State of Utah

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Lt. Governor

Department of Administrative Services
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Executive Director

Division of Facilities Construction and Management
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Director

ADDENDUM NO. 1

Date: February 2, 2011

To: Commissioning Consultants

From: Rick James - Project Manager

Reference: Beverley Taylor Sorenson Arts and Education Complex - Commissioning
University of Utah – Salt Lake City, Utah
DFCM Project No. 09131750

Subject: **Addendum No. 1**

Pages	Addendum Cover Sheet	2	pages
	Program	436	pages
	Total	438	pages

Note: This Addendum shall be included as part of the Contract Documents. Items in this Addendum apply to all drawings and specification sections whether referenced or not involving the portion of the work added, deleted, modified, or otherwise addressed in the Addendum. Acknowledge receipt of this Addendum in the space provided on the Bid Form. Failure to do so may subject the Bidder to Disqualification.

While we contend that SB220 should only be potentially applicable to a contract issued after the effective date of said bill, this is to clarify that for purposes of this contract, regardless of the execution or effective dates of this contract, the status of Utah Law and remedies available to the State of Utah and DFCM, as it relates to any matter referred to or affected by said SB220, shall be the Utah law in effect at the time of the issuance of this Addendum.

1.1 SCHEDULE CHANGES: There are no Project Schedule changes.

1.2 GENERAL ITEMS: Questions/Answers

1.2.1 Question: Is there a construction budget?
Answer: The construction budget is $18,900,000.

1.2.2. Question: Is there a MEP budget?
Answer: The budget for mechanical, electrical, and plumbing has not been established.

1.2.3. Question: Are there any special systems to be commissioned?
Answer: There are no special systems to be commissioned.

1.2.4 Question: From the meeting we understand that there will be a dance studio, classrooms and offices. Will there be a performance theatre included? A stage with special lighting?

Answer: See the program attached to this addendum.

1.2.5 Question: If so are there any special/unique systems or elements that will be included in commissioning (e.g. - air distribution systems [for special smoke effects] or theatrical lighting)?

Answer: At this time it is anticipated that no special theater systems will be commissioned; however, the exact commissioning scope will be determined after the final selection.

1.2.6 Question: Will this building be served by the campus high temperature water system and by the central chiller plant?

Answer: Yes, this building will be connected to both of these systems.

University of Utah

Beverley Taylor Sorenson Arts and Education Complex (BTSAEC)

APPROVALS

August 2010

University of Utah Review Signatures

We have reviewed the Beverley Taylor Sorenson Arts and Education Complex Program and warrant that it adequately represents our request for a facility to fulfill our mission and programmatic needs. All appropriate parties representing the University have reviewed it for approval.

David Pershing - Senior Vice President for Academic Affairs	8/31/2010 Date
Mike Perez - Associate VP for Facilities Management	8/25/10 Date
John McNary - Director, Campus Design & Construction	8/24/2010 Date
Tami Cleveland – Campus Planner, Facilities Planning	25 AUGUST 2010 Date
Mark Grabl - Project Manager, Campus Design & Construction	AUGUST 24, 2010 Date
Cory Higgins – Director, Plant Operations	8/24/10 Date
Michael Hardman, College of Education Dean	8/25/10 Date
Raymond Tymas-Jones, College of Fine Arts Dean	August 20, 2010 Date
Mary Ann Lee, Tanner Dance Director	August 24, 2010 Date

University of Utah

Beverley Taylor Sorenson Arts and Education Complex (BTSAEC)

Division of Facilities Construction & Management, State of Utah

We have reviewed the Beverley Taylor Sorenson Arts and Education Complex Program, jointly prepared with the University for approval.

David G. Buxton 8-31-10

Gregg Buxton, DFCM Director — Date

Rick James 8.30.10

Rick James, DFCM Project Manager — Date

ACKNOWLEDGEMENTS

CORE TEAM

The programming team would like to thank the Beverley Taylor Sorenson Arts and Education Complex Steering Committee and Support Group for their valuable input and direction, without which it would not have been possible to prepare this facilities program. The members of these groups made themselves available throughout the process as often as needed to provide answers and feedback. They were essential to making the difficult decisions necessary to prepare a realistic and relevant planning document that will be the basis for the design of the new Beverley Taylor Sorenson Arts and Education building.

These groups included the following members:

Steering Committee

David Pershing	Senior VP for Academic Affairs
Mike Perez	Assoc. VP for Facilities Management
John McNary	Director, Campus Design & Construction
Patricia Ann Ross	Chief Strategy Officer, Academic Affairs
Mark Grabl	University of Utah Project Manager
Tami Cleveland	Campus Planner, Facilities Planning
Rick James	DFCM Project Coordinator
Michael Hardman	Dean, College of Education
Raymond Tymas-Jones	Associate VP for the Arts & Dean, College of Fine Arts
Mary Ann Lee	Director, Tanner Dance

Support Group for the Steering Committee

Rebecca Meadows Anderson	Director of Development, Tanner Dance
Rob Hunsaker	Director of Development, College of Ed.
Chamonix Larsen	DFCM Energy Program Director
Joelle Lien	Assistant Dean of Arts Education
Myron Wilson	Director, Office of Sustainability

COMPREHENSIVE LIST OF PARTICIPANTS

Programming this new facility required input from a broad range of individuals in addition to the members of the two groups listed above. Such involvement ranged from attending meetings to working with programmers one-on-one to describe and review specific space requirements. The following list includes those who made a critical contribution to the programming and conceptual design process.

Centers and Division Staff

Kristi Burns	3015 Program – Dance
Penny Caywood	3015 Program – Theater
Beth Krensky	3015 Program – Art
Rachel Nardo	3015 Program – Music
Laura Marks	College of Education Executive Assistant
Janice Dole	Center for Reading & Literacy
Janiece Pompa	Educational Assessment Clinic
Andrea Rorrer	Utah Education Policy Center
Hugo Rossi	Center for Math & Science Education
Paula Smith	Eunice Kennedy Shriver National Center for Community of Caring
Louisa Stark	Genetic Science Learning Center
Andrae Meyer	Instructional Media Services
David Kosanke	Office of Information Technology
Reggie Connerly	Campus Food Services
Lisa Arbon-Tagge	Campus UCard Services
Michael Thurman	Campus UCard Services
Scott Folsom	U of U Chief of Police

Programming and Conceptual Design Team

Allen Roberts	Managing Principal, CRSA
Kathy Wheadon	Principal Programmer, CRSA
Arrin Holt	Project Manager, CRSA
Rachel David	Sustainability Director, CRSA
S. Leonard Auerbach	President, Auerbach Pollock Friedlander
Alysia Lund	Project Manager, Auerbach Pollock Friedlander
Parry Brown	Structural Engineer, Reaveley Engineers
Steve Connor	Mechanical Engineer, Colvin Engineering
Dave Wesemann	Electrical Engineer, Spectrum Engineers
Randall Vickers	Civil Engineer, Meridian Engineering
Mathew Winward	Landscape Architect, G. Brown Design
Preston Stinger	Traffic Consultant, Fehr & Peers
Kris Larson	Cost Estimator, Construction Control Corporation

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The programming team understood the importance placed on achieving high-performance facilities for learning through assuring program functionality, technical performance, holistic design synergies and integration into the physical context. Through a collaborative approach, the team developed a clear understanding of the University's vision and employed a proven and rigorous process to achieve a well-defined document. A multi-disciplinary organizational structure, which included DFCM, COE, COFA, Tanner Dance, and other advisors provided a platform from which the team reconciled the functional with the aesthetic through the integration of architecture and engineering within the financial parameters of the project.

The programming team welcomed the opportunity to collaborate with the University and Tanner Dance to provide a facilities program which meets the University's goals and fosters synergistic opportunities among educators, students, researchers and the greater arts community. This collaborative relationship supported the mission of the BTSAEC, the goals of the Campus Master Plan and fostered open dialog between the departments.

Building Program: Forging a Partnership

Challenges of co-locating dual programs for the COE and COFA in a cohesive facility also present opportunities for designing shared spaces to foster connectivity. The challenge is to maintain separation where required while also providing space that encourages interaction among current faculty, future teachers, students, and children.

Collaborative teaching, support and community building areas will be woven into the program along natural paths of circulation, and equipped with amenities to encourage their use. It will be critical to find design solutions that tie the programs together, while still satisfying each user's specific and discrete requirements. Child security must be considered from initial drop-off to final pick-up to ensure that this occupant group will be safe users of the facility.

A highly-collaborative multi-disciplinary facility provides opportunities for serendipitous interaction; interaction that can lead to unforeseen synergies for the College of Education, College of Fine Arts, and the Tanner Dance Program. The design will maintain separation where required, while providing shared amenities and a coherent and appropriate image and academic identity.

1.3 Client Team

The Division of Facilities Construction and Management (DFCM) served as the program director for the project. The BTSAEC programming team utilized DFCM to establish overall project budget (both hard and soft costs) which were checked by the programming team's cost estimators. In addition, DFCM's project coordinator has acted as a sounding board and voice of reason to ensure the delivered project is just, accurate, and sustainable.

The University of Utah was represented during the programming process by the Facilities organization which brought to bear the resources representing planning, design and construction. In addition, staff representing operations and maintenance participated in all aspects of the programming process. Facilities were represented on a day-to-day basis by a project manager, and at an administrative level by the Associate Vice President, the Director of Campus Design & Construction, and Facilities Planning.

The College of Education was represented during the programming and conceptual design process by the Dean and the Director of Development. The College has brought to bear all resources to provide the programming team access to faculty and staff. In addition, they have facilitated access to representatives for many outreach Centers. As needed during the programming process, smaller working groups were established to work on distinct or unique elements of the program.

The College of Fine Arts was represented during the programming and conceptual design process by the Dean and the Assistant Dean of Arts Education. An auxiliary of the College of Fine Arts, the Virginia Tanner Creative Dance Program was represented by its Director and Director of Development.

SECTION 2

EXECUTIVE SUMMARY

2.1 Introduction

In late 2009, the programming team began a study of the University of Utah's College of Education (COE), College of Fine Arts (COFA), and Virginia Tanner Creative Dance Program. This study included site evaluation, existing conditions review, space needs analysis, and recommended concepts for design. Significant time was spent planning a building that would fit into the campus, respond to its general site and respond to the needs for a new, integrated Arts and Education building.

The programming team, comprised of Cooper Roberts Simonsen Associates (CRSA), met regularly with members of the Beverley Taylor Sorenson Arts and Education Complex Steering Committee, Support Group, individual planning groups, faculty, staff, and University stakeholders. Through the fall and winter of 2009-2010 the project team did the following:

- Conducted a series of meetings and workshops to address the vision and goals for the project;
- Quantified and mapped existing plans displaying the current uses and organization of the different user groups;
- Identified proposed space needs through an extensive series of programming interviews and summarized the results in program diagrams;
- Explored and evaluated options for re-organizing integrated activities in accordance with Strategic Academic Plan from both a functional and cost standpoint;
- Reviewed the systems and infrastructure of the existing facilities and identified design strategies;
- Explored models of collaborative work practices and established affinity and spatial needs;
- Outlined the connection to campus circulation and systems;
- Explored and evaluated options for site access, student drop-off and pick-up, and temporary parking;
- Reviewed the current status of technology and outlined a plan for future technology utilization;
- Incorporated reviews and recommendations by expert performing arts / education planning consultants;
- Developed cost models to determine priorities and meet the overall project budget;
- Created room data sheets to document specific space requirements;
- Developed preliminary conceptual organizational strategies, blocking/stacking models, and building massing models;
- Addressed issues related to future planning; and
- Reviewed and finalized recommended block and stack strategies.

A key topic addressed during programming was to build a collaborative working model that would accommodate two distinct user groups, encourage idea exchange and support their outreach needs. Strategies for securing space, to differing degrees and at various times, for distinct user groups were discussed in detail. With no specific site selected for the project, programming recommendations were made within the limits of the proposed precinct in relation to the campus master plan and the anticipated future campus circulation routes. Issues of departmental growth, the needs of new program components, and future planning had to be addressed within the available area through defining planning priorities and creating planning efficiencies.

2.2 Project Philosophy

The vision for the new Beverley Taylor Sorenson Arts and Education Complex (BTSAEC) is to recognize the role of the new building as a hub for both student and community outreach activity on the University of Utah campus. The BTSAEC will serve as a home for a community of learners and educators, a collaborative and vibrant environment for faculty, staff, and members of the greater community, and as an outreach mechanism for the Colleges of Fine Arts and Education and the University.

The College of Education, the College of Fine Arts, and the Tanner Dance Program intend to craft the BTSAEC as a mechanism to bring together renowned University faculty and programs to create an unparalleled force for integrating the arts into the preparation of every new teacher and educational leader and for advancing excellence in arts education that encompasses dance, music, visual art, and theater. The BTSAEC will unite and extend Beverley Taylor Sorenson's vision and the Sorenson Legacy Foundation's investment at other universities and in *art works for kids!*. The BTSAEC Strategic Plan notes:

> *"Our vision is of a vibrant laboratory facility in which the practice and performance of art by children is supported by interdisciplinary faculty expertise, documented training and research practices, sophisticated technologies, and well established community and school partnerships."*

With this vision in mind, the following purposes and goals were established:

Planning

- Create a visually open facility through which users can easily navigate.
- Provide adequate access and security for all anticipated building users.
- Utilize the main level as the social hub from which one easily finds other services and activities.
- Place public services, instructional services and active public lobby as hub from which spokes of offices, collaborative work areas and support spaces radiate.
- Shape an exterior image for the building to advertise arts, science, and education.
- Arrange user groups in a way that facilitates synergy among functions.
- Maximize gathering, lounge and open work spaces within the footprint to support collaboration.
- Create welcoming space for students, families, and children.
- Eliminate barriers (real and perceived) for persons with disabilities.

Building Environments

- Build collaborative neighborhoods for faculty and staff, while providing accessibility to visitors.
- Form Centers spaces that provide flexibility to group size and dynamics as funding changes over time.
- Provide group meeting and study rooms, and lobbies and floor lounges.
- Provide flexible classroom space to accommodate many different teaching methods and class sizes.

- Provide natural light and upgraded finishes as the budget allows.
- Integrated Branding, Showcasing, Way Finding, and Donor Recognition: Intergrate Arts into architectural elements to complement, highlight, and engage building visitors and users.
- Provide opportunities in all public areas for display and celebration of art works.

Technology
- Provide locations for technology-rich learning environments which support local and distance education.
- Create hubs of wireless connectivity for users on the go.
- Ensure that the facility is as hospitable to technology as can be afforded.
- Anticipate future technological development and plan for the flexibility to accommodate that development.

Teaching Environments
- Provide for flexible use rooms to support a collaborative teaching style.
- Support the development of A/V systems and their evolution.
- Respond to needs of acoustical control.
- Provide appropriate support and services adjacent to teaching spaces.
- Breakout areas for collaborative process outside of classrooms.

Studio Environments
- Plan for flexible and adaptable studio environments.
- Provide appropriate surfaces and finishes for dance activities.
- Respond to needs of acoustical control.
- Craft visual connections to studios from collaboration zones.

Infrastructure
- Create a flexible facility that responds to current and future functional needs.
- Provide the infrastructure necessary to service technology-rich environments.
- Address fire protection and life safety needs.
- Address structural and seismic issues.
- Address accessibility (ADA) requirements.
- Take advantage of opportunities to increase comfort and energy conservation opportunities.

Sustainability
- Provide the infrastructure necessary to support University sustainability goals.
- Establish strategies and standards for building performance.
- Utilize the State of Utah High Performance Building Rating System in conjunction with LEED v.3.
- Work collaboratively with the DFCM Energy Program Director and the Director of University of Utah's Office of Sustainability.

2.3 Program Summary

Mission

The new building is intended to assist the College of Education and College of Fine Arts in fulfilling its collaborative mission of promoting arts and education. This new home will centralize many of the COE outreach and research centers and will bring the Tanner Dance Program to central campus as part of a working environment for student and in-service teacher instruction. As such, it must facilitate education, collaboration and community building.

The BTSAEC will be an attractive, modern building that will utilize a visually appealing and functional structure. A core of public services offered on the first level of the BTSAEC will play a vital role in creating a stimulating new image for the COE and Tanner Dance. Services will include multiple dance studios, college-scheduled classrooms, art space and a 200-seat multipurpose lecture hall. The ground-floor open access zone will feature the multipurpose lecture hall, main building lobby and commons, and the fine arts preschool. The building will unfold with services on a total of four, possibly five, levels offering access to the Tanner Dance Administration, Centers' Suites and a Studio zone.

Context

The new BTSAEC Building should fit within the context of the University of Utah main campus. It should be a good neighbor to the buildings and campus around it, yet remain distinctive. Clustered in the South Campus Precinct are two iconic structures, the Utah Museum of Fine Art and the future Business Building, and BTSAEC will want to respond to and support these buildings. As one of several hubs of activity at the edge of campus that invite and engage the public, the BTSAEC must add to the energy and vitality of this new student portal into campus. Other significant features to which the BTSAEC must potentially respond are the future HPER Mall Restoration Plan, the future South Campus Walk, and the future parking structure. The program document considers and analyzes three potential sites in the immediate vicinity of Milton Bennion Hall to house the new building. After a series of meetings by Campus Planning and review by University administration, the site identified as Site 1 and located immediately to the southwest of Milton Bennion Hall and east of the new David Eccles School of Business was ultimately selected as the most appropriate site for this project.

Energy, Environment and Resource Conservation

A key planning idea in the programming and concept design process has been sustainability. The intent is to incorporate high-performance design that will provide maintenance efficiency and low operation costs. By doing so, the BTSAEC will provide the University of Utah with an opportunity not only to benefit from a high-performance building, but also to promote and showcase the benefits of sustainable design.

Building

The BTSAEC Building will provide the University of Utah the opportunity to enhance their outreach mission. The COE continues the ongoing outreach initiative by planning for spaces that represent:

- Socially rich, blending teaching and outreach with the social atmosphere of well-respected collegiate academic facilities;
- Diverse technological resources with integrated research areas; and
- Varied types of learning environments that support the multiple needs of children, university students, and in-service teachers.

To facilitate the role of the COE as a leader in teacher education, the building must have well-conceived floor plans. Section 3 of this document outlines the building's functional relationship and addresses the planning goals to create efficient, flexible and engaging environments.

Space Summary List

Section 3 of this document outlines the types and space needs of each room/area within the BTSAEC. The BTSAEC may occupy an estimated 84,000 gross square feet (GSF) on five levels. At 84,000 GSF the resulting net assignable area will be approximately 53,100 square feet (63% of the total). Consequently, approximately 30,900 square feet (37%) will be attributed to non-assignable areas—public circulation, such as public lobbies and lounges, mechanical and electrical shafts and rooms, restrooms, wall thicknesses and other non-assignable uses.

The program contains five primary divisions as identified in Section 3 "Space Summary," consisting of:

Division	Net Area
Public / Common Resources	3,880 NSF
Academic Instruction	23,640 NSF
Office Space	9,680 NSF
Support Resources	12,270 NSF
Building Resources	3,656 NSF
TOTAL	53,126 NSF

The program for the BTSAEC includes flexible Centers suites for eight outreach and research groups. Planning for future center's growth has been accommodated by grouping the centers into a set of modules to allow each center to flex into an adjacent module. The program does not provide any unoccupied space for future expansion of centers above the net eight previously noted within the 83,823 GSF proposal. Centers' modules consist of private offices, open work areas, collaborative work areas, and

support spaces such as centralized reception, copy/mail/workrooms and conference rooms.

Distributed throughout the building are amenity spaces which include areas to support collaborative interaction and group study, lounge areas and a large fine arts lobby and commons area.

In order to respond to uncertainties of the current construction market conditions and the project schedule, the space summary presents a series of program solutions to align the budget by adjusting square footages in the most flexible program areas.

Section 3.1 contains a summary of the net area assigned to each of these preliminary programmatic divisions. Section 3.4 gives a verbal description of the primary spaces and outlines the proposed basic building organization. Finally, Section 3.6 contains Individual Space Outlines—detailed summaries of the specific requirements of each individual space or room. These individual space outlines, or room data sheets and graphics, represent the heart of the program.

Additional Criteria

The remaining sections of the program document include descriptions of concepts and criteria that will be important to the continued development of the concept design. These include specific requirements and standards related to building and life-safety codes, security, structural, civil, mechanical, electrical, technology, performing arts planning and acoustical requirements.

The program also includes a discussion of possible design and construction phasing, a detailed project schedule and a conceptual cost estimate along with appendices containing recommended zoning and stacking diagrams, an overview of the programming process, a detailed code analysis, the 2008 University of Utah Campus Master Plan and preliminary visualization graphics used while developing the program.

2.4 Project Implementation: Cost and Schedule

Draft Design and Construction Schedule

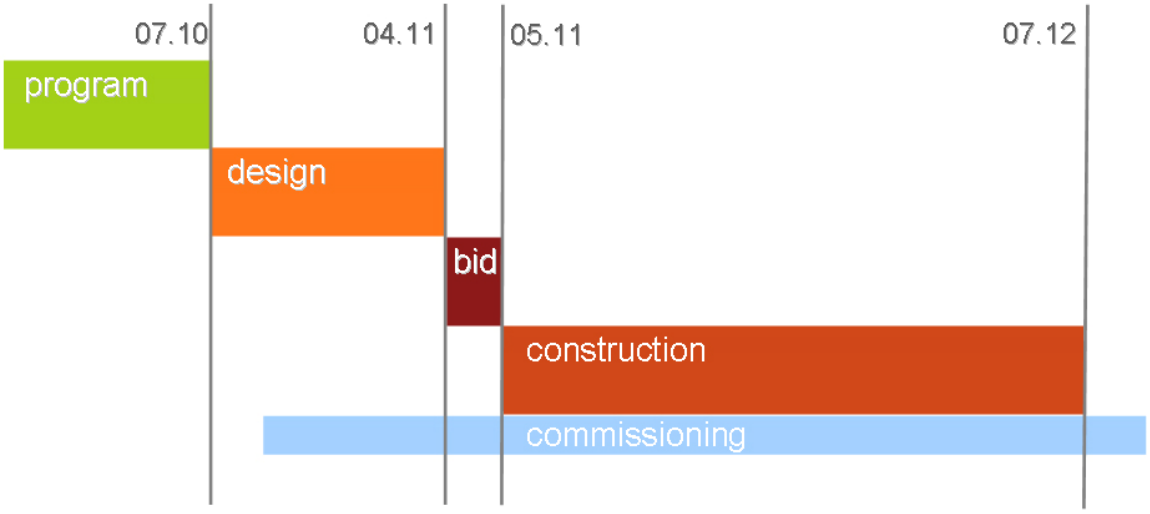
A schedule is included in the program based on a design/bid/build delivery method.

Funding for the BTSAEC comes from private donations with a total project budget of $23,999,916. Selection of the A/E team is scheduled to be completed by summer 2010. Using a Design/Bid/Build delivery, the design and construction process would then be completed in July 2012 (see attached Design/Bid/Build schedule).

Design and construction schedules could be accelerated from this schedule through fast-track delivery methods, using multiple bid packages. This fast-tracking can be accomplished with the preferred CM/GC method. Getting contractors, subcontractors, and suppliers under contract sooner and completing the project faster would lessen

overall escalation costs. To provide meaningful benefit in terms of the University's academic calendar, the project would have to be available for occupancy by the beginning of fall semester 2012, which begins in August.

PROGRAMMING | DESIGN | CONSTRUCTION SCHEDULE



By following the Design Guidelines established by DFCM, the BTSAEC project will have the opportunity to utilize the first phase of the design process, System Selection, to open an early dialog regarding the incorporation of LEED Silver goals and involve the commissioning agent. The commissioning agent is typically involved from approximately 50% completion of Schematic Design until approximately four months after substantial completion.

In the System Selection Design Phase (at approximately 50 – 75% completion of Schematic Design), the A/E shall:

- *Confirm the facility program requirements defined in the facility program document or as directed by DFCM.*
- *Document its Basis of Design (BOD) including any design assumptions, and confirm the assumptions with the authorities having jurisdiction, the Agency and DFCM.*
- *Provide the steering committee with system options and evaluate the impact of each. Adjust the allocation of resources within the cost model, without exceeding the budget, based upon the direction from the steering committee. Obtain mutual agreement in order to proceed.*

By following the DFCM guidelines, the project has the opportunity to establish and formalize its BOD and utilize the Owner's Project Requirements (OPR) as a basis of design against which the project should be checked on a regular basis. This process should encourage open communications between the Agency (U of U Facilities Planning, Shops, the representatives of the College of Education, College of Fine Arts, and the Tanner Dance Program), DFCM, the construction manager, the A/E design team and the commissioning agent. The team is encouraged to establish a protocol for

vetting A/E design decisions and a methodology for tracking the project's ultimate sustainability goals.

Cost Summary

The program includes a programmatic estimate of construction costs and total project costs, summarized as follows:

Construction Costs:

	Estimated Cost
Overall Project Budget (from CBE)	**$ 23,999,916**
Site Development	$ 1,535,000
Utility Fee	$ 20,000
High Performance Building	$ 280,752
Soft Cost Allowance	$ 4,436,288
BTSAEC Building Estimated Cost (83,823 GSF)	$17,485,087
BTSAEC Total Project Construction Estimate	$ 23,757,127
Over / (Under) Budget	**$ (242,789)**

At the time of printing of the program document the Steering Committee was in the process of establishing the scope of the project. As of 22 June 2010 the cost estimate of $17,485,087 is $ 242,789 or about 1% under the targeted total project budget and 1.4% under the targeted total construction budget.

2.5 Sustainability

As of May 2009, the Utah State Division of Facilities Design and Construction and the Utah State Building Board have approved of the use of USGBC LEED® Silver Certification as the new criteria for design and construction of most State-owned buildings. For the BTSAEC, planning sustainability strategies during programming allows the team to make key decisions and set a course. As LEED® Silver is a broad classification, Section 4.2.6 – Energy, Environment, and Resource Conservation highlights university goals, existing conditions and local factors, and defines a recommended strategy to achieve LEED® Silver.

SECTION 3

SPACE SUMMARY

3.1 Summary

The following table summarizes the square footage allocation included in the program. After an initial budget review, the programming team has based the core of the programming work on an 84,000 GSF building target. Additionally, in order to account for the uncertainties of today's construction market, the team worked with DFCM and the University of Utah to develop alternate schemes, build-out options, etc. to allow the project some flexibility to remain within budget. These alternates illustrate the general priorities that will be used to determine which spaces to incorporate in the BTSAEC and can be used as a basis for fine-tuning what is ultimately included in the project. Determination as to what is included in the design documents will depend on the following:

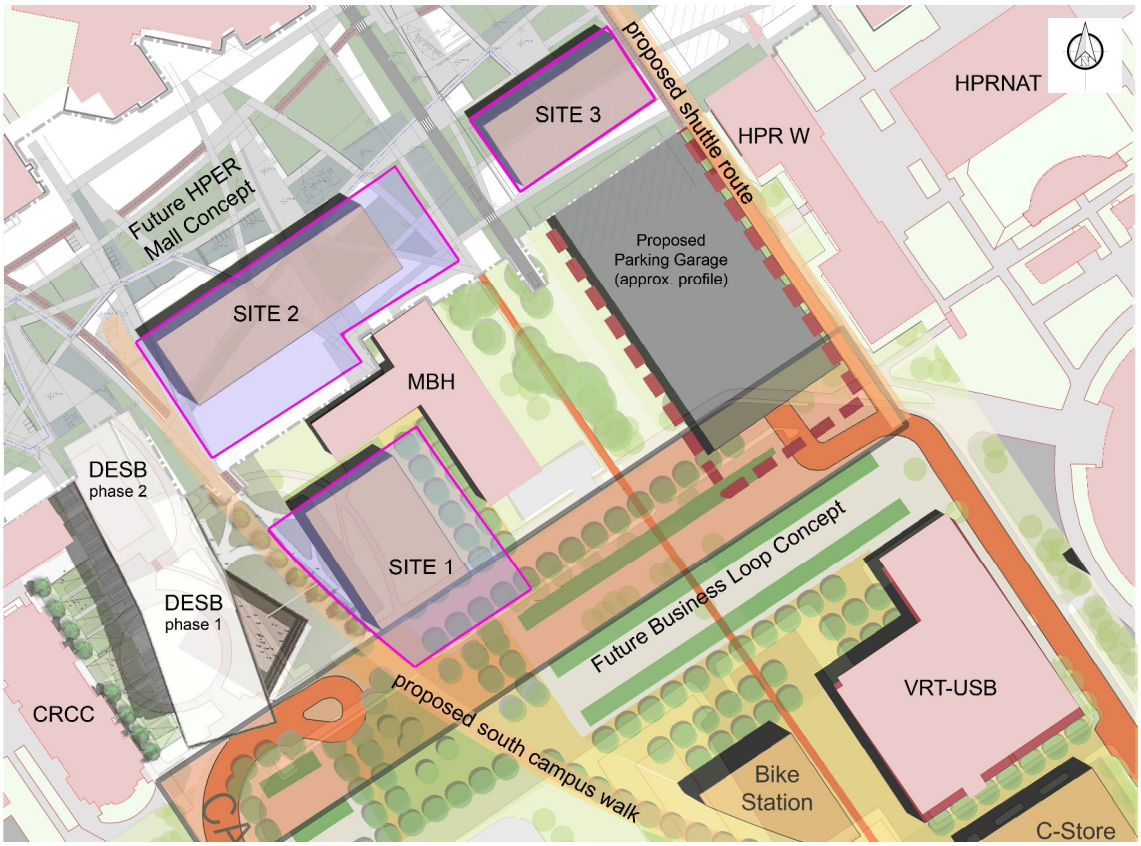
- Execution of final funding for the BTSAEC.
- Whether any additional private funding becomes available.
- Real cost escalation that occurs between the date of this document and the time the design contract is awarded and work gets started in earnest.
- Updated estimates of expected additional construction cost inflation over the intervening period between the onset of design work and the project bid date.

3.2 Programming Process

CRSA was hired in the fall 2009 to complete the program for the BTSAEC. While each entity had previously been involved in programming or facility planning, the goal for focused collaboration between the Colleges of Education and Fine Arts meant shaping a comprehensive program that met the institutional goals set forth in the University of Utah BTSAEC Strategic Plan.

The team worked in an iterative process that involved data gathering, on-site documentation, traffic study, site survey, participation in academic instruction, and in-depth dialog with future building occupants, administrators and users. Through a series of multi-day charettes the team formulated a plan to meet the collaborative goals of the Colleges of Education and Fine Arts. Intensive discussions and planning exercises resulted in the document you now hold. This program consists of both narrative and graphic elements which are foundational in envisioning the BTSAEC.

It is important to note that the programming document was developed before a specific site was officially selected. Three sites were analyzed; however, the most successful architecture is developed in response to site variables, which may include architectural context, geography, geology, landscape and environmental conditions. After a series of meetings by Campus Planning and review by University administration, Site 1 was ultimately selected as the most appropriate site for this project. Continued development of plans for the South Campus precinct and HPER Mall are underway and should be used as springboards to future site planning.



3.3 Room and Space Listing

The following table includes all the rooms and spaces programmed for the BTSAEC. As with the summary, the space list is based on an approximately 84,000 GSF building.

Building Space Utilization Efficiency for the BTSAEC is 63%. Thus, the assignable space of 53,126 net square feet (NSF) illustrates the essence of the programmed space need. After grossing (multiplying the net sf by the net-to-gross factor for the individual space), the assignable square footage equals 64,979 gross square feet (GSF) and the gross area of the total building (including the non-assignable space) is 83,823 GSF. The average net-to-gross factor for assignable space is 1.22 and the building net-to-gross ratio is 1.58. As the building is heavily utilized as an academic teaching facility, the needs for planning additional circulation and community gathering space were carefully considered. Utah Space Standards were reviewed for applicable requirements. Non-assignable gross area includes: restrooms, circulation, structure and partitions, columns, unassigned storage/maintenance areas, stairs, elevators, and mechanical, electrical, and communication shafts and spaces. Total gross sf is derived by adding non-assignable gross area to assignable gross area.

Key: **Common** **COE/COFA** **Tanner Dance**

AREA	DESCRIPTION	SPACES	NASF	TOTAL NET SF	NET TO GROSS	TOTAL GROSS SF
	ENTIRE PROGRAM			**53,126**		**83,823**
1	**PUBLIC / COMMON RESOURCES**			**3,880**		**4,002**
1.1	**Entrances and Lobbies**					
1.1.1a	Vestibule	1	80	80	1.00	80
1.1.1b	Vestibule	1	80	80	1.00	80
1.1.2a	Lobby - Floor	1.5	200	300	1.00	300
1.1.2b	Lobby - Floor	1.5	200	300	1.00	300
1.1.3	PA Lobby - Children drop-off / pick-up	1	1,200	1,200	1.00	1,200
1.1.3a	Receptionist					
1.1.3b	Waiting Area					
1.1.3c	First Aid Area					
1.1.3d	Retail Display / Storage					
1.1.3e	Tots Waiting Area					
1.1.4	Commons (main bldg lobby)	1	1,200	1,200	1.00	1,200
1.1.5	Coat Check / Storage	2	80	160	1.10	176
1.2	**Food Service**					
1.2.1	Food Service Venue	1	200	200	1.20	240
1.2.2	Staff Breakroom / Kitchen	1	300	300	1.20	360
1.2.3	Vending Area	1	60	60	1.10	66
2	**ACADEMIC INSTRUCTION**			**23,640**		**30,732**
2.1	**Performing Arts**					
2.1.1	Introductory Studio	1	1,600	1,600	1.30	2,080
2.1.2	Jr Dance Studio	1	1,600	1,600	1.30	2,080
2.1.3	Sr Dance Studio	2	2,400	4,800	1.30	6,240
2.1.4	Main Studio	1	5,800	5,800	1.30	7,540
2.1.5	Art Studio	1	1,200	1,200	1.30	1,560
2.2	**Teacher Development**					
2.2.1	Multifunction Hall	1	2,400	2,400	1.30	3,120
2.3	**Continuing Education / Outreach**					
2.3.1	Small Classroom	2	720	1,440	1.30	1,872
2.3.2	Large Classroom	4	1,200	4,800	1.30	6,240

AREA	DESCRIPTION	SPACES	NASF	TOTAL NET SF	NET TO GROSS	TOTAL GROSS SF
3	**OFFICE SPACE**			**9,680**		**11,616**
3.1	**Reception / Waiting**					
3.1.1	Reception / Waiting - Tanner	1	200	200	1.20	240
3.1.2	Reception / Waiting - Centers	1	200	200	1.20	240
3.2	**Private Offices**					
3.2.1	Directors Office	2	120	240	1.20	288
3.2.2	Office (3 offices per 8 centers)	24	120	2,880	1.20	3,456
3.2.3	Staff Office	4	100	400	1.20	480
3.3	**Open Workstations**					
3.3.1	Open Workstation - Tanner Hoteling	8	100	800	1.20	960
3.3.2	Open Workstation - Centers	32	100	3,200	1.20	3,840
3.3.3	Open - Collaborative Work Area	8	220	1,760	1.20	2,112
4	**SUPPORT RESOURCES**			**12,270**		**14,933**
4.1	**Meeting Space**					
4.1.1	Board / Large Conference Room	1	400	400	1.20	480
4.1.6a	Conference / Meeting Room	4	240	960	1.20	1,152
4.1.6b	Conference / Meeting Room	1	240	240	1.20	288
4.1.7	Small Group Meeting Room	4	120	480	1.20	576
4.2	**Workroom Space**					
4.2.1a	Mail / Copy / Workroom	3	250	750	1.20	900
4.2.1b	Mail / Copy / Workroom	1	250	250	1.20	300
4.3	**Instruction Support**					
4.3.1	Introductory Studio Storage	1	200	200	1.20	240
4.3.2	Introductory Studio Snack Prep	1	180	180	1.30	234
4.3.6	Table / Chair Storage	3	200	600	1.20	720
4.3.7	3015 Storage	4	120	480	1.20	576
4.3.8	Kitchenette / Catering	2	180	360	1.20	432
4.4	**Dressing & Restrooms**					
4.4.1	Introductory Studio Restroom	2	100	200	1.30	260
4.4.2	Dressing Room Male	1	280	280	1.30	364
4.4.3	Dressing Room Female	2	500	1,000	1.30	1,300
4.4.4	Parent / Student Dress	1	170	170	1.30	221
4.4.5	Dancers Restroom	2	150	300	1.00	300
4.4.6	Faculty Dressing Room Female	1	400	400	1.30	520
4.4.7	Faculty Dressing Room Male	1	260	260	1.30	338
4.4.8	Shower Room	2	100	200	1.30	260
4.5	**Storage**					
4.5.1	Archive / Library	1	400	400	1.20	480
4.5.3	Storage Props / Musical Instruments	1	800	800	1.20	960
4.5.4	Art Studio Storage Fabrication	1	400	400	1.20	480
4.5.6	Costume Storage	1	500	500	1.20	600
4.5.11a	Building-Wide Active Storage Area	9	80	720	1.20	864
4.5.11b	Building-Wide Active Storage Area	2	80	160	1.20	192
4.5.11c	Building-Wide Active Storage Area	1	80	80	1.20	96
4.6	**Specialty Support**					
4.6.1	Costume Fabrication	1	1,200	1,200	1.20	1,440
4.6.2	Costume Laundry / Dye	1	300	300	1.20	360

AREA	DESCRIPTION	SPACES	NASF	TOTAL NET SF	NET TO GROSS	TOTAL GROSS SF
5	**BUILDING RESOURCES**			**3,656**		**3,696**
5.1	**Restrooms**					
5.1.1a	Public Restroom - to be determined	4.5	400	1,800	1.00	1,800
5.1.1b	Public Restroom - to be determined	1.5	400	600	1.00	600
5.1.2	Staff Restrooms - to be determined	2	68	136	1.00	136
5.2	**Equipment**					
5.2.1	Control Booth	1	200	200	1.10	220
5.2.2	Dimmer Room	1	100	100	1.10	110
5.2.3	Sound Equipment Room	1	100	100	1.10	110
5.3	**Janitor**					
5.3.1	Janitors Closet	3	50	150	1.00	150
5.3.2	Janitors Supply / Equipment Storage	1	120	120	1.00	120
5.4	**Building Service**					
5.4.1	Grounds Storage Room	1	50	50	1.00	50
5.4.2	Loading Dock - Receiving (Interior)	1	200	200	1.00	200
5.4.3	Truck Bay and Dock(Exterior)	1	200	200	1.00	200
	TOTAL ASSIGNABLE SPACE			53,126	1.22	64,979
6	**NON-ASSIGNABLE SPACE**			-		18,844
6.1	Mechanical & Electrical					7,148
6.2	Circulation					9,747
6.3	Inaccessible Space					1,949
	TOTAL INTERIOR SPACE			**53,126**	63%	**83,823**

The color coding of the Total Gross Square Foot column illustrate the division of space between three primary building zones.

Green indicates spaces that are primarily “Common” in function. These spaces include Kitchenette/Catering (which may become a food service point), restrooms, janitorial supply and support, loading, mechanical and electrical related spaces, circulation, and inaccessible spaces.

Orange indicates spaces which fall under the auspices of the Colleges of Fine Arts and Education. Spaces include the building’s public lobby (called the Commons), Center’s Suites, conference rooms, instructional classrooms and support spaces, the Multifunction Hall and its related support spaces (including chair/table storage and coat check).

Spaces indicated in turquoise fall under the auspices of the Tanner Dance Program. Spaces include the performing arts lobby, dance studios, the administrative suite for the Tanner Dance Program, instructional support and storage, Costume Fabrications, and equipment rooms.

BTSAEC – Adjacency Matrix

KEY
- ● - Strong Affinity
- ○ - Weak Affinity
- □ - Neutral Affinity
- 🔴 - Negative Affinity

No.	Space	Public - Non Secure Zone	Tanner Dance - Secure Zone	1 COMMON RESOURCES	1.1 Entrances and Lobbies	1.1.1 Vestibule	1.1.2 Lobby - Floor	1.1.3 PA Lobby	1.1.4 Commons (main bldg lobby)	1.1.5 Coat Check / Storage	1.2 Food Service	1.2.1 Food Service Venue	1.2.2 Staff Breakroom / Kitchen	1.2.3 Vending Machines
1	PUBLIC / COMMON RESOURCES													
1.1	Entrances and Lobbies													
1.1.1	Vestibule	●	●											
1.1.2	Lobby - Floor	●	○			□								
1.1.3	PA Lobby	🔴	●			○	□							
1.1.4	Commons (main bldg lobby)	●	🔴			●	□	□						
1.1.5	Coat Check / Storage	●	○			□	□	●	○					
1.2	Food Service													
1.2.1	Food Service Venue	●	□			□	□	□	●	□				
1.2.2	Staff Breakroom / Kitchen	●	□			□	□	□	□	□		□		
1.2.3	Vending Machines	●	□			□	□	□	●	□		□	□	
2	ACADEMIC INSTRUCTION													
2.1	Performing Arts													
2.1.1	Introductory Studio	🔴	●			□	□	○	□	□		□	□	□
2.1.2	Jr Dance Studio	🔴	●			□	□	○	□	□		□	□	□
2.1.3	Sr Dance Studio	🔴	●			□	□	○	□	□		□	□	□
2.1.4	Main Studio	🔴	●			□	□	●	□	●		□	□	□
2.1.5	Art Studio	🔴	●			□	□	○	□	□		□	□	□
2.2	Teacher Development													
2.2.1	Multipurpose - Multifunction Hall	●	🔴			□	□	□	●	●		○	□	□
2.3	Continuing Education / Outreach													
2.3.1	Small Classroom	●	🔴			□	□	□	□	□		□	□	□
2.3.2	Large Classrooms	●	🔴			□	□	□	□	□		□	□	□
3	OFFICE SPACE													
3.1	Reception / Waiting													
3.1.1	Reception / Waiting - Tanner	🔴	●			□	○	□	□	□		□	□	□
3.1.2	Reception / Waiting - Centers	●	🔴			□	○	□	○	□		□	□	□
3.2	Private Offices													
3.2.1	Directors Offices	🔴	●			□	□	□	□	□		□	○	□
3.2.2	Office	●	🔴			□	□	□	□	□		□	○	□
3.2.3	Staff Workstation	🔴	●			□	□	□	□	□		□	○	□
3.3	Open Workstations													
3.3.1	Open Workstations - Tanner Hoteling	🔴	●			□	□	□	□	□		□	○	□
3.3.2	Open Workstations - Centers	●	🔴			□	□	□	□	□		□	○	□
3.3.3	Open - Collaborative Work Area	●	🔴			□	□	□	□	□		□	○	□
4	SUPPORT RESOURCES													
4.1	Meeting Space													
4.1.1	Board / Large Conference Room	●	□			□	□	□	□	□		□	□	□
4.1.6	Conference / Meeting Room (Med.)	●	●			□	□	□	□	□		□	□	□
4.1.7	Conference / Meeting Room (Sm.)	●	□			□	□	□	□	□		□	□	□
4.2	Workroom Space													
4.2.1	Mail / Copy / Workroom	●	●			□	□	□	□	□		□	□	□
4.3	Instruction Support													
4.3.1	Introductory Studio Storage	🔴	●			□	□	□	□	□		□	□	□
4.3.2	Introductory Studio Snack Prep	🔴	●			□	□	□	□	□		□	□	□
4.3.6	Table / Chair Storage	●	□			□	□	□	□	□		□	□	□
4.3.7	3015 Storage	●	🔴			□	□	□	□	□		□	□	□
4.3.8	Kitchenette / Catering	●	○			□	□	○	○	□		□	□	□
4.4	Dressing & Restrooms													
4.4.1	Introductory Studio Restrooms	🔴	●			□	□	□	□	□		□	□	□
4.4.2	Dressing Room Male	🔴	●			□	□	□	□	□		□	□	□
4.4.3	Dressing Room Female	🔴	●			□	□	□	□	□		□	□	□
4.4.4	Parent / Student Dress	🔴	●			□	□	□	□	□		□	□	□
4.4.5	Dancers Restrooms	🔴	●			□	□	□	□	□		□	□	□
4.4.6	Faculty Dressing Room Female	🔴	●			□	□	□	□	□		□	□	□
4.4.7	Faculty Dressing Room Male	🔴	●			□	□	□	□	□		□	□	□
4.4.8	Shower Room	🔴	●			□	□	□	□	□		□	□	□
4.5	Storage													
4.5.1	Archive / Library	□	○			□	□	□	□	□		□	□	□
4.5.3	Storage Props / Musical Instruments	🔴	●			□	□	□	□	□		□	□	□
4.5.4	Art Studio Storage	🔴	●			□	□	□	□	□		□	□	□
4.5.6	Costume Storage	□	○			□	□	□	□	□		□	□	□
4.5.11	Building-Wide Active Storage Area	□	□			□	□	□	□	□		○	□	□
4.6	Specialty Support													
4.6.1	Costume Fabrication	🔴	○			□	□	□	□	□		□	□	□
4.6.2	Costume Laundry / Dye	□	○			□	□	□	□	□		□	□	□
5	BUILDING RESOURCES													
5.1	Restrooms													
5.1.1	Public	●	□			□	●	●	●	□		□	□	□
5.1.2	Staff Restrooms	□	●			□	□	□	□	□		□	○	□
5.2	Equipment													
5.2.1	Control Booth	□	●			□	□	□	□	□		□	□	□
5.2.2	Dimmer Room	□	○			□	□	□	□	□		□	□	□
5.2.3	Sound Equipment Room	□	○			□	□	□	□	□		□	□	□
5.3	Janitor													
5.3.1	Janitors Closet	□	□			□	□	□	□	□		□	□	□
5.3.2	Janitors Supply / Equipment Storage	□	□			□	□	□	□	□		□	□	□
5.4	Building Service													
5.4.1	Grounds Storage Room	□	□			□	□	□	□	□		□	□	□
5.4.2	Loading Dock - Receiving (Interior)	○	□			□	□	□	🔴	□		□	□	□
5.4.3	Truck Bay and Dock(Exterior)	□	□			□	□	□	🔴	□		□	□	□

No.	Space	2 ACADEMIC INSTRUCTION	2.1 Performing Arts	2.1.1 Introductory Studio	2.1.2 Jr Dance Studio	2.1.3 Sr Dance Studio	2.1.4 Main Studio	2.1.5 Art Studio	2.2 Teacher Development	2.2.1 Multipurpose - Multifunction Hall	2.3 Continuing Ed / Outreach	2.3.1 Small Classroom	2.3.2 Large Classrooms
2	ACADEMIC INSTRUCTION												
2.1	Performing Arts												
2.1.1	Introductory Studio												
2.1.2	Jr Dance Studio			●									
2.1.3	Sr Dance Studio			□	□								
2.1.4	Main Studio			□	□	□							
2.1.5	Art Studio			●	●	□	□						
2.2	Teacher Development												
2.2.1	Multipurpose - Multifunction Hall			□	□	□	□	□					
2.3	Continuing Education / Outreach												
2.3.1	Small Classroom			□	□	□	□	□		□			
2.3.2	Large Classrooms			□	□	□	□	□		□		○	
3	OFFICE SPACE												
3.1	Reception / Waiting												
3.1.1	Reception / Waiting - Tanner			□	□	□	□	□		□		□	□
3.1.2	Reception / Waiting - Centers			□	□	□	□	□		□		□	□
3.2	Private Offices												
3.2.1	Directors Offices			□	□	□	□	□		□		□	□
3.2.2	Office			□	□	□	□	□		□		□	□
3.2.3	Staff Workstation			□	□	□	□	□		□		□	□
3.3	Open Workstations												
3.3.1	Open Workstations - Tanner Hoteling			□	□	□	□	□		□	□		□
3.3.2	Open Workstations - Centers			□	□	□	□	□		□	□		□
3.3.3	Open - Collaborative Work Area			□	□	□	□	□		□	□		□
4	SUPPORT RESOURCES												
4.1	Meeting Space												
4.1.1	Board / Large Conference Room			□	□	□	□	□		□		□	□
4.1.6	Conference / Meeting Room (Med.)			□	□	□	□	□		□		□	□
4.1.7	Conference / Meeting Room (Sm.)			□	□	□	□	□		□		□	□
4.2	Workroom Space												
4.2.1	Mail / Copy / Workroom			□	□	□	□	□		□		□	□
4.3	Instruction Support												
4.3.1	Introductory Studio Storage			●	●	□	□	□		□		□	□
4.3.2	Introductory Studio Snack Prep			●	●	□	□	○		□		□	□
4.3.6	Table / Chair Storage			□	□	□	□	●		●		●	●
4.3.7	3015 Storage			□	□	○	□	●		●		□	○
4.3.8	Kitchenette / Catering			□	□	□	●	□		●		□	□
4.4	Dressing & Restrooms												
4.4.1	Introductory Studio Restrooms			●	○	□	□	●		□		□	□
4.4.2	Dressing Room Male			○	●	●	●	□		□		□	□
4.4.3	Dressing Room Female			○	●	●	●	□		□		□	□
4.4.4	Parent / Student Dress			●	○	□	□	□		□		□	□
4.4.5	Dancers Restrooms			□	□	□	●	□		□		□	□
4.4.6	Faculty Dressing Room Female			□	○	●	□	□		□		□	□
4.4.7	Faculty Dressing Room Male			□	○	●	□	□		□		□	□
4.4.8	Shower Room			□	□	□	□	□		□		□	□
4.5	Storage												
4.5.1	Archive / Library			□	□	□	□	□		□		□	□
4.5.3	Storage Props / Musical Instruments			□	●	●	○	□		□		□	□
4.5.4	Art Studio Storage			□	□	□	□	●		□		□	□
4.5.6	Costume Storage			□	□	□	□	□		□		□	□
4.5.11	Building-Wide Active Storage Area			□	□	□	□	□		□		□	□
4.6	Specialty Support												
4.6.1	Costume Fabrication			□	□	□	□	□		□		□	□
4.6.2	Costume Laundry / Dye			□	□	□	□	□		□		□	□
5	BUILDING RESOURCES												
5.1	Restrooms												
5.1.1	Public			□	□	□	●	□		□		□	□
5.1.2	Staff Restrooms			□	□	□	□	□		□		□	□
5.2	Equipment												
5.2.1	Control Booth			□	□	□	●	□		□		□	□
5.2.2	Dimmer Room			□	□	□	○	□		□		□	□
5.2.3	Sound Equipment Room			□	□	□	○	□		□		□	□
5.3	Janitor												
5.3.1	Janitors Closet			□	□	□	□	□		□		□	□
5.3.2	Janitors Supply / Equipment Storage			□	□	□	□	□		□		□	□
5.4	Building Service												
5.4.1	Grounds Storage Room			□	□	□	□	□		□		□	□
5.4.2	Loading Dock - Receiving (Interior)			□	□	○	○	□		□		□	□
5.4.3	Truck Bay and Dock(Exterior)			□	□	□	□	□		□		□	□

No.	Space	3 OFFICE SPACE	3.1 Reception / Waiting	3.1.1 Reception / Waiting - Tanner	3.1.2 Reception / Waiting - Centers	3.2 Private Offices	3.2.1 Directors Offices	3.2.2 Office	3.2.3 Staff Workstation	3.3 Open Workstations	3.3.1 Open Workstations - Tanner	3.3.2 Open Workstations - Centers	3.3.3 Open - Collaborative Work Area
3	OFFICE SPACE												
3.1	Reception / Waiting												
3.1.1	Reception / Waiting - Tanner												
3.1.2	Reception / Waiting - Centers			□									
3.2	Private Offices												
3.2.1	Directors Offices			○	🔴								
3.2.2	Office			🔴	○								
3.2.3	Staff Workstation			○	🔴		○	🔴					
3.3	Open Workstations												
3.3.1	Open Workstations - Tanner Hoteling			○	🔴		○	🔴	○				
3.3.2	Open Workstations - Centers			🔴	○		🔴	○	🔴		🔴		
3.3.3	Open - Collaborative Work Area			🔴	○		🔴	○	🔴		🔴	●	
4	SUPPORT RESOURCES												
4.1	Meeting Space												
4.1.1	Board / Large Conference Room			□	□		□	□	□		□	□	□
4.1.6	Conference / Meeting Room (Med.)			□	□		○	○	□		□	□	□
4.1.7	Conference / Meeting Room (Sm.)			□	□		○	○	○		○	○	□
4.2	Workroom Space												
4.2.1	Mail / Copy / Workroom			□	□		□	○	●		●	●	□
4.3	Instruction Support												
4.3.1	Introductory Studio Storage			□	□		□	□	□		□	□	□
4.3.2	Introductory Studio Snack Prep			□	□		□	□	□		□	□	□
4.3.6	Table / Chair Storage			□	□		□	□	□		□	□	□
4.3.7	3015 Storage			□	□		□	□	□		□	□	□
4.3.8	Kitchenette / Catering			□	□		□	□	□		□	□	□
4.4	Dressing & Restrooms												
4.4.1	Introductory Studio Restrooms			□	□		□	□	□		□	□	□
4.4.2	Dressing Room Male			□	□		□	□	□		□	□	□
4.4.3	Dressing Room Female			□	□		□	□	□		□	□	□
4.4.4	Parent / Student Dress			□	□		□	□	□		□	□	□
4.4.5	Dancers Restrooms			□	□		□	□	□		□	□	□
4.4.6	Faculty Dressing Room Female			□	□		□	□	□		□	□	□
4.4.7	Faculty Dressing Room Male			□	□		□	□	□		□	□	□
4.4.8	Shower Room			□	□		□	□	□		□	□	□
4.5	Storage												
4.5.1	Archive / Library			□	□		□	□	□		□	□	□
4.5.3	Storage Props / Musical Instruments			□	□		□	□	□		□	□	□
4.5.4	Art Studio Storage			□	□		□	□	□		□	□	□
4.5.6	Costume Storage			□	□		□	□	□		□	□	□
4.5.11	Building-Wide Active Storage Area			□	□		□	□	□		□	□	□
4.6	Specialty Support												
4.6.1	Costume Fabrication			□	□		□	□	□		□	□	□
4.6.2	Costume Laundry / Dye			□	□		□	□	□		□	□	□
5	BUILDING RESOURCES												
5.1	Restrooms												
5.1.1	Public			□	□		□	□	□		□	□	□
5.1.2	Staff Restrooms			□	□		□	□	□		□	□	□
5.2	Equipment												
5.2.1	Control Booth			□	□		□	□	□		□	□	□
5.2.2	Dimmer Room			□	□		□	□	□		□	□	□
5.2.3	Sound Equipment Room			□	□		□	□	□		□	□	□
5.3	Janitor												
5.3.1	Janitors Closet			□	□		□	□	□		□	□	□
5.3.2	Janitors Supply / Equipment Storage			□	□		□	□	□		□	□	□
5.4	Building Service												
5.4.1	Grounds Storage Room			□	□		□	□	□		□	□	□
5.4.2	Loading Dock - Receiving (Interior)			🔴	🔴		🔴	🔴	🔴		🔴	🔴	🔴
5.4.3	Truck Bay and Dock(Exterior)			🔴	🔴		🔴	🔴	🔴		🔴	🔴	🔴

No.	Space	4 SUPPORT RESOURCES	4.1 Meeting Space	4.1.1 Board / Large Conference Room	4.1.6 Conference / Meeting Room (Med.)	4.1.7 Conference / Meeting Room (Sm.)	4.2 Workroom Space	4.2.1 Mail / Copy / Workroom	4.3 Instruction Support	4.3.1 Introductory Studio Storage	4.3.2 Introductory Studio Snack Prep	4.3.6 Table / Chair Storage	4.3.7 3015 Storage	4.3.8 Kitchenette / Catering
4	SUPPORT RESOURCES													
4.1	Meeting Space													
4.1.1	Board / Large Conference Room													
4.1.6	Conference / Meeting Room (Med.)			□										
4.1.7	Conference / Meeting Room (Sm.)			□	□									
4.2	Workroom Space													
4.2.1	Mail / Copy / Workroom			□	□	□								
4.3	Instruction Support													
4.3.1	Introductory Studio Storage			□	□	□		□						
4.3.2	Introductory Studio Snack Prep			□	□	□		□		○				
4.3.6	Table / Chair Storage			□	□	□		□		□	□			
4.3.7	3015 Storage			□	□	□		□		□	□	□		
4.3.8	Kitchenette / Catering			○	□	□		□		□	□	□	□	
4.4	Dressing & Restrooms													
4.4.1	Introductory Studio Restrooms			□	□	□		□		□	□	□	□	□
4.4.2	Dressing Room Male			□	□	□		□		□	□	□	□	□
4.4.3	Dressing Room Female			□	□	□		□		□	□	□	□	□
4.4.4	Parent / Student Dress			□	□	□		□		□	□	□	□	□
4.4.5	Dancers Restrooms			□	□	□		□		□	□	□	□	□
4.4.6	Faculty Dressing Room Female			□	□	□		□		□	□	□	□	□
4.4.7	Faculty Dressing Room Male			□	□	□		□		□	□	□	□	□
4.4.8	Shower Room			□	□	□		□		□	□	□	□	□
4.5	Storage													
4.5.1	Archive / Library			□	□	□		□		□	□	□	□	□
4.5.3	Storage Props / Musical Instruments			□	□	□		□		□	□	□	□	□
4.5.4	Art Studio Storage			□	□	□		□		□	□	□	□	□
4.5.6	Costume Storage			□	□	□		□		□	□	□	□	□
4.5.11	Building-Wide Active Storage Area			□	□	□		□		□	□	□	□	□
4.6	Specialty Support													
4.6.1	Costume Fabrication			□	□	□		□		□	□	□	□	□
4.6.2	Costume Laundry / Dye			□	□	□		□		□	□	□	□	□
5	BUILDING RESOURCES													
5.1	Restrooms													
5.1.1	Public			□	□	□		□		□	□	□	□	□
5.1.2	Staff Restrooms			□	□	□		□		□	□	□	□	□
5.2	Equipment													
5.2.1	Control Booth			□	□	□		□		□	□	□	□	□
5.2.2	Dimmer Room			□	□	□		□		□	□	□	□	□
5.2.3	Sound Equipment Room			□	□	□		□		□	□	□	□	□
5.3	Janitor													
5.3.1	Janitors Closet			□	□	□		□		□	□	□	□	□
5.3.2	Janitors Supply / Equipment Storage			□	□	□		□		□	□	□	□	□
5.4	Building Service													
5.4.1	Grounds Storage Room			□	□	□		□		□	□	□	□	□
5.4.2	Loading Dock - Receiving (Interior)			🔴	□	□		□		□	□	□	□	□
5.4.3	Truck Bay and Dock(Exterior)			🔴	□	□		□		□	□	□	□	□

No.	Space	4.4 Dressing & Restrooms	4.4.1 Introductory Studio Restrooms	4.4.2 Dressing Room Male	4.4.3 Dressing Room Female	4.4.4 Parent / Student Dress	4.4.5 Dancers Restrooms	4.4.6 Faculty Dressing Room Female	4.4.7 Faculty Dressing Room Male	4.4.8 Shower Room	4.5 Storage	4.5.1 Archive / Library	4.5.3 Storage Props / Musical Instruments	4.5.4 Art Studio Storage	4.5.6 Costume Storage	4.5.1 Building-Wide Active Storage Area	4.6 Specialty Support	4.6.1 Costume Fabrication	4.6.2 Costume Laundry / Dye
4.4	Dressing & Restrooms																		
4.4.1	Introductory Studio Restrooms																		
4.4.2	Dressing Room Male		□																
4.4.3	Dressing Room Female		□	□															
4.4.4	Parent / Student Dress		□	□	□														
4.4.5	Dancers Restrooms		□	□	□	□													
4.4.6	Faculty Dressing Room Female		□	□	□	□	□												
4.4.7	Faculty Dressing Room Male		□	□	□	□	□	□											
4.4.8	Shower Room		□	●	●	□	□	□	□										
4.5	Storage																		
4.5.1	Archive / Library		□	□	□	□	□	□	□	□									
4.5.3	Storage Props / Musical Instruments		□	□	□	□	□	□	□	□		□							
4.5.4	Art Studio Storage		□	□	□	□	□	□	□	□		□	□						
4.5.6	Costume Storage		□	□	□	□	□	□	□	□		□	□	□					
4.5.11	Building-Wide Active Storage Area		□	□	□	□	□	□	□	□		□	□	□	□				
4.6	Specialty Support																		
4.6.1	Costume Fabrication		□	□	□	□	□	□	□	□		□	□	□	●	□			
4.6.2	Costume Laundry / Dye		□	□	□	□	□	□	□	□		□	□	□	●	□		●	
5	BUILDING RESOURCES																		
5.1	Restrooms																		
5.1.1	Public		□	□	□	□	□	□	□	□		□	□	□	□	□		□	□
5.1.2	Staff Restrooms		□	□	□	□	□	□	□	□		□	□	□	□	□		□	□
5.2	Equipment																		
5.2.1	Control Booth		□	□	□	□	□	□	□	□		□	□	□	□	□		□	□
5.2.2	Dimmer Room		□	□	□	□	□	□	□	□		□	□	□	□	□		□	□
5.2.3	Sound Equipment Room		□	□	□	□	□	□	□	□		□	□	□	□	□		□	□
5.3	Janitor																		
5.3.1	Janitors Closet		□	□	□	□	□	□	□	□		□	□	□	□	□		□	□
5.3.2	Janitors Supply / Equipment Storage		□	□	□	□	□	□	□	□		□	□	□	□	□		□	□
5.4	Building Service																		
5.4.1	Grounds Storage Room		□	□	□	□	□	□	□	□		□	□	□	□	□		□	□
5.4.2	Loading Dock - Receiving (Interior)		□	□	□	□	□	□	□	□		□	○	○	○	●		○	○
5.4.3	Truck Bay and Dock(Exterior)		□	□	□	□	□	□	□	□		□	○	○	○	●		○	○

No.	Space	5 BUILDING RESOURCES	5.1 Restrooms	5.1.1 Public	5.1.2 Staff Restrooms	5.2 Equipment	5.2.1 Control Booth	5.2.2 Dimmer Room	5.2.3 Sound Equipment Room	5.3 Janitor	5.3.1 Janitors Closet	5.3.2 Janitors Supply / Equipment Sto.	5.4 Building Service	5.4.1 Grounds Storage Room	5.4.2 Loading Dock - Receiving (Interior)	5.4.3 Truck Bay and Dock(Exterior)
5	BUILDING RESOURCES															
5.1	Restrooms															
5.1.1	Public															
5.1.2	Staff Restrooms			□												
5.2	Equipment															
5.2.1	Control Booth			□	□											
5.2.2	Dimmer Room			□	□		●									
5.2.3	Sound Equipment Room			□	□		●	○								
5.3	Janitor															
5.3.1	Janitors Closet			□	□		□	□	□							
5.3.2	Janitors Supply / Equipment Storage			□	□		□	□	□		□					
5.4	Building Service															
5.4.1	Grounds Storage Room			□	□		□	□	□		□	□				
5.4.2	Loading Dock - Receiving (Interior)			□	□		○	○	○		□	□		□		
5.4.3	Truck Bay and Dock(Exterior)			□	□		□	□	□		□	□		□	●	

Negative Relationships:

There are limited negative relationships between future building uses or occupants. While primary negative relationships lie in the potential for acoustic intrusion (air born and/or structurally born noise) the building occupants prefer acoustic isolation occur at the perimeter of noisy spaces instead of separating all noisy spaces from all spaces that may require focused quiet attention. In addition, while there is no negative relation between areas considered to fall within the "public" area of the building versus those in the "secure" area of the building, visual access between these areas is highly desired. Allowing for flexibility in the location of the boundary of the secure zone will allow building users more options for use and cross collaboration.

3.4 Building Organization

The following is a narrative description of the context and rational for the building organization as it is outlined in the space summary.

Entry Level Features

The entry level will provide a distinctive entrance into the BTSAEC, a building organized to accommodate collaborative work and community building. With a centralized multi-story atrium, a voluminous space which will perform several additional functions: it will function as a lantern at the building's main entry at night, assist in wayfinding through the building and act as an organizing element for the building during the day; it will also bring natural light deep into the building while providing users visual access to the floors housing academic and educational/outreach space above. An open entry volume will also serve as a locus for orienting visitors to the building from several directions and to the open internal circulation of the atrium and elevator bays beyond.

A single point of entry is required for Tanner Dance Program students. A well-defined entry will allow this population of building users entry and access to a secure internal circulation route to the dance studios above the main entry. This secure entry will isolate the parent drop-off / pick-up from the main public entrance to the building.

While both entrances are critical to the function of the building, the architectural focus should be on providing a sheltered entry for the Tanner Dance Program and an inviting public entry point into the main lobby and access to public circulation routes and services through a central lobby. These two main building functions should be connected physically and visually, although planning for secure access between the spaces when the population of student dancers occupies the building will be important.

Circulation

To support internal campus traffic patterns within the Business Loop, the programming team reviewed existing traffic conditions related to the major building occupants, developed future traffic loading and building occupancy patterns and tested their impact on the existing campus infrastructure. The College of Education precinct must accommodate the BTSAEC, the future demolition of Milton Bennion Hall and its replacement, a new College of Education building, the potential of a new classroom building, a potential parking garage, and a new structure to accommodate the College of Health. Because the BTSAEC has significant demand for short term parking and drop-off, creating an area to accommodate these functions within the precinct and outside the Business Loop will be considered critical to the project's goals. A primary public entry has been developed which coincides with the location of the public outreach functions of the Centers, but also has a stronger relationship to central campus, along a future South Campus Walk. To support this key entry a drop-off area, short and long term parking will have to be accomplished off of the project site to support the entry portal to academic research, instruction and outreach services.

The primary entry and public service functions of level one are focused to allow for coordination with campus features, such as junctions of main pedestrian circulation

routes. Main public services are located in relationship with this entry and the first floor lobby. A secondary access will need to be developed to have a significant association to an automobile drop-off/pick-up and accessible parking zone primarily associated with the Tanner Dance program. This route may be utilized by U of U transit, but will primarily serve as a drop off point for individuals arriving by private vehicle; in addition it may serve as access to a small delivery zone for the new BTSAEC.

A main open stair located in the atrium area (Commons) will serve all levels of the building. Enclosed internal vertical circulation is housed to the perimeter of the building and consists of two stair towers and public elevators. The service corridor and freight elevator originate at the loading dock on level one and provide delivery access and service to all other levels. Two separate circulation cores, one for public access and the other for Tanner Dance must be developed. As access control is important to the Tanner Dance program, a secure vertical circulation route must be developed with access control on each level. Linkages between the public area and secure area are encouraged to be developed with security controls in mind. Wide halls and corridors throughout will provide informal gathering space for collaboration and interaction. Planning for queuing near instructional spaces will allow for a collaborative community to form and have space to grow. In addition, well planned lobbies will encourage users to linger, utilize services, build relationships, and thus support the overarching mission of the BTSAEC.

Amenity Space

While amenity spaces are planned throughout the BTSAEC, they are most highly concentrated around the multi-story atrium. On Level One an open lounge with informal seating areas within the Commons will also provide visual access into the Center's Suites, proximity to the Multifunction Hall, and the potential for a food service point. Within the secure area, the Performing Arts Lobby should be linked through a vertical circulation core to active gathering spaces outside studios.

Small meeting rooms located near academic instruction areas are sized for group study, small conferences, and peer tutoring or teacher's assistant work sessions. Four of these are planned for the building to be located primarily on Level Three with adjacency to academic classrooms. They have been developed as both more-open and informal lounge-like spaces and fully-enclosed conference room set ups.

In addition, the conceptual plan references outdoor seating and a grassy amphitheater which will serve to draw building visitors and occupants out-of-doors. This space will also serve as a resource for the Tanner Dance Program to hold outdoor rehearsals during the spring and summer. A rich and active teaching, research and outreach program will be highlighted through the use of large scale display cases and graphic signage. Other public amenities include informal seating adjacent to classrooms and studios, a café or food service point, chair/table storage and restrooms.

A component of planning public circulation areas will be considered for the development of integrated graphics, displays and architectural elements which explain the mission of the BTSAEC. Due to the need for separate building entries, both public lobbies need to incorporate these elements. Seating, lighting and security must also be addressed.

Coordination with the steering committee as the project moves through design is the most appropriate venue for these discussions.

Integrated Branding, Showcasing, Way Finding, and Donor Recognition

The University of Utah has seen success in recent new building projects that have integrated the mission of the institution, department or division into the built architectural form or as an overlay of displays, donor recognition and exhibits. The Sutton Geology and Geophysics Building is one example of the immersive environment that can be created when Integrated Branding, Showcasing, Way Finding, and Donor Recognition is planned during the design phase. Building on this recent success, it is an expectation of the University of Utah that Integrated Branding, Showcasing, Way Finding, and Donor Recognition be fully integrated throughout the new BTSAEC. Integrated Branding, Showcasing, Way Finding, and Donor Recognition will include: donor recognition and signage, and theming elements celebrating the programs of the facility. Inspiring themes will likely originate from the history, culture, donors, and future aspirations of programs within the new facility.

In order to give Integrated Branding, Showcasing, Way Finding, and Donor Recognition proper focus and scope, a defined budget amount will insure an effective integration takes place during design and construction. The budget includes costs normally allocated to donor recognition. Furthermore, work on the Package will need to occur during the design phase and will probably be completed by a specialized sub-consultant focused on the effort. Finally, an appropriate budget amount of approximately 1.5% has been allocated within the project budget and is indicated in the Executive Summary for Integrated Branding, Showcasing, Way Finding, and Donor Recognition.

