical:	Thermostat 72 - 75F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor Direct/Indirect lighting Power/Data at workstation



B.300 Admissions

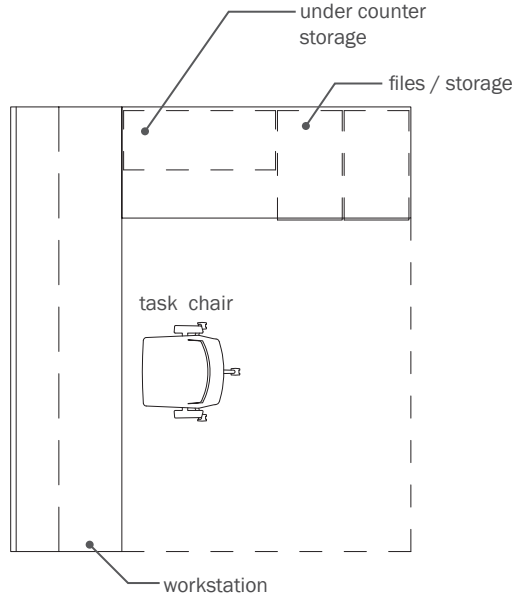
B.304 Admin Program Manager Office
B.306 Financial Aid Officer Office

Area:	90 sf
Quantity:	2
Function:	Administrative activity
# of Occupants:	1
Adjacency:	Near Admissions staff, support
Floor Finish:	Carpet with rubber base
Wall Finish:	75% Painted gypsum 25% Glass
Ceiling Finish:	Narrow spline premium acoustic ceiling tile
Doors:	Sliding glass
Furniture / Equipment:	Staff Office package, including workstation, task chair, guest chair and file storage
Acoustics:	N/A
Ceiling Height:	9’ minimum
Windows / Daylighting:	Where feasible
Mechanical:	Thermostat 72 - 75F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor Direct/Indirect lighting Power/Data at workstation



B.305 Admissions Assistant Workstation

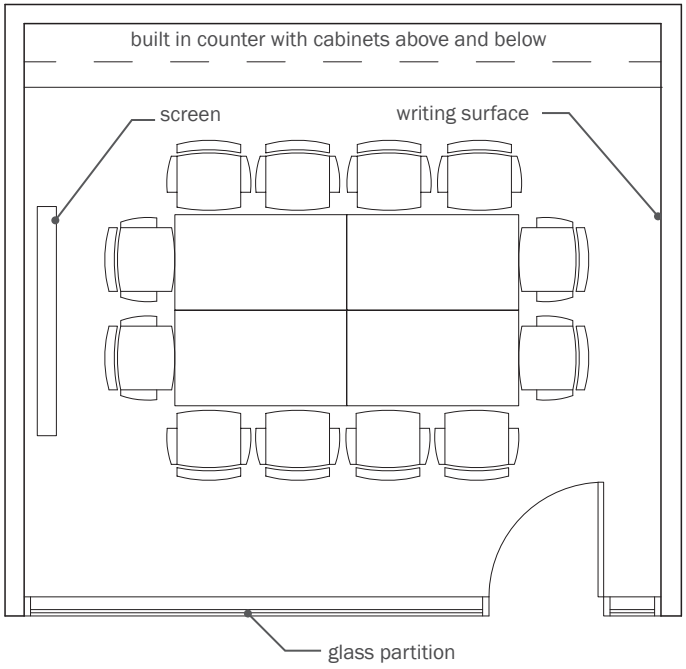
Area:	90 sf
Quantity:	1
Function:	Administrative activity, reception
# of Occupants:	1
Adjacency:	Near Admissions staff, support
Floor Finish:	Carpet with rubber base
Wall Finish:	Painted gypsum
Ceiling Finish:	Narrow spline premium acoustic ceiling tile
Doors:	N/A
Furniture / Equipment:	Staff Workstation package, including workstation, task chair and file storage
Acoustics:	N/A
Ceiling Height:	9’ minimum
Windows / Daylighting:	Where feasible
Mechanical:	Thermostat 72 - 75F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor Direct/Indirect lighting Power/Data at workstation



B.300 Admissions

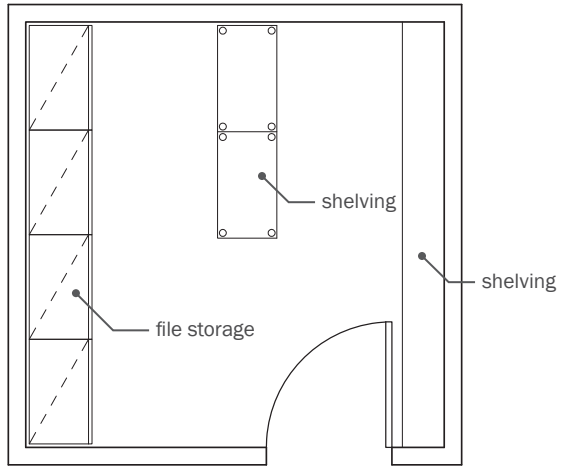
B.307 Conference / Workspace

Area:	250 sf
Quantity:	1
Function:	Flexible workspace, meetings
# of Occupants:	Up to 12
Adjacency:	Near Admissions staff, support
Floor Finish:	Carpet with rubber base
Wall Finish:	50% Painted gypsum 25% Glass 25% Wood panel
Ceiling Finish:	50% Narrow spline premium acoustic ceiling tile 50% Painted gypsum
Doors:	Sound rated wood door with side lites
Furniture / Equipment:	Work table, 12 task chairs, built in counter with cabinets, writing surface
Acoustics:	Enhanced acoustical performance for sound isolation
Ceiling Height:	9’ minimum
Windows / Daylighting:	Where feasible
Mechanical:	Thermostat 72 - 75F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor Direct/Indirect lighting Power/Data at table Projector and roll-up screen AV recording equipment

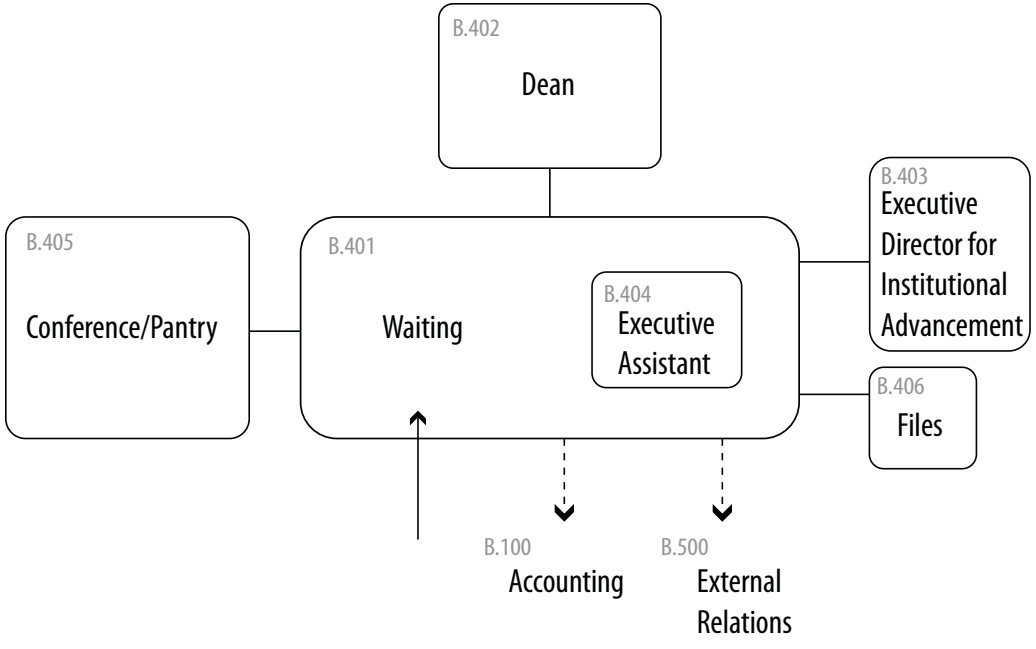


B.308 Storage / Files

Area:	100 sf
Quantity:	1
Function:	Storage, filing
# of Occupants:	0
Adjacency:	Near Admissions staff, support
Floor Finish:	VCT with vinyl base
Wall Finish:	Painted gypsum
Ceiling Finish:	Narrow spline acoustic ceiling tile
Doors:	Wood door
Furniture / Equipment:	Shelving, file cabinets
Acoustics:	N/A
Ceiling Height:	9' minimum
Windows / Daylighting:	None
Mechanical:	Thermostat 60 - 80F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor Direct/Indirect lighting

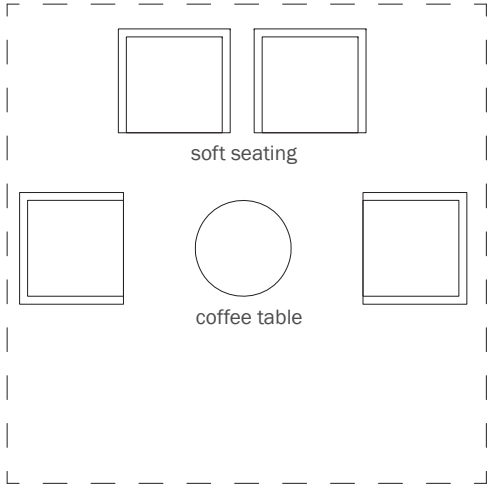


Relationship Diagram | Dean



B.401 Waiting Area

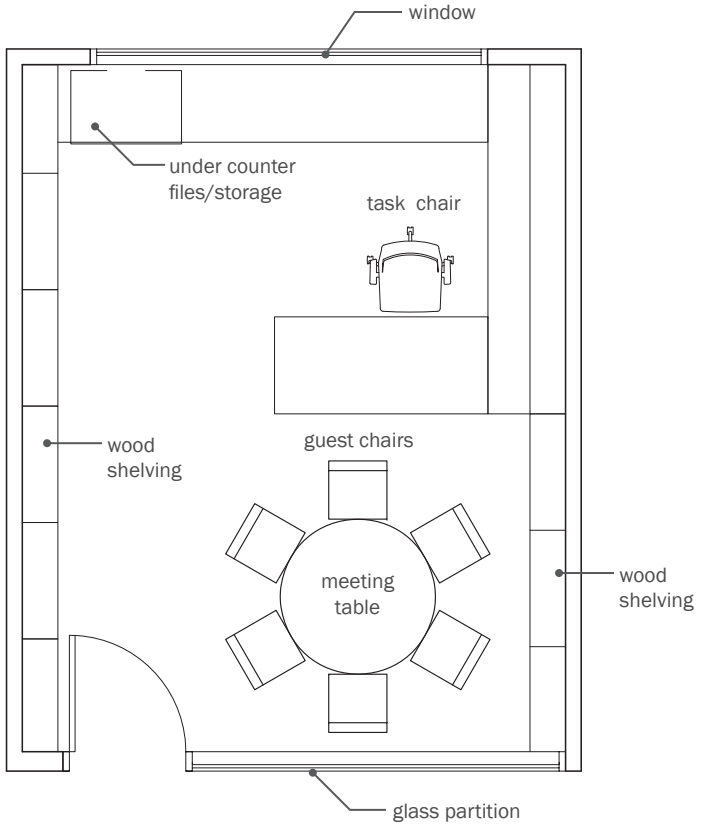
Area:	100 sf
Quantity:	1
Function:	Temporary waiting
# of Occupants:	Up to 4
Adjacency:	Accessible from public circulation, near Dean's staff, support
Floor Finish:	Carpet with rubber base
Wall Finish:	50% Painted gypsum 50% Wood panel
Ceiling Finish:	Painted gypsum
Doors:	N/A
Furniture / Equipment:	4 lounge chairs, coffee table
Acoustics:	Enhanced acoustical performance for sound isolation
Ceiling Height:	9' minimum
Windows / Daylighting:	Where feasible
Mechanical:	Thermostat 72 - 75F
Plumbing:	N/A
Electrical /AV / IT:	Occupancy sensor Direct/Indirect lighting



B.400 Dean

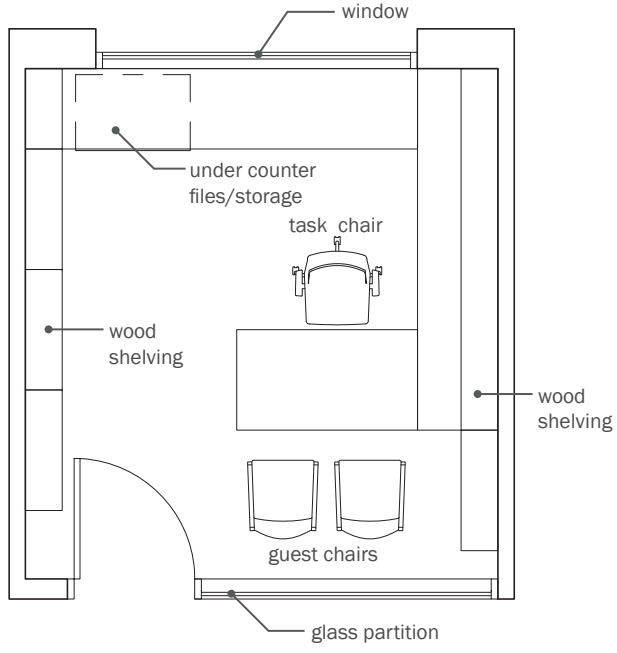
B.402 Dean's Office

Area:	250 sf
Quantity:	1
Function:	Administrative activity, small meetings, receiving visitors
# of Occupants:	1, plus 6 guests
Adjacency:	Near Dean's staff, support
Floor Finish:	Carpet with rubber base
Wall Finish:	50% Wood panel 25% Painted gypsum 25% Glass
Ceiling Finish:	Painted gypsum
Doors:	Sound rated wood door with side lites
Furniture / Equipment:	Dean's Office package, including workstation, task chair, 6 guest chairs, built in wood shelving and file storage
Acoustics	N/A
Ceiling Height	9' minimum
Windows / Daylighting:	Required
Mechanical:	Thermostat 72 - 75F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor Direct/Indirect lighting Power/Data at workstation



B.403 Executive Director for Institutional Advancement

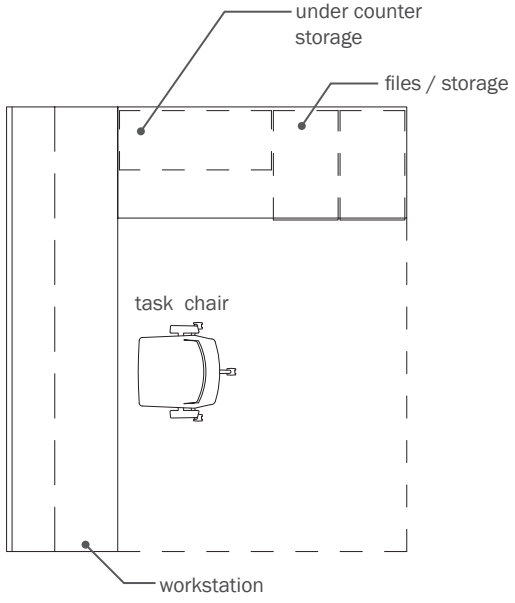
Area:	150 sf
Quantity:	1
Function:	Administrative activity, small meetings, receiving visitors
# of Occupants:	1, plus 1-2 guests
Adjacency:	Near Dean's staff, support
Floor Finish:	Carpet with rubber base
Wall Finish:	75% Painted gypsum 25% Glass
Ceiling Finish:	Narrow spline premium acoustic ceiling tile
Doors:	Sound rated wood door with side lites
Furniture / Equipment:	Director's Office package, including workstation, task chair, 2 guest chairs, built in wood shelving and file storage
Acoustics:	N/A
Ceiling Heights:	9' minimum
Windows / Daylighting:	Required
Mechanical:	Thermostat 72 - 75F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor Direct/Indirect lighting Power/Data at workstation



B.400 Dean

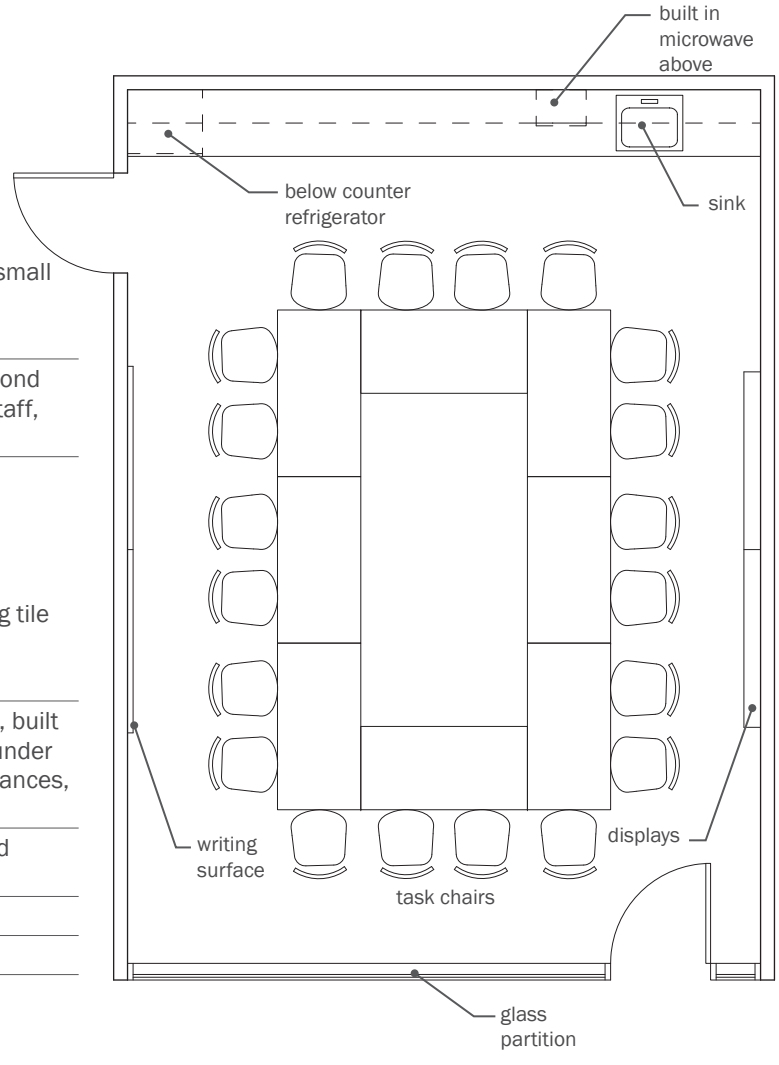
B.404 Executive Assistant Workstation

Area:	90 sf
Quantity:	1
Function:	Administrative activity, reception
# of Occupants:	1
Adjacency:	Near Dean's staff, support
Floor Finish:	Carpet with rubber base
Wall Finish:	Painted gypsum
Ceiling Finish:	Narrow spline premium acoustic ceiling tile
Doors:	N/A
Furniture / Equipment:	Staff Workstation package, including workstation, task chair and file storage
Acoustics:	N/A
Ceiling Height:	9' minimum
Windows / Daylighting:	Where feasible
Mechanical:	Thermostat 68 - 74F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor Direct/Indirect lighting Power/Data at workstation



B.405 Conference/Pantry

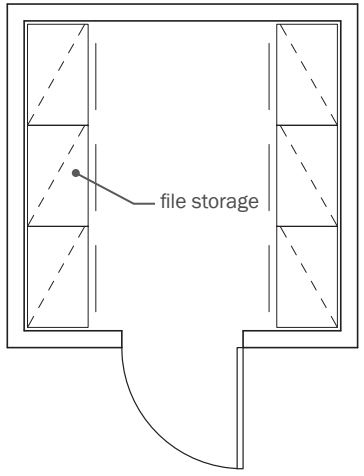
Area:	500 sf
Quantity:	1
Function:	Flexible workspace, meetings, conference, small events
# of Occupants:	up to 20
Adjacency:	Accessed through Dean's Waiting Area, Second entry from public circulation, near Dean's staff, support
Floor Finish:	Carpet with rubber base
Wall Finish:	50% Painted gypsum 25% Glass 25% Wood panel
Ceiling Finish:	50% Narrow spline premium acoustic ceiling tile 50% Painted gypsum
Doors:	Sound rated wood doors with side lites
Furniture / Equipment:	Work tables, 20 task chairs, writing surface, built in counter with cabinets above and below, under counter refrigerator, small counter-top appliances, microwave
Acoustics:	Enhanced acoustical performance for sound isolation
Ceiling Height:	9' minimum
Windows / Daylighting:	Where feasible
Mechanical:	Thermostat 72 - 75F
Plumbing:	Single compartment sink Water hook-up for refrigerator ice-maker
Electrical / AV / IT:	Occupancy sensor, Direct/Indirect lighting, Power/Data at table, Projector and roll-up screen, AV recording equipment, Electrical infrastructure for equipment/appliances



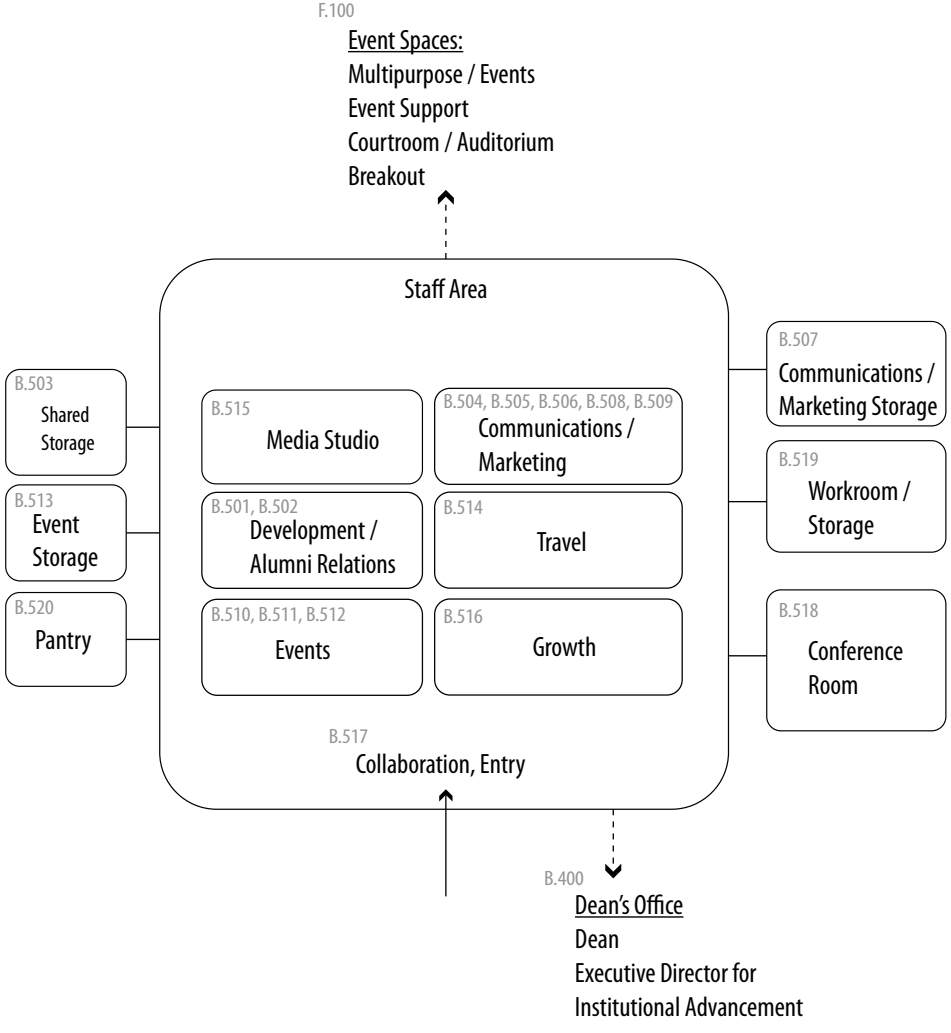
B.400 Dean

B.406 Dean's Files

Area:	60 sf
Quantity:	1
Function:	File storage
# of Occupants:	0
Adjacency:	Near Dean's staff, support
Floor Finish:	VCT with vinyl base
Wall Finish:	Painted gypsum
Ceiling Finish:	Narrow spline acoustic ceiling tile
Doors:	Wood door
Furniture / Equipment:	File cabinets
Acoustics:	N/A
Ceiling Height:	9' minimum
Windows / Daylighting:	None
Mechanical:	Thermostat 60 - 80F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor Direct/Indirect lighting



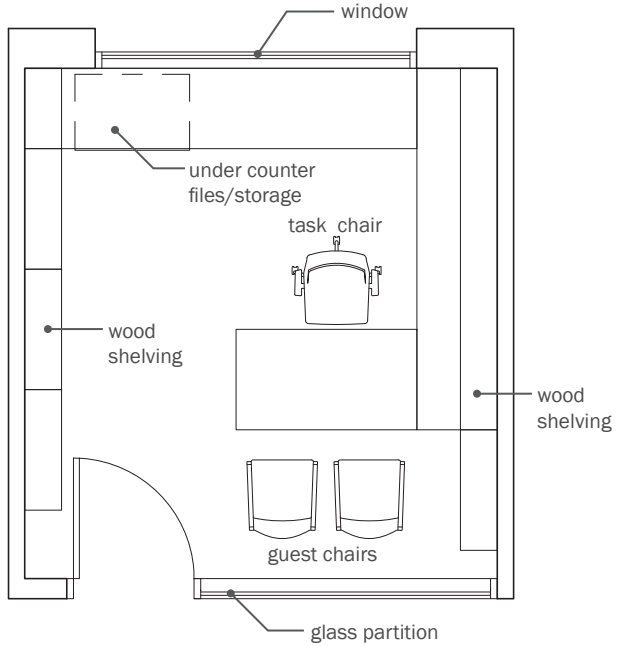
Relationship Diagram | External Relations



B.500 External Relations

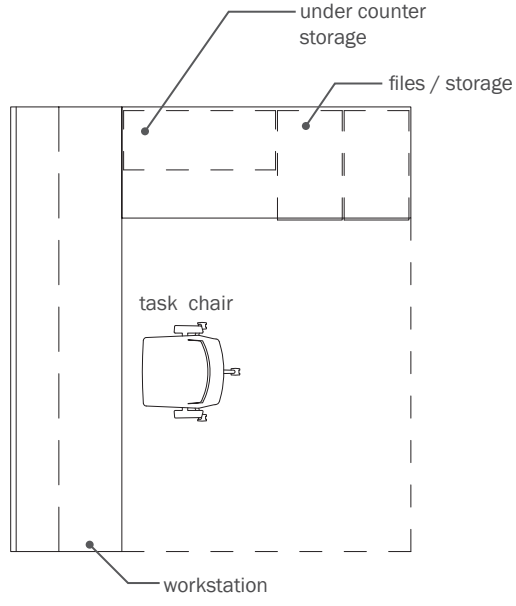
B.501 Director Alumni Relations Office
B.504 Director of External Relations Office
B.505 Director of Marketing Office
B.508 Associate Director Stegner Center External Relations Office

Area:	150 sf
Quantity:	4
Function:	Administrative activity, small meetings, receiving visitors
# of Occupants:	1, plus 1-2 guests
Adjacency:	Near External Relations staff/support
Floor Finish:	Carpet with rubber base
Wall Finish:	75% Painted gypsum 25% Glass
Ceiling Finish:	Narrow spline premium acoustic ceiling tile
Doors:	Sound rated wood door with side lites
Furniture / Equipment:	Director's Office package, including workstation, task chair, 2 guest chairs, built in wood shelving and file storage
Acoustics:	N/A
Ceiling Height:	9' minimum
Windows / Daylighting:	Required
Mechanical:	Thermostat 72-75F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor Direct/Indirect lighting Power/Data at workstation



B.502 Executive Assistant Office

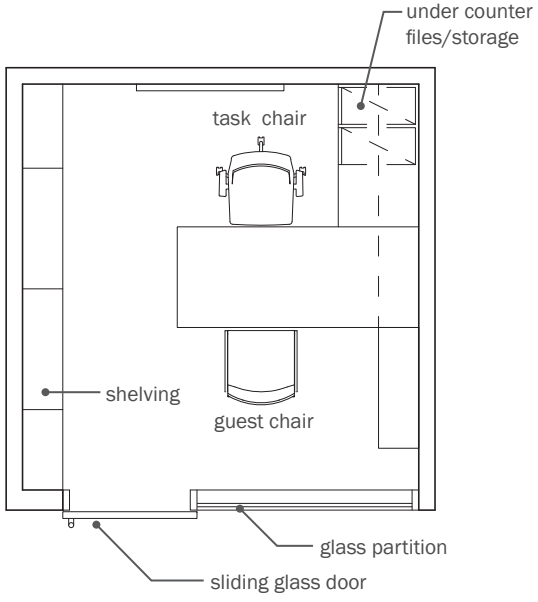
Area:	90 sf
Quantity:	1
Function:	Administrative activity
# of Occupants:	1
Adjacency:	Near External Relations staff/support
Floor Finish:	Carpet with rubber base
Wall Finish:	75% Painted gypsum 25% Glass
Ceiling Finish:	Narrow spline premium acoustic ceiling tile
Doors:	Sliding glass
Furniture / Equipment:	Staff Office package, including workstation, task chair, guest chair and file storage
Acoustics	N/A
Ceiling Height:	9’ minimum
Windows / Daylighting:	Where feasible
Mechanical:	Thermostat 72 - 75F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor Direct/Indirect lighting Power/Data at workstation



B.500 External Relations

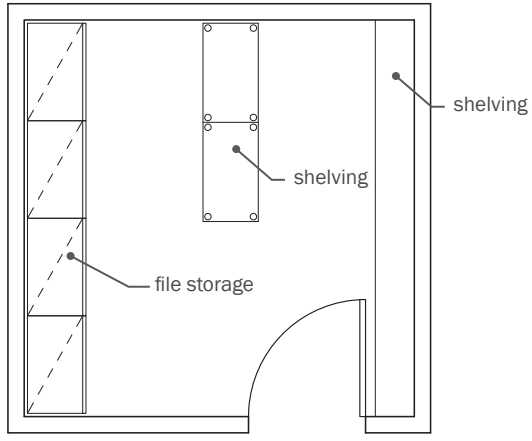
B.506 Contact Manager Workstation
B.509 Growth Center External Relations Workstation
B.510 Senior Event Coordinator Workstation
B.511 Event Coordinator Workstation
B.514 Travel Coordinator Workstation
B.516 Staff Workstation

Area:	90 sf
Quantity:	5
Function:	Administrative activity
# of Occupants:	1
Adjacency:	Near External Relations staff/support
Floor Finish:	Carpet with rubber base
Wall Finish:	Painted gypsum
Ceiling Finish:	Narrow spline premium acoustic ceiling tile
Doors:	N/A
Furniture / Equipment:	Staff Workstation package, including workstation, task chair and file storage
Acoustics	N/A
Ceiling Height:	9’ minimum
Windows / Daylighting:	Where feasible
Mechanical:	Thermostat 72 - 75F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor Direct/Indirect lighting Power/Data at workstation



B.503 Alumni / Development Shared Storage
B.507 Communications/Marketing Storage
B.513 Events Storage

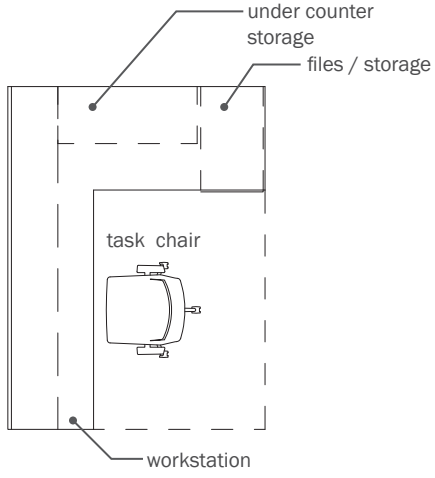
Area:	100 sf
Quantity:	3
Function:	Storage
# of Occupants:	0
Adjacency:	Near External Relations staff/support
Floor Finish:	Carpet with rubber base
Wall Finish:	Painted gypsum
Ceiling Finish:	Narrow spline acoustic ceiling tile
Doors:	Wood door
Furniture / Equipment:	Shelving, file cabinets
Acoustics:	N/A
Ceiling Height:	9' minimum
Windows / Daylighting:	None
Mechanical:	Thermostat 60 - 80F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor Direct/Indirect lighting