Donor recognition and signage should be coordinated with Integrated Branding, Showcasing, Way Finding, and Donor Recognition. Donor recognition and signage includes all building signage, including room signs, interior way finding, and other related signs. It does not include campus designated exterior building identification signs which will be directed by the campus. There is a campus standard for those signs, and the project will have to pay for them, but they are not part of Integrated Branding, Showcasing, Way Finding, and Donor Recognition.

Classrooms

Classrooms for the College of Fine Arts and College of Education resources are planned on Level One and Three and consist of a 2,400 square foot Multifunction Hall, two 30-seat classrooms and four 50-seat classrooms. The Multifunction Hall must accommodate 200 seats as well as be reconfigurable into two one-hundred seat instructional spaces and into four smaller classrooms. All instructional spaces must be flexible enough to meet today's instructional technology needs and serve long into the future. They must also accommodate the desire for distance learning capability. As each of these rooms will be used for Arts Education instruction that requires highest furniture flexibility, the room data sheets illustrate the series of requirements that will serve a diverse set of educators and students. As many of the learners are future and current teachers, visual access into these spaces is not prohibited, but rather encouraged. In addition, display areas inside and outside the classrooms provide

another outreach mechanism for the BTSAEC. Immediate adjacency to 3015 Storage Rooms from 50-seat classrooms will provide for access to instructional supplies, props and instruments integral to Education instruction.

Studios

Instruction within the Tanner Dance Program curriculum will occur within a series of studios. An Introductory studio and Junior studio will be located on Level One and adjacent to service spaces that support their needs. Recognition that many of the students in these smaller studios can be quite young, proximity to parking, drop-off and pick up areas will facilitate access and wayfinding.

Also on Level One, the Art Studio will serve both as an instructional space for youth, as well as a setting for College of Education instruction. As such, the room will accommodate both children and adult learners with minimal reconfiguration.

To serve dance instruction one Junior, two Senior and one Main Studio have been developed. Each studio is different in size and configuration to suit the needs of the instruction taking place. These spaces include resources to support the movement curriculum, including dance bars, mirrors, and audio equipment. The Main Studio will be used for the instruction of senior students but will also provide flexible seating to accommodate recitals and performance rehearsals. The studios will be equipped with audio and video equipment to support this style of teaching.

Like the Art Studio, the Junior and Senior dance studios will also serve both child and adult learners. In addition, distance learning capability will be provided from mobile equipment stored on rolling carts that can be used in any of the studios.

Service Core

Service functions are best located in clusters of similar work processes. Well planned and organized back-of-house support areas will support costume fabrication, historical archive and library, copy/mail/work rooms, storage and staff support. In the case of the BTSAEC, access to the service core will mean planning for external access and delivery, short-term vehicle parking and access to refuse collection. A loading area has been located at the joint between the secure Tanner Dance Program area and the public area in the conceptual design scheme. It is serviced by a loading area with oversized double doors and access to a short term receiving storage room and storage room. The service elevator is located adjacent to the service corridor with direct access to the dock. No overhead doors, lift or dock are planned but oversized doors must lead from the dock to the service elevator and through the floors to allow for equipment and materials delivery and service. During critical pre-event times, moving significant costuming out of the BTSAEC to performance venues means planning a well though out route between Costuming and the loading area. A grounds storage room will also be provided back-of-house. If deemed appropriate, access may be limited through the service core by limited card key access.

A Building-Wide Active Storage Area has been planned with ease of access to the Loading Dock area and service elevator. It will serve as both a long term storage area

for unique centers and the Tanner Dance administrative suite within the BTSAEC and may include a work area for preparation of events and outreach tools. Chain link fence enclosures will house flexible storage (shelves and lateral files). As many building users have materials needed for their outreach and educational efforts, the goal is to move many items currently stored in offices or Centers' administrative suites into a central location near the loading area will better facilitate outreach efforts.

Wayfinding and Amenity Spaces

As a facility with significant public and student access components (classrooms, studios, conference spaces, graduate student work areas, Center/Tanner Dance Program administrative suites and a café) internal wayfinding was a strong driver of the conceptual plan. In addition to the ease of wayfinding planned through the multi-story atrium and ease of access to vertical circulation routes, good wayfinding tools were planned. They include both static signage and directories and digital signage above the first level and the main atrium stair landing for floor lobbies housing informal lounge areas adjacent to small collaborative meeting rooms. Center/Tanner Dance Program administrative and collaborative suites, which serve as a destination for both internal and external campus visitors and act as the hub of the respective departments should be located with close proximity to the Commons. Each of these administrative spaces must be accessible from the public circulation services within the building.

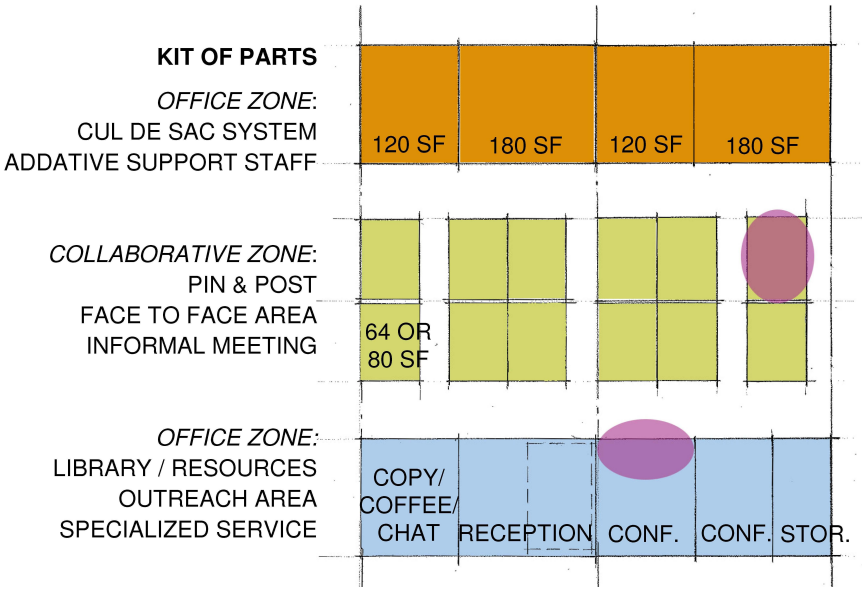
Donor recognition and signage, including all building signage (room signs, interior way finding, and other related signs) will be included within a signage package administered by the University of Utah and funded by the project. This signage package will not include campus designated exterior building identification signs, which will need to be part of the architectural design package. The design team is encouraged to reference campus standards for the selection and design of all signs. All signage is funded by the project, but are not considered part of Integrated Branding, Showcasing, Way Finding, and Donor Recognition, as they will be directly administered by the campus.

Centers' and Tanner Dance Program Suites

The Centers' Suites have been developed as a tool to enhance the collaborative work and public outreach of its occupants which include multiple research centers, teacher training, and community partnership programs. The programs have historically been housed in diverse and distant locations with equally varied and unique program goals, but each has recognized the benefit of a suite of open and enclosed work and support areas. A centralized reception/waiting area with support spaces (copy/mail/work room and conference rooms) will serve as the hub of and gatekeeper for the suite.

Advertising the Center occupants through large graphic illustrations and/or display materials will both highlight and educate building users. Immediate proximity from the Center's Suites to the Commons is important as a means of highlighting the research, teacher training and community partnership programs of the College, the interactive work methodologies illustrated in the collaborative work areas, and to showcase the success of Center's work.

Flexible open office configuration adjacent to private offices are the primary area of focus for the suite. The following planning diagram illustrates the desire to accommodate a continuum of noise and activity through the suite. Support services include both copy/mail/workrooms and small and large conference rooms. In addition, access to a larger conference room will be available to building occupants. Commonly referred to as the Board Room, it must be easily access off of Level One or Two and provide views to activities occurring within the building.



The administrative suite for the Tanner Dance Program will also be configured to support collaborative work. It will include a series of work spaces, from private offices to individual open work areas, to highly collaborative work zones supported by a reception area, conference room and copy/mail/work area. Included in these areas are highlight active informal and formal meeting spaces (purple) which allow teams to collaborate – whether through pin and post planning sessions, utilizing whiteboard space, the ability to review work on a projection screen, or team discussions. In the case of the Tanner Dance Program administration suite, this space may need to bridge between the secure access of the Tanner Dance Program area and the primary public service area.

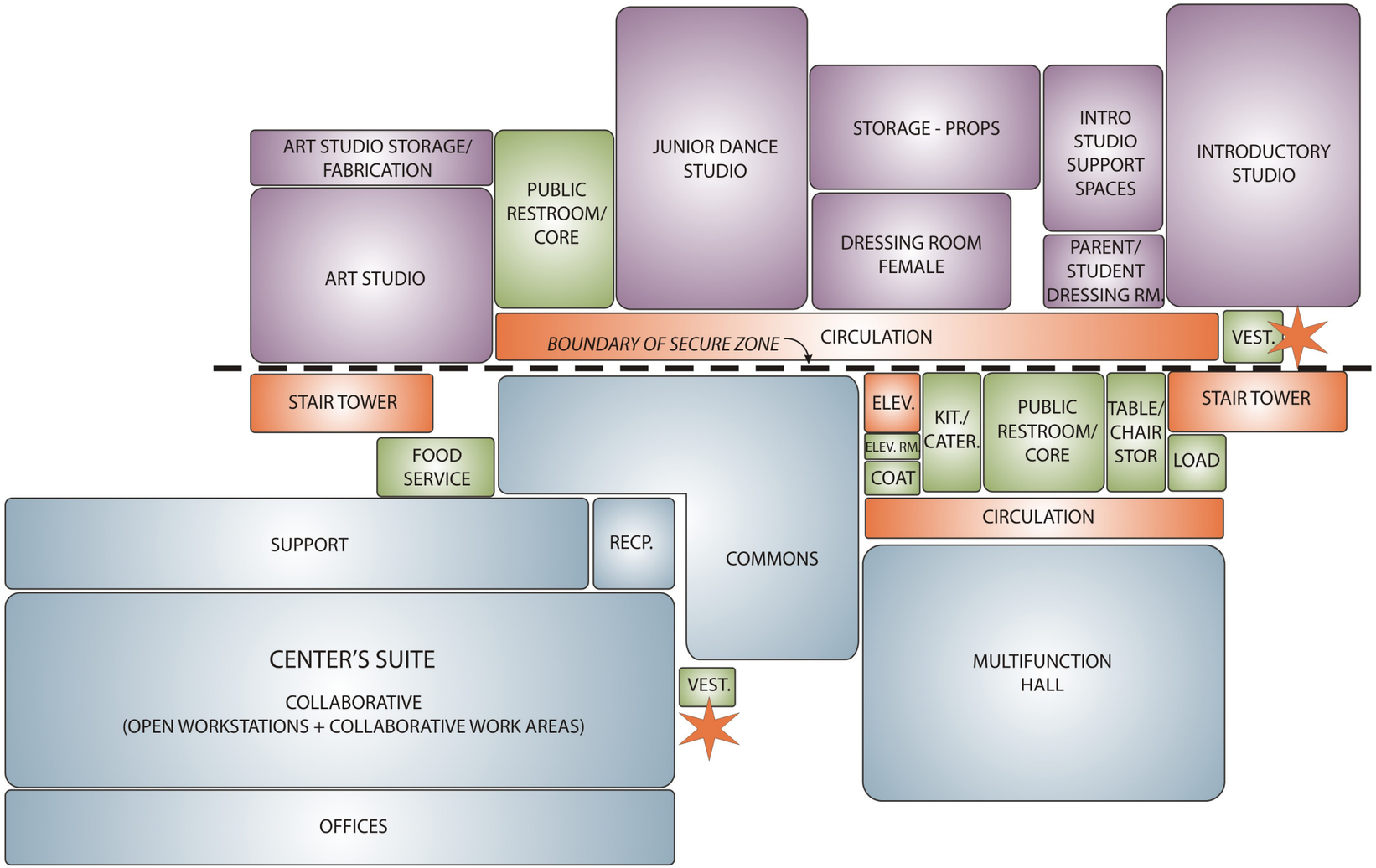
3.5 Block & Stack Diagrams

The following graphics illustrate potential groupings and adjacencies for spaces programmed for the Sorenson Arts & Education Complex.

Level One – On a flat site, the building may be configured with a primary first level including a public entry (Commons), Tanner Dance Program entry (Performing Arts Lobby), associated lobbies, the Multifunction Hall and some smaller dance instruction areas, such as the Art Studio, Junior Dance Studio and Introductory Studio, and as home to part of the Center's Suite. This area may also serve as a food service point, such as a small café or deli featuring pre-prepared or heat and serve items. In addition, service must be planned to support large conference-style events which will include catering, coat check, and needed chair/table storage space.

If a site with a considerable slope were selected for the BTSAEC the consideration for separation of the two building entrances onto separate levels would be acceptable. If necessitated by slope, the primary program areas can be separated into two distinct entry levels. One core area would be centered on the resources of the College of Education and the other about the Tanner Dance Program.

BTSAEC – Block & Stack



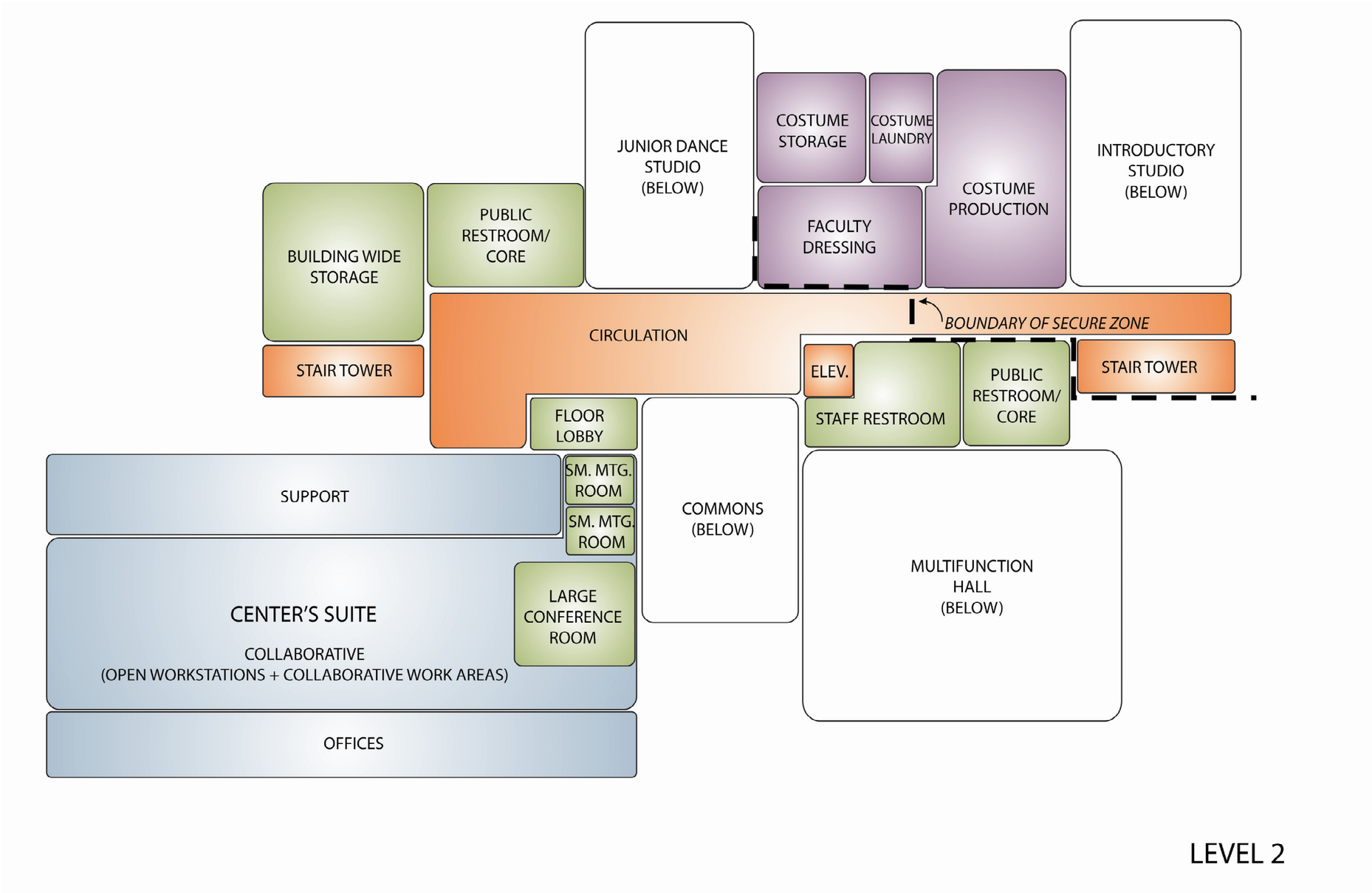
LEVEL 1

Level Two – An extension of the Center's zone of Level One, Level Two includes the remainder of Center's collaborative work areas, offices, conference and meeting spaces, along with areas to support collaborative student work, including areas to support classroom breakouts, informal meetings and community connections. In addition, support spaces for the Tanner Dance Program occupy this level. As research, teacher training and community partnership programs have visitors from on and off campus, locating some support resources of the Centers' suite may require access from the public circulation routes as well as from inside the suite.

Placement of the Main Conference Room on this level allows for it to be engaged in the active entry lobby, with views into active Tanner Dance areas. While from Level Two (as well as Level Four) there is no physical access into two-story studio spaces, visual connection with the activity therein is encouraged as a means to tie the diverse activities together. Planning for public circulation that allows for informal conversation, small breakouts and seating at a floor lobby is desired.

The vibrant colors and flow of volunteers to the costume production area should be a component of interior and exterior views on this level. Planning space for times when there are large numbers of dancers are required to attend fittings will mean special planning for potential secure access area.

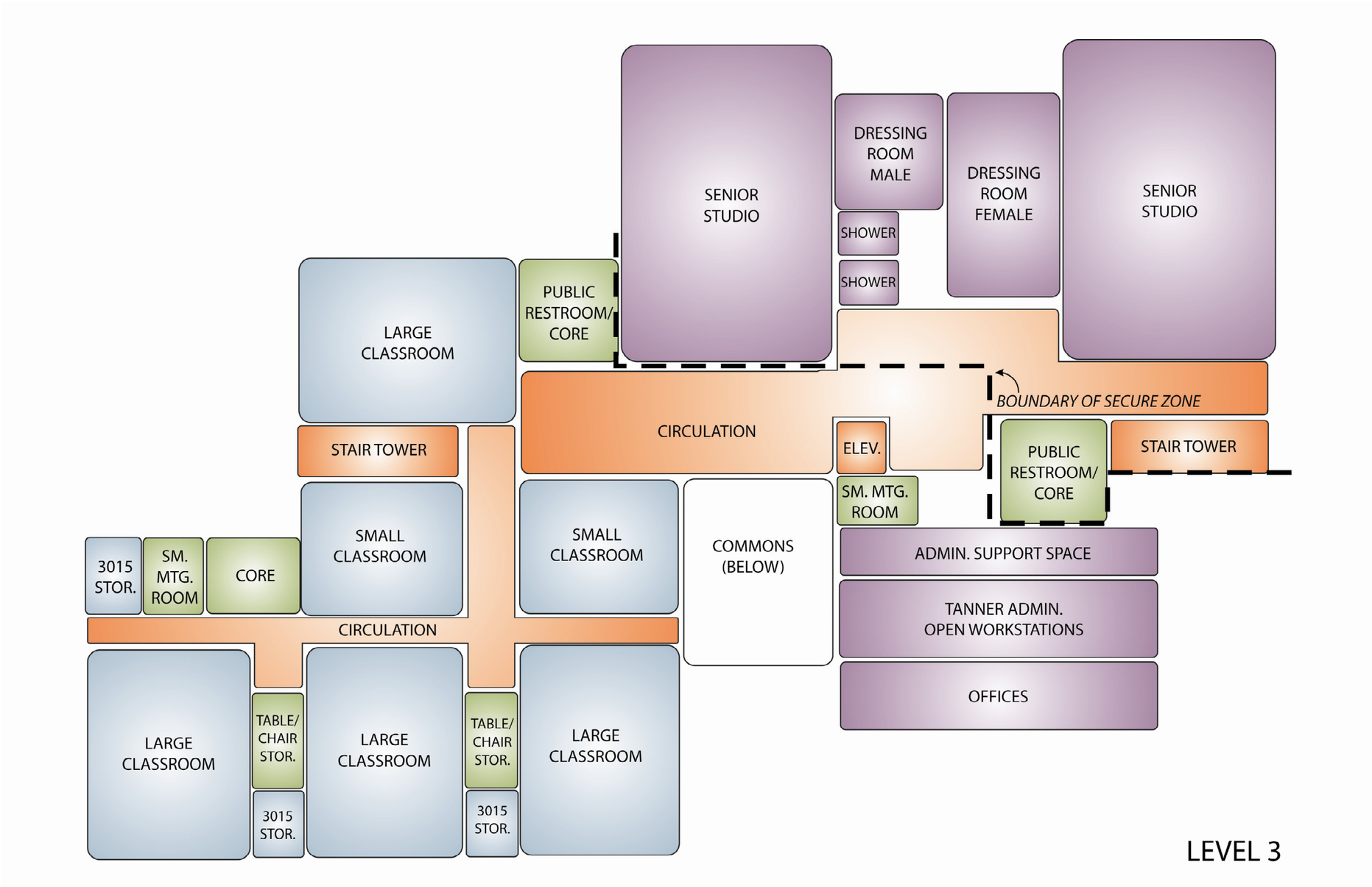
Level Two may wrap a multi-story public lobby area (Commons) within the core of the Sorenson Arts & Education Complex. Spaces adjacent to multi-story volume should be planned with glazed openings to add to the vibrant activity at the core of the building. As this project is not publicly funded there is no established fund for public art, but the ability to display student work product, provide space for engaging art exhibits, and comply with the goals for the Integrated Branding, Showcasing, Way Finding, and Donor Recognition are highly desired.


JUNIOR DANCE STUDIO (BELOW)
COSTUME STORAGE
COSTUME LAUNDRY
COSTUME PRODUCTION
INTRODUCTORY STUDIO (BELOW)
BUILDING WIDE STORAGE
PUBLIC RESTROOM/ CORE
FACULTY DRESSING
CIRCULATION
BOUNDARY OF SECURE ZONE
STAIR TOWER
ELEV.
STAFF RESTROOM
PUBLIC RESTROOM/ CORE
STAIR TOWER
FLOOR LOBBY
SUPPORT
SM. MTG. ROOM
SM. MTG. ROOM
COMMONS (BELOW)
MULTIFUNCTION HALL (BELOW)
CENTER'S SUITE
COLLABORATIVE
(OPEN WORKSTATIONS + COLLABORATIVE WORK AREAS)
LARGE CONFERENCE ROOM
OFFICES
LEVEL 2

Level Three – Serving as the hub of active academic classrooms, Level Three may also serves as the home of the administrative suite for the Tanner Dance Program, and access to the Senior studios. The location of the bulk of instructional spaces was formulated in close proximity to resource services such as small meeting rooms, floor lobbies and informal gathering areas.

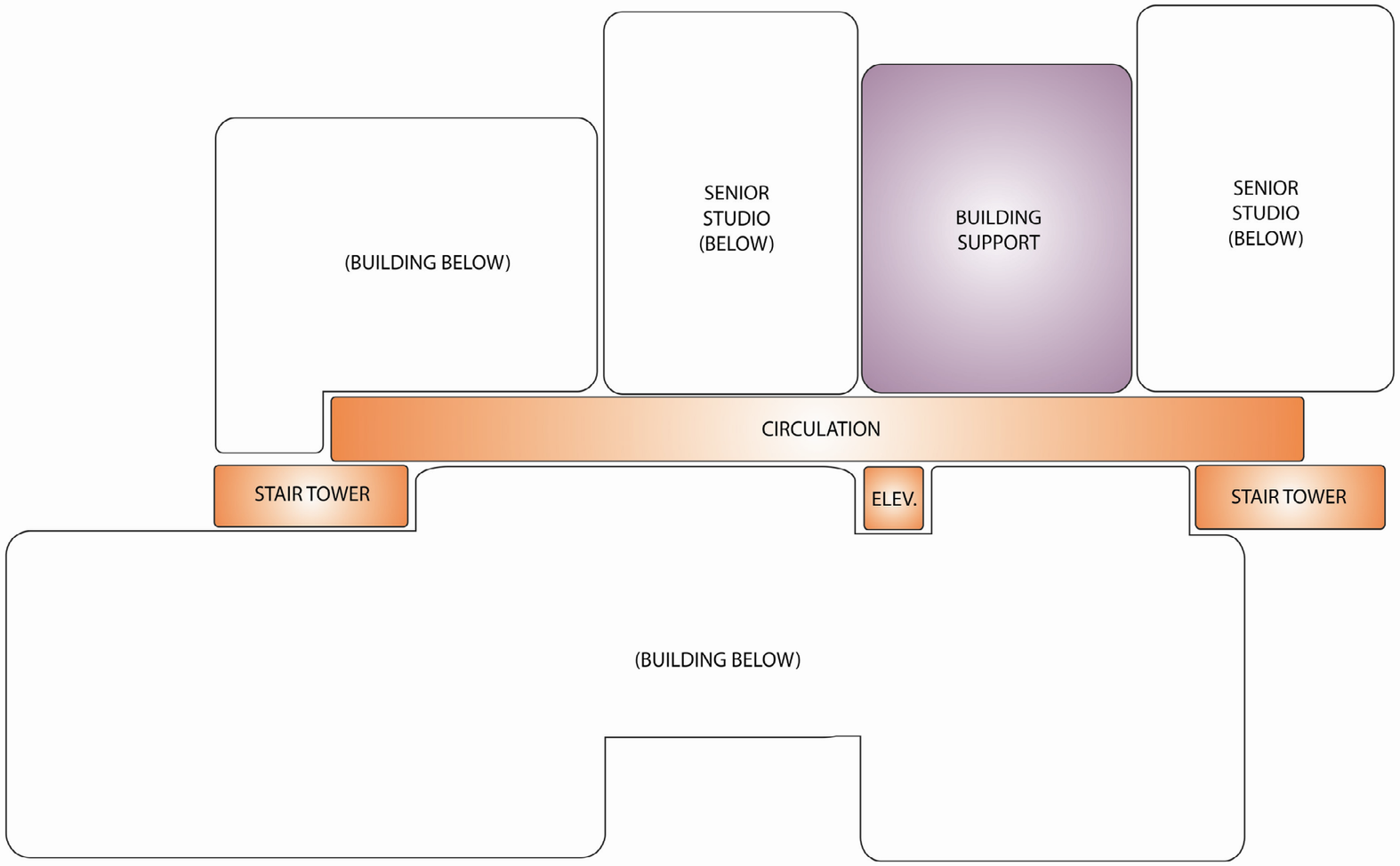
Consideration should be given to support services required by classrooms which focus on teacher training. As such, immediate access from the classroom into 3015 Storage rooms will facilitate access to instructional support materials. In addition, placement of table/chair storage will facilitate the ease of setup and breakdown of rooms that are used in a multitude of configurations, and may require furniture moved from a classroom for the length of a class without significant impact on other instruction.

Across the public circulation corridor are located two Senior Studios, Tanner Dance Program administrative suite and support resources. These spaces should be visually connected to the public space, but a secure access point into the Tanner Dance Program area should be planned for this and each other level.


SENIOR STUDIO
DRESSING ROOM MALE
DRESSING ROOM FEMALE
SENIOR STUDIO
SHOWER
SHOWER
LARGE CLASSROOM
PUBLIC RESTROOM/ CORE
BOUNDARY OF SECURE ZONE
CIRCULATION
ELEV.
PUBLIC RESTROOM/ CORE
STAIR TOWER
STAIR TOWER
SM. MTG. ROOM
3015 STOR.
SM. MTG. ROOM
CORE
SMALL CLASSROOM
SMALL CLASSROOM
COMMONS (BELOW)
ADMIN. SUPPORT SPACE
TANNER ADMIN. OPEN WORKSTATIONS
CIRCULATION
OFFICES
LARGE CLASSROOM
TABLE/ CHAIR STOR.
LARGE CLASSROOM
TABLE/ CHAIR STOR.
LARGE CLASSROOM
3015 STOR.
3015 STOR.
LEVEL 3

Level Four – In this adjacency diagram, level four serves as the primary, centralized location of the main mechanical and electrical rooms. The space is located adjacent to the two Senior studios and with close proximity to the elevator tower. As plans develop this space may be utilized for other program elements that do not require immediate access into the studios.

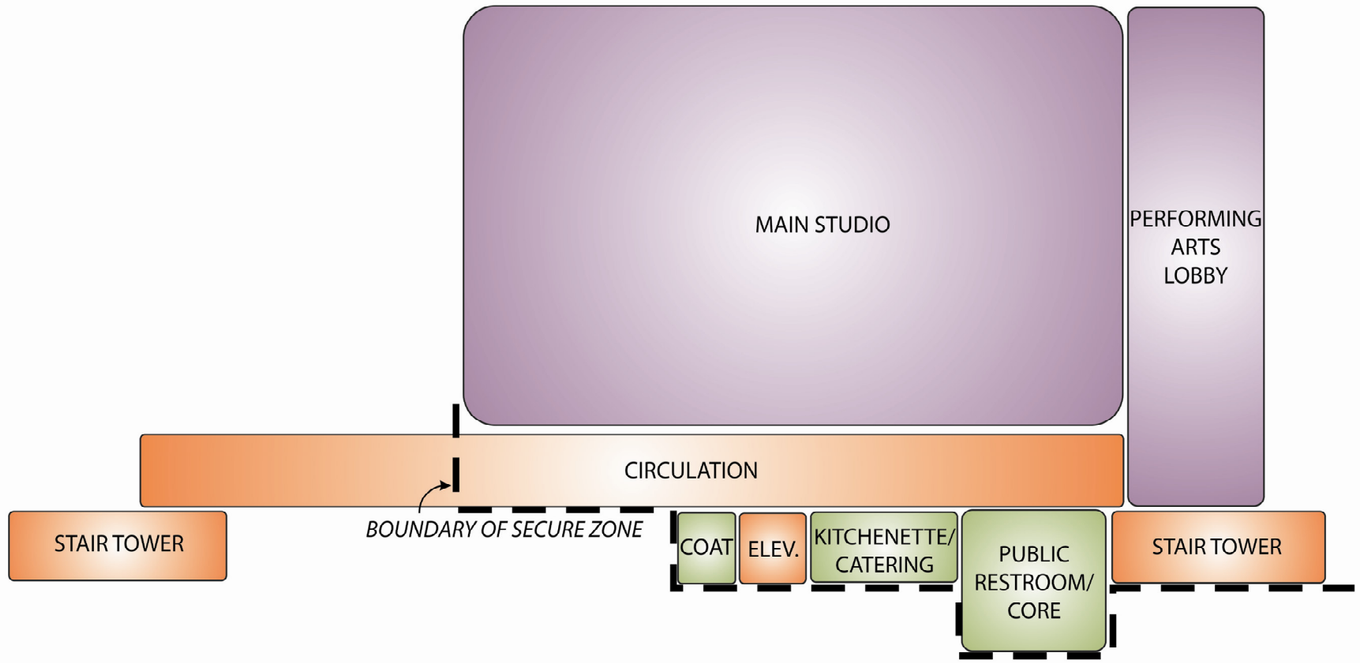
BTSAEC – Block & Stack



LEVEL 4

Level Five – The Main Studio will primarily be used as a set of senior studios requiring access from a stair and elevator tower closely aligned with Tanner Dance areas. This space must be adjacent to support spaces need for instruction. Infrequently these studios will be open to each other, thus an operable panel partition is necessary. During the times of joint use, a set of compacting seating will allow for an audience of approximately 225 occupants. Coat Check and Catering Prep rooms should be provided adjacent to the Main Studio to support informal performances. Immediately adjacent to the Main Studio a Control Booth, Sound Equipment Room and Dimmer Room need to be provided. Special consideration to acoustic control, lighting and sound systems and flexibility will make this space highly used. In order to accommodate the needs of an infrequent performance schedule the design must plan for a small reception area at the front of house and “off stage” space adjacent to the “stage” area of the joint studio.

BTSAEC – Block & Stack

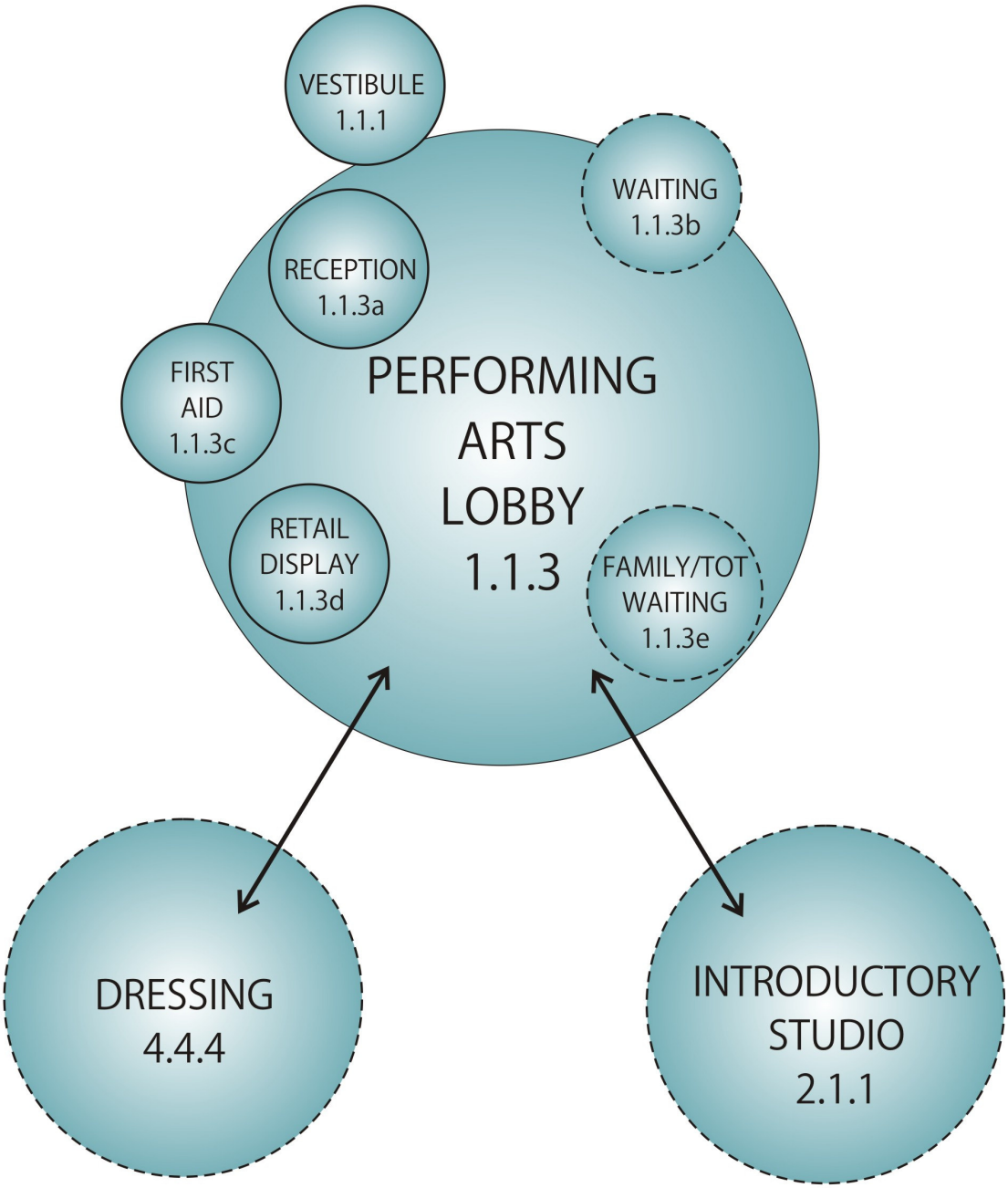


LEVEL 5

3.6 Individual Space Outlines

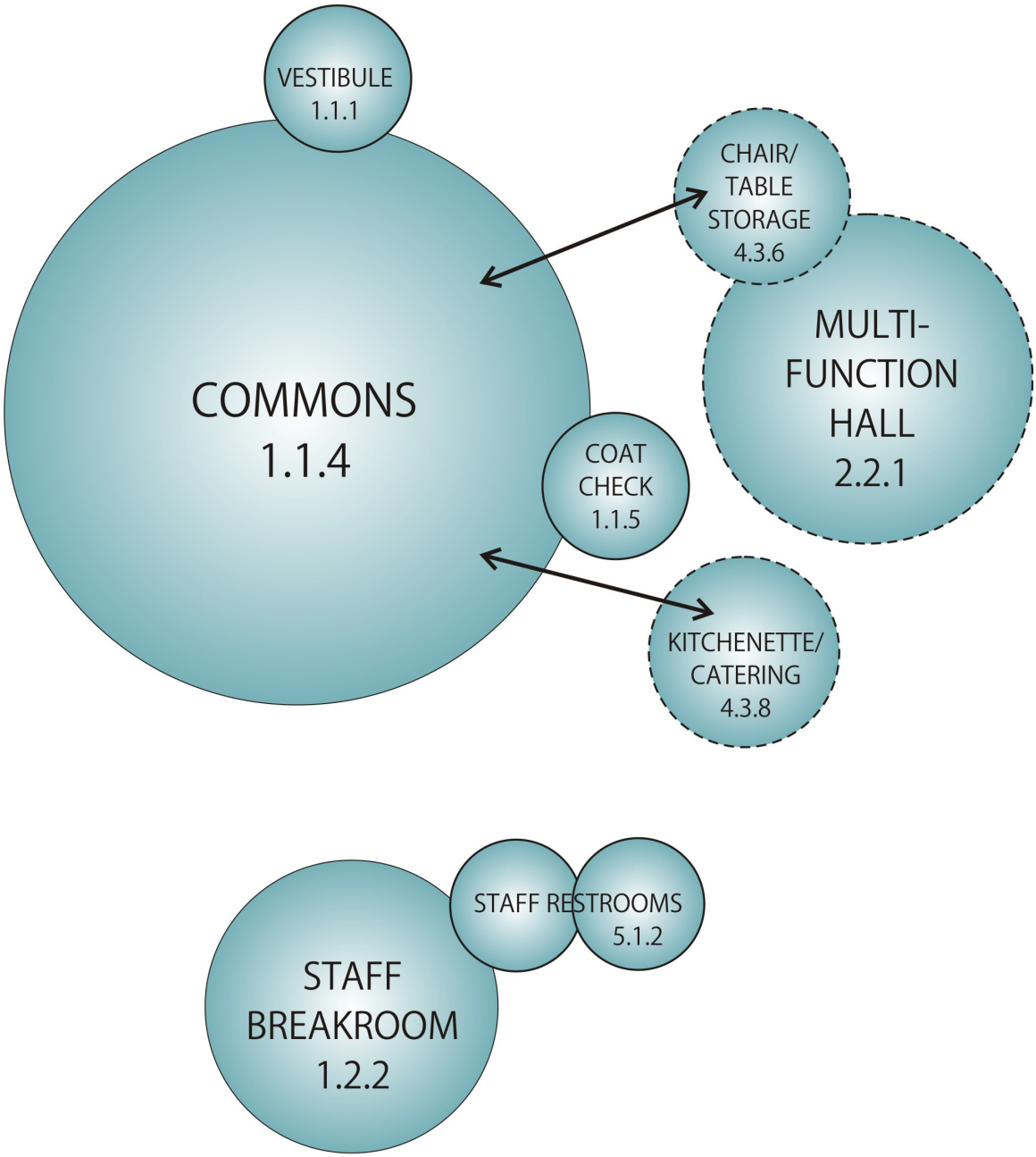
The following space outlines describe the requirements of assignable spaces to be contained within the Beverley Taylor Sorenson Arts & Education Complex, including the size, use, characteristics, technology, mechanical and electrical components, and equipment and furnishings. The graphic illustration presents one of many options for laying out spaces, but gave the team the opportunity to define a single acceptable layout. From the following space outlines, the programming team is able affix a value of Furniture, Fixtures and Equipment (FF&E). A preliminary FF&E Cost Estimate has been included in Appendix C. The space outlines do not include the non-assignable areas of the building, such as common areas: restrooms, circulation, and other supporting spaces. The individual space outlines define the requirements of spaces, not rooms per say. To determine the total square footage for multiple items, such as workstations, refer to the Space Summary in Section 3.3.

ENTRANCES & LOBBIES



TANNER DANCE "SECURE"

ENTRANCES & LOBBIES

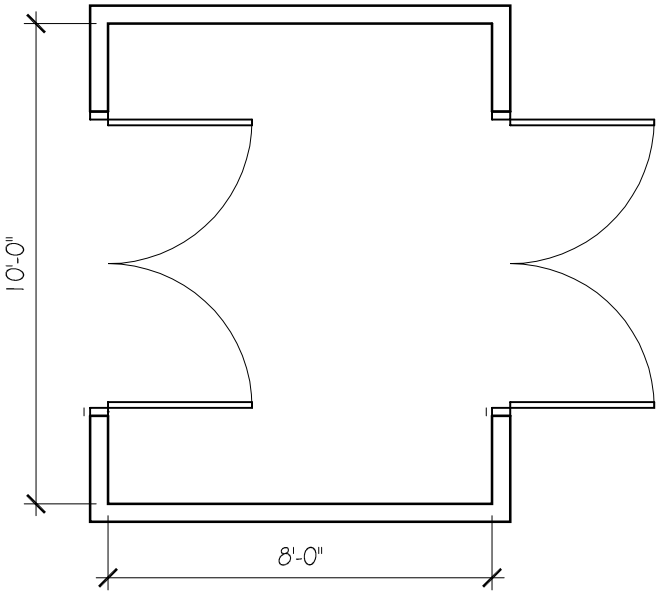


ARTS EDUCATION "PUBLIC"

SECTION 3

SPACE SUMMARY

AREA	DESCRIPTION	SPACES	NASF	TOTAL NET SF	NET TO GROSS	TOTAL GROSS SF
1	**PUBLIC / COMMON RESOURCES**			**3,880**		**4,002**
1.1	**Entrances and Lobbies**					
1.1.1a	Vestibule	1	80	80	1.00	80
1.1.1b	Vestibule	1	80	80	1.00	80
1.1.2a	Lobby - Floor	1.5	200	300	1.00	300
1.1.2b	Lobby - Floor	1.5	200	300	1.00	300
1.1.3	PA Lobby - Children drop-off / pick-up	1	1,200	1,200	1.00	1,200
1.1.3a	Receptionist					
1.1.3b	Waiting Area					
1.1.3c	First Aid Area					
1.1.3d	Retail Display / Storage					
1.1.3e	Tots Waiting Area					
1.1.4	Commons (main bldg lobby)	1	1,200	1,200	1.00	1,200
1.1.5	Coat Check / Storage	2	80	160	1.10	176
1.2	**Food Service**					
1.2.1	Food Sevice Venue	1	200	200	1.20	240
1.2.2	Staff Breakroom / Kitchen	1	300	300	1.20	360
1.2.3	Vending Area	1	60	60	1.10	66



1.1.1 VESTIBULE
NET AREA: 80 S.F.

1.1.1 Vestibule -

SPACE INFORMATION

Room Function: Entering or exiting building

Adjacencies: See Adjacency Matrix in section 3.3

Special Requirements: None

Room Type: Enclosed Room

Access: Public

Room Utilization: 6 days a week, 6:00 AM to 9:00 PM

General Notes: None

ROOM SIZE AND CAPACITY

Proposed Area:	80 NSF	**Room/Space Quantity:**	2	**Total Area:**	160
Assigned Capacity:	0 Occupant(s)	**Unassigned Capacity:**	6 Guest(s)	**Total Capacity:**	6

FINISHES, DOORS, AND WINDOWS

Floor Finish: Walk-off mat and concrete (sealed)

Wall Finish: Gypsum board (painted) with glazed storefront

Base Finish: Rubber

Ceiling Treatment: Gypsum board (painted)

Ceiling Height: 8' minimum

Acoustic Treatment: None

Doors:

Type:	Double	**Height:**	84"
Width:	72"	**Door Panel:**	Clear

Windows:

Natural Lighting: Preferred, no glare or brightness control

Sidelighting: None

MECHANICAL/ELECTRICAL

HVAC:	Standard	**AV Requirements:**	None
Plumbing:	None	**Wire Management:**	Wall outlets
Fire Protection:	Sprinkler	**Data Management:**	None
Security:	Keyed lock at entrance door(s)	**Artificial Lighting:**	Direct/indirect fluorescent
Electrical:	120V wall outlet(s)	**Telephone:**	None

EQUIPMENT AND FURNISHINGS

Equipment

Furniture

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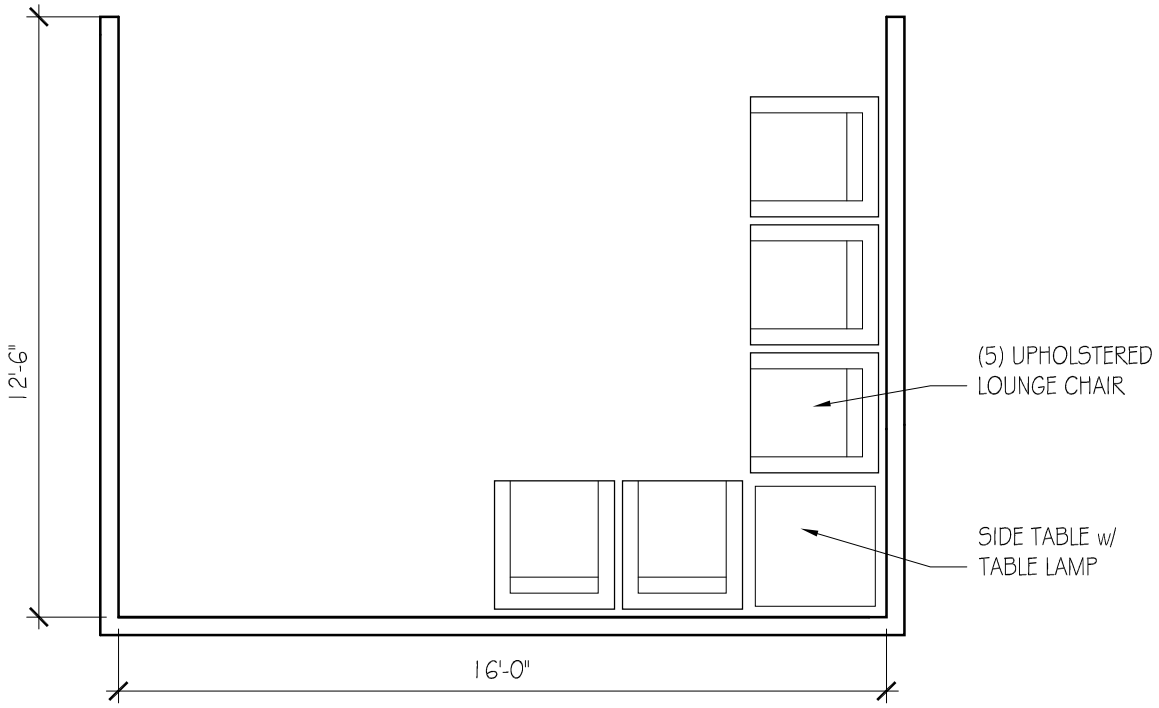

1.1.2 FLOOR LOBBY
NET AREA: 200 S.F.

1.1.2 Floor Lobby -

SPACE INFORMATION

Room Function: Gathering, studying

Adjacencies: Circulation core, Elevators, Public Restrooms

Special Requirements: None

Room Type: Open

Access: Public

Room Utilization: 6 days a week, 6:00 AM to 9:00 PM

General Notes: One per floor - current assumption of 3 floors

ROOM SIZE AND CAPACITY

Proposed Area:	200 NSF	**Room/Space Quantity:**	3	**Total Area:**	600
Assigned Capacity:	0 Occupant(s)	**Unassigned Capacity:**	30 Guest(s)	**Total Capacity:**	30

FINISHES, DOORS, AND WINDOWS

Floor Finish: Carpet-tile

Wall Finish: Gypsum board (painted) with glazed storefront

Base Finish: Rubber

Doors:

Type:	n/a	**Height:**	n/a
Width:	n/a	**Door Panel:**	n/a

Ceiling Treatment: Gypsum board and acoustical lay-in panels + upgraded finishes

Ceiling Height: 12' minimum

Acoustic Treatment: Provide absorbent surfaces as necessary

Windows:

Natural Lighting: Required (provide glare and brightness control)

Sidelighting: None

MECHANICAL/ELECTRICAL

HVAC: Standard

Plumbing: Drinking fountain(s) with water spout

Fire Protection: Smoke detector, pull box, visual and audible alarm, and sprinkler

Security: None

Electrical: 120V wall outlet(s)

AV Requirements: None

Wire Management: Wall outlets

Data Management: Wireless network access

Artificial Lighting: Direct/indirect fluorescent and accent lighting

Telephone: None

EQUIPMENT AND FURNISHINGS

Equipment

(1) Table lamp

Furniture

(5) Upholstered lounge chairs
(1) 24"x24" side table

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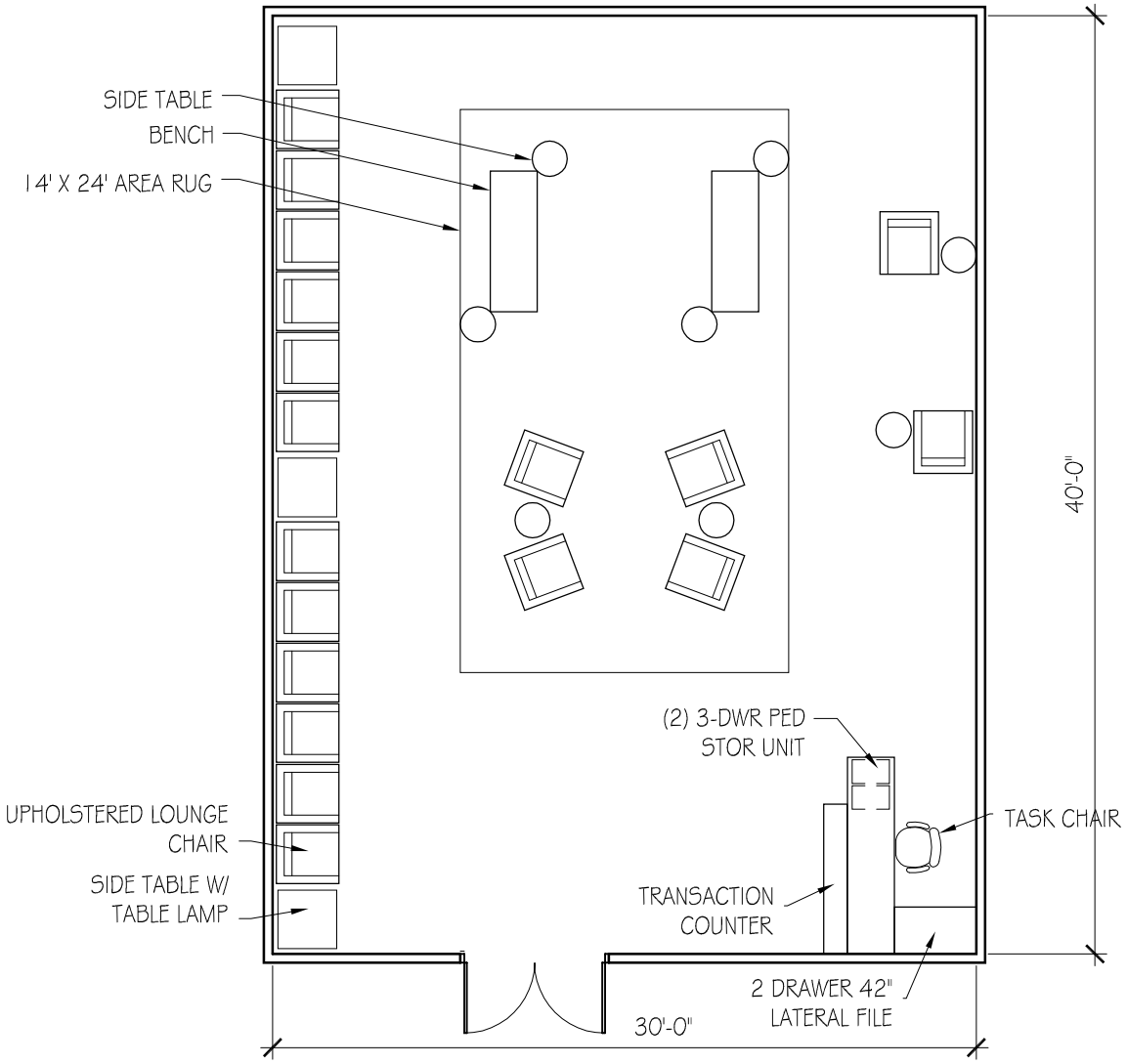

1.1.3 PERFORMING ARTS LOBBY
NET AREA: 1200 S.F.

1.1.3 Performing Arts Lobby -

SPACE INFORMATION

Room Function: Gathering, Waiting, Children's pick-up and drop-off

Adjacencies: See Adjacency Matrix in section 3.3

Room Type: Open

Access: Controlled

Room Utilization: 6 days a week, 8:00 AM to 9:00 PM

Special Requirements: Separate and secure occupancy from general public, VTD security zone, Provide wiring for future public computer access point for on-line registration, Provide donor wall display area

General Notes: Children drop-off / pick-up, include reception desk, first aid, retail display & storage area, general and tots waiting

ROOM SIZE AND CAPACITY

Proposed Area:	1200 NSF	**Room/Space Quantity:**	1	**Total Area:**	1200
Assigned Capacity:	1 Occupant(s)	**Unassigned Capacity:**	170 Guest(s)	**Total Capacity:**	171

FINISHES, DOORS, AND WINDOWS

Floor Finish: Vinyl Composite Tile (VCT)

Wall Finish: Gypsum board (painted) with glazed storefront

Base Finish: Wood

Doors:

Type:	Double	**Height:**	84"
Width:	72"	**Door Panel:**	Clear

Ceiling Treatment: Gypsum board and acoustical lay-in panels + upgraded finishes

Ceiling Height: 12' minimum

Acoustic Treatment: Provide absorbent surfaces as necessary

Windows:

Natural Lighting:	Required (provide glare and brightness control)
Sidelighting:	None

MECHANICAL/ELECTRICAL

HVAC:	Standard	**AV Requirements:**	Wall mounted flat panel display
Plumbing:	Drinking fountain(s) with water spout	**Wire Management:**	Wall and floor outlets
Fire Protection:	Smoke detector, pull box, visual and audible alarm, and sprinkler	**Data Management:**	Wireless network access
Security:	Glass wall - visible from adjacent spaces	**Artificial Lighting:**	Direct/indirect fluorescent and accent lighting
Electrical:	120V wall/floor (grounded) outlet(s)	**Telephone:**	Courtesy telephone, TTY plug at counter

EQUIPMENT AND FURNISHINGS

Equipment

(1) Computer system (provided by owner)
(1) Printer (provided by owner)
(3) Table lamps
(1) Safe (provided by owner) @ retail location
(1) Large format flat panel monitor

Furniture

(18) Upholstered lounge chairs
(2) 6' benches
(3) 24"x24" side tables
(8) 18" diameter side tables
(1) 14'x24' area rug
(6) LF transaction counter - counter height, 12" deep
(8) LF worksurface - 24" deep
(2) 3-drawer PED storage unit
(1) 42" 2-drawer lateral file
(1) Task chair
Modular panels for hanging art work

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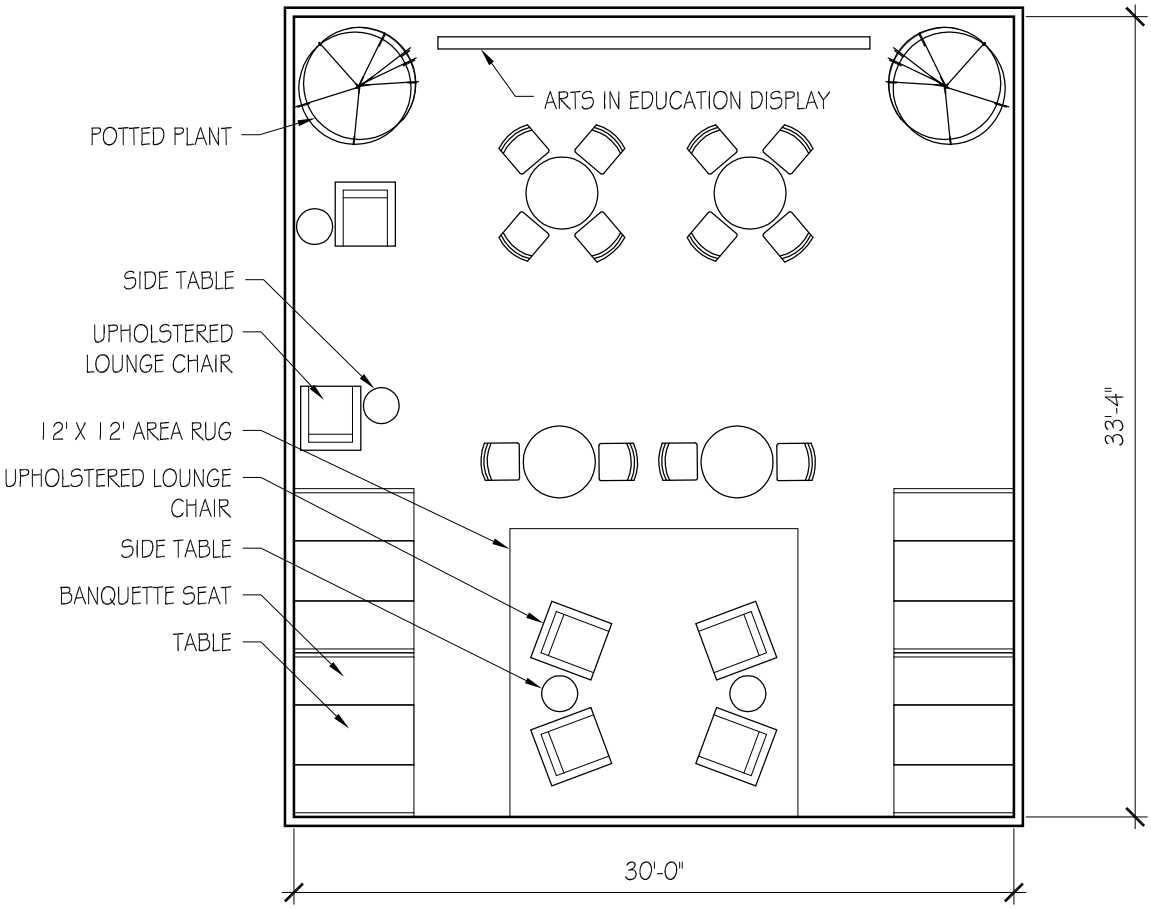

1.1.4 COMMONS
NET AREA: 1,000 S.F.

1.1.4 Commons -

SPACE INFORMATION

Room Function: Building-wide resource, gathering, studying, receptions, occasional gallery space

Adjacencies: Public access point, See Adjacency Matrix in section 3.3

Special Requirements: May accommodate café, informal eating area

Room Type: Open

Access: Public

Room Utilization: 6 days a week, 6:00 AM to 9:00 PM

General Notes: None

ROOM SIZE AND CAPACITY

Proposed Area:	1200 NSF	**Room/Space Quantity:**	1	**Total Area:**	1200
Assigned Capacity:	0 Occupant(s)	**Unassigned Capacity:**	140 Guest(s)	**Total Capacity:**	140

FINISHES, DOORS, AND WINDOWS

Floor Finish: Vinyl Composite Tile (VCT)

Wall Finish: Gypsum board (painted) with glazed storefront

Base Finish: Wood

Doors:

Type:	n/a	**Height:**	n/a
Width:	n/a	**Door Panel:**	n/a

Ceiling Treatment: Gypsum board and acoustical lay-in panels + upgraded finishes

Ceiling Height: 12' minimum

Acoustic Treatment: Provide absorbent surfaces as necessary

Windows:

Natural Lighting: Required (provide glare and brightness control)

Sidelighting: None

MECHANICAL/ELECTRICAL

HVAC: Standard

Plumbing: None

Fire Protection: Smoke detector, visual and audible alarm, and sprinkler

Security: Glass wall - visible from adjacent spaces

Electrical: 120V wall/floor (grounded) outlet(s)

AV Requirements: Wall mounted flat panel display

Wire Management: Wall and floor outlets

Data Management: Wireless network access

Artificial Lighting: Direct/indirect fluorescent and accent lighting

Telephone: Courtesy telephone, TTY plug at counter

EQUIPMENT AND FURNISHINGS

Equipment

(1) Large format flat panel monitor

Furniture

(8) 6' Banquette seats
(4) 6'x3' Tables
(6) Upholstered lounge chairs
(4) 18" diameter side tables
(12) Armless chairs
(4) 3' diameter tables
(1) 12'x12' Area rug
(2) Large potted plants
(1) Custom display

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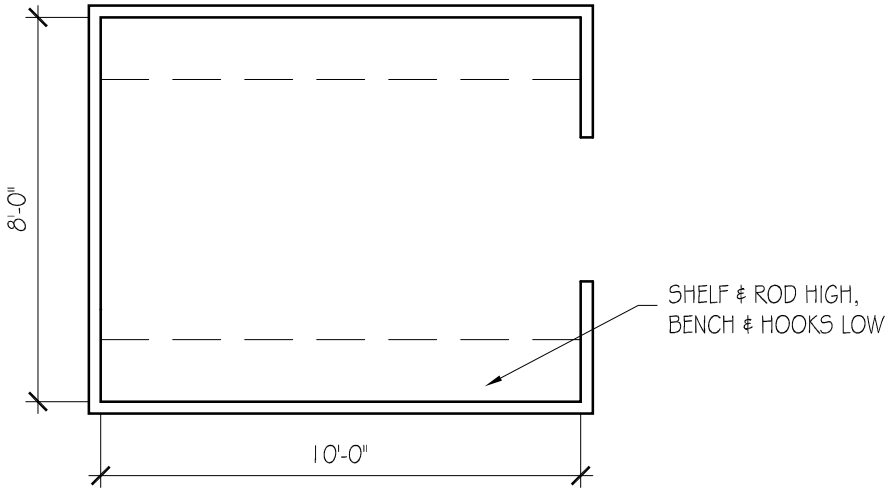

1.1.5 COAT CHECK / STORAGE
NET AREA: 80 S.F.

1.1.5 Coat Check / Storage -

SPACE INFORMATION

Room Function: Coat storage

Adjacencies: See Adjacency Matrix in section 3.3

Special Requirements:
Dutch doow w/ adjacent counter for coat check ticketing

Room Type: Enclosed Room

Access: Public

Room Utilization: 6 days a week, 8:00 AM to 9:00 PM

General Notes: None

ROOM SIZE AND CAPACITY

Proposed Area:	80 NSF	**Room/Space Quantity:**	2	**Total Area:**	160
Assigned Capacity:	0 Occupant(s)	**Unassigned Capacity:**	2 Guest(s)	**Total Capacity:**	2

FINISHES, DOORS, AND WINDOWS

Floor Finish: Carpet-tile

Wall Finish: Gypsum board (painted)

Base Finish: Rubber

Ceiling Treatment: Suspended acoustical lay-in tiles

Ceiling Height: 8' minimum

Acoustic Treatment: None

Doors:

Type:	Single	**Height:**	36"
Width:	32"	**Door Panel:**	None

Windows:

Natural Lighting:	Not required
Sidelighting:	None

MECHANICAL/ELECTRICAL

HVAC:	Standard	**AV Requirements:**	None
Plumbing:	None	**Wire Management:**	Wall outlets
Fire Protection:	Sprinkler	**Data Management:**	None
Security:	None	**Artificial Lighting:**	Direct/indirect fluorescent
Electrical:	120V wall outlet(s)	**Telephone:**	None

EQUIPMENT AND FURNISHINGS

Equipment

Furniture

(20) LF shelf and rod - 12" deep
(2) LF counter top w/drawer - 12" deep
(40) Coat hooks
(2) 10' benches - open below
(1) Upright umbrella storage box - by owner

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1.2.1 Food Service Venue -

SPACE INFORMATION

Room Function: Building-wide resource, retail point for food and drink sales

Adjacencies: See Adjacency Matrix in section 3.3

Room Type: Open

Access: Public

Room Utilization: 5 days a week, 8:00 AM to 6:00 PM

General Notes: None

Special Requirements:

Coordinate with Chartwells / Campus Food Services. Modular system. Provide adjacent lockable closet for POS system and safe.

ROOM SIZE AND CAPACITY

Proposed Area:	200 NSF	**Room/Space Quantity:**	1	**Total Area:**	200
Assigned Capacity:	1 Occupant(s)	**Unassigned Capacity:**	6 Guest(s)	**Total Capacity:**	7

FINISHES, DOORS, AND WINDOWS

Floor Finish: Vinyl Composite Tile (VCT)

Wall Finish: Gypsum board (painted)

Base Finish: Rubber

Doors:

Type:	n/a	**Height:**	n/a
Width:	n/a	**Door Panel:**	n/a

Ceiling Treatment: Suspended acoustical lay-in tiles

Ceiling Height: 12' minimum

Acoustic Treatment: Suppress equipment generated noise

Windows:

Natural Lighting: Preferred, glare and brightness control

Sidelighting: None

MECHANICAL/ELECTRICAL

HVAC: Standard, space temperature control

Plumbing: Sink (bar) with hot/cold water

Fire Protection: Smoke detector, alarm and sprinkler

Security: Secure equipment

Electrical: 120V wall outlets and outlets at worksurface

AV Requirements: None

Wire Management: Wall outlets, including counter/equipment height

Data Management: Tele/data outlet(s)

Artificial Lighting: Direct/indirect fluorescent and accent lighting

Telephone: Telephone outlets per equipment

EQUIPMENT AND FURNISHINGS

Equipment

Chartwells point of sale system (by owner) - coordinate during design

Furniture

Chartwells modular food vending system (by owner) - coordinate during design

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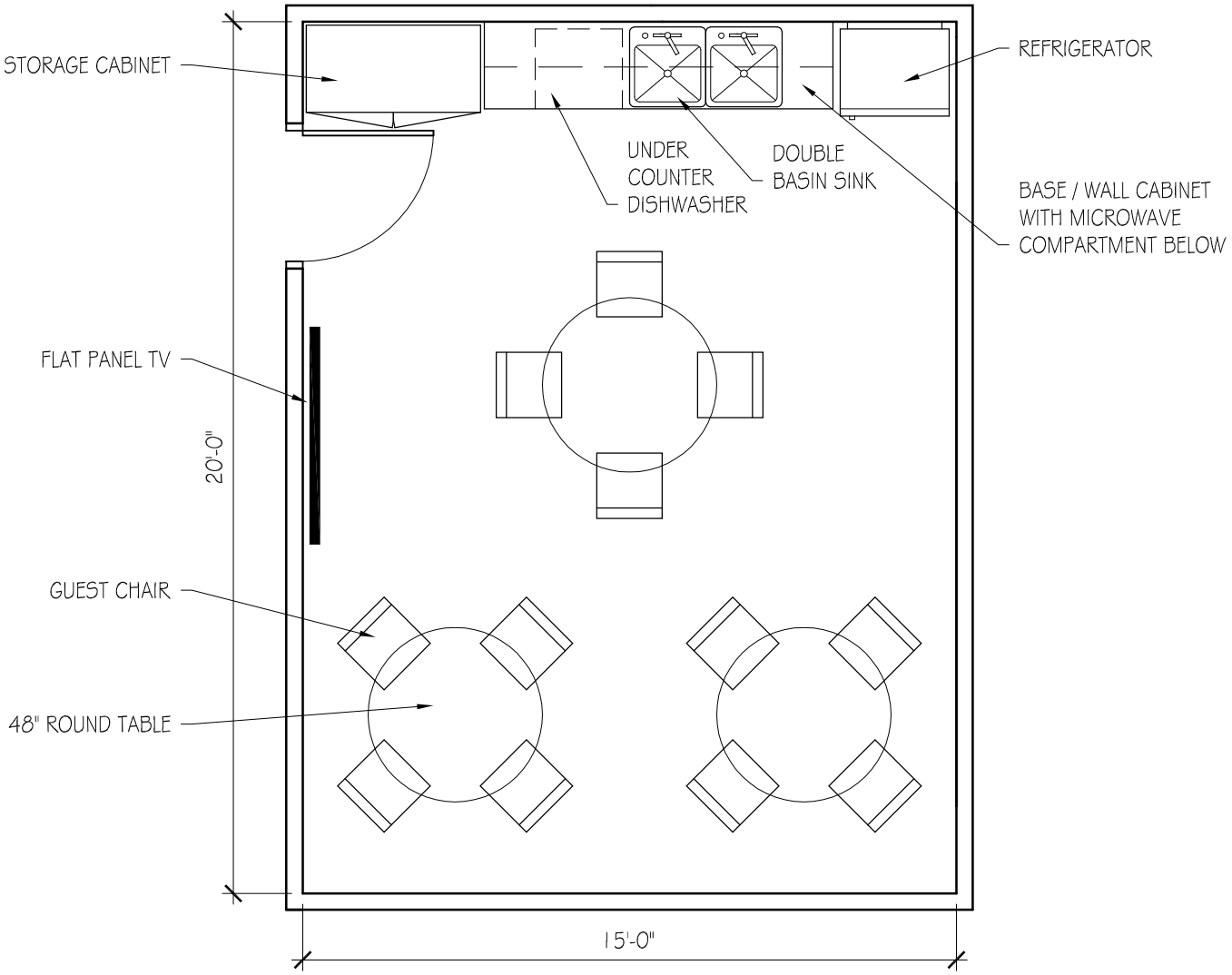

1.2.2 STAFF BREAKROOM / KITCHEN
NET AREA: 300 S.F.

1.2.2 Staff Breakroom / Kitchen -

SPACE INFORMATION

Room Function: Building-wide resource, staff break area

Adjacencies: See Adjacency Matrix in section 3.3

Special Requirements: None

Room Type: Enclosed Room

Access: Private

Room Utilization: 6 days a week, 8:00 AM to 9:00 PM

General Notes: None

ROOM SIZE AND CAPACITY

Proposed Area:	300 NSF	**Room/Space Quantity:**	1	**Total Area:**	300
Assigned Capacity:	0 Occupant(s)	**Unassigned Capacity:**	14 Guest(s)	**Total Capacity:**	14

FINISHES, DOORS, AND WINDOWS

Floor Finish: Carpet-tile

Wall Finish: Gypsum board (painted)

Base Finish: Rubber

Doors:

Type:	Single	**Height:**	84"
Width:	36"	**Door Panel:**	Frosted

Ceiling Treatment: Suspended acoustical lay-in tiles

Ceiling Height: 8' minimum

Acoustic Treatment: Suppress equipment generated noise

Windows:

Natural Lighting:	Preferred, glare and brightness control
Sidelighting:	None

MECHANICAL/ELECTRICAL

HVAC:	Standard, space temperature control	**AV Requirements:**	Wall mounted flat panel display
Plumbing:	Sink (kitchen) with disposal and floor drain	**Wire Management:**	Wall outlets, including counter/equipment height
Fire Protection:	Smoke detector, alarm and sprinkler	**Data Management:**	Wireless network access
Security:	None	**Artificial Lighting:**	Direct/indirect fluorescent and accent lighting
Electrical:	120V wall outlets and outlets at worksurface	**Telephone:**	Wall mounted telephone jack

EQUIPMENT AND FURNISHINGS

Equipment

(1) Refrigerator
(1) Under-counter dishwasher
(1) Microwave oven
(1) Flat panel TV (provided by owner)

Furniture

(9) LF base cabinets
(9) LF upper cabinets
(1) 4'x7' two-door storage cabinet w/ adjustable shelves
(3) 4' diameter tables
(12) Armless chairs - stackable

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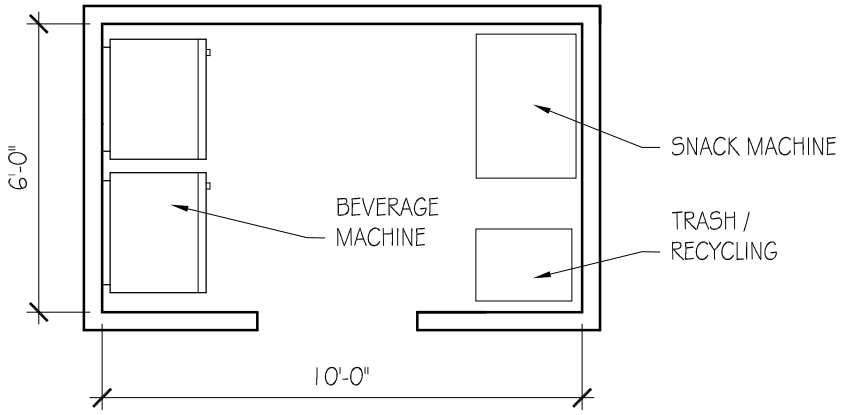

1.2.3 VENDING AREA
NET AREA: 60 S.F.

1.2.3 Vending Area -

SPACE INFORMATION

Room Function: Building-wide resource, snack distribution

Adjacencies: See Adjacency Matrix in section 3.3

Special Requirements: None

Room Type: Open

Access: Public

Room Utilization: 6 days a week, 8:00 AM to 9:00 PM

General Notes: None

ROOM SIZE AND CAPACITY

Proposed Area:	60 NSF	**Room/Space Quantity:**	1	**Total Area:**	60
Assigned Capacity:	0 Occupant(s)	**Unassigned Capacity:**	4 Guest(s)	**Total Capacity:**	4

FINISHES, DOORS, AND WINDOWS

Floor Finish: Vinyl Composite Tile (VCT)

Wall Finish: Gypsum board (painted)

Base Finish: Rubber

Doors:

Type:	n/a	**Height:**	n/a
Width:	n/a	**Door Panel:**	n/a

Ceiling Treatment: Suspended acoustical lay-in tiles

Ceiling Height: 8' minimum

Acoustic Treatment: Suppress equipment generated noise

Windows:

Natural Lighting: Not required

Sidelighting: None

MECHANICAL/ELECTRICAL

HVAC: Standard, direct vent

Plumbing: Floor drain

Fire Protection: Sprinkler

Security: None

Electrical: Dedicated circuits as required for equipment, GFI to

AV Requirements: None

Wire Management: Wall outlets

Data Management: None

Artificial Lighting: Direct/indirect fluorescent

Telephone: None

EQUIPMENT AND FURNISHINGS

Equipment

(2) Beverage vending machines (provided by owner)
(1) Snack vending machine (provided by owner)

Furniture

(1) Trash / recycling receptacle

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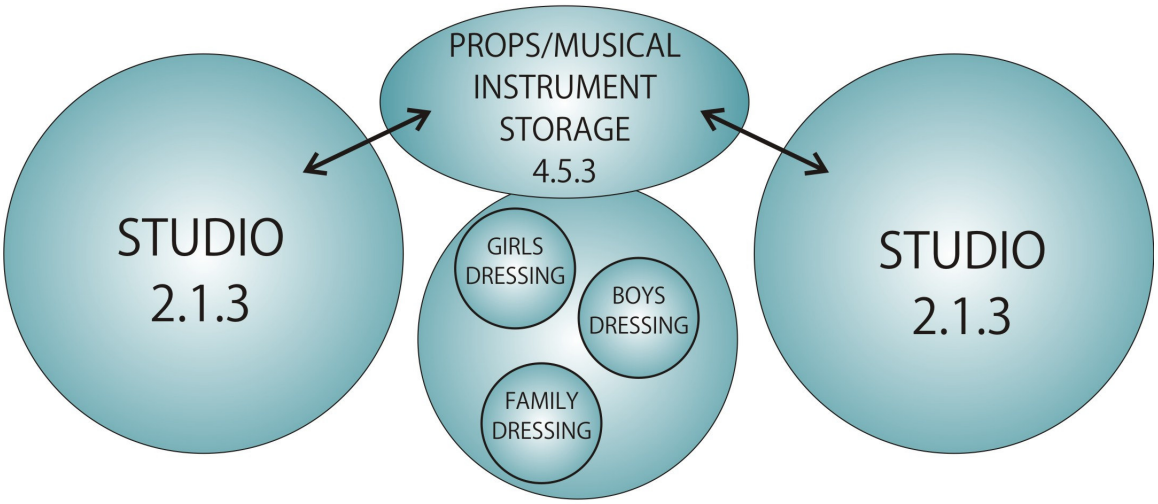
SECTION 3

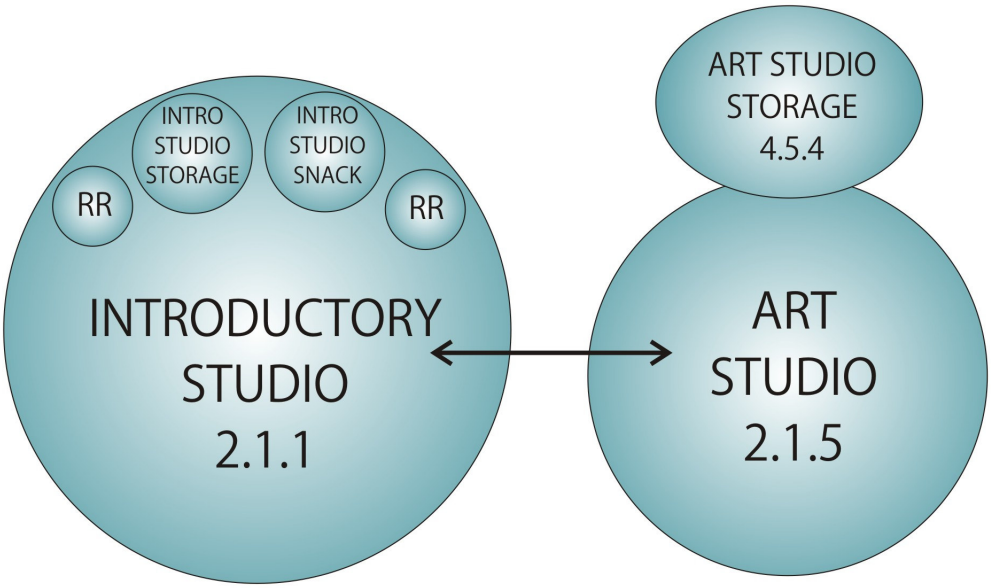
SPACE SUMMARY

AREA	DESCRIPTION	SPACES	NASF	TOTAL NET SF	NET TO GROSS	TOTAL GROSS SF
2	**ACADEMIC INSTRUCTION**			**23,640**		**30,732**
2.1	**Performing Arts**					
2.1.1	Introductory Studio	1	1,600	1,600	1.30	2,080
2.1.2	Jr Dance Studio	1	1,600	1,600	1.30	2,080
2.1.3	Sr Dance Studio	2	2,400	4,800	1.30	6,240
2.1.4	Main Studio	1	5,800	5,800	1.30	7,540
2.1.5	Art Studio	1	1,200	1,200	1.30	1,560
2.2	**Teacher Development**					
2.2.1	Multifunction Hall	1	2,400	2,400	1.30	3,120
2.3	**Continuing Education / Outreach**					
2.3.1	Small Classroom	2	720	1,440	1.30	1,872
2.3.2	Large Classroom	4	1,200	4,800	1.30	6,240

ACADEMIC INSTRUCTION

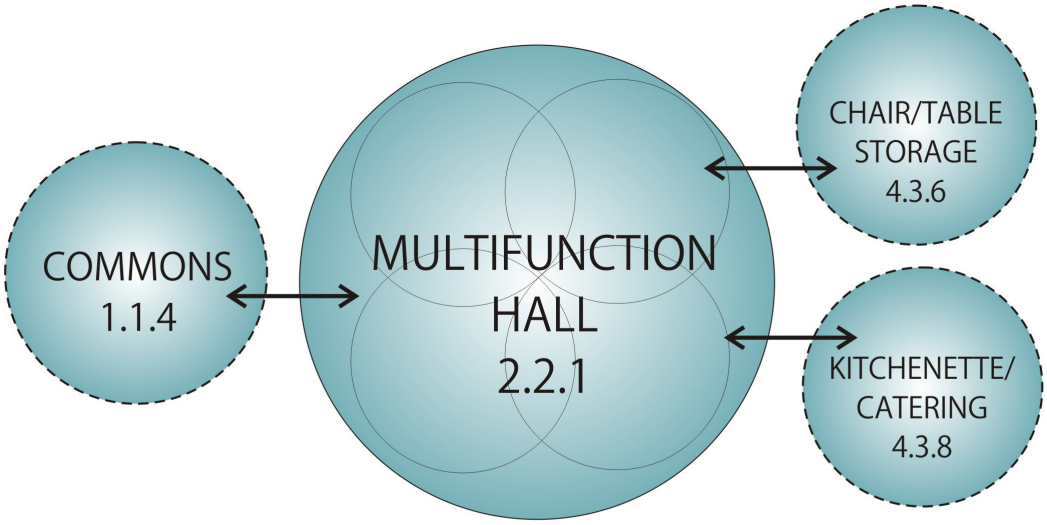


PERFORMING ARTS INSTRUCTION

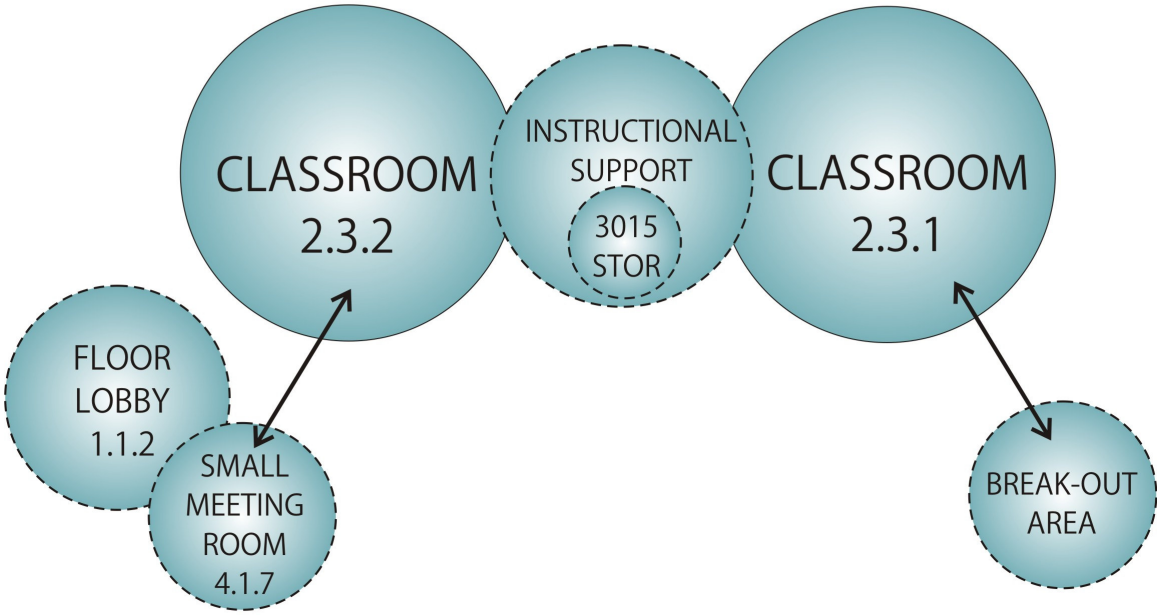


INTRODUCTORY/ART INSTRUCTION

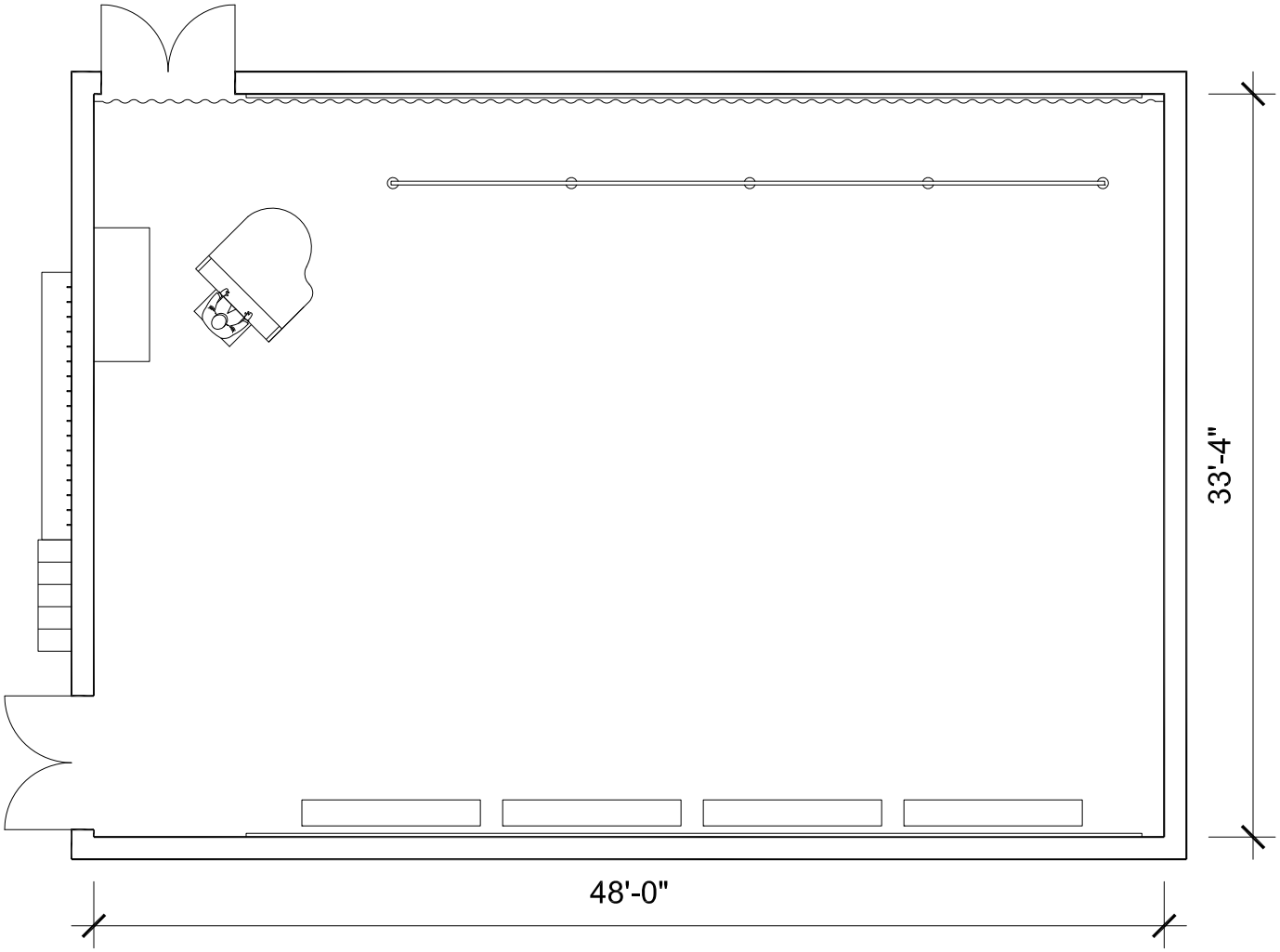
ACADEMIC INSTRUCTION



TEACHER DEVELOPMENT



CONTINUING EDUCATION/OUTREACH



2.1.1 INTRODUCTORY STUDIO

NET AREA: 1,600 S.F.

SPACE INFORMATION

Room Function: Fine Arts Pre-school Classroom Monday through Friday during the day and a Faculty warm-up studio outside of school hours.

Adjacencies: See Adjacency Matrix in Section 3.3

Special Requirements:

Room Lighting should be zoned
Provide windows to corridor min. 48" A.F.F with opaque window coverings
Provide second set of double doors into adjacent storage space/sound buffer
VTD security zone
See Section 5.5 for special technical requirements

Room Type: Classroom

Access: Controlled

Room Utilization: 6 days a week, 8:00 AM to 9:00 PM

General Notes: None

ROOM SIZE AND CAPACITY

Proposed Area:	1600 NSF	**Room/Space Quantity:**	1	**Total Area:**	1600
Assigned Capacity:	20 Occupant(s)	**Unassigned Capacity:**	20 Guest(s)	**Total Capacity:**	40

FINISHES, DOORS, AND WINDOWS

Floor Finish: Wood (sprung dance floor)

Wall Finish: Acoustical wall finish over gypsum board (painted)

Base Finish: Wood

Ceiling Treatment: Gypsum board + acoustic absorption

Ceiling Height: 16' minimum

Acoustic Treatment: Isolate from adjacent spaces

Doors:

Type:	Double	**Height:**	84"
Width:	72"	**Door Panel:**	None

Windows:

Natural Lighting:	Required (provide glare and brightness control)
Sidelighting:	None

MECHANICAL/ELECTRICAL

HVAC: Standard, space temperature control, CO2 monitoring

Plumbing: None

Fire Protection: Smoke detector, visual alarm, and sprinkler

Security: Card key access at entrance door(s)

Electrical: 120V wall outlets and additional circuits

AV Requirements: Flush mounted equipment rack

Wire Management: Wall outlets

Data Management: Data outlet

Artificial Lighting: Downlights - CFL or LED fixtures w/ 3200K lamps

Telephone: Wall mounted telephone jack

EQUIPMENT AND FURNISHINGS

Equipment

(1) Clock
(1) Sound System in Lockable Cabinet
(1) 50" Flat Screen Television
(1) Telephone
(1) Background Page/Monitor System

Furniture

(1) Floor Mounted, double height wood ballet barre
Mirrors along one wall with curtains to cover
Modular panels along one wall for hanging art work
(1) Piano and bench (Provided by Owner)
(4) 8'-0" Moveable benches
(1) 6'-0" long, built-in lockable cabinet

In corridor outside room provide built-in cubbies for (20) students and benches with clothing hooks above.

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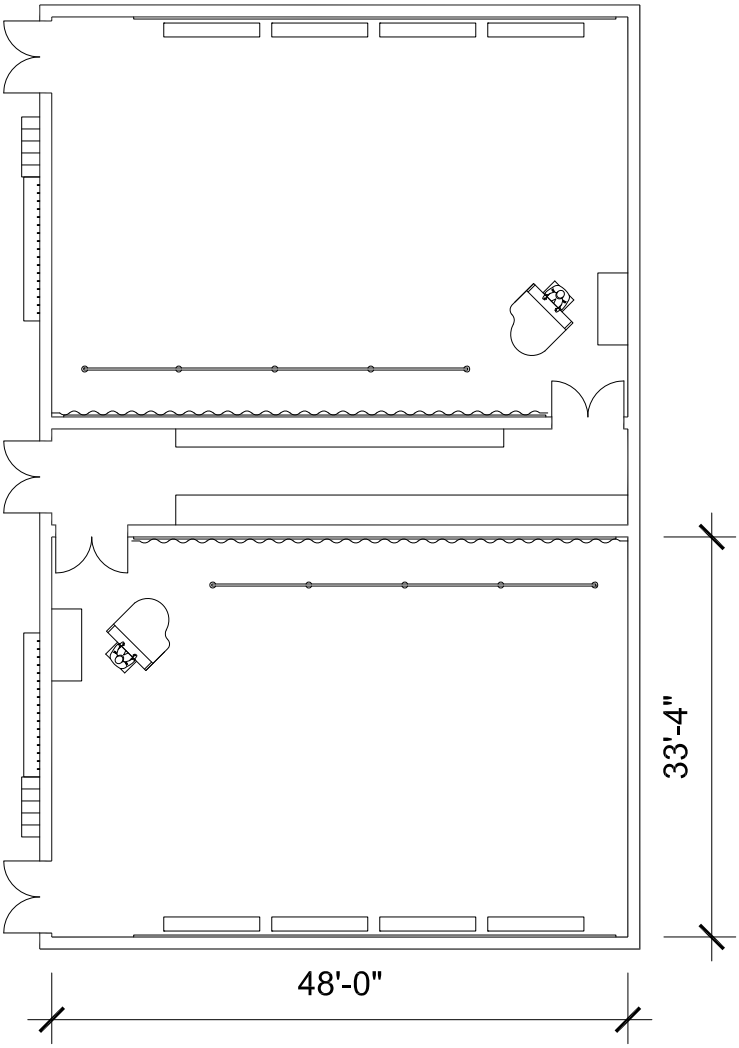

2.1.2 JR. DANCE STUDIOS W/ CLOSET AS BUFFER BETWEEN

NET AREA: 1,600 S.F.

SPACE INFORMATION

Room Function: Junior Dance Studio and Fine Arts Pre-school Classroom

Adjacencies: See Adjacency Matrix in Section 3.3

Special Requirements:

Room Lighting should be zoned
Provide windows to corridor min. 48" A.F.F with opaque window coverings
Provide second set of double doors into adjacent storage space/sound buffer
VTD security zone

See Section 5.5 for special technical requirements

Room Type: Classroom

Access: Controlled

Room Utilization: 6 days a week, 8:00 AM to 9:00 PM

General Notes: None

ROOM SIZE AND CAPACITY

Proposed Area:	1600 NSF	**Room/Space Quantity:**	1	**Total Area:**	1600
Assigned Capacity:	20 Occupant(s)	**Unassigned Capacity:**	20 Guest(s)	**Total Capacity:**	40

FINISHES, DOORS, AND WINDOWS

Floor Finish: Wood (sprung dance floor)

Wall Finish: Acoustical wall finish over gypsum board (painted)

Base Finish: Wood

Ceiling Treatment: Gypsum board + acoustic absorption

Ceiling Height: 16' minimum

Acoustic Treatment: Isolate from adjacent spaces

Doors:

Type:	Double	**Height:**	84"
Width:	72"	**Door Panel:**	None

Windows:

Natural Lighting:	Required (provide glare and brightness control)
Sidelighting:	None

MECHANICAL/ELECTRICAL

HVAC: Standard, space temperature control, CO2 monitoring

Plumbing: None

Fire Protection: Smoke detector, visual alarm, and sprinkler

Security: Card key access at entrance door(s)

Electrical: 120V wall outlets and additional circuits

AV Requirements: Flush mounted equipment rack

Wire Management: Wall outlets

Data Management: Data outlet

Artificial Lighting: Downlights - CFL or LED fixtures w/ 3200K lamps

Telephone: Wall mounted telephone jack

EQUIPMENT AND FURNISHINGS

Equipment

(1) Clock
(1) Sound System in Lockable Cabinet
(1) 50" Flat Screen Television
(1) Telephone
(1) Background Page/Monitor System

Furniture

(1) Floor Mounted, double height wood ballet barre
Mirrors along one wall with curtains to cover
Modular panels along one wall for hanging art work
(1) Piano and bench (Provided by Owner)
(4) 8'-0" Moveable benches
(1) 6'-0" long, built-in lockable cabinet

In corridor outside room provide built-in cubbies for (20) students and benches with clothing hooks above.

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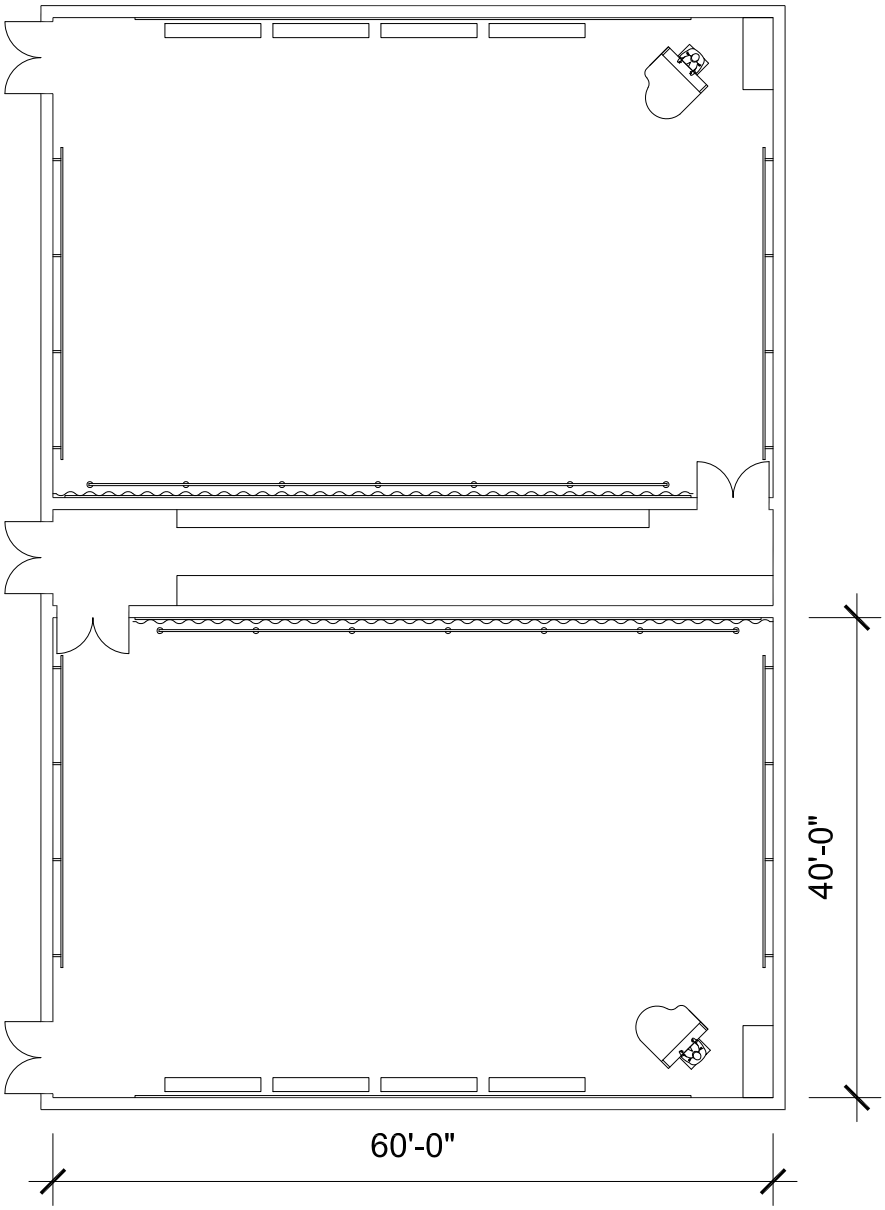

2.1.3 SR. DANCE STUDIOS W/ CLOSET AS BUFFER BETWEEN

NET AREA: 2,400 S.F.

2.1.3 Senior Dance Studio — Third Level

SPACE INFORMATION

Room Function: Dance Studio for Senior Students and classroom space for the 3015 series classes.

Adjacencies: See Adjacency Matrix in Section 3.3

Room Type: Classroom

Access: Controlled

Room Utilization: 6 days a week, 8:00 AM to 9:00 PM

General Notes: None

Special Requirements:

Room Lighting should be zoned
Provide large windows to corridor with opaque window coverings
Provide second set of double doors into adjacent storage space/sound buffer
VTD security zone
See Section 5.5 for special technical requirements

ROOM SIZE AND CAPACITY

Proposed Area:	2400 NSF	**Room/Space Quantity:**	2	**Total Area:**	4800
Assigned Capacity:	30 Occupant(s)	**Unassigned Capacity:**	30 Guest(s)	**Total Capacity:**	60

FINISHES, DOORS, AND WINDOWS

Floor Finish: Wood (sprung dance floor)

Wall Finish: Acoustical wall finish over gypsum board (painted)

Base Finish: Wood

Ceiling Treatment: Gypsum board + acoustic absorption

Ceiling Height: 20'+

Acoustic Treatment: Isolate from adjacent spaces

Doors:

Type:	Double	**Height:**	84"
Width:	72"	**Door Panel:**	None

Windows:

Natural Lighting:	Required (provide glare and brightness control)
Sidelighting:	None

MECHANICAL/ELECTRICAL

HVAC: Standard, space temperature control, CO2 monitoring

Plumbing: None

Fire Protection: Smoke detector, visual alarm, and sprinkler

Security: Card key access at entrance door(s)

Electrical: 120V wall outlets and additional circuits

AV Requirements: Flush mounted equipment rack

Wire Management: Wall outlets

Data Management: Data outlet

Artificial Lighting: Dual System - Dimmable Incandessant + HID, CFL or LED fixtures with 3200K lamps

Telephone: Wall mounted telephone jack

EQUIPMENT AND FURNISHINGS

Equipment

(1) Clock
(1) Sound System in Lockable Cabinet
(1) 50" Flat Screen Television
(1) Telephone
(1) Background Page/Monitor System

Furniture

Double height wood ballet barre three sides of the room minimum
Mirrors along one wall with curtains to cover
Modular panels along one wall for hanging art work
(1) Piano and bench (Provided by Owner)
(4) 8'-0" Moveable benches
(1) 6'-0" long, built-in lockable cabinet

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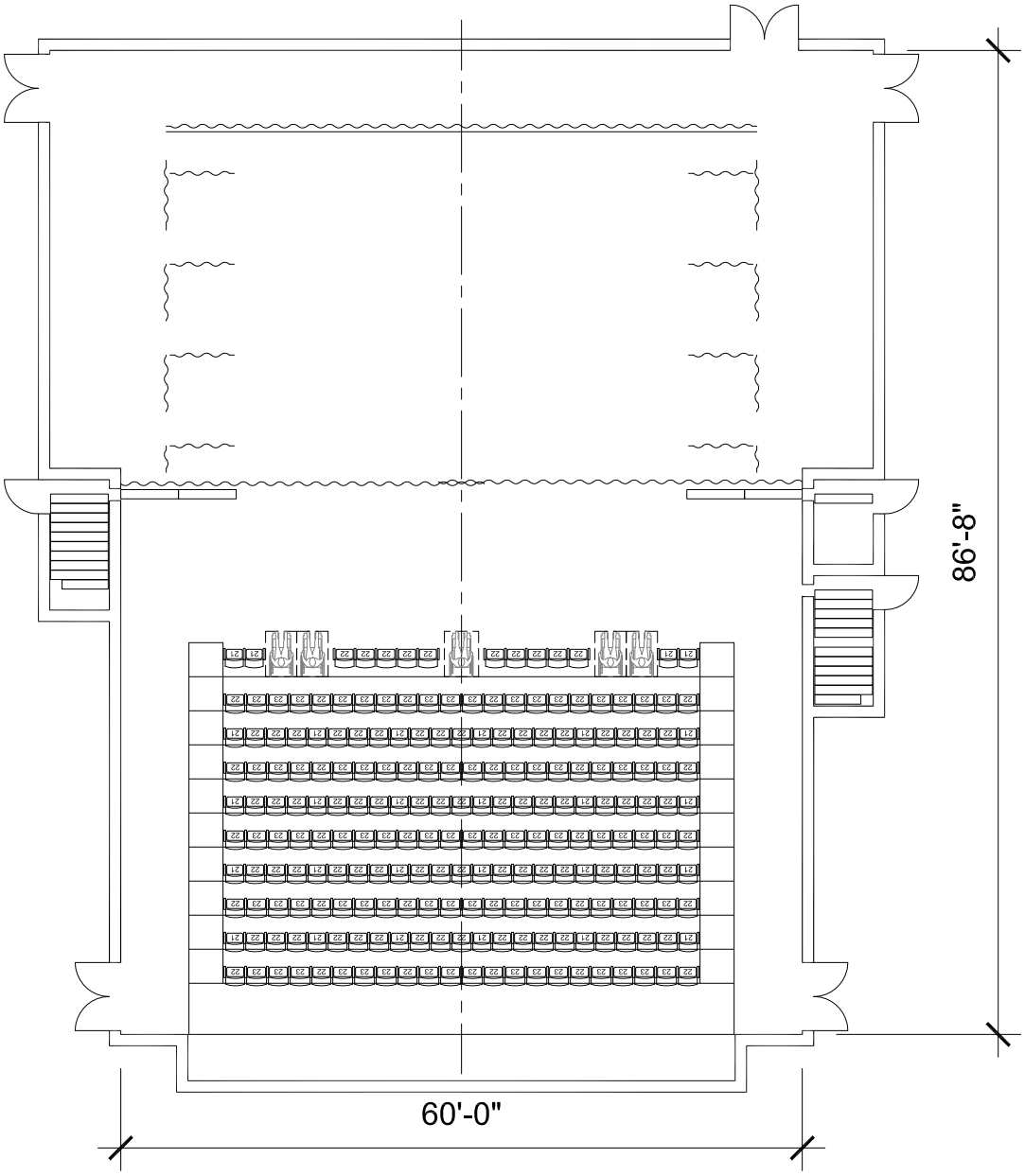

2.1.4 MAIN STUDIO (CONFIGURED FOR INFORMAL PERFORMANCE)

NET AREA: 5,800 S.F.

2.1.4 Main Studio — Fifth Level

SPACE INFORMATION

Room Function: Large Studio that is divisible into two smaller studio spaces. On a day to day basis it will function as two Senior Studio and classroom space for 3015 series classes. It is also available for large rehearsals and informal performances or lectures.

Adjacencies: See Adjacency Matrix in Section 3.3

Room Type: Classroom

Access: Controlled

Room Utilization: 6 days a week, 8:00 AM to 9:00 PM

General Notes: None

Special Requirements:

Room Ltg to be zoned
Provide (2) Acoustically Sound Operable Panel Partitions w/ 6'-0" wide airspace between.
Doors should have an STC rating of 57 minimum
Provide large windows to corridor with blackout window coverings
See Section 5.5 for special technical requirements

ROOM SIZE AND CAPACITY

Proposed Area:	5800 NSF	**Room/Space Quantity:**	1	**Total Area:**	5800
Assigned Capacity:	60 Occupant(s)	**Unassigned Capacity:**	200 Guest(s)	**Total Capacity:**	260

FINISHES, DOORS, AND WINDOWS

Floor Finish: Wood (sprung dance floor)

Wall Finish: Acoustical wall finish over gypsum board (painted)

Base Finish: Wood

Ceiling Treatment: Gypsum board + acoustic absorption

Ceiling Height: 20'+

Acoustic Treatment: Isolate from adjacent spaces

Doors:

Type:	Double	**Height:**	84"
Width:	72"	**Door Panel:**	None

Windows:

Natural Lighting:	Required (provide glare and brightness control)
Sidelighting:	None

MECHANICAL/ELECTRICAL

HVAC: Standard, space temperature control, CO2 monitoring

Plumbing: None

Fire Protection: Smoke detector, visual alarm, and sprinkler

Security: Card key access at entrance door(s)

Electrical: 120V wall outlets and UPS + 120V/208V as required for Theatrical Ltg. and Sound/Video Circuits

AV Requirements: Flush mounted equipment rack

Wire Management: Wall and ceiling outlets per equipment

Data Management: Data outlet

Artificial Lighting: Theatrical Ltg. System + Dual Arch. System - Dimmable Incandessant + HID, CFL or LED fixtures with 3200K lamps

Telephone: Wall mounted telephone jack

EQUIPMENT AND FURNISHINGS

Equipment

(2) Clocks
(2) Sound Systems in Lockable Cabinets
(2) 50" Flat Screen Televisions
(2) Telephones
(2) Background Page/Monitor Systems
(1) Projection Screen
Pipe Grid

Furniture

Portable, double height wood ballet barres three sides of the room minimum
Mirrors along one wall with curtains to cover
Built-in Lockable Cabinets
(2) Pianos and benches (Provided by Owner)
(8) 8'-0" Moveable benches
(1) Marley Dance Floor
Retractable Seating for approx. 225
Masking Drapes, including a bi-parting main drape, legs, borders, a traveler curtain and a leno cyclorama

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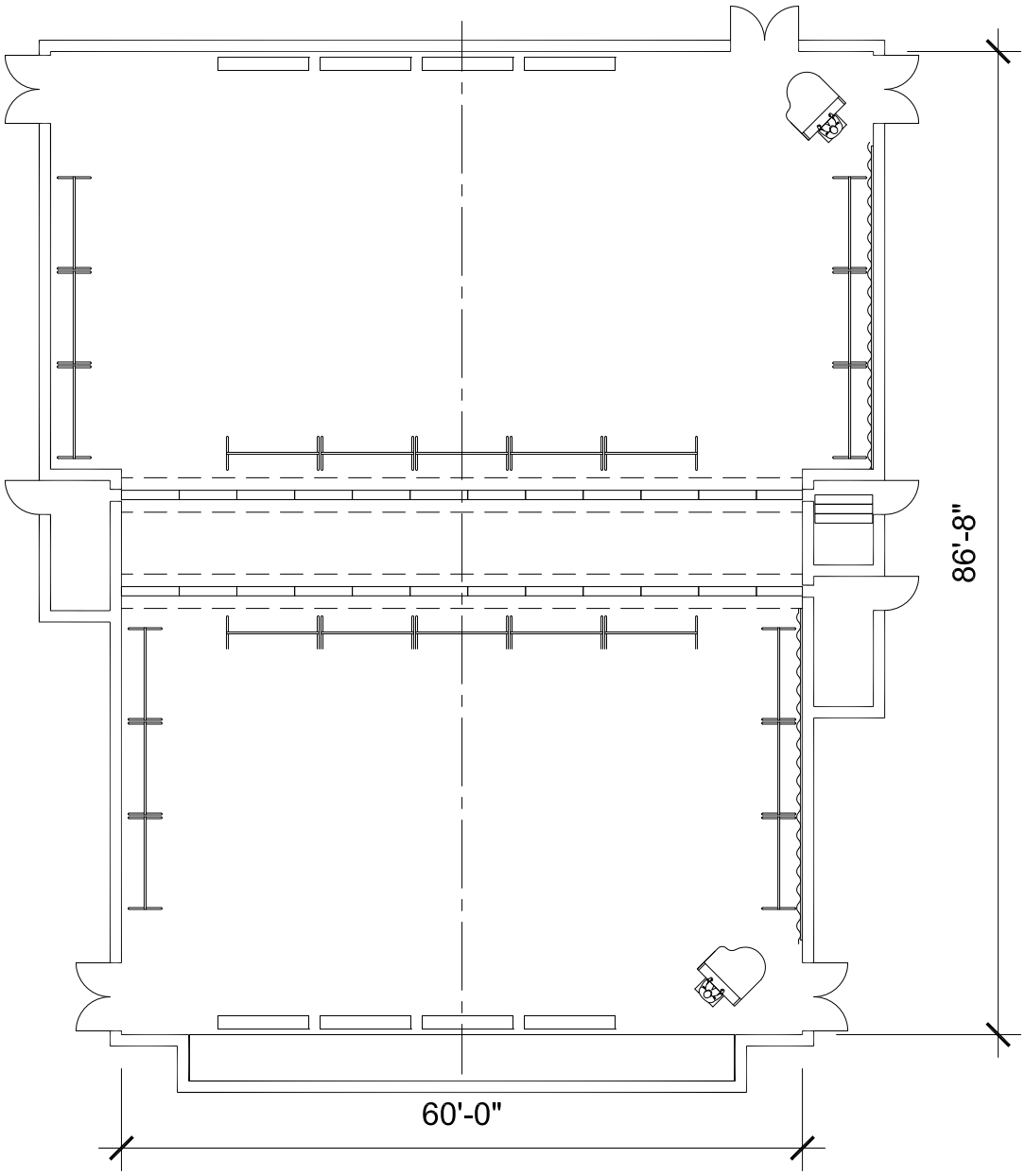
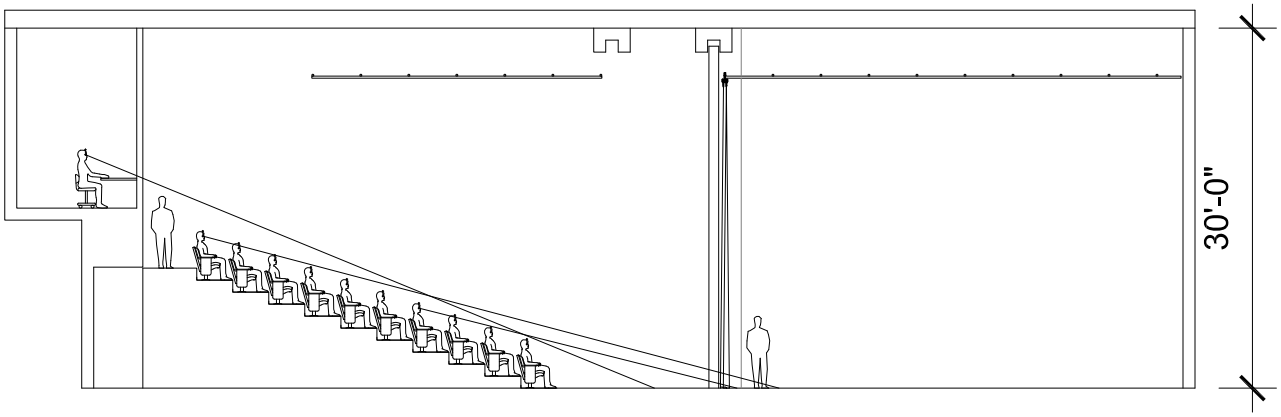


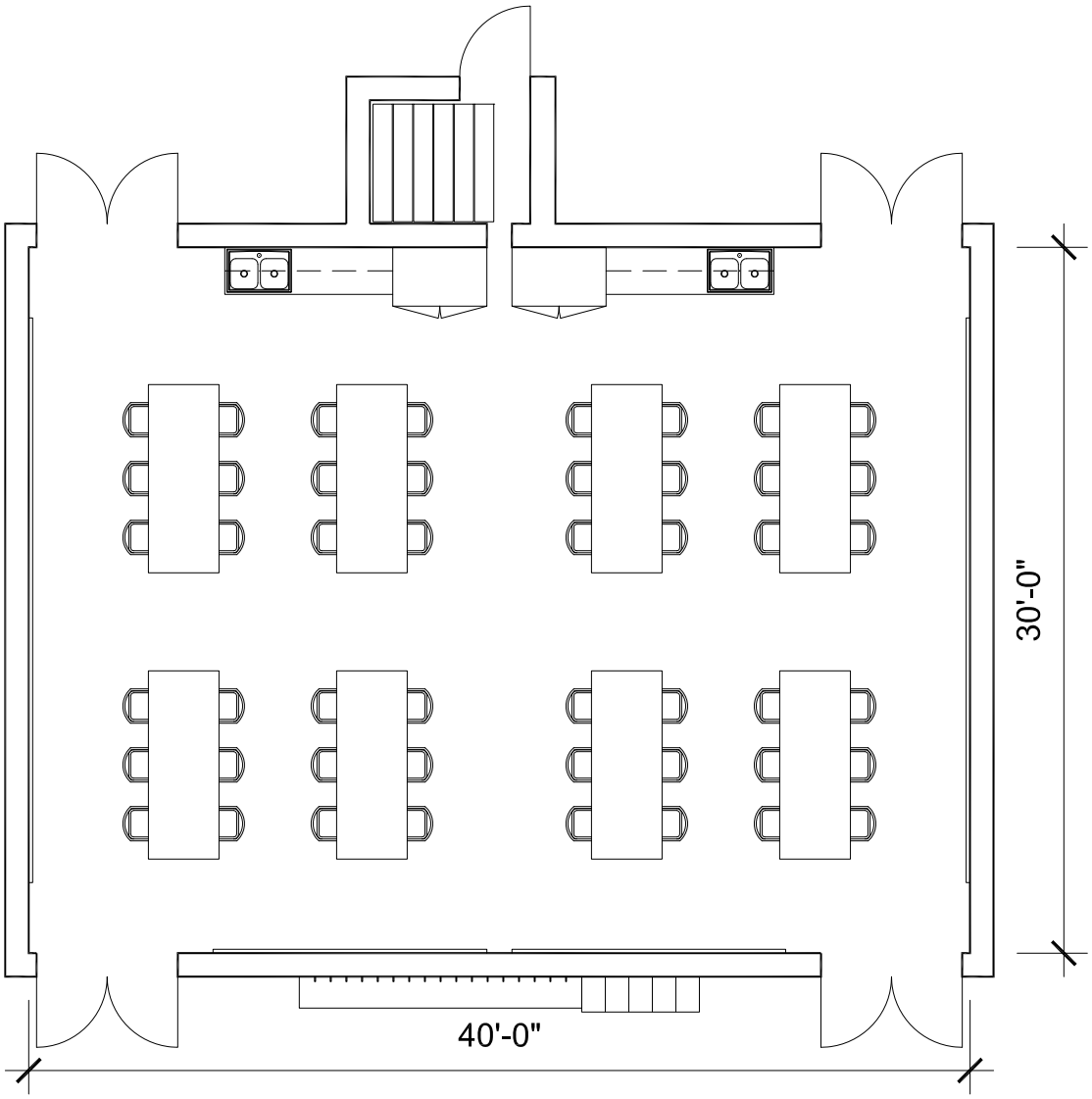
2.1.4 MAIN STUDIO (CONFIGURED AS TWO SENIOR STUDIOS)

NET AREA: 5,800 S.F.



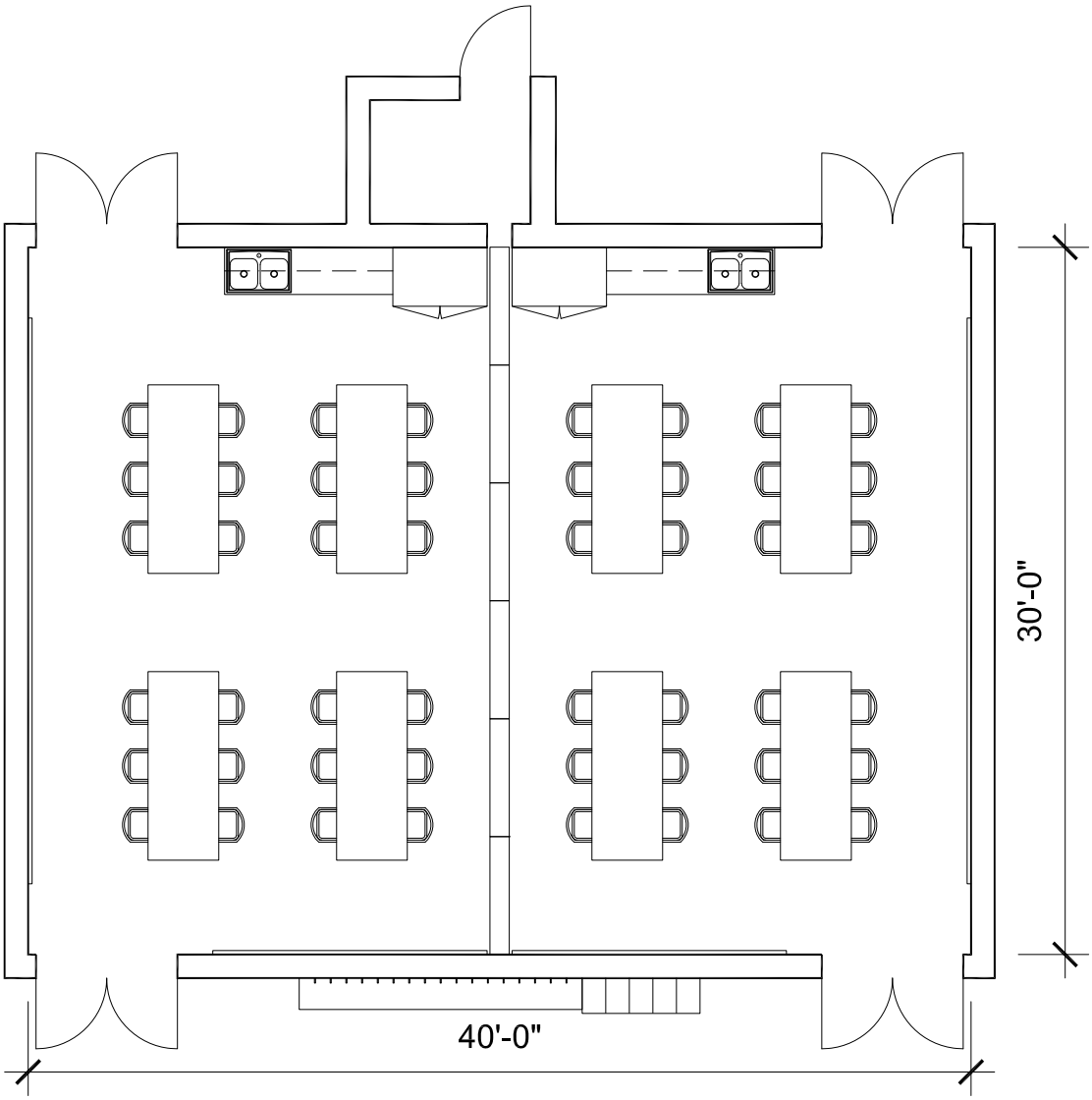
2.1.4 MAIN STUDIO (CONFIGURED FOR INFORMAL PERFORMANCE)

NET AREA: 5,800 S.F.



2.1.5 ART STUDIO (CONFIGURED AS OPEN ROOM)

NET AREA: 1,200 S.F.



2.1.5 ART STUDIO (CONFIGURED AS TWO SPACES)

NET AREA: 1,200 S.F.

SPACE INFORMATION

Room Function: Visual Art Classroom for both Virginia Tanner Dance (including Fine-Arts Preschool) and 3015 series classes.

Adjacencies: See Adjacency Matrix in Section 3.3

Room Type: Classroom

Access: Controlled

Room Utilization: 6 days a week, 8:00 AM to 6:00 PM

General Notes: None

Special Requirements:

Provide Acoustically Sound Operable Wall Partition
Walls to have modular panels for hanging art work
Provide clothesline for drying art work
Provide second set of double doors into adjacent storage space
VTD security zone
See Section 5.5 for special technical requirements

ROOM SIZE AND CAPACITY

Proposed Area:	1200 NSF	**Room/Space Quantity:**	1	**Total Area:**	1200
Assigned Capacity:	30 Occupant(s)	**Unassigned Capacity:**	20 Guest(s)	**Total Capacity:**	50

FINISHES, DOORS, AND WINDOWS

Floor Finish: Vinyl Composite Tile (VCT)

Wall Finish: Gypsum board (painted)

Base Finish: Rubber

Ceiling Treatment: Suspended acoustical lay-in tiles

Ceiling Height: 12' minimum

Acoustic Treatment: Isolate from adjacent spaces

Doors:

Type:	Double	**Height:**	84"
Width:	72"	**Door Panel:**	Clear

Windows:

Natural Lighting: Required (provide glare and brightness control)

Sidelighting: None

MECHANICAL/ELECTRICAL

HVAC: Radiant system + Exhaust

Plumbing: Sink (custodial) with soil trap and floor drain

Fire Protection: Smoke detector, visual alarm, and sprinkler

Security: Card key access at entrance door(s)

Electrical: 120V wall outlets and outlets at worksurface

AV Requirements: PA system

Wire Management: Wall outlets

Data Management: Tele/data outlet(s)

Artificial Lighting: Downlights - CFL or LED fixtures w/ 3200K lamps

Telephone: Wall mounted telephone jack

EQUIPMENT AND FURNISHINGS

Equipment

(2) Clocks
(1) 50" Flat Screen Television
(2) Telephone2
(2) Background Page/Monitor Systems
(2) Utility Sinks
(1) Projector

Furniture

(2) Sets of Folding Chairs and Tables to seat (48) - (1) set for Adults and (1) set for Pre-school children

In corridor outside room provide built-in cubbies for (20) students and benches with clothing hooks above.

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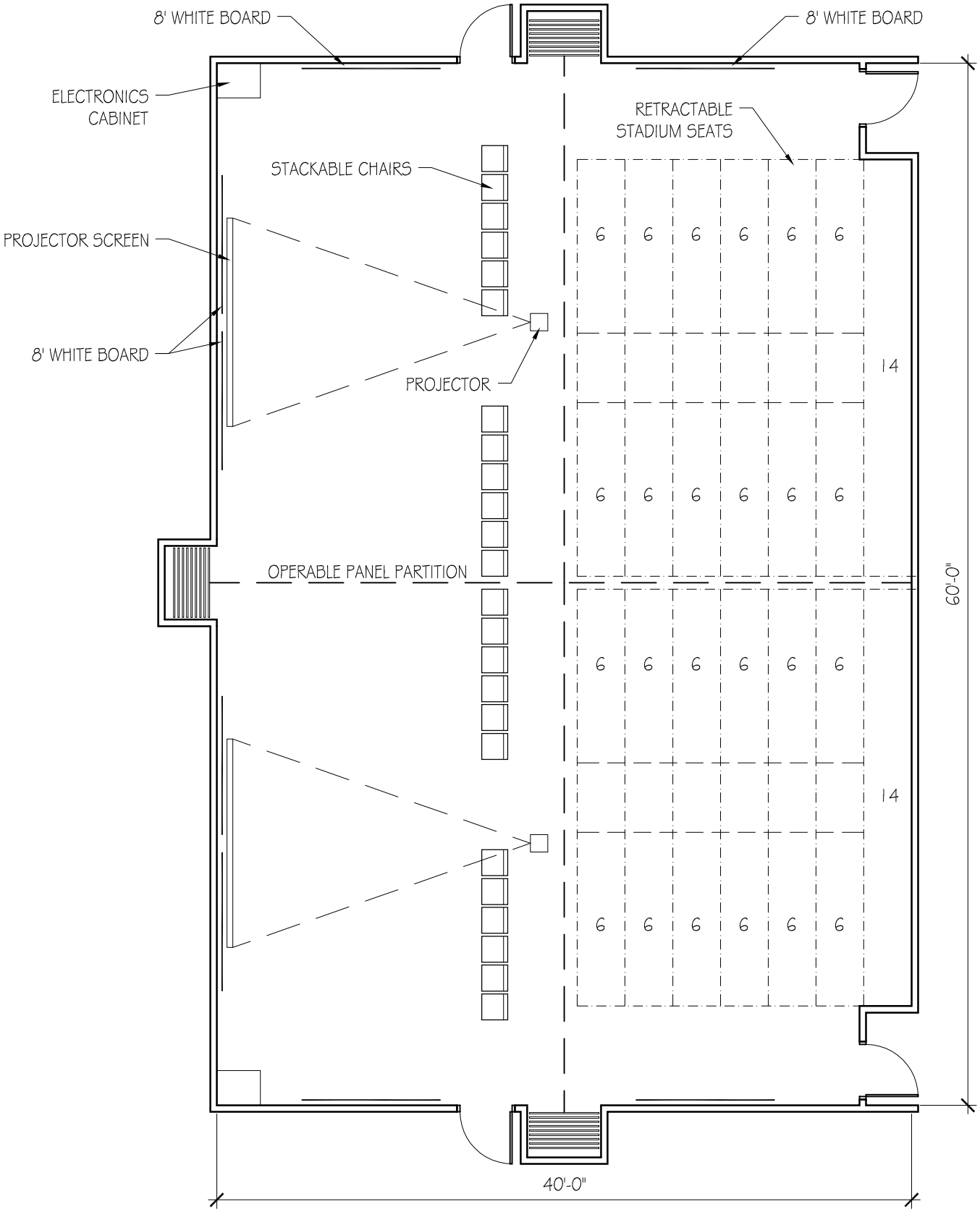

2.2.1 MULTIFUNCTION HALL
NET AREA: 2,400 S.F.

SPACE INFORMATION

Room Function: Teaching, collaboration, group meetings, presentations when configured as classrooms. Classroom space for 3015 series classes.

Adjacencies: See Adjacency Matrix in section 3.3

Room Type: Classroom

Access: Public

Room Utilization: 6 days a week, 8:00 AM to 9:00 PM

General Notes: None

Special Requirements:

Divisible into (4) separate rooms by operable partition. Provide acoustical seperation when divided. Upgraded finishes. Provide movable stage for lectures or small performance
See Section 5.5 for special technical requirements

ROOM SIZE AND CAPACITY

Proposed Area:	2400 NSF	**Room/Space Quantity:**	1	**Total Area:**	2400
Assigned Capacity:	0 Occupant(s)	**Unassigned Capacity:**	200 Guest(s)	**Total Capacity:**	200

FINISHES, DOORS, AND WINDOWS

Floor Finish: Carpet-tile

Wall Finish: Gypsum board (painted) and operable panel partition

Base Finish: Wood

Doors:

Type:	Double	**Height:**	84"
Width:	72"	**Door Panel:**	None

Ceiling Treatment: Gypsum board and acoustical lay-in panels + upgraded finishes

Ceiling Height: 20'+

Acoustic Treatment: Provide absorbent surfaces as necessary

Windows:

Natural Lighting: Required (provide glare and brightness control)

Sidelighting: None

MECHANICAL/ELECTRICAL

HVAC: Standard, space temperature control

Plumbing: Sink (bar) with hot/cold water

Fire Protection: Smoke detector, visual and audible alarm, and sprinkler

Security: Card key access at entrance door(s)

Electrical: 120V wall/floor (grounded) outlet(s)

AV Requirements: Ceiling mounted projector(s)

Wire Management: Wall and floor outlets

Data Management: Data outlets at floor boxes

Artificial Lighting: General ceiling lighting with dimmers and accent lights

Telephone: None

EQUIPMENT AND FURNISHINGS

Equipment

(2) Ceiling mounted video projectors
(2) Retractable screens - 14' wide
Multimedia equipment

Furniture

(2) banks of retractable seating - 86 seats each
(24) stackable chairs
(8) 4'x8' whiteboards

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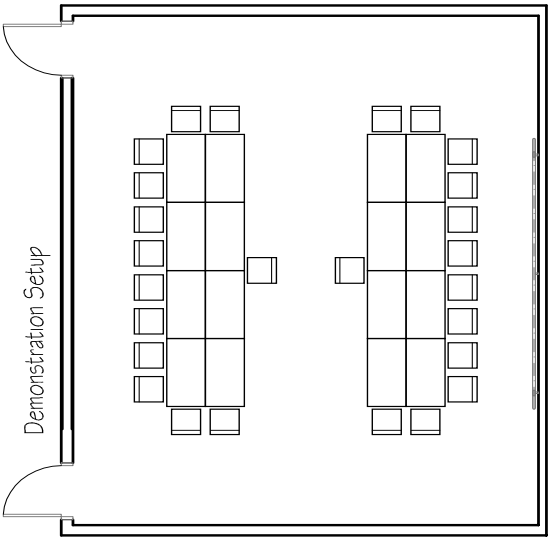

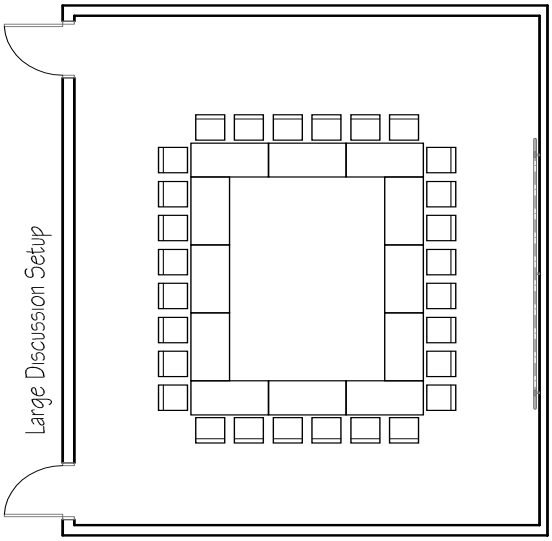

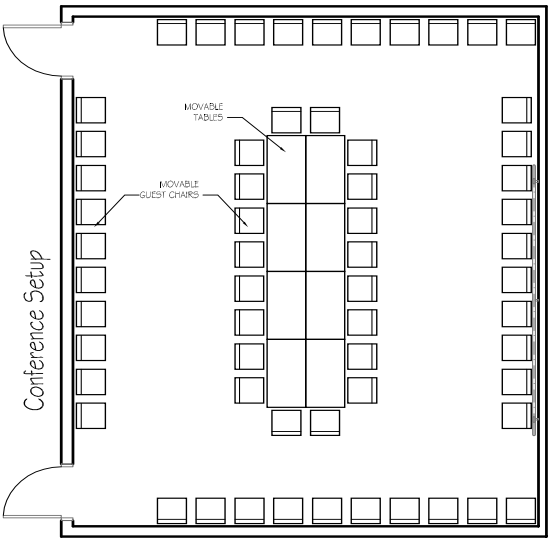

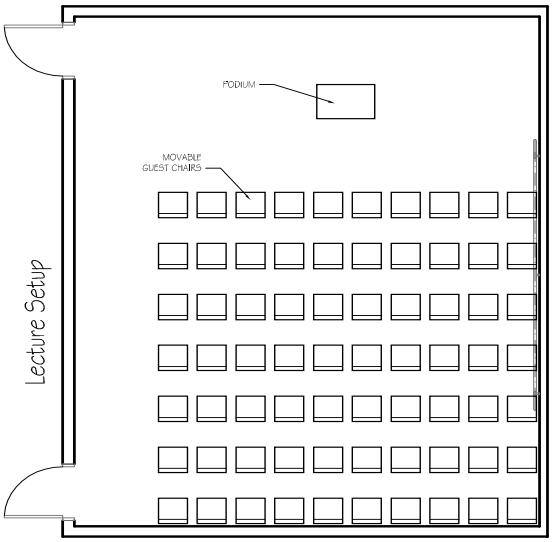

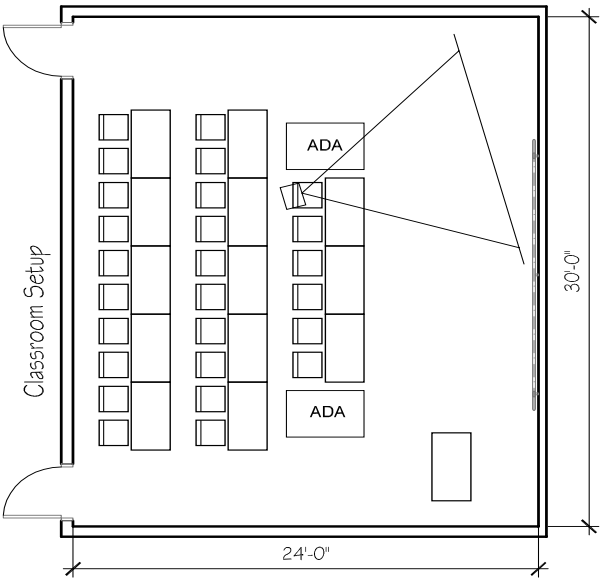

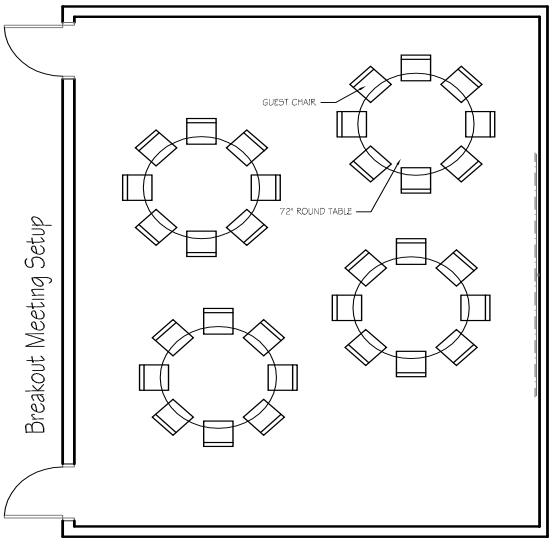

2.3.1 SMALL CLASSROOM
NET AREA: 720 S.F.

2.3.1 Small Classroom -

SPACE INFORMATION

Room Function: Teaching, collaboration, group meetings, presentations

Adjacencies: See Adjacency Matrix in section 3.3

Special Requirements: Incorporate distance learning AV equipment

Room Type: Classroom

Access: Public

Room Utilization: 6 days a week, 8:00 AM to 9:00 PM

General Notes: None

ROOM SIZE AND CAPACITY

Proposed Area:	720 NSF	**Room/Space Quantity:**	2	**Total Area:**	1440
Assigned Capacity:	0 Occupant(s)	**Unassigned Capacity:**	30 Guest(s)	**Total Capacity:**	30

FINISHES, DOORS, AND WINDOWS

Floor Finish: Carpet-tile

Wall Finish: Acoustical wall finish over gypsum board (painted)

Base Finish: Rubber

Doors:

Type:	Single	**Height:**	84"
Width:	36"	**Door Panel:**	None

Ceiling Treatment: Gypsum board and acoustical lay-in panels + upgraded finishes

Ceiling Height: 12' minimum

Acoustic Treatment: Isolate from adjacent spaces

Windows:

Natural Lighting:	Preferred, glare and brightness control
Sidelighting:	None

MECHANICAL/ELECTRICAL

HVAC:	Standard, space temperature control	**AV Requirements:**	Ceiling mounted projector(s)
Plumbing:	None	**Wire Management:**	Wall and floor outlets
Fire Protection:	Smoke detector, visual and audible alarm, and sprinkler	**Data Management:**	Data outlets at floor boxes
Security:	Card key access at entrance door(s)	**Artificial Lighting:**	General ceiling lighting with dimmers and accent lights
Electrical:	120V wall/floor (grounded) outlet(s)	**Telephone:**	None

EQUIPMENT AND FURNISHINGS

Equipment

(1) Ceiling mounted video projector
(1) Retractable screens - 12' wide
Multimedia equipment

Furniture

(70) stackable chairs
(16) 2'x4' folding tables
(1) Movable podium

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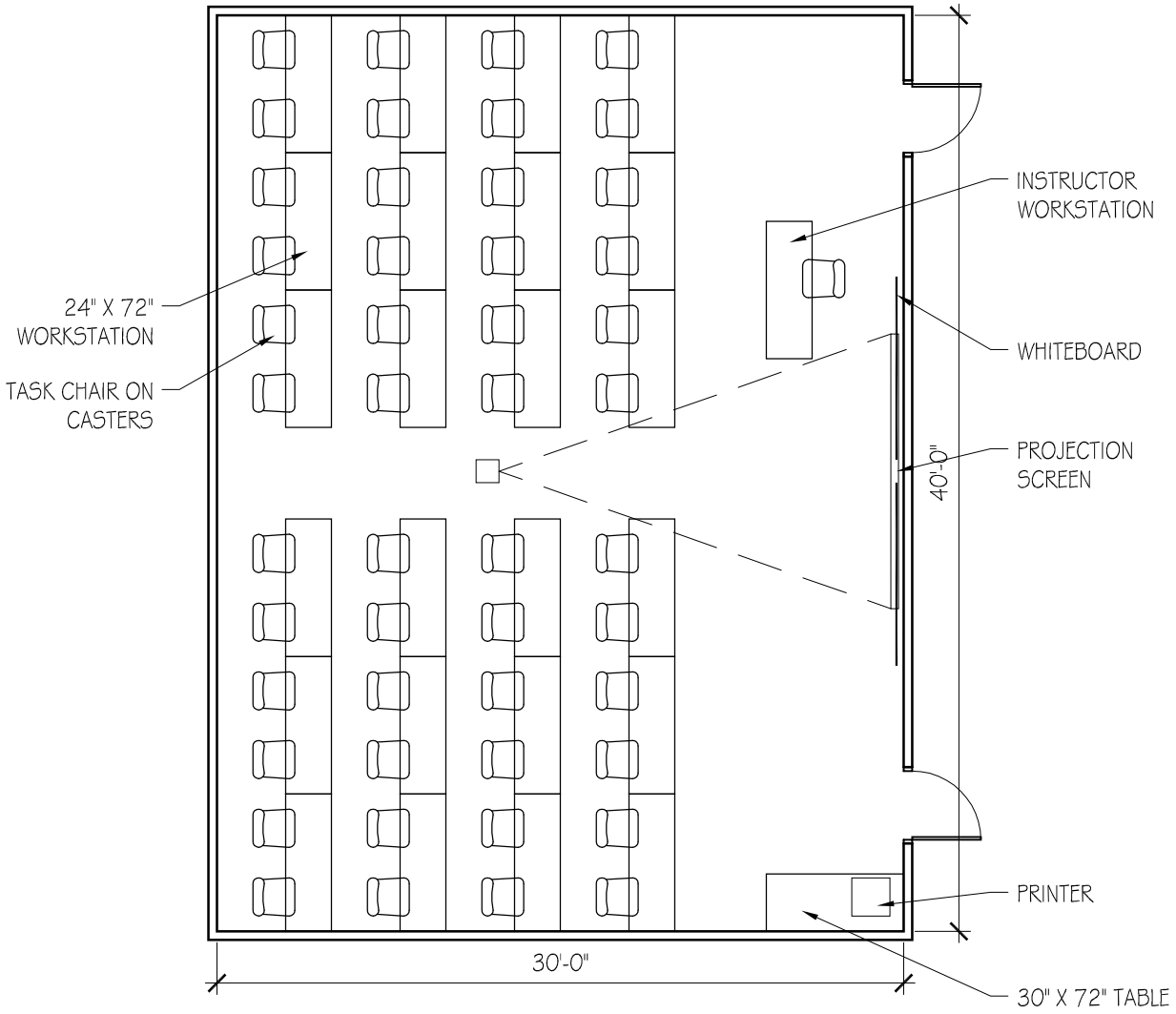

2.3.2 LARGE CLASSROOM
NET AREA: 1,200 S.F.

SPACE INFORMATION

Room Function: Teaching, collaboration, group meetings, presentations. Classroom space for 3015 series classes.