B.500 External Relations

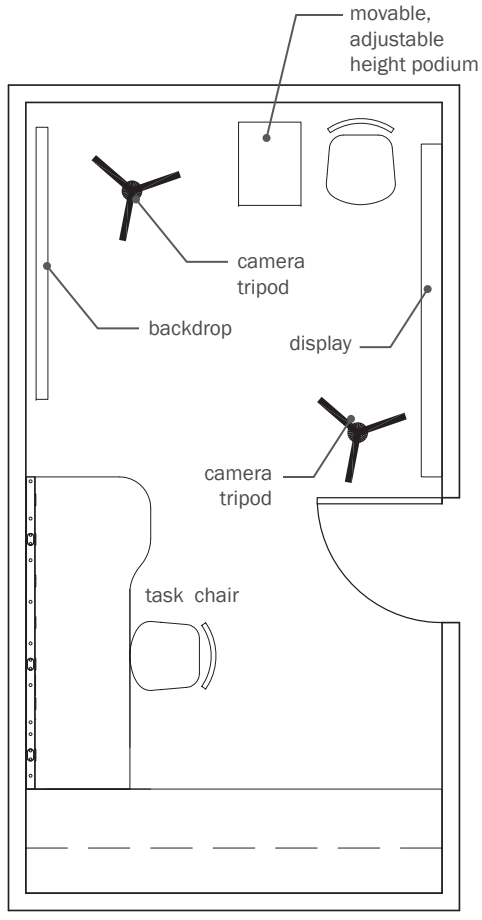
B.512 Student Workspace

Area:	50 sf
Quantity:	2
Function:	Administrative activity
# of Occupants:	1
Adjacency:	Near External Relations Events staff/ support
Floor Finish:	Carpet with rubber base
Wall Finish:	Painted gypsum
Ceiling Finish:	Narrow spline premium acoustic ceiling tile
Doors:	N/A
Furniture / Equipment:	Student Workstation package, including workstation, task chair and file storage
Acoustics:	N/A
Ceiling Height:	9’ minimum
Windows / Daylighting:	Where feasible
Mechanical:	Thermostat 72 - 75F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor Direct/Indirect lighting Power/Data at workstation



B.515 Media Studio

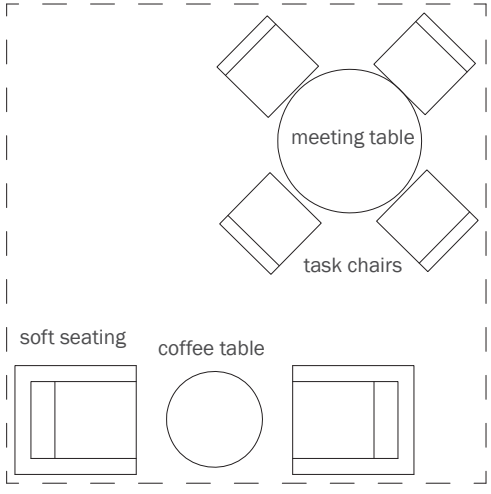
Area:	190 sf
Quantity:	1
Function:	Administrative activity, broadcasting, video production, editing
# of Occupants:	1
Adjacency:	Near External Relations staff/support
Floor Finish:	Carpet with rubber base
Wall Finish:	Painted gypsum Accoustical wall panel
Ceiling Finish:	Narrow spline premium acoustic ceiling tile
Doors:	Sound rated wood door
Furniture / Equipment:	Technical furniture to accommodate AV equipment, task chair, movable adjustable height podium/desk and task chair for interviews
Acoustics:	Enhanced acoustical performance for sound isolation
Ceiling Height:	9’ minimum
Windows / Daylighting:	None
Mechanical:	Thermostat 72 - 75F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor, Direct/Indirect lighting, flat panel LCD monitors, video editing control console, audio control console, 1 computer workstation, lighting pipe grid, 2 camera tripods, back drop



B.500 External Relations Support

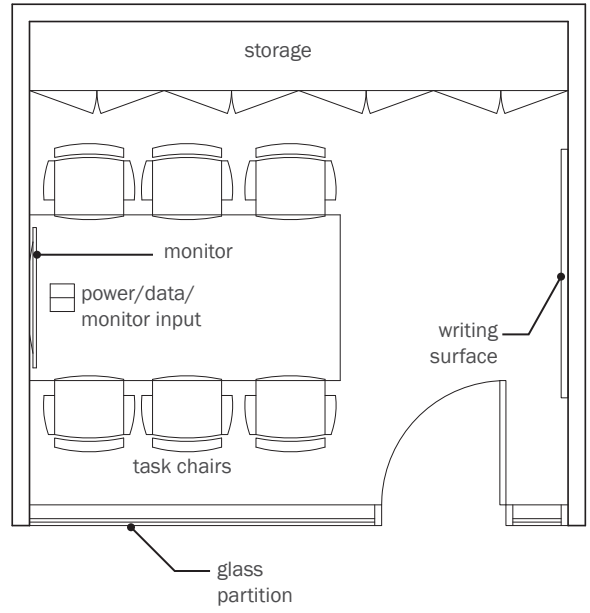
B.517 Collaboration / Entry

Area:	100 sf
Quantity:	1
Function:	Informal meetings, reception
# of Occupants:	0
Adjacency:	Accessible from public circulation, near External Relations staff, support
Floor Finish:	Carpet with rubber base
Wall Finish:	Painted gypsum
Ceiling Finish:	Narrow spline premium acoustic ceiling tile
Doors:	N/A
Furniture / Equipment:	2 lounge chairs, coffee table, small work table with 4 task chairs
Acoustics:	N/A
Ceiling Height:	9’ minimum
Windows / Daylighting:	Where feasible
Mechanical:	Thermostat 72 - 75F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor Direct/Indirect lighting Power/Data nearby



B.518 Conference Room

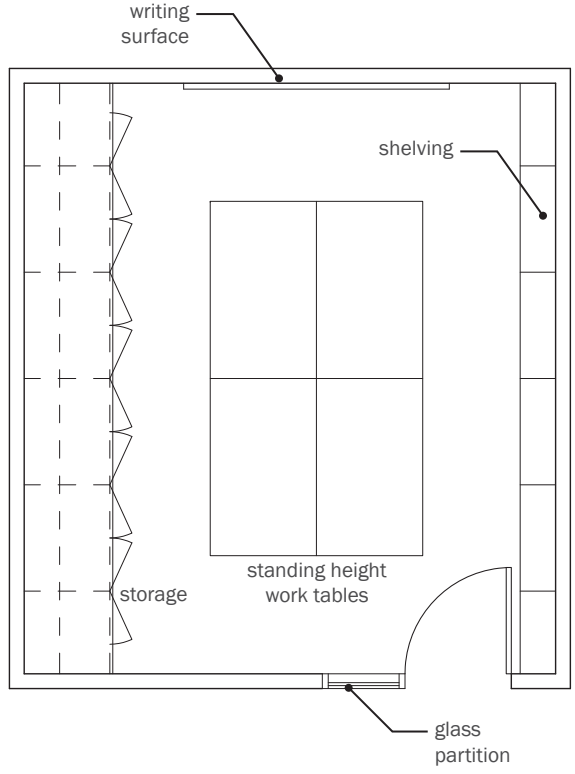
Area:	150 sf
Quantity:	1
Function:	Flexible workspace, meetings, conferences
# of Occupants:	0
Adjacency:	Near External Relations staff, support
Floor Finish:	Carpet with rubber base
Wall Finish:	50% Painted gypsum 25% Glass 25% Wood panel
Ceiling Finish:	50% Narrow spline premium acoustic ceiling tile 50% Painted gypsum
Doors:	Sound rated wood door with side lites
Furniture / Equipment:	Standing height work tables, writing surface, storage
Acoustics:	Enhanced acoustical performance for sound isolation
Ceiling Height:	9’ minimum
Windows / Daylighting:	Where feasible
Mechanical:	Thermostat 72 - 75F
Plumbing:	N/A
	Occupancy sensor Direct/Indirect lighting Power/Data and monitor at table AV recording equipment



B.500 External Relations Support

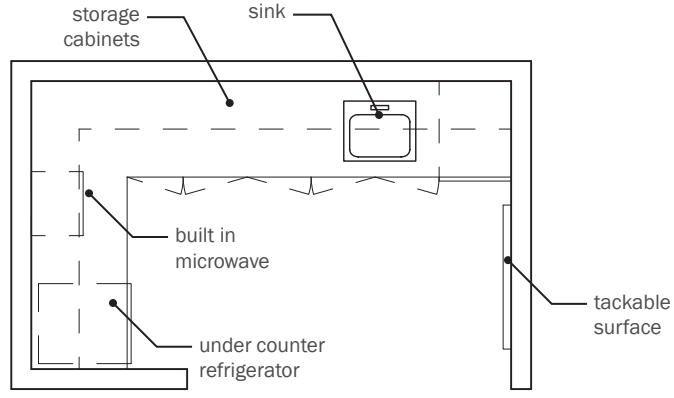
B.519 Workroom / Storage

Area:	250 sf
Quantity:	1
Function:	Flexible workspace, meetings
# of Occupants:	0
Adjacency:	Near External Relations staff, support
Floor Finish:	VCT with vinyl base
Wall Finish:	Painted gypsum
Ceiling Finish:	Narrow spline premium acoustic ceiling tile
Doors:	Sound rated wood door with side lites
Furniture / Equipment:	Standing height work table, writing surface, shelving, storage
Acoustics:	N/A
Ceiling Height:	9’ minimum
Windows / Daylighting:	Where feasible
Mechanical:	Thermostat 72 - 75F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor Direct/Indirect lighting Power/Data at table



B.520 Pantry

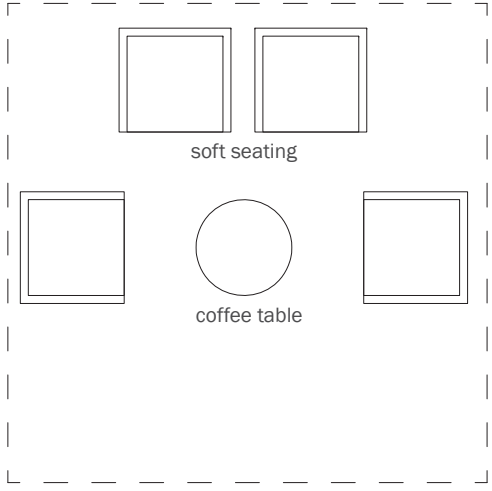
Area:	60 sf
Quantity:	1
Function:	Employee food storage and preparation
# of Occupants:	0
Adjacency:	Near External Relations staff, support
Floor Finish:	Quarry tile with tile base
Wall Finish:	Painted gypsum
Ceiling Finish:	Painted gypsum
Doors:	N/A
Furniture / Equipment:	Built in counter with cabinets above and below, under counter refrigerator, dishwasher, small counter-top appliances, microwave, tackable surface
Acoustics:	N/A
Ceiling Height:	9’ minimum
Windows / Daylighting:	None
Mechanical:	Thermostat 72 - 75F
Plumbing:	Single compartment sink Dishwasher Water hook-up for refrigerator ice-maker
Electrical / AV / IT:	Occupancy sensor Direct/Indirect lighting Electrical infrastructure for equipment/ appliances



B.600 Professional Development

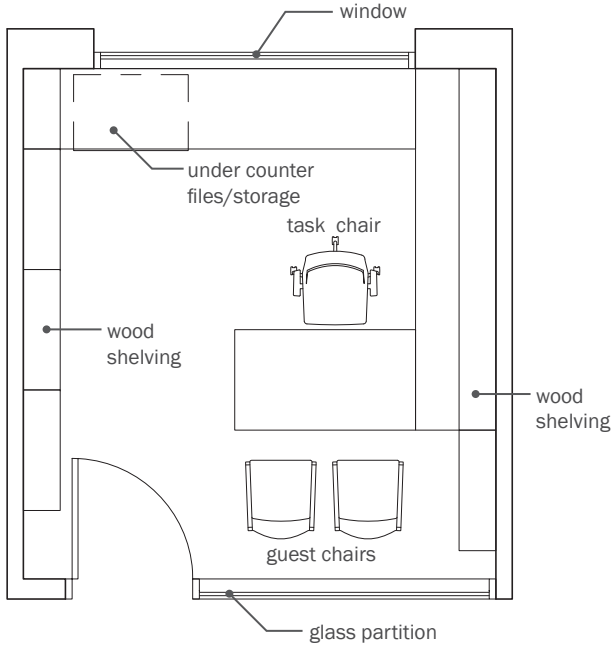
B.601 Waiting Area

Area:	100 sf
Quantity:	1
Function:	Temporary waiting
# of Occupants:	Up to 4
Adjacency:	Accessible from public circulation, near Professional Development staff, support
Floor Finish:	Carpet with rubber base
Wall Finish:	Painted gypsum
Ceiling Finish:	Narrow spline premium acoustic ceiling tile
Doors:	N/A
Furniture / Equipment:	4 lounge chairs, coffee table
Acoustics:	N/A
Ceiling Height:	9’ minimum
Windows / Daylighting:	Where feasible
Mechanical:	Thermostat 72 - 75F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor Direct/Indirect lighting



B.602 Director Office

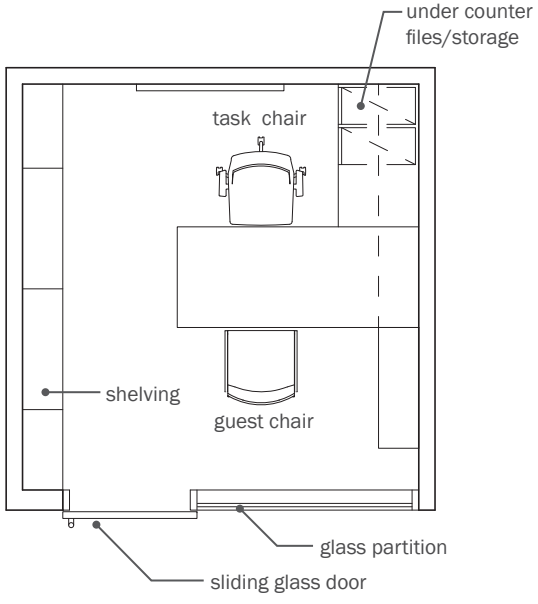
Area:	150 sf
Quantity:	1
Function:	Administrative activity, small meetings, receiving visitors
# of Occupants:	1, plus 1-2 guests
Adjacency:	Near Professional Development staff, support
Floor Finish:	Carpet with rubber base
Wall Finish:	75% Painted gypsum 25% Glass
Ceiling Finish:	Narrow spline premium acoustic ceiling tile
Doors:	Sound rated wood door with side lites
Furniture / Equipment:	Director's Office package, including workstation, task chair, 2 guest chairs, built in wood shelving and file storage
Acoustics:	N/A
Ceiling Height:	9' minimum
Windows / Daylighting:	Required
Mechanical:	Thermostat 72 - 75F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor Direct/Indirect lighting Power/Data at workstation



B.600 Professional Development

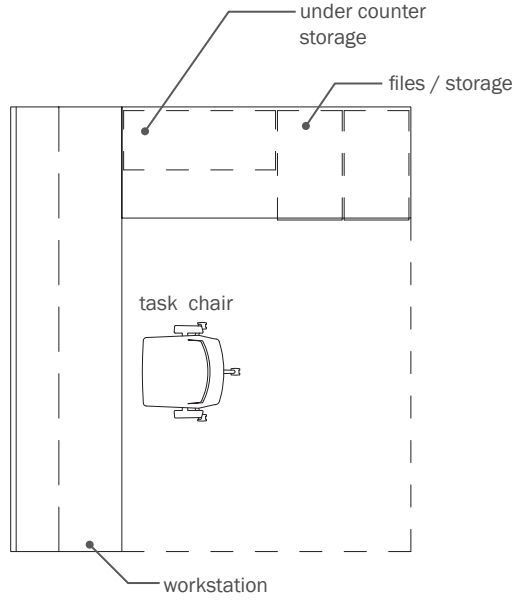
B.603 Career Counselor Office

Area:	90 sf
Quantity:	1
Function:	Administrative activity, small meetings, receiving visitors
# of Occupants:	1, plus 1 guest
Adjacency:	Near Professional Development staff, support
Floor Finish:	Carpet with rubber base
Wall Finish:	75% Painted gypsum 25% Glass
Ceiling Finish:	Narrow spline premium acoustic ceiling tile
Doors:	Sliding glass
Furniture / Equipment:	Counselor's Office package, including workstation, task chair, guest chair, built in wood shelving and file storage
Acoustics:	N/A
Ceiling Height:	9' minimum
Windows / Daylighting:	Where feasible
Mechanical:	Thermostat 72 - 75F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor Direct/Indirect lighting Power/Data at workstation



B.604 Academic Coordinator Workstation

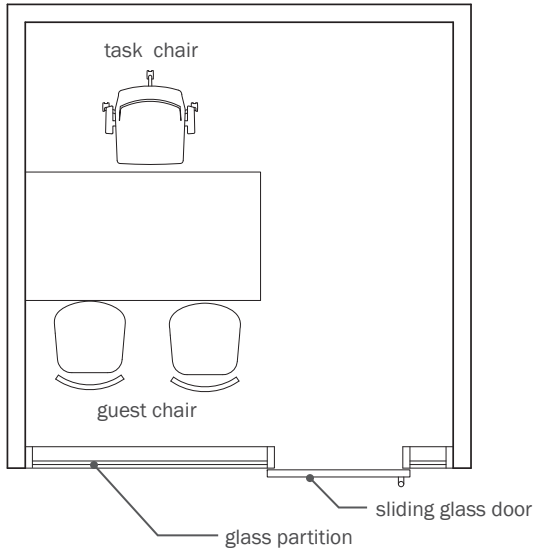
Area:	90 sf
Quantity:	1
Function:	Administrative activity, reception
# of Occupants:	1
Adjacency:	Near Professional Development staff, support
Floor Finish:	Carpet with rubber base
Wall Finish:	Painted gypsum
Ceiling Finish:	Narrow spline premium acoustic ceiling tile
Doors:	N/A
Furniture / Equipment:	Staff Workstation package, including workstation, task chair and file storage
Acoustics:	N/A
Ceiling Height:	9’ minimum
Windows / Daylighting:	Where feasible
tMechanical:	Thermostat 72 - 75F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor Direct/Indirect lighting Power/Data at workstation



B.600 Professional Development

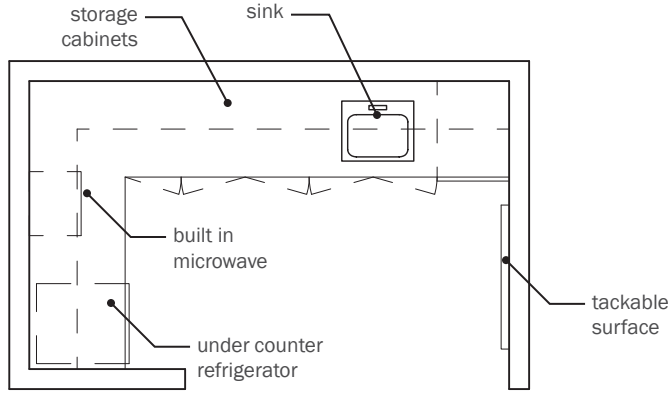
B.605 Interview Rooms

Area:	100 sf
Quantity:	3
Function:	Real and mock interviews, group study, small meetings, exam space
# of Occupants:	Up to 4
Adjacency:	Near Professional Development staff, support, also convenient for students to use as group study room
Floor Finish:	Carpet with rubber base
Wall Finish:	Painted gypsum
Ceiling Finish:	Narrow spline premium acoustic ceiling tile
Doors:	Sound rated wood door with side lites
Furniture / Equipment:	Table and task chair, 2 guest chairs
Acoustics:	Enhanced acoustical performance for sound isolation
Ceiling Height:	9’ minimum
Windows / Daylighting:	Where feasible
Mechanical:	Thermostat 72 - 75F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor Direct/Indirect lighting Power/Data at workstation

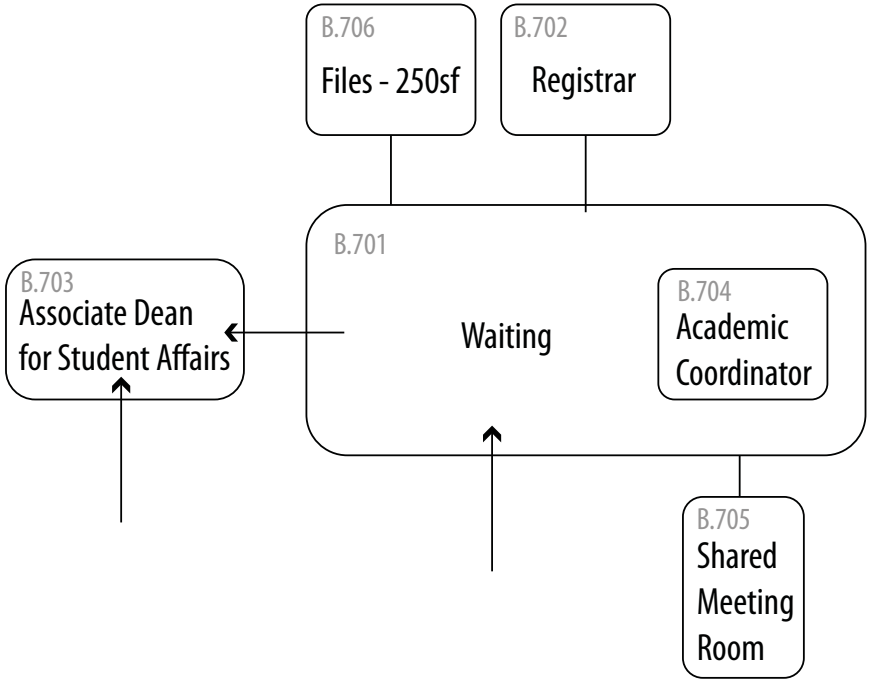


B.606 Storage / Pantry

Area:	60 sf
Quantity:	1
Function:	Employee food storage and preparation
# of Occupants:	0
Adjacency:	Near Professional Development staff, support
Floor Finish:	Quarry tile with tile base
Wall Finish:	Painted gypsum
Ceiling Finish:	Narrow spline premium acoustic ceiling tile
Doors:	N/A
Furniture / Equipment:	Built in counter with cabinets above and below, under counter refrigerator, dishwasher, small counter-top appliances, microwave, tackable surface
Acoustics:	N/A
Ceiling Height:	9’ minimum
Windows / Daylighting:	None
Mechanical:	Thermostat 72 - 75F
Plumbing:	Single compartment sink Dishwasher Water hook-up for refrigerator ice-maker
Electrical / AV / IT:	Occupancy sensor Direct/Indirect lighting Electrical infrastructure for equipment/ appliances

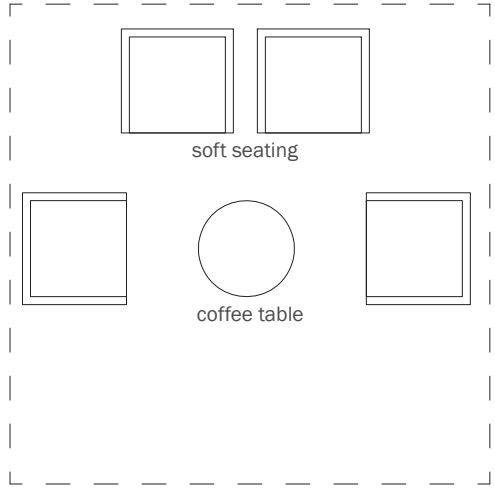


Relationship Diagram | Student Services



B.701 Waiting Area

Area:	100 sf
Quantity:	1
Function:	Temporary waiting
# of Occupants:	0
Adjacency:	Accessible from public circulation, near Registrar/Student Services staff, support
Floor Finish:	Carpet with rubber base
Wall Finish:	Painted gypsum
Ceiling Finish:	Narrow spline premium acoustic ceiling tile
Doors:	N/A
Furniture / Equipment:	4 lounge chairs, coffee table
Acoustics:	N/A
Ceiling Height:	9’ minimum
Windows / Daylighting:	Where feasible
Mechanical:	Thermostat 72 - 75F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor Direct/Indirect lighting

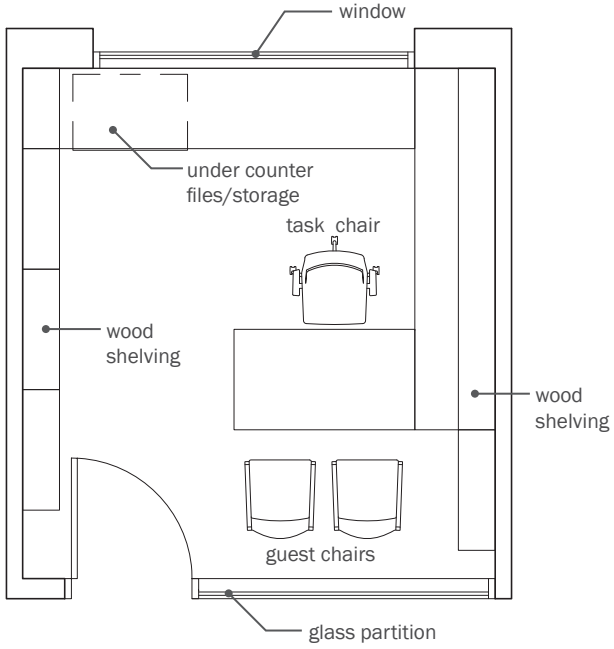


B.700 Registrar / Student Services

B.702 Registrar Office

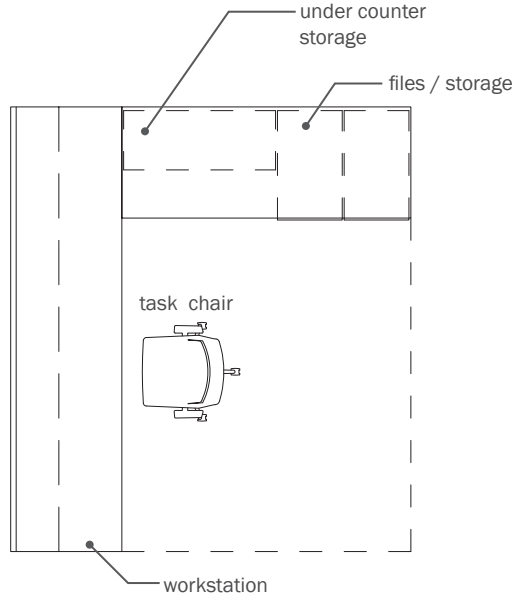
B.703 Associate Dean Office

Area:	150 sf
Quantity:	2
Function:	Administrative activity, small meetings, receiving visitors
# of Occupants:	1, plus 1-2 guests
Adjacency:	Near Registrar/Student Services staff, support
Floor Finish:	Carpet with rubber base
Wall Finish:	75% Painted gypsum 25% Glass
Ceiling Finish:	Narrow spline premium acoustic ceiling tile
Doors:	Sound rated wood door with side lites
Furniture / Equipment:	Director's Office package, including workstation, task chair, 2 guest chairs, built in wood shelving and file storage
Acoustics:	N/A
Ceiling Height:	9' minimum
Windows / Daylighting:	Required
Mechanical:	Thermostat 72 - 75F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor Direct/Indirect lighting Power/Data at workstation



B.704 Academic Coordinator Workstation

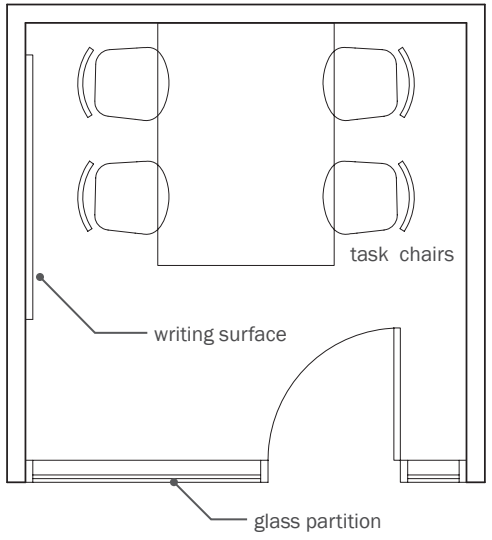
Area:	90 sf
Quantity:	1
Function:	Administrative activity, reception
# of Occupants:	1
Adjacency:	Near Registrar/Student Services staff, support
Floor Finish:	Carpet with rubber base
Wall Finish:	Painted gypsum
Ceiling Finish:	Narrow spline premium acoustic ceiling tile
Doors:	N/A
Furniture / Equipment:	Staff Workstation package, including workstation, task chair and file storage
Acoustics:	N/A
Ceiling Height:	9’ minimum
Windows / Daylighting:	Where feasible
Mechanical:	Thermostat 72 - 75F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor Direct/Indirect lighting Power/Data at workstation



B.700 Registrar / Student Services

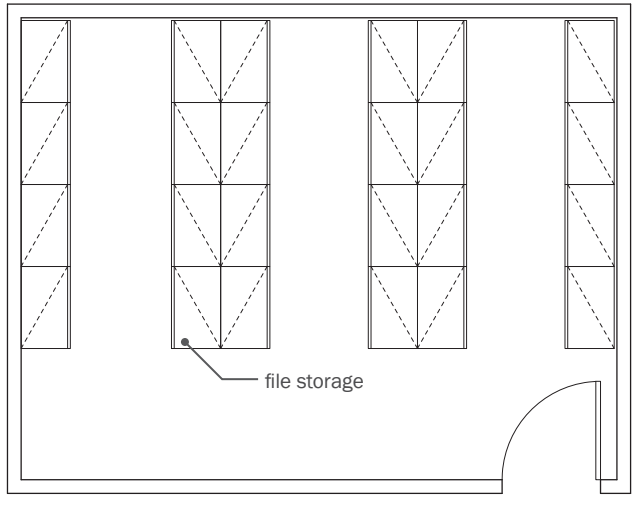
B.705 Shared Meeting Room

Area:	100 sf
Quantity:	1
Function:	Flexible workspace, meetings
# of Occupants:	Up to 4
Adjacency:	Near Registrar/Student Services staff, support
Floor Finish:	Carpet with rubber base
Wall Finish:	75% Painted gypsum 25% Glass
Ceiling Finish:	Narrow spline premium acoustic ceiling tile
Doors:	Sound rated wood door with side lites
Furniture / Equipment:	Work table, 4 task chairs, writing surface
Acoustics:	N/A
Ceiling Height:	9’ minimum
Windows / Daylighting:	Where feasible
Mechanical:	Thermostat 72 - 75F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor Direct/Indirect lighting Power/Data at table



B.706 Storage

Area:	250 sf
Quantity:	1
Function:	Filing
# of Occupants:	0
Adjacency:	Near Registrar/Student Services staff, support
Floor Finish:	Carpet with rubber base
Wall Finish:	Painted gypsum
Ceiling Finish:	Narrow spline acoustic ceiling tile
Doors:	Wood door
Furniture / Equipment:	File cabinets
Acoustics:	N/A
Ceiling Height:	9' minimum
Windows / Daylighting:	None
Mechanical:	Thermostat 60 - 80F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor Direct/Indirect lighting



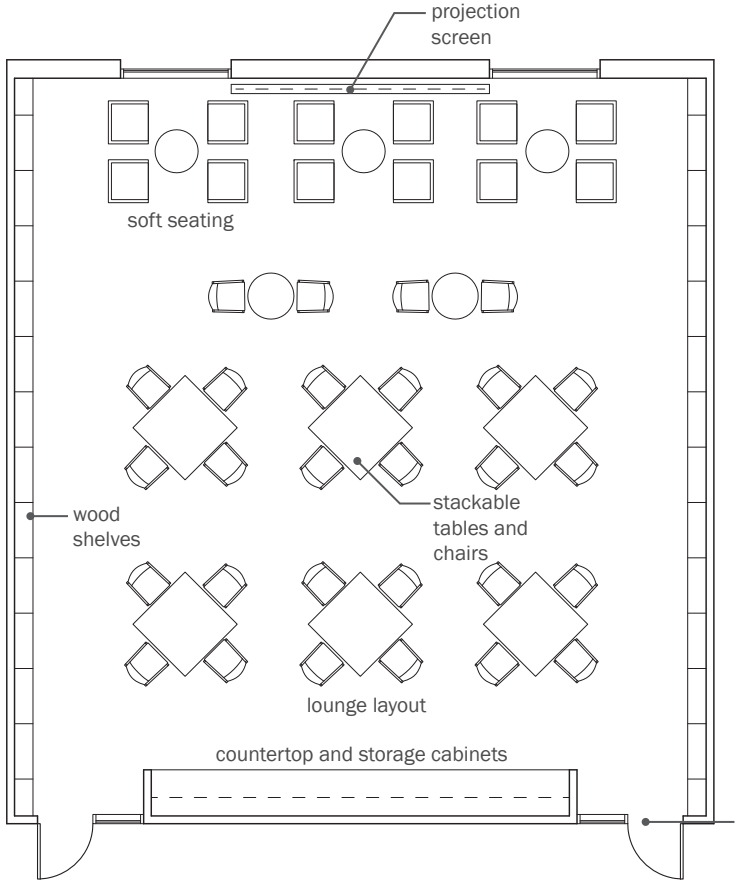
C. Faculty (Also refer to ARA's)

Faculty offices and administrative support are included in the Advanced Research Area portion of the program - the Faculty/Staff Lounge and pantry and the Adjunct Faculty Space are included in this section.