Adjacencies: See Adjacency Matrix in section 3.3

Room Type: Classroom

Access: Public

Room Utilization: 6 days a week, 8:00 AM to 9:00 PM

General Notes: None

Special Requirements:

Incorporate distance learning AV equipment
One Large Classroom should have VCT flooring and Rubber base.
One Large Classroom should have capacity for a 24 laptop storage & charging cart that is secured when not in use.

ROOM SIZE AND CAPACITY

Proposed Area:	1200 NSF	**Room/Space Quantity:**	4	**Total Area:**	4800
Assigned Capacity:	0 Occupant(s)	**Unassigned Capacity:**	50 Guest(s)	**Total Capacity:**	50

FINISHES, DOORS, AND WINDOWS

Floor Finish: Carpet-tile

Wall Finish: Acoustical wall finish over gypsum board (painted)

Base Finish: Wood

Doors:

Type:	Double	**Height:**	84"
Width:	72"	**Door Panel:**	None

Ceiling Treatment: Gypsum board and acoustical lay-in panels + upgraded finishes

Ceiling Height: 12' minimum

Acoustic Treatment: Isolate from adjacent spaces

Windows:

Natural Lighting: Required (provide glare and brightness control)

Sidelighting: None

MECHANICAL/ELECTRICAL

HVAC: Standard, space temperature control

Plumbing: None

Fire Protection: Smoke detector, visual and audible alarm, and sprinkler

Security: Card key access at entrance door(s)

Electrical: 120V wall/floor (grounded) outlet(s)

AV Requirements: Ceiling mounted projector(s)

Wire Management: Wall and floor outlets

Data Management: Data outlets at floor boxes

Artificial Lighting: General ceiling lighting with dimmers and accent lights

Telephone: None

EQUIPMENT AND FURNISHINGS

Equipment

(1) Ceiling mounted video projector
(1) Retractable screen - 12' wide
Multimedia equipment
(1) Printer (provided by owner)

For classroom with VCT flooring only:
(1) 47" Flat-panel monitor - wall mounted

For classroom with laptop capability only:
(1) Laptop storage & charging cart for 24 laptops
(24) Laptop computers (provided by owner)

Furniture

(25) 2'x6' movable tables
(50) task chairs on casters
(2) 4'x8' whiteboards
24 LF tackable surface for static display
(1) 30"x72" table

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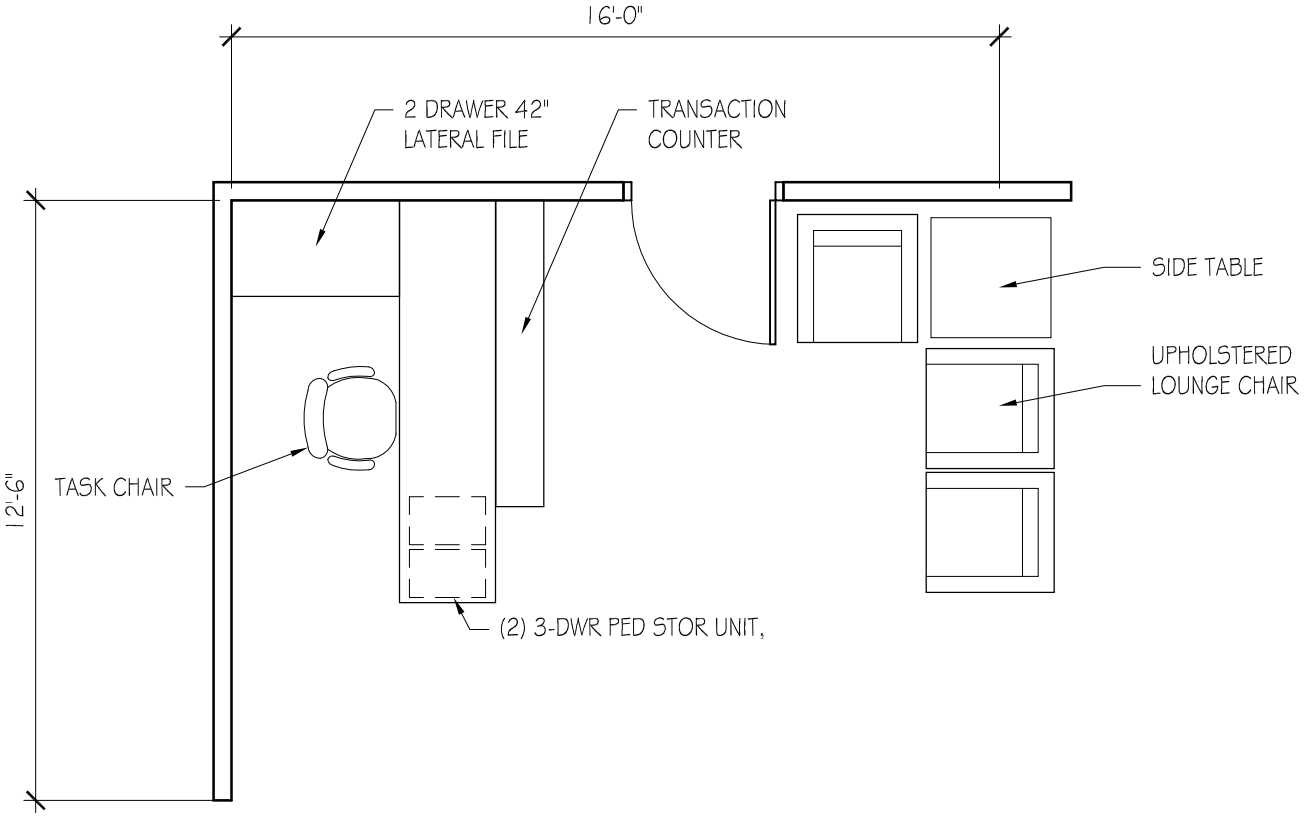
SECTION 3

SPACE SUMMARY

AREA	DESCRIPTION	SPACES	NASF	TOTAL NET SF	NET TO GROSS	TOTAL GROSS SF
3	**OFFICE SPACE**			**9,680**		**11,616**
3.1	**Reception / Waiting**					
3.1.1	Reception / Waiting - Tanner	1	200	200	1.20	240
3.1.2	Reception / Waiting - Centers	1	200	200	1.20	240
3.2	**Private Offices**					
3.2.1	Directors Offices	2	120	240	1.20	288
3.2.2	Office (3 offices per 8 centers)	24	120	2,880	1.20	3,456
3.2.3	Staff Office	4	100	400	1.20	480
3.3	**Open Workstations**					
3.3.1	Open Workstations - Tanner Hoteling	8	100	800	1.20	960
3.3.2	Open Workstations - (4 per 8 centers)	32	100	3,200	1.20	3,840
3.3.3	Open - Collaborative Work Area	8	220	1,760	1.20	2,112



3.1.1 RECEPTION / WAITING - TANNER
NET AREA: 200 S.F.

Office Space

3.1.1 Reception / Waiting - Tanner -

SPACE INFORMATION

Room Function: Greating, waiting, wayfinding

Adjacencies: See Adjacency Matrix in section 3.3

Special Requirements: None

Room Type: Open Suite

Access: Public

Room Utilization: 5 days a week, 8:00 AM to 5:00 PM

General Notes: Include retail display & storage area if not already accommodated as a component of 1.1.3

ROOM SIZE AND CAPACITY

Proposed Area:	200 NSF	**Room/Space Quantity:**	1	**Total Area:**	200
Assigned Capacity:	1 Occupant(s)	**Unassigned Capacity:**	4 Guest(s)	**Total Capacity:**	5

FINISHES, DOORS, AND WINDOWS

Floor Finish: Carpet-tile

Wall Finish: Gypsum board (painted) with glazed storefront

Base Finish: Wood

Doors:

Type:	Single	**Height:**	84"
Width:	36"	**Door Panel:**	Clear

Ceiling Treatment: Gypsum board and acoustical lay-in panels + upgraded finishes

Ceiling Height: 10' minimum

Acoustic Treatment: Provide absorbent surfaces as necessary

Windows:

Natural Lighting: Preferred, glare and brightness control

Sidelighting: Vision Panel

MECHANICAL/ELECTRICAL

HVAC: Standard

Plumbing: None

Fire Protection: Smoke detector, visual and audible alarm, and sprinkler

Security: Keyed lock at entrance door(s)

Electrical: 120V wall outlet(s)

AV Requirements: Wall mounted flat panel display

Wire Management: Wall outlets

Data Management: Tele/data outlet(s)

Artificial Lighting: Direct/indirect fluorescent and accent lighting

Telephone: Telephone outlets per occupant

EQUIPMENT AND FURNISHINGS

Equipment

(1) Computer system (provided by owner)
(1) Printer (provided by owner)

Furniture

11 LF of work surface
8 LF transaction counter
(1) Side table
(3) Upholstered chairs
(1) Table lamp
(2) 3 drawer PED files
(1) 42" 2 drawer lateral file
(1) Task chair on casters
(1) Waste receptacle

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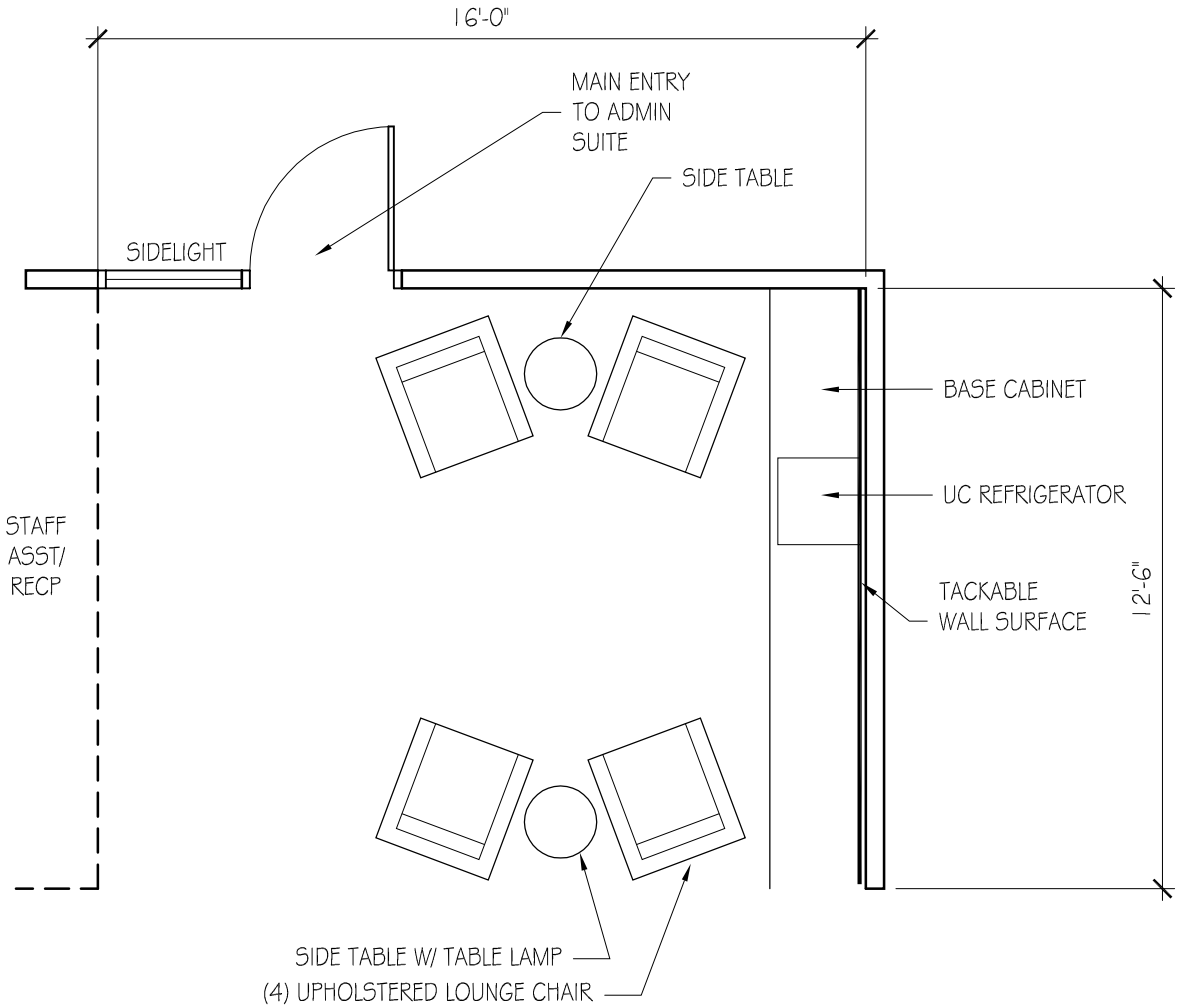

3.1.2 RECEPTION / WAITING - CENTERS
NET AREA: 200 S.F.

Sorenson Arts & Education Complex

ROOM DATA SHEET DETAIL **Reception / Waiting**

Office Space

3.1.2 Reception / Waiting - Centers -

SPACE INFORMATION

Room Function: Greating, waiting, wayfinding

Adjacencies: Adjacent to Centers

Special Requirements: None

Room Type: Open Suite

Access: Public

Room Utilization: 5 days a week, 8:00 AM to 5:00 PM

General Notes: Shared reception for centers suite

ROOM SIZE AND CAPACITY

Proposed Area:	200 NSF	**Room/Space Quantity:**	1	**Total Area:**	200
Assigned Capacity:	1 Occupant(s)	**Unassigned Capacity:**	4 Guest(s)	**Total Capacity:**	5

FINISHES, DOORS, AND WINDOWS

Floor Finish: Carpet-tile

Wall Finish: Gypsum board (painted) with glazed storefront

Base Finish: Wood

Doors:

Type:	Single	**Height:**	84"
Width:	36"	**Door Panel:**	Clear

Ceiling Treatment: Gypsum board and acoustical lay-in panels + upgraded finishes

Ceiling Height: 10' minimum

Acoustic Treatment: Provide absorbent surfaces as necessary

Windows:

Natural Lighting:	Preferred, glare and brightness control
Sidelighting:	Vision Panel

MECHANICAL/ELECTRICAL

HVAC:	Standard	**AV Requirements:**	Wall mounted flat panel display
Plumbing:	None	**Wire Management:**	Wall outlets
Fire Protection:	Smoke detector, visual and audible alarm, and sprinkler	**Data Management:**	Tele/data outlet(s)
Security:	Keyed lock at entrance door(s)	**Artificial Lighting:**	Direct/indirect fluorescent and accent lighting
Electrical:	120V wall outlet(s)	**Telephone:**	Telephone outlets per occupant

EQUIPMENT AND FURNISHINGS

Equipment

(1) Computer system (provided by owner)
(1) Printer (provided by owner)
(1) Undercounter refrigerator

Furniture

12 LF of base cabinets w/ work surface
(2) Side tables
(4) Upholstered chairs
(1) Waste receptacle

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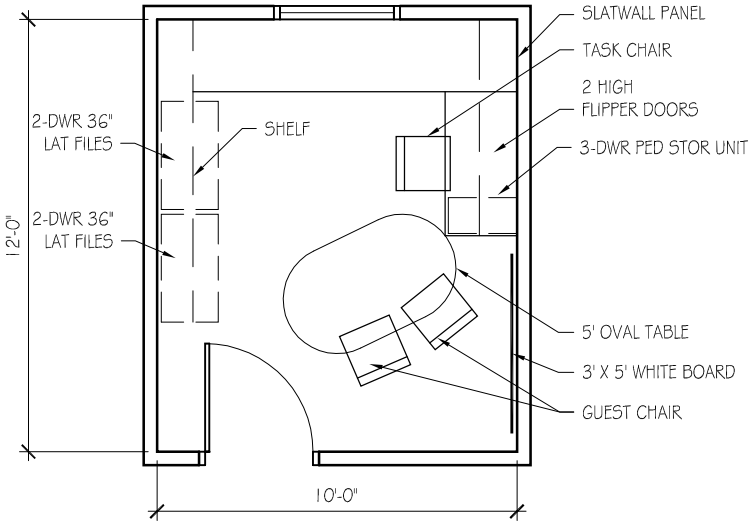

3.2.1 DIRECTORS OFFICE
NET AREA: 120 S.F.

3.2.1 Director's Office -

SPACE INFORMATION

Room Function: General office and meeting work

Adjacencies: See Adjacency Matrix in section 3.3

Special Requirements: Walls to deck, VTD security zone

Room Type: Private Office

Access: Controlled

Room Utilization: 5 days a week, 8:00 AM to 5:00 PM

General Notes: None

ROOM SIZE AND CAPACITY

Proposed Area:	120 NSF	**Room/Space Quantity:**	2	**Total Area:**	240
Assigned Capacity:	1 Occupant(s)	**Unassigned Capacity:**	4 Guest(s)	**Total Capacity:**	5

FINISHES, DOORS, AND WINDOWS

Floor Finish: Carpet-tile

Wall Finish: Gypsum board (painted)

Base Finish: Rubber

Doors:

Type:	Single	**Height:**	84"
Width:	32"	**Door Panel:**	Frosted

Ceiling Treatment: Suspended acoustical lay-in tiles

Ceiling Height: 8' minimum

Acoustic Treatment: Isolate from adjacent spaces

Windows:

Natural Lighting:	Required (provide glare and brightness control)
Sidelighting:	None

MECHANICAL/ELECTRICAL

HVAC:	Standard, space temperature control	**AV Requirements:**	None
Plumbing:	None	**Wire Management:**	Wall outlets
Fire Protection:	Sprinkler	**Data Management:**	Tele/data outlet(s)
Security:	Keyed lock at entrance door(s)	**Artificial Lighting:**	Direct/indirect fluorescent and task lighting
Electrical:	120V wall outlet(s)	**Telephone:**	Telephone outlets per occupant

EQUIPMENT AND FURNISHINGS

Equipment

(1) Computer system (provided by owner)
(1) Printer (provided by owner)

Furniture

13 LF of work surface
(2) 36" 2 drawer lateral files
(1) 3 drawer PED file
(1) 5' Oval table on casters
(1) Task chair
(2) Guest chairs
6 LF 15-1/2" deep enclosed shelving with flipper doors
8 LF open shelving
6 LF task slatwall
(1) Task slatwall accessories package
(1) 3'x5' Whiteboard
(1) Wall mounted coat rack
(1) Waste receptacle

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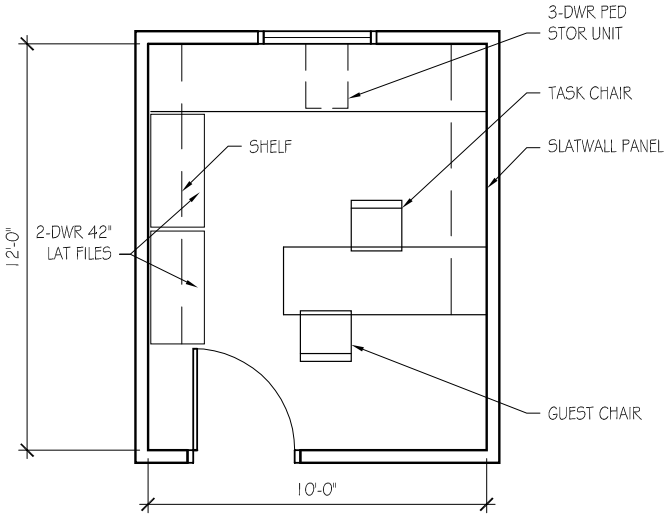
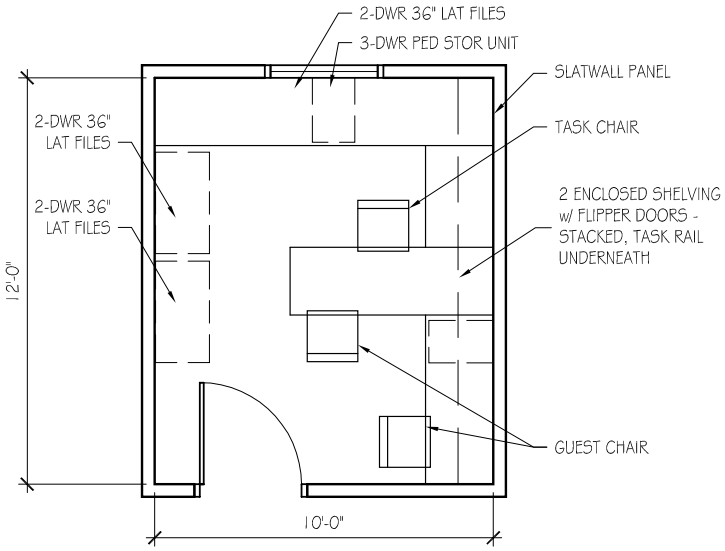
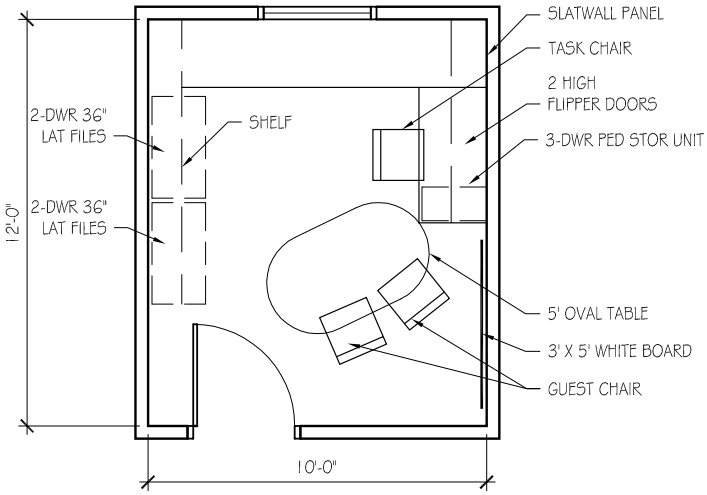


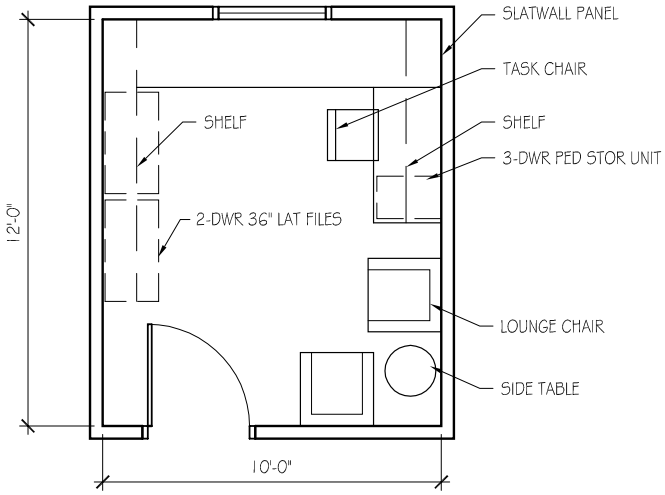
OFFICE C - 120 SF



OFFICE D - 120 SF



OFFICE A - 120 SF



OFFICE B - 120 SF

3.2.2 STANDARD OFFICE
NET AREA: 120 S.F.

SPACE INFORMATION

Room Function: General office and meeting work

Adjacencies: See Adjacency Matrix in section 3.3

Special Requirements:
Walls to deck every (3) offices

Room Type: Private Office

Access: Controlled

Room Utilization: 5 days a week, 8:00 AM to 5:00 PM

General Notes: None

ROOM SIZE AND CAPACITY

Proposed Area:	120 NSF	**Room/Space Quantity:**	24	**Total Area:**	2880
Assigned Capacity:	1 Occupant(s)	**Unassigned Capacity:**	2 Guest(s)	**Total Capacity:**	3

FINISHES, DOORS, AND WINDOWS

Floor Finish: Carpet-tile

Wall Finish: Gypsum board (painted)

Base Finish: Rubber

Doors:

Type:	Single	**Height:**	84"
Width:	32"	**Door Panel:**	Frosted

Ceiling Treatment: Suspended acoustical lay-in tiles

Ceiling Height: 8' minimum

Acoustic Treatment: Provide absorbent surfaces as necessary

Windows:

Natural Lighting:	Required (provide glare and brightness control)
Sidelighting:	None

MECHANICAL/ELECTRICAL

HVAC:	Standard	**AV Requirements:**	None
Plumbing:	None	**Wire Management:**	Wall outlets
Fire Protection:	Sprinkler	**Data Management:**	Tele/data outlet(s)
Security:	Keyed lock at entrance door(s)	**Artificial Lighting:**	Direct/indirect fluorescent and task lighting
Electrical:	120V wall outlet(s)	**Telephone:**	Telephone outlets per occupant

EQUIPMENT AND FURNISHINGS

Equipment

(1) Computer system (provided by owner)
(1) Printer (provided by owner)

Furniture

13 LF of work surface
(2) 36" 2 drawer lateral files
(1) 3 drawer PED file
(1) 5' Oval table on casters
(1) Task chair
(2) Guest chairs
6 LF 15-1/2" deep enclosed shelving with flipper doors
8 LF open shelving
6 LF task slatwall
(1) Task slatwall accessories package
(1) 3'x5' Whiteboard
(1) Wall mounted coat rack
(1) Waste receptacle

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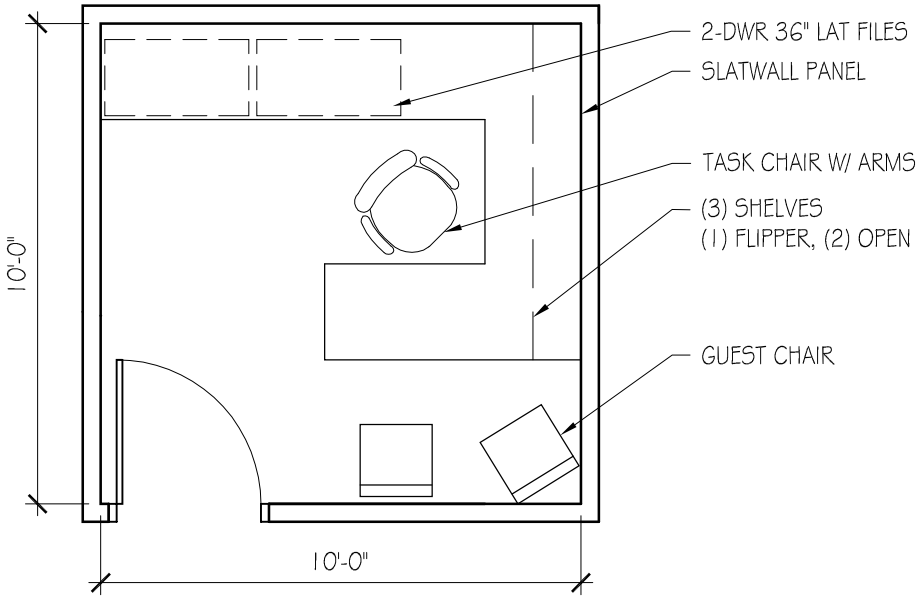

3.2.3 STAFF WORKSTATION
NET AREA: 100 S.F.

SPACE INFORMATION

Room Function: General office and meeting work

Adjacencies: See Adjacency Matrix in section 3.3

Special Requirements:
VTD security zone

Room Type: Private Office

Access: Controlled

Room Utilization: 5 days a week, 8:00 AM to 5:00 PM

General Notes: None

ROOM SIZE AND CAPACITY

Proposed Area:	100 NSF	**Room/Space Quantity:**	4	**Total Area:**	400
Assigned Capacity:	1 Occupant(s)	**Unassigned Capacity:**	2 Guest(s)	**Total Capacity:**	3

FINISHES, DOORS, AND WINDOWS

Floor Finish: Carpet-tile

Wall Finish: Gypsum board (painted)

Base Finish: Rubber

Doors:

Type:	Single	**Height:**	84"
Width:	32"	**Door Panel:**	Frosted

Ceiling Treatment: Suspended acoustical lay-in tiles

Ceiling Height: 8' minimum

Acoustic Treatment: Provide absorbent surfaces as necessary

Windows:

Natural Lighting: Preferred, glare and brightness control

Sidelighting: None

MECHANICAL/ELECTRICAL

HVAC: Standard

Plumbing: None

Fire Protection: Sprinkler

Security: Keyed lock at entrance door(s)

Electrical: 120V wall outlet(s)

AV Requirements: None

Wire Management: Wall outlets

Data Management: Tele/data port at each workstation

Artificial Lighting: Direct/indirect fluorescent and task lighting

Telephone: Telephone outlets per occupant

EQUIPMENT AND FURNISHINGS

Equipment

(1) Computer system (provided by owner)
(1) Printer (provided by owner)

Furniture

18 LF of work surface
(2) 36" 2 drawer lateral files
(1) 3 drawer PED file
(1) Task chair
(2) Guest chairs
14 LF of 12-1/2" deep open shelving
7 LF of 15-1/2" deep enclosed shelving with flipper door
7 LF task slatwall
(1) Task slatwall accessories package
(1) 3'x5' Whiteboard
(1) Door mounted coat rack
(1) Waste receptacle

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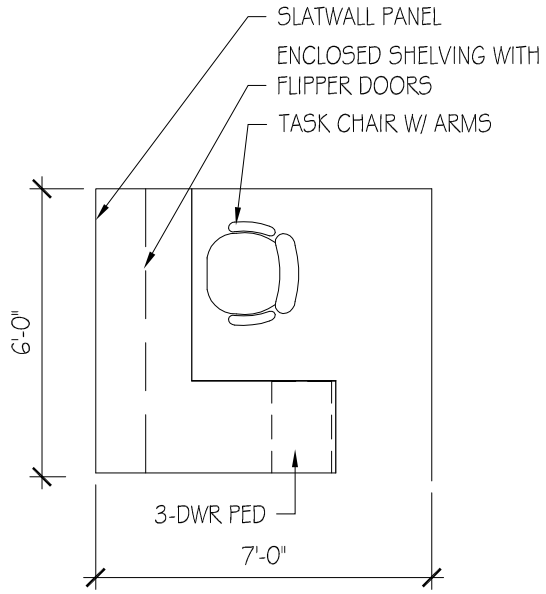

3.3.1 OPEN WORKSTATION - TANNER
NET AREA: 100 S.F.

3.3.1 Open Workstation - Tanner -

SPACE INFORMATION

Room Function: General office and meeting work

Adjacencies: See Adjacency Matrix in section 3.3

Special Requirements: VTD security zone

Room Type: Open Workstation

Access: Controlled

Room Utilization: 5 days a week, 8:00 AM to 5:00 PM

General Notes: None

ROOM SIZE AND CAPACITY

Proposed Area:	100 NSF	**Room/Space Quantity:**	8	**Total Area:**	800
Assigned Capacity:	1 Occupant(s)	**Unassigned Capacity:**	2 Guest(s)	**Total Capacity:**	3

FINISHES, DOORS, AND WINDOWS

Floor Finish: Carpet-tile

Wall Finish: Systems furniture

Base Finish: None

Doors:

Type:	n/a	**Height:**	n/a
Width:	n/a	**Door Panel:**	n/a

Ceiling Treatment: Suspended acoustical lay-in tiles

Ceiling Height: 8' minimum

Acoustic Treatment:

Windows:

Natural Lighting:	Preferred, glare and brightness control
Sidelighting:	None

MECHANICAL/ELECTRICAL

HVAC:	Standard	**AV Requirements:**	None
Plumbing:	None	**Wire Management:**	Wall outlets
Fire Protection:	Sprinkler	**Data Management:**	Data port at each workstation
Security:	Keyed locks on cabinet(s)	**Artificial Lighting:**	Direct/indirect fluorescent and task lighting
Electrical:	120V wall outlet(s)	**Telephone:**	None

EQUIPMENT AND FURNISHINGS

Equipment

(1) Computer system (provided by owner)
(1) Printer (provided by owner)

Furniture

8 LF of work surface
(1) Task chair
(1) 3 drawer PED file
(1) 4-drawer vertical file
6 LF 15-1/2" deep enclosed shelving with flipper doors
6 LF task slatwall
(1) Task slatwall accessories package
(1) Under shelf task light
(1) Waste receptacle

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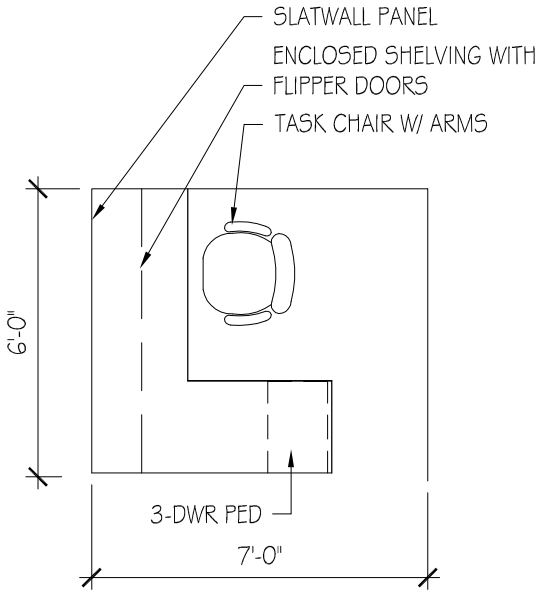

3.3.2 OPEN WORKSTATION - CENTERS
NET AREA: 100 S.F.

3.3.2 Open Workstation - Centers -

SPACE INFORMATION

Room Function: General office and meeting work

Adjacencies: See Adjacency Matrix in section 3.3

Special Requirements: None

Room Type: Open Workstation

Access: Controlled

Room Utilization: 5 days a week, 8:00 AM to 5:00 PM

General Notes: None

ROOM SIZE AND CAPACITY

Proposed Area:	100 NSF	**Room/Space Quantity:**	32	**Total Area:**	3200
Assigned Capacity:	1 Occupant(s)	**Unassigned Capacity:**	2 Guest(s)	**Total Capacity:**	3

FINISHES, DOORS, AND WINDOWS

Floor Finish: Carpet-tile

Wall Finish: Systems furniture

Base Finish: None

Doors:

Type:	n/a	**Height:**	n/a
Width:	n/a	**Door Panel:**	n/a

Ceiling Treatment: Suspended acoustical lay-in tiles

Ceiling Height: 8' minimum

Acoustic Treatment:

Windows:

Natural Lighting:	Preferred, glare and brightness control
Sidelighting:	None

MECHANICAL/ELECTRICAL

HVAC:	Standard	**AV Requirements:**	None
Plumbing:	None	**Wire Management:**	Wall outlets
Fire Protection:	Sprinkler	**Data Management:**	Data port at each workstation
Security:	Keyed locks on cabinet(s)	**Artificial Lighting:**	Direct/indirect fluorescent and task lighting
Electrical:	120V wall/floor (grounded) outlet(s)	**Telephone:**	None

EQUIPMENT AND FURNISHINGS

Equipment

(1) Computer system (provided by owner)
(1) Printer (provided by owner)

Furniture

8 LF of work surface
(1) Task chair
(1) 3 drawer PED file
6 LF 15-1/2" deep enclosed shelving with flipper doors
6 LF task slatwall
(1) Task slatwall accessories package
(1) Under shelf task light
(1) Waste receptacle

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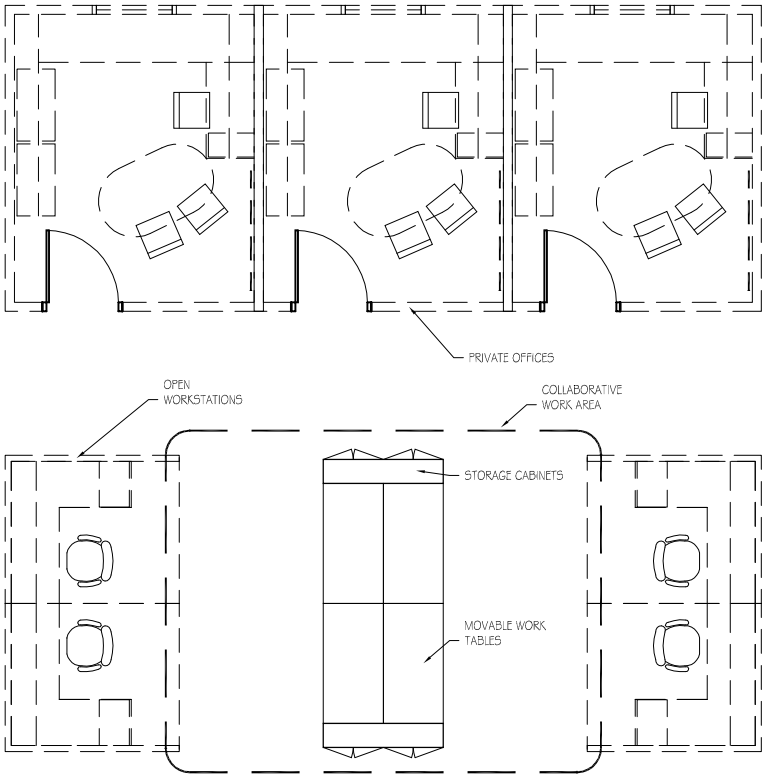

3.3.3 COLLABORATIVE WORK AREA
NET AREA: 220 S.F.

Office Space

3.3.3 Open - Collaborative Work Area -

SPACE INFORMATION

Room Function: Document layout and materials preperation

Adjacencies: See Adjacency Matrix in section 3.3

Special Requirements: None

Room Type: Open Workstation

Access: Controlled

Room Utilization: 5 days a week, 8:00 AM to 5:00 PM

General Notes: None

ROOM SIZE AND CAPACITY

Proposed Area:	220 NSF	**Room/Space Quantity:**	8	**Total Area:**	1760
Assigned Capacity:	0 Occupant(s)	**Unassigned Capacity:**	6 Guest(s)	**Total Capacity:**	6

FINISHES, DOORS, AND WINDOWS

Floor Finish: Carpet-tile

Wall Finish: Systems furniture

Base Finish: None

Doors:

Type: n/a **Height:** n/a

Width: n/a **Door Panel:** n/a

Ceiling Treatment: Suspended acoustical lay-in tiles

Ceiling Height: 8' minimum

Acoustic Treatment: Provide absorbent surfaces as necessary

Windows:

Natural Lighting: Desired, but not required

Sidelighting: None

MECHANICAL/ELECTRICAL

HVAC: Standard

Plumbing: None

Fire Protection: Sprinkler

Security: None

Electrical: 120V wall/floor (grounded) outlet(s)

AV Requirements: None

Wire Management: Wall and floor outlets

Data Management: None

Artificial Lighting: Direct/indirect fluorescent

Telephone: None

EQUIPMENT AND FURNISHINGS

Equipment

Furniture

(4) 30"x60" movable tables - 42" high
(2) 1'x5' storage cabinets on casters w/ doors - 42" high

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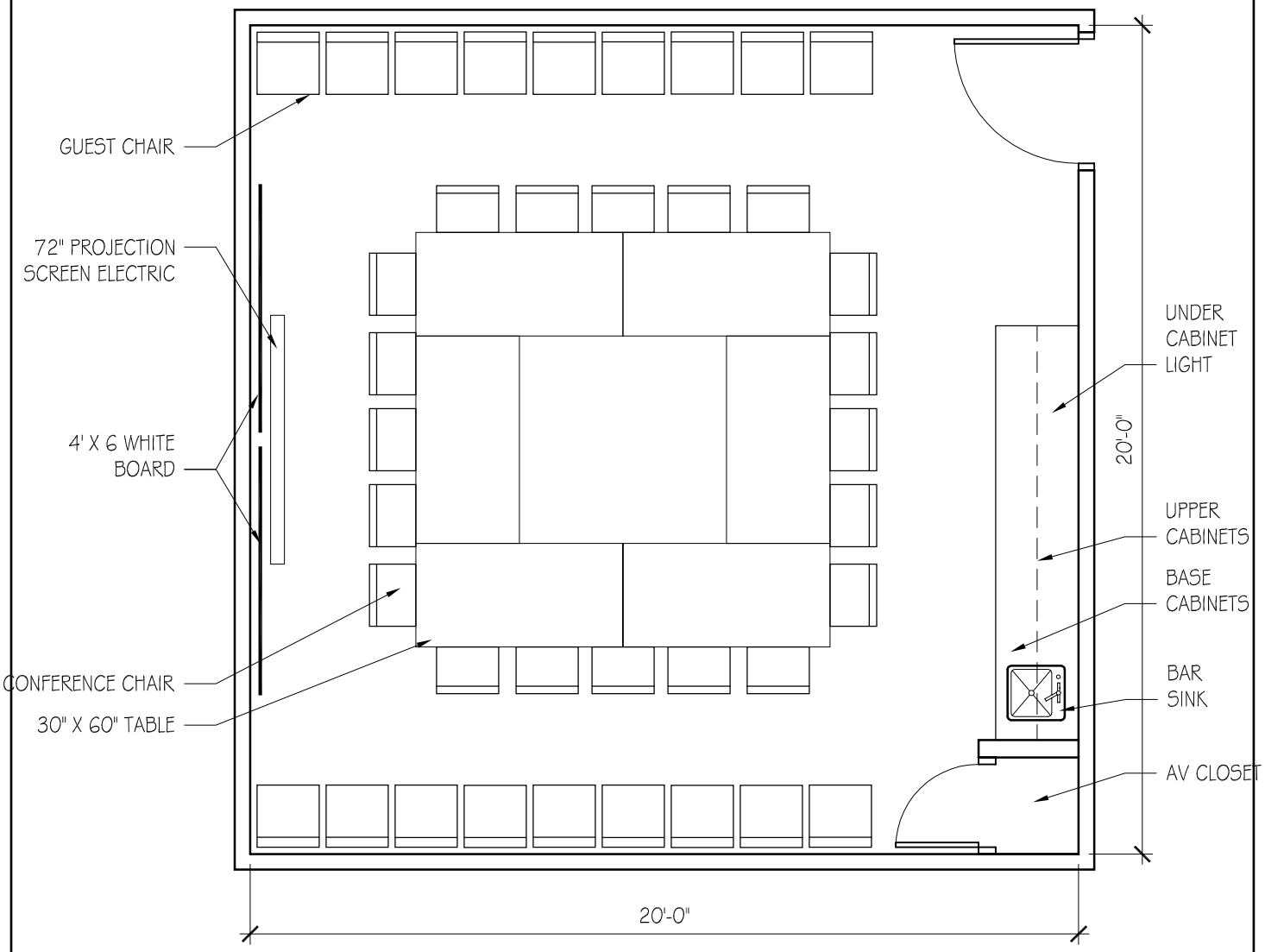
SPACE SUMMARY

AREA	DESCRIPTION	SPACES	NASF	TOTAL NET SF	NET TO GROSS	TOTAL GROSS SF
4	**SUPPORT RESOURCES**			**12,270**		**14,933**
4.1	**Meeting Space**					
4.1.1	Board / Large Conference Room	1	400	400	1.20	480
4.1.6a	Conference / Meeting Room	4	240	960	1.20	1,152
4.1.6b	Conference / Meeting Room	1	240	240	1.20	288
4.1.7	Small Group Meeting Room	4	120	480	1.20	576
4.2	**Workroom Space**					
4.2.1a	Mail / Copy / Workroom	3	250	750	1.20	900
4.2.1b	Mail / Copy / Workroom	1	250	250	1.20	300
4.3	**Instruction Support**					
4.3.1	Pre-School Storage	1	200	200	1.20	240
4.3.2	Pre-School Snack Prep Area	1	180	180	1.30	234
4.3.6	Table / Chair Storage	3	200	600	1.20	720
4.3.7	3015 Storage	4	120	480	1.20	576
4.3.8	Kitchenette / Catering	2	180	360	1.20	432
4.4	**Dressing & Restrooms**					
4.4.1	Pre-School Restrooms	2	100	200	1.30	260
4.4.2	Dressing Room Male	1	280	280	1.30	364
4.4.3	Dressing Room Female	2	500	1,000	1.30	1,300
4.4.4	Parent / Student Dress	1	170	170	1.30	221
4.4.5	Dancers Restrooms	2	150	300	1.00	300
4.4.6	Faculty Dressing Room Female	1	400	400	1.30	520
4.4.7	Faculty Dressing Room Male	1	260	260	1.30	338
4.4.8	Shower Room	2	100	200	1.30	260
4.5	**Storage**					
4.5.1	Archive / Library	1	400	400	1.20	480
4.5.3	Storage Props / Musical Instruments	1	800	800	1.20	960
4.5.4	Art Studio Storage Fabrication	1	400	400	1.20	480
4.5.6	Costume Storage	1	500	500	1.20	600
4.5.11a	Building-Wide Active Storage Area	9	80	720	1.20	864
4.5.11b	Building-Wide Active Storage Area	2	80	160	1.20	192
4.5.11c	Building-Wide Active Storage Area	1	80	80	1.20	96
4.6	**Specialty Support**					
4.6.1	Costume Fabrication	1	1,200	1,200	1.20	1,440
4.6.2	Costume Laundry / Dye	1	300	300	1.20	360



4.4.1 BOARD / LARGE CONF. ROOM
NET AREA: 400 S.F.

Sorenson Arts & Education Complex

ROOM DATA SHEET DETAIL **Meeting Space**

Support Resources

4.1.1 Board / Large Conference Room -

SPACE INFORMATION

Room Function: Building-wide resource, VIP reception, collaboration, group meetings, presentations

Adjacencies: See Adjacency Matrix in section 3.3

Room Type: Enclosed Room

Access: Public

Room Utilization: 5 days a week, 8:00 AM to 5:00 PM

General Notes: None

Special Requirements:

Upgraded finishes, Walls to deck, Secure equipment in locking cabinets
If located near 4.3.8 (Catering) then small refrigerator and sink not necessary.

ROOM SIZE AND CAPACITY

Proposed Area:	400 NSF	**Room/Space Quantity:**	1	**Total Area:**	400
Assigned Capacity:	0 Occupant(s)	**Unassigned Capacity:**	30 Guest(s)	**Total Capacity:**	30

FINISHES, DOORS, AND WINDOWS

Floor Finish: Carpet-tile

Wall Finish: Acoustical wall finish over gypsum board (painted)

Base Finish: Wood

Doors:

Type:	Single	**Height:**	84"
Width:	36"	**Door Panel:**	Frosted

Ceiling Treatment: Gypsum board and acoustical lay-in panels + upgraded finishes

Ceiling Height: 10' minimum

Acoustic Treatment: Isolate from adjacent spaces

Windows:

Natural Lighting:	Required (provide glare and brightness control)
Sidelighting:	None

MECHANICAL/ELECTRICAL

HVAC:	Standard, space temperature control	**AV Requirements:**	Ceiling mounted projector(s)
Plumbing:	Sink (bar) with hot/cold water	**Wire Management:**	Wall and floor outlets
Fire Protection:	Smoke detector, visual and audible alarm, and sprinkler	**Data Management:**	Tele/data outlet(s)
Security:	Secure equipment	**Artificial Lighting:**	General ceiling lighting with dimmers and accent lights
Electrical:	120V wall/floor (grounded) outlet(s)	**Telephone:**	Telephone outlets per equipment

EQUIPMENT AND FURNISHINGS

Equipment

(1) Ceiling mounted video projector
(1) Retractable screens - 6' wide
Multimedia equipment (provided by owner)
(1) Undercounter refrigerator

Furniture

10 LF base cabinets w/ doors
10 LF upper cabinets w/ doors
(6) 30"x60" movable tables
(16) Conference chairs
(18) Guest chairs
(2) 4'x6' whiteboards

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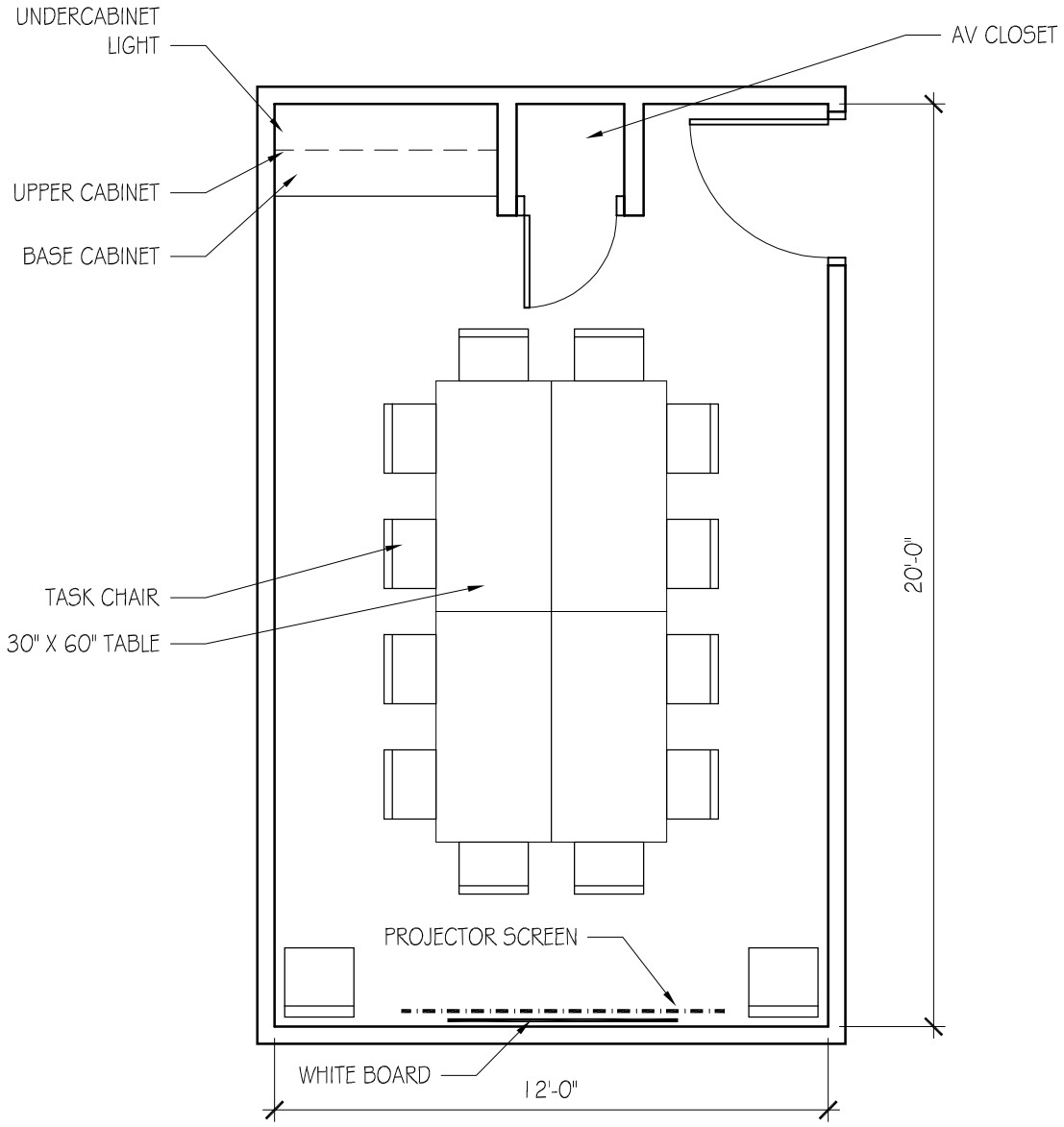

4.1.6 CONFERENCE / MEETING ROOM
NET AREA: 240 S.F.

Sorenson Arts & Education Complex

ROOM DATA SHEET DETAIL **Meeting Space**

Support Resources

4.1.6 Conference / Meeting Room -

SPACE INFORMATION

Room Function: Collaboration, group meetings, presentations

Adjacencies: (1) Near Tanner Dance Program office suite, (4) Near Centers office suite

Special Requirements: Walls to deck, Secure equipment in locking cabinets

Room Type: Enclosed Room

Access: Public

Room Utilization: 5 days a week, 8:00 AM to 5:00 PM

General Notes: None

ROOM SIZE AND CAPACITY

Proposed Area:	240 NSF	**Room/Space Quantity:**	5	**Total Area:**	1200
Assigned Capacity:	0 Occupant(s)	**Unassigned Capacity:**	14 Guest(s)	**Total Capacity:**	14

FINISHES, DOORS, AND WINDOWS

Floor Finish: Carpet-tile

Wall Finish: Acoustical wall finish over gypsum board (painted)

Base Finish: Wood

Doors:

Type:	Single	**Height:**	84"
Width:	36"	**Door Panel:**	Frosted

Ceiling Treatment: Gypsum board and acoustical lay-in tiles

Ceiling Height: 10' minimum

Acoustic Treatment: Isolate from adjacent spaces

Windows:

Natural Lighting:	Preferred, glare and brightness control
Sidelighting:	None

MECHANICAL/ELECTRICAL

HVAC: Standard, space temperature control

Plumbing: None

Fire Protection: Smoke detector, visual and audible alarm, and sprinkler

Security: Secure equipment

Electrical: 120V wall/floor (grounded) outlet(s)

AV Requirements: Ceiling mounted projector(s)

Wire Management: Wall and floor outlets

Data Management: Tele/data outlet(s)

Artificial Lighting: General ceiling lighting with dimmers and accent lights

Telephone: Telephone outlets per equipment

EQUIPMENT AND FURNISHINGS

Equipment

(1) Ceiling mounted video projector
(1) Retractable screens - 6' wide
Multimedia equipment (provided by owner)

Furniture

5 LF base cabinets w/ doors
5 LF upper cabinets w/ doors
(4) 30"x60" movable tables
(14) Guest chairs
(1) 4'x6' whiteboard

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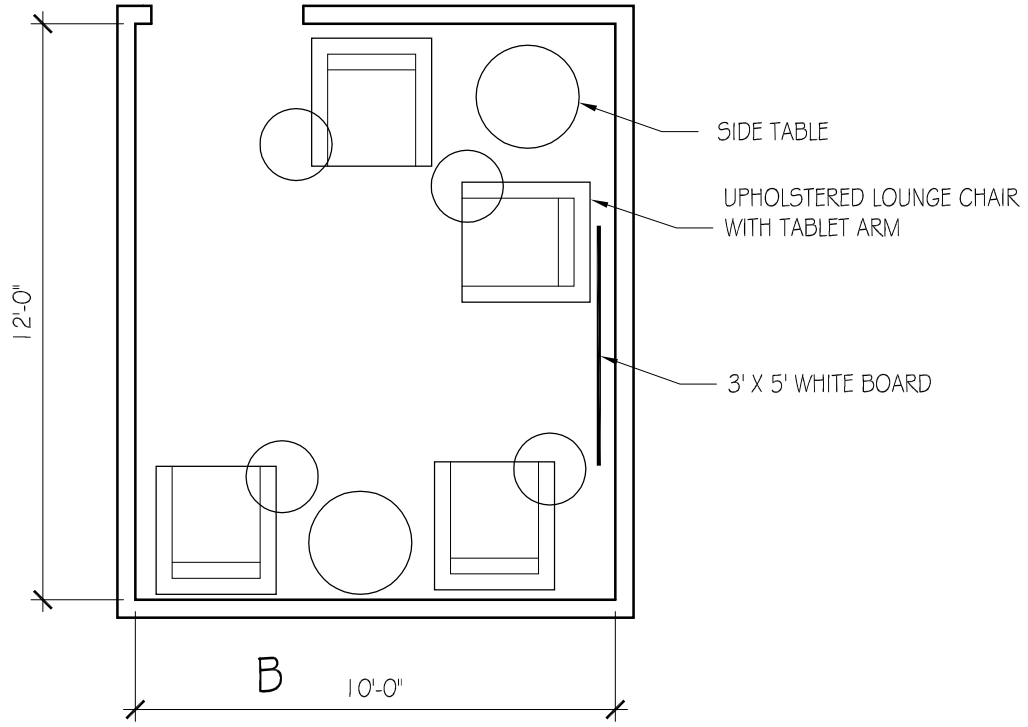

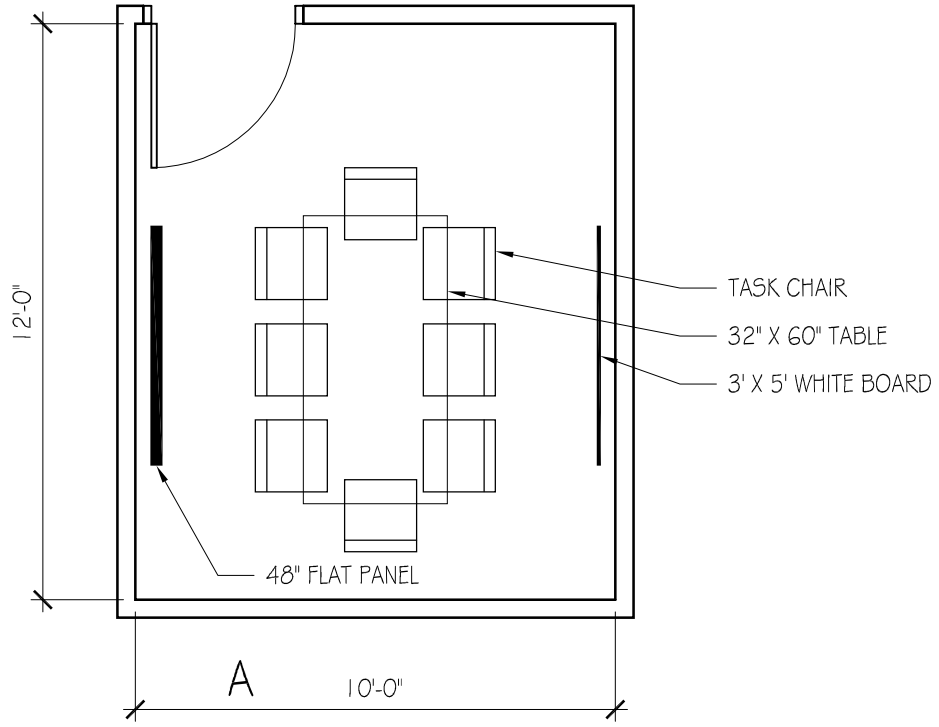

4.1.7 SMALL GROUP MEETING ROOM
NET AREA: 120 S.F.

Sorenson Arts & Education Complex

ROOM DATA SHEET DETAIL **Meeting Space**

Support Resources

4.1.7 Small Group Meeting Room -

SPACE INFORMATION

Room Function: Collaboration, group meetings, presentations

Adjacencies: Distribute throughout building

Special Requirements: None

Room Type: Enclosed Room

Access: Public

Room Utilization: 5 days a week, 8:00 AM to 5:00 PM

General Notes: None

ROOM SIZE AND CAPACITY

Proposed Area:	120 NSF	**Room/Space Quantity:**	4	**Total Area:**	480
Assigned Capacity:	0 Occupant(s)	**Unassigned Capacity:**	6 Guest(s)	**Total Capacity:**	6

FINISHES, DOORS, AND WINDOWS

Floor Finish: Carpet-tile

Wall Finish: Gypsum board (painted)

Base Finish: Rubber

Doors:

Type:	Single	**Height:**	84"
Width:	32"	**Door Panel:**	Clear

Ceiling Treatment: Suspended acoustical lay-in tiles

Ceiling Height: 8' minimum

Acoustic Treatment: Provide absorbent surfaces as necessary

Windows:

Natural Lighting:	Desired, but not required
Sidelighting:	None

MECHANICAL/ELECTRICAL

HVAC:	Standard	**AV Requirements:**	Wall mounted flat panel display
Plumbing:	None	**Wire Management:**	Wall outlets
Fire Protection:	Sprinkler	**Data Management:**	Data outlet
Security:	None	**Artificial Lighting:**	Direct/indirect fluorescent and accent lighting
Electrical:	120V wall outlet(s)	**Telephone:**	None

EQUIPMENT AND FURNISHINGS

Equipment

(1) 48" Flat panel TV (provided by owner)

Furniture

(1) 36"x60" movable table
(8) Guest chairs
(1) 3'x5' whiteboard

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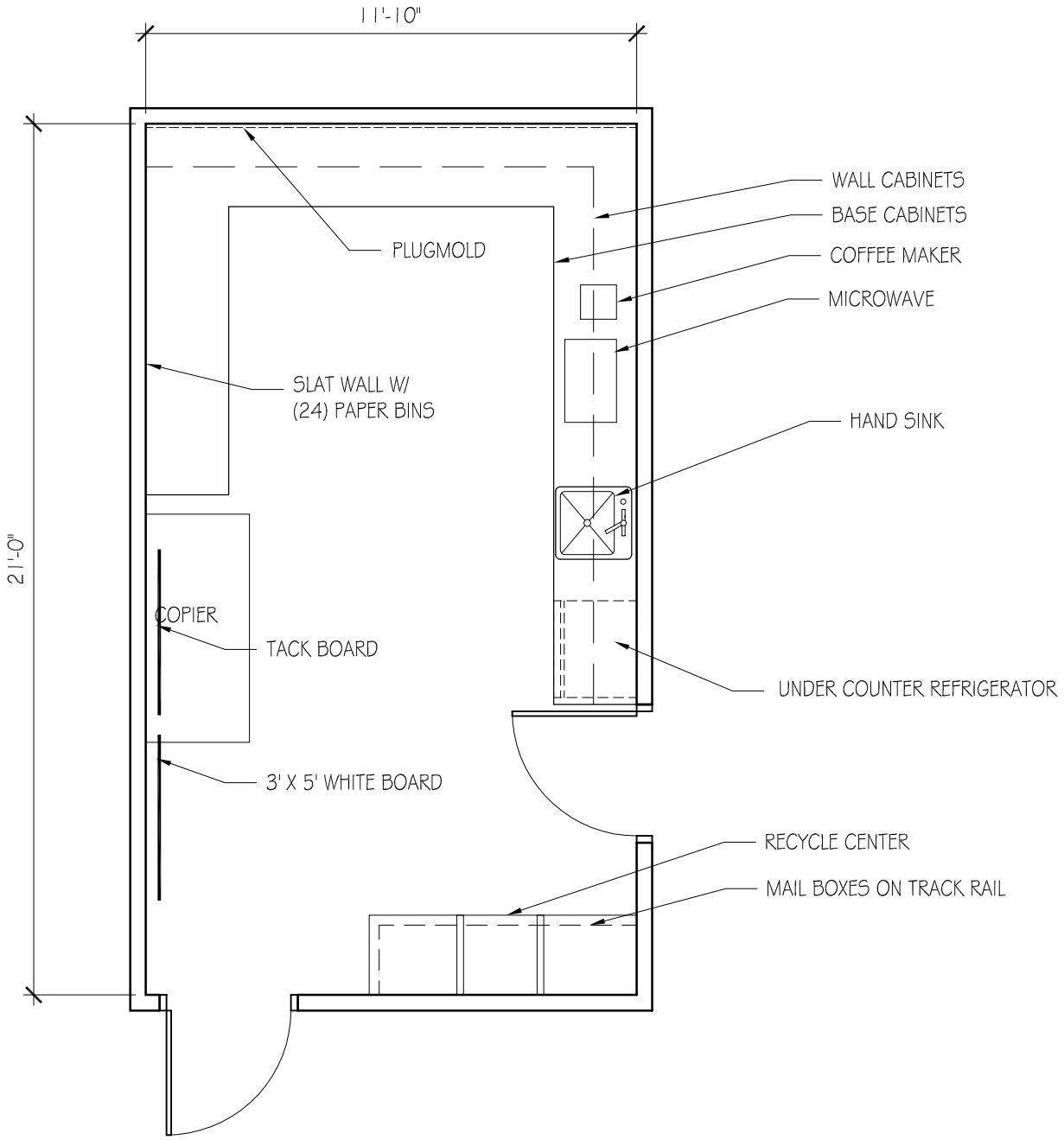

4.2.1 MAIL / COPY / WORKROOM
NET AREA: 250 S.F.

Sorenson Arts & Education Complex

ROOM DATA SHEET DETAIL **Workroom Space**

Support Resources

4.2.1 Mail / Copy / Workroom -

SPACE INFORMATION

Room Function: Printing, copying, document preparation, mail distribution

Adjacencies: (1) Near Tanner Dance Program office suite, (3) Near Centers office suite

Special Requirements: None

Room Type: Enclosed Room

Access: Private

Room Utilization: 5 days a week, 6:00 AM to 9:00 PM

General Notes: None

ROOM SIZE AND CAPACITY

Proposed Area:	250 NSF	**Room/Space Quantity:**	4	**Total Area:**	1000
Assigned Capacity:	0 Occupant(s)	**Unassigned Capacity:**	6 Guest(s)	**Total Capacity:**	6

FINISHES, DOORS, AND WINDOWS

Floor Finish: Carpet-tile

Wall Finish: Gypsum board (painted)

Base Finish: Rubber

Doors:

Type:	n/a	**Height:**	n/a
Width:	n/a	**Door Panel:**	n/a

Ceiling Treatment: Suspended acoustical lay-in tiles

Ceiling Height: 10' minimum

Acoustic Treatment: Suppress equipment generated noise

Windows:

Natural Lighting: Desired, but not required

Sidelighting: None

MECHANICAL/ELECTRICAL

HVAC: Standard

Plumbing: None

Fire Protection: Smoke detector, alarm and sprinkler

Security: None

Electrical: 120V wall outlets and outlets at worksurface

AV Requirements: None

Wire Management: Wall outlets, including counter/equipment height

Data Management: Tele/data outlet(s)

Artificial Lighting: Direct/indirect fluorescent

Telephone: Telephone outlets per equipment

EQUIPMENT AND FURNISHINGS

Equipment

(1) Copy machine (provided by owner)
(1) Microwave (provided by owner)
(1) Coffee maker (provided by owner)
(1) Under counter refrigerator (provided by owner)
(2) Safes (provided by owner) - Tanner Dance workroom only

Furniture

24 LF base cabinets
24 LF wall cabinets - lockable
(20) Mail slots
9 LF task slatwall
(24) Slatwall paper trays
(1) 3'x5' Tack board
(1) 3'x5' Whiteboard
(1) 3 compartment recycling bin
(1) Ten gallon waste receptacle

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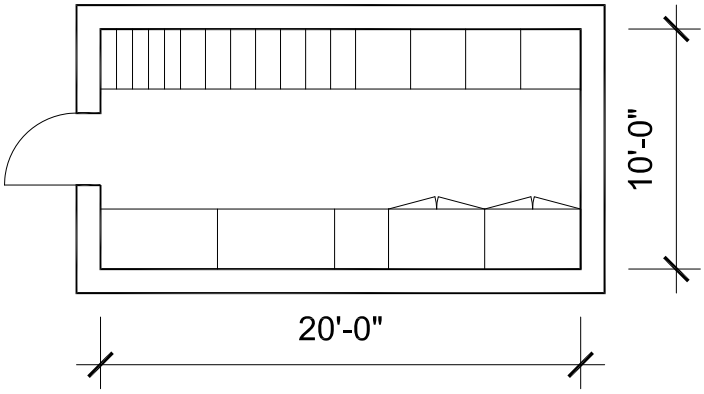

4.3.1 INTRODUCTORY STUDIO STORAGE

NET AREA: 200 S.F.

4.3.1 Introductory Studio Storage — First Level

SPACE INFORMATION

Room Function: Secure storage for books, games and other props used instruction in the Fine Arts Pre-school

Adjacencies: See Adjacency Matrix in Section 3.3

Special Requirements: VTD security zone

Room Type: Enclosed Room

Access: Controlled

Room Utilization: 5 days a week, 8:00 AM to 5:00 PM

General Notes: None

ROOM SIZE AND CAPACITY

Proposed Area:	200 NSF	**Room/Space Quantity:**	1	**Total Area:**	200
Assigned Capacity:	1 Occupant(s)	**Unassigned Capacity:**	Guest(s)	**Total Capacity:**	1

FINISHES, DOORS, AND WINDOWS

Floor Finish:	Concrete (sealed)	**Ceiling Treatment:**	n/a
Wall Finish:	Gypsum board (painted)	**Ceiling Height:**	10' minimum
Base Finish:	Rubber	**Acoustic Treatment:**	None

Doors:

Type:	Double	**Height:**	84"
Width:	72"	**Door Panel:**	None

Windows:

Natural Lighting:	Not required
Sidelighting:	None

MECHANICAL/ELECTRICAL

HVAC:	Standard	**AV Requirements:**	None
Plumbing:	None	**Wire Management:**	Wall outlets
Fire Protection:	Sprinkler	**Data Management:**	None
Security:	Card key access at entrance door(s)	**Artificial Lighting:**	General ceiling lighting
Electrical:	120V wall outlet(s)		
		Telephone:	None

EQUIPMENT AND FURNISHINGS

Equipment

Furniture

Adjustable metal shelving
Locking storage Cabinets

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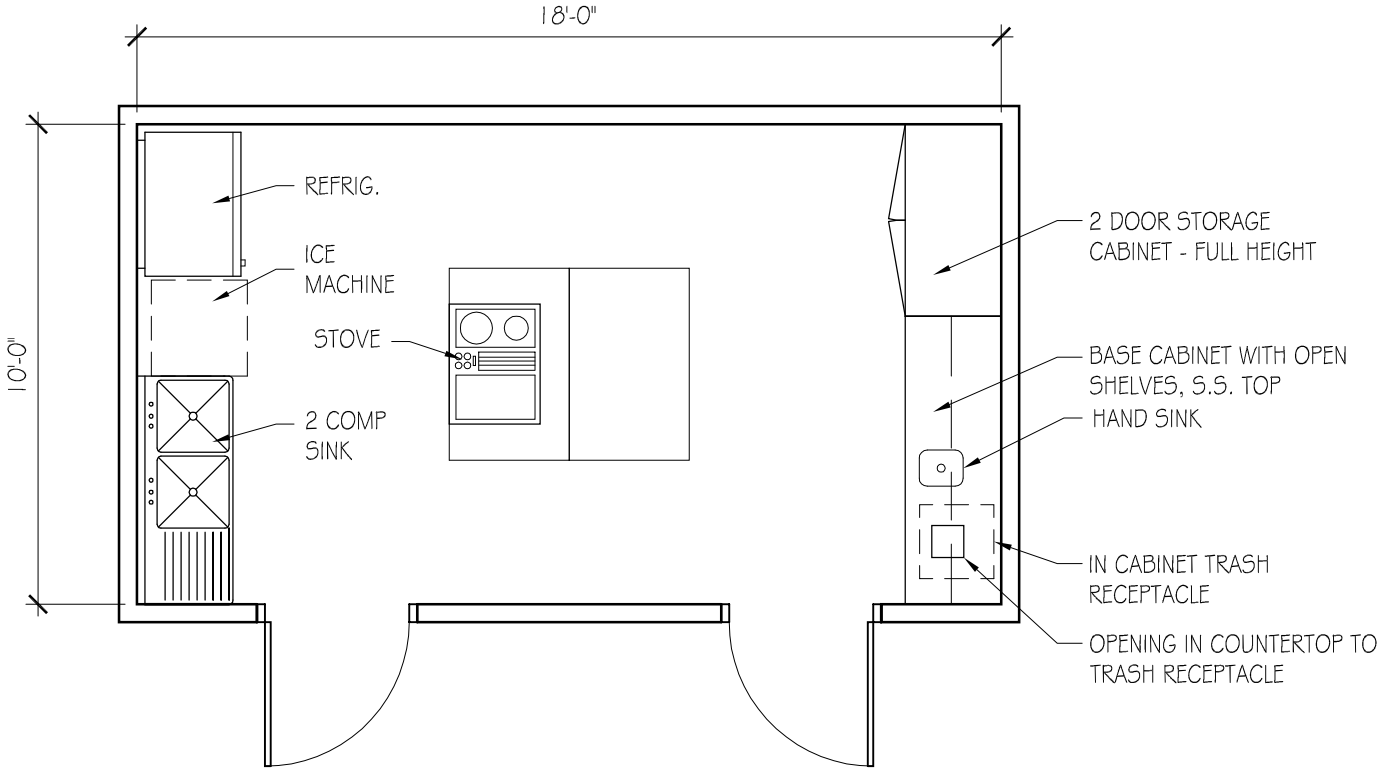

4.3.2 INTRODUCTORY STUDIO SNACK
NET AREA: 180 S.F.

4.3.2 Introductory Studio Snack Prep -

SPACE INFORMATION

Room Function: Store and heat food and beverages

Adjacencies: See Adjacency Matrix in section 3.3

Room Type: Enclosed Room

Access: Controlled

Room Utilization: 5 days a week, 8:00 AM to 5:00 PM

General Notes: None

Special Requirements:

2 compartment prep sink, separate single basin sink for hand wash, VTD security zone

ROOM SIZE AND CAPACITY

Proposed Area:	180 NSF	**Room/Space Quantity:**	1	**Total Area:**	180
Assigned Capacity:	0 Occupant(s)	**Unassigned Capacity:**	3 Guest(s)	**Total Capacity:**	3

FINISHES, DOORS, AND WINDOWS

Floor Finish: Vinyl (non-slip)

Wall Finish: Gypsum board (painted)

Base Finish: Integral Coved

Doors:

Type:	Single	**Height:**	84"
Width:	32"	**Door Panel:**	Clear

Ceiling Treatment: Suspended acoustical lay-in tiles

Ceiling Height: 8' minimum

Acoustic Treatment: Provide absorbent surfaces as necessary

Windows:

Natural Lighting:	Not required
Sidelighting:	None

MECHANICAL/ELECTRICAL

HVAC:	Standard	**AV Requirements:**	None
Plumbing:	Sink (kitchen) with disposal and floor drain	**Wire Management:**	Wall outlets, including counter/equipment height
Fire Protection:	Smoke detector, alarm and sprinkler	**Data Management:**	None
Security:	None	**Artificial Lighting:**	Direct/indirect fluorescent
Electrical:	120V wall outlets and outlets at worksurface	**Telephone:**	None

EQUIPMENT AND FURNISHINGS

Equipment

(1) Refrigerator
(1) Ice machine
(1) Microwave oven
(1) Cooktop

Furniture

10 LF base cabinets
6 LF upper cabinets
(1) 30"x60" movable table - counter height
(1) 30"x60" island cabinet (for cooktop)
(1) 24"x48" 2-door storage cabinet - full height
(1) Ten gallon waste receptacle

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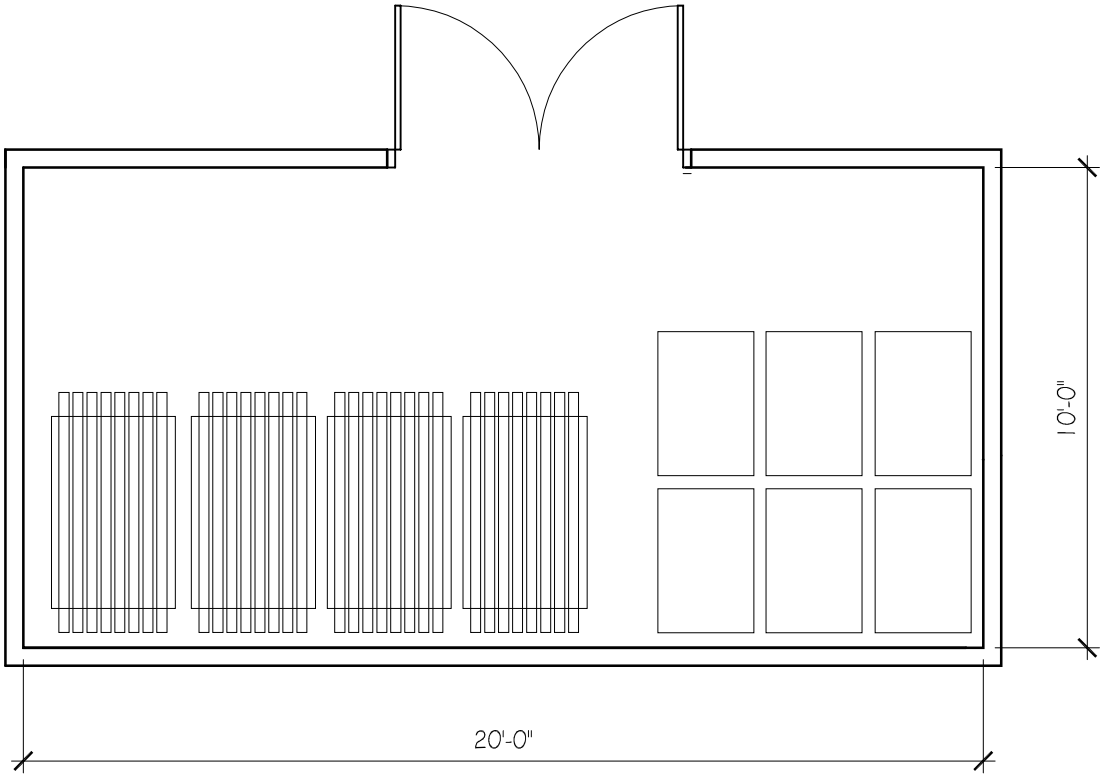

4.3.6 TABLE / CHAIR STORAGE
NET AREA: 200 S.F.

4.3.6 Table / Chair Storage -

SPACE INFORMATION

Room Function: Store tables and chairs

Adjacencies: One near 2.1.5 - Art Studio, One near 2.2.1 - Multifunction Hall, One near 2.3.2 - Large Classroom

Special Requirements: None

Room Type: Enclosed Room

Access: Private

Room Utilization: 6 days a week, 8:00 AM to 9:00 PM

General Notes: None

ROOM SIZE AND CAPACITY

Proposed Area:	200 NSF	**Room/Space Quantity:**	3	**Total Area:**	600
Assigned Capacity:	0 Occupant(s)	**Unassigned Capacity:**	2 Guest(s)	**Total Capacity:**	2

FINISHES, DOORS, AND WINDOWS

Floor Finish: Carpet-tile

Wall Finish: Gypsum board (painted)

Base Finish: Rubber

Ceiling Treatment: Suspended acoustical lay-in tiles

Ceiling Height: 8' minimum

Acoustic Treatment: None

Doors:

Type:	Double	**Height:**	84"
Width:	60"	**Door Panel:**	None

Windows:

Natural Lighting:	Not required
Sidelighting:	None

MECHANICAL/ELECTRICAL

HVAC:	Ventilation only	**AV Requirements:**	None
Plumbing:	None	**Wire Management:**	Wall outlets
Fire Protection:	Sprinkler	**Data Management:**	None
Security:	None	**Artificial Lighting:**	General ceiling lighting
Electrical:	120V wall outlet(s)	**Telephone:**	None

EQUIPMENT AND FURNISHINGS

Equipment

Furniture

(xx) Table storage carts - qty TBD
(xx) Chair storage carts - qty TBD

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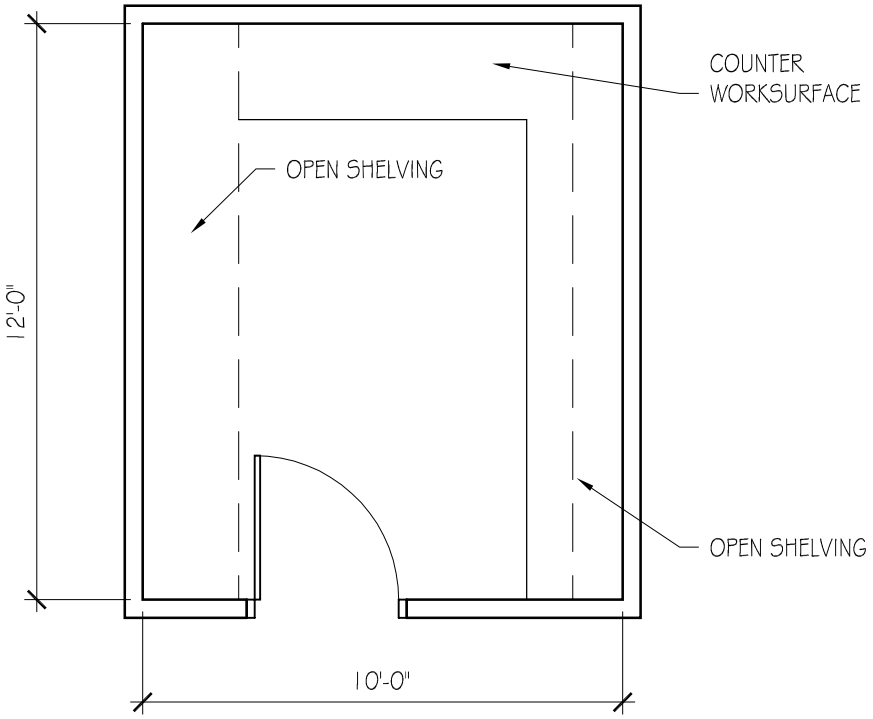

4.3.7 3015 STORAGE
NET AREA: 120 S.F.

4.3.7 3015 Storage -

SPACE INFORMATION

Room Function: Store class equipment, teaching aids

Adjacencies: Music - Near 2.3.2 Large Classroom, Art - Near 2.1.5 Art Studio, Theater & Dance - Near 2.2.1 - Multifunction Hall

Special Requirements: None

Room Type: Enclosed Room

Access: Private

Room Utilization: 6 days a week, 8:00 AM to 9:00 PM

General Notes: Four rooms total - one each for music, art, theater, and dance

ROOM SIZE AND CAPACITY

Proposed Area:	120 NSF	**Room/Space Quantity:**	4	**Total Area:**	480
Assigned Capacity:	0 Occupant(s)	**Unassigned Capacity:**	2 Guest(s)	**Total Capacity:**	2

FINISHES, DOORS, AND WINDOWS

Floor Finish: Carpet-tile

Wall Finish: Gypsum board (painted)

Base Finish: Rubber

Doors:

Type:	Double	**Height:**	84"
Width:	60"	**Door Panel:**	None

Ceiling Treatment: Suspended acoustical lay-in tiles

Ceiling Height: 10' minimum

Acoustic Treatment: None

Windows:

Natural Lighting:	Not required
Sidelighting:	None

MECHANICAL/ELECTRICAL

HVAC:	Ventilation only	**AV Requirements:**	None
Plumbing:	None	**Wire Management:**	Wall outlets
Fire Protection:	Sprinkler	**Data Management:**	None
Security:	Card key access at entrance door(s)	**Artificial Lighting:**	General ceiling lighting
Electrical:	120V wall outlet(s)	**Telephone:**	None

EQUIPMENT AND FURNISHINGS

Equipment

Music
(1) 16"x40"x28" Metal flat filing cabinet - 5 drawers

Art
(1) 48"x48"x25" Mobile rack paper roll dispenser for 36" paper rolls

Theater
(2) 4' Mobile garment racks
(4) 2' Wooden cubes (provided by owner)
(4) 2'x3'x2' Plastic storage bins (provided by owner)
(4) 2'x4'x2' Plastic storage bins (provided by owner)

Furniture

Music
12 LF base cabinets 24" deep w/ counter-height worksurface - no doors
12 LF open shelving - 18" deep (3 shelves, adjustable height to ceiling)
8 LF open shelving - 24" deep (5 shelves, 24" clear between shelves)
4 LF open shelving - 30" deep (5 shelves, 24" clear between shelves)

Art
12 LF base cabinets 24" deep w/ counter-height worksurface - no doors
12 LF open shelving - 18" deep (3 shelves, adjustable height to ceiling)
8 LF open shelving - 30" deep (5 shelves, 24" clear between shelves)

Theater and Dance
12 LF open shelving - 24" deep (5 shelves, 24" clear between shelves)

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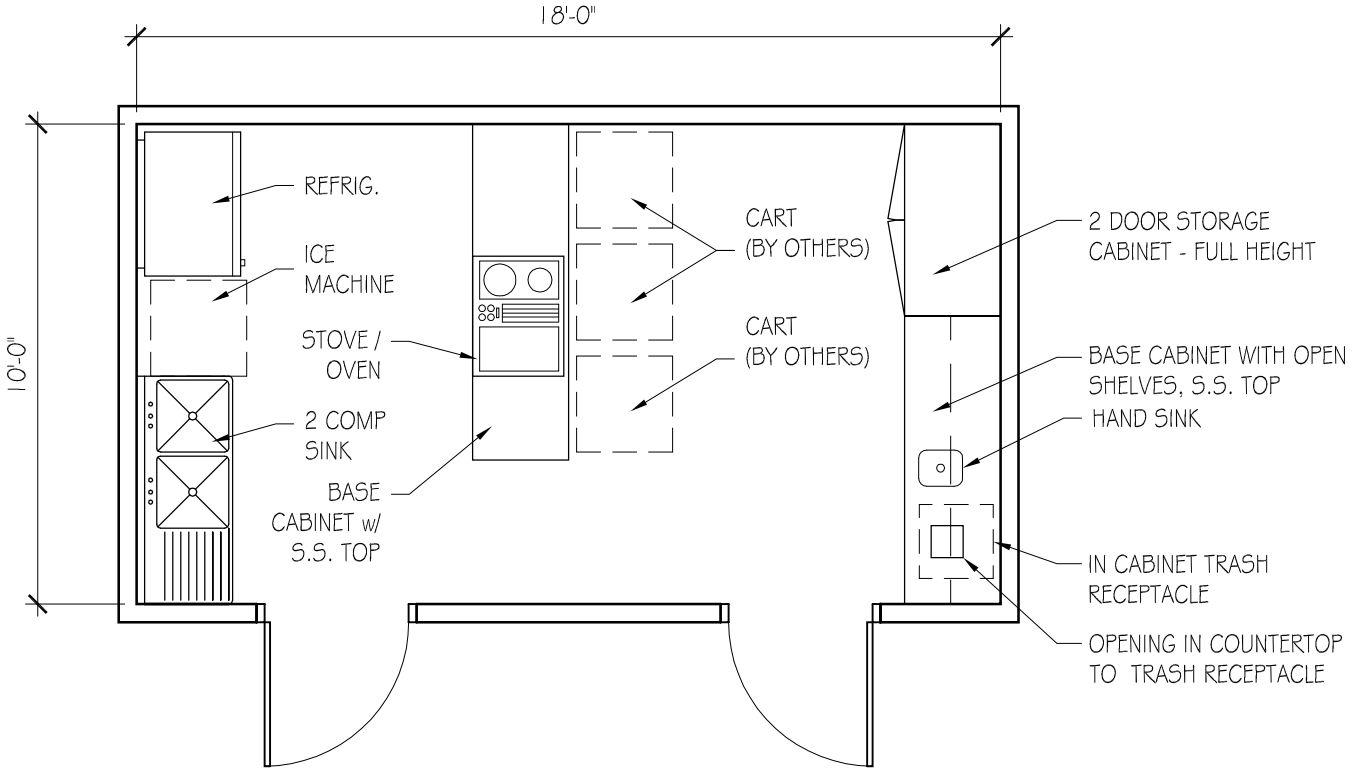

4.3.8 KITCHENETTE / CATERING
NET AREA: 180 S.F.

4.3.8 Kitchenette / Catering -

SPACE INFORMATION

Room Function: Building-wide resource, store and heat food and beverages

Adjacencies: One near 2.1.4 - Main Studio, One near 2.2.4 - Multifunction Hall. If possible, near 4.1.1 - Board Room

Room Type: Enclosed Room

Access: Controlled

Room Utilization: 6 days a week, 8:00 AM to 9:00 PM

General Notes: None

Special Requirements:

2 compartment prep sink, separate single basin sink for hand wash

ROOM SIZE AND CAPACITY

Proposed Area:	180 NSF	**Room/Space Quantity:**	2	**Total Area:**	360
Assigned Capacity:	0 Occupant(s)	**Unassigned Capacity:**	4 Guest(s)	**Total Capacity:**	4

FINISHES, DOORS, AND WINDOWS

Floor Finish: Vinyl (non-slip)

Wall Finish: As dictated by kitchen

Base Finish: Integral Coved

Ceiling Treatment: As dictated by kitchen

Ceiling Height: 8' minimum

Acoustic Treatment: Isolate from adjacent spaces

Doors:

Type:	Single	**Height:**	84"
Width:	36"	**Door Panel:**	None

Windows:

Natural Lighting:	Not required
Sidelighting:	None

MECHANICAL/ELECTRICAL

HVAC:	Standard with ceiling exhaust over oven	**AV Requirements:**	None
Plumbing:	Sink (kitchen) with disposal and floor drain	**Wire Management:**	Wall outlets, including counter/equipment height
Fire Protection:	Smoke detector, alarm and sprinkler	**Data Management:**	None
Security:	Keyed lock at entrance door(s)	**Artificial Lighting:**	Direct/indirect fluorescent
Electrical:	Dedicated circuits as required for equipment, GFI to	**Telephone:**	Wall mounted telephone jack

EQUIPMENT AND FURNISHINGS

Equipment

(1) Refrigerator
(1) Microwave
(1) Ice machine
(1) Stove/oven
(2) Carts

Furniture

17 LF base cabinets
6 LF upper cabinets
(1) 24"x48" 2-door storage cabinet - full height
(1) Ten gallon waste receptacle

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4.4.1 Introductory Studio Restroom -

SPACE INFORMATION

Room Function: Restroom

Adjacencies: See Adjacency Matrix in section 3.3

Room Type: Enclosed Room

Access: Controlled

Room Utilization: 5 days a week, 8:00 AM to 5:00 PM

General Notes: None

Special Requirements:

Small height fixtures appropriate for little people, VTD security zone

ROOM SIZE AND CAPACITY

Proposed Area:	100 NSF	**Room/Space Quantity:**	2	**Total Area:**	200
Assigned Capacity:	0 Occupant(s)	**Unassigned Capacity:**	2 Guest(s)	**Total Capacity:**	2

FINISHES, DOORS, AND WINDOWS

Floor Finish: Ceramic tile

Wall Finish: 4' tile wainscot with gypsum (painted)

Base Finish: Ceramic Tile

Doors:

Type:	Single	**Height:**	84"
Width:	36"	**Door Panel:**	None

Ceiling Treatment: Gypsum board (painted)

Ceiling Height: 8' minimum

Acoustic Treatment: Isolate from adjacent spaces

Windows:

Natural Lighting:	Not required
Sidelighting:	None

MECHANICAL/ELECTRICAL

HVAC:	Standard	**AV Requirements:**	None
Plumbing:	As determined by restroom	**Wire Management:**	Wall outlets, including counter/equipment height
Fire Protection:	Audible alarm, spinkler	**Data Management:**	None
Security:	None	**Artificial Lighting:**	Direct/indirect fluorescent
Electrical:	GFI outlets at mirror, hand dryers	**Telephone:**	None

EQUIPMENT AND FURNISHINGS

Equipment

Furniture

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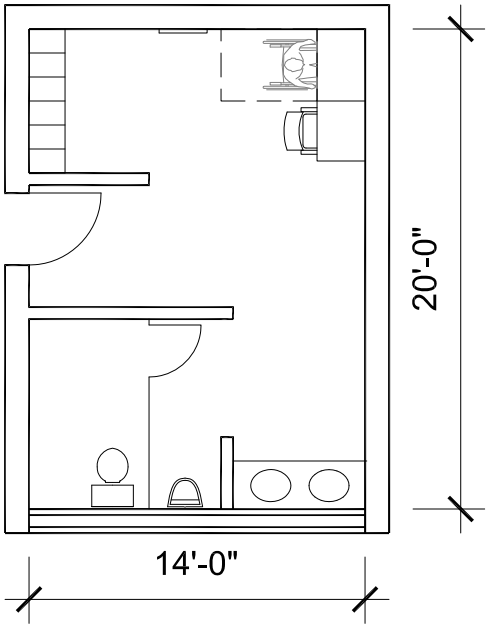

4.4.2 DRESSING ROOM MALE

NET AREA: 280 S.F.

4.4.2 Dressing Room Male — First Level

SPACE INFORMATION

Room Function: Changing area with shower and toilet facilities and lockers

Adjacencies: See Adjacency Matrix in Section 3.3

Room Type: Enclosed Room

Access: Controlled

Room Utilization: 6 days a week, 8:00 AM to 9:00 PM

General Notes: None

Special Requirements:

Provide pilot light in the corridor indicating use of switched outlets
VTD security zone
See Section 5.5 for special technical requirements

ROOM SIZE AND CAPACITY

Proposed Area:	280 NSF	**Room/Space Quantity:**	1	**Total Area:**	280
Assigned Capacity:	8 Occupant(s)	**Unassigned Capacity:**	Guest(s)	**Total Capacity:**	

FINISHES, DOORS, AND WINDOWS

Floor Finish:	VCT + Ceramic Tile at Toilet Areas	**Ceiling Treatment:**	Suspended acoustical lay-in tiles
Wall Finish:	Gypsum board (painted) + 4' Ceramic Tile Wainscot at	**Ceiling Height:**	10' minimum
Base Finish:	Rubber + Ceramic Tile at Toilet Areas	**Acoustic Treatment:**	Isolate from adjacent spaces

Doors:

Type:	Single	**Height:**	84"
Width:	36"	**Door Panel:**	None

Windows:

Natural Lighting:	Desired, but not required
Sidelighting:	None

MECHANICAL/ELECTRICAL

HVAC:	Exhaust, make up air and ventilation as required	**AV Requirements:**	As needed
Plumbing:	Sink (standard) with hot/cold water	**Wire Management:**	Wall outlets, including counter/equipment height
Fire Protection:	Smoke detector, visual alarm, and sprinkler	**Data Management:**	None
Security:	None	**Artificial Lighting:**	Direct/indirect fluorescent and make-up mirror lighting
Electrical:	GFI outlets at mirror, hand dryers		
		Telephone:	None

EQUIPMENT AND FURNISHINGS

Equipment

(1) Clock
(1) Toilet
(1) Urinal
(2) Sinks
(1) Background Page/Monitor System

Furniture

(1) Full length mirror
Built-in Dressing counter with mirrors and seating for 2
Lockers for 18

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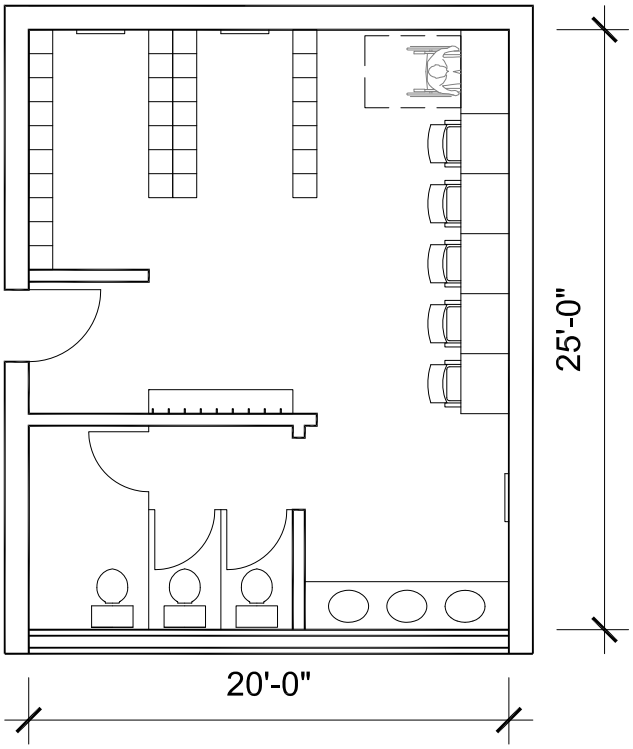

4.4.3 DRESSING ROOM FEMALE

NET AREA: 500 S.F.

4.4.3 Dressing Room Female — First Level

SPACE INFORMATION

Room Function: Changing area with shower and toilet facilities and lockers

Adjacencies: See Adjacency Matrix in Section 3.3

Room Type: Enclosed Room

Access: Controlled

Room Utilization: 6 days a week, 8:00 AM to 9:00 PM

General Notes: Provide one on First Level and one on Second Level

Special Requirements:

Provide pilot light in the corridor indicating use of switched outlets
VTD security zone
See Section 5.5 for special technical requirements

ROOM SIZE AND CAPACITY

Proposed Area:	500 NSF	**Room/Space Quantity:**	2	**Total Area:**	1000
Assigned Capacity:	18 Occupant(s)	**Unassigned Capacity:**	Guest(s)	**Total Capacity:**	

FINISHES, DOORS, AND WINDOWS

Floor Finish: VCT + Ceramic Tile at Toilet Areas

Wall Finish: Gypsum board (painted) + 4' Ceramic Tile Wainscot at

Base Finish: Rubber + Ceramic Tile at Toilet Areas

Ceiling Treatment: Suspended acoustical lay-in tiles

Ceiling Height: 10' minimum

Acoustic Treatment: Isolate from adjacent spaces

Doors:

Type:	Single	**Height:**	84"
Width:	36"	**Door Panel:**	None

Windows:

Natural Lighting:	Desired, but not required
Sidelighting:	None

MECHANICAL/ELECTRICAL

HVAC: Exhaust, make up air and ventilation as required

Plumbing: Sink (standard) with hot/cold water

Fire Protection: Smoke detector, visual alarm, and sprinkler

Security: None

Electrical: GFI outlets at mirror, hand dryers

AV Requirements: As needed

Wire Management: Wall outlets, including counter/equipment height

Data Management: None

Artificial Lighting: Direct/indirect fluorescent and make-up mirror lighting

Telephone: None

EQUIPMENT AND FURNISHINGS

Equipment

(1) Clock
(3) Toilet
(3) Sinks
(1) Background Page/Monitor System

Furniture

(3) Full length mirrors
Built-in Dressing counter with mirrors and seating for 6
Lockers for 83
Benches with hooks on wall above

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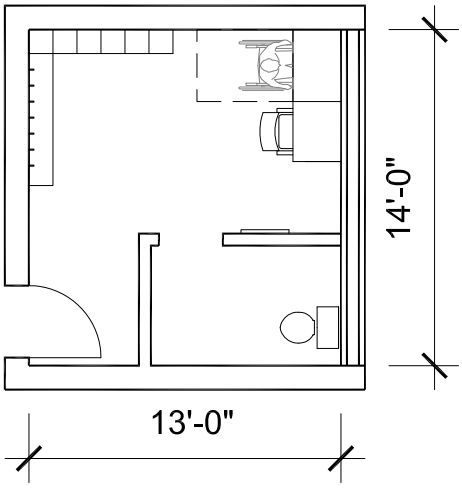

4.4.4 PARENT / STUDENT DRESSING

NET AREA: 182 S.F.

4.4.4 Parent / Student Dress — First Level

SPACE INFORMATION

Room Function: Changing area with shower and toilet facilities and lockers

Adjacencies: See Adjacency Matrix in Section 3.3

Special Requirements:
Provide pilot lighting the corridor indicating use of switched outlets
VTD security zone
See Section 5.5 for special technical requirements

Room Type: Enclosed Room

Access: Controlled

Room Utilization: 6 days a week, 8:00 AM to 9:00 PM

General Notes: None

ROOM SIZE AND CAPACITY

Proposed Area:	182 NSF	**Room/Space Quantity:**	1	**Total Area:**	182
Assigned Capacity:	4 Occupant(s)	**Unassigned Capacity:**	1 Guest(s)	**Total Capacity:**	5

FINISHES, DOORS, AND WINDOWS

Floor Finish: VCT + Ceramic Tile at Toilet Areas

Wall Finish: Gypsum board (painted) + 4' Ceramic Tile Wainscot at

Base Finish: Rubber + Ceramic Tile at Toilet Areas

Ceiling Treatment: Suspended acoustical lay-in tiles

Ceiling Height: 10' minimum

Acoustic Treatment: Isolate from adjacent spaces

Doors:

Type:	Single	**Height:**	84"
Width:	36"	**Door Panel:**	None

Windows:

Natural Lighting:	Desired, but not required
Sidelighting:	None

MECHANICAL/ELECTRICAL

HVAC: Exhaust, make up air and ventilation as required

Plumbing: Sink (standard) with hot/cold water

Fire Protection: Smoke detector, visual alarm, and sprinkler

Security: None

Electrical: GFI outlets at mirror, hand dryers

AV Requirements: As needed

Wire Management: Wall outlets, including counter/equipment height

Data Management: None

Artificial Lighting: Direct/indirect fluorescent and make-up mirror lighting

Telephone: None

EQUIPMENT AND FURNISHINGS

Equipment

(1) Clock
(1) Toilet
(1) Sink
(1) Background Page/Monitor System

Furniture

(1) Full length mirror
Built-in Dressing counter with mirrors and seating for 2
Lockers for approx. 10
Bench with hooks on wall above

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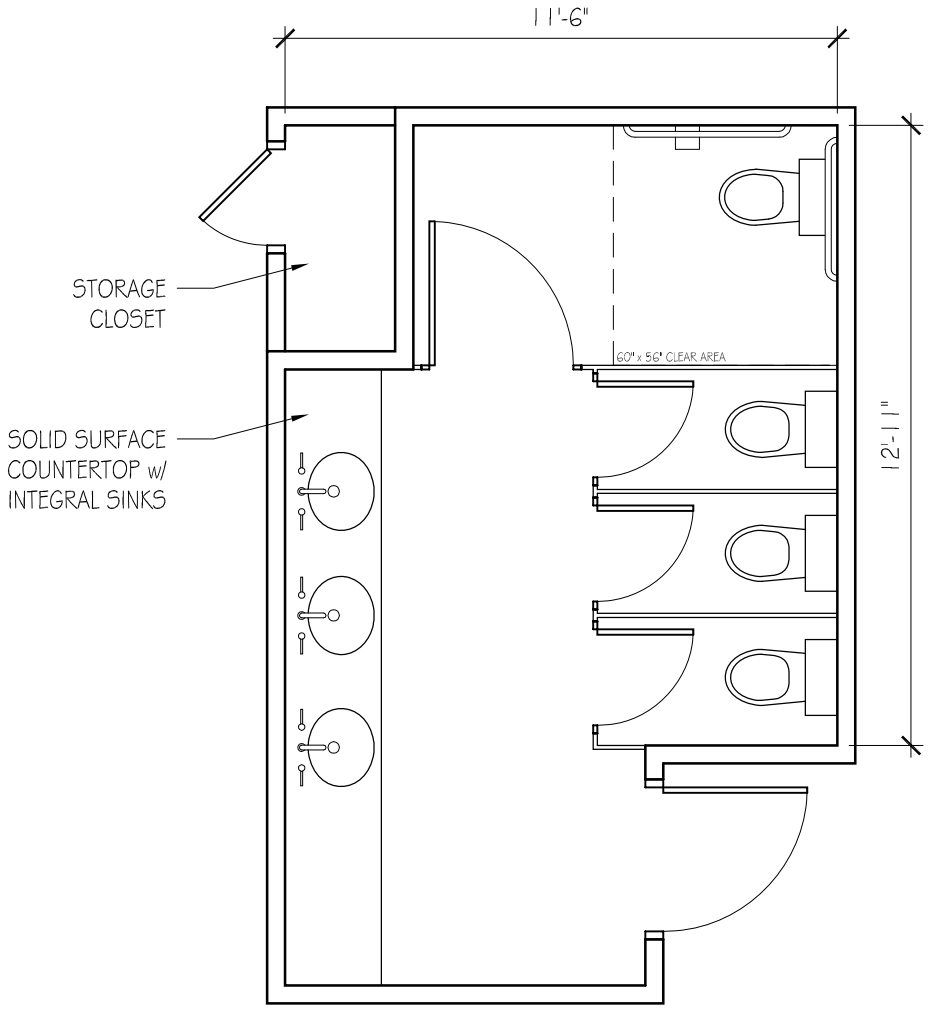

4.4.5 DANCERS RESTROOM
NET AREA: 150 S.F.

4.4.5 Dancers Restroom -

SPACE INFORMATION

Room Function: Restroom

Adjacencies: See Adjacency Matrix in section 3.3

Special Requirements: None

Room Type: Enclosed Room

Access: Controlled

Room Utilization: 6 days a week, 8:00 AM to 9:00 PM

General Notes: None

ROOM SIZE AND CAPACITY

Proposed Area:	150 NSF	**Room/Space Quantity:**	2	**Total Area:**	300
Assigned Capacity:	0 Occupant(s)	**Unassigned Capacity:**	4 Guest(s)	**Total Capacity:**	4

FINISHES, DOORS, AND WINDOWS

Floor Finish: Ceramic tile

Wall Finish: 6' tile wainscot with gypsum (painted)

Base Finish: Ceramic Tile

Doors:

Type:	Single	**Height:**	84"
Width:	36"	**Door Panel:**	None

Ceiling Treatment: Gypsum board (painted)

Ceiling Height: 8' minimum

Acoustic Treatment: Isolate from adjacent spaces

Windows:

Natural Lighting:	Not required
Sidelighting:	None

MECHANICAL/ELECTRICAL

HVAC:	Standard	**AV Requirements:**	None
Plumbing:	As determined by restroom	**Wire Management:**	Wall outlets, including counter/equipment height
Fire Protection:	Audible alarm, spinkler	**Data Management:**	None
Security:	Keyed lock at entrance door(s)	**Artificial Lighting:**	Direct/indirect fluorescent
Electrical:	GFI outlets at mirror, hand dryers	**Telephone:**	None

EQUIPMENT AND FURNISHINGS

Equipment

(4) Toilets
(3) Sinks

Furniture

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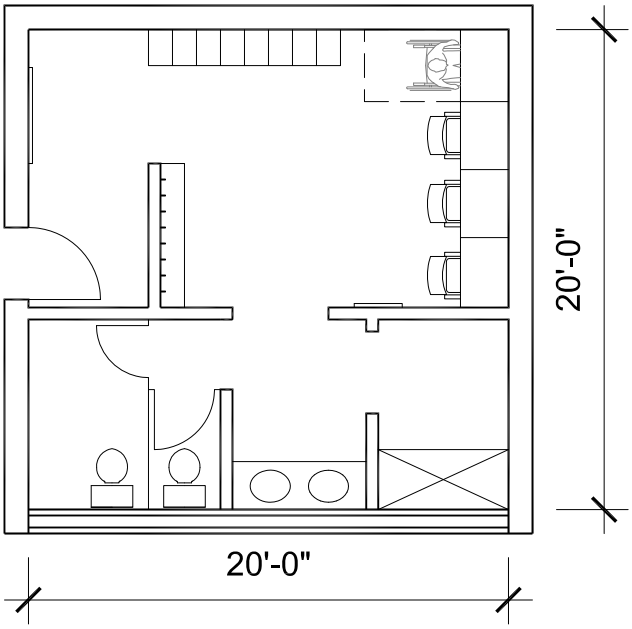

4.4.6 FACULTY DRESSING ROOM - FEMALE

NET AREA: 400 S.F.

4.4.6 Faculty Dressing Room - Female — Third Level

SPACE INFORMATION

Room Function: Changing area with shower and toilet facilities and lockers

Adjacencies: See Adjacency Matrix in Section 3.3

Room Type: Enclosed Room

Access: Controlled

Room Utilization: 6 days a week, 8:00 AM to 9:00 PM

General Notes: None

Special Requirements:

Provide pilot light in the corridor indicating use of switched outlets
VTD security zone
See Section 5.5 for special technical requirements

ROOM SIZE AND CAPACITY

Proposed Area:	400 NSF	**Room/Space Quantity:**	1	**Total Area:**	400
Assigned Capacity:	12 Occupant(s)	**Unassigned Capacity:**	3 Guest(s)	**Total Capacity:**	15

FINISHES, DOORS, AND WINDOWS

Floor Finish: VCT + Ceramic Tile at Toilet Areas

Wall Finish: Gypsum board (painted) + 4' Ceramic Tile Wainscot at

Base Finish: Rubber + Ceramic Tile at Toilet Areas

Ceiling Treatment: Suspended acoustical lay-in tiles

Ceiling Height: 10' minimum

Acoustic Treatment: Isolate from adjacent spaces

Doors:

Type:	Single	**Height:**	84"
Width:	36"	**Door Panel:**	None

Windows:

Natural Lighting:	Desired, but not required
Sidelighting:	None

MECHANICAL/ELECTRICAL

HVAC: Exhaust, make up air and ventilation as required

Plumbing: Shower, hot/cold water, floor drain

Fire Protection: Smoke detector, visual alarm, and sprinkler

Security: None

Electrical: GFI outlets at mirror, hand dryers

AV Requirements: As needed

Wire Management: Wall outlets, including counter/equipment height

Data Management: None

Artificial Lighting: Direct/indirect fluorescent and make-up mirror lighting

Telephone: None

EQUIPMENT AND FURNISHINGS

Equipment

(1) Clock
(2) Toilets
(2) Sink
(1) Shower
(1) Background Page/Monitor System

Furniture

(1) Full length mirror
(1) Tack board
Built-in Dressing counter with mirrors and seating for 4
Lockers for 18

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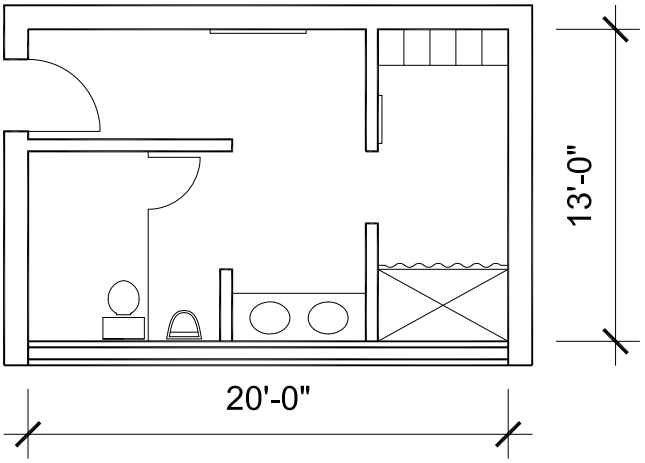

4.4.7 FACULTY DRESSING ROOM - MALE

NET AREA: 260 S.F.

4.4.7 Faculty Dressing Room - Male — Third Level

SPACE INFORMATION

Room Function: Changing area with shower and toilet facilities and lockers

Adjacencies: See Adjacency Matrix in Section 3.3

Room Type: Enclosed Room

Access: Controlled

Room Utilization: 6 days a week, 8:00 AM to 9:00 PM

General Notes: None

Special Requirements:

Provide pilot light in the corridor indicating use of switched outlets
VTD security zone
See Section 5.5 for special technical requirements

ROOM SIZE AND CAPACITY

Proposed Area:	260 NSF	**Room/Space Quantity:**	1	**Total Area:**	260
Assigned Capacity:	5 Occupant(s)	**Unassigned Capacity:**	Guest(s)	**Total Capacity:**	

FINISHES, DOORS, AND WINDOWS

Floor Finish:	VCT + Ceramic Tile at Toilet Areas	**Ceiling Treatment:**	Suspended acoustical lay-in tiles
Wall Finish:	Gypsum board (painted) + 4' Ceramic Tile Wainscot at	**Ceiling Height:**	10' minimum
Base Finish:	Rubber + Ceramic Tile at Toilet Areas	**Acoustic Treatment:**	Isolate from adjacent spaces

Doors:

Type:	Single	**Height:**	84"
Width:	36"	**Door Panel:**	None

Windows:

Natural Lighting:	Desired, but not required
Sidelighting:	None

MECHANICAL/ELECTRICAL

HVAC:	Exhaust, make up air and ventilation as required	**AV Requirements:**	As needed
Plumbing:	Shower, hot/cold water, floor drain	**Wire Management:**	Wall outlets, including counter/equipment height
Fire Protection:	Smoke detector, visual alarm, and sprinkler	**Data Management:**	None
Security:	None	**Artificial Lighting:**	Direct/indirect fluorescent and make-up mirror lighting
Electrical:	GFI outlets at mirror, hand dryers		
		Telephone:	None

EQUIPMENT AND FURNISHINGS

Equipment

(1) Clock
(1) Toilets
(1) Urinal
(2) Sinks
(1) Shower
(1) Background Page/Monitor System

Furniture

(1) Full length mirror
(1) Tack board
Lockers for 10

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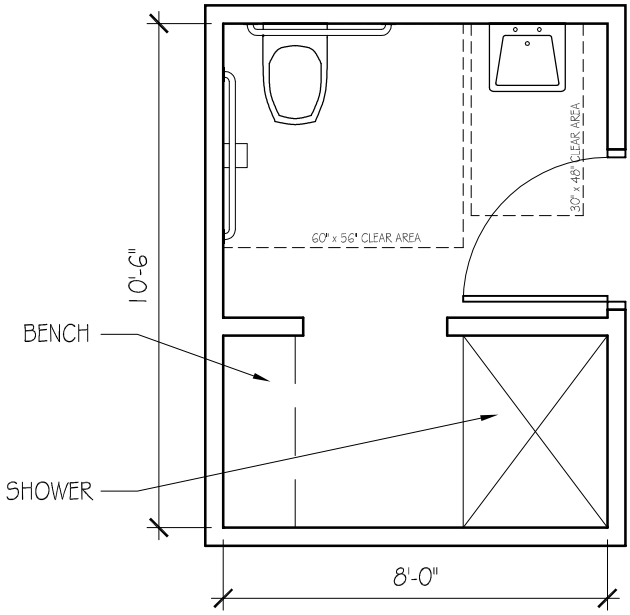

4.4.8 SHOWER ROOM
NET AREA: 85 S.F.

4.4.8 Shower Room -

SPACE INFORMATION

Room Function: Showering

Adjacencies: See Adjacency Matrix in section 3.3

Special Requirements:
Single occupant lockout shower room

Room Type: Enclosed Room

Access: Controlled

Room Utilization: 6 days a week, 8:00 AM to 9:00 PM

General Notes: None

ROOM SIZE AND CAPACITY

Proposed Area:	100 NSF	**Room/Space Quantity:**	2	**Total Area:**	200
Assigned Capacity:	0 Occupant(s)	**Unassigned Capacity:**	1 Guest(s)	**Total Capacity:**	1

FINISHES, DOORS, AND WINDOWS

Floor Finish: Ceramic tile

Wall Finish: 6' tile wainscot with gypsum (painted)

Base Finish: Ceramic Tile

Doors:

Type:	Single	**Height:**	84"
Width:	36"	**Door Panel:**	None

Ceiling Treatment: Gypsum board (painted)

Ceiling Height: 8' minimum

Acoustic Treatment: Isolate from adjacent spaces

Windows:

Natural Lighting:	Not required
Sidelighting:	None

MECHANICAL/ELECTRICAL

HVAC:	Standard	**AV Requirements:**	None
Plumbing:	As determined by restroom	**Wire Management:**	Wall outlets, including counter/equipment height
Fire Protection:	Audible alarm, spinkler	**Data Management:**	None
Security:	Keyed lock at entrance door(s)	**Artificial Lighting:**	Direct/indirect fluorescent
Electrical:	GFI outlets at mirror, hand dryers	**Telephone:**	None

EQUIPMENT AND FURNISHINGS

Equipment

(1) Toilet
(1) Sink
(1) Shower

Furniture

(1) Bench
(1) Full Length Mirror

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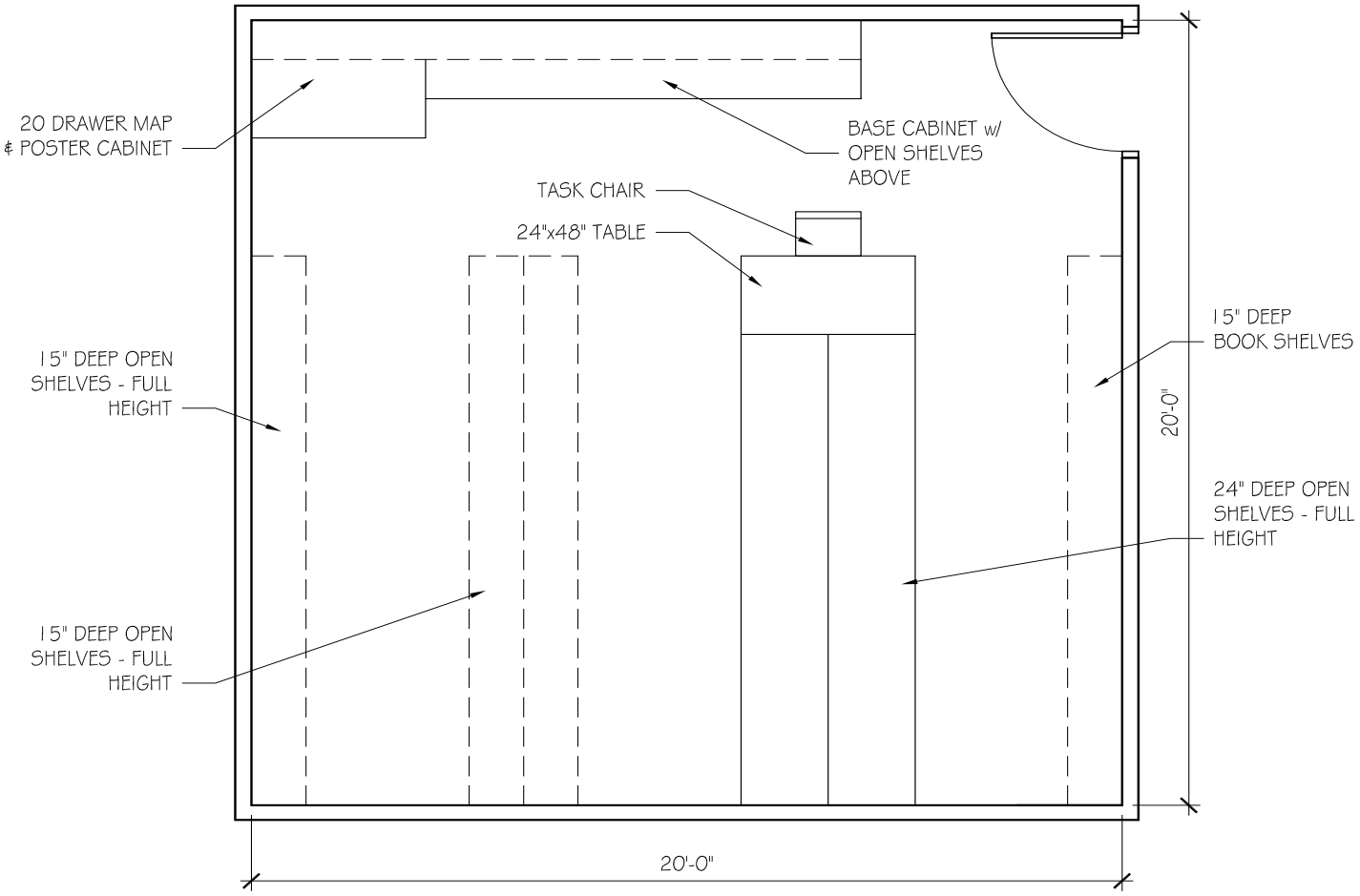

4.5.1 ARCHIVE / LIBRARY
NET AREA: 400 S.F.

Sorenson Arts & Education Complex

ROOM DATA SHEET DETAIL **Storage**

Support Resources

4.5.1 Archive / Library **-**

SPACE INFORMATION

Room Function: Materials archive storage

Adjacencies: See Adjacency Matrix in section 3.3

Special Requirements:
Floor, walls and ceiling to be fire rated - 2 Hour.

Room Type: Enclosed Room

Access: Private

Room Utilization: 5 days a week, 8:00 AM to 5:00 PM

General Notes: Space relies upon procedural evacuation of contents in event of fire.

ROOM SIZE AND CAPACITY

Proposed Area:	400 NSF	**Room/Space Quantity:**	1	**Total Area:**	400
Assigned Capacity:	0 Occupant(s)	**Unassigned Capacity:**	4 Guest(s)	**Total Capacity:**	4

FINISHES, DOORS, AND WINDOWS

Floor Finish: Carpet-tile

Wall Finish: Gypsum board (painted)

Base Finish: Rubber

Ceiling Treatment: Suspended acoustical lay-in tiles

Ceiling Height: 10' minimum

Acoustic Treatment: None

Doors:

Type:	Single	**Height:**	84"
Width:	36"	**Door Panel:**	None

Windows:

Natural Lighting:	None or low ambient light
Sidelighting:	None

MECHANICAL/ELECTRICAL

HVAC:	Standard	**AV Requirements:**	None
Plumbing:	None	**Wire Management:**	Wall outlets
Fire Protection:	Smoke detector,alarm, and dry pipe sprinkler	**Data Management:**	None
Security:	Proximity card lock	**Artificial Lighting:**	Downlights-incandescent
Electrical:	120V wall outlet(s)	**Telephone:**	None

EQUIPMENT AND FURNISHINGS

Equipment

Furniture

10 LF base cabinets w/ counter-height worksurface
14 LF open shelves - 15" deep (2 shelves, 16" clear between shelves - start 20" over base cabinets)
56 LF open shelves - 15" deep (5 shelves, 16" clear between shelves)
24 LF open shelves - 24" deep (5 shelves, 24" clear between shelves)
(1) 4-drawer lateral file
(1) 36"x48" 20-drawer map & poster cabinet
(1) 24"x48" movable table
(1) Task chair on casters

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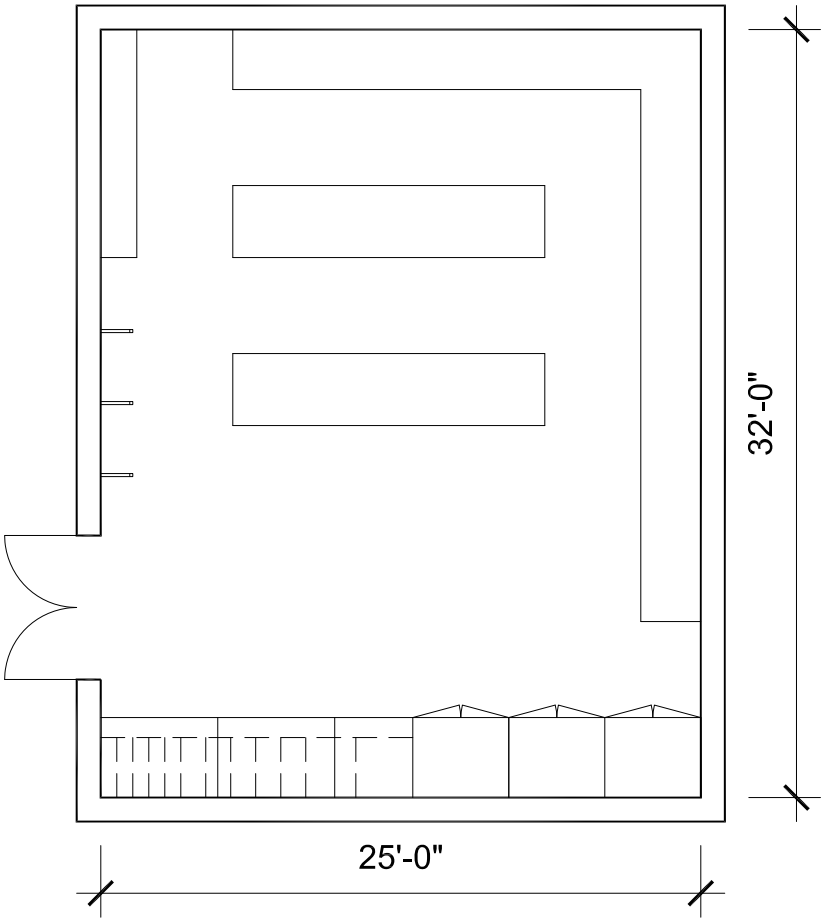

4.5.3 STORAGE PROPS / MUSICAL INSTRUMENTS

NET AREA: 800 S.F.

SPACE INFORMATION

Room Function: Storage of hand props, stage props and musical instruments for rehearsal and performance

Adjacencies: See Adjacency Matrix in Section 3.3

Special Requirements: VTD security zone

Room Type: Enclosed Room

Access: Controlled

Room Utilization: 6 days a week, 8:00 AM to 9:00 PM

General Notes: None

ROOM SIZE AND CAPACITY

Proposed Area:	800 NSF	**Room/Space Quantity:**	1	**Total Area:**	800
Assigned Capacity:	2 Occupant(s)	**Unassigned Capacity:**	3 Guest(s)	**Total Capacity:**	5

FINISHES, DOORS, AND WINDOWS

Floor Finish:	Concrete (sealed)	**Ceiling Treatment:**	Exposed structure
Wall Finish:	Gypsum board (painted)	**Ceiling Height:**	10' minimum
Base Finish:	Rubber	**Acoustic Treatment:**	None

Doors:

Type:	Double	**Height:**	84"
Width:	72"	**Door Panel:**	None

Windows:

Natural Lighting:	Not required
Sidelighting:	None

MECHANICAL/ELECTRICAL

HVAC:	Standard, space temperature control	**AV Requirements:**	None
Plumbing:	None	**Wire Management:**	Wall outlets, including counter/equipment height
Fire Protection:	Smoke detector, visual alarm, and sprinkler	**Data Management:**	None
Security:	Card key access at entrance door(s)	**Artificial Lighting:**	General ceiling lighting
Electrical:	120V wall outlets and outlets at worksurface		
		Telephone:	None

EQUIPMENT AND FURNISHINGS

Equipment

Furniture

Adjustable Shelving
Built-in Cabinets
(3) Lockable Cabinets
Large Hooks

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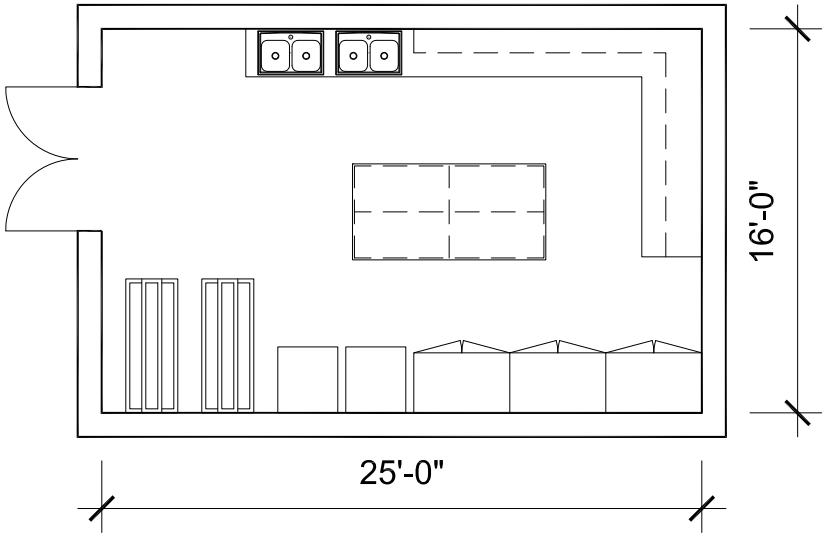

4.5.4 ART STUDIO STORAGE

NET AREA: 400 S.F.

4.5.4 Art Studio Storage — First Level

SPACE INFORMATION

Room Function: Storage of supplies for the Visual Arts Classes

Adjacencies: Art Studio (2.1.5)

Special Requirements:
Provide Clothesline for drying art work
VTD security zone

Room Type: Enclosed Room

Access: Controlled

Room Utilization: 6 days a week, 8:00 AM to 6:00 PM

General Notes: None

ROOM SIZE AND CAPACITY

Proposed Area:	400 NSF	**Room/Space Quantity:**	1	**Total Area:**	400
Assigned Capacity:	3 Occupant(s)	**Unassigned Capacity:**	5 Guest(s)	**Total Capacity:**	8

FINISHES, DOORS, AND WINDOWS

Floor Finish: Concrete (sealed)

Wall Finish: Gypsum board (painted)

Base Finish: Rubber

Ceiling Treatment: Suspended acoustical lay-in tiles

Ceiling Height: 12' minimum

Acoustic Treatment: None

Doors:

Type: Double — **Height:** 84"

Width: 72" — **Door Panel:** None

Windows:

Natural Lighting: Not required

Sidelighting: None

MECHANICAL/ELECTRICAL

HVAC: Exhaust, make up air and ventilation as required

Plumbing: Sink (custodial) with soil trap and floor drain

Fire Protection: Smoke detector, visual alarm, and sprinkler

Security: Card key access at entrance door(s)

Electrical: 120V wall outlets and outlets at worksurface

AV Requirements: None

Wire Management: Wall outlets, including counter/equipment height

Data Management: Tele/data outlets plus wall mounted telephone jack

Artificial Lighting: Direct/indirect fluorescent and task lighting

Telephone: Wall mounted telephone jack

EQUIPMENT AND FURNISHINGS

Equipment

(2) Utility Sinks

Furniture

(3) Movable Work Tables
(2) Rolling Art Carts
(3) Large Lockable Cabinets
Cabinets over and under built in Counters along walls
Storage Racks for Paper Rolls
Open Shelving

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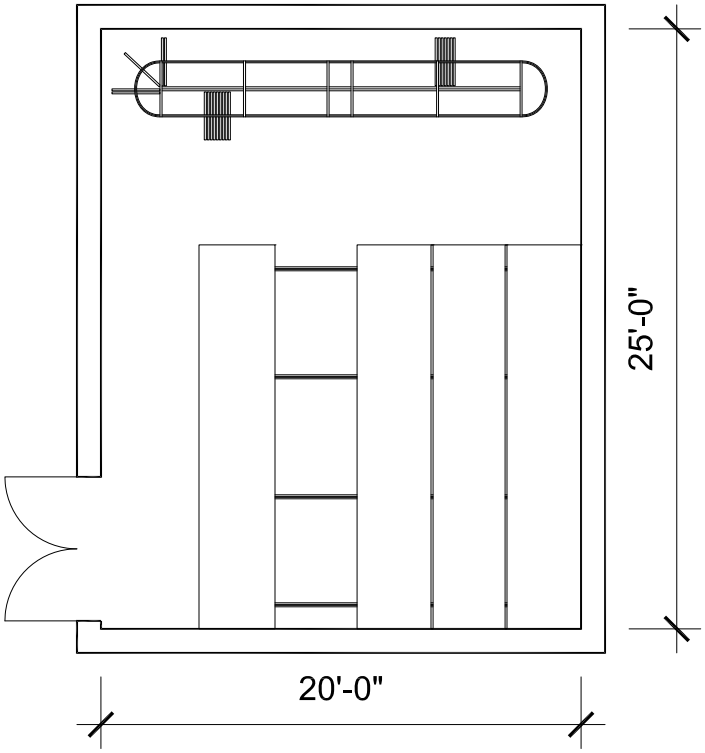

4.5.6 COSTUME STORAGE

NET AREA: 500 S.F.

4.5.6 Costume Storage — Fourth Level

SPACE INFORMATION

Room Function: Current and Archive Storage of Costumes and extra fabric

Adjacencies: See Adjacency Matrix in Section 3.3

Freight Elevator

Room Type: Enclosed Room

Access: Controlled

Room Utilization: 6 days a week, 8:00 AM to 9:00 PM

General Notes: None

Special Requirements:

VTD security zone

See Section 5.5 for special technical requirements

ROOM SIZE AND CAPACITY

Proposed Area:	500 NSF	**Room/Space Quantity:**	1	**Total Area:**	500
Assigned Capacity:	2 Occupant(s)	**Unassigned Capacity:**	Guest(s)	**Total Capacity:**	2

FINISHES, DOORS, AND WINDOWS

Floor Finish: Concrete (sealed)

Wall Finish: CMU - painted

Base Finish: Rubber

Ceiling Treatment: Suspended acoustical lay-in tiles

Ceiling Height: 12' minimum

Acoustic Treatment: Suppress equipment generated noise

Doors:

Type:	Double	**Height:**	84"
Width:	72"	**Door Panel:**	None

Windows:

Natural Lighting:	None, darkness required
Sidelighting:	None

MECHANICAL/ELECTRICAL

HVAC: Humidity and condensation control

Plumbing: None

Fire Protection: Sprinkler

Security: Card key access at entrance door(s)

Electrical: Dedicated circuits as required for equipment, GFI to be provided as required

AV Requirements: None

Wire Management: Wall outlets

Data Management: Tele/data outlet(s)

Artificial Lighting: Direct/indirect fluorescent

Telephone: None

EQUIPMENT AND FURNISHINGS

Equipment

(1) Dry Cleaning Conveyor System
(1) Set of Mechanical Assist Mobile Storage Shelves

Furniture

Storage Boxes

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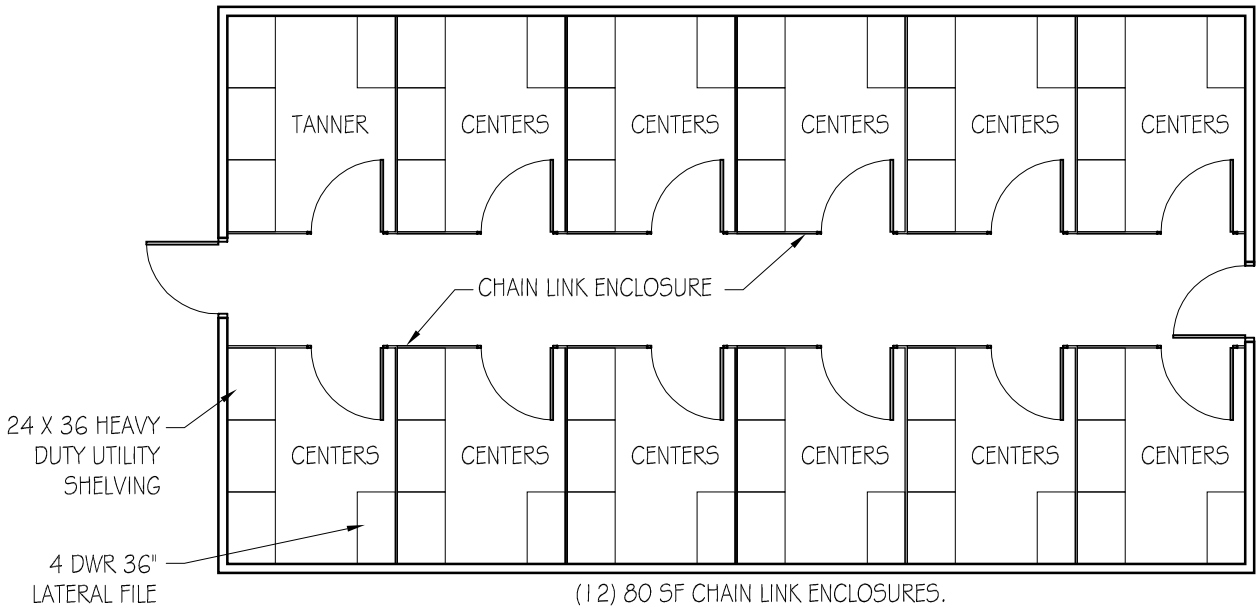

4.5.11 BUILDING-WIDE ACTIVE STORAGE
NET AREA: 960 S.F.

4.5.11 Building-Wide Active Storage Area -

SPACE INFORMATION

Room Function: Building-wide resource, general storage

Adjacencies: See Adjacency Matrix in section 3.3

Special Requirements: Chain link enclosure w/ locking gate

Room Type: Open

Access: Private

Room Utilization: 6 days a week, 8:00 AM to 9:00 PM

General Notes: One for each center and one for Tanner Dance

ROOM SIZE AND CAPACITY

Proposed Area:	80 NSF	**Room/Space Quantity:**	12	**Total Area:**	960
Assigned Capacity:	0 Occupant(s)	**Unassigned Capacity:**	2 Guest(s)	**Total Capacity:**	2

FINISHES, DOORS, AND WINDOWS

Floor Finish: Concrete (sealed)

Wall Finish: n/a

Base Finish: None

Ceiling Treatment: Exposed structure

Ceiling Height: 8' minimum

Acoustic Treatment: None

Doors:

Type:	Single	**Height:**	84"
Width:	36"	**Door Panel:**	None

Windows:

Natural Lighting:	Not required
Sidelighting:	None

MECHANICAL/ELECTRICAL

HVAC:	Ventilation only	**AV Requirements:**	None
Plumbing:	None	**Wire Management:**	Wall outlets
Fire Protection:	Sprinkler	**Data Management:**	None
Security:	Keyed lock at entrance door(s)	**Artificial Lighting:**	General ceiling lighting
Electrical:	120V wall outlet(s)	**Telephone:**	None

EQUIPMENT AND FURNISHINGS

Equipment

Furniture

(5) 24"x36" heavy duty utility shelving (5 shelves, adjustable height to ceiling)
(3) 4-drawer 36" lateral files

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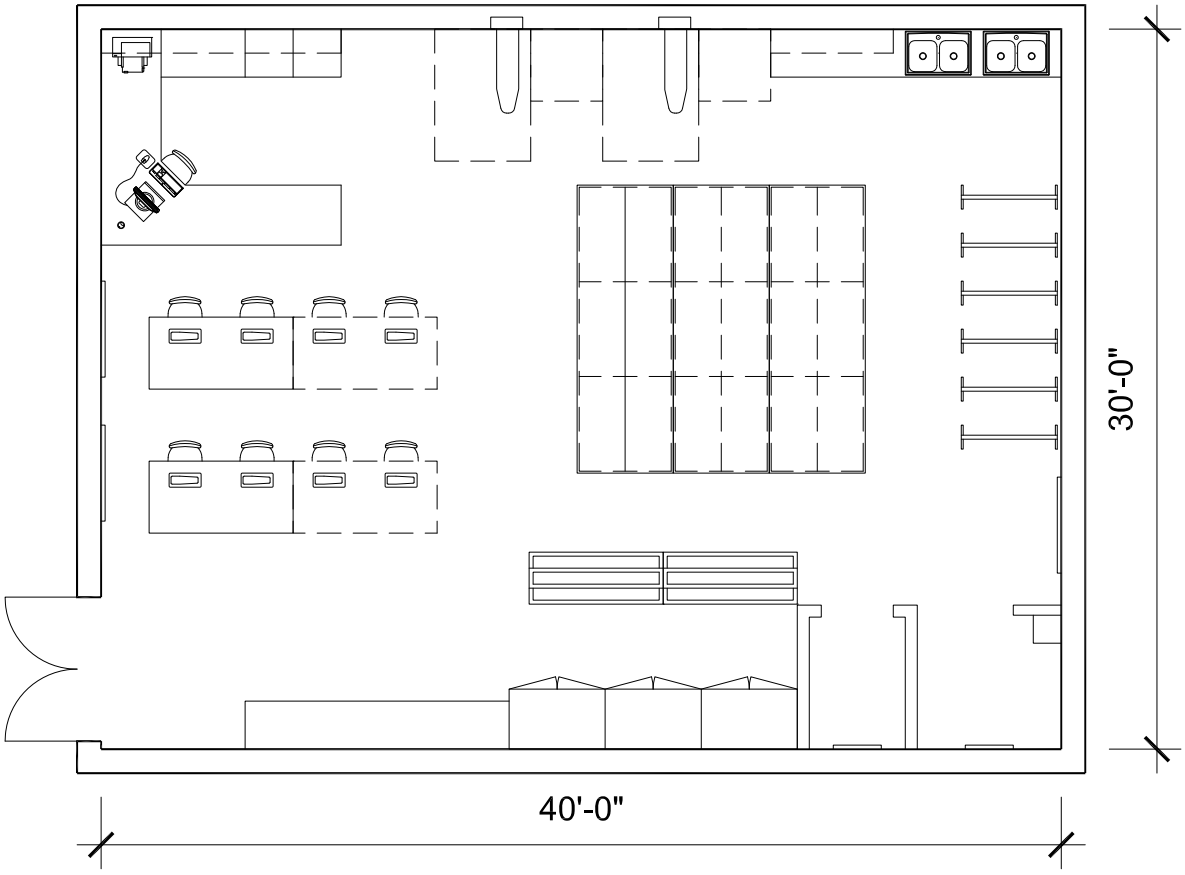

4.6.1 COSTUME FABRICATION

NET AREA: 1,200 S.F.