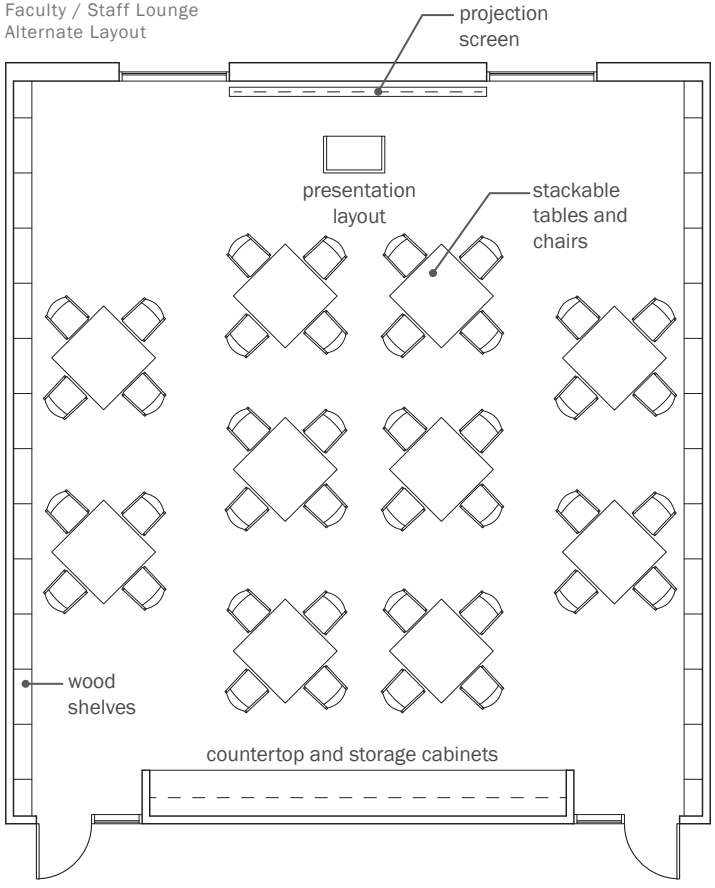
Space Code	Room / Space Name	NSF Each	Proposed Qty.	Total NSF
C100	Faculty Support			
C101	Faculty/Staff Lounge	1,500	1	1,500
C102	Pantry	200	1	200
C103	Storage	200	1	200
C104	Adjunct Faculty Space	560	1	560
	Total Faculty NSF			**2,460**
	Net to Gross Factor			0.63
	Total Faculty GSF			**3,905**

C.101 Faculty / Staff Lounge

Area:	1500 sf
Quantity:	1
Function:	Informal Faculty meeting and dining, formal presentations and events, flexible work space
# of Occupants:	Up to 40
Adjacency:	Near Faculty Pantry and Storage, convenient to Faculty Offices and support
Floor Finish:	Carpet with rubber base
Wall Finish:	75% Painted gypsum 25% Wood panel
Ceiling Finish:	Narrow spline premium acoustic ceiling tile
Doors:	Sound rated wood door with side lites
Furniture / Equipment:	Lounge chairs and coffee tables, stackable cafe tables and chairs, built in counter with cabinets above and below, built in wood shelving
Acoustics:	Enhanced acoustical performance for sound isolation
Ceiling Height:	9’ minimum
Windows / Daylighting:	Required
Mechanical:	Thermostat 72 - 75F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor, Direct/Indirect lighting, Power/Data throughout, Projector and roll-up screen, AV recording equipment

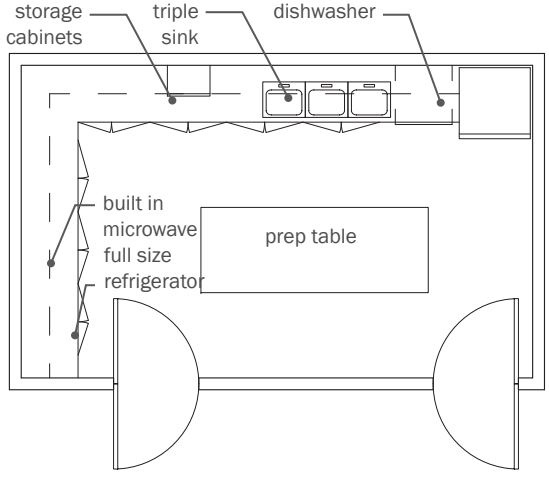


Faculty / Staff Lounge
Alternate Layout



C.102 Pantry

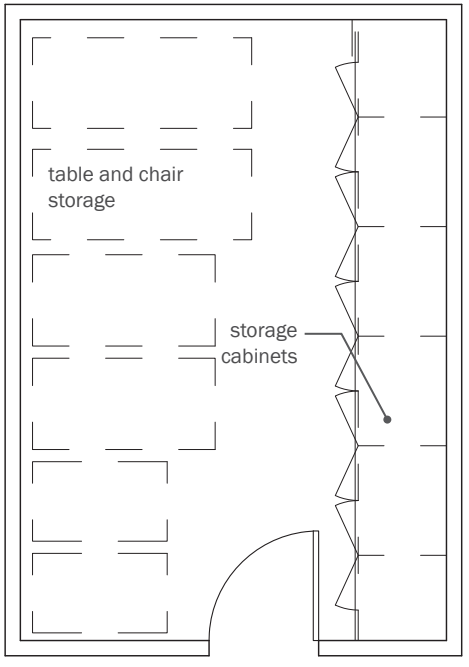
Area:	200 sf
Quantity:	1
Function:	Faculty and small event food storage and preparation
# of Occupants:	0
Adjacency:	Near Faculty/Staff Lounge
Floor Finish:	Quarry tile with tile base
Wall Finish:	Painted gypsum
Ceiling Finish:	Painted gypsum
Doors:	Dual swing wood doors
Furniture / Equipment:	Built in counter with cabinets above and below, full size refrigerator, dishwasher, small counter-top appliances, microwave, large food prep table, tackable surface
Acoustics	N/A
Ceiling Height:	9' minimum
Windows / Daylighting:	None
Mechanical:	Thermostat 72 - 75F
Plumbing:	Triple basin sink Dishwasher Water hook-up for refrigerator ice-maker Floor drains
Electrical / AV / IT:	Occupancy sensor Direct/Indirect lighting Electrical infrastructure for equipment/ appliances



C.100 Faculty Support

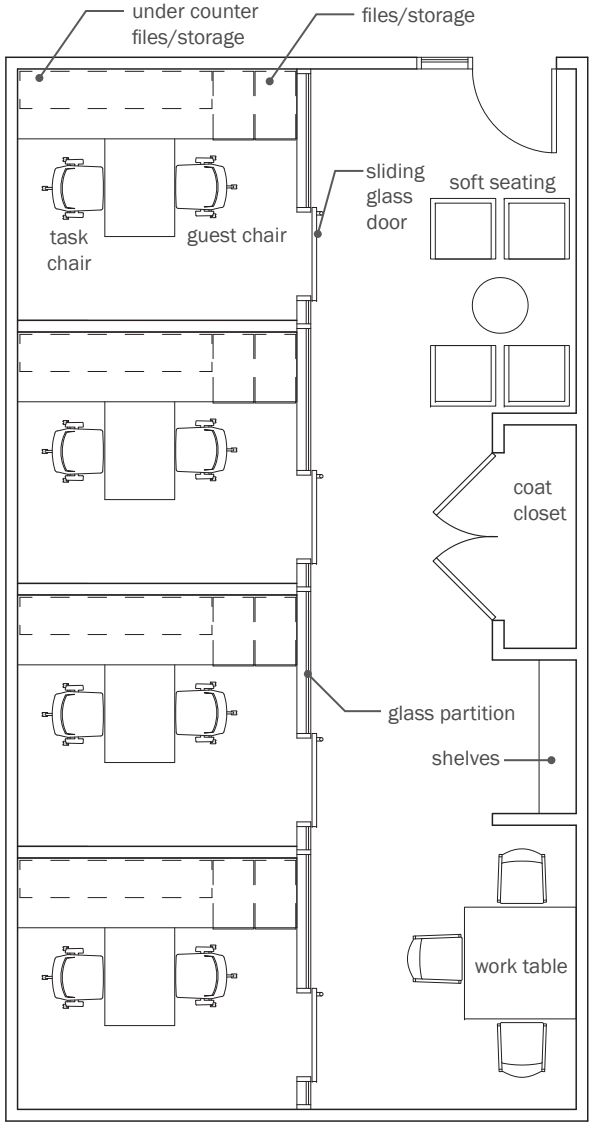
C.103 Storage

Area:	200 sf
Quantity:	1
Function:	Furniture storage, General Faculty storage
# of Occupants:	0
Adjacency:	Near Faculty/Staff Lounge and Pantry
Floor Finish:	VCT with vinyl base
Wall Finish:	Painted gypsum
Ceiling Finish:	Narrow spline acoustic ceiling tile
Doors:	Wood door
Furniture / Equipment:	Storage cabinets
Acoustics	N/A
Ceiling Height:	9’ minimum
Windows / Daylighting:	None
Mechanical:	Thermostat 60 - 80F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor Direct/Indirect lighting



C.104 Adjunct Faculty Space

Area:	560 sf
Quantity:	1
Function:	Administrative activity, small meetings, receiving visitors, personal storage
# of Occupants:	4, Plus 4-8 guests
Adjacency:	Near Classrooms, Convenient to Faculty offices and support spaces
Floor Finish:	Carpet with rubber base
Wall Finish:	Painted gypsum Glass at offices
Ceiling Finish:	Narrow spline premium acoustic ceiling tile
Doors:	Sound rated wood door with side lite to suite, Sliding glass doors to offices
Furniture / Equipment:	4 Counselor's Office packages, including workstations, task chairs, guest chairs, built in wood shelving and file storage, shared work table with 3 task chairs, shelving, 4 lounge chairs and coffee table
Acoustics	N/A
Ceiling Height:	9' minimum
Windows / Daylighting:	Where feasible
Mechanical:	Thermostat 72 - 75F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor Direct/Indirect lighting Power/Data throughout



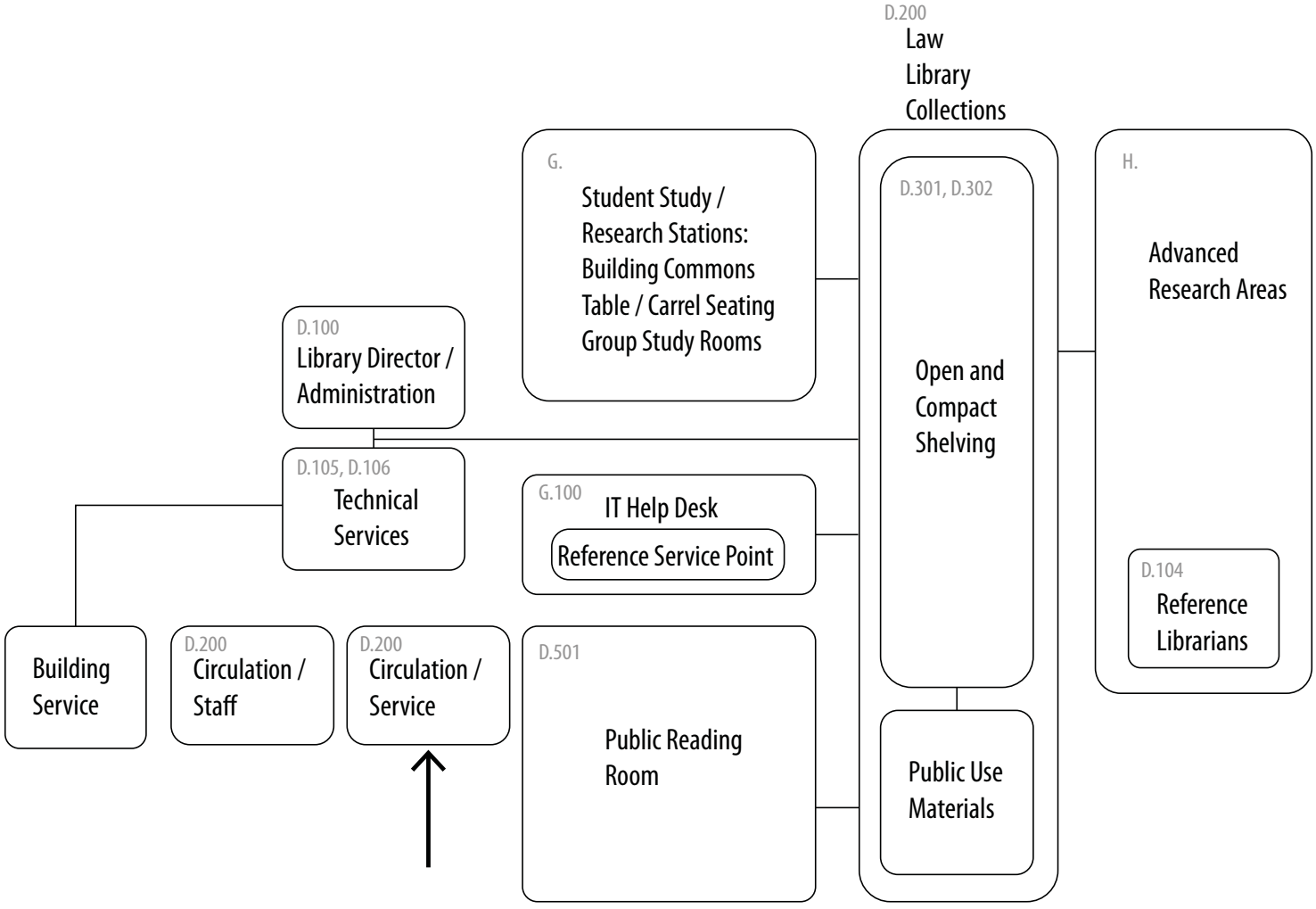
D. Law Library (Also refer to Common Areas and ARA's)

Space Code	Room / Space Name	NSF Each	Proposed Qty.	Total NSF
D100	Library Administration			
D101	Library Director Office	150	1	150
D102	Office Assistant Workstation	90	1	90
D103	Conference Room	250	1	250
	Administration Total			**490**
	Reference			
D104	Librarian Office	150	6	900
	Reference Total			**900**
	Technical Services			
D105	Technical Services Workstation/Workroom	1,000	1	1,000
D106	Librarian Office	150	2	300
	Technical Services Total			**1,300**
	Library Administration Total			**2,690**
D200	Law Library Circulation/Service			
D201	Circulation Desk/Reference/IT Help Desk	300	1	400
D202	Circulation Manager Office	150	1	150
D203	Assistant Circulation Manager Workstation (Sills)	90	1	90
D204	Reserves Collection	150	1	150
	Law Library Circulation/Service Total			**790**

Space Code	Room / Space Name	NSF Each	Proposed Qty.	Total NSF
D300	Collections			
D301	Compact Shelving	10,500	1	10,500
D302	Open Shelving	2,800	1	2,800
	Collections Total			**13,300**
D400	Rare Books			
D401	Rare Book Collection	400	1	400
	Rare Books Total			**400**
D500	Reading Room			
D501	Reading Room	2,000	1	2,000
	Reading Room Total			**2,000**
	Total Law Library NSF			**19,180**
	Net to Gross Factor			0.63
	Total Law Library GSF			**30,444**

accessible resources
coterminous
collaborative
welcoming to community
service and support

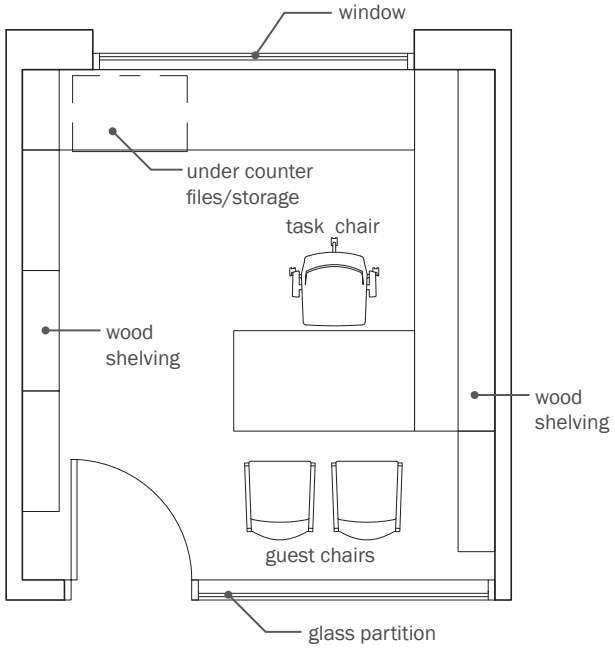
Relationship Diagram | Law Library



D.100 Library Administration

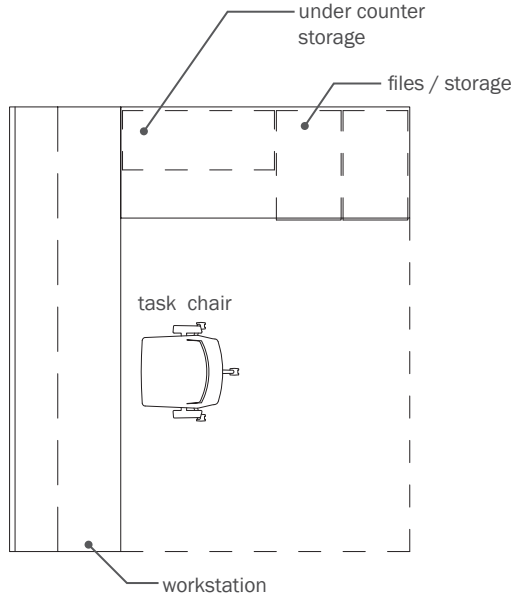
D.101 Library Director Office
D.104 Reference Librarian Office
D.106 Technical Services Librarian Office

Area:	150 sf
Quantity:	9
Function:	Administrative activity, small meetings, receiving visitors
# of Occupants:	1
Adjacency:	Near Library Administration staff/ support, Reference Librarians within ARA's, convenient to Faculty and students
Floor Finish:	Carpet with rubber base
Wall Finish:	75% Painted gypsum 25% Glass
Ceiling Finish:	Narrow spline premium acoustic ceiling tile
Doors:	Sound rated wood door with side lites
Furniture / Equipment:	Director's Office package, including workstation, task chair, 2 guest chairs, built in wood shelving and file storage
Acoustics:	N/A
Ceiling Height:	9' minimum
Windows / Daylighting:	Required
Mechanical:	Thermostat 72 -75F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor Direct/Indirect lighting Power/Data at workstation



D.102 Office Assistant Workstation

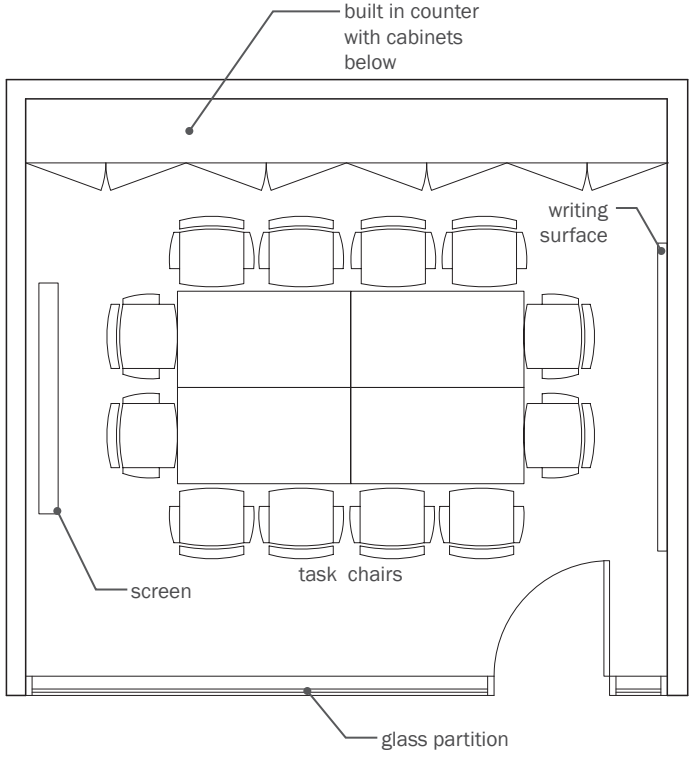
Area:	90 sf
Quantity:	1
Function:	Administrative activity
# of Occupants:	1
Adjacency:	Near Library Administration staff/ support
Floor Finish:	Carpet with rubber base
Wall Finish:	Painted gypsum
Ceiling Finish:	Narrow spline premium acoustic ceiling tile
Doors:	N/A
Furniture / Equipment:	Staff Workstation package, including workstation, task chair and file storage
Acoustics:	N/A
Ceiling Height:	9' minimum
Windows / Daylighting:	Where feasible
Mechanical:	Thermostat 72 -75F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor Direct/Indirect lighting Power/Data at workstation



D.100 Library Administration

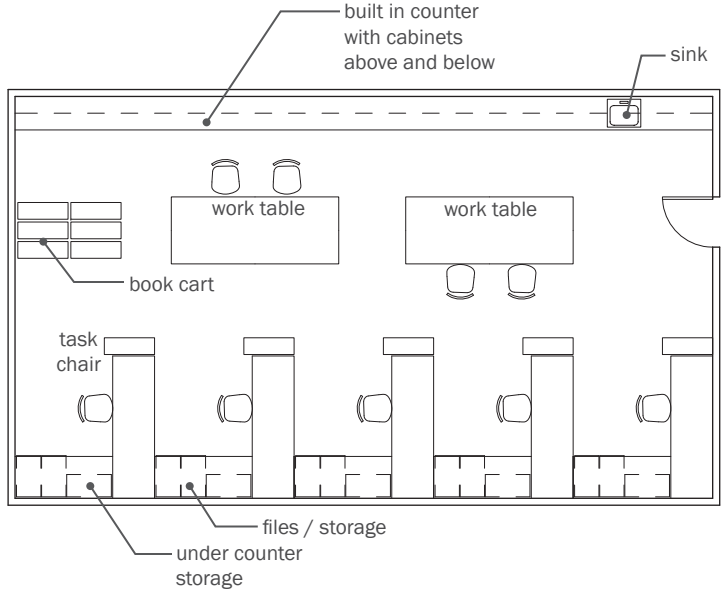
D.103 Conference Room

Area:	250 sf
Quantity:	1
Function:	Flexible workspace, meetings
# of Occupants:	Up to 10
Adjacency:	Near Library Administration staff/ support
Floor Finish:	Carpet with rubber base
Wall Finish:	50% Painted gypsum 25% Glass 25% Wood panel
Ceiling Finish:	50% Narrow spline premium acoustic ceiling tile 50% Painted gypsum
Doors:	Sound rated wood door with side lites
Furniture / Equipment:	Work table, 10 task chairs, writing surface, built in counter with cabinets below
Acoustics:	Enhanced acoustical performance for sound isolation
Ceiling Height:	9’ minimum
Windows / Daylighting:	Where feasible
Mechanical:	Thermostat 72 - 75F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor Direct/Indirect lighting Power/Data at table Projector and roll-up screen AV recording equipment



D.105 Technical Services Workstation/Workroom

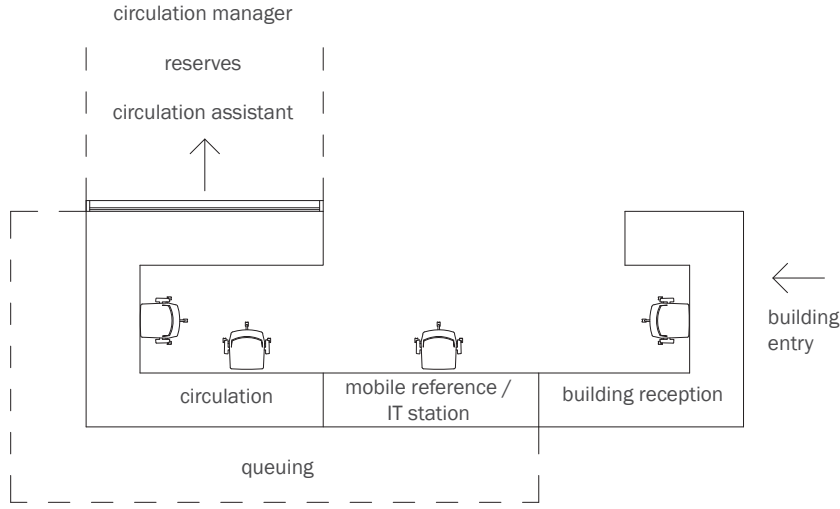
Area:	1,000 sf
Quantity:	1
Function:	Administrative activity, book editing and repair, flexible work space
# of Occupants:	5
Adjacency:	Near Library Administration staff/ support
Floor Finish:	Carpet with rubber base
Wall Finish:	Painted gypsum
Ceiling Finish:	Narrow spline premium acoustic ceiling tile
Doors:	Sound rated wood door with side lites
Furniture / Equipment:	5 Staff Workstation packages, including workstations, task chairs and file storage, 2 large work tables, task chairs, built in counter with cabinets above and below
Acoustics:	N/A
Ceiling Height:	9' minimum
Windows / Daylighting:	Where feasible
Mechanical:	Thermostat 72 - 75F
Plumbing:	Single compartment sink
Electrical / AV / IT:	Occupancy sensor Direct/Indirect lighting Power/Data at workstations



D.200 Law Library Circulation / Service

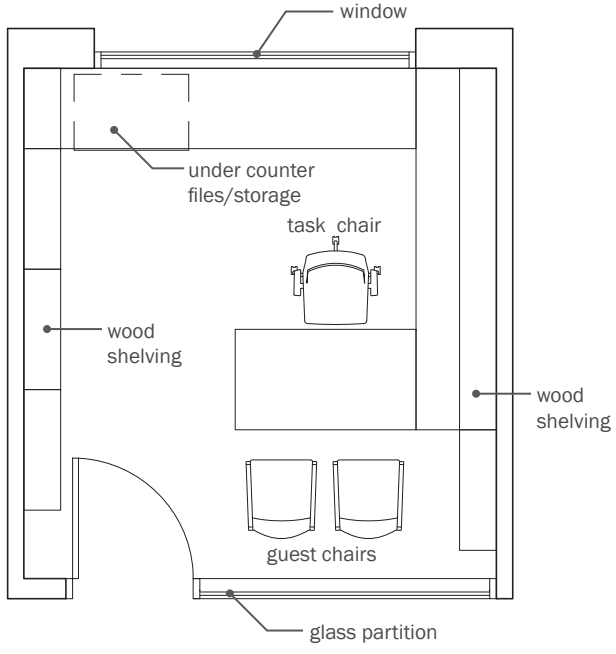
D.201 Circulation Desk / Reference / IT Help Desk

Area:	400 sf
Quantity:	1
Function:	Administrative activity, checking materials in and out, assist patrons, troubleshooting IT requests
# of Occupants:	3
Adjacency:	Near main building entry, Adjacent to Circulation Manager Office, Circulation Assistant, Reserves
Floor Finish:	Carpet with rubber base
Wall Finish:	50% Painted gypsum 50% Glass
Ceiling Finish:	50% Painted gypsum, 50% Narrow spline premium acoustic ceiling tile
Doors:	N/A
Furniture / Equipment:	Built in desk with storage below
Acoustics:	N/A
Ceiling Height:	9’ minimum
Windows / Daylighting:	Where feasible
Mechanical:	Thermostat 72 - 75F
Plumbing:	N/A
Electrical / AV/ IT:	Occupancy sensor Direct/Indirect lighting Power/Data at workstations



D.202 Circulation Manager Office

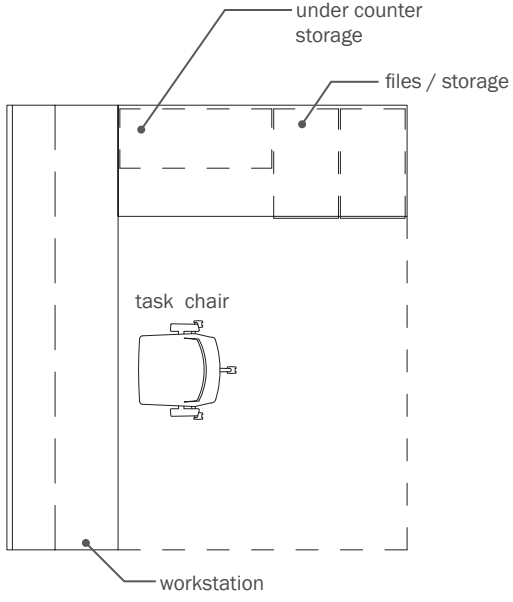
Area:	150 sf
Quantity:	1
Function:	Administrative activity, small meetings, receiving visitors
# of Occupants:	1, Plus 1-2 guests
Adjacency:	Adjacent to Library Circulation Desk
Floor Finish:	Carpet with rubber base
Wall Finish:	50% Painted gypsum 50% Glass
Ceiling Finish:	Narrow spline premium acoustic ceiling tile
Doors:	Sound rated wood door with side lites
Furniture / Equipment:	Director's Office package, including workstation, task chair, 2 guest chairs, built in wood shelving and file storage
Acoustics:	N/A
Ceiling Height:	9' minimum
Windows / Daylighting:	Required
Mechanical:	Thermostat 72 - 75F
Plumbing:	N/A
Electrical / AV/ IT:	Occupancy sensor Direct/Indirect lighting Power/Data at workstation



D.200 Law Library Circulation

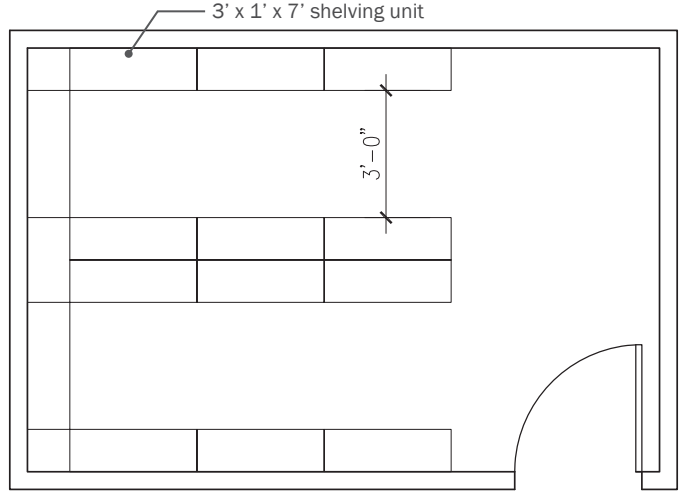
D.203 Assistant Circulation Manager Workstation

Area:	90 sf
Quantity:	1
Function:	Administrative activity
# of Occupants:	1
Adjacency:	Adjacent to Reserves, near Circulation Manager Office, Circulation Desk
Floor Finish:	Carpet with rubber base
Wall Finish:	Painted gypsum
Ceiling Finish:	Narrow spline premium acoustic ceiling tile
Doors:	N/A
Furniture / Equipment:	Staff Workstation package, including workstation, task chair and file storage
Acoustics:	N/A
Ceiling Height:	9’ minimum
Windows / Daylighting:	Where feasible
Mechanical:	Thermostat 72 - 75F
Plumbing:	N/A
Electrical / AV/ IT:	Occupancy sensor Direct/Indirect lighting Power/Data at workstation



D.204 Reserves Collection

Area:	150 sf
Quantity:	1
Function:	Book storage
# of Occupants:	0
Adjacency:	Adjacent to Library Circulation Desk
Floor Finish:	Carpet with rubber base
Wall Finish:	Painted gypsum
Ceiling Finish:	Narrow spline premium acoustic ceiling tile
Doors:	Wood door with side lite
Furniture / Equipment:	Open shelving units
Acoustics:	N/A
Ceiling Height:	9’ minimum
Windows / Daylighting:	None
Mechanical:	Thermostat 72 - 75F
Plumbing:	N/A
Electrical / AV/ IT:	Occupancy sensor Direct/Indirect lighting