4.6.1 Costume Fabrication — Fourth Level

SPACE INFORMATION

Room Function: Room for Cutting and Sowing of Costumes, including space for fitting

Adjacencies: See Adjacency Matrix in Section 3.3

Freight Elevator

Room Type: Enclosed Room

Access: Controlled

Room Utilization: 7 days a week, 6:00 AM to 9:00 PM

General Notes: None

Special Requirements:

VTD security zone

See Section 5.5 for special technical requirements

ROOM SIZE AND CAPACITY

Proposed Area:	1200 NSF	**Room/Space Quantity:**	1	**Total Area:**	1200
Assigned Capacity:	12 Occupant(s)	**Unassigned Capacity:**	Guest(s)	**Total Capacity:**	12

FINISHES, DOORS, AND WINDOWS

Floor Finish: Vinyl Composite Tile (VCT)

Wall Finish: Gypsum board (painted)

Base Finish: Rubber

Ceiling Treatment: Suspended acoustical lay-in tiles

Ceiling Height: 10' minimum

Acoustic Treatment: Suppress equipment generated noise

Doors:

Type:	Double	**Height:**	84"
Width:	72"	**Door Panel:**	Clear

Windows:

Natural Lighting: Preferred, glare and brightness control

Sidelighting: Vision Panel

MECHANICAL/ELECTRICAL

HVAC: Radiant system

Plumbing: Sink (custodial) with soil trap and floor drain

Fire Protection: Smoke detector, visual alarm, and sprinkler

Security: Card key access at entrance door(s)

Electrical: Dedicated circuits as required for equipment, GFI to be provided as required

AV Requirements: None

Wire Management: Wall outlets, incl. counter height + ceiling drops

Data Management: Tele/data outlet(s)

Artificial Lighting: Downlights - CFL or LED fixtures w/ 3200K lamps + Fitting Spots

Telephone: Wall mounted telephone jack

EQUIPMENT AND FURNISHINGS

Equipment

(1) Clock
(1) Computer with Printer
(2) Commercial Sewing Machines
(6) Standard Sewing Machines
(4) Irons
(2) Steamers
(1) Telephone
(2) Divided Utility Sinks with hot/cold water and soil traps
(1) Background Page/Monitor System

Furniture

(6) Rolling Clothes Racks
(2) Wall Mounted Ironing Boards
(2) Lockable File Cabinets
(3) Lockable Storage Cabinets including hanging space
(2) Bulletin Boards
(1) Desk and Task Chair for Office Area
(2) Full Length Mirrors
(3) Movable Cutting Tables (4'-0"w x 9'-0"l) with Storage below
(8) Task Chairs
(2) Fabric Racks for Rolls of Fabric
Tables for (8) Sewing Stations
Adjustable Shelving

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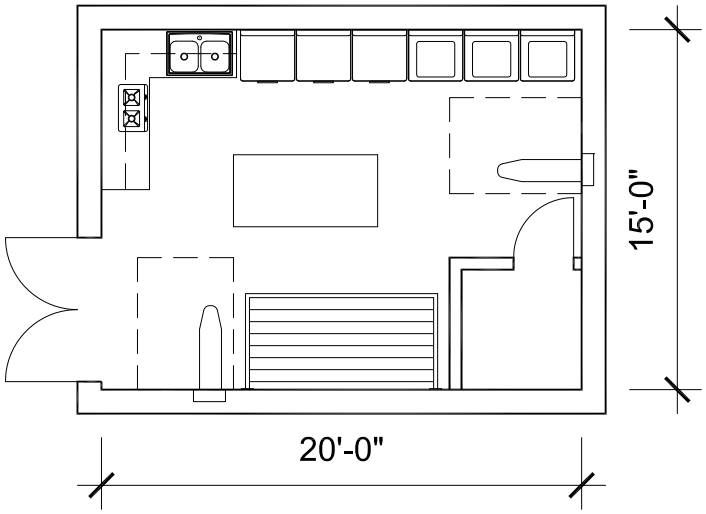

4.6.2 COSTUME LAUNDRY/DYE

NET AREA: 300 S.F.

4.6.2 Costume Laundry / Dye — Fourth Level

SPACE INFORMATION

Room Function: Facility for laundering costumes and dying and painting fabric.

Adjacencies: See Adjacency Matrix in Section 3.3

Freight Elevator

Room Type: Enclosed Room

Access: Controlled

Room Utilization: 6 days a week, 8:00 AM to 6:00 PM

General Notes: None

Special Requirements:

Spray Booth (5' x 5') - Provide appropriate Ventilation/Exhaust
VTD security zone
See Section 5.5 for special technical requirements

ROOM SIZE AND CAPACITY

Proposed Area:	300 NSF	**Room/Space Quantity:**	1	**Total Area:**	300
Assigned Capacity:	1 Occupant(s)	**Unassigned Capacity:**	1 Guest(s)	**Total Capacity:**	2

FINISHES, DOORS, AND WINDOWS

Floor Finish: Ceramic tile

Wall Finish: Gypsum board (painted)

Base Finish: Ceramic Tile

Ceiling Treatment: Suspended acoustical lay-in tiles

Ceiling Height: 10' minimum

Acoustic Treatment: Suppress equipment generated noise

Doors:

Type:	Double	**Height:**	80"
Width:	72"	**Door Panel:**	Clear

Windows:

Natural Lighting:	Preferred, glare and brightness control
Sidelighting:	Vision Panel

MECHANICAL/ELECTRICAL

HVAC: Radiant system + Exhaust

Plumbing: Sink (custodial) with soil trap and floor drain

Fire Protection: Sprinkler

Security: Card key access at entrance door(s)

Electrical: Dedicated circuits as required for equipment, GFI to be provided as required

AV Requirements: None

Wire Management: Wall outlets, including counter/equipment height

Data Management: Tele/data outlet(s)

Artificial Lighting: Downlights - CFL or LED fixtures w/ 3200K lamps + Color Matching Lights

Telephone: Wall mounted telephone jack

EQUIPMENT AND FURNISHINGS

Equipment

(3) Top Load Washers and Dryers
(1) Divided Utility Sink
(1) Telephone
(1) Clock
(2) Irons
(1) Two Burner Range Top
(1) Spray Booth

Furniture

Built-in Counter
(1) Drying Rack
(2) Wall Mounted Ironing Boards

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3.6.5 Building Resources & Non-Assignable Space

General
Restroom Core
Equipment
Janitorial Closets
Building Services
    Grounds Storage Room
    Loading Dock – Receiving (Interior)
    Truck Bay and Dock (Exterior)
Mechanical, Electrical and Telecom/Data Rooms
Circulation/Public Space

3.6.5.1 General
For sealed concrete here, and elsewhere in the program, regarding floor finishes, provide high-gloss, water-based urethane coating system (two-coats) with low-VOC content. At mop sinks, extend tile wainscot 12” beyond sink width in both directions.

3.6.5.2 Restroom Core
Toilet rooms for each sex should be provided on every floor of the BTSAEC. Special attention should be paid to balancing toilet facilities between the public functions focused on the College of Education resources and the secure functions of Tanner Dance resources. As restrooms are also included within Tanner Dance Changing Rooms, these fixtures should be included in the overall fixture count. All men’s and women’s toilet rooms are to be ADA compliant. Restrooms on the main floor should be centrally located and easily accessible from each, the Commons and Performing Arts Lobby,

The following toilet room accessories will be owner-furnished, contractor installed:
Toilet paper dispensers,
Paper towel dispensers,
Soap dispensers.

See Code Section for an analysis of required plumbing fixtures.

Family-style/single occupancy restrooms should be provides as per DFCM guidelines.

Finishes shall include ceramic tile floors, ceramic tile wall wainscot (partition height minimum), painted walls shall be epoxy painted gypsum board, ceilings shall be epoxy painted gypsum board, and toilet partitions shall be vandalism-resistant.

3.6.5.3 Equipment
    Control Booth – see room data sheet 5.2.1 in Section 3
    Dimmer Room – see room data sheet 5.2.2 in Section 3
    Sound Equipment Room – see room data sheet 5.2.3 in Section 3

3.6.5.4 Janitorial Closets
Provide at a minimum a janitorial closet on each level of the building. This is a utilitarian space that must contain one mop sink, storage space for cleaning supplies, approximately 30 s.f. minimum, with a louver on door. Finishes should include: sealer

concrete floors, painted gypsum board walls with ceramic tile wainscot at mop sink, and ceiling open to structure. Comply with venting requirements as per LEED and University of Utah standard.

3.6.5.5 Building Services

Grounds Storage Room – see room data sheet 5.4.1 in Section 3
Loading Dock – Receiving (Interior) – see room data sheet 5.4.2 in Section 3
Truck Bay and Dock (Exterior) – see room data sheet 5.4.3 in Section 3

3.6.5.6 Mechanical, Electrical and Telecom/Data Rooms

In general, main mechanical room will be located in mechanical penthouse or main mechanical air handler area. Provide crane access as necessary for maintenance and equipment replacement. Finishes shall include sealed concrete floors with traffic coating where needed. Walls constructed of metal panels and/or gypsum board shall be painted, with ceiling open to structure.

Main electrical rooms will typically be located on the ground level near the center of the building. Distributed electrical rooms will be located on each level of the building, centrally located and stacked vertically. Follow DFCM and University of Utah standards to comply with requirements as necessary from proper building function. Do not land lock electrical rooms between concrete sheer walls or other impenetrable obstructions. Provide necessary access to adjacent ceiling space. Finishes shall consist of sealed concrete floors, Painted wall surfaces and ceilings open to structure.

Tele/Data Rooms shall be located on each level of the building, stacked vertically. These are utilitarian spaces requiring minimal finishes. Floors shall be sealed concrete, walls shall be painted and ceilings open to structure.

3.6.5.7 Circulation/Public Space

Entrances

The main entrance(s) should be located adjacent to the main campus pedestrian circulation route for the College of Education and adjacent to an automobile circulation route for Tanner Dance. Entry to services areas, primarily the loading dock shall be adjacent to a service elevator. Entrances will direct visitors into the entry and lobby areas. Finishes shall be highly durable.

Elevators

The BTSAEC should include two passenger elevators, one of which may be a service/freight elevator. The passenger elevator should have a weight capacity of at least 2,500 lbs. Operating speed should be a minimum of 350 fps, with 2-car group operations if possible. Doors should meet stretcher code (center opening). All elevators should be large enough to accommodate a gurney. Minimum interior dimensions are 6’-8” wide and 5’-5” front to back. All elevators should be fully accessible, meet ADA requirements, and include a telephone. Both passenger elevators should be shown centrally located in the building. Coordinate elevator selection with University of Utah regarding on going maintenance contracts which may affect basis of design selection.

The freight capable elevator should have a capacity of 4,500 lbs. with doors providing a minimum clear opening of 4’-0”, although coordination with piano selection for Tanner

Dance is critical. During design, confirm actual clear dimensions and weight capacity based on sizes and weights of materials, supplies, and equipment to be transported. The freight elevator should access the rooftop if mechanical equipment is located there.

Floor finishes should be durable and easy to clean, with the preference to match the materials of the first floor lobby. Interior cab finishes should be consistent with lobby finishes.

Hallways (Circulation Routes)
Interior hallways and pedestrian circulation routes should be laid out as logically as possibly and should connect with each other to assist way finding. Major circulation routes should be wide enough to accommodate patrons in a variety of activities: circulating, queuing or waiting for class, as well as informal meetings. In addition circulation routes will be utilized as areas to display arts and crafts and thus must be designed to such a width to avoid the intrusion of materials into the walking area.

Major circulation routes should terminate at windows whenever possible. This will provide a welcome visual relief by allowing light and exterior/interior views from circulation areas.

Wherever possible, glass should be utilized in hallways and circulation routes to allow views of adjacent spaces. As the building is used for instruction, spaces such as classrooms, seminar and meeting spaces and studios, interior circulation will allow for an airy interior. Attention should be paid to light control and visual access control to limit distraction. Whether control come in the form of frit glass, perforated shades or other means, control will be necessary for most spaces.

Accessible water fountains should be available in hallways following building code requirements.

Outside corners and end walls in all hallways and other high traffic areas should be furnished with full-height, flush-mounted corner guards with impact resistant plastic covers over continuous aluminum retainers and integral flanges to receive gypsum board tape and finish compound. Suggested finishes include: for floors – carpet, terrazzo or tile at areas of high traffic, walls – painted impact resistant gypsum board, with accent material such as wood or stone, at high traffic areas and standard gypsum board at standard traffic areas, and ceilings – lay-in ceiling panels.

Stairways
At least two enclosed egress stairways should be provided, one near each end of the building. At least one stairway should provide access to the main mechanical room and main roof of the building. Stairways that serve all floors must comply with 2 HR rated enclosure, or as required by the code or code official. Additional vertical circulation may be appropriate near the center of the building.

Suggested finish materials for enclosed egress stairways: floor – resilient stair treads and flooring, walls – painted gypsum board or concrete, and ceilings – lay-in ceiling panels.

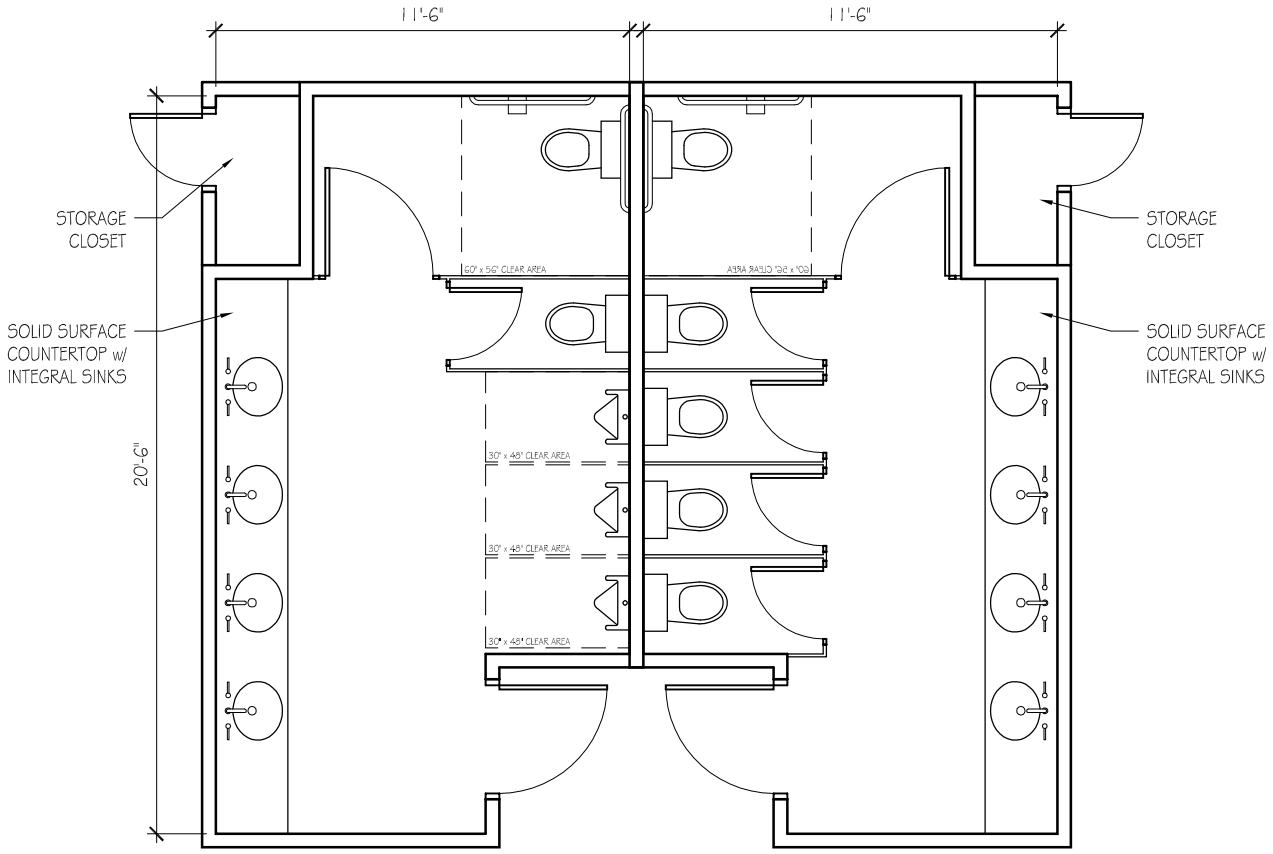
Suggested finish materials for additional stairs: floor – stone, wood or carpet, walls – wall covering, wood or painted gypsum board, and ceilings – painted gypsum board.

Lobbies – Floor
See room data sheet 1.1.2 a and b in Section 3

SECTION 3

SPACE SUMMARY

AREA	DESCRIPTION	SPACES	NASF	TOTAL NET SF	NET TO GROSS	TOTAL GROSS SF
5	**BUILDING RESOURCES**			**3,656**		**3,696**
5.1	**Restrooms**					
5.1.1a	Public Restroom - to be determined	4.5	400	1,800	1.00	1,800
5.1.1b	Public Restroom - to be determined	1.5	400	600	1.00	600
5.1.2	Staff Restrooms - to be determined	2	68	136	1.00	136
5.2	**Equipment**					
5.2.1	Control Booth	1	200	200	1.10	220
5.2.2	Dimmer Room	1	100	100	1.10	110
5.2.3	Sound Equipment Room	1	100	100	1.10	110
5.3	**Janitor**					
5.3.1	Janitors Closet	3	50	150	1.00	150
5.3.2	Janitors Supply / Equipment Storage	1	120	120	1.00	120
5.4	**Building Service**					
5.4.1	Grounds Storage Room	1	50	50	1.00	50
5.4.2	Loading Dock - Receiving (Interior)	1	200	200	1.00	200
5.4.3	Truck Bay and Dock(Exterior)	1	200	200	1.00	200



5.1.1 PUBLIC RESTROOM
NET AREA: 400 S.F.

5.1.1 Public Restroom -

SPACE INFORMATION

Room Function: Building-wide resource, restroom

Adjacencies: Circulation core, Elevators

Special Requirements: None

Room Type: Enclosed Room

Access: Public

Room Utilization: 6 days a week, 8:00 AM to 9:00 PM

General Notes: One pair per floor - current assumption of 3 floors

ROOM SIZE AND CAPACITY

Proposed Area:	400 NSF	**Room/Space Quantity:**	6	**Total Area:**	2400
Assigned Capacity:	0 Occupant(s)	**Unassigned Capacity:**	14 Guest(s)	**Total Capacity:**	14

FINISHES, DOORS, AND WINDOWS

Floor Finish: Ceramic tile

Wall Finish: 6' tile wainscot with gypsum (painted)

Base Finish: Ceramic Tile

Doors:

Type:	Single	**Height:**	84"
Width:	36"	**Door Panel:**	None

Ceiling Treatment: Gypsum board (painted)

Ceiling Height: 8' minimum

Acoustic Treatment: Isolate from adjacent spaces

Windows:

Natural Lighting:	Not required
Sidelighting:	None

MECHANICAL/ELECTRICAL

HVAC:	Standard	**AV Requirements:**	None
Plumbing:	As determined by restroom	**Wire Management:**	Wall outlets, including counter/equipment height
Fire Protection:	Audible alarm, spinkler	**Data Management:**	None
Security:	None	**Artificial Lighting:**	Direct/indirect fluorescent
Electrical:	GFI outlets at mirror, hand dryers	**Telephone:**	None

EQUIPMENT AND FURNISHINGS

Equipment

Furniture

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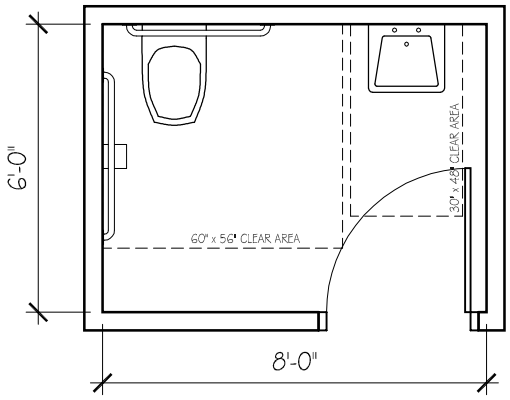

5.1.2 STAFF RESTROOM
NET AREA: 68 S.F.

5.1.2 Staff Restrooms -

SPACE INFORMATION

Room Function: Restroom

Adjacencies: See Adjacency Matrix in section 3.3

Special Requirements: None

Room Type: Enclosed Room

Access: Private

Room Utilization: 6 days a week, 8:00 AM to 9:00 PM

General Notes: None

ROOM SIZE AND CAPACITY

Proposed Area:	68 NSF	**Room/Space Quantity:**	2	**Total Area:**	136
Assigned Capacity:	0 Occupant(s)	**Unassigned Capacity:**	1 Guest(s)	**Total Capacity:**	1

FINISHES, DOORS, AND WINDOWS

Floor Finish: Ceramic tile

Wall Finish: 6' tile wainscot with gypsum (painted)

Base Finish: Ceramic Tile

Doors:

Type:	Single	**Height:**	84"
Width:	32"	**Door Panel:**	None

Ceiling Treatment: Gypsum board (painted)

Ceiling Height: 8' minimum

Acoustic Treatment: Isolate from adjacent spaces

Windows:

Natural Lighting:	Not required
Sidelighting:	None

MECHANICAL/ELECTRICAL

HVAC:	Standard	**AV Requirements:**	None
Plumbing:	As determined by restroom	**Wire Management:**	Wall outlets, including counter/equipment height
Fire Protection:	Audible alarm, spinkler	**Data Management:**	None
Security:	None	**Artificial Lighting:**	Direct/indirect fluorescent
Electrical:	GFI outlets at mirror, hand dryers	**Telephone:**	None

EQUIPMENT AND FURNISHINGS

Equipment

Furniture

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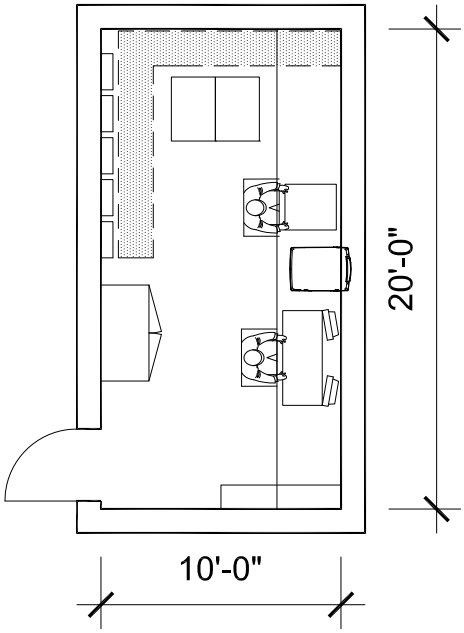

5.2.1 CONTROL BOOTH

NET AREA: 200 S.F.

5.2.1 Control Booth — Sixth Level

SPACE INFORMATION

Room Function: Space for Audio/Visual and Lighting Controls associated with the Main Studio

Adjacencies: See Adjacency Matrix in Section 3.3

Special Requirements:
HVAC to be adequate to service heat loads of all equipment. Rooms should be zoned by itself.
Provide Operable Window into Main Studio
VTD security zone

Room Type: Enclosed Room

Access: Controlled

Room Utilization: 6 days a week, 8:00 AM to 9:00 PM

General Notes: Exposed Surfaces to be painted matte black (including ceiling)

ROOM SIZE AND CAPACITY

Proposed Area:	200 NSF	**Room/Space Quantity:**	1	**Total Area:**	200
Assigned Capacity:	2 Occupant(s)	**Unassigned Capacity:**	2 Guest(s)	**Total Capacity:**	4

FINISHES, DOORS, AND WINDOWS

Floor Finish: Antistatic Vinyl Composite Tile (VCT)

Wall Finish: Gypsum board (painted)

Base Finish: Rubber

Doors:

Type:	Single	**Height:**	84"
Width:	36"	**Door Panel:**	None

Ceiling Treatment: Suspended acoustical lay-in tiles

Ceiling Height: 10' minimum

Acoustic Treatment: Suppress equipment generated noise - provide equipment isolation as required

Windows:

Natural Lighting:	None, darkness required
Sidelighting:	None

MECHANICAL/ELECTRICAL

HVAC: Dedicated air conditioning

Plumbing: None

Fire Protection: Smoke detector, visual alarm, and sprinkler

Security: Card key access at entrance door(s)

Electrical: Dedicated circuits as required for equipment, GFI to be provided as required

AV Requirements: As needed

Wire Management: Wall outlets

Data Management: Tele/data outlet(s)

Artificial Lighting: General ceiling lighting + track lighting over desk

Telephone: Wall mounted telephone jack

EQUIPMENT AND FURNISHINGS

Equipment

(1) Clock
(1) Lighting Console with Computer Monitor
(2) Computers
(1) Sound Board
(1) Audio Rack
(1) Data Rack
(1) Video Projector
(1) Background Page/Monitor System

Furniture

(2) Desk Chairs
Built-in Desk, custom designed for lighting and sound boards
Shelving
Lockable Cabinet

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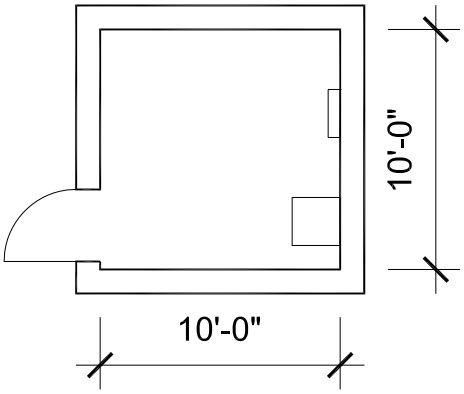

5.2.2 DIMMER ROOM

NET AREA: 100 S.F.

5.2.2 Dimmer Room — Sixth Level

SPACE INFORMATION

Room Function: Space for Theatrical Lighting Dimmers

Adjacencies: See Adjacency Matrix in Section 3.3

Room Type: Enclosed Room

Access: Controlled

Room Utilization: 6 days a week, 8:00 AM to 9:00 PM

General Notes:

Special Requirements:

HVAC to be adequate to service heat loads of all equipment. Rooms should be zoned by itself. VTD security zone

ROOM SIZE AND CAPACITY

Proposed Area:	100 NSF	**Room/Space Quantity:**	1	**Total Area:**	100
Assigned Capacity:	1 Occupant(s)	**Unassigned Capacity:**	Guest(s)	**Total Capacity:**	

FINISHES, DOORS, AND WINDOWS

Floor Finish: Concrete (sealed)

Wall Finish: Gypsum board (painted)

Base Finish: Rubber

Doors:

Type:	Single	**Height:**	84"
Width:	36"	**Door Panel:**	None

Ceiling Treatment: Suspended acoustical lay-in tiles

Ceiling Height: 10' minimum

Acoustic Treatment: Suppress equipment generated noise - provide equipment isolation as required

Windows:

Natural Lighting:	None, darkness required
Sidelighting:	None

MECHANICAL/ELECTRICAL

HVAC:	Dedicated air conditioning	**AV Requirements:**	None
Plumbing:	None	**Wire Management:**	Wall outlets
Fire Protection:	Smoke detector, visual alarm, and sprinkler	**Data Management:**	Tele/data outlet(s)
Security:	Card key access at entrance door(s)	**Artificial Lighting:**	General ceiling lighting
Electrical:	120V/208V as necessary		
		Telephone:	Wall mounted telephone jack

EQUIPMENT AND FURNISHINGS

Equipment

(1) 24 Circuit Dimmer Rack

Furniture

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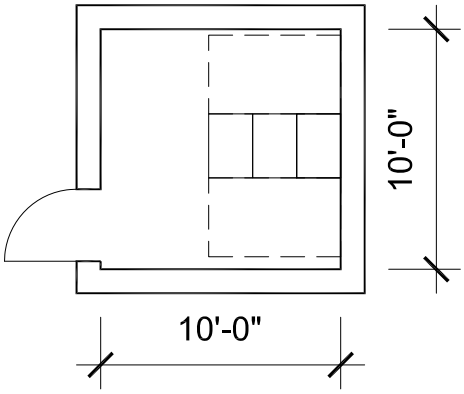

5.2.3 SOUND EQUIPMENT ROOM

NET AREA: 100 S.F.

5.2.3 Sound Equipment Room — Sixth Level

SPACE INFORMATION

Room Function: Space for Audio/Visual Equipment Racks

Adjacencies: See Adjacency Matrix in Section 3.3

Room Type: Enclosed Room

Access: Controlled

Room Utilization: 6 days a week, 8:00 AM to 9:00 PM

General Notes:

Special Requirements:

HVAC to be adequate to service heat loads of all equipment. Rooms should be zoned by itself.
VTD security zone

ROOM SIZE AND CAPACITY

Proposed Area:	100 NSF	**Room/Space Quantity:**	1	**Total Area:**	100
Assigned Capacity:	1 Occupant(s)	**Unassigned Capacity:**	Guest(s)	**Total Capacity:**	

FINISHES, DOORS, AND WINDOWS

Floor Finish: Concrete (sealed)

Wall Finish: Gypsum board (painted)

Base Finish: Rubber

Doors:

Type:	Single	**Height:**	84"
Width:	36"	**Door Panel:**	None

Ceiling Treatment: Suspended acoustical lay-in tiles

Ceiling Height: 10' minimum

Acoustic Treatment: Suppress equipment generated noise - provide equipment isolation as required

Windows:

Natural Lighting:	Not required
Sidelighting:	None

MECHANICAL/ELECTRICAL

HVAC: Dedicated air conditioning

Plumbing: None

Fire Protection: Smoke detector, visual alarm, and sprinkler

Security: Card key access at entrance door(s)

Electrical: 120V w/ techinical ground system

AV Requirements: None

Wire Management: Floor outlets

Data Management: Tele/data outlet(s)

Artificial Lighting: General ceiling lighting

Telephone: Wall mounted telephone jack

EQUIPMENT AND FURNISHINGS

Equipment

(3) A/V Racks

Furniture

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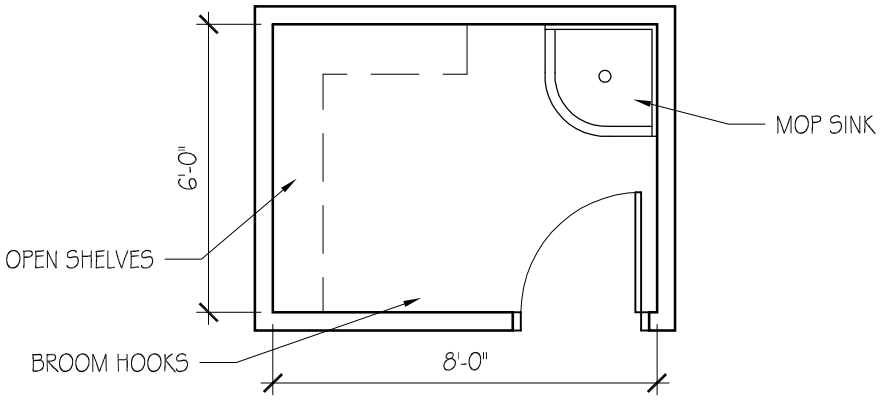

5.3.1 JANITOR'S CLOSET
NET AREA: 50 S.F.

Sorenson Arts & Education Complex

ROOM DATA SHEET DETAIL **Janitor**

Building Resources

5.3.1 Janitors Closet **-**

SPACE INFORMATION

Room Function: Building-wide resource, janitor supply storage

Adjacencies: One per floor

Special Requirements: None

Room Type: Enclosed Room

Access: Private

Room Utilization: 7 days a week, 6:00 AM to 9:00 PM

General Notes: One per floor - current assumption of 3 floors

ROOM SIZE AND CAPACITY

Proposed Area:	50 NSF	**Room/Space Quantity:**	3	**Total Area:**	150
Assigned Capacity:	0 Occupant(s)	**Unassigned Capacity:**	1 Guest(s)	**Total Capacity:**	1

FINISHES, DOORS, AND WINDOWS

Floor Finish: Vinyl (non-slip)

Wall Finish: Gypsum board (painted)

Base Finish: Integral Coved

Ceiling Treatment: Gypsum board (painted)

Ceiling Height: 8' minimum

Acoustic Treatment: None

Doors:

Type:	Single	**Height:**	84"
Width:	32"	**Door Panel:**	None

Windows:

Natural Lighting:	Not required
Sidelighting:	None

MECHANICAL/ELECTRICAL

HVAC:	Ventilation only	**AV Requirements:**	None
Plumbing:	Sink (custodial) with soil trap and floor drain	**Wire Management:**	Wall outlets
Fire Protection:	Sprinkler	**Data Management:**	None
Security:	Keyed lock at entrance door(s)	**Artificial Lighting:**	General ceiling lighting
Electrical:	120V wall outlet(s)	**Telephone:**	None

EQUIPMENT AND FURNISHINGS

Equipment

Furniture

8 LF open shelving - 15" deep (5 shelves, 16" clear between shelves)
(6) Broom hooks

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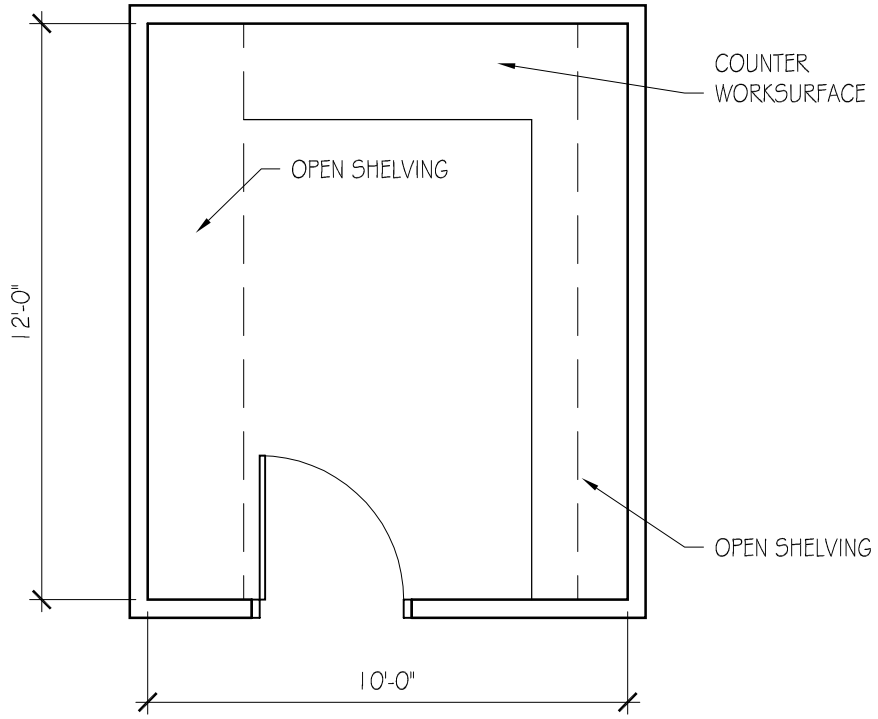

5.3.2 JANITOR SUPPLY
NET AREA: 120 S.F.

5.3.2 Janitor Supply / Equipment Storage -

SPACE INFORMATION

Room Function: Building-wide resource, cleaning supply storage

Adjacencies: See Adjacency Matrix in section 3.3

Special Requirements: None

Room Type: Enclosed Room

Access: Private

Room Utilization: 7 days a week, 6:00 AM to 9:00 PM

General Notes: None

ROOM SIZE AND CAPACITY

Proposed Area:	120 NSF	**Room/Space Quantity:**	1	**Total Area:**	120
Assigned Capacity:	0 Occupant(s)	**Unassigned Capacity:**	2 Guest(s)	**Total Capacity:**	2

FINISHES, DOORS, AND WINDOWS

Floor Finish: Vinyl (non-slip)

Wall Finish: Gypsum board (painted)

Base Finish: Integral Coved

Ceiling Treatment: Gypsum board (painted)

Ceiling Height: 8' minimum

Acoustic Treatment: None

Doors:

Type:	Single	**Height:**	84"
Width:	32"	**Door Panel:**	None

Windows:

Natural Lighting:	Not required
Sidelighting:	None

MECHANICAL/ELECTRICAL

HVAC:	Standard	**AV Requirements:**	None
Plumbing:	None	**Wire Management:**	Wall outlets
Fire Protection:	Sprinkler	**Data Management:**	None
Security:	Keyed lock at entrance door(s)	**Artificial Lighting:**	General ceiling lighting
Electrical:	120V wall outlet(s)	**Telephone:**	None

EQUIPMENT AND FURNISHINGS

Equipment

Furniture

16 LF base cabinets 24" deep w/ counter-height worksurface - no doors
12 LF open shelving - 12" deep (3 shelves, adjustable height to ceiling)
12 LF open shelving - 24" deep (5 shelves, 24" clear between shelves)

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5.4.1 Grounds Storage Room — First Level

SPACE INFORMATION

Room Function: Grounds equipment storage

Adjacencies: See Adjacency Matrix in section 3.3

Special Requirements: Accessible from the exterior, sufficient heat to prevent freezing

Room Type: Enclosed Room

Access: Private

Room Utilization: 5 days a week, 6:00 AM to 8:00 PM

General Notes:

ROOM SIZE AND CAPACITY

Proposed Area:	50 NSF	**Room/Space Quantity:**	1	**Total Area:**	50
Assigned Capacity:	0 Occupant(s)	**Unassigned Capacity:**	1 Guest(s)	**Total Capacity:**	1

FINISHES, DOORS, AND WINDOWS

Floor Finish: Concrete (sealed)

Wall Finish: CMU - bare

Base Finish: Rubber

Ceiling Treatment: Exposed structure

Ceiling Height: 8' minimum

Acoustic Treatment: None

Doors:

Type:	Single	**Height:**	84"
Width:	36"	**Door Panel:**	None

Windows:

Natural Lighting:	Not required
Sidelighting:	None

MECHANICAL/ELECTRICAL

HVAC:	n/a	**AV Requirements:**	None
Plumbing:	None	**Wire Management:**	Wall outlets
Fire Protection:	Sprinkler	**Data Management:**	None
Security:	Keyed lock at entrance door(s)	**Artificial Lighting:**	General ceiling lighting
Electrical:	120V wall outlet(s)	**Telephone:**	None

EQUIPMENT AND FURNISHINGS

Equipment

Furniture

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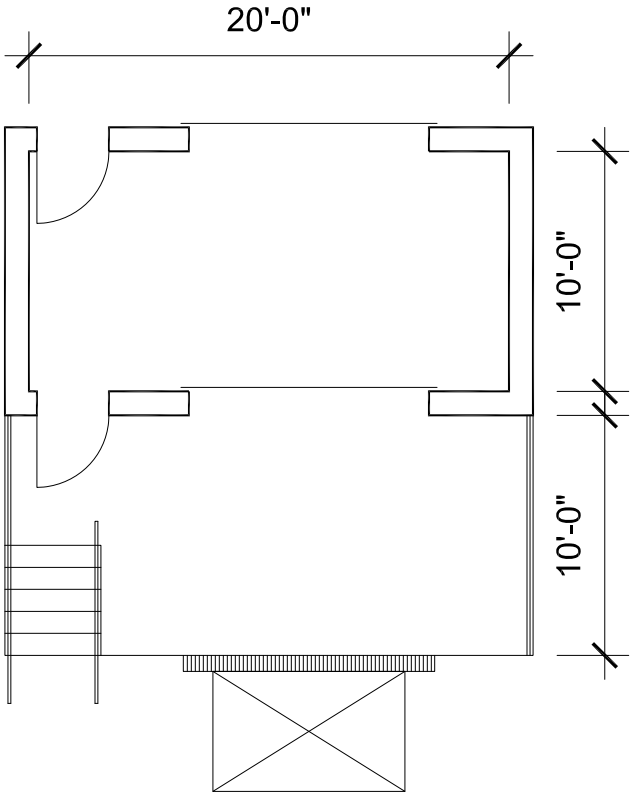

5.4.2 - 5.4.3 LOADING DOCK - RECEIVING & TRUCK BAY AND DOCK

NET AREA: 200 S.F EA..

5.4.2 Loading Dock - Receiving (Interior) — First Level

SPACE INFORMATION

Room Function: Receiving area for delivery of food, equipment, fabric, props, costumes, etc.

Adjacencies: Freight Elevator

Room Type: Enclosed Room

Access: Controlled

Room Utilization: 6 days a week, 8:00 AM to 9:00 PM

General Notes: None

Special Requirements:

Provide two Roll-up doors 10'-0"w x 12'-0" high (see requirements for personnel door below)
Isolate from Fresh Air Intake

ROOM SIZE AND CAPACITY

Proposed Area:	200 NSF	**Room/Space Quantity:**	1	**Total Area:**	200
Assigned Capacity:	2 Occupant(s)	**Unassigned Capacity:**	1 Guest(s)	**Total Capacity:**	3

FINISHES, DOORS, AND WINDOWS

Floor Finish: Concrete (sealed)

Wall Finish: CMU - sealed

Base Finish: Rubber

Ceiling Treatment: Exposed structure (painted)

Ceiling Height: 16' minimum

Acoustic Treatment: Isolate from adjacent spaces

Doors:

Type:	Double	**Height:**	84"
Width:	72"	**Door Panel:**	None

Windows:

Natural Lighting:	Not required
Sidelighting:	None

MECHANICAL/ELECTRICAL

HVAC: Standard

Plumbing: None

Fire Protection: Sprinkler

Security: Card key access at entrance door(s)

Electrical: 120V wall outlet(s)

AV Requirements: None

Wire Management: Wall outlets, including counter/equipment height

Data Management: Tele/data outlets plus wall mounted telephone jack

Artificial Lighting: General ceiling lighting

Telephone: Wall mounted telephone jack

EQUIPMENT AND FURNISHINGS

Equipment

Furniture

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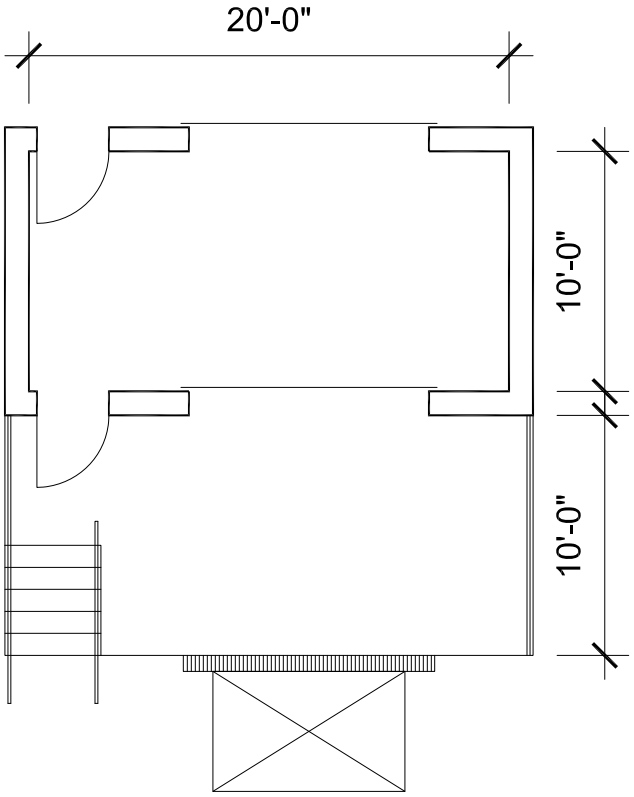

5.4.2 - 5.4.3 LOADING DOCK - RECEIVING & TRUCK BAY AND DOCK

NET AREA: 200 S.F EA..

5.4.3 Truck Bay and Dock (Exterior) — First Level

SPACE INFORMATION

Room Function: Medium truck and van loading area for delivery of food, equipment, fabric, props, costumes, etc. This space shall be located at a back of house or screened location and should accommodate building refuse collection and pick up.

Adjacencies: Loading Dock - Receiving (5.4.2)

Special Requirements: Isolate from Fresh Air Intake

Room Type: Exterior

Access: Controlled

Room Utilization: 6 days a week, 8:00 AM to 9:00 PM

General Notes: None

ROOM SIZE AND CAPACITY

Proposed Area:	200 NSF	**Room/Space Quantity:**	1	**Total Area:**	200
Assigned Capacity:	Occupant(s)	**Unassigned Capacity:**	Guest(s)	**Total Capacity:**	

FINISHES, DOORS, AND WINDOWS

Floor Finish:	Concrete (bare)	**Ceiling Treatment:**	n/a
Wall Finish:	n/a	**Ceiling Height:**	n/a
Base Finish:	None	**Acoustic Treatment:**	n/a

Doors:

Type:	n/a	**Height:**	None
Width:	None	**Door Panel:**	None

Windows:

Natural Lighting:	n/a
Sidelighting:	n/a

MECHANICAL/ELECTRICAL

HVAC:	n/a	**AV Requirements:**	None
Plumbing:	n/a	**Wire Management:**	Wall outlets
Fire Protection:	Sprinkler	**Data Management:**	n/a
Security:	n/a	**Artificial Lighting:**	Downlights-fluorescent
Electrical:	120V outdoor outlets		
		Telephone:	None

EQUIPMENT AND FURNISHINGS

Equipment

(1) Dock Leveler

Furniture

Dock Bumpers
Dock Hood

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SECTION 4

BUILDING & SITE RESPONSE

4.1 Existing Facilities Analysis

The College of Education, College of Fine Arts, and the Tanner Dance Program are currently housed in multiple facilities on and off the main campus of the University of Utah. Auxiliaries, centers, and educational space housed in the following buildings were surveyed for this program:

- Milton Bennion Hall (MBH), which houses the Center for Reading and Literacy, Center for Advancement of Technology in Education, and Utah Education Policy Center.
- Tanner Dance (TANNER), which houses the Virginia Tanner Creative Dance program.
- Annex General Office (ANNEX), which houses the Eunice Kennedy Shriver National Center for Community of Caring and the costuming component for the Tanner Dance program.
- John Widtsoe Building (JWB), which houses the Center for Math and Science Education.
- Eccles Institute of Human Genetics (EIHG), which houses the Genetic Science Learning Center.
- David Gardner Hall (DGH), which houses the Center for Integrating the Arts into Academic Learning and the music 3015 FA course.
- West Institute (WINST), which houses the theater 3015 FA course.
- Art Building (ART), which houses the art 3015 FA course.
- Marriott Center for Dance (MCD), which houses the dance 3015 FA course.

Two additional buildings/spaces (Educational Assessment Clinic and Genetic Science Learning Center) were documented, although the new BTSAEC building may not be housing these programs in the near future. Thus, the specialized spaces these programs would require are not in the Space Summary, although held for further discussion. In total over 45,000 square feet of space was assessed, 23 users' interviews conducted, and over 700 photographs taken. A compiled history of the programming process will be made available to DFCM at program acceptance.

The Tanner Dance Program along with the COE centers groups will make the transition to a new building as early as fall 2012. Campus planning must make accommodation not only for this move, but for road construction, sidewalk closures, utility connections

and future building demolition activities. This section is meant to highlight spaces that are currently occupied by users intended to move into the new building and to quantify the amount of space to be vacated. This perspective capture's the intent of the COE and COFA, among others, but does not include input from others outside the programming group, i.e. there may be others already engaged in planning the use of future "freed" space without the knowledge of the programming team.

Currently the groups who were interviewed as potential future BTSAEC building occupants are housed in eight different buildings. The single biggest current use falls within the Tanner Dance Program (TANNER) building with approximately 7,800 gsf area being occupied. The Tanner Dance Program is the lone user of this facility and it is understood that the Tanner building will be demolished once vacated.

A number of other facilities may or will be vacated as the current occupants move into the new BTSAEC building. They include:

- 2,160 nsf in MBH will be vacated by the Center for Reading and Literacy, the Center for Advancement of Technology in Education, and the Utah Education Policy Center,
- 7,800 gsf in TANNER will be vacated by the Tanner Dance Program,
- 1,150 nsf in ANNEX will be vacated by the Tanner Dance Program and the Eunice Kennedy Shriver National Center for Community of Caring.

The College of Education and College of Fine Arts are comprised of a diverse set of faculty, staff, and students. The organizations engage the public, academia, student organizations, child learners, seniors, and colleagues on and off campus. The review of currently used spaces included discussions regarding each building's functional utilization, social organization, and service characteristics. While discussions were based on spaces the client currently utilized, each discussion soon evolved into a planning process centered on organizational structure, desires for outreach and collaboration, and variables such as space size, function, and affinity to others. These forward-thinking concepts were tested and later incorporated into early planning graphics, room data sheets, and affinity diagrams.

From programming investigations, three functional issues emerged that were concerns common to all the user groups, and are reviewed below.

Security: Existing Buildings

The Tanner Dance Program focuses upon a user group consisting primarily of child learners with ages ranging from pre-K to 18. Most dancers arrive in dance attire of light cover up clothing. These users require not only secure drop-off and pick-up logistics but also building occupant control to ensure that each child is protected within the building. The existing Tanner building provides the required security by virtue of its' physical isolation in a dedicated building removed from the heart of campus. Significant care is critical in crafting space where disparate user groups may occupy a common building located near central campus while maintaining the separation and security necessary to accommodate and protect these child users.

Circulation: Existing Buildings

The majority of buildings reviewed seem to provide a negative experience for the users within a central circulation route. Many buildings‘ internal and external circulation systems include straight, but long, uninterrupted hallways; limited lounge space; and very poor wayfinding tools; making most of them difficult to navigate and unwelcome places for lingering. Diligent planning will be important regarding these primary circulation features:

- Distinct primary vs. secondary entrances for different user groups;
- Internal circulation routes that are user-friendly in width and length;
- Logical and consistent locations of help points (departmental and suite administrative staff);
- Wayfinding that clearly indicates where vertical circulation is located;
- Consistent signage in a legible format, placed in primary paths of travel; and
- Daylight penetrating deep into the building.

Service: Existing Buildings

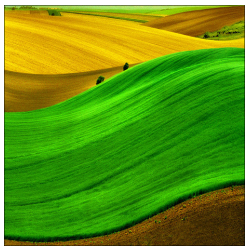
Users have made a concerted effort to utilize every square foot within each existing facility. In order to make space available to the primary functions of housing faculty and staff, and running classes, building users made do without spaces dedicated to public functions and by using their limited staff and cramped buildings to fill multiple functions. In many cases, offices and open work areas were inefficient in size and configuration. Conference rooms in short supply. Storage spaces cramped, with limited area in administrative office suites to run efficient operations. Some of the best-used space include suites with open offices, central support spaces, and access to larger meeting/conference spaces.

Primary services include administrative office and conference room space, teaching classrooms, studios, classroom support spaces, storage, and building support space. Buildings lack amenity space such as joint-use resources like lounges; group study rooms; hoteling areas for temporary or visiting staff; food service points; areas to display art/dance related materials/college history; or queuing space adjacent to centralized academic classrooms. In most cases studio and studio support spaces are well used, but the spaces and their infrastructure are dated, inefficiently configured, and are of insufficient size.

Planning efficient and effective space has required that attention be paid to the issues of right-sizing space, allowing for "Day 1" affinities to be supported, planning for flexibility, using consistent sizes and configurations of space to allow for swapping multiple users/uses, considering efficient building systems to support spaces that may significantly change utility and occupant loads over time, and viewing amenities as a resource, rather than as a lost opportunity for more raw square footage. In addition, planning for future flexibility and growth has also been key.

4.2 New Building

4.2.1 – BTSAEC Building Concept



The Vision Session

The Vision Session Workshop was held on 15 September 2009. The workshop was used to draw out the purposes, background discussions and establish a vision for the BTSAEC.

The Vision Session facilitators engaged the leadership team in a forum to discuss the goals and values of the collective group.

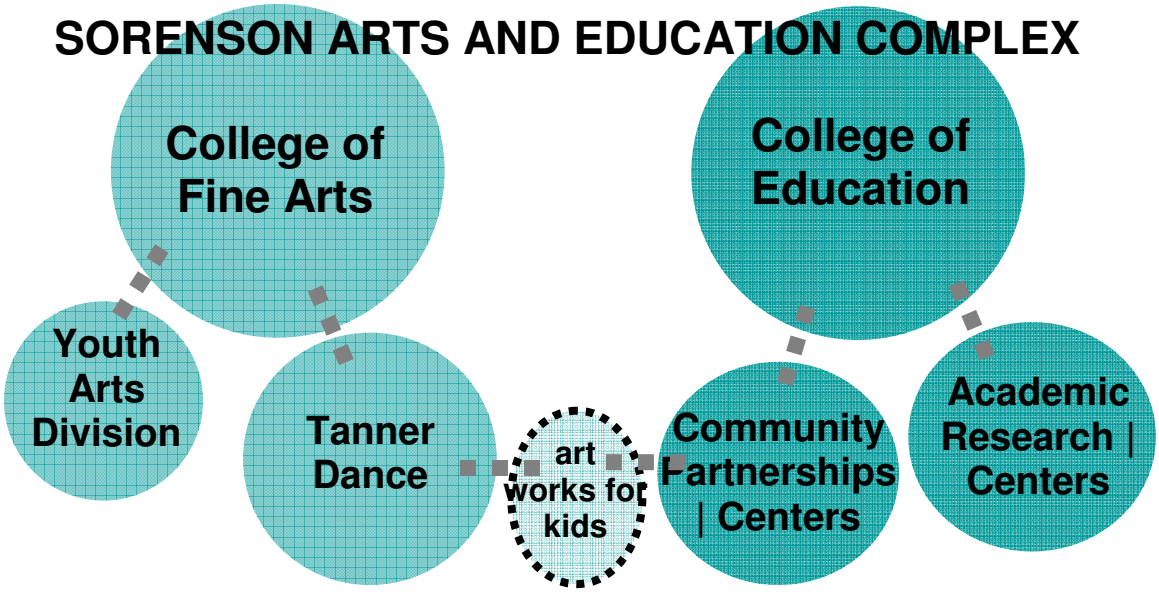
A series of image boards were chosen to convey graphically and encapsulate the values most important to the future building users. The images and their inherent qualities and attributes were openly deliberated; the responses that emerged are embodied in this report. Each of the images that were chosen evoked different ideas to different individuals but all describe the general feelings that the group wanted to convey about the new BTSAEC.

Images	Ideas	Site & Facilities Response
	• Grand Vision • Risk • Discovery • Sense of Wonder • Exploration • Achievement	• **Destination** • **Use of Natural Light** • **Place to Explore** • **Inventive** • **Integrative Art and Signage** • **Open and Inviting**
	• Nurturing • Growth • Beginning • Potential • Nature • Organic • Green • Teamwork • Responsibility • Visceral • Sensual	• **Collaborative Work Areas** • **Gathering Places** • **Environmentally Friendly** • **Connectivity** • **Team Areas** • **Outdoor Spaces**

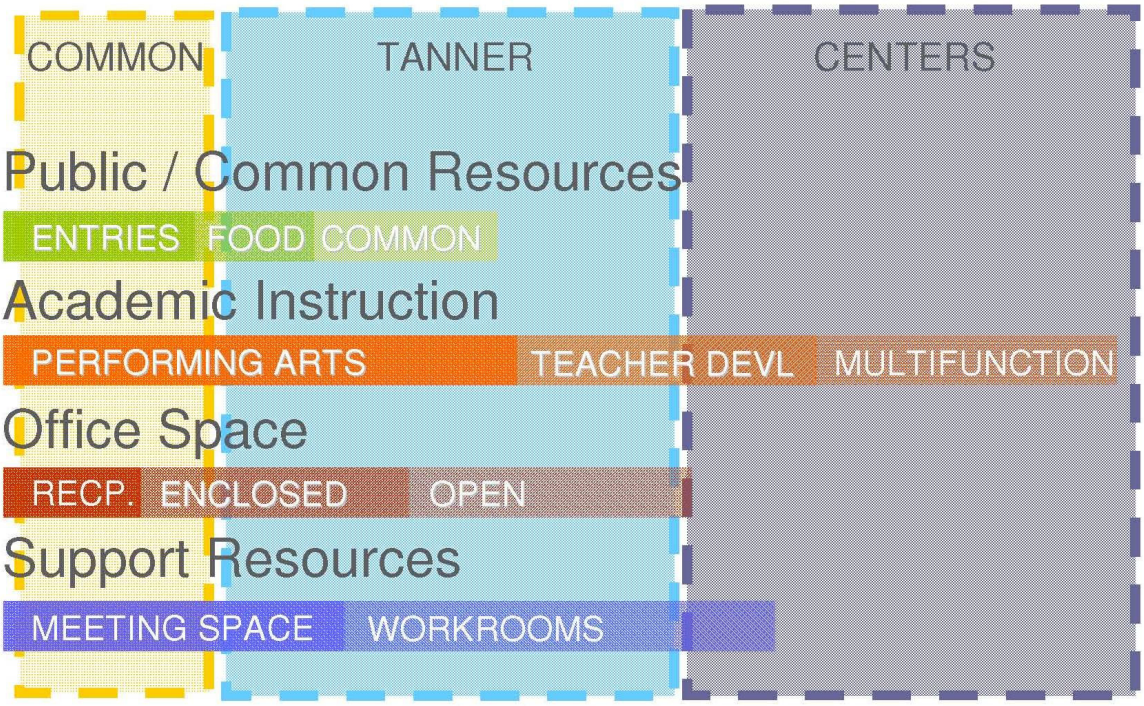
Images	Ideas	Site & Facilities Response
	• Exuberant • Joy • Energy • Celebration • Attention • Community • Diversity	• **Collaboration Areas** • **Commons Areas / "Our" Space** • **Engaging Finishes** • **Accessibility** • **Support "Chance" Interactions**
	• Aesthetics • Movement • Texture • Seamless	• **Circulation** • **Continuity** • **Visual connections between College of Education, College of Fine Arts and VTD/CDT** • **Intuitive and Clear Organization** • **Flexibility**

4.2.2 – Function and Building Design

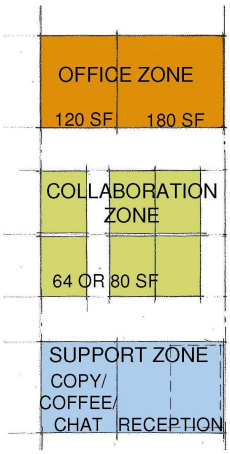
As a collaborative hub for arts and education located at a significant portal into the campus, the BTSAEC facilities program is intended to support the underlying mission. This can be seen as a complex task with two users groups with distinct security needs. Many worried this would mean crafting the facility as two distinct buildings joined at the hip by shared circulation. This simple solution would have fed on the notion that the joining of the Colleges of Education and Fine Arts were competing interests. To be most successful the building must fully advertise that the collaborative relationships have been formed and are in action.



As the programming team approached what appeared to be three distinct user groups, it became more apparent that there was overlap of not just purpose but of space needs and resource requirements. The comprehensive list of spaces illustrate that the program has been organized to illustrate these functional groupings. Public / Common Resources refer to areas primarily uses by an overlapping set of users and include entry lobbies, food venues and commons gathering spaces for building users. Academic Instruction includes all Studios, Teacher Development spaces, and Continuing Education / Outreach classrooms. The group of Office Spaces contains Reception / Waiting Areas, Private Offices, and open clusters of Workstations and Collaborative Work Areas. Support Resources include meeting spaces (6 conference rooms), Workspaces (Copy/Mail/Workrooms), Instructional Support areas (including table/chair storage, instructional materials storage), Dressing and Restrooms, and specialized storage and costume fabrication services.



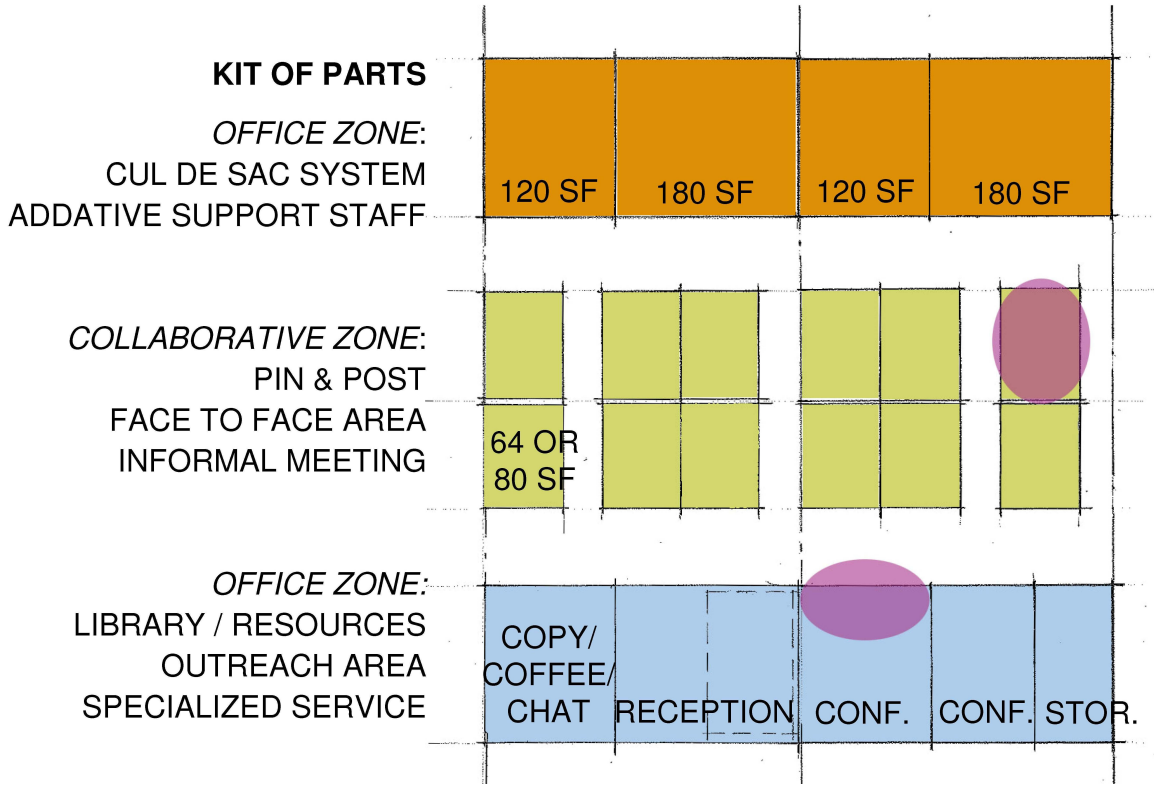
Collaborative Working Environments



Many of the concerns heard from future building occupants was that they felt isolated from their colleagues, were not able to have chance encounters with peers, and in many cases longed to have space that supported their conceptions of their work style as open, collaborative, public service oriented, and inviting. Dean Hardman, College of Education, felt similarly and worked closely with the programming team to craft a kit of parts that would support the working style that would make the BTSAEC most successful.

This model includes private offices, open workstations and collaborative work zones, and a support zone containing reception,

copy/mail/workrooms, conference rooms and other spaces that serve as resources to a suite of Centers. It was important that this kit of parts was modular, as the Center's sizes currently range from a staff of three to groups of over twelve. In many cases inconsistent funding requires Centers to flex and shrink from time to time, thus the utmost flexibility was planned for the facility.



Building Occupancy Classification

An initial code review for the BTSAEC follows and includes the adjacency and space utilization assumption referenced in graphic materials included in the program. The base assumption of code classification include business use spaces (B), including offices, work areas, and small classrooms; assemble use spaces (A), including dance studios, large classrooms and the Multifunction Hall; and storage space (S). The building's primary use is classified as higher education, thus falling under Business Occupancy.

As there are no spaces for which k-12 educational use classification (E) is the sole occupancy (i.e. dance studios used for children's programming from 3-9p.m. will also be used for teacher training and adult education from 8 a.m. to 3 p.m.) it was important to recognize that this mixed use scenario may be the preferred course. As dance studios and large instructional spaces also exceed the 49-occupant limit to B or E occupancy, and these spaces are primarily used for youth education, they will be classified as assembly occupancies (A). In addition, it is important to understand the design limitations to E Occupancy, primarily limitations to building height, and its potential impact on site utilization.

The cost impacts regarding building occupancy type selection, as the code provides limited leeway in classification of occupancy type, are limited. Thus, spaces one may want to classify as business use (B), but are over 49-occupants must be classified as assemble occupancy (A) and thus meet the construction requirements, including fire rated wall assemblies, fire dampers, etc.

Code coordination that should be reviewed as the project proceeds into the design phase include, but are not limited to issues regarding atria and smoke evacuation, placement of assembly occupancy spaces, setbacks which may limit opening size or fire rating due to proximity to neighboring buildings (particularly MBH). In addition, coordination of access at the building perimeter for access must be coordination with the Fire Marshall. Building accessibility shall be determined by the latest version of ADAAG.

4.2.3 – Performing Arts

Introductory Studio and Junior Dance Studios

Located on the first floor directly adjacent to the Lobby, these spaces shall be tools for children to find joy in creative expression. With a visual connection to nature, and daylight the spaces shall inspire creative energy. As part of the Fine Arts Pre-School, these rooms are spaces where children ranging in age from three to five will daily learn about themselves and the world they live in through movement and music and story. As the day wears on the Junior Dance Studios become the home of the younger Tanner Dance Students. The rooms will be equipped with a sprung wood dance floor, a double height ballet barre – mounted away from the wall to allow young ones the freedom to swing and play, a full wall of mirrors with a walk-along drapery track system allowing them to be covered when desired and modular panels along one wall for the display of art work. The corridor in front of each of these rooms shall have benches with hoods above and cubby space for students to store their belongings. Single Toilet rooms and Storage areas shall be located between the rooms with access both from the individual rooms as well as from a shared corridor. These areas will act as a sound buffer between the spaces while allowing for convenient access to these service facilities.

Senior Dance Studios

To be located on an upper level of the building, these spaces can be, to some extent, more open to the cross flow of traffic between the buildings users. The requirements for day lighting and visual connections to nature are still important in these spaces for the older students. These studios shall be equipped with a supplementary lighting system which will allow for more “theatrical” conditions. A sprung wood floor is the room’s primary tool, but it shall also be equipped with wall mounted double height ballet barres along three walls and one full wall of mirrors with a walk-along drapery track system allowing them to be covered when desired. The wall opposite the mirrors shall have modular panels for the display of student art work, a sharing of the creative energy throughout the building. Between the two studios, a Storage area accessible both from the individual rooms as well as from a shared corridor shall be provided to act as a sound buffer between the spaces.

Main Studio

Also located on an upper level, with an adjacency to the Senior dance Studios, the Main Studio is a 30' high volume which can also be used for large rehearsals or informal performances or lectures. Equipped with retractable seating for 220 people, the space will also include a pipe grid for mounting masking draperies and theatrical lighting fixtures. Additionally, the space will be equipped with two acoustically sound, ceiling mounted operable panel partitions with an air space between so that the room can be divided into two additional Senior Dance Studios. Movable double-height wood ballet barres shall be provided at three sides of each space when the room is divided. One wall in each of the divided spaces shall be mirrored and shall have a walk-along drapery track system allowing for covering the mirrors when desired. Day lighting is still important to the space, but equally important will be the ability to create a blackout condition in the space.