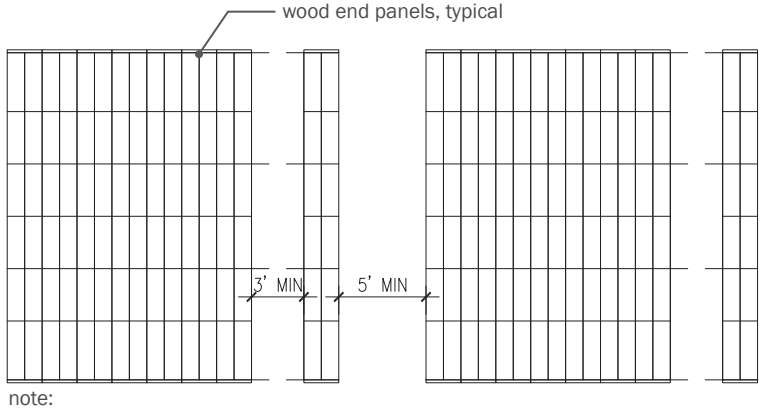


provide 260 lf of shelving

D.300 Collections

D.301 Compact Shelving

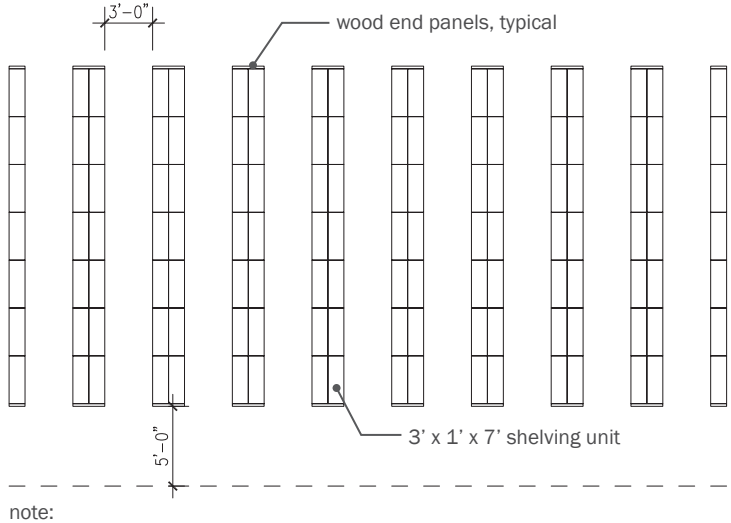
Area:	10,500 sf
Quantity:	1
Function:	Book storage
# of Occupants:	N/A
Adjacency:	Distributed vertically through building, near Common Areas, Library staff/ support
Floor Finish:	Carpet with rubber base
Wall Finish:	Painted gypsum
Ceiling Finish:	Narrow spline premium acoustic ceiling tile
Doors:	N/A
Furniture / Equipment:	Compact shelving units with wood end panels
Acoustics:	N/A
Ceiling Height:	9' minimum
Windows / Daylighting:	Not required Provide UV proetection as necessary if shelving is located near windows
Mechanical:	Thermostat 72 - 75F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor, Direct/Indirect lighting parallel to shelving rows Electrical infrastructure for compact shelving operating mechanisms



note:
linear shelving is distributed
configuration to be determined
confirm balance between open versus compact shelving during the design phase

D.302 Open Shelving

Area:	2,800 sf
Quantity:	1
Function:	Book storage
# of Occupants:	N/A
Adjacency:	Adjacent to Common Areas, near Library staff/support
Floor Finish:	Carpet with rubber base
Wall Finish:	Painted gypsum
Ceiling Finish:	Narrow spline premium acoustic ceiling tile
Doors:	N/A
Furniture / Equipment:	Open shelving units with wood end panels
Acoustics:	N/A
Ceiling Height:	9' minimum
Windows / Daylighting:	Not required Provide UV protection as necessary if shelving located near windows
Mechanical:	Thermostat 72 - 75F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor Direct/Indirect lighting parallel to shelving rows

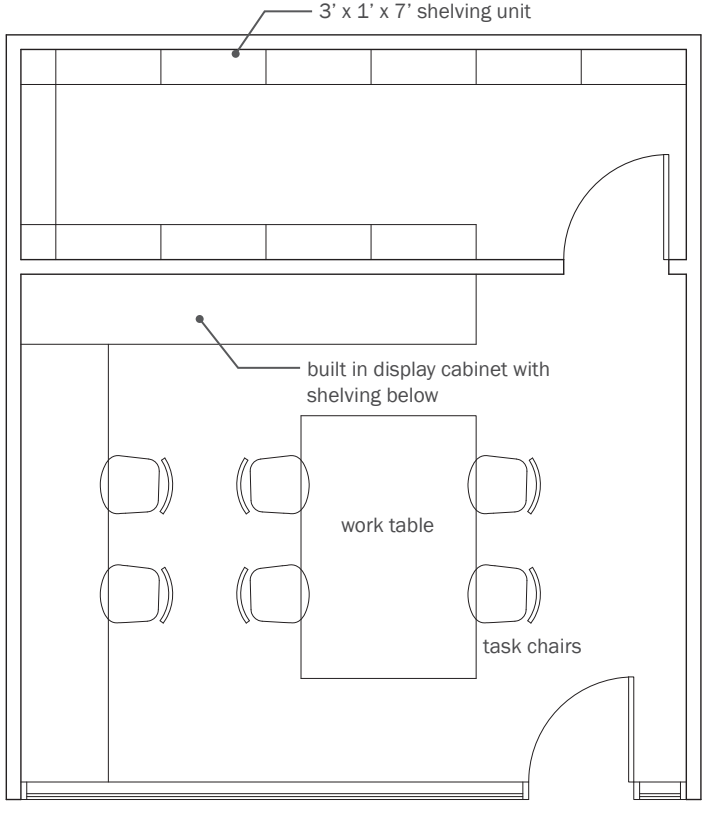


note:
configuration to be determined
confirm balance between open versus compact shelving during the design phase

D.400 Rare Books

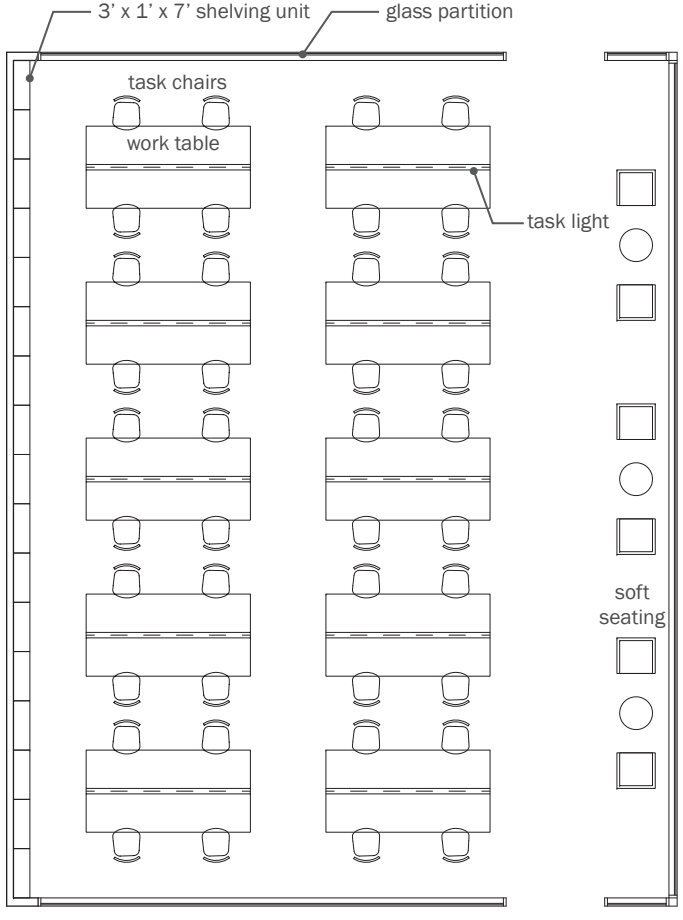
D.401 Rare Book Collection

Area:	400 sf
Quantity:	1
Function:	Storage and display of rare and environmentally sensitive books and materials, workroom
# of Occupants:	Up to 6
Adjacency:	Near Library Administration staff/ support, convenient for Faculty and student access
Floor Finish:	Carpet with rubber base
Wall Finish:	25% Painted gypsum 50% Wood panel 25% Glass
Ceiling Finish:	Painted gypsum
Doors:	Sound rated wood door with side lites
Furniture / Equipment:	Work table and 4 task chairs, built in counter with 2 task chairs, built in display cabinet with shelving/cabinets below, open shelving units
Acoustics:	N/A
Ceiling Height:	9’ minimum
Windows / Daylighting:	None
Mechanical:	Thermostat 72 - 75F Storage area and display cabinet: 30% Relative humidity at +/- 5 %, temperature control at +/- 2 degrees F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor, Direct/Indirect lighting, Power/Data at workstation, table



D.501 Reading Room

Area:	2,000 sf
Quantity:	1
Function:	Public reading area
# of Occupants:	Up to 46
Adjacency:	Near main building entry, adjacent to public use materials
Floor Finish:	Carpet with rubber base
Wall Finish:	25% Wood panel 75% Glass
Ceiling Finish:	50% Narrow spline premium acoustic ceiling tile 50% Painted gypsum
Doors:	N/A
Furniture / Equipment:	Large reading tables with integrated task lighting, task chairs, lounge chairs and coffee tables, wood shelving units
Acoustics:	Enhanced acoustical performance for sound isolation
Ceiling Height:	20' minimum
Windows / Daylighting:	Required
Mechanical:	Thermostat 72 - 75F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor Direct/Indirect lighting Power/Data at tables

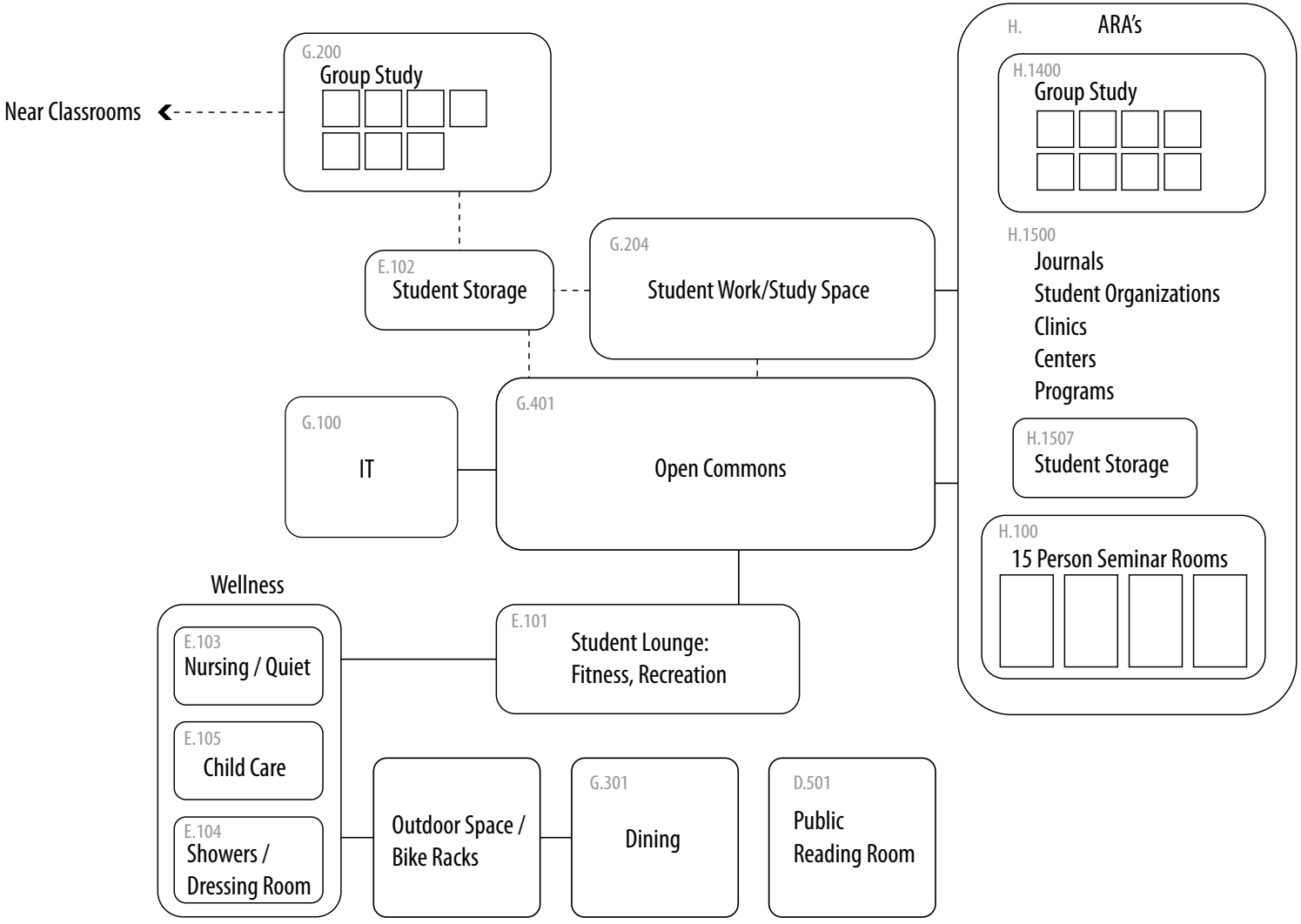


E. Students (Also refer to Common Areas and ARA's)

Space Code	Room / Space Name	NSF Each	Proposed Qty.	Total NSF
E101	Student Lounge	1,000	1	1,000
E102	Student Storage	6	230	1,380
E103	Nursing/Quiet Room	60	2	120
E104	Dressing Room/Shower	100	4	400
E105	Childcare Room	100	1	100
	Total Students NSF			**3,000**
	Net to Gross Factor			0.63
	Total Students GSF			**4,762**

student-centric
amenities
wellness
community

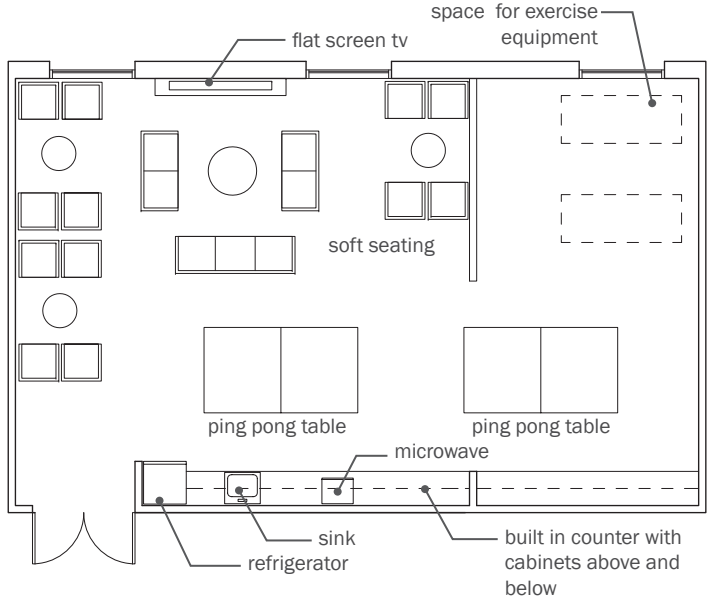
Relationship Diagram | Students



E.100 Students

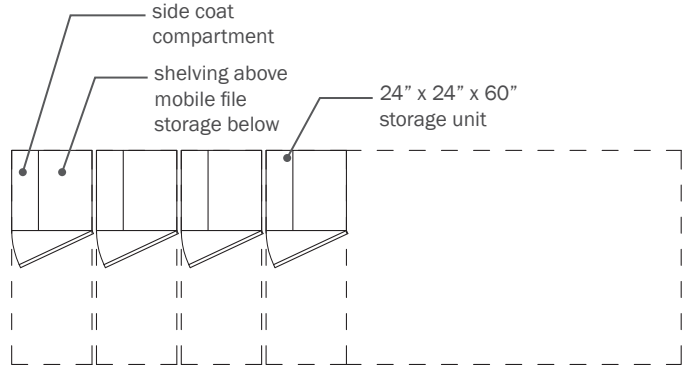
E.101 Student Lounge

Area:	1,000 sf
Quantity:	1
Function:	Study, recreation, student food storage and preparation
# of Occupants:	Up to 35
Adjacency:	Near Common Areas
Floor Finish:	Carpet with rubber base
Wall Finish:	Painted gypsum
Ceiling Finish:	Painted gypsum, painted fiberboard
Doors:	Sound rated wood door with side lites
Furniture / Equipment:	Lounge chairs, couches, coffee tables, large flat screen television, 2 ping pong tables, built in counter with cabinets above and below, under counter refrigerator, microwave, tackable surface
Acoustics:	Enhanced acoustical performance for sound isolation
Ceiling Height:	9' minimum
Windows / Daylighting:	Where feasible
Mechanical:	Thermostat 72 - 75F
Plumbing:	Single compartment sink Water hook-up for refrigerator ice-maker
Electrical / AV / IT:	Occupancy sensor, Direct/Indirect lighting, Power/Data throughout, Flat screen television, cable hook-up, Electrical infrastructure for future exercise equipment



E.102 Student Storage

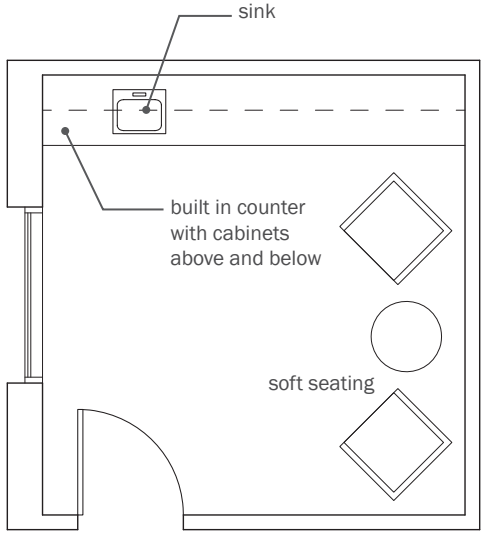
Area:	6 sf
Quantity:	230
Function:	Student storage of coats, books, supplies, personal items, mobile file storage
# of Occupants:	N/A
Adjacency:	Near Student Work/Study stations
Floor Finish:	N/A
Wall Finish:	N/A
Ceiling Finish:	N/A
Doors:	N/A
Furniture / Equipment:	Stationary 24”x24”x60” storage unit with mobile file storage within, Plastic laminate or wood finish
Acoustics:	N/A
Ceiling Height:	N/A
Windows / Daylighting:	N/A
Mechanical:	N/A
Plumbing:	N/A
Electrical / AV / IT:	N/A



E.100 Students

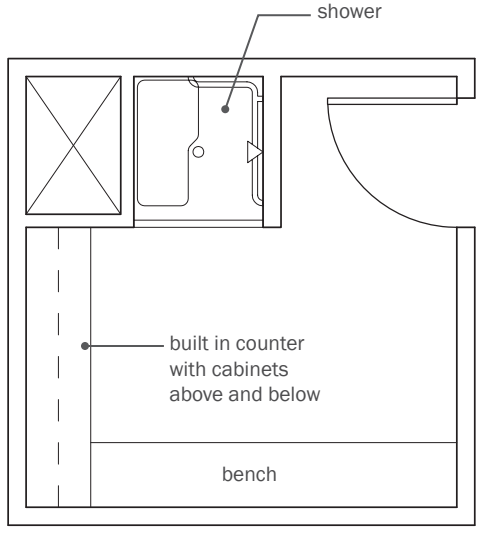
E.103 Nursing / Quiet Room

Area:	60 sf
Quantity:	2
Function:	Private, quiet room for nursing and personal needs
# of Occupants:	Up to 2
Adjacency:	Away from high-traffic areas of the building, Convenient Faculty, staff and student access
Floor Finish:	Carpet with rubber base
Wall Finish:	Painted gypsum
Ceiling Finish:	Narrow spline premium acoustic ceiling tile
Doors:	Sound rated wood door
Furniture / Equipment:	2 lounge chairs, coffee table, Built in counter with cabinets above and below
Acoustics:	Enhanced acoustical performance for sound isolation
Ceiling Height:	9’ minimum
Windows / Daylighting:	Required
Mechanical:	Thermostat 72 - 75F
Plumbing:	Single compartment sink
Electrical / AV / IT:	Occupancy sensor Direct/Indirect lighting



E.104 Dressing Room / Shower

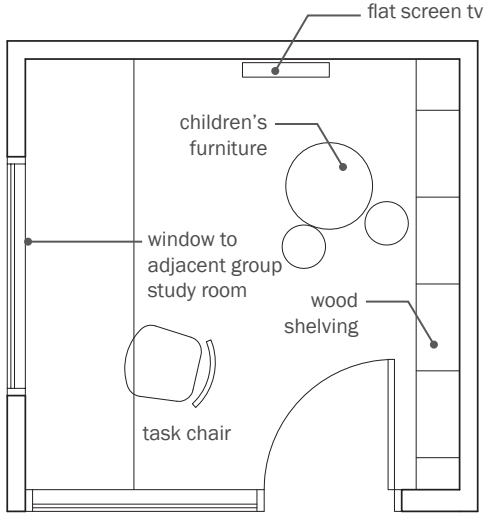
Area:	100 sf
Quantity:	4
Function:	Fully accessible shower and dressing room
# of Occupants:	1
Adjacency:	Away from high traffic areas of the building, Convenient to building entry, students
Floor Finish:	Ceramic tile with ceramic tile base
Wall Finish:	Ceramic tile
Ceiling Finish:	Painted gypsum
Doors:	Sound rated wood door
Furniture / Equipment:	Accessible shower stall, built in counter with cabinets above and below, built in bench
Acoustics:	N/A
Ceiling Height:	9' minimum
Windows / Daylighting:	None
Mechanical:	Thermostat 72 - 75F
Plumbing:	Shower stall Floor drains
Electrical / AV / IT:	Occupancy sensor Direct/Indirect lighting



E.100 Students

E.105 Childcare Room

Area:	100 sf
Quantity:	1
Function:	Secure child's play room while the parent/student studies in an adjacent group study room
# of Occupants:	Up to 4
Adjacency:	Direct visual access to group study room
Floor Finish:	Carpet with rubber base
Wall Finish:	50% Painted gypsum 50% Glass
Ceiling Finish:	Narrow spline premium acoustic ceiling tile
Doors:	Sound rated wood door with side lites
Furniture / Equipment:	Built in counter/workspace, task chair, children's furniture, wood shelving
Acoustics:	Enhanced acoustical performance for sound isolation
Ceiling Height:	9' minimum
Windows / Daylighting:	Where feasible
Mechanical:	Thermostat 72 - 75F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor Direct/Indirect lighting Power/Data at desk Flat screen television, cable hook-up



F. Other/Support

Space Code	Room / Space Name	NSF Each	Proposed Qty.	Total NSF
F100	Courtroom/Auditorium			
F101	Breakout/Pre-Function	1,500	1	1,500
F102	Courtroom/Auditorium	4,620	1	4,620
F103	Judge's Chambers/Storage/AV	200	1	200
F104	Events Storage	600	1	600
F105	Catering Pantry	550	1	550
F106	Catering Storage	50	1	50
F107	Coat Room	50	1	50
	Courtroom/Auditorium Total			**7,570**
F200	Training Center			
F201	Waiting/Lounge	200	1	200
F202	Staff Workstation	50	1	50
F203	Hoteling Station	50	2	100
F204	Training Room - 35 seats	1,050	1	1,050
F205	Storage	60	1	60

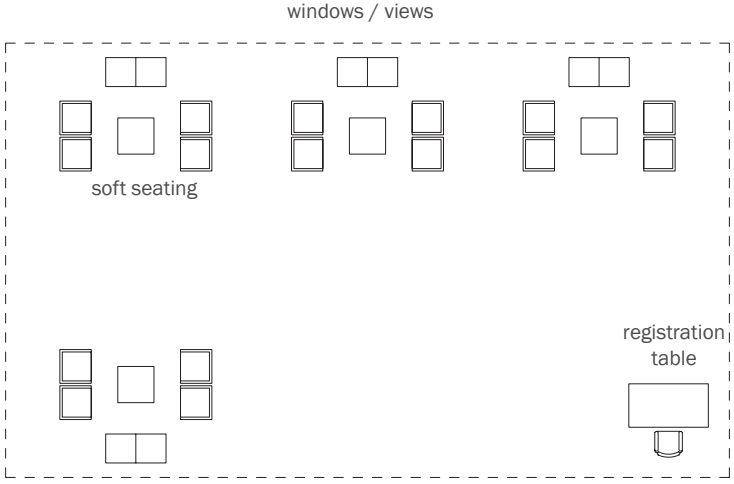
Space Code	Room / Space Name	NSF Each	Proposed Qty.	Total NSF
	Training Center Total			**1,460**
F300	Building Support			
F301	Receiving/Staging	300	1	300
F302	Library/Mail Storage	150	1	150
F303	Building Storage	150	1	150
F304	Café Storage	150	1	150
F305	Building and Grounds Storage	60	1	60
F306	AV/Media Closet	50	6	300
F307	MDF Room	200	1	200
	Building Support Total			**1,310**
	Total Other/Support NSF			**10,340**
	Net to Gross Factor			0.63
	Total Other/Support GSF			**16,413**

community
multi-purpose
training
outreach
events
gathering

F.100 Courtroom / Auditorium

F.101 Breakout / Pre-Function

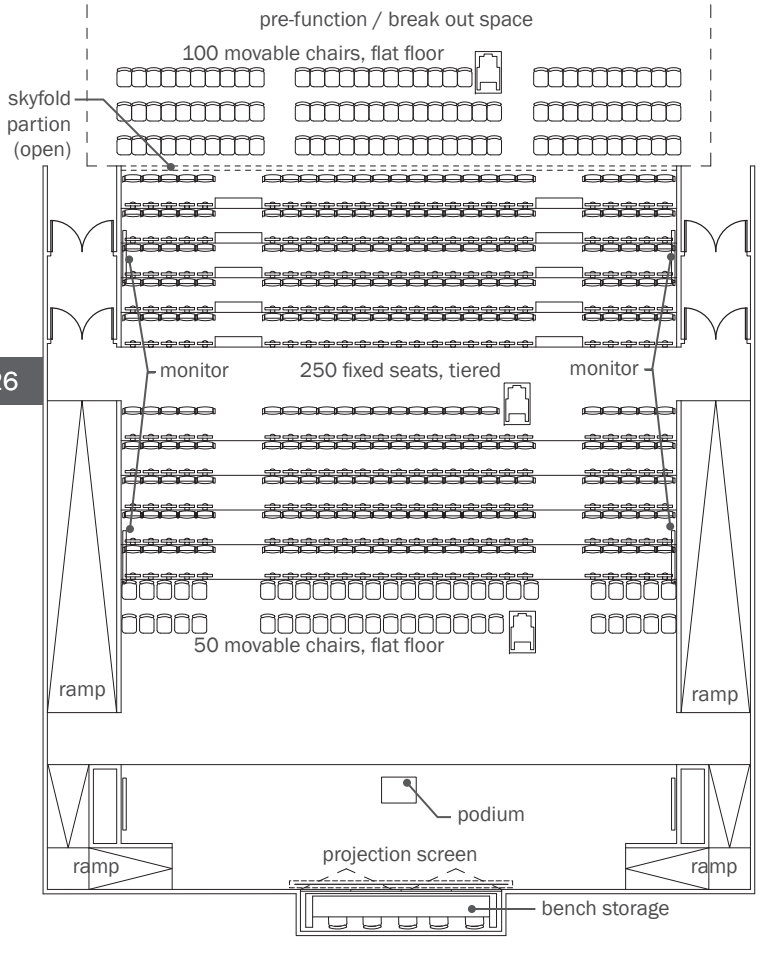
Area:	1,500 sf
Quantity:	1
Function:	Breakout, waiting for Courtroom/ Auditorium events, informal study and lounge space
# of Occupants:	Up to 150
Adjacency:	Near Courtroom/Auditorium, Events Space, Coatroom, convenient to Catering Pantry and support
Floor Finish:	Stone with stone base
Wall Finish:	50% Painted gypsum 50% Glass
Ceiling Finish:	Specialty ceiling panels, Decoustics or similar
Doors:	N/A
Furniture / Equipment:	Lounge chairs, coffee tables, registration table and task chair
Acoustics:	N/A
Ceiling Height:	9’ minimum
Windows / Daylighting:	Required
Mechanical:	Thermostat 72 - 75F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor, Direct/Indirect lighting, Power/Data throughout, AV signals from Courtroom/Auditorium extends to pre-function space with appropriate speaker system and large flat panel LED monitors



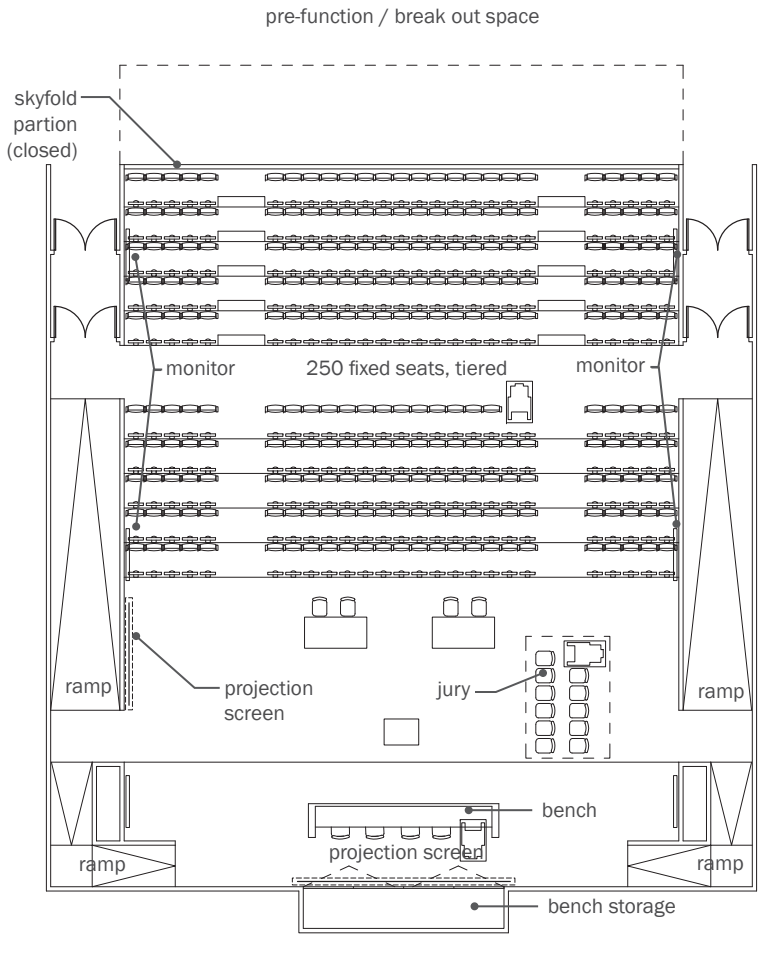
F.102 Courtroom / Auditorium

Area:	4,620 sf
Quantity:	1
Function:	Primary - Auditorium space for events, lectures, conferences, symposia. Secondary - Moot Courtroom, mock trial
# of Occupants:	250 - 400
Adjacency:	Top floor of building, near Pre-function space, convenient public access
Floor Finish:	Carpet with rubber base, wood floor in flat section at front of room
Wall Finish:	50% Painted gypsum 50% Wood panel Operable partition Acoustic wall panels
Ceiling Finish:	50% Painted gypsum 50% Suspended wood ceiling tile
Doors:	Sound rated wood doors with side lites
Furniture / Equipment:	Built in Auditorium folding seats with fold-out desks, work tables, task chairs, mobile judge's bench
Acoustics:	Enhanced acoustical performance for sound isolation
Ceiling Height:	20' minimum
Windows / Daylighting:	Required
Mechanical:	Low noise, vibration control Thermostat 72 - 75F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor, Direct/Indirect lighting, Power/Data at seats and lectern/bench, Fully integrated A/V and lighting control systems, Microphones and speakers, Wireless assisted listening system, 2 projectors and 2 electric roll-up projection screens with dual image projection capability, Touch panel UI and 21.5" LED monitor at lectern, Lecture capture and streaming capability, Infrared sensors for operable partition, Additional robotic cameras and courtroom-specific AV enhancements, AV signals extend to pre-function space

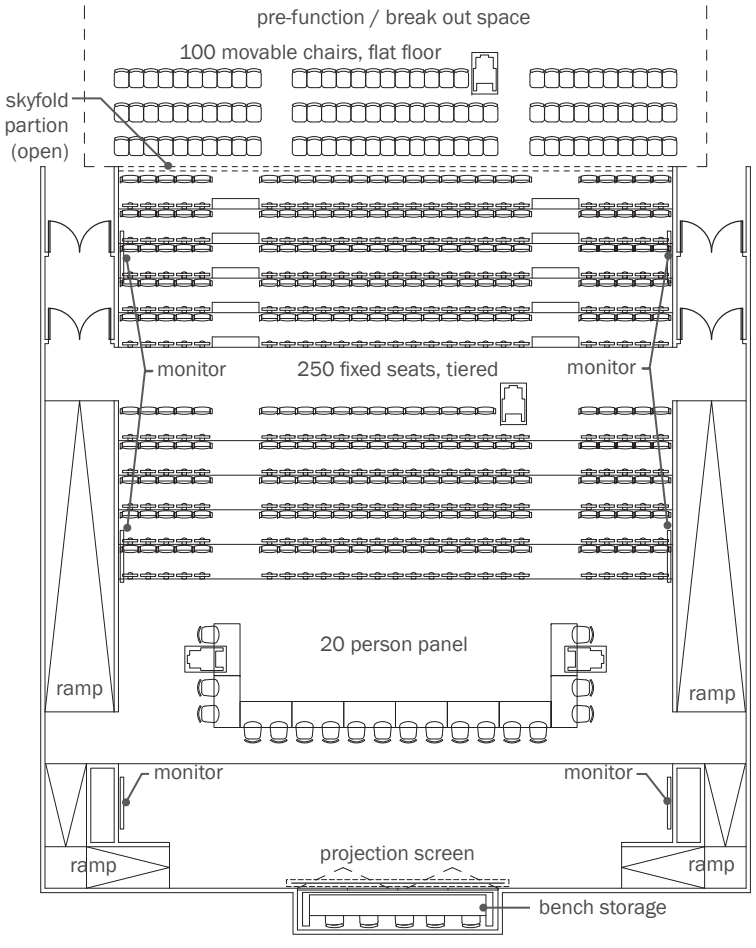
Courtroom / Auditorium
Auditorium Layout - 400 occupants



Courtroom / Auditorium
Courtroom Layout - 250 occupants



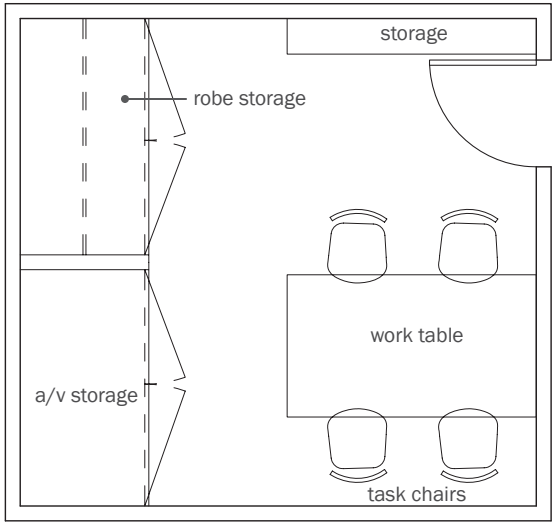
Courtroom / Auditorium
Panel Discussion Layout - Alternate



F.100 Courtroom / Auditorium

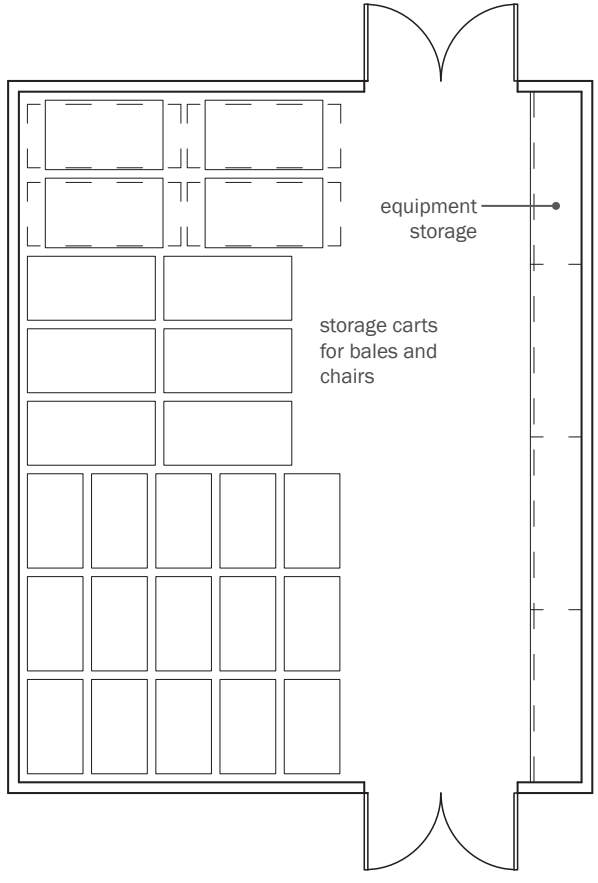
F.103 Judges Chambers / Storage / AV

Area:	200 sf
Quantity:	1
Function:	Small meetings, robe storage, AV storage
# of Occupants:	Up to 6
Adjacency:	Near Courtroom/Auditorium
Floor Finish:	Carpet with rubber base
Wall Finish:	50% Painted gypsum 50% Wood panel
Ceiling Finish:	Narrow spline premium acoustic ceiling tile
Doors:	Sound rated wood doors with side lites
Furniture / Equipment:	Work table, 4 task chairs, storage cabinets
Acoustics:	Enhanced acoustical performance for sound isolation
Ceiling Height:	9’ minimum
Windows / Daylighting:	Where feasible
Mechanical:	Thermostat 72 - 75F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor Direct/Indirect lighting Power/Data at table Courtroom AV equipment storage



F.104 Events Storage

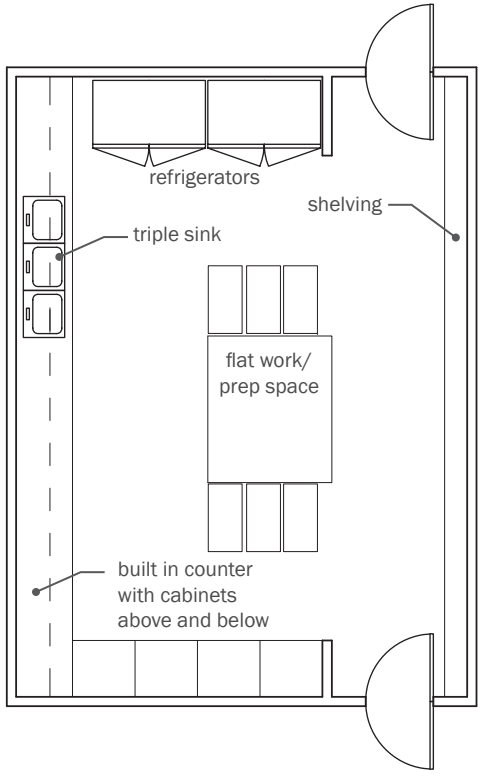
Area:	600 sf
Quantity:	1
Function:	Storage of events supplies, furniture on carts, equipment
# of Occupants:	0
Adjacency:	Near Courtroom/Auditorium, Events
Floor Finish:	VCT with vinyl base
Wall Finish:	Painted gypsum
Ceiling Finish:	Narrow spline acoustic ceiling tile
Doors:	Wood doors
Furniture / Equipment:	Built in storage cabinets/shelving
Acoustics:	N/A
Ceiling Height:	9' minimum
Windows / Daylighting:	None
Mechanical:	Thermostat 60 - 80F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor Direct/Indirect lighting



F.100 Courtroom / Auditorium

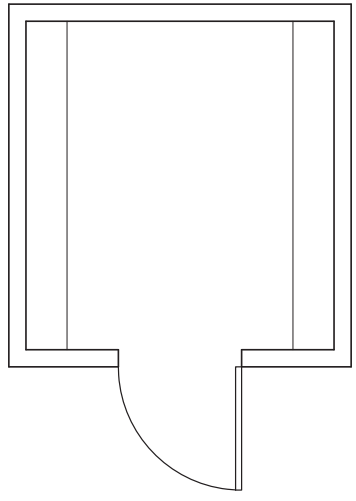
F.105 Catering Pantry

Area:	550 sf
Quantity:	1
Function:	Storage and preparation space for catered meals
# of Occupants:	0
Adjacency:	Near Catering Storage, Events space, convenient access to loading/service elevator
Floor Finish:	Quarry tile with tile base
Wall Finish:	Painted gypsum
Ceiling Finish:	Narrow spline acoustic ceiling tile
Doors:	Dual swing wood doors
Furniture / Equipment:	Built in counter with cabinets above and below, 2 full size refrigerators, dishwasher, counter-top appliances, microwave, large food prep table, shelving
Acoustics:	N/A
Ceiling Height:	9’ minimum
Windows / Daylighting:	None
Mechanical:	Thermostat 72 - 75F
Plumbing:	Large double compartment sink Dishwasher Water hookup for refrigerator ice-makers Floor drains
Electrical / AV / IT:	Occupancy sensor, Direct/Indirect lighting, Electrical infrastructure for temporary cooking/heating appliances



F.106 Catering Storage

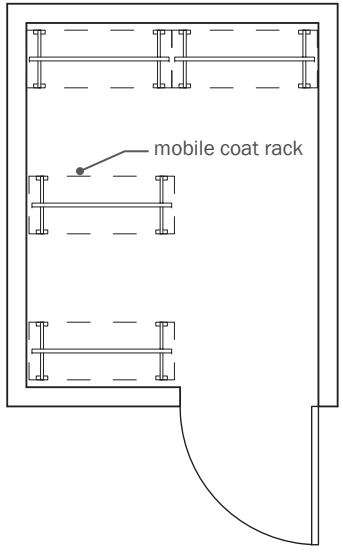
Area:	50 sf
Quantity:	1
Function:	Temporary storage of catering supplies
# of Occupants:	0
Adjacency:	Catering Pantry
Floor Finish:	VCT with vinyl base
Wall Finish:	Painted gypsum
Ceiling Finish:	Narrow spline acoustic ceiling tile
Doors:	Wood door
Furniture / Equipment:	Shelving
Acoustics:	N/A
Ceiling Height:	9’ minimum
Windows / Daylighting:	None
Mechanical:	Thermostat 60 - 80F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor Direct/Indirect lighting



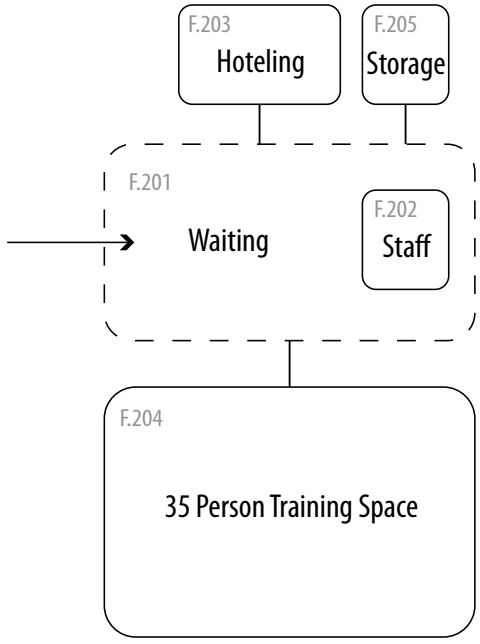
F.100 Courtroom / Auditorium

F.107 Coat Room

Area:	50 sf
Quantity:	1
Function:	Coat storage
# of Occupants:	0
Adjacency:	Near Courtroom/Auditorium Pre-function space, Events, Storage
Floor Finish:	VCT with vinyl base
Wall Finish:	Painted gypsum
Ceiling Finish:	Narrow spline acoustic ceiling tile
Doors:	Wood door
Furniture / Equipment:	4 mobile coat racks
Acoustics:	N/A
Ceiling Height:	9' minimum
Windows / Daylighting:	None
Mechanical:	Thermostat 60 - 80F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor Direct/Indirect lighting



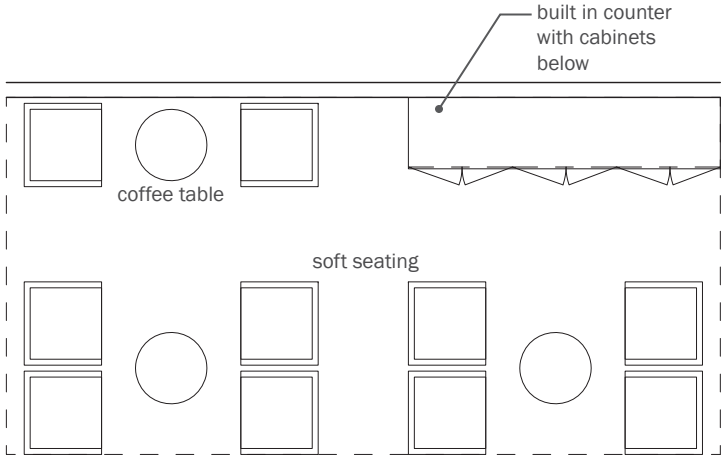
Relationship Diagram | Training Center



F.200 Training Center

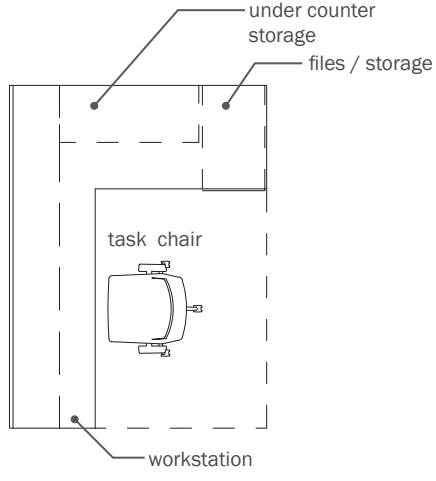
F.201 Waiting / Lounge

Area:	200 sf
Quantity:	1
Function:	Breakout and waiting area for Training Center events
# of Occupants:	Up to 8
Adjacency:	Accessible from public circulation, near Training Center staff, support, Training Room
Floor Finish:	Carpet with rubber base
Wall Finish:	50% Painted gypsum 50% Glass
Ceiling Finish:	Painted gypsum
Doors:	N/A
Furniture / Equipment:	Lounge chairs, coffee tables, Built in counter with cabinets below
Acoustics:	N/A
Ceiling Height:	9’ minimum
Windows / Daylighting:	Where feasible
Mechanical:	Thermostat 72 - 75F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor Direct/Indirect lighting Power/Data throughout



F.202 Staff Workstation

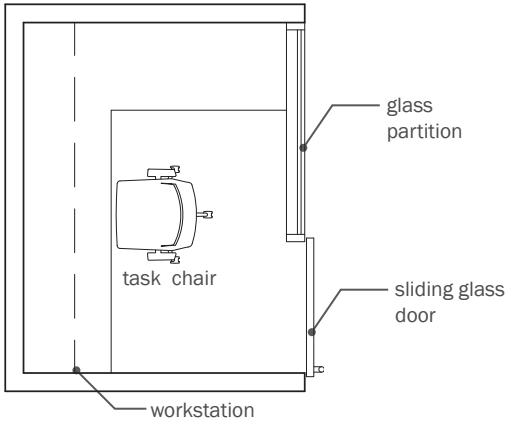
Area:	50 sf
Quantity:	1
Function:	Administrative activity
# of Occupants:	1
Adjacency:	Near Training Center staff/support
Floor Finish:	Carpet with rubber base
Wall Finish:	Painted gypsum
Ceiling Finish:	Narrow spline premium acoustic ceiling tile
Doors:	N/A
Furniture / Equipment:	Staff Workstation package, including workstation, task chair and file storage
Acoustics:	N/A
Ceiling Height:	9’ minimum
Windows / Daylighting:	Where feasible
Mechanical:	Thermostat 72 - 75F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor Direct/Indirect lighting Power/Data at workstation



F.200 Training Center

F.203 Hoteling Station

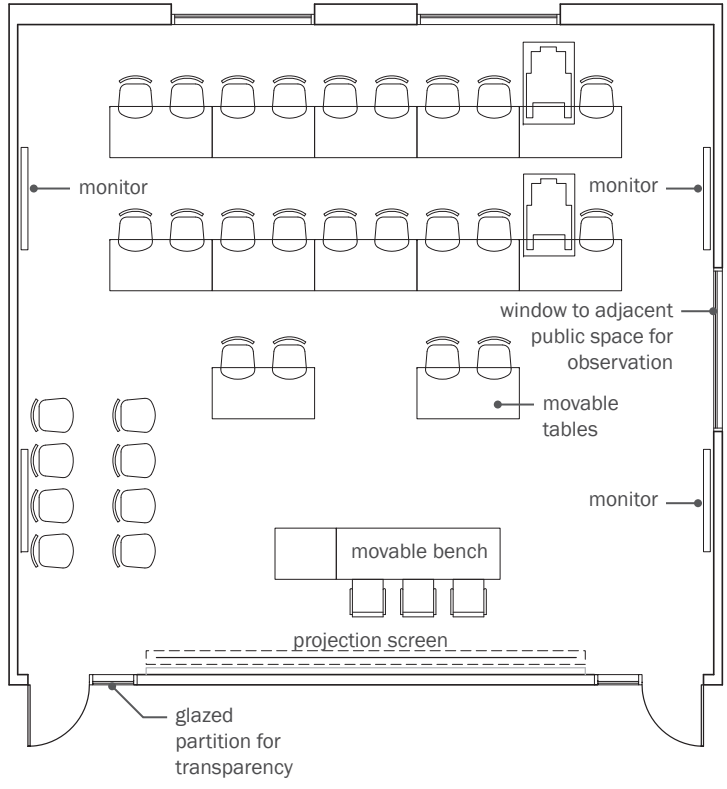
Area:	50 sf
Quantity:	2
Function:	Short-term administrative activity
# of Occupants:	1
Adjacency:	Near Training Center staff, support
Floor Finish:	Carpet with rubber base
Wall Finish:	75% Painted gypsum 25% Glass
Ceiling Finish:	Narrow spline premium acoustic ceiling tile
Doors:	Sliding glass door
Furniture / Equipment:	Hoteling Workstation package, including workstation and task chair
Acoustics:	N/A
Ceiling Height:	9’ minimum
Windows / Daylighting:	Where feasible
Mechanical:	Thermostat 72 - 75F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor Direct/Indirect lighting Power/Data at workstation



F.200 Training Center

F.204 Training Room - 35 seats

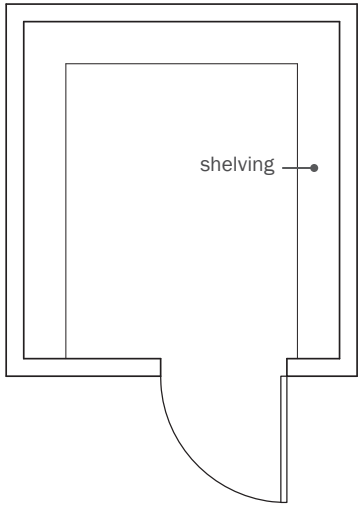
Area:	1,050 sf
Quantity:	1
Function:	Professional training, instruction
# of Occupants:	35
Floor Finish:	Carpet with rubber base
Wall Finish:	75% Painted gypsum 25% Wood panel Acoustic wall panels Glass wall to corridor
Ceiling Finish:	50% Painted gypsum 50% Narrow spline premium acoustic ceiling tile
Doors:	Sound rated wood doors with side lites
Acoustics:	Enhanced acoustical performance for sound isolation
Ceiling Height:	10’ minimum
Windows / Daylighting:	Required
Mechanical:	Thermostat 72 - 75F
Plumbing::	N/A
Electrical / AV / IT:	Occupancy sensor, Direct/Indirect lighting, Power/Data at seats and lectern, Fully integrated A/V and lighting control systems, Microphones and speakers, Wireless assisted listening system, 1 projector and 1 electric roll-up projection screen with dual image projection capability, Touch panel UI and 21.5” LED monitor at lectern, Lecture capture and streaming capability. One room also equipped with video conferencing equipment including cameras and flat panel monitors throughout the room.



F.200 Training Center

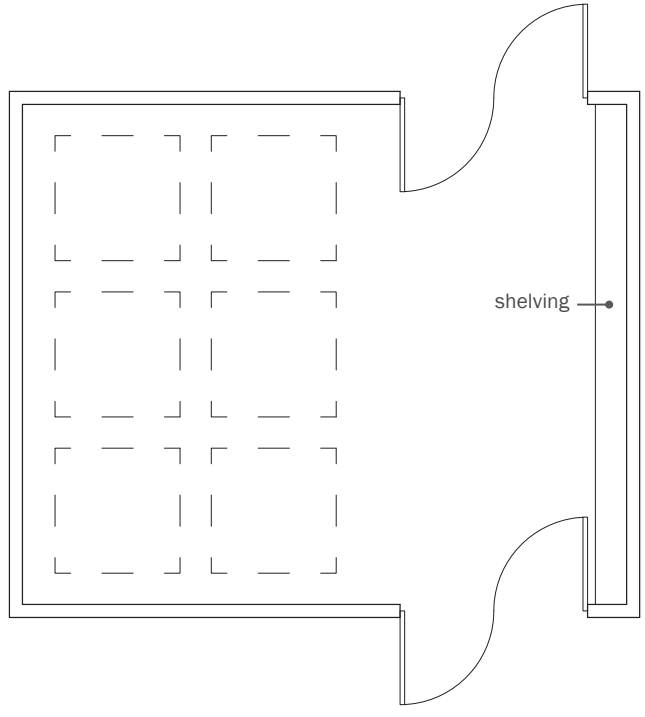
F.205 Storage

Area:	60 sf
Quantity:	1
Function:	Storage
# of Occupants:	0
Adjacency:	Near Training Center staff, support
Floor Finish:	VCT with vinyl base
Wall Finish:	Painted gypsum
Ceiling Finish:	Narrow spline acoustic ceiling tile
Doors:	Wood door
Furniture / Equipment:	Shelving
Acoustics:	N/A
Ceiling Height:	9' minimum
Windows / Daylighting:	None
Mechanical:	Thermostat 60 - 80F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor Direct/Indirect lighting



F.301 Receiving / Staging

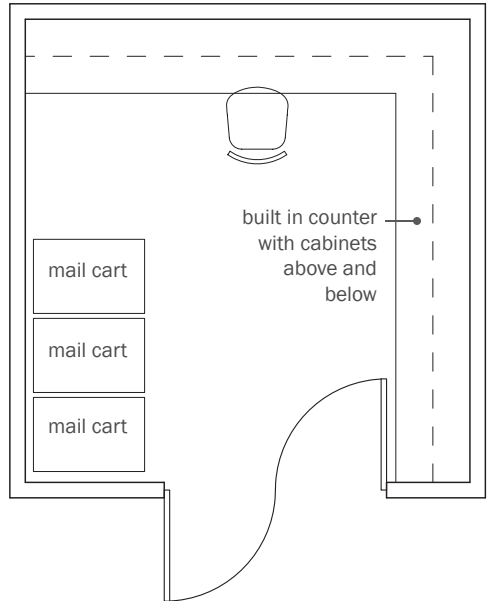
Area:	300 sf
Quantity:	1
Function:	Temporary storage and staging of deliveries, adjacent to the Loading Dock
# of Occupants:	0
Adjacency:	Loading dock
Floor Finish:	VCT with vinyl base
Wall Finish:	Painted gypsum
Ceiling Finish:	Narrow spline acoustic ceiling tile
Doors:	Dual swing wood doors
Furniture / Equipment:	Shelving
Acoustics:	N/A
Ceiling Height:	9’ minimum
Windows / Daylighting:	None
Mechanical:	Thermostat 60 - 80F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor Direct/Indirect lighting



F.300 Building Support

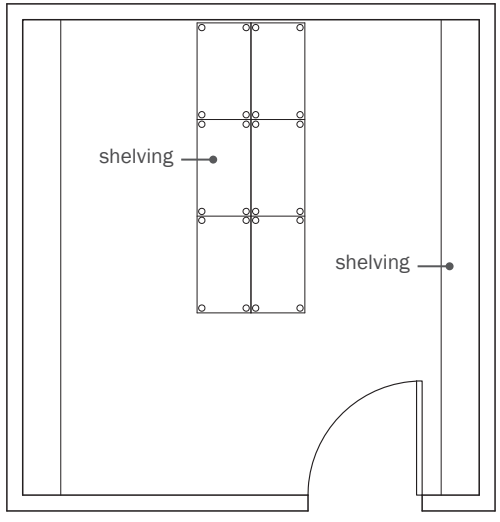
F.302 Library / Mail Storage

Area:	150 sf
Quantity:	1
Function:	Receiving, storage, processing of Library materials, mailing
# of Occupants:	1-2
Adjacency:	Building loading/receiving, convenient access by Library Administration
Floor Finish:	Carpet with rubber base
Wall Finish:	Painted gypsum
Ceiling Finish:	Narrow spline premium acoustic ceiling tile
Doors:	Sound rated wood doors with side lites
Furniture / Equipment:	Built in counter with cabinets below and mail slots/storage above, mail carts
Acoustics:	N/A
Ceiling Height:	9' minimum
Windows / Daylighting:	None
Mechanical:	Thermostat 72 - 75F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor Direct/Indirect lighting Power/Data at workstation



F.303 Building Storage
F.304 Café Storage

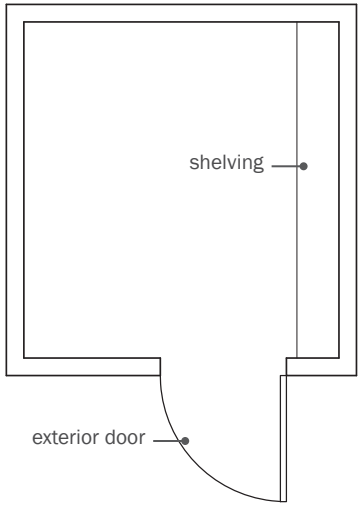
Area:	150 sf
Quantity:	2
Function:	Storage
# of Occupants:	0
Adjacency:	Building loading/receiving, Café Storage near café
Floor Finish:	VCT with vinyl base
Wall Finish:	Painted gypsum
Ceiling Finish:	Narrow spline acoustic ceiling tile
Doors:	Wood door
Furniture / Equipment:	Shelving
Acoustics:	N/A
Ceiling Height:	9’ minimum
Windows / Daylighting:	None
Mechanical:	Thermostat 60 - 80F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor Direct/Indirect lighting



F.300 Building Support

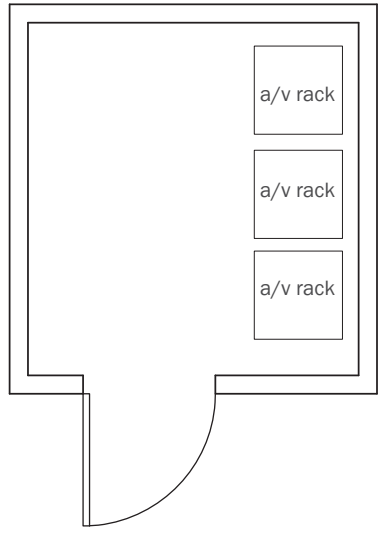
F.305 Building and Grounds Storage

Area:	60 sf
Quantity:	1
Function:	Storage
# of Occupants:	0
Adjacency:	Building service entry
Floor Finish:	VCT with vinyl base
Wall Finish:	Painted gypsum
Ceiling Finish:	Narrow spline acoustic ceiling tile
Doors:	Metal exterior-grade door
Furniture / Equipment:	Shelving
Acoustics:	N/A
Ceiling Height:	9' minimum
Windows / Daylighting:	None
Mechanical:	Thermostat 60 - 80F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor Direct/Indirect lighting



F.306 AV / Media Closet

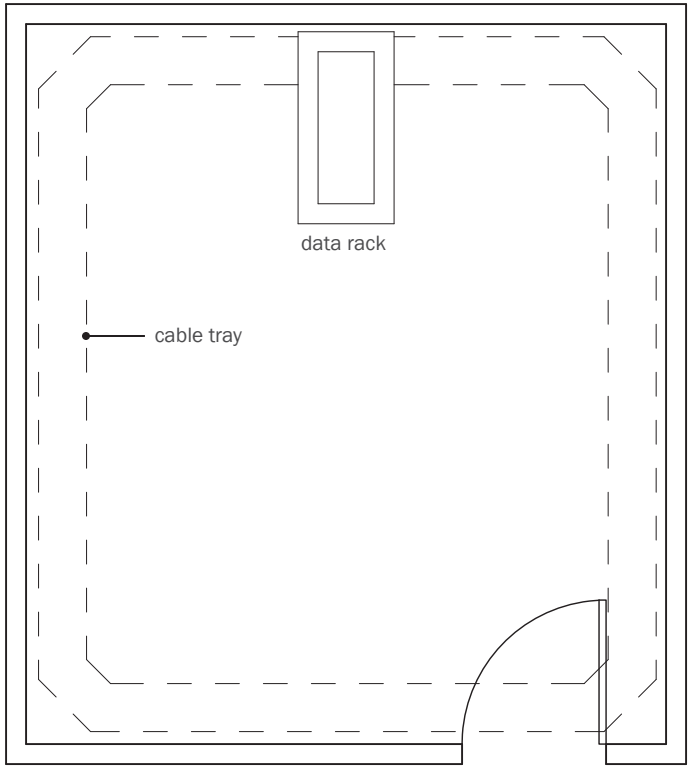
Area:	50 sf
Quantity:	6
Function:	AV/Media controls
# of Occupants:	0
Adjacency:	Near Classrooms, Convenient access by IT
Floor Finish:	VCT with vinyl base
Wall Finish:	Painted gypsum
Ceiling Finish:	Narrow spline acoustic ceiling tile
Doors:	Wood door
Furniture / Equipment:	AV racks
Acoustics:	N/A
Ceiling Height:	9’ minimum
Windows / Daylighting:	None
Mechanical:	Thermostat 60 - 80F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor Direct/Indirect lighting



F.300 Building Support

F.307 MDF Room

Area:	200 sf
Quantity:	1
Function:	IT distribution
# of Occupants:	0
Adjacency:	Convenient access by IT staff
Floor Finish:	VCT with vinyl base
Wall Finish:	Painted gypsum
Ceiling Finish:	Narrow spline acoustic ceiling tile
Doors:	Wood door
Furniture / Equipment:	Cable tray and data racks
Acoustics:	N/A
Ceiling Height:	9' minimum
Windows / Daylighting:	None
Mechanical:	Thermostat 60 - 80F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor Direct/Indirect lighting



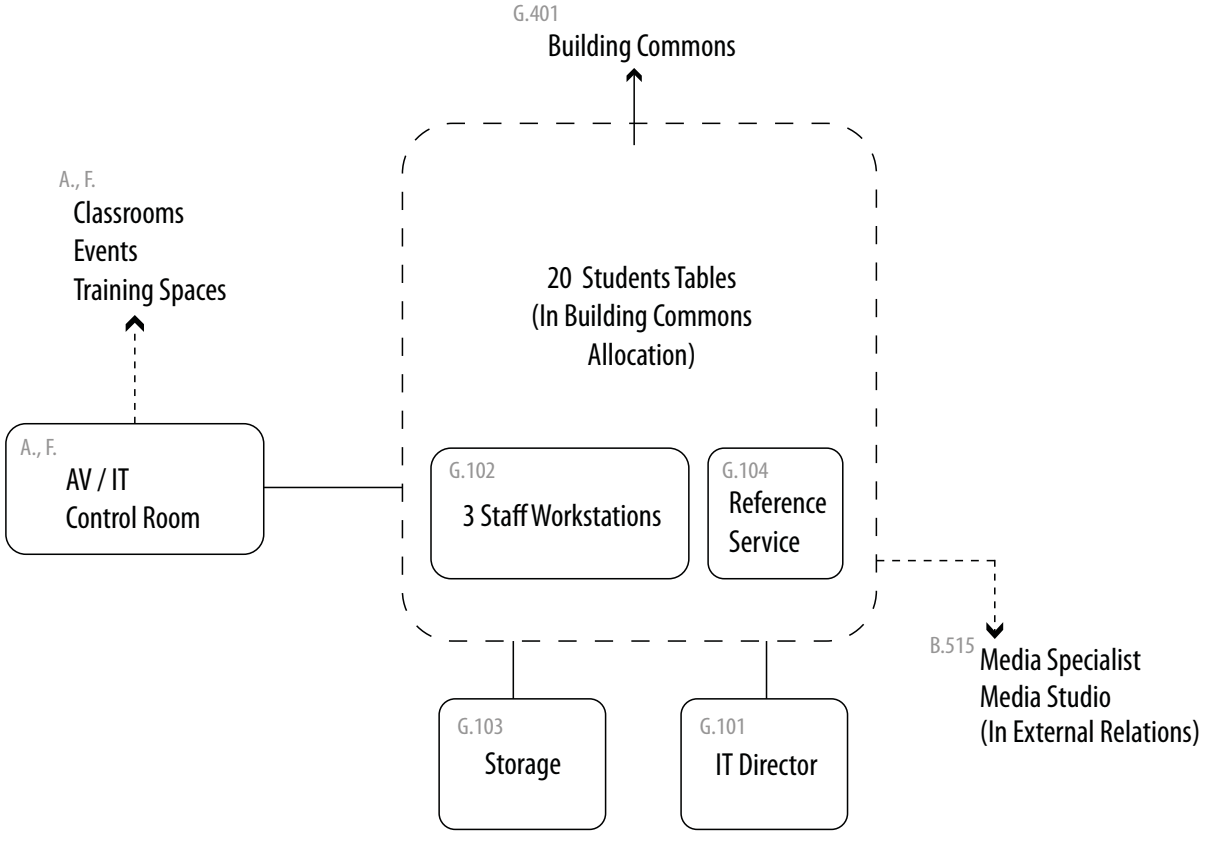
G. Common Areas

Space Code	Room / Space Name	NSF Each	Proposed Qty.	Total NSF
G100	IT (Also refer to ARA's)			
G101	Director Office	150	1	150
G102	Staff Workstation	90	3	270
G103	IT Storage Room	250	1	250
G104	Reference Help Desk	50	1	50
	IT Total			**720**
G200	Study Space			
G201	Group Study - 4 person	100	3	300
G202	Group Study - 6 person	150	3	450
G203	Group Study - 8-10 person	250	1	250
G204	Student Work/Study Space	50	75	3,750
	Study Space Total			**4,750**
G300	Student Activities			
G301	Student Dining Seating	1,500	1	1,000
G302	Café	300	1	300
G303	Café Storage/Prep	100	1	100
G304	Vending	100	1	100
	Student Activities Total			**1,500**