Scattered throughout the areas housing the Fine Arts Studios shall be various support spaces which shall be located off back of house corridors. These spaces include dressing facilities, music and prop storage areas and a Control Booth that all require adjacencies ot the various studios as well as costume production facilities and a loading dock that require access to the studios, but not direct adjacencies. These are the "behind the scenes" spaces that are critical for allowing the magic to happen in the Studios.

4.2.4 – Features

Image

In early programming sessions the user group mentioned a desire to have a distinctive facility that would propel their mission and allow the BTSAEC the footing to compete on a national stage. The Strategic Plan states:

> *"This major project (of crafting a facility supporting integrated arts education) can only succeed at the University of Utah, a Research I institution and the flagship of the state's high education system. The University has a broad resource network and is located in a major, demographically diverse population center. Under the joint leadership of its Colleges of Education and Fine Arts, the offerings of the Sorenson Complex will be unprecedented not only in Utah, but around the nation and the world. In breadth, depth, and delivery, they will surpass such leaders as the Lincoln Center for the Arts in Education; the Kennedy Center for the Performing Arts, Education and Outreach; and the Chicago Arts Partnership in Education."*

To craft a facility that would carry the weight of these inspired goals, the BTSAEC must:

- Read from a distance as an iconic structure within the College of Education precinct.
- Serve as a beacon on campus that supports active learning and creative community building.

- Promote the BTSAEC mission to building visitors and users, by imbedding in its architecture the strength and flexibility of those who embody the goals of the BTSAEC mission.
- Offer a warm, inviting and comfortable home base for many Centers and the Tanner Dance Program.
- Serve a myriad of diverse daily visitors, by paying exceptional care in crafting a readable and discernable set of public entrances, active outdoor areas, and smooth flowing automobile and pedestrian access.

Flexibility, Connectivity and Security

The building program crafts a facility gently touching over the edges of a very important security barrier. Both sides will be open and engaging to users, but access across the security barrier will be highly controlled to maintain safety for patrons of the Tanner Dance Program. As such there may be an architectural tendency to treat the building as two separate entities. It will be critical to not let the challenges of security limit the ability for cross collaboration within the arts education component of the building, while crafting visual connectivity to the activity within the VTD component of the building.

Planning for flexibility will mean paying particular attention to access control at the secure zone between the “public” and the “secure” areas within the building. As programs move into the facility, original planning ideals should not be limited by the architecture to grow and change. The ability to secure floors, zones and rooms will allow the security “barrier” to be a more fluid line than originally conceived. Flexibility for the location of this element will lend to greater connectivity and collaboration between building users.

This program attempts to lay the ground work for coordinating security issues with Campus Security / Public Safety, Ucard representatives, and facilities. It provides an introduction to issues of staff and faculty security, building security systems, camera density, panic button locations, motion detection, VTDP small child type security issues, floor by floor lock down and many other issues.

Planning the BTSAEC will require focused attention during the schematic design phase on access control, security devices, egress planning, and the development of security zoning. As the BTSAEC has a variety of building occupants, each with specific building security needs this program is intended to provide an overview of planning issues. The BTSAEC will house two primary functional groupings:

- The publicly accessible zone including College of Education and College of Fine Arts Centers, administrative offices, classrooms and lecture spaces, meeting rooms and central building Commons.
- The secure zone of Tanner Dance Program instructional and support spaces. This zone is primarily established to provide a secure zone for children and adults within the dance program.

Access control should be planned with the utilization of both card key access (U-Card) and keyed locks. Coordination with C*CURE Alarm and Access Systems will ensure that multiple levels of flexible, security zoning can be seamlessly woven into the design.

U-Card Access
Typically card key access is utilized at primary public entrances used by staff after hours, access to large, well-defined secure areas (such as the Center's and Administrative Suites or by floor/level). Card key access can best control individual access, i.e. each entering party is made to identify itself through the card swipe process.

Access control by card key provides swipe or proximity pads located adjacent to entry doors. Entry doors can be one-way or two-way swipes. At doors requiring panic hardware to comply with exiting requirements, it is sometimes difficult to coordinate the path of required exit travel with a card swipe.

Access control systems, such as the U-Card, can provide overriding security controls at all required doors based on individual user profiles. Thus, controls can be set in place for any number of combinations of access (i.e. Jane Doe is allowed to enter the secure arts areas on M/W/F from 9-11 p.m.). Each department may designate a staff member to be responsible for assigning specific access profiles to each user. Specific doors where card key access is desired will be identified during the design phase of the project. It will be important during design to note that the current control systems in use on campus run up to 16 doors. As each control system has a fixed cost regardless of access points, it will be most economical to plan access points in groups of 16.

Keyed Access
Typically keyed locks are used to control access into individual rooms (such as offices, small suites, classrooms, etc.). Keyed access works well for areas where doors can remain unlocked for longer periods of time, as they typically are monitored by building users or their primary occupant.

Department of Public Safety
Certainly, being on the University of Utah campus affords BTSAEC occupants and visitors a level of security that comes from the oversight of the University's Department of Public Safety (DPS). All University faculty, staff and student working directly with children undergo a background check. A level of security oversight should be developed to utilize the background information resident in the U-Card and DPS databases. With that said, card key access is only relevant to the control of on-campus staff and students. Visitor, seminar participants, children registered for instruction, parents, etc. cannot be monitored by existing systems and thus security and control access will fall to the gatekeepers within individual areas. Planning internal control points, specifically within the Tanner Dance Program and the Center's Suite, must be guided by the client team, DPS and the U-Card team. Coordination during the Design Phase should include, University of Utah Project Manager, Department of Public Safety, Fire Marshall, U-Card and C*CURE Alarm and Access Systems.

Discrete and unobtrusive security measures and Crime Prevention Through Environmental Design (CPTED) principles should infuse the planning and design process. Security measures in the BTSAEC may include:

- Natural Access Control with real or symbolic barriers, appropriate lighting; staff at access points;

- Natural Surveillance with formal or informal patrols; windows – full-wall glazing of group study rooms, door glazing for classrooms; equipment such as mirrors, fritted or one-way glass;
- Territorial reinforcement via proper location and orientation of reception desks; a sense of ownership by staff; user ownership developed through proactive assistance and name recognition.

Technology

The BTSAEC will be an active teaching environment. Many of the technology rich functions of the building will fall within instruction settings, classrooms, conference spaces, the Multifunction Hall, and Studio spaces. Section 5.4 Electrical / Technology and 5.5 Theatrical Technical Criteria outline the preliminary approach to systems, but a thorough coordination with Distance Learning, campus IMS, faculty and staff, and students will further define equipment specifics.

Multi-Purpose Functionality

To maximize the investment in the BTSAEC, programming team participants recommended potential areas of multi-purpose use and space efficiencies. When not otherwise scheduled by the primary users, conference rooms, academic classrooms, and study areas in the BTSAEC may be scheduled by faculty or students for collaborative work, training, or receptions.

Space efficiencies also may be realized by sharing work stations (staff who perform similar functions on different schedules may share workstations but maintain individual pedestal and storage spaces for work-in-progress and personal items); by sharing office support equipment such as multi-function printers, scanners, and copiers; by co-locating such equipment between suites; by using small conference rooms as group studies for student use and as training areas for staff, or as hoteling suites for visiting researchers or at-large center's teams; and by converting departmental standard drawer files to shelf/lateral files or to digital records to save space and reduce retrieval time.

Occupants of the BTSAEC desire to serve as host to traveling art shows and exhibits every year. While a permanent gallery will not be included in this program, wall space and display lighting to permit the continuation of this much-appreciated tradition of "pinning up" should be incorporated into the design of circulation, lobby, and reception spaces in the BTSAEC.

Comfort and Furnishings

In "Learning Spaces" Malcolm Brown mentions nine traits of the Net Generation that should be accommodated in the educational environment. The programming team concurred that the traits and spaces he describes and the furniture that supports the activities therein should be included in the BTSAEC.

- Small group work spaces for group oriented activities;
- Access to "breakout" space for informal or chance encounters;
- Table space for a variety of tools for multi-taskers;

- Integrating ubiquitous wireless and electrical service to the “transient” learner;
- Quiet and noisy spaces offering a variety of environments;
- Open and readable floor plan and vertical circulation routes that encourage using the whole of the building, not just the first floor.

In addition to the traditional café seating and sprinkling of lounge seats, reading tables, computer workstations, and booths seating six can be provided in or near the café, floor lobbies, and in conference rooms where informal study and social conversations may take place.

Furnishings, fixtures and equipment must be carefully selected and specified for the optimal use and for long-term value. Even in an era of electronic miniaturization, human factors indicate that for optimal use, work spaces should typically be larger than the old standard twenty-five square feet per seat. Similarly, at computer workstations where a keyboard and mouse consume approximately twenty-six inches, planning for adequate work area adjacent to the computer for notes, manuals, telephone, and other reference resources is critical.

To support the institution-supplied electronic resources, furniture must be durable, flexible, include wire-management and provide easy accessibility to connecting ports or outlets. Chairs at workstations with technology equipment should be ergonomic task type with adjustable height. Office work stations, whenever possible, should be modular to permit easy reconfiguration when tasks or personnel change. Wall-mounted work surfaces that support equipment are more stable and are preferred to those that are panel supported. Freestanding drawer pedestals are also generally preferable to work-surface mounted pedestals as they allow for more options in their reconfiguration.

Where shelves are required in office spaces, wall-hung shelving above work surfaces is recommended to save floor space and to provide at-hand convenience. Although cabinet doors present a neater appearance in areas where visitors are likely, open shelves permit quick perusal and access to contents and reduce the potential of hoarding out-of-date or unneeded items. When lockable metal storage cabinets are required the specification of additional shelves and organizers will increase capacity and general organization.

Classrooms and large seminar rooms should include space for an instructor’s station or lectern with loaded presentation software that permits the simultaneous use of several types of media. Presets for lighting should be conveniently accessible to the instructor, and technical support should be available on an immediate basis via direct line telephone. A master switch is recommended for computer monitors or laptops. Work surfaces should be modular and the room geometry should also support a variety of teaching and learning styles. Each room should include wall mounted writing surface and storage, and display for class handouts. Although natural light is desirable, neither instructor nor student should face a window, and glare control as well as black-out shades should be provided with controls convenient to the instructor.

During design, review of campus wide resources will be important in space planning. The client team understands that there are valuable resources in existence on campus and their duplication is not a given in the BTSAEC. Currently resources serving future

building occupants include the Marriott Library and Milton Bennion Hall, among many others. In addition, the thoughtful specification of versatile, well-constructed, and attractive furnishings appropriate to task and users will contribute immensely to the success of the Beverley Taylor Sorenson Arts and Education Complex.

Circulation and Access

"Circulation" is a term with several definitions applicable to the Beverley Taylor Sorenson Arts and Education Complex. Comprehension of these various meanings will be critically important to the planning and design process.

- The flow of people, information resources and equipment into, through, and out of the building.
- Entry/Egress for Users. The main entry(s) should be easily discernible for the first-time visitors to campus, clearly visible and logically positioned for convenient access. The "front door" itself should be easy to find and easy to enter for people of all abilities.
- The Flow of Patrons throughout the Building. The arrangement of services (academic instruction spaces, offices, reception areas, etc.) should be so evident that the first-time user could navigate the building without aid of a floor plan and so logical that the building is well-used by patrons.
- Circulation of Vehicles at the Receiving Area. The BTSAEC has a need to accommodate deliveries and the movement of resources in and out of the building. Vehicular circulation into and out of the receiving and shipping area must be clear, efficient, and safe, and to the extent possible, screened from view.
- Staff Entrance. Although most staff will enter through the "front door", a pedestrian door near shipping and receiving should be included for the 24-hour access required by staff and campus personnel.
- Physical access to areas in and around the building that accommodate people of all abilities. The BTSAEC plays a prominent role in enhancing teaching and learning as well as supporting the institution's strategic goals. As such, it should be an accessible as feasibly possible for students, faculty, staff and visitors of all ages.

As the formal site selection was not completed until the close of the programming stage, the following section will cover planning methodologies to be applied to the selected site, including service vehicle access, ADA accessibility, and fire vehicle planning.

Service Vehicle Access

The BTSAEC must accommodate: delivery, refuse collection, maintenance vehicle access and parking, and service vehicle access around the building. Dependant on site selection, the loading dock and truck bay should be located in an unobtrusive location that allows for limited distance of service drives, internal access to vertical circulation, and accommodates required turning radii. The design team should consider consolidation of an area that can contain or provide immediate access to: site located mechanical and electrical equipment, refuse collection, maintenance vehicle parking (two stalls), as well as space for delivery vehicles (two stalls). The expected demand for this area is light.

ADA Accessibility

All three potential sites will require particular attention be paid to accessibility. Attention should be paid to the arrival sequence: from public transportation or private vehicle to building entry, on an accessible route through the site, and the potential utilization of the building to mitigate the slope (i.e. attention to circulation through a building).

Fire Vehicle Service Planning

Immediately following site selection, the design team shall consult with the Fire Marshall to coordinate fire lane requirements, fire hydrant placement, and equipment preferences including the FDC. Attention shall be paid to access route width, turning radius requirements for fire apparatus turnaround, drive aisle construction, preferred access points, access overlays to adjacent structures, and signage. Separation of the from-off/pick-up area from the fire vehicle access route should be coordinated.

Building Materials and Aesthetics

The University of Utah has established a set of Design Standards, which must be referenced in the creation of the BTSAEC. Many acceptable materials and colors for exterior finishes are defined on the U of U Facilities Management website. Changes to University approved materials and/or colors shall be submitted to the Campus Design & Construction Department for approval. Sufficient time should be allowed for University review so as not to delay project process.

Continuity of materials, finishes, and colors illustrated on adjacent buildings may be a building block for initial design discussion regarding the BTSAEC. Primary building materials include brick, metal panels systems and glass. A minor or supporting material palette includes precast and cast-in place concrete elements, stone and large expanses of curtain wall. This materials palette provides numerous opportunities for the design team to craft an expression that matches the uses of the BTSAEC.

Conceptual design was not a component of this programming phase, thus a literal test of materials use was not explored in detail. Discussion of material utilization related more closely to discussions of sustainability, solar access/gain, optimization of views, and potential building siting. The A/E design team is expected to be a cohesive whole who will balance the sustainable project goals, an aesthetic outcome and the budget.

4.2.5 – Context

Site
Three sites identified either in the Campus Master Plan or in future precinct concept plans were the focus of an intensive site survey and analysis. The summary of this investigation are included within the following charts. The three sites are noted below for reference:

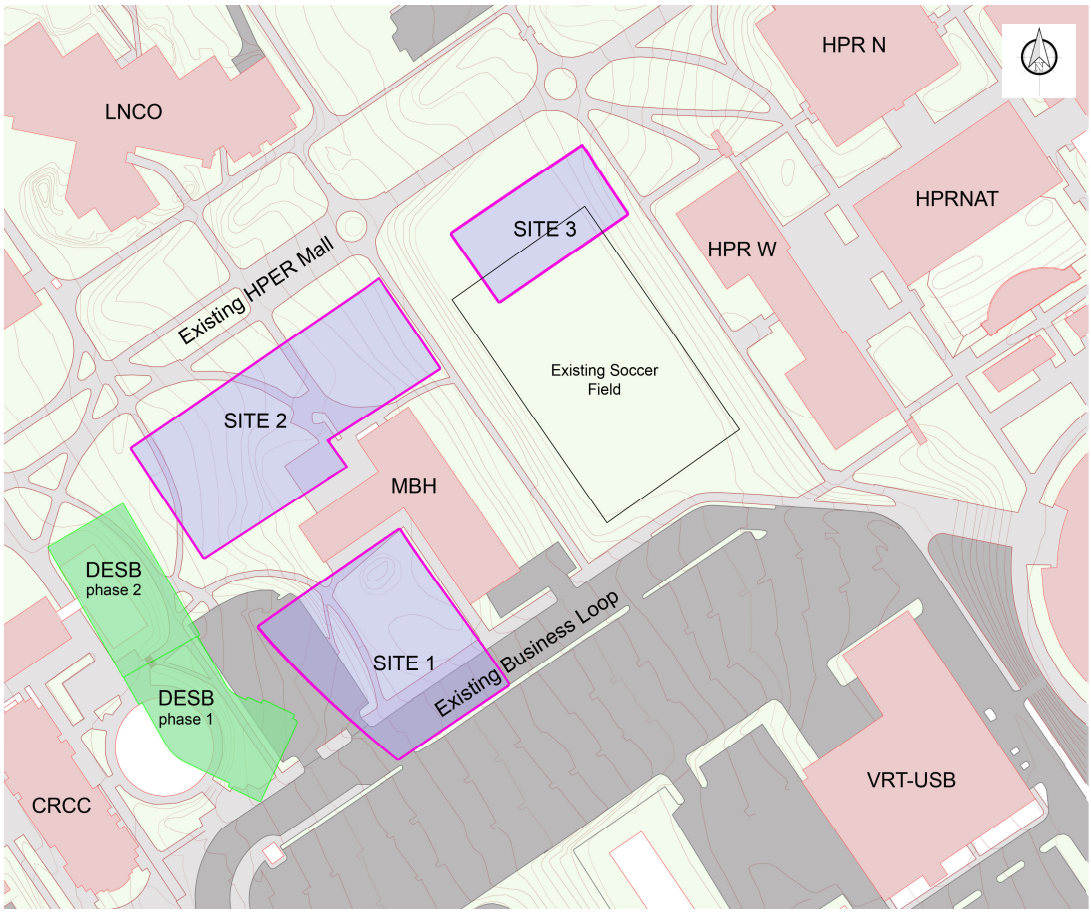
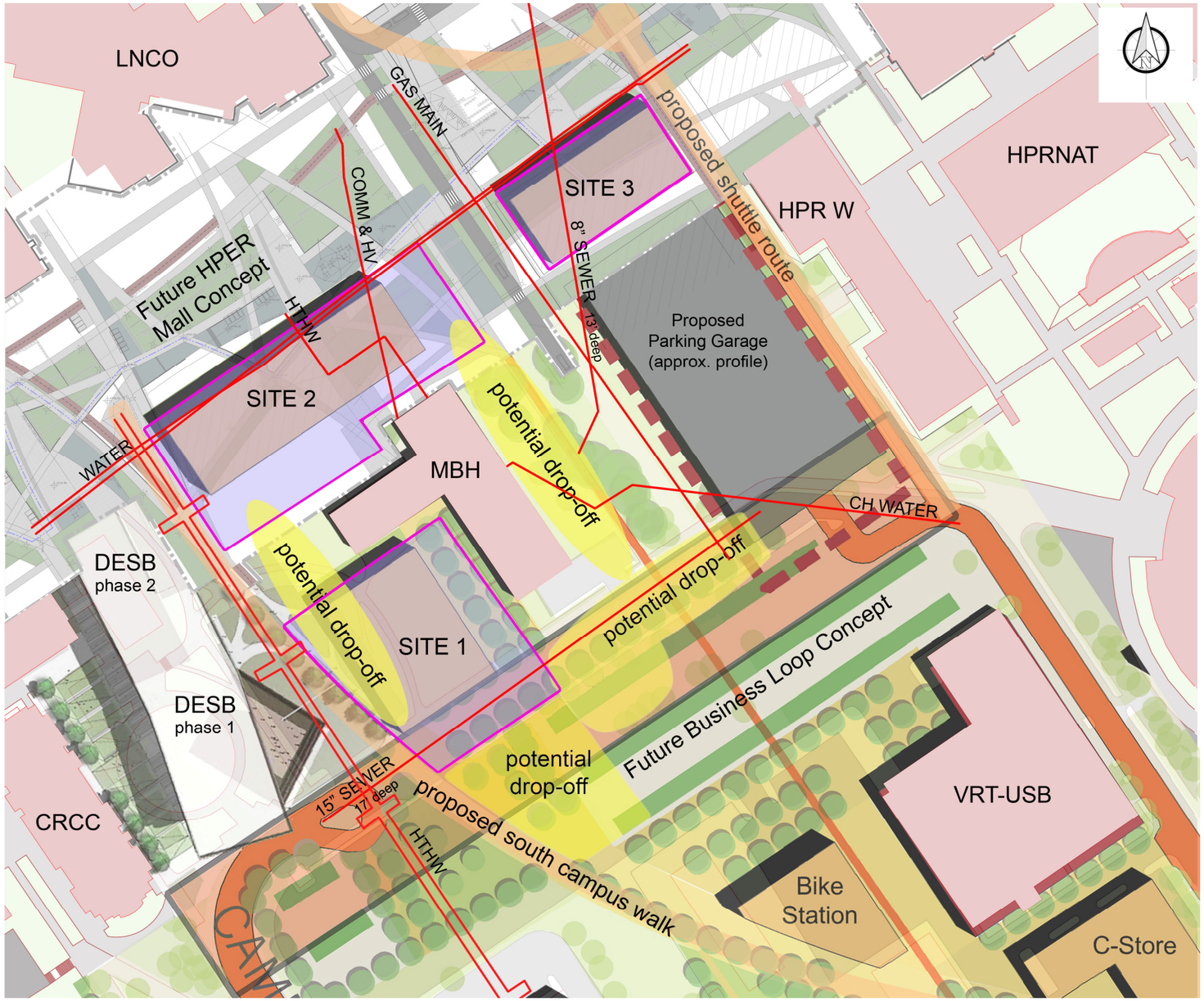


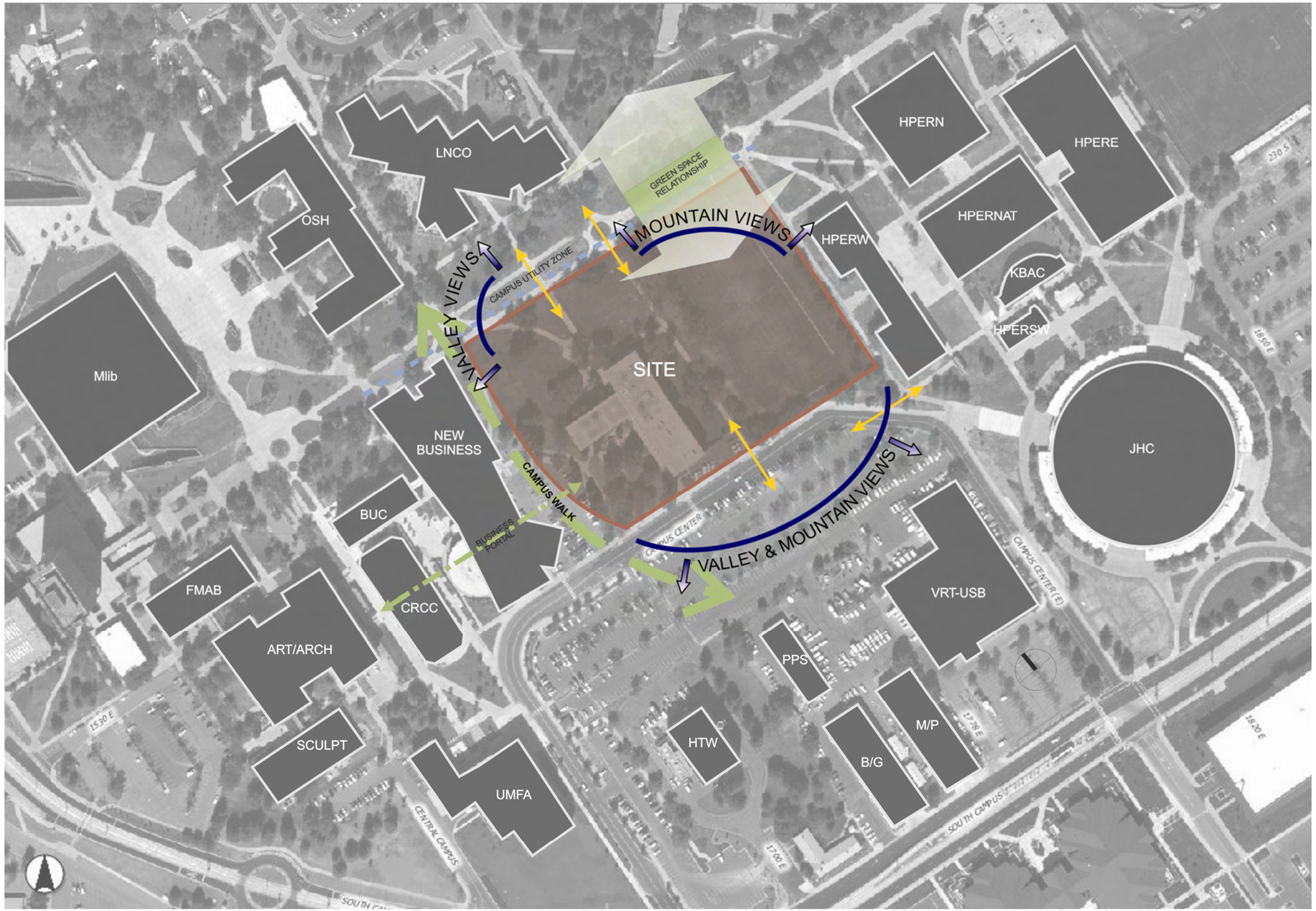
Figure 4a – Existing Conditions

As site selection was facilitated by Facilities Planning, the review presented herein serves as background material. The three sites were analyzed both in terms of the existing conditions as well as incorporating the future Business Loop Concept and future HPER Mall Concept drawings. The BTSAEC Steering Committee reviewed this analysis in late February, along with further developments to the Campus Master Plan with the revised South Precinct concepts. Careful consideration of the strengths, weaknesses, costs and environmental constraints were researched. While this is primarily a review of existing conditions, the programming team has worked closely with Facilities Planning, Shops, and the future building users to understand the site development requests, long term planning overlays, and the potential build out of the entire precinct. After a series of meetings by Campus Planning and review by University administration, Site 1 was ultimately selected as the most appropriate site for this project.

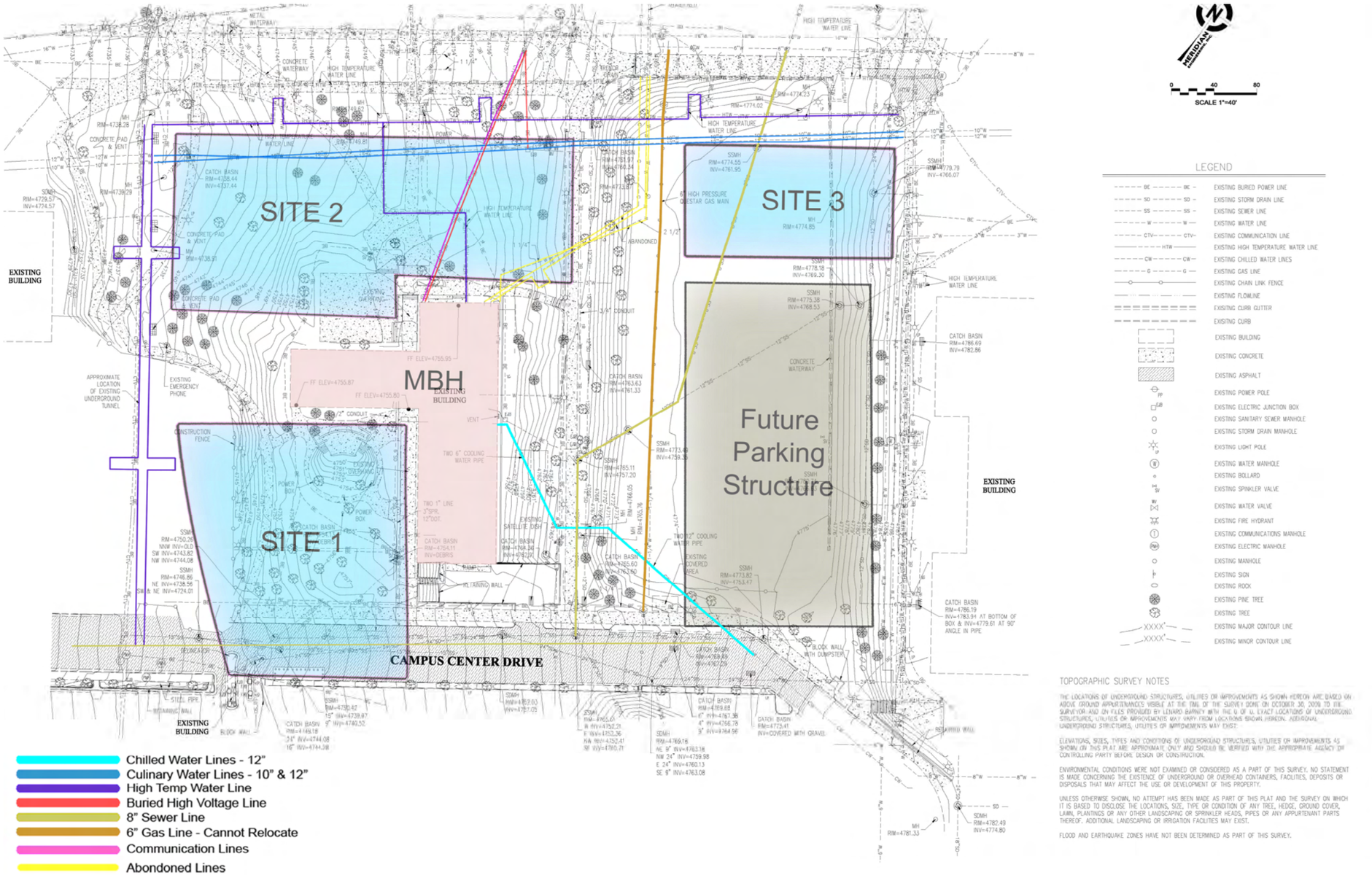
FUTURE PRECINCT CONCEPT



CONTEXT / VIEWS

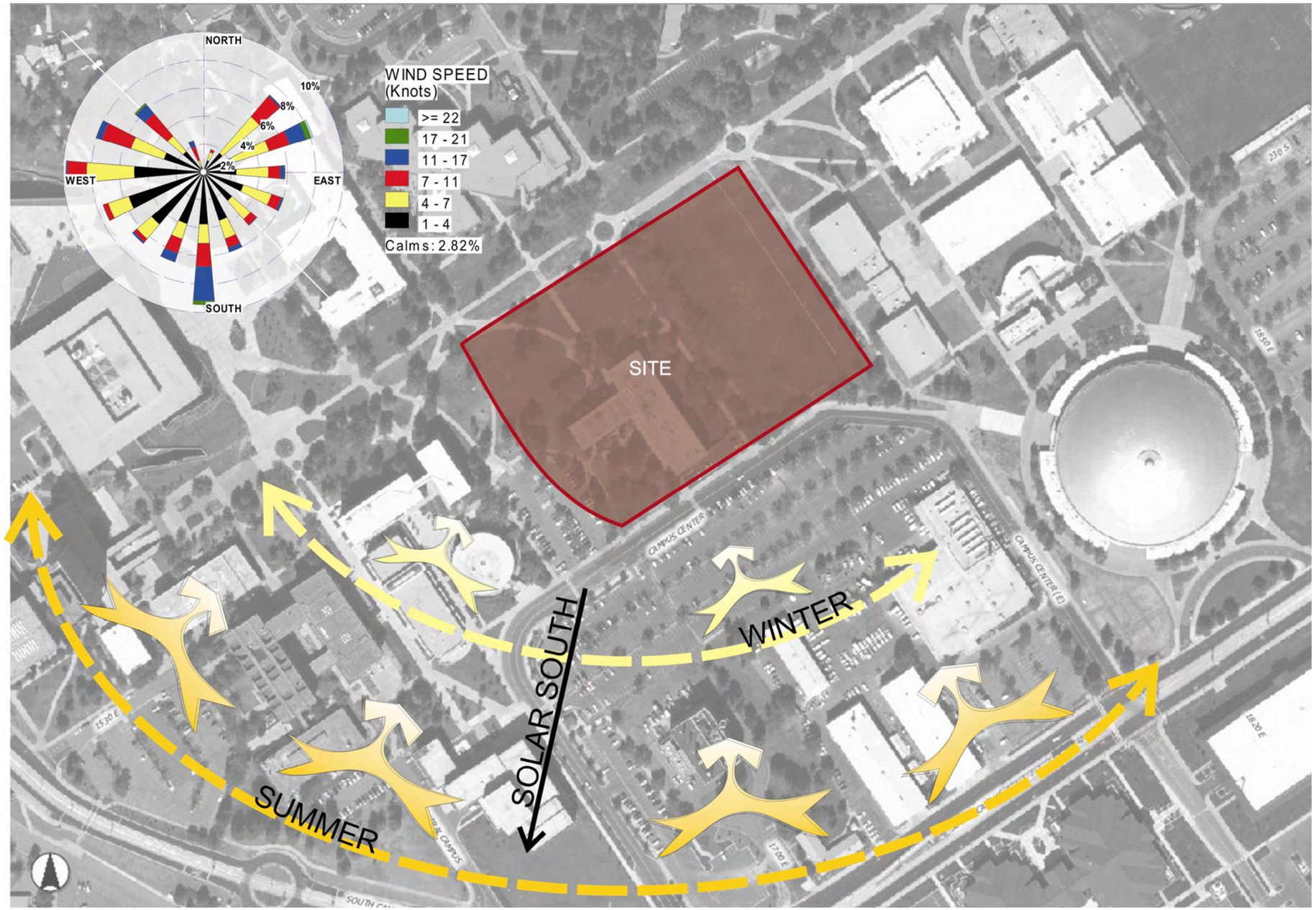


EXISTING UTILITIES

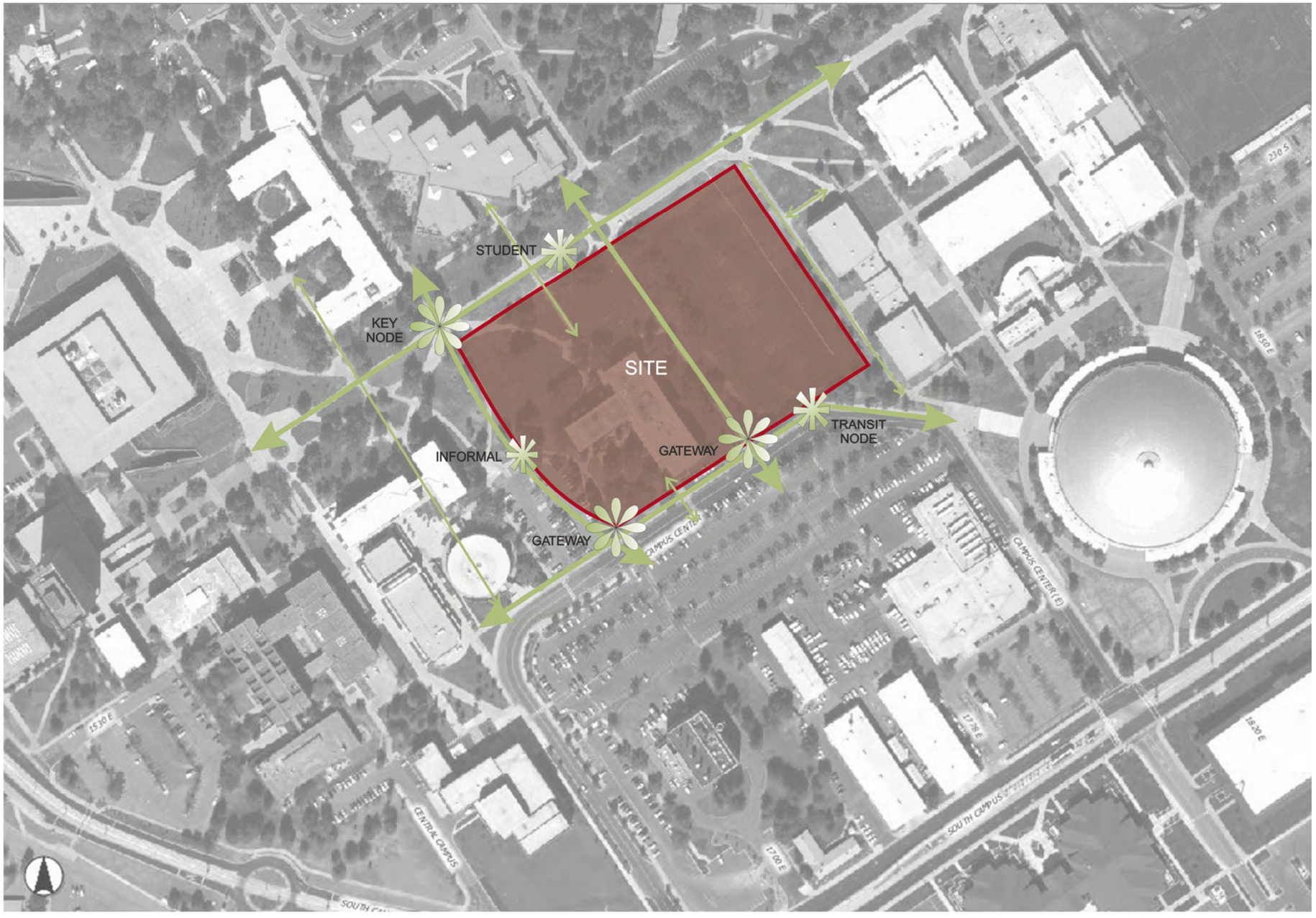


Note: Full survey included as Appendix A

SOLAR EXPOSURE



CIRCULATION



ACCESS & PARKING

BTSAEC – Site Evaluation Matrix

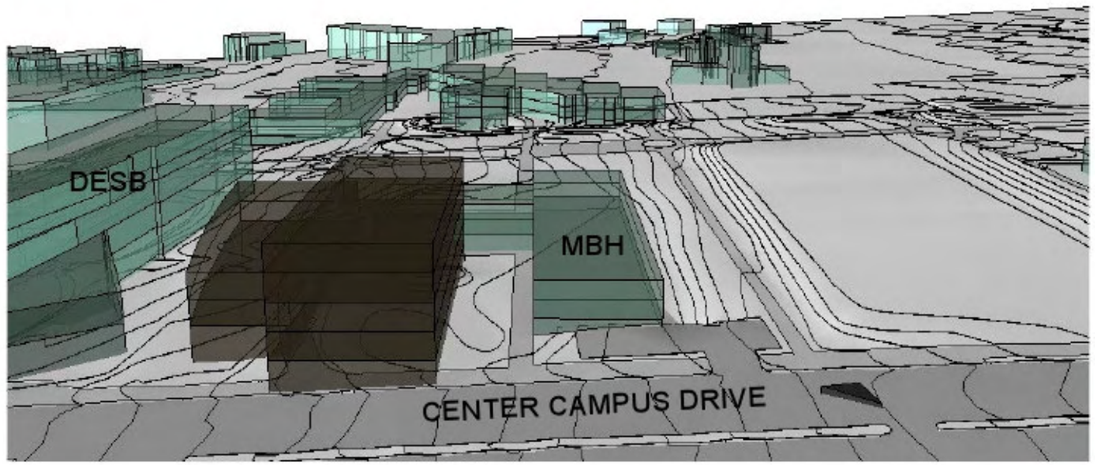
Site Reference No.	**Site 1**	**Site 2**	**Site 3**
Site Location	Southwest of MBH	Northwest of MBH	Northeast of MBH
Site Characteristics			
Buildable Area	35,000 sf	50,000 sf	17,000 sf
Site Topography	15' fall ne/sw across site	20' fall ne/sw across site	10' fall ne/sw at northeast side, then mostly flat
Outside Amenity Space	Possible in courtyard between MBH and new bldg	Possible in courtyard between MBH and new bldg	Little opportunity in master plan footprint
Proximity to Utilities	Good access to primary utility connections east of DESB	Good access to primary utility connections along HPER Mall	Good access to primary utility connections along HPER Mall
Obsturctions			
Utilities to Relocate			
HT Hot Water		Yes	
Chilled Water - (2) 12"		Yes - if access point East of MBH is used	Yes - if access point East of MBH is used
Culinary Water - 10" & 12"		Yes	Yes
Sanitary Sewer - 8"			Yes
Sanitary Sewer - 15"	Yes - if footprint extends into existing roadway		
Natural Gas			Yes - immovable
High Voltage		Yes	
Cost to Relocate Utilities	$74,932	$977,067	$417,106
Other site obstructions			Buried parking lot
Current Vegetation	Turf, mature trees	Turf, mature trees	Turf
Current Hardscape	Pedestrian walkway, vehicle parking lot, structured amphitheater	Pedestrian walkway, primary campus side MBH access point	None
Desired alignments	Align w/ proposed South Campus Walk on west, w/ south face of sculpture building and south face of HPER West on south. Maintain 30' setback from MBH on north and east	Align w/ HPRN building on north, w/ west edge of existing pedestrian walkway on east, w/ proposed South Campus Walk on west. Maintain 30' setback from MBH on south	Align w/ HPRN building on north, potential shuttle route on east, 20' setback from natural gas line on west, 20' setback from future parking structure on south
Irregularities	Significant slope provides opportunity for entrance at multiple levels	Significant slope provides opportunity for entrance at multiple levels	Limited building footprint if future parking structure is accomodated and desired alignments are maintained.
Site Access			
Public	Easy access from existing business loop and parking.	Poor access from existing roads and parking. Approx. 400ft from existing business loop	Poor access from existing roads and parking. Approx. 400ft from existing business loop
Student/Staff	Primary access from proposed South Campus Walk	Primary access from HPER Mall	Primary access from HPER Mall
Vehicular	Close proximity to existing business loop "A" and pay guest parking	Distant proximity to existing business loop "A" and pay guest parking	Distant proximity to existing business loop "A" and pay guest parking, Moderate proximity to Ballif road "A" parking

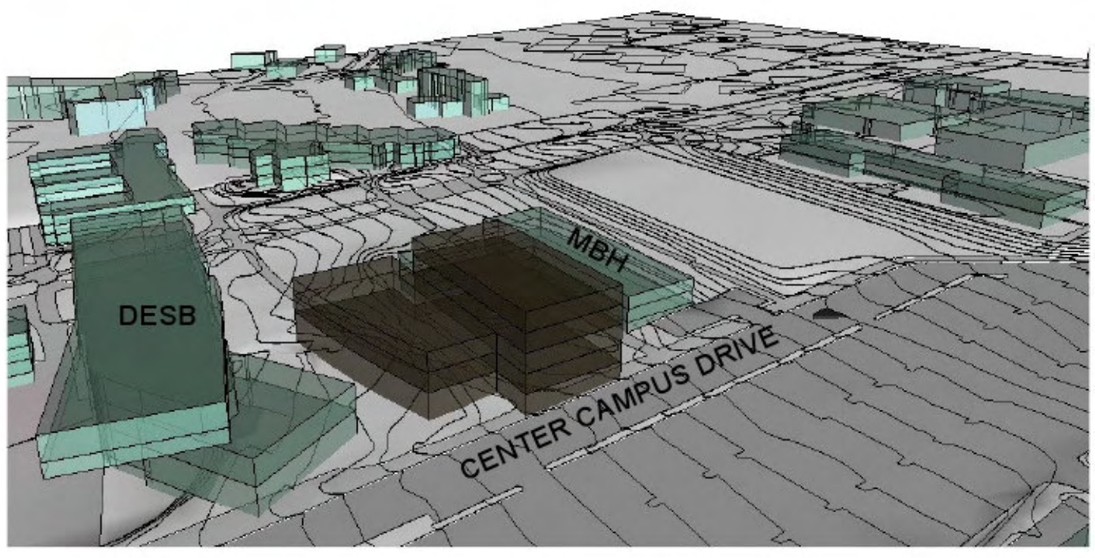
Vehicle Queing / Short-term Parking	Future business loop concept development would allow dedicated queing and drop-off to the south / southeast of Site 1	Opportunity for project-specific short-term parking or drop-off either east or west of MBH	Opportunity for project-specific short-term parking or drop-off east of MBH
Delivery	Opportunity for project-specific delivery at existing business loop roadway location	Opportunity for project-specific delivery either east of west of MBH, non-screenable point of access	No opportunity for project-specific delivery (unless on-grade transit route is developed)
Fire Lane	Fire access from existing business loop and from proposed South Campus Walk	Fire access from proposed South Campus Walk or potential new access road west of MBH, from HPER Mall, and from potential new access road east of MBH	Fire access from future access road east of MBH and from HPER Mall
Existing Parking	Eliminates existing lot east of DESB (approx. 43 stalls). Project required vehicle queing and short-term parking will require occupancy of either existing roadway or existing parking.	No impact on existing parking unless project-specific access road/short-term parking/drop-off disrupts lot east of DESB (approx. 43 stalls)	No impact on existing parking
Existing Roadways	Depending upon placement, building could encroach upon existing business loop. Project required vehicle queing and short-term parking will require occupancy of either existing roadway or existing parking.	Traffic study shows potential for vehicle back-up into existing business loop during peak times. See traffic study for details	Traffic study shows potential for vehicle back-up into existing business loop during peak times. See traffic study for details
Environmental Issues			
Solar Exposure	Southwest orientation is poor although shading from DESB helpful	Northwest orientation is good	Northwest orientation is good
View Into Site	Prominent position adjacent to DESB	Prominent position along HPER Mall	Prominent position along HPER Mall
View Out of Site	Poor views to northeast and west/southwest as proximity to both MBH and DESB are very close. Mountain views to east, greenspace views to north/northwest	Mountain views to northeast/east. HPER Mall/Library courtyard views to west. Views of new DESB and MBH to south/southwest	Mountain views to north/northeast/east. HPER Mall/downtown views to west.
Wind Exposure	Cold winter winds are primarily from the west. Close proximity to DESB provides positive wind break. Cool summer winds are primarily from the northeast and south	Cold winter winds are primarily from the west. Location along HPER Mall creates negative wind corridor. Cool summer winds are primarily from the northeast and south	Cold winter winds are primarily from the west. Location along HPER Mall creates negative wind corridor. Cool summer winds are primarily from the northeast and south
Donor / User Preferences			
Visibility	Good public visibility of building from business loop	Good campus visibility from HPER Mall. Poor public visibility from business loop	Good campus visibility from HPER Mall. Distant public visibility from business loop. Future development of parking structure would limit visibility from business loop
Child Safety	Good opportunity to separate child entrance from primary entrance. Good opportunity for short-term parking or drop-off for children (requires use of adjacent roadway / parking)	Good opportunity to separate child entrance from primary entrance. Good opportunity for short-term parking or drop-off for children (requires use of adjacent sites)	Little opportunity to separate child entrance from primary entrance. Limited opportunity for short-term parking or drop-off for children (requires use of adjacent sites)
Building Fit on Site	Tight fit between future South Campus Walk and MBH. Would likely accommodate program on four to five stories. Potential for "canyon" feel between new building and DESB	Good use of site. Would likely accommodate program on three stories. Nice fit with adjacent buildings. Concern for significant slope along HPER Mall	Too small for program without going to five or more stories. Little or no buffer between new building and existing soccer field or future parking structure

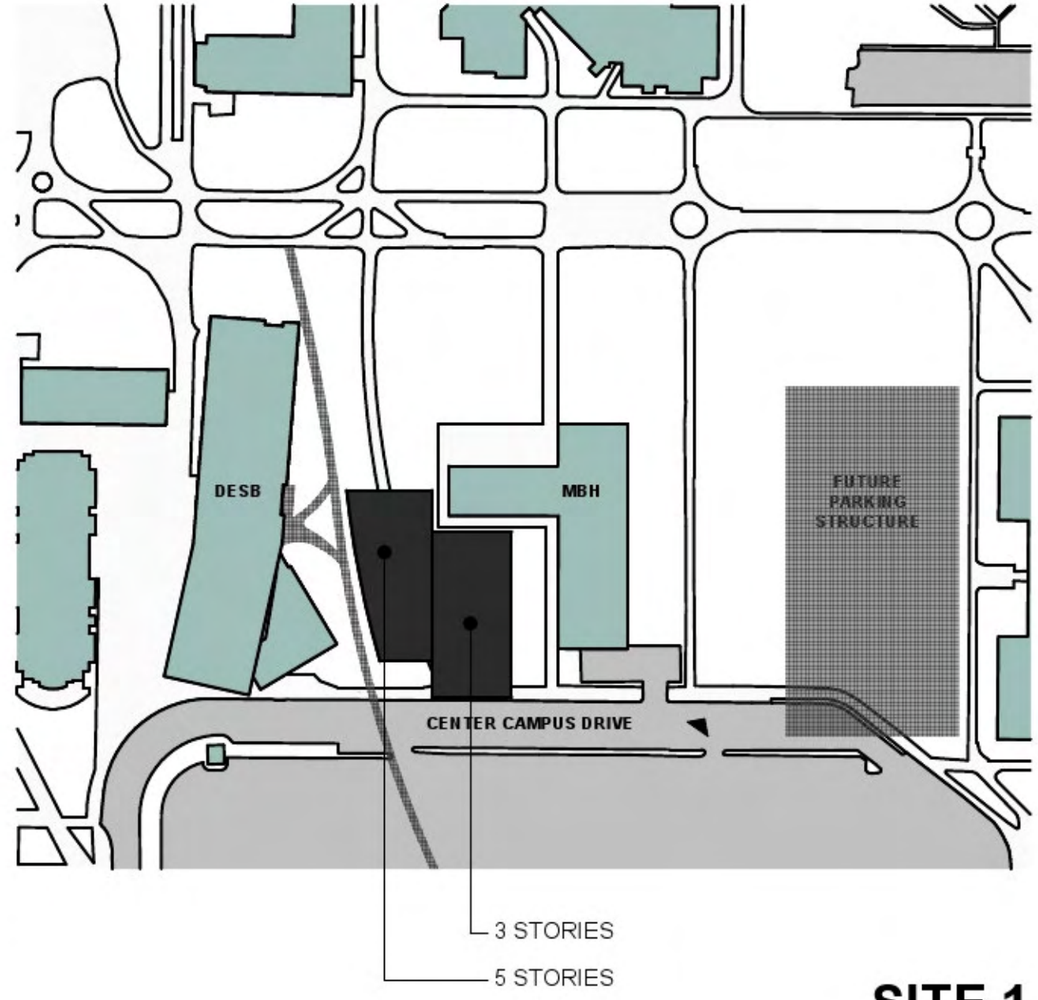
Preliminary Massing Studies

In order to complete the site analysis for the Beverley Taylor Sorenson Arts and Education Complex, the programming team utilized both two dimensional site plans and three dimensional massing models. These studies illustrate the complex relationship formed between existing and planned structures, automobile and pedestrian circulation routes, view corridors, parking lots, site features, utility corridors and overall precinct context. Two options for each site are illustrated on the following pages, giving the team a more thorough perspective of the possibilities for each site's utilization.

BTSAEC – Preliminary Massing Studies

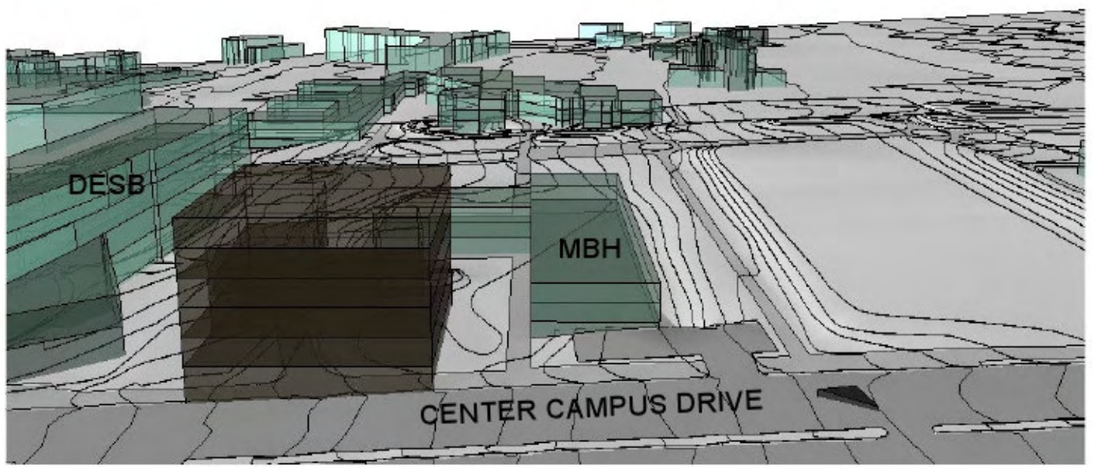


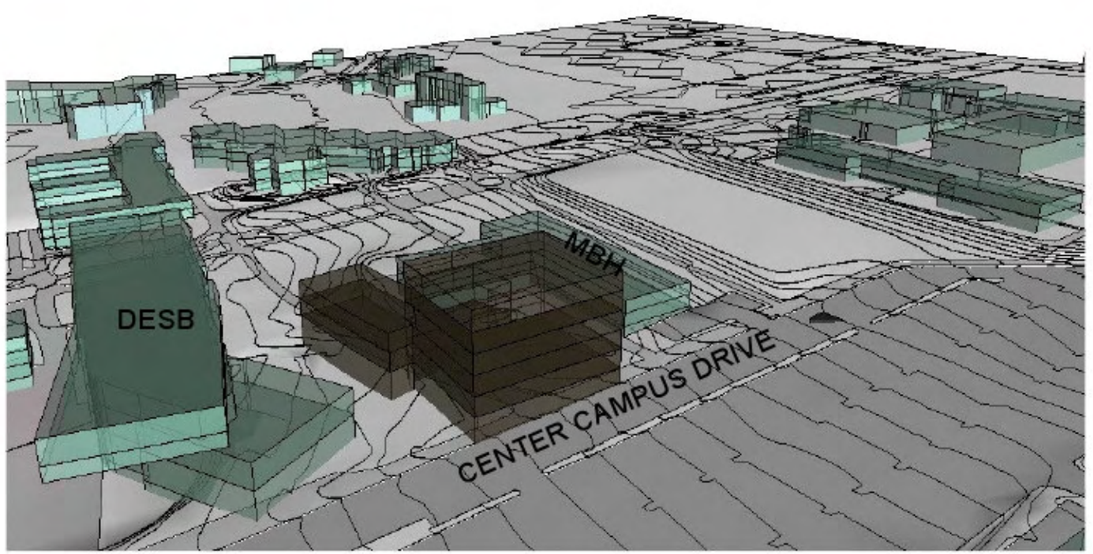


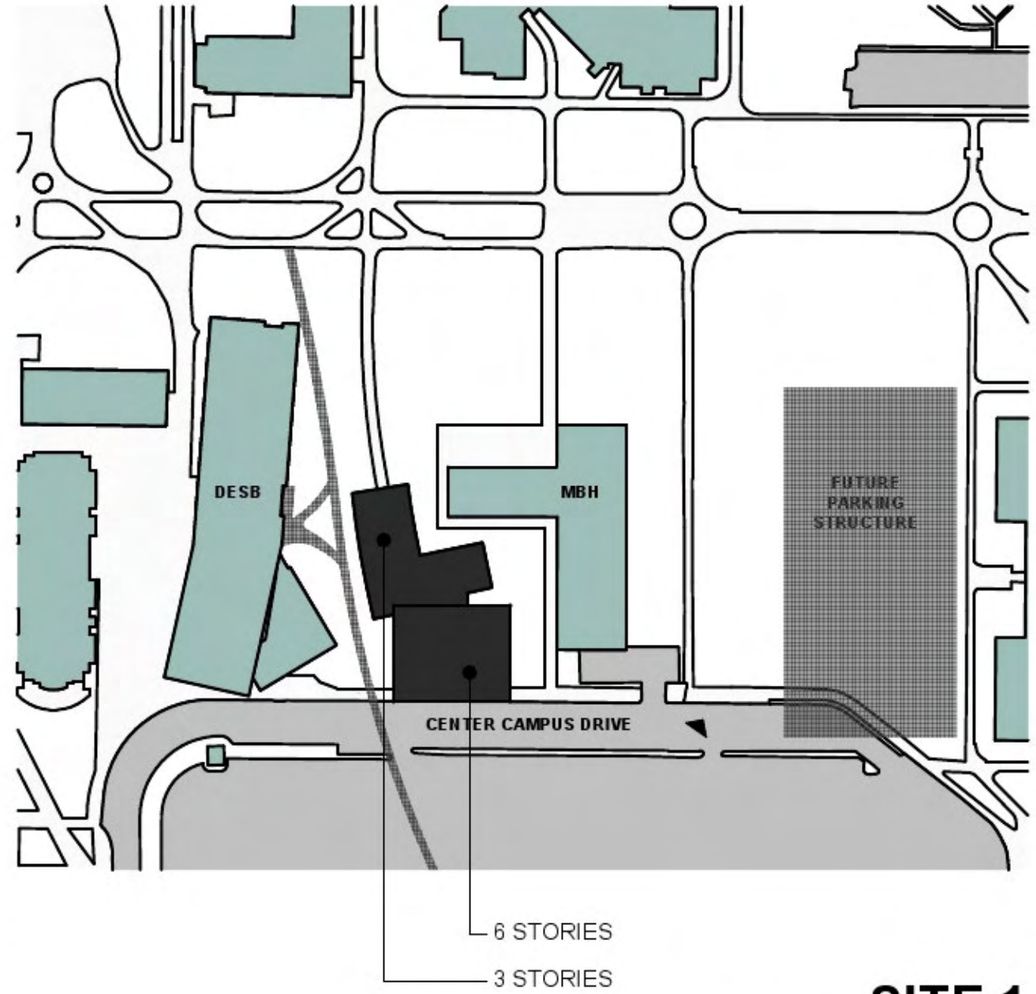


SITE 1
SCHEME A
84,000 S.F.

BTSAEC – Preliminary Massing Studies







SITE 1
SCHEME B
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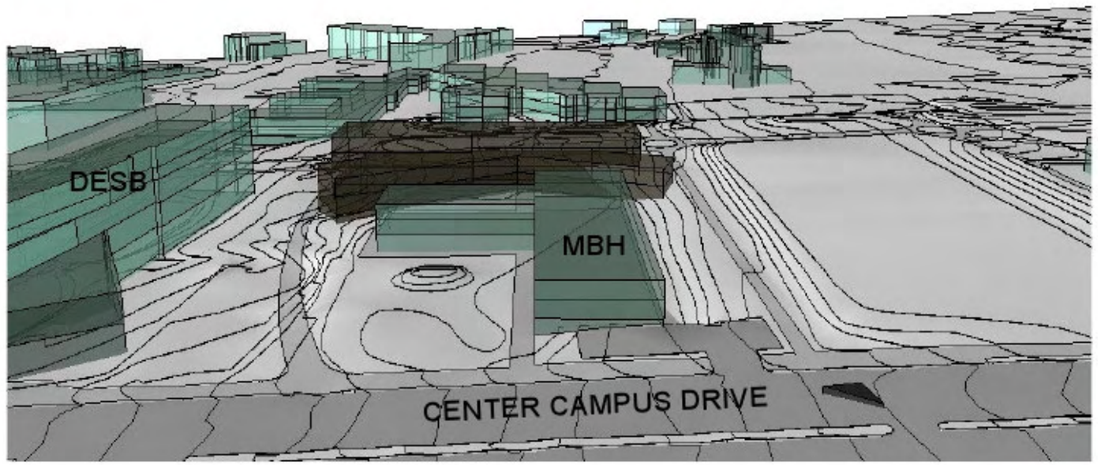
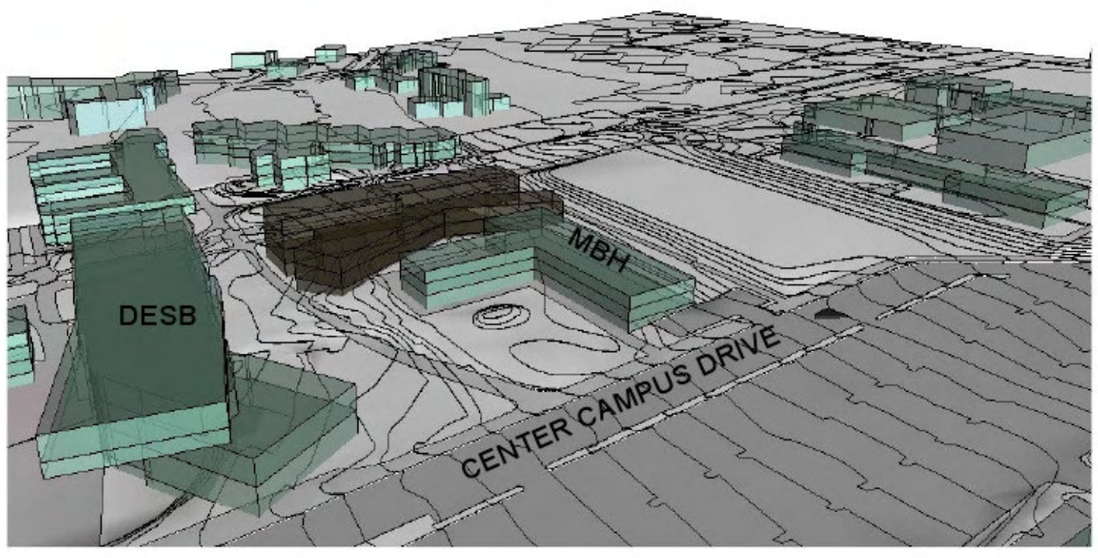
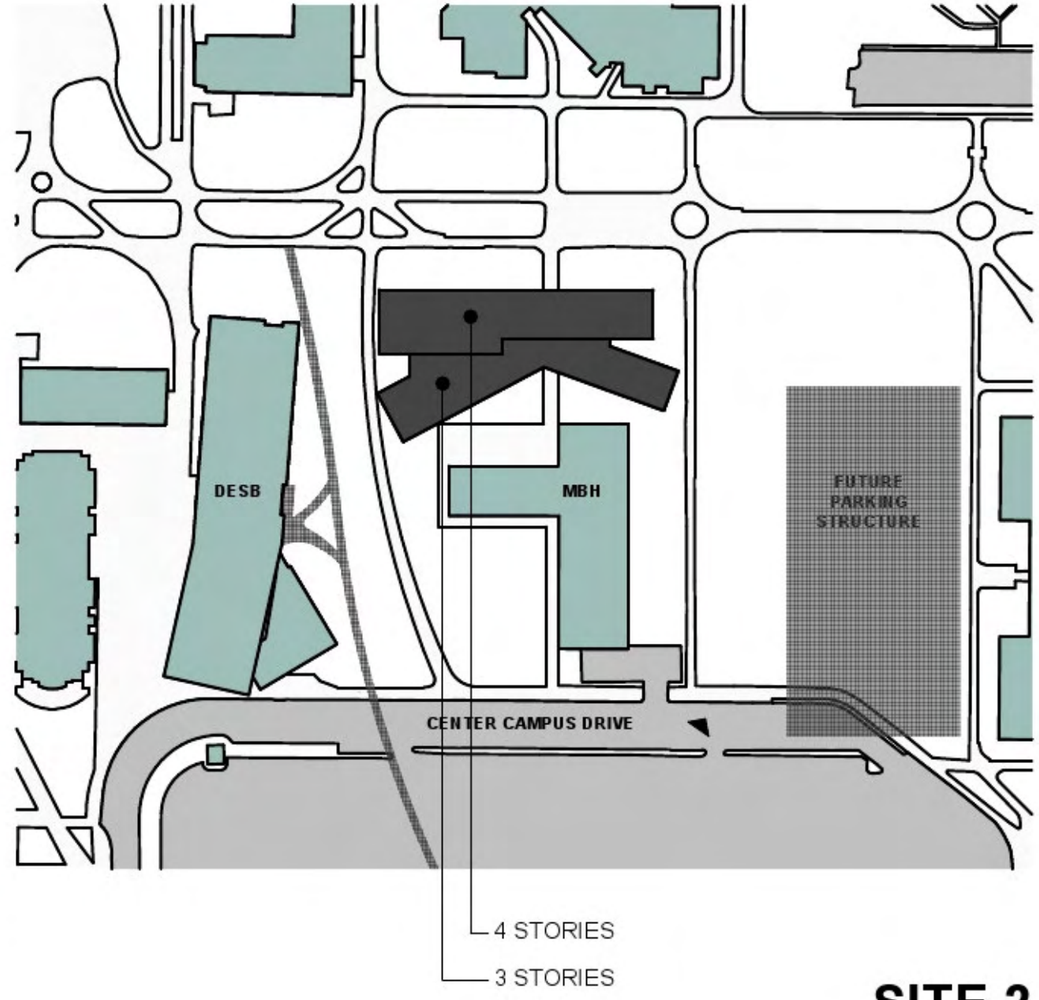
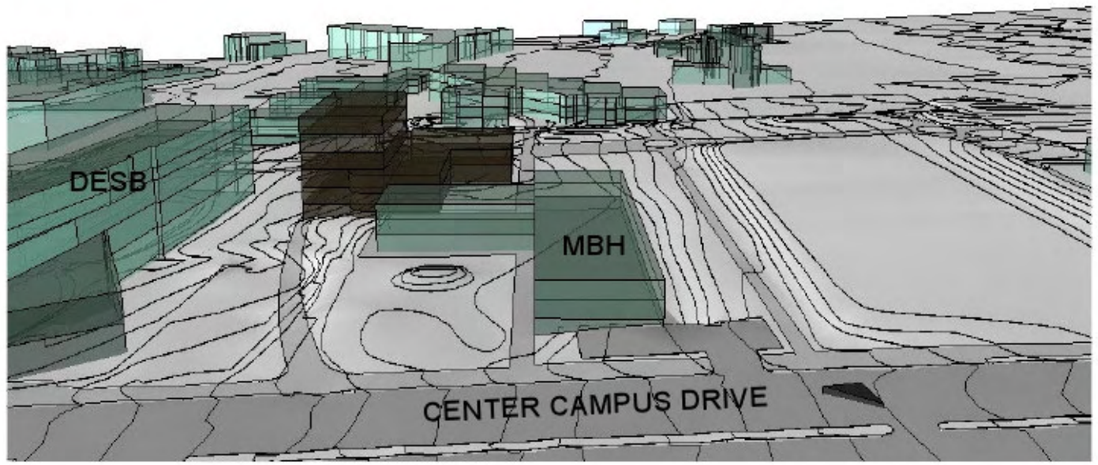
BTSAEC – Preliminary Massing Studies

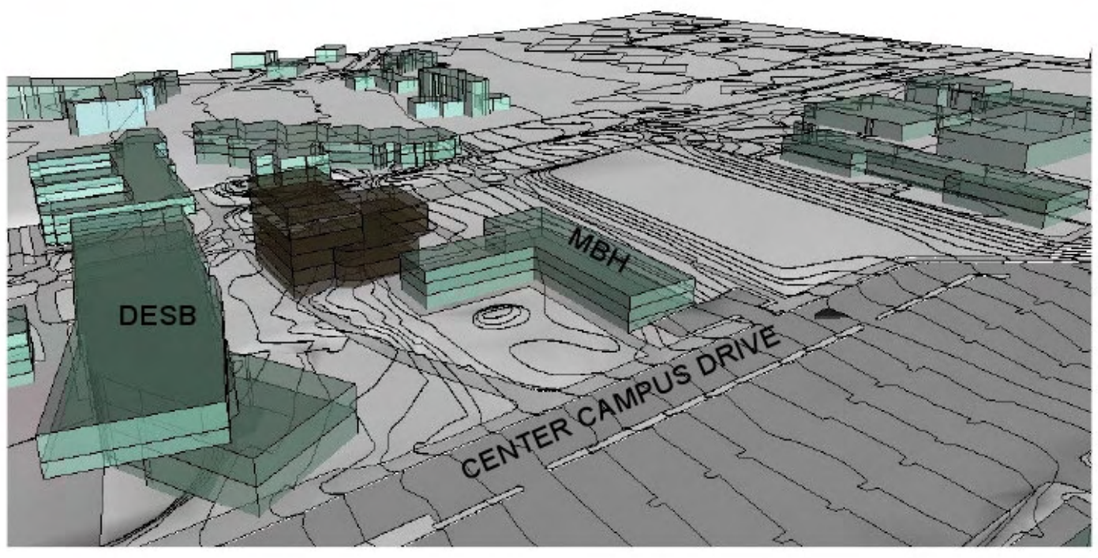


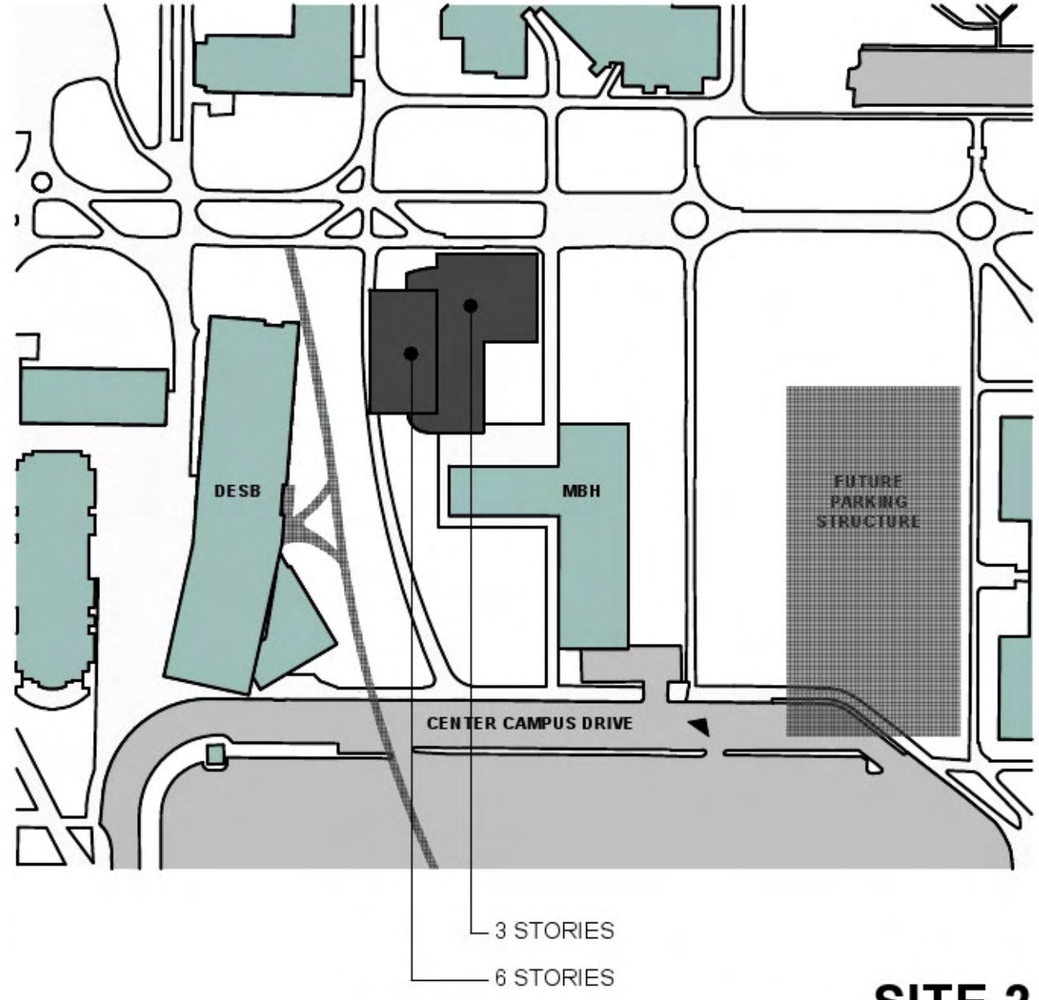




SITE 2
SCHEME A
84,000 S.F.