Space Code	Room / Space Name	NSF Each	Proposed Qty.	Total NSF
G400	Building Commons			
G401	Building Commons	3,000	1	3,000
	Building Commons Total			**3,000**
	Total Common Areas NSF			**9,970**
	Net to Gross Factor			0.63
	Total Common Areas GSF			**15,825**

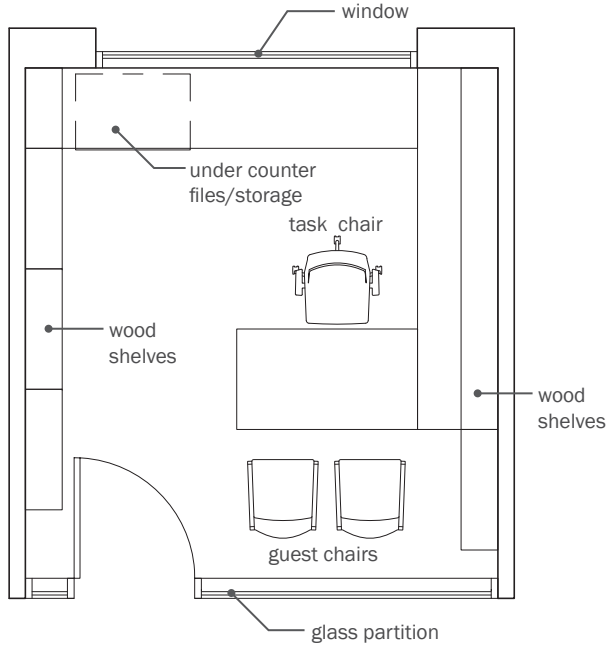
dynamic
combination of functions
service and support
community
public access
collaboration

Relationship Diagram | IT



G.101 Director Office

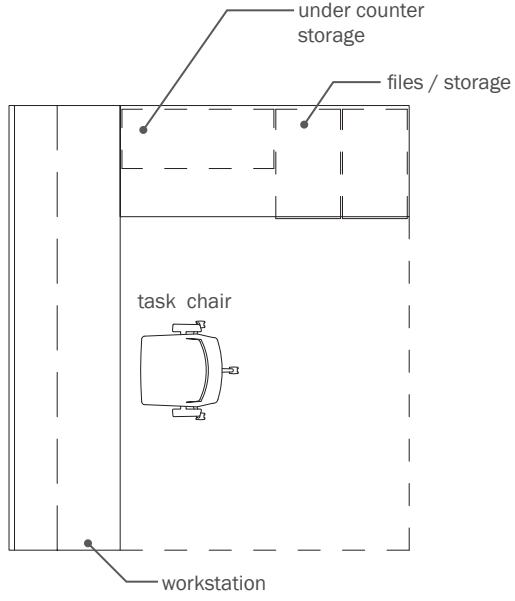
Area:	150 sf
Quantity:	1
Function:	Administrative activity, small meetings, receiving visitors
# of Occupants:	1, Plus 1-2 guests
Adjacency:	Near IT staff/support
Floor Finish:	Carpet with rubber base
Wall Finish:	50% Painted gypsum 50% Glass
Ceiling Finish:	Narrow spline premium acoustic ceiling tile
Doors:	Sound rated wood door with side lites
Furniture / Equipment:	Director's Office package, including workstation, task chair, 2 guest chairs, built in wood shelving and file storage
Acoustics:	N/A
Ceiling Height:	9' minimum
Windows / Daylighting:	Required
Mechanical:	Thermostat 72 - 75F
Plumbing:	N/A
Electrical / AV/ IT:	Occupancy sensor Direct/Indirect lighting Power/Data at workstation



G.100 IT

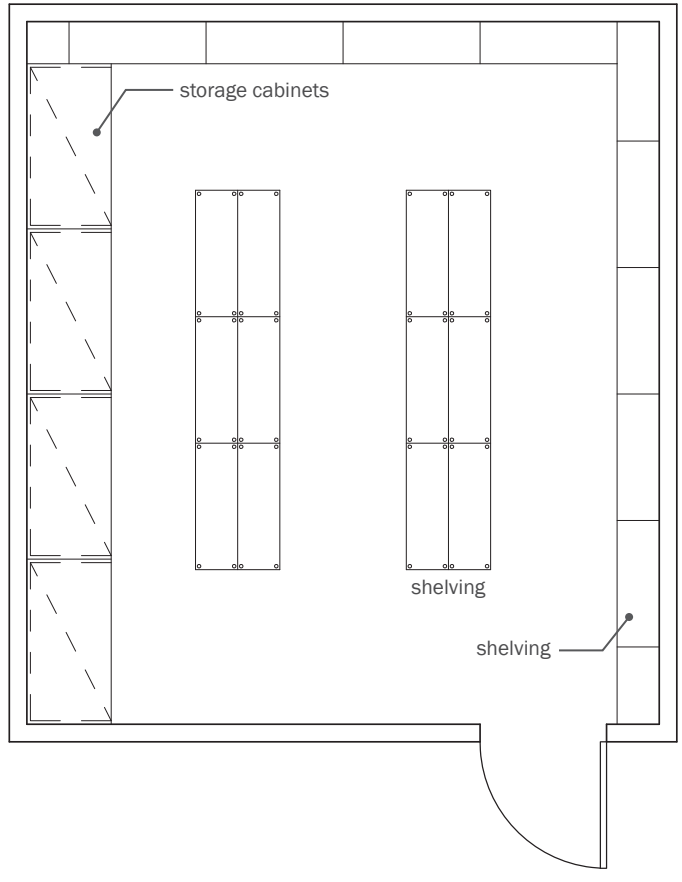
G.102 Staff Workstation

Area:	90sf
Quantity:	3
Function:	Administrative activity
# of Occupants:	1
Adjacency:	Near IT staff/support, convenient to Student Work/Study stations
Floor Finish:	Carpet with rubber base
Wall Finish:	Painted gypsum
Ceiling Finish:	Narrow spline premium acoustic ceiling tile
Doors:	N/A
Furniture / Equipment:	Staff Workstation package, including workstation, task chair and file storage
Acoustics:	N/A
Ceiling Height:	9’ minimum
Windows / Daylighting:	Where feasible
Mechanical:	Thermostat 72 - 75F
Plumbing:	N/A
Electrical / AV/ IT:	Occupancy sensor Direct/Indirect lighting Power/Data at workstation



G.103 IT Storage Room

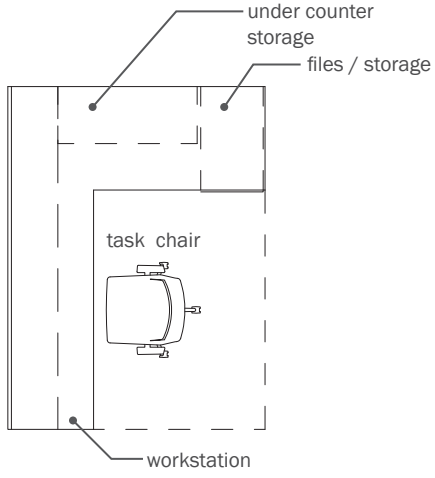
Area:	250 sf
Quantity:	1
Function:	Storage
# of Occupants:	0
Adjacency:	Near IT staff/support
Floor Finish:	VCT with vinyl base
Wall Finish:	Painted gypsum
Ceiling Finish:	Narrow spline acoustic ceiling tile
Doors:	Wood door
Furniture / Equipment:	Shelving, storage cabinets
Acoustics:	N/A
Ceiling Height:	9' minimum
Windows / Daylighting:	None
Mechanical:	Thermostat 60 - 80F
Plumbing:	N/A
Electrical / AV/ IT:	Occupancy sensor Direct/Indirect lighting



G.100 IT

G.104 Reference Help Desk

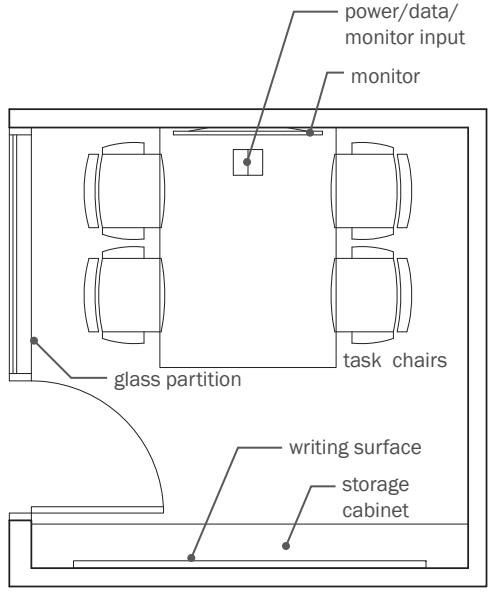
Area:	50 sf
Quantity:	1
Function:	Administrative activity
# of Occupants:	1
Adjacency:	Near IT staff/support, convenient to Student Work/Study stations
Floor Finish:	Carpet with rubber base
Wall Finish:	Painted gypsum
Ceiling Finish:	Narrow spline premium acoustic ceiling tile
Doors:	N/A
Furniture / Equipment:	Staff Workstation package, including workstation, task chair and file storage
Acoustics:	N/A
Ceiling Height:	9’ minimum
Windows / Daylighting:	Where feasible
Mechanical:	Thermostat 72 - 75F
Plumbing:	N/A
Electrical / AV/ IT:	Occupancy sensor Direct/Indirect lighting Power/Data at workstation



G.200 Study Space

G.201 Group Study - 4 person

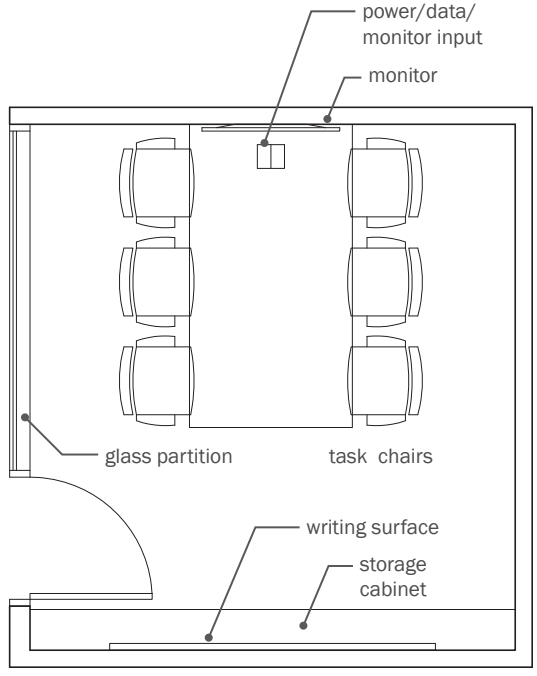
Area:	100 sf
Quantity:	3
Function:	Flexible work space
# of Occupants:	Up to 4
Adjacency:	Near Classrooms, Library Collections, Student Work/Study Stations
Floor Finish:	Carpet with rubber base
Wall Finish:	50% Painted gypsum 50% Glass
Ceiling Finish:	Narrow spline premium acoustic ceiling tile
Doors:	Sound rated wood door with side lites
Furniture / Equipment:	Work table, 4 task chairs, storage cabinet, writing surface
Acoustics:	Enhanced acoustical performance for sound isolation
Ceiling Height:	9’ minimum
Windows / Daylighting:	Required
Mechanical:	Thermostat 72 - 75F
Plumbing:	N/A
Electrical / AV/ IT:	Occupancy sensor, Direct/Indirect lighting, Power/Data in floor, Fully integrated A/V and lighting control systems, LED flat panel monitor with speakers, audio playback system



G.200 Study Space

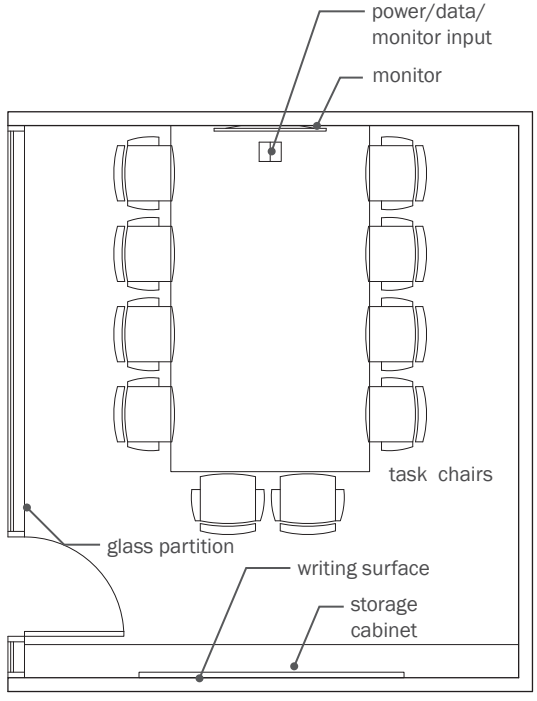
G.202 Group Study - 6 person

Area:	150 sf
Quantity:	3
Function:	Flexible work space
# of Occupants:	Up to 6
Adjacency:	Near Classrooms, Library Collections, Student Work/Study Stations
Floor Finish:	Carpet with rubber base
Wall Finish:	50% Painted gypsum 50% Glass
Ceiling Finish:	Narrow spline premium acoustic ceiling tile
Doors:	Sound rated wood door with side lites
Furniture / Equipment:	Work table, 6 task chairs, storage cabinet, writing surface
Acoustics:	Enhanced acoustical performance for sound isolation
Ceiling Height:	9’ minimum
Windows / Daylighting:	Required
Mechanical:	Thermostat 72 - 75F
Plumbing:	N/A
Electrical / AV/ IT:	Occupancy sensor, Direct/Indirect lighting, Power/Data in floor, Fully integrated A/V and lighting control systems, LED flat panel monitor with speakers, audio playback system



G.203 Group Study - 8-10 person

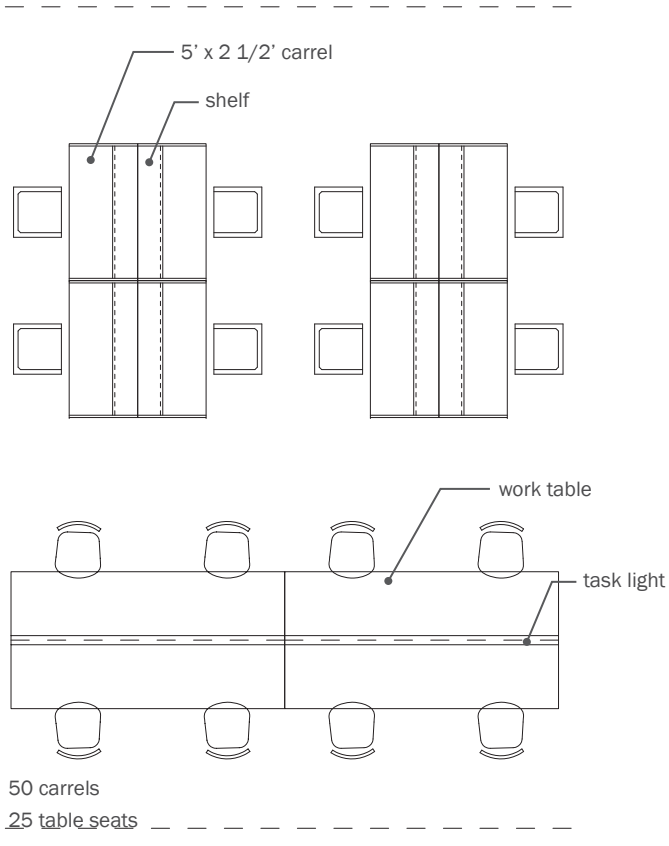
Area:	250 sf
Quantity:	1
Function:	Flexible work space
# of Occupants:	Up to 10
Adjacency:	Near Classrooms, Library Collections, Student Work/Study Stations
Floor Finish:	Carpet with rubber base
Wall Finish:	50% Painted gypsum 50% Glass
Ceiling Finish:	Narrow spline premium acoustic ceiling tile
Doors:	Sound rated wood door with side lites
Furniture / Equipment:	Work table, 10 task chairs, storage cabinet, writing surface
Acoustics:	Enhanced acoustical performance for sound isolation
Ceiling Height:	9’ minimum
Windows / Daylighting:	Required
Mechanical:	Thermostat 72 - 75F
Plumbing:	N/A
Electrical / AV/ IT:	Occupancy sensor, Direct/Indirect lighting, Power/Data in floor, Fully integrated A/V and lighting control systems, LED flat panel monitor with speakers, audio playback system



G.200 Study Space

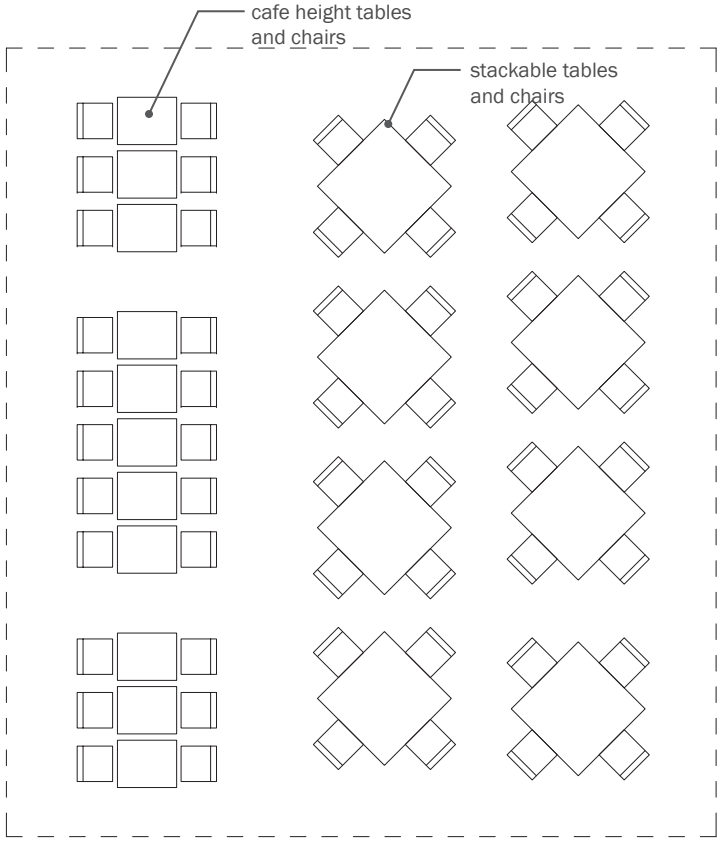
G.204 Student Work / Study Space

Area:	50 sf
Quantity:	75
Function:	Work surface
# of Occupants:	75
Adjacency:	Near Library Collections
Floor Finish:	Carpet with rubber base
Wall Finish:	Painted gypsum
Ceiling Finish:	Narrow spline premium acoustic ceiling tile
Doors:	N/A
Furniture / Equipment:	Large reading tables with task chairs and integrated task lighting, study carrels with task chairs and integrated lighting and shelving
Acoustics:	N/A
Ceiling Height:	9’ minimum
Windows / Daylighting:	Where feasible
Mechanical:	Thermostat 72 - 75F
Plumbing:	N/A
Electrical / AV/ IT:	Occupancy sensor Direct/Indirect lighting Power/Data at tables and carrels



G.301 Student Dining Seating

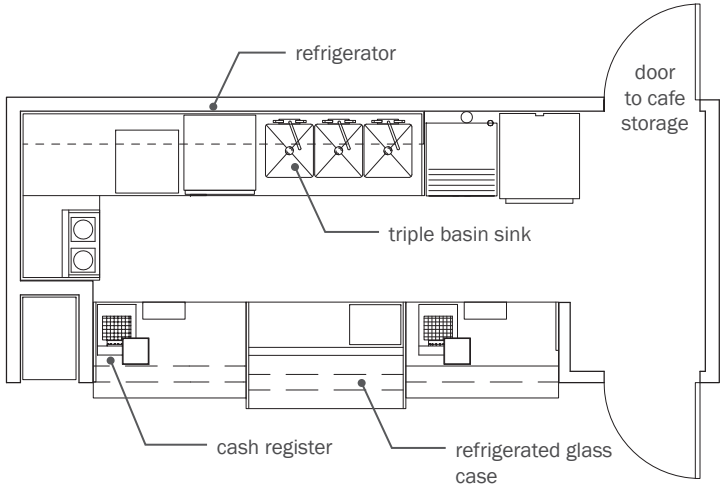
Area:	1,000 sf
Quantity:	1
Function:	Café seating
# of Occupants:	Up to 54
Adjacency:	Near Café
Floor Finish:	Stone with stone base
Wall Finish:	50% Painted gypsum 50% Wood panel
Ceiling Finish:	50% Narrow spline premium acoustic ceiling tile 50% Painted gypsum
Doors:	N/A
Furniture / Equipment:	Low and high stackable café tables and chairs
Acoustics:	Enhanced acoustical performance for sound isolation
Ceiling Height:	10’ minimum
Windows / Daylighting:	Required
Mechanical:	Thermostat 72 - 75F
Plumbing:	N/A
Electrical / AV/ IT:	Occupancy sensor Direct/Indirect lighting Power/Data at tables



G.300 Student Activities

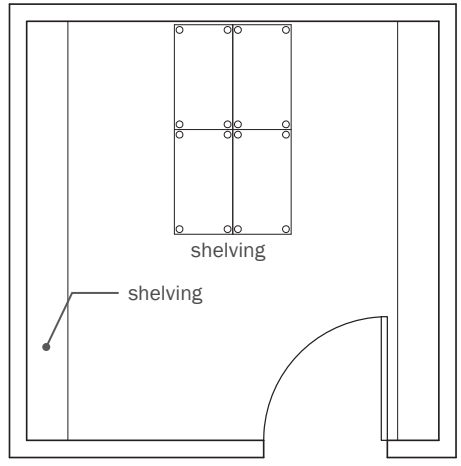
G.302 Café

Area:	300 sf
Quantity:	1
Function:	Grab-and-go food service, small-scale food preparation, heating/re-heating
# of Occupants:	Up to 3
Adjacency:	Near Student Dining Seating, Café Storage
Floor Finish:	Quarry tile with tile base
Wall Finish:	Painted gypsum
Ceiling Finish:	50% Narrow spline premium acoustic ceiling tile appropriate for food service 50% Painted gypsum
Doors:	Wood doors
Furniture / Equipment:	Built in counter with cabinets above and below, refrigerator, dishwasher, small counter-top appliances, microwave, cash register, grab-n-go refrigeration case, product displays, signage
Acoustics:	N/A
Ceiling Height:	9’ minimum
Windows / Daylighting:	Where feasible
Mechanical:	Thermostat 72 - 75F
Plumbing:	Triple basin sink Dishwasher Water hook-up for refrigerator ice-maker Floor drains
Electrical / AV/ IT:	Occupancy sensor, Direct/Indirect lighting Electrical infrastructure for equipment/appliances



G.303 Café Storage Prep

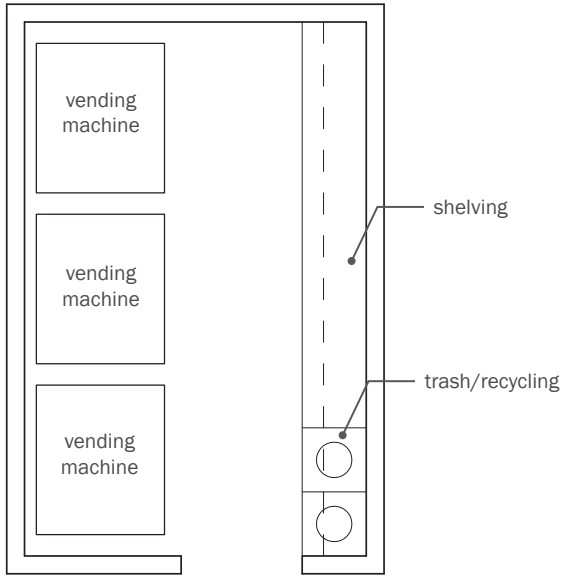
Area:	100 sf
Quantity:	1
Function:	Storage and prep space for café
# of Occupants:	0
Adjacency:	Near Café
Floor Finish:	VCT with vinyl base
Wall Finish:	Painted gypsum
Ceiling Finish:	Narrow spline acoustic ceiling tile
Doors:	Wood door
Furniture / Equipment:	Shelving
Acoustics:	N/A
Ceiling Height:	9' minimum
Windows / Daylighting:	None
Mechanical:	Thermostat 60 - 80F
Plumbing:	N/A
Electrical / AV/ IT:	Occupancy sensor Direct/Indirect lighting



G.300 Student Activities

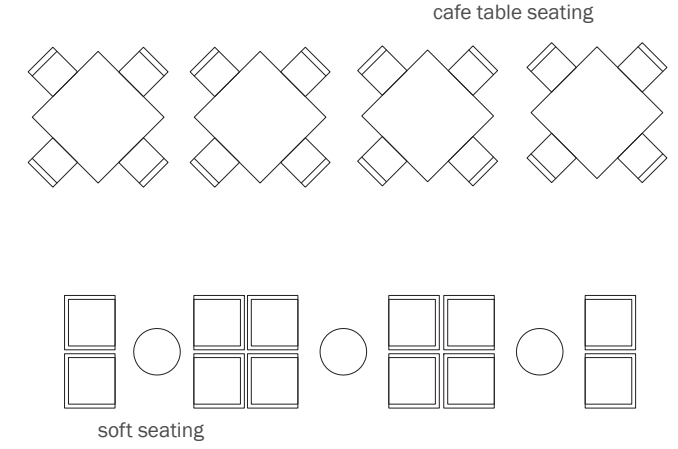
G.304 Vending

Area:	100 sf
Quantity:	1
Function:	Space for vending machines
# of Occupants:	0
Adjacency:	Near Common Areas
Floor Finish:	VCT with vinyl base
Wall Finish:	Painted gypsum
Ceiling Finish:	Narrow spline acoustic ceiling tile
Doors:	N/A
Furniture / Equipment:	Built in counter with cabinets below, integrated trash and recycling bins
Acoustics:	N/A
Ceiling Height:	9’ minimum
Windows / Daylighting:	None
Mechanical:	Thermostat 72 - 75F
Plumbing:	N/A
Electrical / AV/ IT:	Occupancy sensor Direct/Indirect lighting Electrical infrastructure for vending machines



G.401 Building Commons

Area:	3,000 sf
Quantity:	1
Function:	Open seating, informal work/study space, spontaneous interaction, presentations
# of Occupants:	Up to 150
Adjacency:	Distributed throughout building, near Library Collections, ARA's, students
Floor Finish:	Stone with stone base
Wall Finish:	50% Painted gypsum 50% Wood panel
Ceiling Finish:	Specialty ceiling panel, Decoustics or similar
Doors:	N/A
Furniture / Equipment:	Lounge chairs and coffee tables, stackable cafe tables and chairs
Acoustics:	N/A
Ceiling Height:	Variable
Windows / Daylighting:	Required
Mechanical:	Thermostat 72 - 75F
Plumbing:	N/A
Electrical / AV/ IT:	Occupancy sensor Direct/Indirect lighting Power/Data throughout AV recording equipment



60 seats, distributed

H. Advanced Research Areas

Space Code	Room / Space Name	NSF Each	Proposed Qty.	Total NSF
H100	Seminar Rooms			
H101	Seminar Room - 15 seats	500	4	2,000
	Seminar Rooms Total			**2,000**
H200	Faculty Offices			
H201	Faculty Office	150	40	6,000
H202	Growth/Flex Office	150	5	750
	Faculty Offices Total			**6,750**
H300	Faculty Support			
H301	Waiting Area	100	4	400
H302	Administrative Support Workstation	90	8	720
H303	Administrative Support/Reception Workstation	90	2	180
H304	Copy/Print Room	100	4	400
H305	Copy Technician Workstation	50	2	100
H306	Pantry	60	4	240
	Faculty Support Total			**2,040**

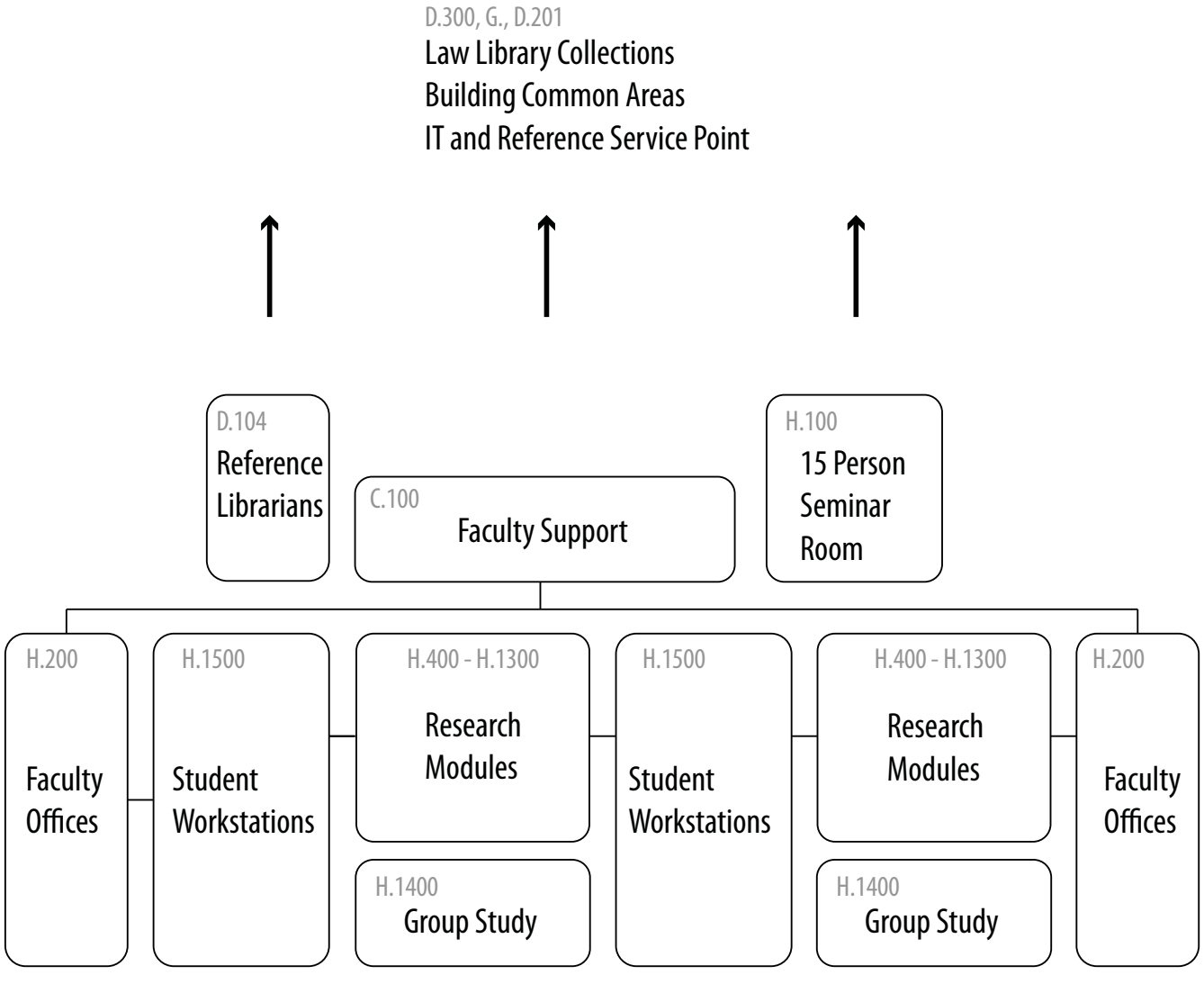
Space Code	Room / Space Name	NSF Each	Proposed Qty.	Total NSF
H400	Stegner Center Research Module			
H401	Stegner Work/Meeting Room	250	1	250
H402	Stegner Conference Room	250	1	250
H403	Stegner Fellows Office	100	2	200
H404	Stegner Additional Flex Space	100	1	100
H405	ADR Director Office	150	1	150
	Stegner Center Research Module Total			**950**
H500	Center for Innovation in Legal Education Research Module			
H501	ILE Work/Meeting Room	250	1	250
H502	ILE Conference Room	250	1	250
H503	ILE Staff Workstation	90	1	90
H504	ILE Additional Flex Space	210	1	210
H505	ILE Director Technology Initiative Office	150	1	150
	Center for ILE Research Module Total			**950**
H600	Future Center 1 Research Module			
H601	Work/Meeting Room	250	1	250
H602	Conference Room	250	1	250
H603	Grants Specialist Office	150	1	150
H604	Additional Flex Space	150	1	150
	Future Center 1 Research Module Total			**800**

Space Code	Room / Space Name	NSF Each	Proposed Qty.	Total NSF
H700	Future Center 2 Research Module			
H701	Work/Meeting Room	250	1	250
H702	Conference Room	250	1	250
H703	Flex Space	300	1	300
	Future Center 2 Research Module Total			**800**
H800	Program 1 Research Module			
H801	Work/Meeting Room	250	1	250
H802	Conference Room	250	1	250
H803	Training Center Staff Office	100	1	100
H804	Additional Flex Space	200	1	200
	Program 1 Research Module Total			**800**
H900	Program 2 Research Module			
H901	Work/Meeting Room	250	1	250
H902	Conference Room	250	1	250
H903	Flex Space	300	1	300
	Program 2 Research Module Total			**800**
H1000	Journal/Student Organization 1 Research Module			
H1001	SBO Work/Meeting Room	250	1	250
H1002	Journal/Student Org Conference Room	250	1	250
H1003	Student Org Storage Room	100	2	200
H1004	SBO Storage Room	100	1	100
	Journal/Student Org 1 Research Module Total			**800**

Space Code	Room / Space Name	NSF Each	Proposed Qty.	Total NSF
H1100	Journal/Student Organization 2 Research Module			
H1101	Work/Meeting Room	250	1	250
H1102	Conference Room	250	1	250
H1103	Editorial Assistant Workstation	90	1	90
H1104	Additional Flex Space	210	1	210
	Journal/Student Org 2 Research Module Total			**800**
H1200	Clinic 1 Research Module			
H1201	Work/Meeting Room	250	1	250
H1202	Conference Room	250	1	250
H1203	Program Manager Office	150	1	150
H1204	Assistant Workstation	90	1	90
H1205	Additional Flex Space	60	1	60
H1206	Director Pro-Bono Office	150	1	150
	Clinic 1 Research Module Total			**950**
H1300	Clinic 2 Research Module			
H1301	Work/Meeting Room	250	1	250
H1302	Conference Room	250	1	250
H1303	Flex Space	300	1	300
	Clinic 2 Research Module Total			**800**

Space Code	Room / Space Name	NSF Each	Proposed Qty.	Total NSF
H1400	Group Study			
H1401	Group Study - 4 person	100	3	300
H1402	Group Study - 6 person	150	3	450
H1403	Group Study - 8-10 person	250	2	500
	Study Space Total			**1,250**
H1500	Student Work/Study Space			
H1501	Student Work/Study Space - Journals	50	40	2,000
H1502	Work/Study Space - Editors	80	15	1,200
H1503	Student Work/Study Space - Programs	50	60	3,000
H1504	Student Work/Study Space - Centers	50	25	1,250
H1505	Student Work/Study Space - Clinics	50	60	3,000
H1506	Student Work/Study Space - Student Research	50	20	1,000
H1507	Student Storage	6	220	1,320
	Student Work/Study Space Total			**12,770**
	Total Advanced Research Areas NSF			**33,260**
	Net to Gross Factor			0.63
	Total Advanced Research Areas GSF			**52,794**

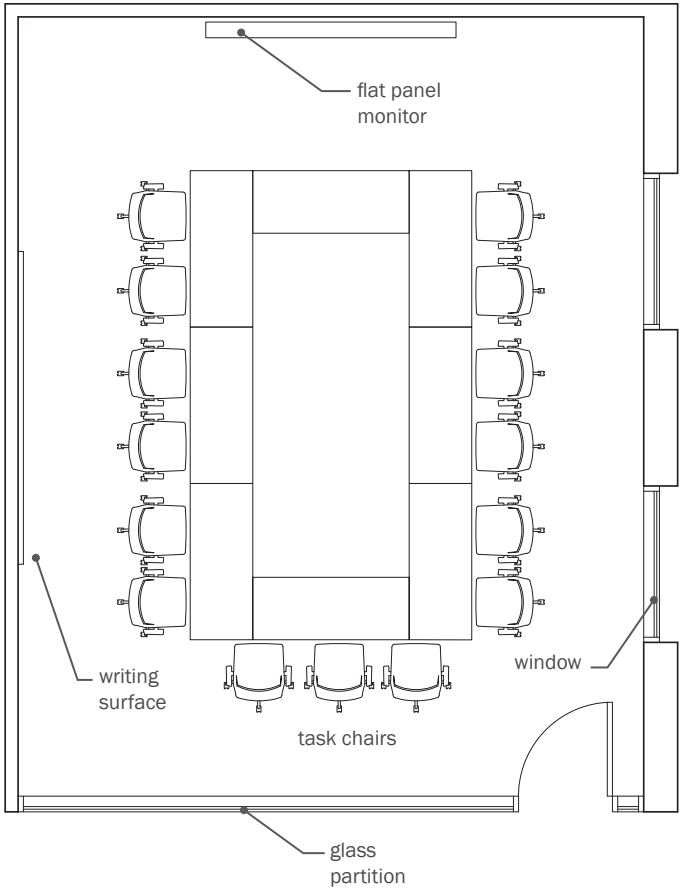
Relationship Diagram | Advanced Research Areas



H.100 Seminar Rooms

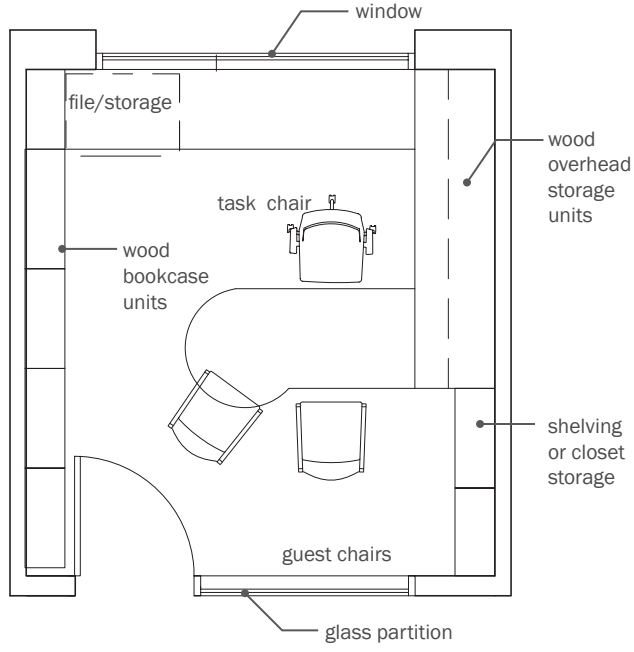
H.101 Seminar Room - 15 seats

Area:	500 sf
Quantity:	4
Function:	Instruction
# of Occupants:	Up to 15
Adjacency:	Near Common Areas, Student Work/ Study Stations, Faculty Support
Floor Finish:	Raised floor, Carpet with rubber base
Wall Finish:	75% Painted gypsum 25% Wood panel Acoustic wall panels Glass wall to corridor
Ceiling Finish:	50% Painted gypsum 50% Narrow spline premium acoustic ceiling tile
Doors:	Sound rated wood door with side lites
Furniture / Equipment:	Mobile desks, task chairs, whiteboards
Acoustics	Enhanced acoustical performance for sound isolation
Ceiling Height:	10' minimum
Windows / Daylighting:	Required
Mechanical:	Low noise, vibration control Thermostat 72 - 75F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor, Direct/Indirect lighting, Power/Data in floor, Fully integrated A/V and lighting control systems, large LED flat panel monitor with speakers, audio playback system

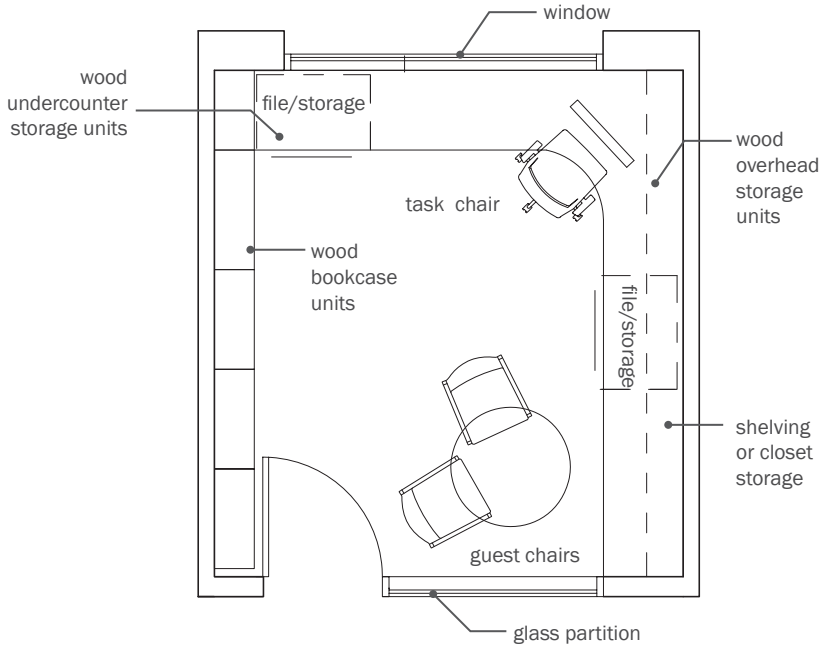


H.201 Faculty Office
H.202 Growth / Flex

Area:	150 sf
Quantity:	45
Function:	Administrative activity, research, small meetings, receiving visitors
# of Occupants:	1
Adjacency:	Near Faculty Support, Student Work/ Study Stations, convenient to Faculty/ Staff Lounge
Floor Finish:	Raised floor, Carpet with rubber base
Wall Finish:	75% Painted gypsum 25% Glass
Ceiling Finish:	Narrow spline premium acoustic ceiling tile
Doors:	Sound rated wood door with side lites
Furniture / Equipment:	Faculty Office package, including workstation, task chair, 2 guest chairs, built in wood shelving and file storage
Acoustics	N/A
Ceiling Height:	9' minimum
Windows / Daylighting:	Required
Mechanical:	Thermostat 72 - 75F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor Direct/Indirect lighting Power/Data at workstation



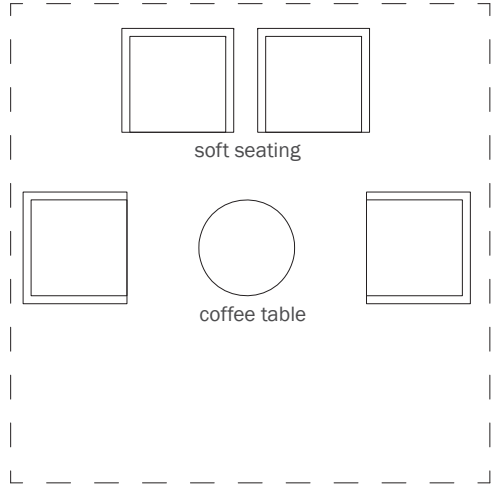
Note: Faculty office furniture package to include component alternatives



Note: Faculty office furniture package to include component alternatives

H.301 Waiting Area

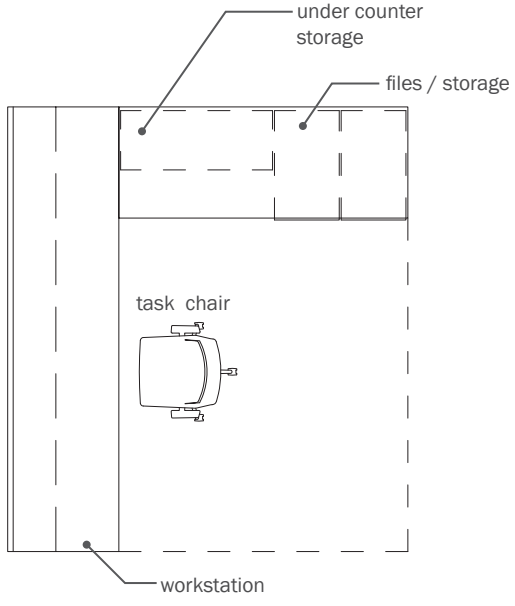
Area:	100 sf
Quantity:	4
Function:	Temporary waiting
# of Occupants:	4
Adjacency:	Accessible from public circulation, near Faculty support staff, convenient to Faculty offices
Floor Finish:	Raised floor, Carpet with rubber base
Wall Finish:	Painted gypsum
Ceiling Finish:	Narrow spline premium acoustic ceiling tile
Doors:	N/A
Furniture / Equipment:	4 Lounge chairs, coffee table
Acoustics	N/A
Ceiling Height:	9’ minimum
Windows / Daylighting:	Where feasible
Mechanical:	Thermostat 72 - 75F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor Direct/Indirect lighting



H.300 Faculty Support

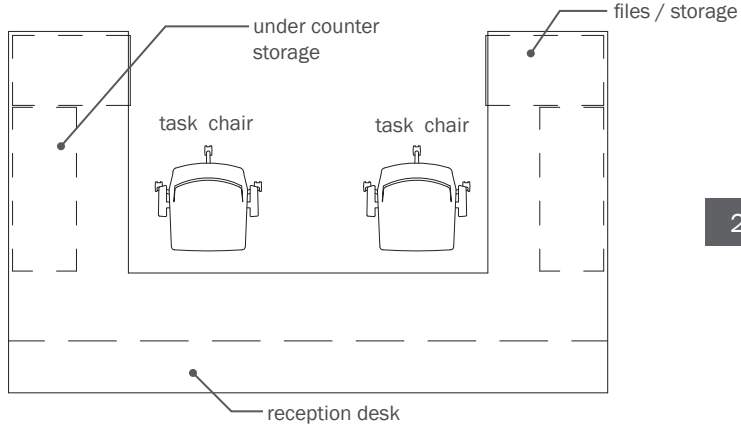
H.302 Administrative Support Workstation

Area:	90 sf
Quantity:	8
Function:	Administrative activity, Faculty support
# of Occupants:	1
Adjacency:	Collocated or distributed in small groups (TBD), near Faculty Offices, Reference Librarian Offices, Copy/Print, convenient to students
Floor Finish:	Raised floor, Carpet with rubber base
Wall Finish:	Glass
Ceiling Finish:	Narrow spline premium acoustic ceiling tile
Doors:	N/A
Furniture / Equipment:	Staff Workstation package, including workstation, task chair and file storage
Acoustics	N/A
Ceiling Height:	9’ minimum
Windows / Daylighting:	Required
Mechanical:	Thermostat 72 - 75F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor Direct/Indirect lighting Power/Data



H.303 Administrative Support/Reception Workstation

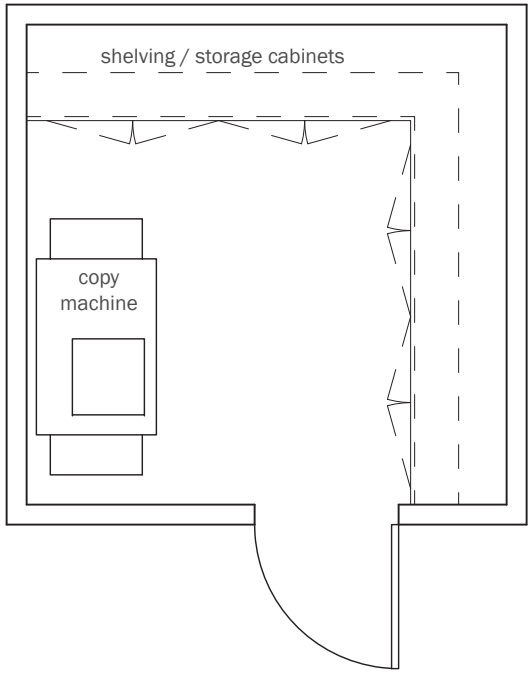
Area:	90 sf
Quantity:	2
Function:	Administrative activity, main building reception, Faculty support
# of Occupants:	1
Adjacency:	Near main building entry service point
Floor Finish:	Carpet with rubber base
Wall Finish:	Painted gypsum
Ceiling Finish:	Narrow spline premium acoustic ceiling tile
Doors:	N/A
Furniture / Equipment:	Staff Workstation package, including workstation, task chair and file storage
Acoustics:	N/A
Ceiling Height:	9’ minimum
Windows / Daylighting:	Where feasible
Mechanical:	Thermostat 72 - 75F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor Direct/Indirect lighting Power/Data at workstation



H.300 Faculty Support

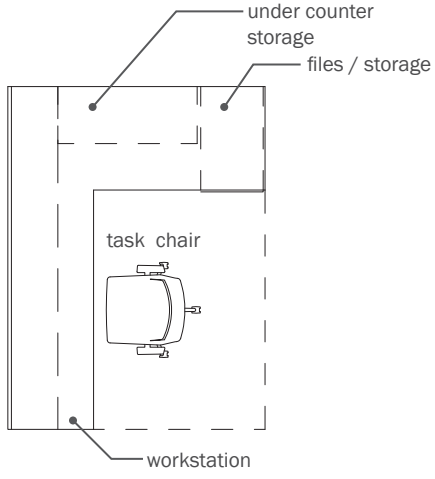
H.304 Copy / Print

Area:	100 sf
Quantity:	4
Function:	Copy/Print, storage
# of Occupants:	1
Adjacency:	Adjacent to Administrative Support, convenient to Faculty and students
Floor Finish:	Raised floor, Carpet with rubber base
Wall Finish:	Painted gypsum
Ceiling Finish:	Narrow spline premium acoustic ceiling tile
Doors:	N/A
Furniture / Equipment:	Built in counter with cabinets above and below, copy machine
Acoustics	N/A
Ceiling Height:	9’ Minimum
Windows / Daylighting:	N/A
Mechanical:	Thermostat 72 - 75F Dedicated exhaust
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor Direct/Indirect lighting



H.305 Copy Technician

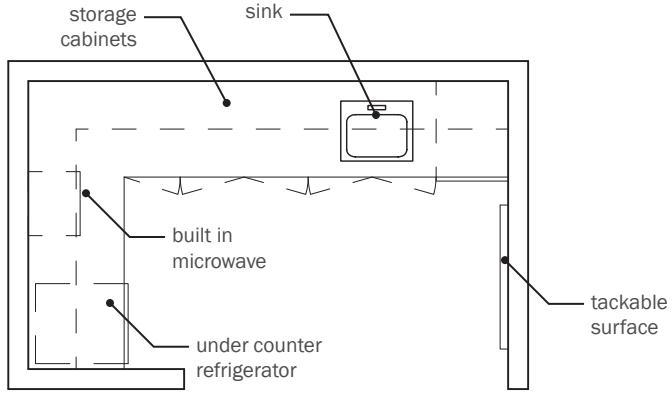
Area:	50sf
Quantity:	2
Function:	Administrative activity
# of Occupants:	1
Adjacency:	Adjacent to Copy/Print room and Administrative Support
Floor Finish:	Raised floor, Carpet with rubber base
Wall Finish:	Glass
Ceiling Finish:	Narrow spline premium acoustic ceiling tile
Doors:	N/A
Furniture / Equipment:	Small Staff Workstation package, including workstation, task chair and file storage
Acoustics	N/A
Ceiling Height:	9’ minimum
Windows / Daylighting:	Where feasible
Mechanical:	Thermostat 72 - 75F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor Direct/Indirect lighting Power/Data at workstation



H.300 Faculty Support

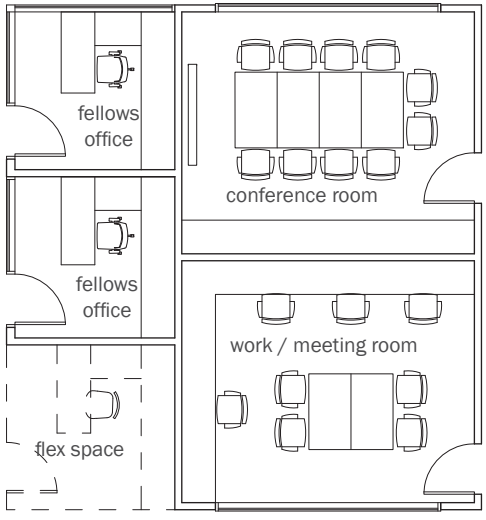
H.306 Pantry

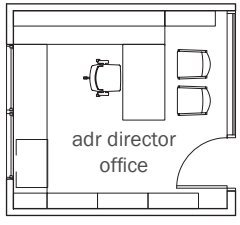
Area:	60 sf
Quantity:	4
Function:	Faculty food storage and preparation
# of Occupants:	up to 3
Adjacency:	Adjacent to Faculty Support
Floor Finish:	Raised floor, Quarry tile with tile base
Wall Finish:	Painted gypsum
Ceiling Finish:	Painted gypsum
Doors:	N/A
Furniture / Equipment:	Built in counter with cabinets above and below, under counter refrigerator, dishwasher, small counter-top appliances, microwave, tackable surface
Acoustics	N/A
Ceiling Height:	9’ Minimum
Windows / Daylighting:	N/A
Mechanical:	Thermostat 72 - 75F
Plumbing:	Single compartment sink Dishwasher Water hook-up for refrigerator ice-maker
Electrical / AV / IT:	Occupancy sensor Direct/Indirect lighting Electrical infrastructure for equipment/ appliances



H.401 Work/Meeting Room
H.402 Conference Room
H.403 Fellows Office
H.404 Flex Space
H.405 ADR Director Office

Area:	950 sf
Quantity:	1
Function:	Administrative activity, research, meetings, receiving visitors, flexible work space
# of Occupants:	Up to 21, plus guests
Adjacency:	Near Faculty Offices, Student Work/Study stations
Floor Finish:	Raised floor, Carpet with rubber base
Wall Finish:	Demountable partitions: 50% Painted gypsum 50% Glass
Ceiling Finish:	Narrow spline premium acoustic ceiling tile
Doors:	Sound rated wood door with side lites
Furniture / Equipment:	Director's Office package, including workstation, task chair, 2 guest chairs, built in wood shelving and file storage, 2 Staff Workstation packages, including workstations, task chairs and file storage, Work tables and task chairs, Built in counters, cabinets in conference room, Flex space fit-out TBD
Acoustics	Enhanced acoustical performance for sound isolation in Conference and Work/Meeting rooms
Ceiling Height:	9' minimum
Windows / Daylighting:	Where feasible
Mechanical:	Thermostat 72 - 75F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor, Direct/Indirect lighting, Power/Data in floor, Fully integrated A/V and lighting control systems, large LED flat panel monitor with speakers, audio playback system



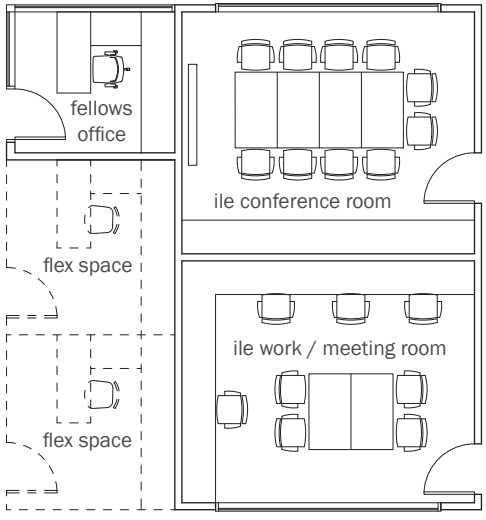


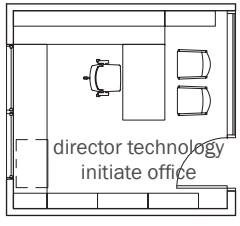
note: see similar room type sheets for specific space contents

H.500 Center for Innovation in Legal Education Research Module

H.501 Work/Meeting Room
H.502 Conference Room
H.503 Fellows Office
H.504 Flex Space
H.505 ILE Director Technology Initiative Office

Area:	800 sf
Quantity:	1
Function:	Administrative activity, research, meetings, receiving visitors, flexible work space
# of Occupants:	Up to 20, plus guests
Adjacency:	Near Faculty Offices, Student Work/Study stations
Floor Finish:	Raised floor, Carpet with rubber base
Wall Finish:	Demountable partitions: 50% Painted gypsum 50% Glass
Ceiling Finish:	Narrow spline premium acoustic ceiling tile
Doors:	Sound rated wood door with side lites
Furniture / Equipment:	Director's Office package, including workstation, task chair, 2 guest chairs, built in wood shelving and file storage, 1 Staff Workstation package, including workstation, task chair and file storage, Work tables and task chairs, Built in counters, cabinets in conference room, Flex space fit-out TBD
Acoustics	Enhanced acoustical performance for sound isolation in Conference and Work/Meeting rooms
Ceiling Height:	9' minimum
Windows / Daylighting:	Where feasible
Mechanical:	Thermostat 72 - 75F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor, Direct/Indirect lighting, Power/Data in floor, Fully integrated A/V and lighting control systems, large LED flat panel monitor with speakers, audio playback system

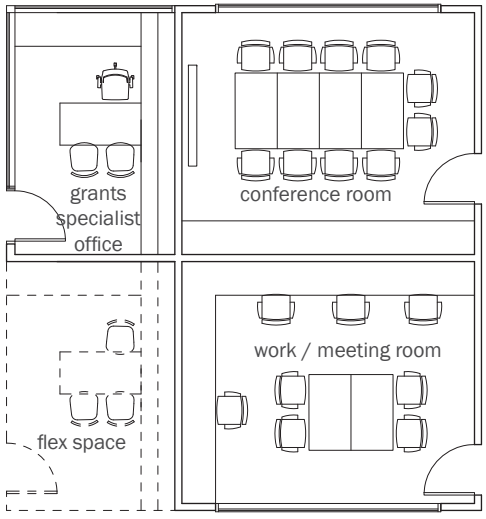




note: see similar room type sheets for specific space contents

H.601 Work/Meeting Room
H.602 Conference Room
H.603 Grants Specialist Office
H.604 Flex Space

Area:	800 sf
Quantity:	1
Function:	Administrative activity, research, meetings, receiving visitors, flexible work space
# of Occupants:	Up to 19, plus guests
Adjacency:	Near Faculty Offices, Student Work/Study stations
Floor Finish:	Raised floor, Carpet with rubber base
Wall Finish:	Demountable partitions: 50% Painted gypsum 50% Glass
Ceiling Finish:	Narrow spline premium acoustic ceiling tile
Doors:	Sound rated wood door with side lites
Furniture / Equipment:	Director's Office package, including workstation, task chair, 2 guest chairs, built in wood shelving and file storage, Work tables and task chairs, Built in counters, cabinets in conference room, Flex space fit-out TBD
Acoustics	Enhanced acoustical performance for sound isolation in Conference and Work/Meeting rooms
Ceiling Height:	9' minimum
Windows / Daylighting:	Where feasible
Mechanical:	Thermostat 72 - 75F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor, Direct/Indirect lighting, Power/Data in floor, Fully integrated A/V and lighting control systems, large LED flat panel monitor with speakers, audio playback system

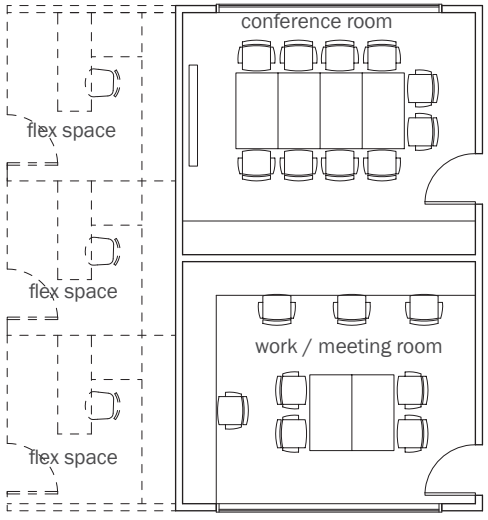


note: see similar room type sheets for specific space contents

H.700 Future Center 2 Research Module

H.701 Work/Meeting Room
H.702 Conference Room
H.703 Flex Space

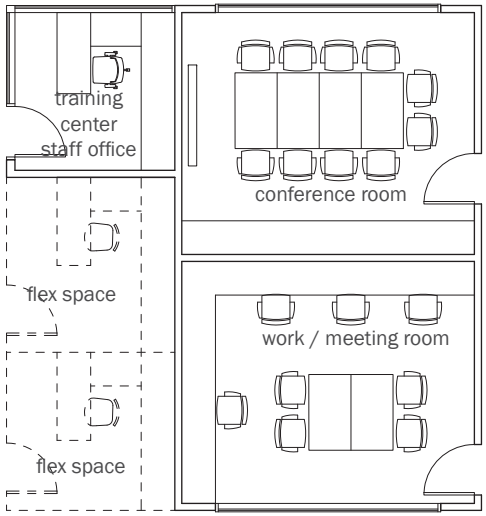
Area:	800 sf
Quantity:	1
Function:	Research, meetings, flexible work space
# of Occupants:	Up to 18
Adjacency:	Near Faculty Offices, Student Work/ Study stations
Floor Finish:	Raised floor, Carpet with rubber base
Wall Finish:	Demountable partitions: 50% Painted gypsum 50% Glass
Ceiling Finish:	Narrow spline premium acoustic ceiling tile
Doors:	Sound rated wood door with side lites
Furniture / Equipment:	Work tables and task chairs, Built in counters, cabinets in conference room, Flex space fit-out TBD
Acoustics	Enhanced acoustical performance for sound isolation in Conference and Work/Meeting rooms
Ceiling Height:	9’ minimum
Windows / Daylighting:	Where feasible
Mechanical:	Thermostat 72 - 75F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor, Direct/Indirect lighting, Power/Data in floor, Fully integrated A/V and lighting control systems, large LED flat panel monitor with speakers, audio playback system



H.800 Program 1 Research Module

H.801 Work/Meeting Room
H.802 Conference Room
H.803 Staff Office
H.804 Flex Space

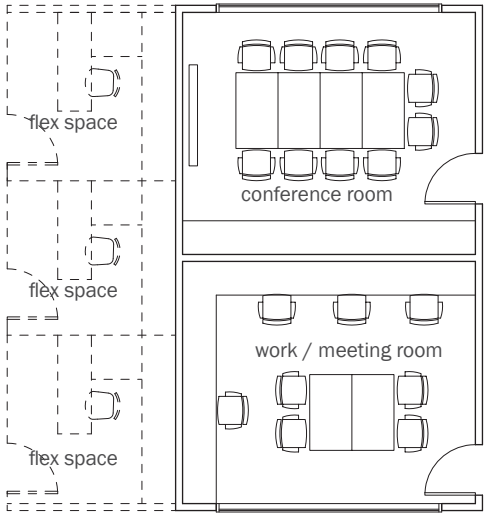
Area:	800 sf
Quantity:	1
Function:	Administrative activity, research, meetings, receiving visitors, flexible work space
# of Occupants:	Up to 19
Adjacency:	Near Faculty Offices, Student Work/Study stations
Floor Finish:	Raised floor, Carpet with rubber base
Wall Finish:	Demountable partitions: 50% Painted gypsum 50% Glass
Ceiling Finish:	Narrow spline premium acoustic ceiling tile
Doors:	Sound rated wood door with side lites
Furniture / Equipment:	1 Staff Workstation package, including workstation, task chair and file storage, Work tables and task chairs, Built in counters, cabinets in conference room, Flex space fit-out TBD
Acoustics	Enhanced acoustical performance for sound isolation in Conference and Work/Meeting rooms
Ceiling Height:	9’ minimum
Windows / Daylighting:	Where feasible
Mechanical:	Thermostat 72 - 75F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor, Direct/Indirect lighting, Power/Data in floor, Fully integrated A/V and lighting control systems, large LED flat panel monitor with speakers, audio playback system



H.900 Program 2 Research Module

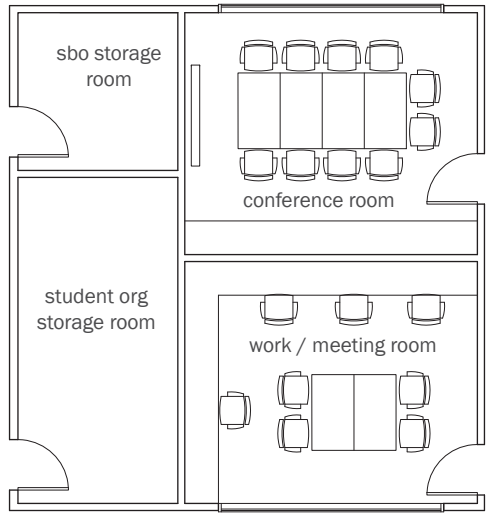
H.901 Work/Meeting Room
H.902 Conference Room
H.903 Flex Space

Area:	800 sf
Quantity:	1
Function:	Research, meetings, flexible work space
# of Occupants:	Up to 18
Adjacency:	Near Faculty Offices, Student Work/ Study stations
Floor Finish:	Raised floor, Carpet with rubber base
Wall Finish:	Demountable partitions: 50% Painted gypsum 50% Glass
Ceiling Finish:	Narrow spline premium acoustic ceiling tile
Doors:	Sound rated wood door with side lites
Furniture / Equipment:	Work tables and task chairs, Built in counters, cabinets in conference room, Flex space fit-out TBD
Acoustics	Enhanced acoustical performance for sound isolation in Conference and Work/Meeting rooms
Ceiling Height:	9’ minimum
Windows / Daylighting:	Where feasible
Mechanical:	Thermostat 72 - 75F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor, Direct/Indirect lighting, Power/Data in floor, Fully integrated A/V and lighting control systems, large LED flat panel monitor with speakers, audio playback system



H.1001 Work/Meeting Room
H.1002 Conference Room
H.1003 Student Org Storage Room
H.1004 SBO Storage

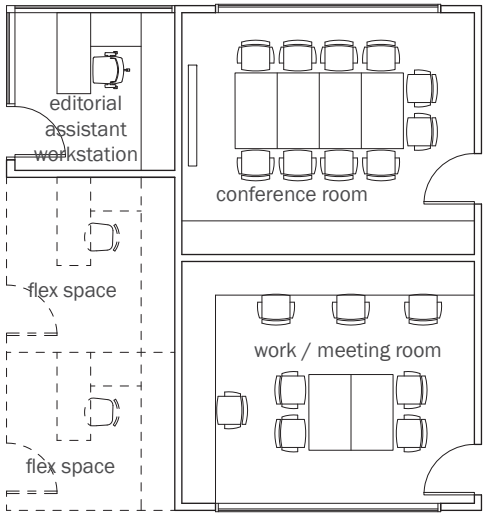
Area:	800 sf
Quantity:	1
Function:	Research, meetings, receiving visitors, flexible work space, storage
# of Occupants:	Up to 18
Adjacency:	Near Faculty Offices, Student Work/ Study stations
Floor Finish:	Raised floor, Carpet with rubber base
Wall Finish:	Demountable partitions: 50% Painted gypsum 50% Glass
Ceiling Finish:	Narrow spline premium acoustic ceiling tile
Doors:	Sound rated wood door with side lites
Furniture / Equipment:	Work tables and task chairs, Built in counters, cabinets in conference room, shelving, Flex space fit-out TBD
Acoustics	Enhanced acoustical performance for sound isolation in Conference and Work/Meeting rooms
Ceiling Height:	9’ minimum
Windows / Daylighting:	Where feasible
Mechanical:	Thermostat 72 - 75F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor, Direct/Indirect lighting, Power/Data in floor, Fully integrated A/V and lighting control systems, large LED flat panel monitor with speakers, audio playback system



H.1100 Journals / Student Organizations 2 Research Module

H.1101 Work/Meeting Room
H.1102 Conference Room
H.1103 Editorial Assistant Workstation
H.1104 Flex Space

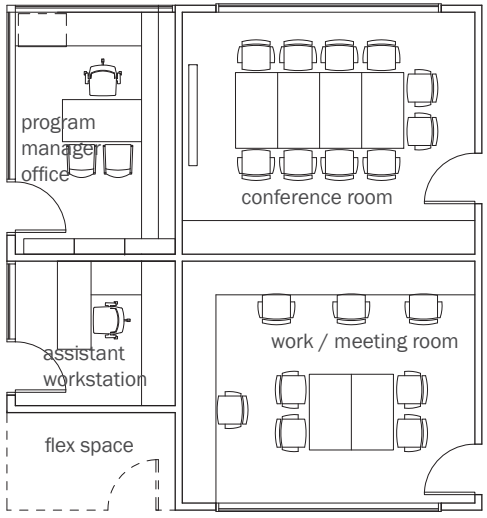
Area:	800 sf
Quantity:	1
Function:	Administrative activity, research, meetings, receiving visitors, flexible work space
# of Occupants:	Up to 18
Adjacency:	Near Faculty Offices, Student Work/Study stations
Floor Finish:	Raised floor, Carpet with rubber base
Wall Finish:	Demountable partitions: 50% Painted gypsum 50% Glass
Ceiling Finish:	Narrow spline premium acoustic ceiling tile
Doors:	Sound rated wood door with side lites
Furniture / Equipment:	1 Staff Workstation package, including workstation, task chair and file storage, Work tables and task chairs, Built in counters, cabinets in conference room, Flex space fit-out TBD
Acoustics	Enhanced acoustical performance for sound isolation in Conference and Work/Meeting rooms
Ceiling Height:	9’ minimum
Windows / Daylighting:	Where feasible
Mechanical:	Thermostat 72 - 75F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor, Direct/Indirect lighting, Power/Data in floor, Fully integrated A/V and lighting control systems, large LED flat panel monitor with speakers, audio playback system

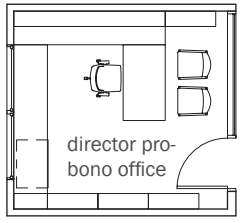


H.1200 Clinic 1 Research Module

H.1201 Work/Meeting Room
H.1202 Conference Room
H.1203 Program Manager Office
H.1204 Assistant Workstation
H.1205 Flex Space
H.1206 Director Pro-Bono Office

Area:	950 sf
Quantity:	1
Function:	Administrative activity, research, meetings, receiving visitors, flexible work space
# of Occupants:	Up to 21, plus guests
Adjacency:	Near Faculty Offices, Student Work/Study stations
Floor Finish:	Raised floor, Carpet with rubber base
Wall Finish:	Demountable partitions: 50% Painted gypsum 50% Glass
Ceiling Finish:	Narrow spline premium acoustic ceiling tile
Doors:	Sound rated wood door with side lites
Furniture / Equipment:	2 Director's Office packages, including workstations, task chairs, guest chairs, built in wood shelving and file storage, 1 Staff Workstation package, including workstation, task chair and file storage, Work tables and task chairs, Built in counters, cabinets in conference room, Flex space fit-out TBD
Acoustics	Enhanced acoustical performance for sound isolation in Conference and Work/Meeting rooms
Ceiling Height:	9' minimum
Windows / Daylighting:	Where feasible
Mechanical:	Thermostat 72 - 75F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor, Direct/Indirect lighting, Power/Data in floor, Fully integrated A/V and lighting control systems, large LED flat panel monitor with speakers, audio playback system

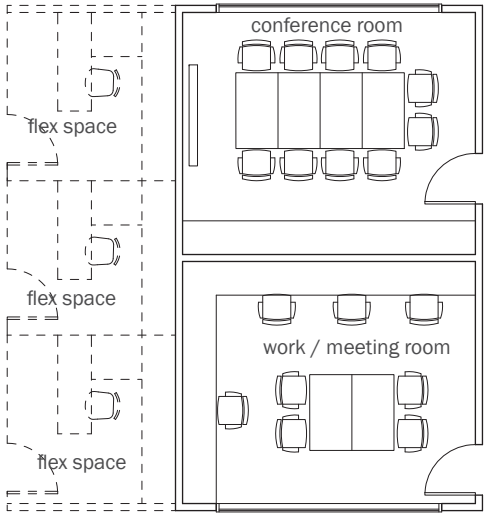




H.1300 Clinic 2 Research Module

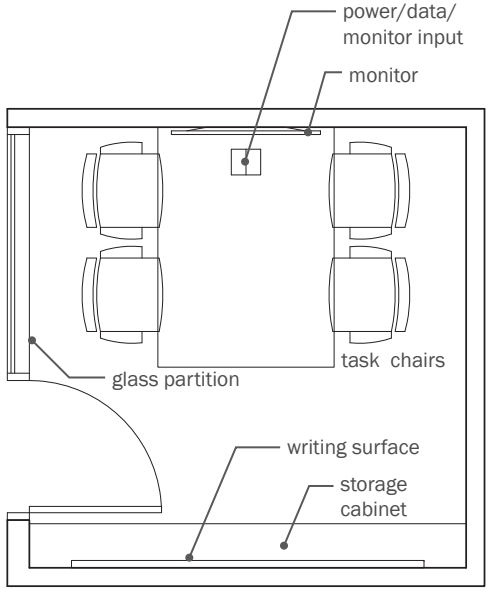
H.1301 Work/Meeting Room
H.1302 Conference Room
H.1303 Flex Space

Area:	800 sf
Quantity:	1
Function:	Research, meetings, flexible work space
# of Occupants:	Up to 18
Adjacency:	Near Faculty Offices, Student Work/ Study stations
Floor Finish:	Raised floor, Carpet with rubber base
Wall Finish:	Demountable partitions: 50% Painted gypsum 50% Glass
Ceiling Finish:	Narrow spline premium acoustic ceiling tile
Doors:	Sound rated wood door with side lites
Furniture / Equipment:	Work tables and task chairs, Built in counters, cabinets in conference room, Flex space fit-out TBD
Acoustics	Enhanced acoustical performance for sound isolation in Conference and Work/Meeting rooms
Ceiling Height:	9’ minimum
Windows / Daylighting:	Where feasible
Mechanical:	Thermostat 72 - 75F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor, Direct/Indirect lighting, Power/Data in floor, Fully integrated A/V and lighting control systems, large LED flat panel monitor with speakers, audio playback system



H.1401 Group Study - 4 person

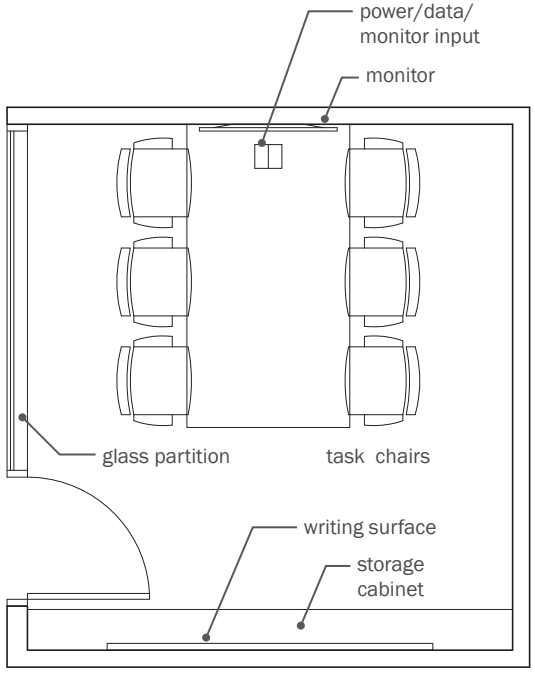
Area:	100 sf
Quantity:	3
Function:	Flexible work space, small meetings
# of Occupants:	4
Adjacency:	Near Student Work/Study Stations, Faculty Offices
Floor Finish:	Raised floor, Carpet with rubber base
Wall Finish:	50% Painted gypsum 50% Glass
Ceiling Finish:	Narrow spline premium acoustic ceiling tile
Doors:	Sound rated wood door with side lites
Furniture / Equipment:	Work table, 4 task chairs, storage cabinet, writing surface
Acoustics	Enhanced acoustical performance for sound isolation
Ceiling Height:	9' minimum
Windows / Daylighting:	Required
Mechanical:	Thermostat 72 - 75F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor, Direct/Indirect lighting, Power/Data in floor, Fully integrated A/V and lighting control systems, LED flat panel monitor with speakers, audio playback system



H.1400 Study Space

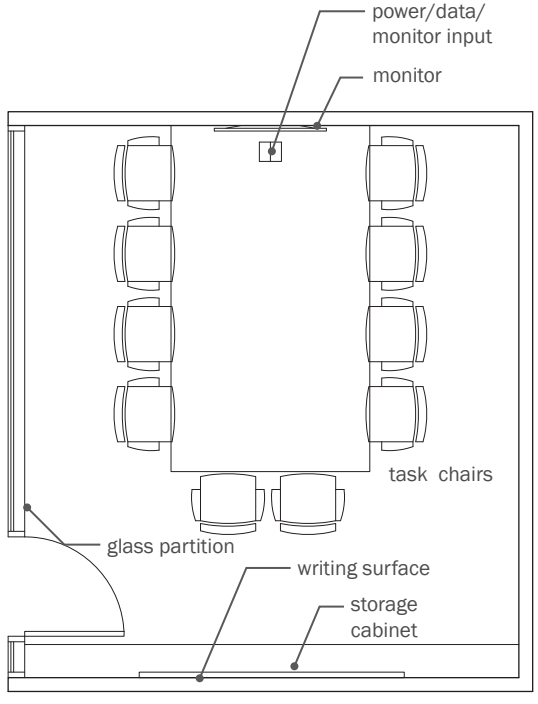
H.1402 Group Study - 6 person

Area:	150 sf
Quantity:	3
Function:	Flexible work space, small meetings
# of Occupants:	6
Adjacency:	Near Student Work/Study Stations, Faculty Offices
Floor Finish:	Raised floor, Carpet with rubber base
Wall Finish:	50% Painted gypsum 50% Glass
Ceiling Finish:	Narrow spline premium acoustic ceiling tile
Doors:	Sound rated wood door with side lites
Furniture / Equipment:	Work table, 6 task chairs, storage cabinet, writing surface
Acoustics	Enhanced acoustical performance for sound isolation
Ceiling Height:	9’ minimum
Windows / Daylighting:	Required
Mechanical:	Thermostat 72 - 75F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor, Direct/Indirect lighting, Power/Data in floor, Fully integrated A/V and lighting control systems, LED flat panel monitor with speakers, audio playback system



H.1403 Group Study - 8-10 person

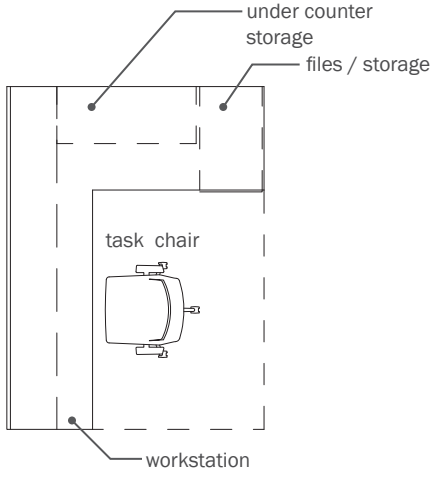
Area:	250 sf
Quantity:	2
Function:	Flexible work space, meetings
# of Occupants:	up to 10
Adjacency:	Near Student Work/Study Stations, Faculty Offices
Floor Finish:	Raised floor, Carpet with rubber base
Wall Finish:	50% Painted gypsum 50% Glass
Ceiling Finish:	Narrow spline premium acoustic ceiling tile
Doors:	Sound rated wood door with side lites
Furniture / Equipment:	Work table, 10 task chairs, storage cabinet, writing surface
Acoustics	Enhanced acoustical performance for sound isolation
Ceiling Height:	9' minimum
Windows / Daylighting:	Required
Mechanical:	Thermostat 72 - 75F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor, Direct/Indirect lighting, Power/Data in floor, Fully integrated A/V and lighting control systems, LED flat panel monitor with speakers, audio playback system



H.1500 Student Work / Study Space

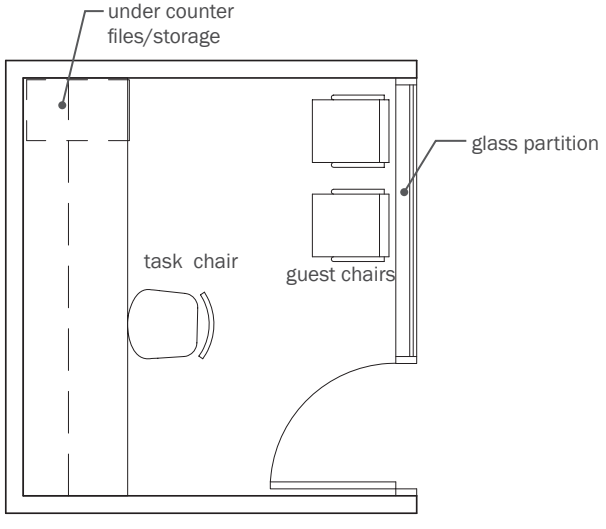
H.1501 Journals

Area:	50 sf
Quantity:	40
Function:	Study, research, file storage
# of Occupants:	1
Adjacency:	Near Faculty Offices, Journal Research Modules, convenient to Group Study rooms and Faculty Administrative Support
Floor Finish:	Raised floor, Carpet with rubber base
Wall Finish:	N/A
Ceiling Finish:	Narrow spline premium acoustic ceiling tile
Doors:	N/A
Furniture / Equipment:	Student Workstation package, including workstation, task chair and file storage
Acoustics	N/A
Ceiling Height:	9’ minimum
Windows / Daylighting:	Where feasible
Mechanical:	Thermostat 72 - 75F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor Direct/Indirect lighting Power/Data at workstation



H.1502 Editors

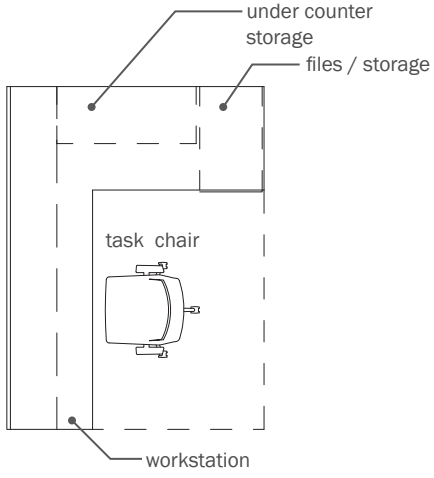
Area:	80 sf
Quantity:	15
Function:	Work/Study, research, file storage, receiving visitors
# of Occupants:	1, plus 2 guests
Adjacency:	Near Faculty Offices, Journal Research Modules, convenient to Group Study rooms and Faculty Administrative Support
Floor Finish:	Raised floor, Carpet with rubber base
Wall Finish:	75% Painted gypsum 25% Glass
Ceiling Finish:	Narrow spline premium acoustic ceiling tile
Doors:	N/A
Furniture / Equipment:	Built in work counter with file storage, task chair, 2 guest chairs
Acoustics	N/A
Ceiling Height:	9’ minimum
Windows / Daylighting:	Where feasible
Mechanical:	Thermostat 72 - 75F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor Direct/Indirect lighting Power/Data at workstation



H.1500 Student Work / Study Space

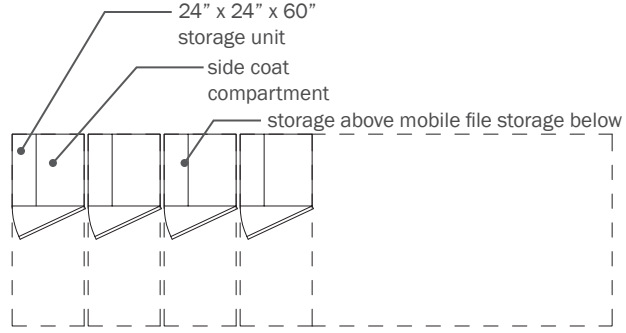
H.1503 Programs
H.1504 Centers
H.1505 Clinics
H.1506 Student Research

Area:	50sf
Quantity:	205
Function:	Study, research, file storage
# of Occupants:	1
Adjacency:	Near Faculty Offices, associated Research Modules, convenient to Group Study rooms and Faculty Administrative Support
Floor Finish:	Raised floor, Carpet with rubber base
Wall Finish:	N/A
Ceiling Finish:	Narrow spline premium acoustic ceiling tile
Doors:	N/A
Furniture / Equipment:	Student Workstation package, including workstation, task chair and file storage
Acoustics	N/A
Ceiling Height:	9’ minimum
Windows / Daylighting:	Where feasible
Mechanical:	Thermostat 72 - 75F
Plumbing:	N/A
Electrical / AV / IT:	Occupancy sensor Direct/Indirect lighting Power/Data at workstation



H.1507 Student Storage

Area:	6 sf
Quantity:	220
Function:	Student storage of coats, books, supplies, personal items, mobile file storage
# of Occupants:	N/A
Adjacency:	Near Student Work/Study stations
Floor Finish:	N/A
Wall Finish:	N/A
Ceiling Finish:	N/A
Doors:	N/A
Furniture / Equipment:	Stationary 24”x24”x60” storage unit with mobile file storage within, Plastic laminate or wood finish
Acoustics	N/A
Ceiling Height:	N/A
Windows / Daylighting:	N/A
Mechanical:	N/A
Plumbing:	N/A
Electrical / AV / IT:	N/A



05.cost estimate

The following are detailed descriptions of the eight programmatic areas of the new law school: Instructional, Administration, Faculty, Law Library, Students, Other, Common Areas and Advanced Research Areas. Included within these descriptions are itemized space lists, adjacency diagrams and detailed room data sheets.

Program Summary

Department	Proposed Program		
	NSF	NSF/ FTE	GSF
Instructional	13,000	29	20,635
Administration	7,040	16	11,175
Faculty	2,460	5	3,905
Law Library	18,390	41	29,190
Students	3,120	7	4,952
Other	10,440	23	16,571
Common Areas	10,760	24	17,079
Advanced Research Areas	32,960	73	52,317
Total	**98,170**	**218**	**155,825**

Cost Estimate

The following cost estimate has been created to reflect the goals, facility performance requirements, programmatic space requirements, quality and character of the new Law School.

These requirements include:

- The University of Utah now requires the facility achieve 40% cost savings over a baseline ASHRAE 90.1 facility, as defined in LEED 2009.
- The University of Utah now requires the facility provide metering and data capture to achieve the Measurement and Verification credit as defined in LEED 2009.
- A robust technology package has been provided for.

The project is very sensitive to budget impacts. The team has worked to correctly align the vision and needs of the facility with the requirements of the site. Each construction division has been reviewed to correlate to the resources needed to achieve the envisioned building. This includes extra monies for strategies to achieve the U energy requirements and the audio visual components. In addition, it provides allowances for potential issues such as the need for temporary chillers (if the central chiller plant is not completed prior to this project). This establishes a total project budget that will allow the project objectives to be met.

Cost Summary	$ Amount	Cost Per SF
Facility Cost	$46,535,884	$298.55
Utility Fee Cost	$40,000	$0.26
Additional Construction Cost	$-	$0.00
Site Cost	$-	$0.00
High Performance Building	$-	$0.00
Total Construction Cost	$46,575,884	$298.80
Soft Costs:		
Hazardous Materials	$-	
Pre-Design/Planning	$-	
Design	$3,260,312	
Property Acquisition	$-	
Furnishings & Equipment	$6,250,000	
Information Technology:	$600,000	
Utah Art (1% of Construction Budget)	$-	
Testing & Inspection	$461,101	
Contingency	$2,096,515	
Moving/Occupancy	$200,000	
Builder's Risk Insurance (0.15% of Construction Budget)	$69,864	
Legal Services (0.1% of Construction Budget)	$46,576	
DFCM Management	$71,939	
User Fees	$225,000	
Commissioning	$300,000	
Other Costs	$164,000	
Total Soft Costs	$13,745,307	$88.18
TOTAL PROJECT COST	**$60,321,191**	**$386.98**

PROJECT ESTIMATE	CONSTRUCTION CONTROL CORPORATION			2/29/2012

PROJECT NAME…….....UOFU QUINNEY LAW BUILDING
LOCATION……..…….....SALT LAKE CITY,
ARCHITECT……..…….....VCBO — Project Size 155,875 SF
STAGE OF DESIGN……...PROGRAMMING

CSI #	DESCRIPTION	UNIT QTY	UNIT COST	
	BUILDING COST SUMMARY			
02	**SITEWORK & DEMOLITION**		$ 21.80	$ 3,397,294
03	**CONCRETE**		$ 11.88	$ 1,852,322
04	**MASONRY**		$ 11.41	$ 1,778,820
05	**METALS**		$ 27.47	$ 4,281,734
06	**WOODS & PLASTICS**		$ 12.31	$ 1,918,600
07	**THERMAL & MOISTURE PROTECTION**		$ 12.13	$ 1,890,266
08	**DOORS & WINDOWS**		$ 21.79	$ 3,396,256
09	**FINISHES**		$ 35.67	$ 5,559,386
10	**SPECIALTIES**		$ 12.92	$ 2,012,909
11	**EQUIPMENT**		$ 1.00	$ 155,857
12	**FURNISHINGS**		$ 2.33	$ 362,540
14	**CONVEYING SYSTEMS**		$ 5.04	$ 786,000
15	**MECHANICAL**		$ 43.72	$ 6,814,823
16	**ELECTRICAL**		$ 29.34	$ 4,573,096
	SUBTOTAL		$ 248.82	38,779,904
	GENERAL CONDITIONS	6%	$ 14.93	2,326,794
	OVERHEAD & PROFIT	4%	$ 9.95	1,551,196
	DESIGN CONTINGENCY	10%	$ 24.88	3,877,990
	TOTAL CONSTRUCTION COST		$ 298.58	$ 46,535,884

ESCALATION HAS NOT BEEN FACTORED INTO THE COSTS OF THIS ESTIMATE.
****ESTIMATE IS FOR CONSTRUCTION COSTS ONLY, SOFT COSTS ARE NOT INCLUDED.****

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PROJECT ESTIMATE	CONSTRUCTION CONTROL CORPORATION			2/29/2012

PROJECT NAME…….....UOFU QUINNEY LAW BUILDING
LOCATION……..…….....SALT LAKE CITY,
ARCHITECT……..…….....VCBO — Project Size 155,857 SF
STAGE OF DESIGN……...PROGRAMMING

CSI #	DESCRIPTION	UNIT QTY	UNIT COST	
02	**SITEWORK & DEMOLITION**			
	Demolition			
	Site Clearing	45000 SF	$ 1.89	$ 85,050
	Demolish Existing Facilities	1 Allow	$ 250,000.00	$ 250,000
	Asbestos Abatement	1 LS	$ 100,000.00	$ 100,000
	Subtotal for Demolition			**$ 435,050**
	Earthwork			
	Building Excavation	18472 CY	$ 6.00	$ 110,832
	Backfill and Compaction w/ imported fills	14796 CY	$ 19.65	$ 290,741
	Backfill and Compaction at demo'd buiding	20312 CY	$ 19.65	$ 399,131
	Remove Spoil	18472 CY	$ 7.00	$ 129,304
	Shoring	1 Allow	$ 150,000.00	$ 150,000
	Building Grading	31171 SF	$ 0.69	$ 21,508
	Gravel under Slab	1238 TNS	$ 30.00	$ 37,129
	Subtotal for Earthwork			**$ 1,138,644**
	Site Utilities			
	Site Utilities	1 LS	$ 300,000.00	$ 300,000
	Hi Temp Water line at site	1 LS	$ 250,000.00	$ 250,000
	Subtotal for Site Utilities			**$ 550,000**
	Surface Parking	170 Stalls	$ 3,080	**$ 523,600**
	Site Improvments	50000 SF	$ 15.00	**$ 750,000**
	TOTAL SITEWORK & DEMOLITION			**$ 3,397,294**
03	**CONCRETE**			
	Footings Continuous	600 CY	$ 275.00	$ 165,000
	Spot Footings	550 CY	$ 285.00	$ 156,750
	Foundation Wall	35000 SF	$ 24.00	$ 840,000
	Slab on Grade	31171 SF	$ 3.55	$ 110,658
	Miscellaneous Concrete	1 LS	$ 50,000.00	$ 50,000
	Topping Slab	124686 SF	$ 4.25	$ 529,914
	TOTAL CONCRETE			**$ 1,852,322**
04	**MASONRY**			
	Masonry Exterior	59294 SF	$ 30.00	$ 1,778,820
	TOTAL MASONRY			**$ 1,778,820**
05	**METALS**			
	Miscellaneous Steel	155857 SF	$ 1.66	$ 258,723
	Metal Floor Deck	124686 SF	$ 2.75	$ 342,885
	Metal Roof Deck	31171 SF	$ 1.95	$ 60,784
	Floor Structure 14#/SF	1745598 LB	$ 1.55	$ 2,705,678
	Roof Structure- 7#/SF	218200 LB	$ 1.55	$ 338,210
	Decorative Stair	1520 SF	$ 89.00	$ 135,280
	Decorative Railing	822 LF	$ 300.00	$ 246,600
	Concrete Filled Stair Pans	2025 SF	$ 59.00	$ 119,475
	Free Standing Railing	390 LF	$ 125.00	$ 48,750
	Wall Mounted Handrail	390 LF	$ 65.00	$ 25,350
	TOTAL METALS			**$ 4,281,734**
06	**WOOD & PLASTICS**			
	Carpentry:			
	Wood Plates & Blocking	155857 SF	$0.31	$ 48,316
	Subtotal for Carpentry			**$ 48,316**
	Millwork	155857 SF	$12.00	**$ 1,870,284**
	TOTAL WOOD & PLASTICS			**$ 1,918,600**
07	**THERMAL & MOISTURE PROTECTION**			

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PROJECT ESTIMATE	CONSTRUCTION CONTROL CORPORATION			2/29/2012
PROJECT NAME…….....UOFU QUINNEY LAW BUILDING				
LOCATION……..…….SALT LAKE CITY,				
ARCHITECT……..…….VCBO	Project Size	155,857	SF	
STAGE OF DESIGN……..PROGRAMMING				

CSI #	DESCRIPTION	UNIT QTY	UNIT COST	
	R-19 Spray Foam Insulation at Exterior Walls	59294 SF	$5.40	$ 320,188
	3" Rigid at Building Exterior	59294 SF	$2.95	$ 174,917
	Rigid Roof Insulation	31171 SF	$2.55	$ 79,487
	Sound Batt	382048 SF	$0.48	$ 183,384
	Wall Sheathing	59294 SF	$1.65	$ 97,835
	Vapor Barrier	59294 SF	$3.00	$ 177,882
	Foundation Waterproofing	35000 SF	$5.20	$ 182,000
	Roof Garden	10000 SF	$15.00	$ 150,000
	Single Ply membrane	31171 SF	$2.65	$ 82,604
	Soffit	4134 SF	$30.00	$ 124,020
	Building Fireproofing	155857 SF	$1.65	$ 257,164
	Fire Stopping/ Caulking	155857 SF	$0.18	$ 28,054
	Caulking & Sealants	155857 SF	$0.21	$ 32,730
	TOTAL THERMAL & MOISTURE PROTECTION			**$ 1,890,266**
08	**DOORS & WINDOWS**			
	Doors	155857 SF	$5.10	$ 794,871
	Exterior Glazing Aluminum (30% of Exterior)	21285 SF	$75.00	$ 1,596,375
	Shading Devices	8643 SF	$70.00	$ 605,010
	Interior Glazing	10000 SF	$40.00	$ 400,000
	TOTAL DOORS & WINDOWS			**$ 3,396,256**
09	**FINISHES**			
	Exterior Metal Stud Framing	59294 SF	$3.20	$ 189,741
	Interior Metal Stud Partitions	382048 SF	$2.25	$ 859,608
	5/8" Gypsum board	821732 SF	$1.30	$ 1,068,252
	Interior Glass moveable partitions	800 LF	$960.00	$ 768,000
	Moveable Partition Bulkhead	800 LF	$49.00	$ 39,200
	Ceiling	155857 SF	$5.65	$ 880,592
	Commons Area Flooring	9333 SF	$30.00	$ 279,990
	Carpet Tile	146524 SF	$3.33	$ 487,925
	Wall Finishes	821732 SF	$1.20	$ 986,078
	TOTAL FINISHES			**$ 5,559,386**
10	**SPECIALTIES**			
	Specialties	155857 SF	$5.25	$ 818,250
	Display Donor Recognition Way Finding Graphics	155857 SF	$3.57	$ 556,409
	Sky Fold Partitions	5550 SF	$115.00	$ 638,250
	TOTAL SPECIALTIES			**$ 2,012,909**
11	**EQUIPMENT**	155857 SF	$1.00	**$ 155,857**
12	**FURNISHINGS**			
	Walk-Off Mats	900 SF	$80.00	$ 72,000
	Roller Shades	21285 SF	$13.65	$ 290,540
	TOTAL EQUIPMENT			**$ 362,540**
14	**CONVEYING SYSTEMS**			
	Elevator - 6 Stop	3 EA	$182,000.00	$ 546,000
	Elevator - 7 Stop - Freight	1 EA	$240,000.00	$ 240,000
	TOTAL CONVEYING SYSTEMS			**$ 786,000**
15	**MECHANICAL**			
	HVAC:	155857 SF	$35.00	**$ 5,454,995**
	Temporary Chiller 300 Tons	1 SUM	$300,000.00	**$ 300,000**
	Fire Protection:	155857 SF	$2.55	**$ 397,435**
	Plumbing	155857 SF	$4.25	**$ 662,392**
	TOTAL MECHANICAL			**$ 6,814,823**
16	**ELECTRICAL**			
	Service & Distribution:	155857 SF	$5.65	**$ 880,592**

PROJECT ESTIMATE	CONSTRUCTION CONTROL CORPORATION			2/29/2012
PROJECT NAME…….....UOFU QUINNEY LAW BUILDING				
LOCATION……..…….SALT LAKE CITY,				
ARCHITECT……..…….VCBO	Project Size	155,857	SF	
STAGE OF DESIGN……..PROGRAMMING				

CSI #	DESCRIPTION	UNIT QTY	UNIT COST	
	Power:	155857 SF	$3.65	**$ 568,878**
	Lighting:	155857 SF	$9.00	**$ 1,402,713**
	Exterior Lighting	1 LS	$100,000.00	**$ 100,000**
	AV Allowance- Not Included			**$ -**
	Cell Phone Booster- Not Included			**$ -**
	Telecommunication System:	155857 SF	$2.50	**$ 389,643**
	Fire/Smoke System:	155857 SF	$2.25	**$ 350,678**
	Special Systems:	155857 SF	$5.65	**$ 880,592**
	TOTAL ELECTRICAL			**$ 4,573,096**