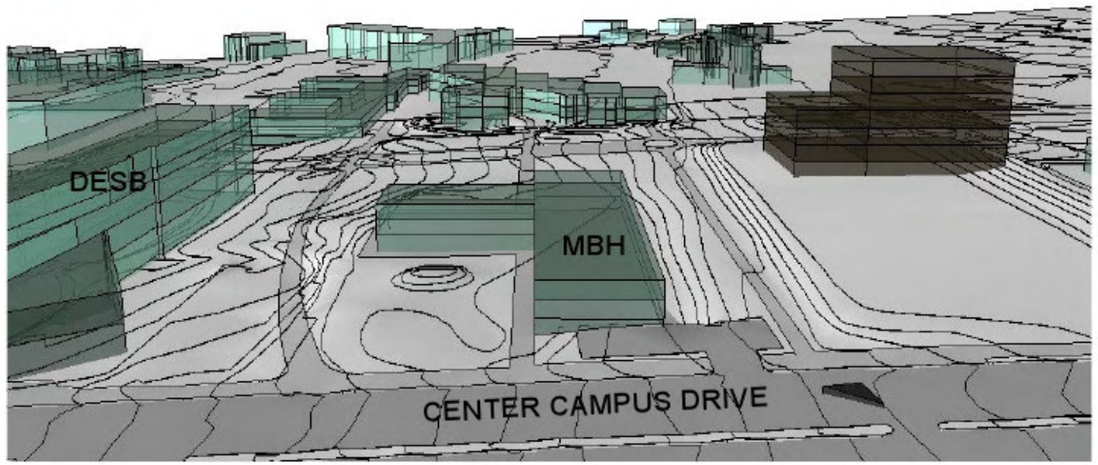


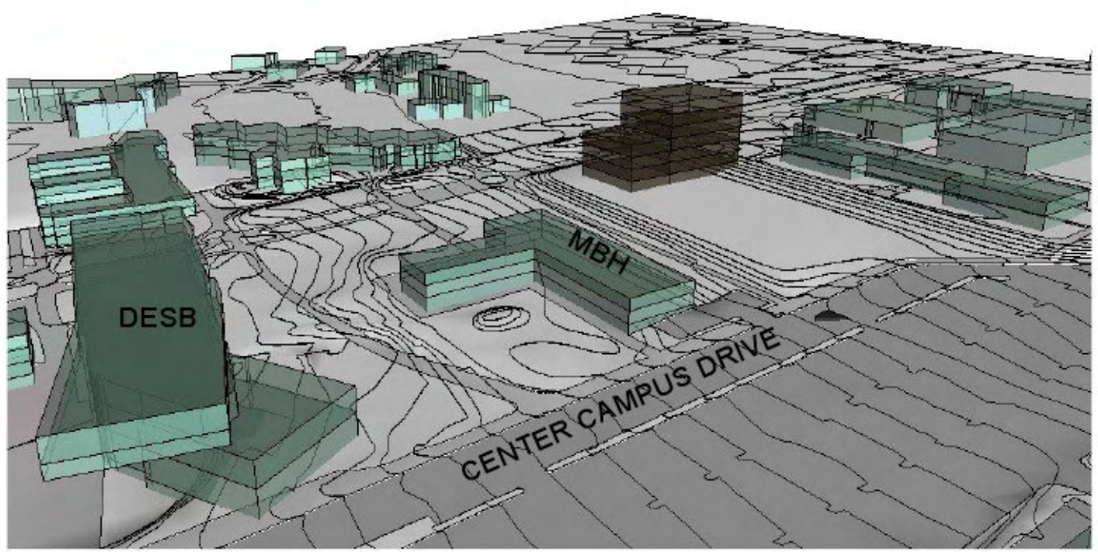


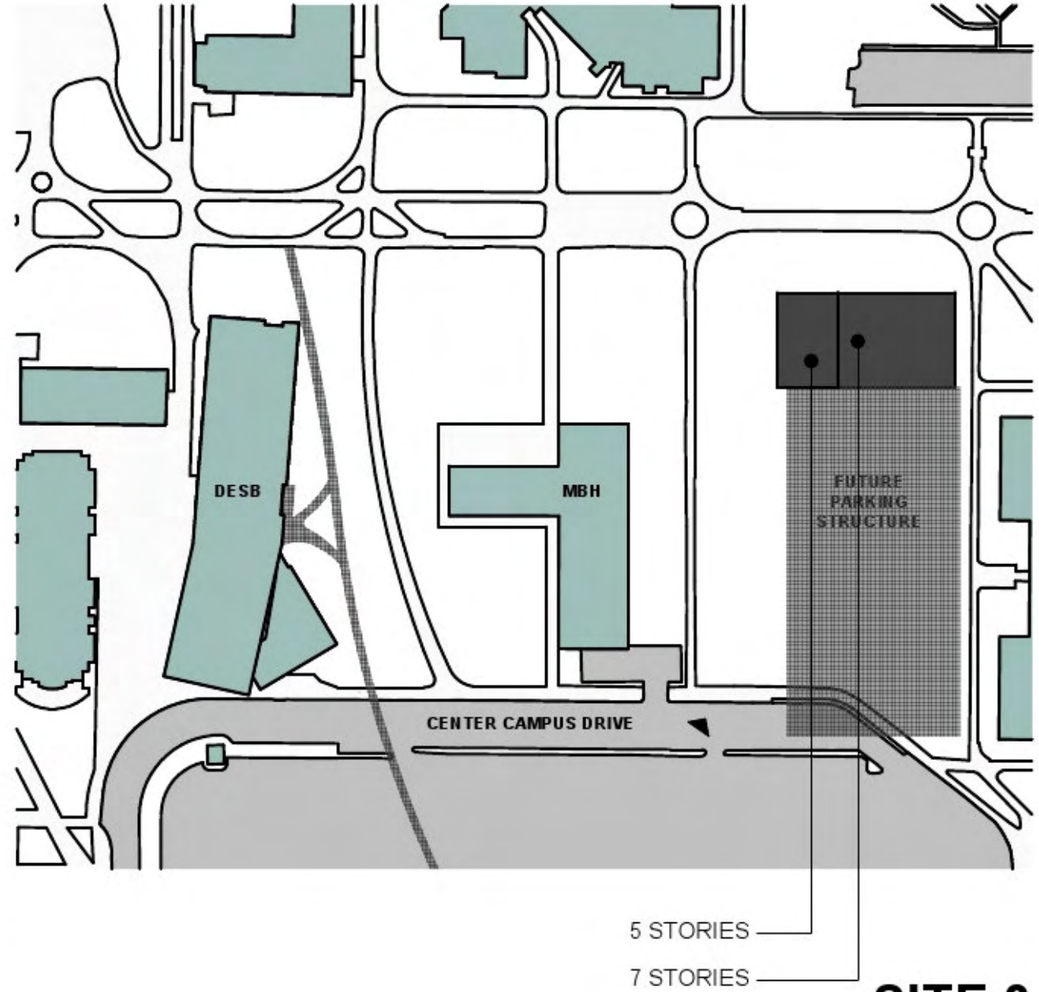


SITE 2
SCHEME B
84,000 S.F.

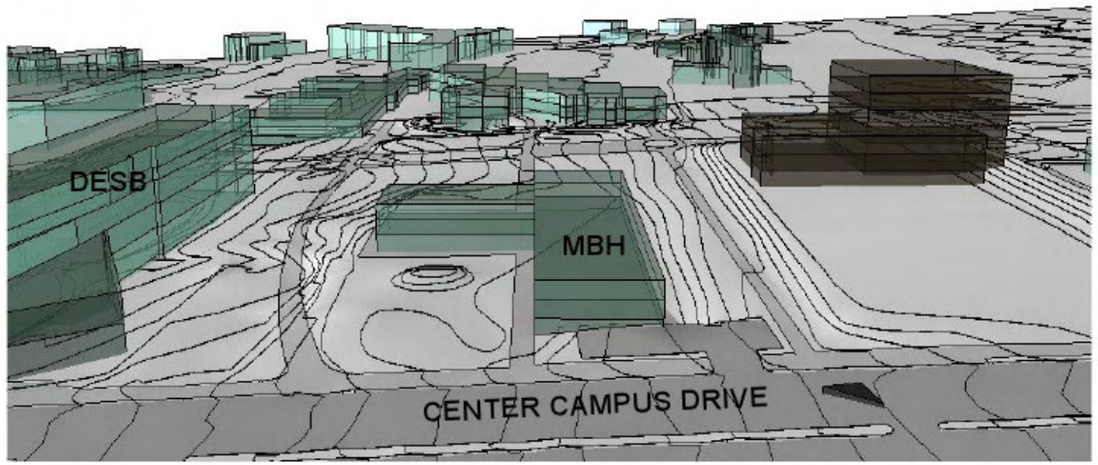
BTSAEC – Preliminary Massing Studies

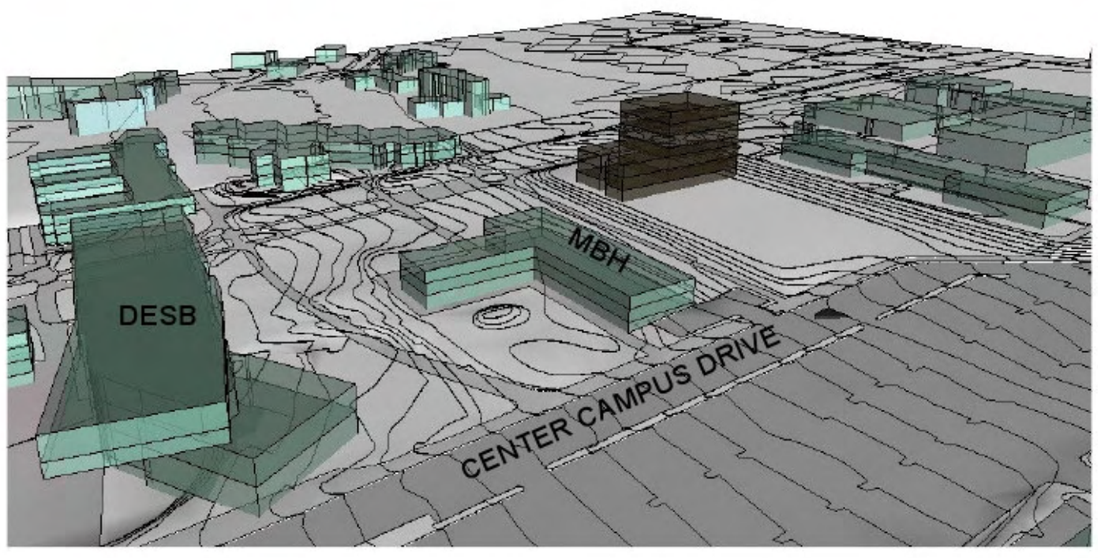


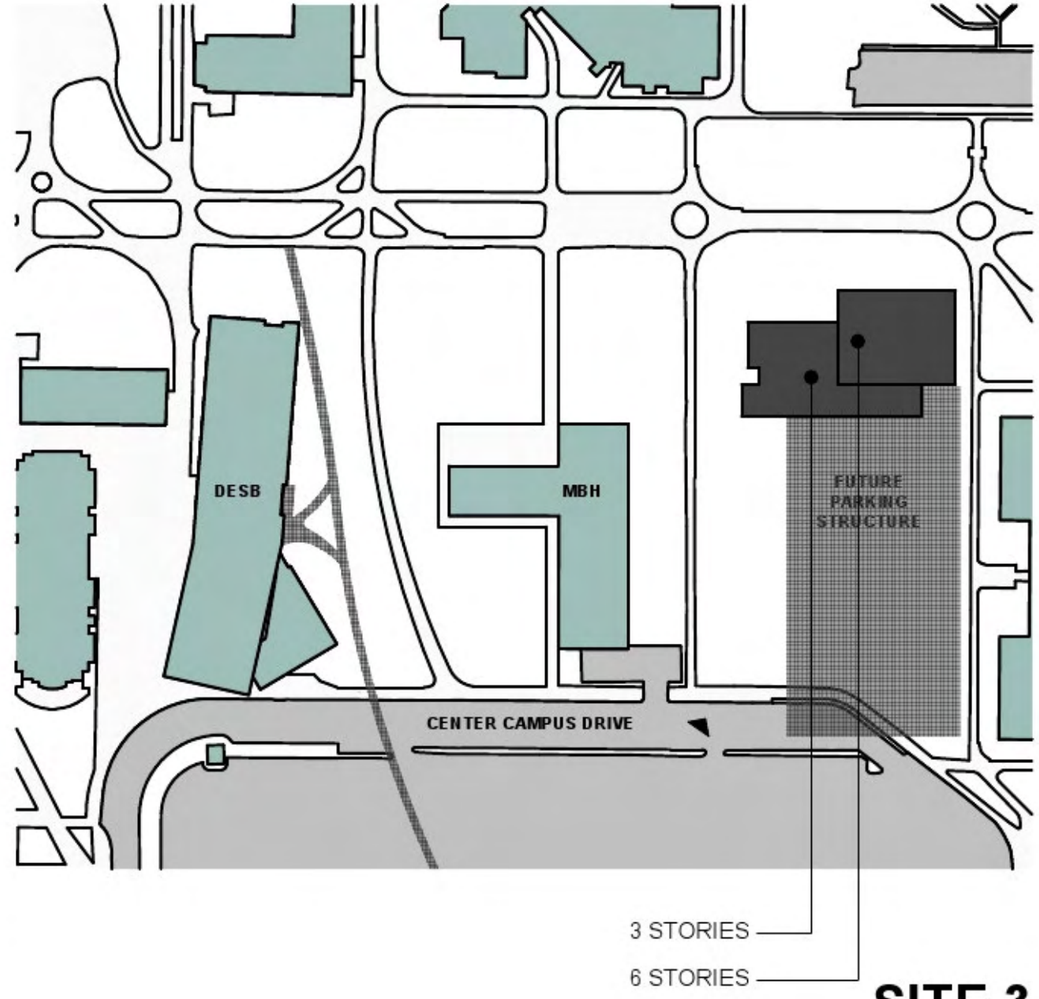




SITE 3
SCHEME A
84,000 S.F.







SITE 3
SCHEME B
84,000 S.F.

Site Selection – Recommendations of the Steering Committee

In mid-May 2010, Facilities Planning facilitated the review of site planning options and the initial site recommendation by the Steering Committee. The following summarizes the discussion and findings that were forwarded to the Facilities Planning Office to lead the vetting process for formal site selection.

Selection of a site for a new building can often be one of the most difficult tasks that face campus planners. Thus a process of site analysis, impartial review, and compilation of quantitative faces was used as a means to establish a basis for review. Site selection methodology centered around a process that had two distinct components: first, development of selection criteria which served as a basis for comparative evaluation and second, the organization of a weighted scale and a quantitative evaluation of each site.

Facilitated by Tami Cleveland of Facilities Planning, the team began the work session by agreeing that the driving site selection criteria were:

- Building Fit on Site – Site characteristics that illustrate the risks/benefits of building siting on a particular site. Issues included topography, mature vegetation, utility access or relocation and buildable area.
- Desired Alignment – Relations beyond the site, including alignment with adjacent site development, existing resources, and response to Campus Master Plan issues.
- Site Access – Opportunities for site circulation to and through site, ability to create short term parking/drop off, response to delivery and emergency vehicle access, and included child safety.
- Environmental Issues – Considered an overall indicator of opportunities/ encumbrances on project achieving DFCM/UofU goals, including issues related to site development, solar orientation, views, and wind.
- Visibility – Ability for the building to meet its goal of serving as a beacon within the Campus Center Drive area, ease of wayfinding from main access point and ability for the new BTSAEC will be accessible to “distant views”.

With these drivers in place the Steering Committee was able to rank and quantitatively evaluate each site’s ability to meet the goals of each of the selection criteria. The team ranked the above selection criteria:

- Site Access was highest ranked, indicating the importance of site location, opportunities for short term parking/drop-off development, and ability to craft two primary building entrances.
- Building Fit on Site and Visibility both ranked a close second, indicating the desire for the site to best suit the future BTSAEC and for it to be a visible feature within the precinct.
- Desired Alignment ranked fourth, indicating that the team felt that relationships beyond the site could be incorporated into the design on each of the sites, and
- Environmental Issues ranked fifth, indicating the team’s longstanding commitment that the project with an ethos of sustainability inherently woven in.

Through the intuitive evaluation method the team was able to complete a matrix that indicated the value of each site and how sites comparatively ranked amongst the three

available. Site 1 was ranked the strongest, indicating its match to many of the site selection criteria, Site 2 ranked second and Site 3 ranked third in meeting the intent of the selection criteria. Once the ranking was completed a comparative analysis allowed the team to discuss the strengths of one site versus another. A comparative score was given to each site and illustrated that Site Access was the primary site selection criteria, followed by Visibility and Building Fit on Site as moderate indicators of each site's potential, and Desired Alignment and Environmental were given small preference factors.

To generate an overall weighted score, the intuitive and comparative scores were combined to produce a total score. The findings of the Site Selection procedure indicated that Site 1 was found to be the best match to the team's selection criteria. While each site had their own costs and benefits, Site 1 was felt to best match the team's intuitive impression that this site could best offer a very accessible, well sited, visible location for the Beverley Taylor Sorenson Arts and Education Complex, while serving the goals for alignment and environmental planning. Site 2 scored second and Site 3 was ranked lowest.

The site selection rankings were utilized by the Facilities Planning office to vet all recommendations to make sure they are harmonious with the Campus Master Plan's intent, elements, and recommendations. They were presented to University administration with the result that Site 1 has been approved as the most appropriate building site for this project.

Landscaping

Locations of existing landscape and irrigation systems may influence the decision of site selection. It is critical that irrigation systems servicing areas outside the construction limits remain in service at all times during the irrigation season (roughly April 1 to October 31) in order to maintain existing landscapes in a healthy condition. Temporary connections, relocation, or replacement of irrigation system components that will be impacted by this project need to be funded from the project construction budget. Damage or disturbance to existing landscape areas will also need to be repaired or replaced. The potential impacts to the existing landscape and irrigation are outlined below for each of the three proposed sites. Existing trees are noted on the survey which can be found in Appendix A.

Site 1
Landscape Impacts - Impacts to the existing vegetation will likely be limited to the elimination of existing turf and approximately 20-25 existing trees. Existing trees to be removed as part of the project will need to be replaced at a 2 to 1 ratio in accordance with University of Utah Campus Design Standards. If sufficient space for replacement trees cannot be found on the project site, the project will provide sufficient funds to plant replacement trees on adjacent sites as directed by the University. Planting areas at the edges of construction will need to be repaired or replaced to create a smooth transition to remaining landscape areas.

Development on this site will interrupt an existing walkway directly west of Milton Bennion Hall. Reconfiguring walkways and pedestrian connections will be necessary if

this site is selected. Additional coordination will also be required as development of the proposed South Campus Walk commences. It will be necessary to coordinate the landscape, walkways, and site elements for the South Campus Walk with the David Eccles School of Business.
Irrigation Impacts - Impacts to the existing irrigation system will be minimal in this area as no major irrigation mainlines or control wires pass through this site. Thus, there will be very little disturbance to existing irrigation systems that will need to remain operational throughout construction. Impacts to the existing irrigation system will likely be in areas disturbed by construction and will require designing and constructing new landscape and irrigation.

Site 2
Landscape Impacts - Impacts to the existing vegetation will likely be limited to the elimination of existing turf and approximately 15-20 existing trees. Existing trees to be removed as part of the project will need to be replaced at a 2 to 1 ratio in accordance with University of Utah Campus Design Standards. Planting areas at the edges of construction will need to be repaired or replaced to create a smooth transition to remaining landscape areas.

Development on this site will interrupt an existing walkway connecting Milton Bennion Hall to the HPER Mall directly to the north. Reconfiguring walkways and pedestrian connections will need to be considered if this site is selected. Landscape and site design should also be coordinated with plans for the future HPER Mall Concept and the David Eccles School of Business. It may not be necessary to duplicate or match the designs of these projects but landscape and site designs for this project should blend and integrate smoothly with these projects to create a site and landscape that will be complimentary to its surroundings and produce a cohesive and unified appearance. Additional coordination will also be required as development of the proposed South Campus Walk commences. It will be necessary to coordinate the landscape, walkways, and site elements for the South Campus Walk with the David Eccles School of Business.

Irrigation Impacts - This site location will impact a 3” existing irrigation mainline that was rerouted as part of the tunnel construction along the HPER Mall. This rerouted mainline runs directly through this site. However, the area watered by this mainline will also be disturbed if this site is selected so mainline rerouting will probably not be necessary. There is also a section of irrigation mainline that runs just north of Milton Bennion Hall right along the south border of this site. It provides irrigation to the plaza area on the northwest side of Milton Bennion Hall. It is likely that this mainline will be impacted by construction if this site is selected. However, the areas it waters will also likely be disturbed by construction so rerouting may not be required.

An irrigation controller is located within this site. If this site is selected, the controller will likely need to be relocated at the beginning of construction in order to keep irrigation operational to adjacent landscape areas located outside the construction limit line. Controller relocation would need to be sequenced to keep interruptions to irrigation operation to 48 hours or less. Coordination with the University Grounds Department will be necessary to determine locations of irrigation control wires that will require relocation. The extent of the impacts for most control valves, irrigation lines, and sprinkler heads that will be disturbed will likely be contained within the construction limits.

The existing landscape and irrigation conditions will likely be impacted by construction along the HPER Mall after this document is finalized. The existing landscape and irrigation conditions documented here will need to be verified as part of this project.

Site 3

Landscape Impacts - Impacts to the existing vegetation will likely be limited to the elimination of existing turf on the north end of the soccer field. It appears that development on this site could be done without eliminating any existing trees. Planting areas at the edges of construction will need to be repaired or replaced to create a smooth transition to adjacent remaining turf areas.
Development on this site will not interrupt any existing walkways. However, Landscape and site design should be coordinated with plans for the future HPER Mall Concept. It may not be necessary to duplicate or match the designs of the HPER Mall project but landscape and site designs for this project should blend and integrate smoothly with the HPER Mall to create a site and landscape design that will be complimentary to its surroundings and produce a cohesive and unified appearance.

Irrigation Impacts - Impacts to the existing irrigation systems will be very minimal if this site is selected. No irrigation mainlines or control wires bisect the site so there will be minimal impacts to remaining adjacent landscape areas. Impacts to the existing irrigation system will likely be in areas disturbed by construction which will require designing and constructing new landscape and irrigation.

There will be some impact to the other areas of the soccer field as control valves, lateral lines, and irrigation heads will be disturbed. This will require adjustment and/or relocation of heads, control valves, and lateral lines to provide head to head coverage and keep the system operational throughout construction.

The existing landscape and irrigation conditions will likely be impacted by construction along the HPER Mall after this document is finalized. The existing landscape and irrigation conditions documented here will need to be verified as part of this project.

Project Goals

- Provide a landscape that will incorporate sustainable practices while still blending with the feel and character of the University of Utah campus.
- Wisely control water usage through the use of native and adaptive plantings, grouping plants according to water need, use of mulches to reduce the loss of soil moisture through evaporation, use of quality planting soil, the proper design of irrigation systems, and the use of proven water conserving irrigation technologies.
- Protect and restore habitat through the use of native and adaptive plant varieties.
- Maintaining open space by protecting or providing pedestrian oriented hardscape areas and vegetated open spaces.
- Provide comfortable exterior spaces by mitigating extreme temperatures, glare, wind, and noise through the proper use of planting.
- Reduce the heat island affect by using trees to shade hardscape areas where feasible.

Landscaping Recommendations:

The new landscape should incorporate water conserving and sustainable practices while blending with the feel and character of the adjacent campus landscapes. Recommendations include incorporating water conserving planting methods such as the use of native and adaptive plantings, using a minimum 4”depth of bark mulch in all plant beds, using landscape boulders and other un-irrigated landscape features, and limiting turf areas where possible. However, a turf area is desired to provide an outdoor activity area for Tanner Dance use.

Landscaping strategies should be carefully coordinated with University of Utah Grounds Department. These strategies should facilitate ground water return, storm water runoff mitigation, and other conservation-minded landscape design methods. Plantings should be used to screen prevailing winter winds and shade buildings in the summer. They should also be used to screen unattractive views, create a human scale in exterior spaces adjacent to buildings, and shade hardscape areas. Outdoor seating and site furnishings should be incorporated to provide useable exterior spaces. Appropriate pedestrian connections and walkways should be considered to create sensible connections to other areas of campus.

4.2.6 – Energy, Environment and Resource Conservation

Existing Conditions and Factors

With three potential sites for the Beverley Taylor Sorenson Arts and Education Complex, there are existing conditions that can affect the level of sustainability for the project. These conditions have been explored and should be incorporated into the design of the building.

With the location of Site 1, the David Eccles School of Business (DESB) building will provide shading from the setting sun. The DESB will also provide a wind break during the cold winter months. This will aid in decreasing the amount of energy required for heating and cooling. As onsite storm water treatment is important to the project, Site 1 will be limited as to where the storm water can be collected and allowed to percolate into the site. The site for BTSAEC is slopped, and could cause a problem as the storm water could potentially build up near the DESB building.

Site 2 will have a great amount of sun, with nothing to shade the west side of the building. Energy consumption could increase in order to keep the western portion of the building cool. During the winter months, there is also no protection from the cold westerly winter winds. The building envelope will need to take this into consideration during design. Long term storm water treatment for this site could be coordinated with the construction of the new HPER mall.

Site 3 is similar to Site 2. This site will also have to consider the western exposure of the sun as well as winter winds. The long term storm water treatment could also be coordinated with the construction of the new HPER mall.

Project Goals

The new building should be designed to minimize its impact on the environment, reduce the use of energy and natural resources, and lower life-cycle costs for building materials and systems. The project design should follow the State High Performance Building Rating System (HPBRS) which has been updated to include LEED™ Silver certification. The program will incorporate principles of sustainability, environmental quality, resource conservation, and energy efficiency, while maintaining a reasonable project cost.

Specific sustainability goals for the Beverley Taylor Sorenson Arts and Education complex include: Storm Water Treatment – reduce the burden on the municipal storm water system, Energy Efficient Building Envelope – provide a building envelope that reduces the need for excessive energy and provide a 40% energy cost savings and Site Development – create a site that is multi-functional with pedestrian traffic, performance areas, storm water detention areas and open space.

Recommendations

The following are concepts recommended to the building designers by the team for consideration in order to achieve these goals. Most of the concepts and the order in which they are arranged are based on the U.S. Green Building Council's LEED™ certification checklist and many of the goals of the HPBRS.

Sensible Site Development

- Public transportation access
- No added parking
- Vegetated open space
- On-site treatment of storm water
- Light colored roofing
- Trees to shade paved areas, where possible
- Site lighting with no up-light component
- Light colored paving

Water Conservation

- Drought-tolerant plantings where possible

Energy and Environmental Conservation

- Non-CFC refrigerants.
- Maximum use of outside air for cooling wherever possible
- Automatic dimming of electric lights tied to daylight sensors
- Reduced ambient light levels with supplemental task lighting
- Occupant sensors
- High-efficiency motors
- Variable frequency drives

- Best Practice Commissioning: rigorous verification that the entire building is designed, constructed, and calibrated to operate as intended

Renewable and Responsible Materials

- Storage and collection of recyclables
- Construction waste management—more than half of construction salvaged or recycled
- Reuse of building materials—as much as possible
- Recycled content of construction materials—as much as possible
- Local/regional materials—to minimize transportation impacts—as much as possible

High-Quality Indoor Environment

- Carbon-dioxide monitoring in appropriate areas
- Construction Indoor Air Quality Management Plan
- Two-week post-construction building flush-out
- Low-VOC adhesives, sealants, paints, and coatings
- Carpet, pad, and adhesive systems that minimize off-gassing
- Wood and natural products with no added urea-formaldehyde
- Vented janitorial closets, bathrooms, copy rooms & chemical use rooms, with appropriate drainage for disposal of wastes
- Useable daylight in as many occupied spaces as possible
- Shade devices on fenestration to mitigate glare and summer heat

Other Possible Considerations

Before incorporating any of the following additional measures, the design team must give careful consideration to whether they are feasible, given site and budget constraints, and whether they will provide sufficient and measurable benefits to offset all associated costs.

- Possibility of high-efficiency landscape irrigation technology.
- Self-supplied, renewable energy from PV arrays, or wind power technologies.
- Ongoing monitoring and optimization of building performance over time.
- Rapidly-renewable materials in such areas as flooring or millwork.
- Natural ventilation (operable windows) with mechanical system override. Should only be considered in areas not accessible by the general public.

The High Performance Building Rating system requires the following:

- Meet all DFCM standards
- LEED™ Silver certification
- Achieve specifically:
    - WE Credit 1.1 – Water Efficient Landscaping: Reduce by 50%
    - EA Credit 3.0 – 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
- Hold a sustainability charrette – approximately 3 hours long
- Life cycle cost analysis
- Energy model
- Measurement of energy consumption with data that can be entered into the Energy Star Portfolio Manager Program
- Submittals of Charrette Summary, Life Cycle Cost Analysis, LEED submittals, submittal comments, commissioning report, and energy analysis

The following chart has been supplied to show the credits that the project could pursue with relative ease to receive the HPBRS requirement of LEED Silver certification.

LEED 2009 for New Construction and Major Renovation
Project Scorecard

Project Name:
Project Address:

Yes	?	No			
20	2	4	**SUSTAINABLE SITES**		**26 Points**
Y			Prereq 1	**Construction Activity Pollution Prevention**	**Required**
1			Credit 1	**Site Selection**	**1**
5			Credit 2	**Development Density and Community Connectivity**	**5**
		1	Credit 3	**Brownfield Redevelopment**	**1**
6			Credit 4.1	**Alternative Transportation -** Public Transportation Access	**6**
1			Credit 4.2	**Alternative Transportation -** Bicycle Storage and Changing Rooms	**1**
		3	Credit 4.3	**Alternative Transportation -** Low-Emitting and Fuel-Efficient Vehicles	**3**
2			Credit 4.4	**Alternative Transportation -** Parking Capacity	**2**
	1		Credit 5.1	**Site Development -** Protect or Restore Habitat	**1**
	1		Credit 5.2	**Site Development -** Maximize Open Space	**1**
1			Credit 6.1	**Stormwater Design -** Quantity Control	**1**
1			Credit 6.2	**Stormwater Design -** Quality Control	**1**
1			Credit 7.1	**Heat Island Effect -** Nonroof	**1**
1			Credit 7.2	**Heat Island Effect -** Roof	**1**
1			Credit 8	**Light Pollution Reduction**	**1**

Yes	?	No			
4	2	4	**WATER EFFICIENCY**		**10 Points**
					4
Y			Prereq 1	**Water Use Reduction**	**Required**
2		2	Credit 1	**Water Efficient Landscaping**	**2 to 4**
			2	Reduce by 50%	2
				No Potable Water Use or Irrigation	4
		2	Credit 2	**Innovative Wastewater Technologies**	2
2	2		Credit 3	**Water Use Reduction**	**2 to 4**
			2	Reduce by 30%	2
				Reduce by 35%	3
				Reduce by 40%	4

16	9	10	**ENERGY & ATMOSPHERE**		**35 Points**
Y			Prereq 1	**Fundamental Commissioning of Building Energy Systems**	**Required**
Y			Prereq 2	**Minimum Energy Performance**	**Required**
Y			Prereq 3	**Fundamental Refrigerant Management**	**Required**
10	9		Credit 1	**Optimize Energy Performance**	**1 to 19**
			1	Improve by 12% for New Buildings or 8% for Existing Building Renovations	1
			2	Improve by 14% for New Buildings or 10% for Existing Building Renovations	2
			3	Improve by 16% for New Buildings or 12% for Existing Building Renovations	3
			4	Improve by 18% for New Buildings or 14% for Existing Building Renovations	4
			5	Improve by 20% for New Buildings or 16% for Existing Building Renovations	5
			6	Improve by 22% for New Buildings or 18% for Existing Building Renovations	6
			7	Improve by 24% for New Buildings or 20% for Existing Building Renovations	7
			8	Improve by 26% for New Buildings or 22% for Existing Building Renovations	8
			9	Improve by 28% for New Buildings or 24% for Existing Building Renovations	9
			10	Improve by 30% for New Buildings or 26% for Existing Building Renovations	10
				Improve by 32% for New Buildings or 28% for Existing Building Renovations	11
				Improve by 34% for New Buildings or 30% for Existing Building Renovations	12
				Improve by 36% for New Buildings or 32% for Existing Building Renovations	13
				Improve by 38% for New Buildings or 34% for Existing Building Renovations	14
				Improve by 40% for New Buildings or 36% for Existing Building Renovations	15
				Improve by 42% for New Buildings or 38% for Existing Building Renovations	16
				Improve by 44% for New Buildings or 40% for Existing Building Renovations	17
				Improve by 46% for New Buildings or 42% for Existing Building Renovations	18
				Improve by 48%+ for New Buildings or 44%+ for Existing Building Renovations	19

Yes	?	No			
		7	Credit 2	**On-Site Renewable Energy**	**1 to 7**
				1% Renewable Energy	1
				3% Renewable Energy	2
				5% Renewable Energy	3
				7% Renewable Energy	4
				9% Renewable Energy	5
				11% Renewable Energy	6
				13% Renewable Energy	7
2			Credit 3	**Enhanced Commissioning**	**2**
2			Credit 4	**Enhanced Refrigerant Management**	**2**
		3	Credit 5	**Measurement and Verification**	**3**
2			Credit 6	**Green Power**	**2**
4	3	7	**MATERIALS & RESOURCES**		**14 Points**
Y			Prereq 1	**Storage and Collection of Recyclables**	**Required**
		3	Credit 1.1	**Building Reuse** - Maintain Existing Walls, Floors and Roof	**1 to 3**
				Reuse 55%	1
				Reuse 75%	2
				Reuse 95%	3
		1	Credit 1.2	**Building Reuse -** Maintain Interior Nonstructural Elements	**1**
1	1		Credit 2	**Construction Waste Management**	**1 to 2**
				1 50% Recycled or Salvaged	1
				75% Recycled or Salvaged	2
		2	Credit 3	**Materials Reuse**	**1 to 2**
				Reuse 5%	1
				Reuse 10%	2
1	1		Credit 4	**Recycled Content**	**1 to 2**
				1 10% of Content	1
				20% of Content	2
1	1		Credit 5	**Regional Materials**	**1 to 2**
				1 10% of Materials	1
				20% of Materials	2
		1	Credit 6	**Rapidly Renewable Materials**	**1**
1			Credit 7	**Certified Wood**	**1**
13	2		**INDOOR ENVIRONMENTAL QUALITY**		**15 Points**
Y			Prereq 1	**Minimum Indoor Air Quality Performance**	**Required**
Y			Prereq 2	**Environmental Tobacco Smoke (ETS) Control**	**Required**
1			Credit 1	**Outdoor Air Delivery Monitoring**	**1**
1			Credit 2	**Increased Ventilation**	**1**
1			Credit 3.1	**Construction Indoor Air Quality Management Plan -** During Construction	**1**
1			Credit 3.2	**Construction Indoor Air Quality Management Plan -** Before Occupancy	**1**
1			Credit 4.1	**Low-Emitting Materials -** Adhesives and Sealants	**1**
1			Credit 4.2	**Low-Emitting Materials -** Paints and Coatings	**1**
1			Credit 4.3	**Low-Emitting Materials -** Flooring Systems	**1**
1			Credit 4.4	**Low-Emitting Materials -** Composite Wood and Agrifiber Products	**1**
1			Credit 5	**Indoor Chemical and Pollutant Source Control**	**1**
1			Credit 6.1	**Controllability of Systems -** Lighting	**1**
1			Credit 6.2	**Controllability of Systems -** Thermal Comfort	**1**
1			Credit 7.1	**Thermal Comfort -** Design	**1**
1			Credit 7.2	**Thermal Comfort -** Verification	**1**
	1		Credit 8.1	**Daylight and Views -** Daylight	**1**
	1		Credit 8.2	**Daylight and Views -** Views	**1**

Yes	?	No			
1	3		**INNOVATION IN DESIGN**		**6 Points**
	3		Credit 1	**Innovation in Design**	**1 to 5**
				Innovation or Exemplary Performance	1
				Innovation or Exemplary Performance	1
				Innovation or Exemplary Performance	1
				Innovation	1
				Innovation	1
1			Credit 2	**LEED® Accredited Professional**	**1**
Yes	?	No			
1	3		**REGIONAL PRIORITY**		**4 Points**
1	3		Credit 1	**Regional Priority**	**1 to 4**
				1 Regionally Defined Credit Achieved - SS Credit 8.0	1
				Regionally Defined Credit Achieved - WE Credit 3.0 - 40%	1
				Regionally Defined Credit Achieved - EA Credit 1.0 - 36%	1
				Regionally Defined Credit Achieved - IEQ 8.1	1
Yes	?	No			
59	15	25	**PROJECT TOTALS (Certification Estimates)**		**110 Points**

Certified: 40-49 points Silver: 50-59 points Gold: 60-79 points Platinum: 80+ points

Preliminary energy analysis information can be found in Section 5, Mechanical/Plumbing. Additional energy information can be found in Section 7, Appendix B

SECTION 5

BUILDING SUPPORT

5.1 Civil / Utilities

General Site Data: The site study area where the new building will be placed is bounded as follows; Southward, by Campus Center Drive; Westward, by the DESB building and the new Business Building currently under construction; Northward, by the pedestrian pathways (HPER Mall) south of the LNCO building; Eastward, by the top of the embankment on the east side of the soccer field. Within this study area is the MBH building that will remain undisturbed by this project other than the possible removal of the amphitheater on the south west side of this existing building if Site Option #1 is selected as the preferred option. The general site topography and site utilities are shown on the survey found in Appendix A. The general site issues for each of the various options are outlined in Section 4.2 above. The various issues will be described in more detail below along with locations of possible access and driveways to service the buildings in various optional locations within the study area.

Site Option #1

Site: The location for Site Option #1 is shown on Figure 5a. The approximate clearance distances from the adjacent buildings and an elevation sketch for the possible building location is shown on Figure 5b. There is approximately 15 feet of grade across the site in the east / west direction (the west side being the lowest point). The new access and parking areas also have about 8 to 10 feet of grade in the same direction as the building. The amphitheater for the MBH would need to be demolished. New driveway connections to Campus Center Drive would need to be completed for the new drop-off and parking area. The number of new stalls would be minimal. The current site is covered with a number of mature trees and a connecting pathway that would need to be replaced with this site option from Campus Center Drive to the HPER Mall. Coordination during the planning and design phases should be coordinated with of the new David Eccles School of Business building, the future South Campus Walk and the Campus Master Plan.

Grading: The building entrances would need to be from two different levels or have a series of stairs to connect the access pathway on the east side of the building to the building access on the west side of the building. The main floor would have a finish floor elevation about one story above the new David Eccles School of Business building that is being constructed at this time and the second floor would be near the elevation of the MBH building main floor elevation. The second floor on the south side of the building would be above adjacent existing grade by about 6" and the main floor on the north side of the building would be one story below the south side to connect to the HPER Mall pathway without a large set of stairs. There would need to be walls placed along both the east and west sides of the building to connect the new access pathways through the site from Campus Center Drive to the pedestrian pathways along the HPER mall north of this building site. Stairs and ramps will be necessary to connect the building to the HPER Mall pathways.

Relocation of Utilities: The major utilities that are impacted by this option are minimal. Several secondary power lines that route to lighting of the existing pedestrian pathways and the amphitheater will be relocated as part of this option. The heating tunnel along the west side of the site (refer to Figure 5a) is assumed to remain. The site will need to work around the expansion loop locations with the new building footprint. No relocation of the heating tunnels is included in this option. Relocation of a major sewer line within Campus Center Drive would need to be accounted for if the building site were to extend south beyond the northern most curb of Campus Center Drive.

Connection of New Utilities: There appears to be sufficient utility service near the proposed site for this option. Culinary water is located directly north of the site for both fire and domestic supply. Power and High Temp Water are also available to the north of the site. However, as with all of the optional sites, the power is located north of the HPER Mall pathway in a southeasterly direction from the LNCO building. Refer to Figure 5a and 5e for the location of the existing utilities along the HPER Mall pathway. Sewer and storm drain will need to be connected to the existing lines to the south of the proposed site. Each of these utilities is located in Campus Center Drive. The campus has an agreement with the city that it will manage storm water runoff. Current campus design guidelines require that the storm drain system be designed to infiltrate and retain runoff from the site for a 2 year storm event. Runoff for a 100 year event shall be detained and released at a rate of 0.2cfs/area of new development. The initial soils report will need to complete percolation tests to allow for the design of the infiltration system required for the new site. Coordination with the future HPER Mall redevelopment plan as well as the future South Campus Walk is mandatory, as these areas may make changes to the storm water management plan on campus and impact this site.

Site Option #2

Site: The location for Site Option #2 is shown on Figure 5a. The approximate clearance distances from the adjacent buildings and an elevation sketch for the proposed building is also shown on Figure 5c. There is approximately 20 feet of grade across the site in the east / west direction (the west side being the lowest point). The new access and parking areas also have about 10 to 12 feet of grade in the same direction as the building. Walls will be necessary along the east side of the MBH building to allow for the new parking and drop off for this site plan. Walls along the soccer field will also be necessary to keep the field in tact as much as possible. There are several utility systems that service the MBH building that will need to be located as outlined below. New driveway connections to Campus Center Drive would need to be completed for the new drop-off and parking area as shown on the site sketch referenced above. The number of new parking stalls would be similar to Option #1. The current site is covered with a number of mature trees and two connecting pathways from the HPER Mall pathways to the MBH building that would need to be replaced with this site option.

Grading: This building option would need to enter from two different levels. The access pathway on the east side of the building would be one story up from the access on the west side of the building. The main floor would have a floor elevation about one story above the new Business Center Building that is being constructed at this time. The main floor on the west side of the building would be above adjacent grade by about 6" and the main floor on the east side of the building would be below grade about 15 to16 feet.

There would need to be walls placed along the east side of the building as well as along the new access pathways to the east side entrance. Stairs and ramps will be necessary to connect the building to the HPER Mall pedestrian pathways on this side of the building.

The new parking and drop-off will need some walls to protect the soccer field and the MBH building. The grade of the parking will be set by the building floor elevation and the distance from Campus Center Drive. We anticipate about 5' cut on the east side and about 5' fill on the west side of this driveway system depending on the entrance elevation determined for the second floor of this building option.

Relocation of Utilities: Several major utilities that service the MBH building require relocation, as shown on Figure 5a. The High temperature service line as well as the main power service to MBH would need to be relocated around the proposed building site. There is also a 10" and 12" waterline that is located below the proposed building site. The waterlines would need to be relocated between the proposed building and the existing high temperature line along the HPER Mall. The waterlines along the north side of the proposed building will need to be relocated along the entire length of the building.

The drop-off and parking to be completed along the east side of the MBH may also require a 12" storm drain line, a 12" sewer line, secondary power lines, and an 8" waterline to be relocated or lowered to accommodate the new elevations required for the drop-off lanes. The water service to the MBH building may also be impacted by the new drop-off lanes. The final utility affected by the drop off and parking area development is the chilled water service to the MBH. These chilled water lines will need to be lowered due to the grade modifications required for the improvements east of the MBH building. The chilled water vault may also require relocation or modification to accommodate the new driveways.

Connection of New Utilities: There appears to be sufficient utility service near the proposed site for this option. Culinary water is located directly north of the site for both fire and domestic supply by connections to the relocated lines along the HPER Mall. Primary power and High Temp Water are also available to the north of the site. However, as with all of the optional sites, the power is located north of the HPER Mall pathway in a southeasterly direction from the LNCO building. Refer to Figure 5a and 5e for the location of the existing utilities along the HPER Mall pathway.

Sewer and storm drain services at the depth required for the main floor will need to route west of the MBH building and southward to all the way back to Campus Center Drive. The connection will be near the same location as required for site Option #1. Since there is no other construction in this area for this option, there will need to be landscape repair for these two utilities connecting to Campus Center Drive. As with Site 1, the storm drain system needs to be designed to infiltrate and retain runoff from the site for a 2 year storm event. Runoff for a 100 year event shall be detained and released at a rate of 0.2cfs/area of new development. The initial soils report will need to complete percolation tests to allow for the design of the infiltration system required for the new site. Coordination with the future HPER Mall redevelopment plan as well as the future South Campus Walk is mandatory, as these areas may make changes to the storm water management plan on campus and impact this site.

Site Option #3

Site: The location for Site Option #3 is shown on Figure 5a. The approximate clearance distances from the adjacent buildings and an elevation sketch for the proposed building is shown on Figure 5d. There is approximately 8 to 9 feet of grade across the site in the east / west direction. However, the majority of the grade differential occurs on the last 60 feet of the east side of the building. The new access and parking areas have about 10 to 12 feet of grade in the same direction as the building and is in a similar location as Site Option #2. Walls will be necessary along the east side of the MBH building to allow for the new parking and drop off for this site plan. However, the length of wall will be shorter than those required for Site Option #2. Some walls will also be necessary to keep the open area of the south of the building site as flat as possible. There are two different sewer lines that are impacted by this building location as well as the new sewer line that was just recently constructed through the area. A storm drain line, high pressure gas and waterlines could also be impacted depending on the building configuration. Several utility systems that service the MBH building will also require relocation due to the new driveway and parking east of the MBH building. The number of new parking stalls would be similar to Option #2. This site is covered with turf and the eastern portion of the building location is sloped at about 4:1 to the top of the site boundary.

Grading: This building option would enter from the same elevation on the north and south sides of the building. However, the main floor of the east side of the building would be below grade about one story. The access pathway on the north side of the building would need to be from the northeast from the HPER Mall pathways. A second access could be completed to the northwest from the HPER Mall with stairs. The main floor elevation would be set near the elevation of the current soccer field. The main floor access from the south side of the building would be above adjacent grade by about 6". The main floor on the east side of the building would be below grade about 8 to 10 feet below the existing pathway along the east side of this building site. If the building walls are not used to retain the eastern side of the site then additional walls will be necessary on this side of the building.

The grading for the access driveway and parking will be very similar to Option #2. Unlike Option #2, the open field (the remnant of the soccer field) would not need to be retained unless desired to avoid additional cuts along the east side of the parking area to save some relocation of utilities under the cut slope for the new driveway.

Relocation of Utilities: Several major utilities require relocation that service the MBH building as shown on Figure 5a. Two main sewer lines cross through this area that would need to be relocated around the proposed building site; First, the 8" sewer line crosses through the site in a southwesterly direction and would need to reroute directly west around the building site and then back to the south towards Campus Center Drive; and Second, the new sewer line recently constructed that is not shown on the survey. The actual location of this utility will need to be determined in the field to determine the best relocation route.

The high pressure gas main may also be impacted by this site option, however, the final location and configuration would need to be finalized to determine the extent of the

impact. If the gas main can be avoided this should occur due to the cost and time constraints associated with relocations of this utility.

There is also a 12" and 24" storm drain line and an 8" water line that will require relocation on the east side of the new building location. These lines will need to be routed east of the new building location. There is also a 3" service line that also may be impacted by this building location depending on the final configuration and placement of the building.

The drop-off and parking outlined on Figure 5a along the east side of the MBH may also require a 12" storm drain line, a 12" sewer line, secondary power lines, and an 8" waterline to be relocated or lowered to accommodate the new elevations required for the drop-off lanes. The water service to the MBH building may also be impacted by the new drop-off lanes. The final utility affected by the drop off and parking is the chilled water service to the MBH. These chilled water lines will need to be lowered due to the grade modifications required for the driveway and parking improvements east of the MBH building. The chilled water vault may also require relocation or modification to accommodate the new driveways.

Connection of New Utilities: There appears to be sufficient utility service near the proposed site for this option. Culinary water is located directly north of the site for both fire and domestic supply by connections to the lines along the HPER Mall or the relocated 8" line along the east of the building. Primary power and High Temp Water are also available to the north of the site. However, as with all of the optional sites, the power is located north of the HPER Mall pathway in a southeasterly direction from the LNCO building. Refer to Figure 5a and 5e for the location of the existing utilities along the HPER Mall pathway.

Sewer services will be available adjacent to the building site through one of the three relocated sewer lines. Storm drain services at the depth required for the main floor will need to route South West towards the MBH building and southward to Campus Center Drive for connection. The new driveway and parking will also connect to this new storm drain line. The storm drain system needs to be designed to infiltrate and retain runoff from the site for a 2 year storm event. Runoff for a 100 year event shall be detained and released at a rate of 0.2cfs/area of new development. The initial soils report will need to complete percolation tests to allow for the design of the infiltration system required for the new site. Coordination with the future HPER Mall redevelopment plan is mandatory as this area may make changes to the storm water management plan on campus and impact this site.

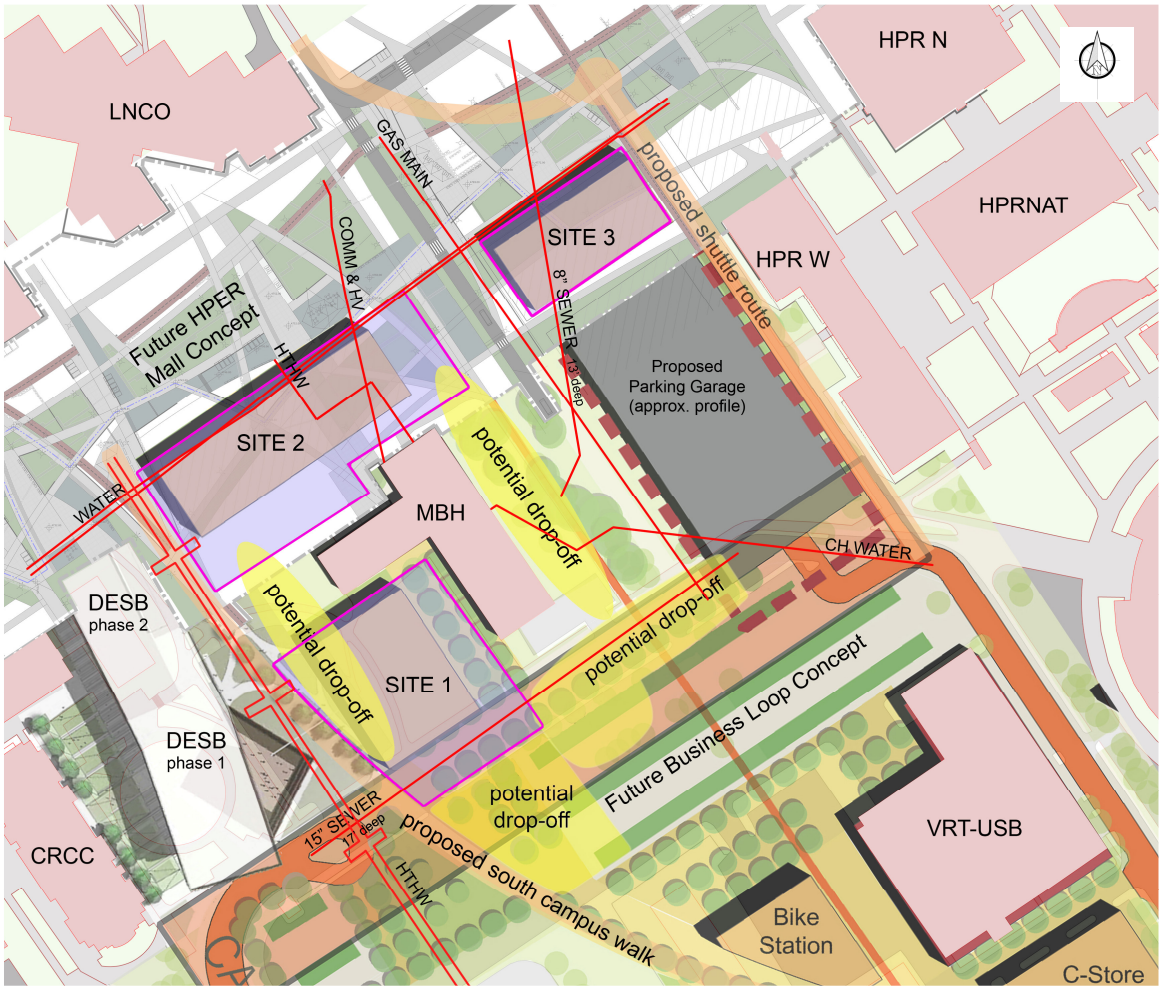


Figure 5a – Sites Under Consideration

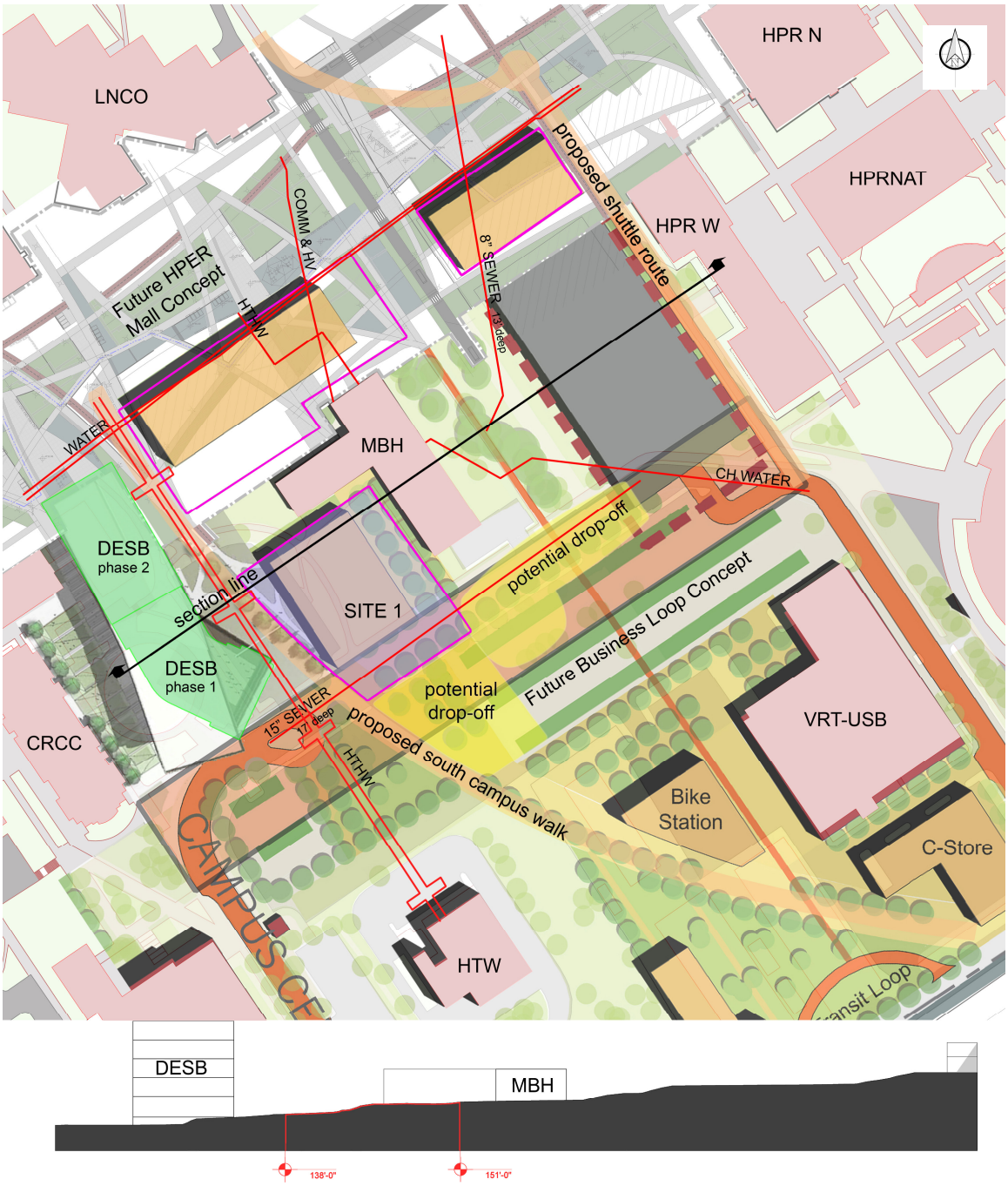


Figure 5b – Site Option 1

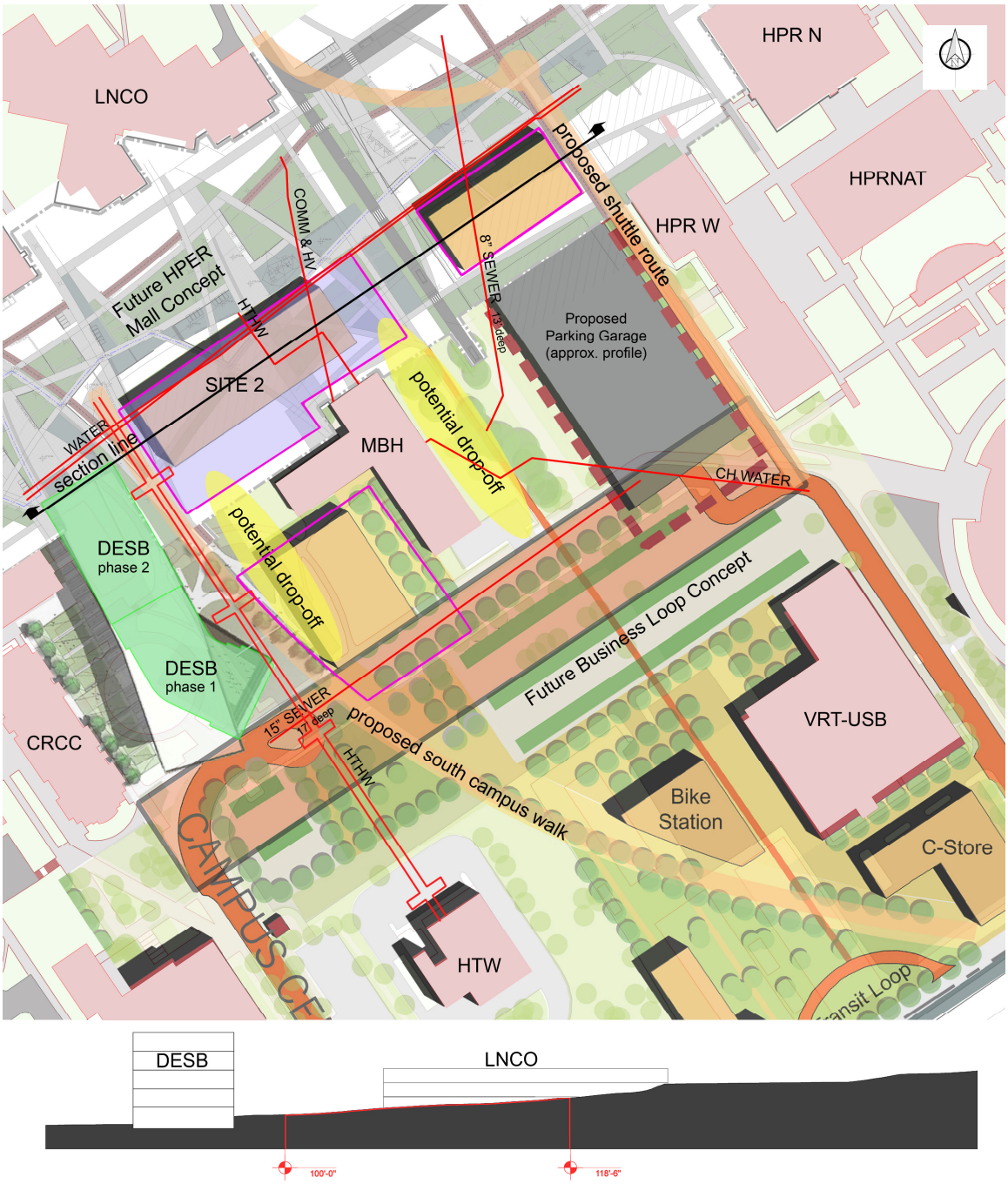


Figure 5c – Site Option 2

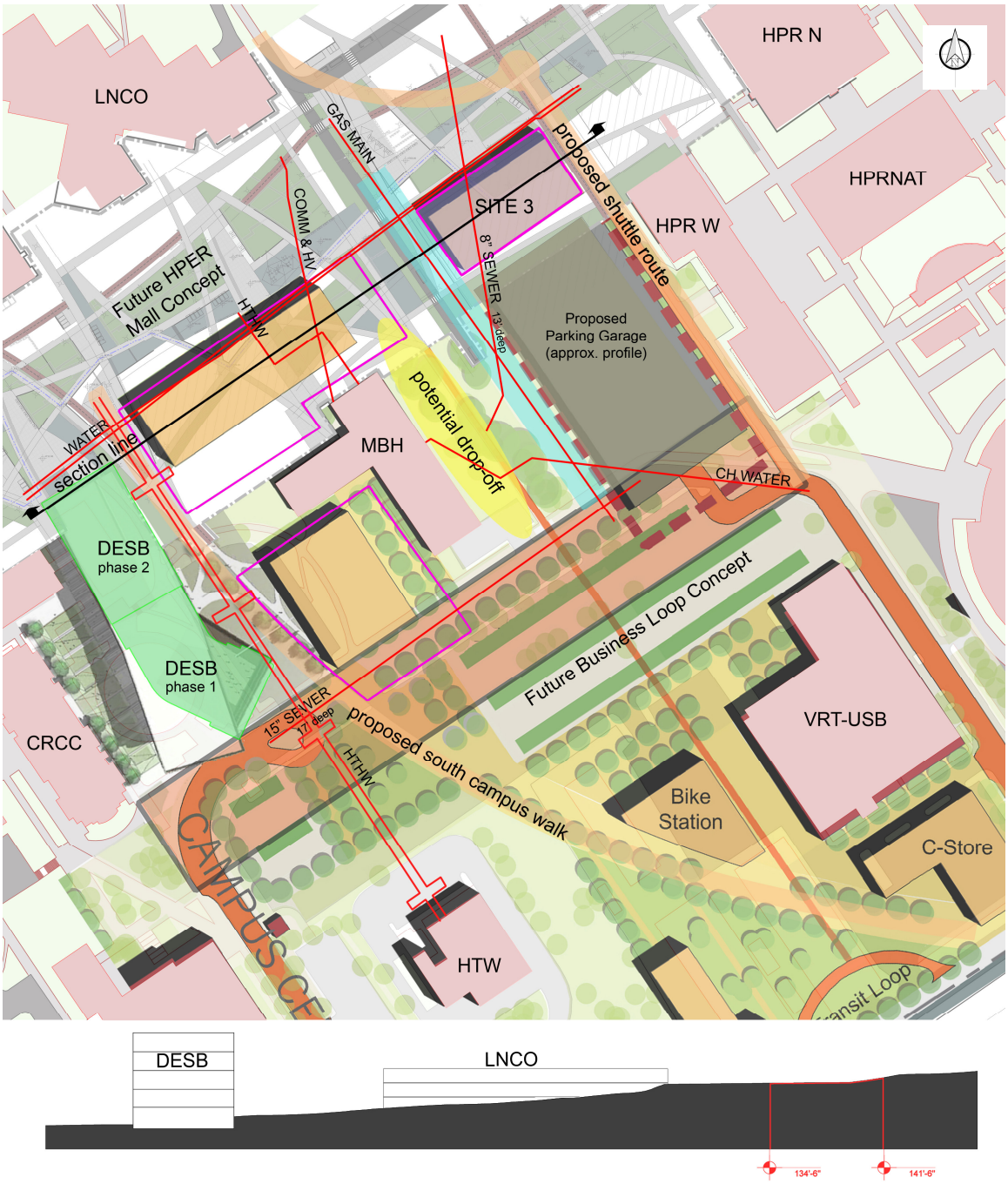


Figure 5d – Site Option 3

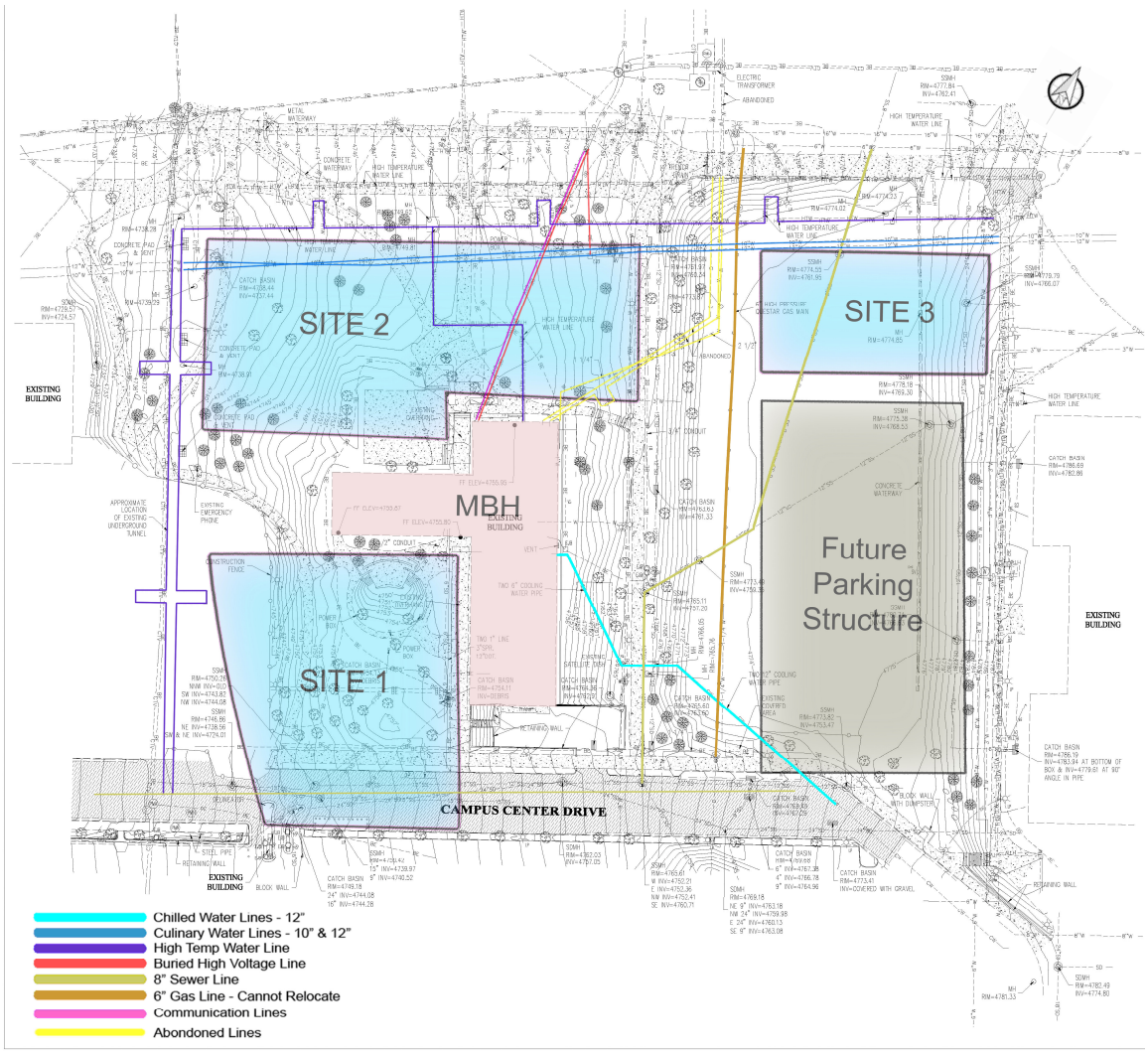


Figure 5e – Site Utilities

See Appendix A for enlarged survey.

5.2 Structural

General Information

The purpose of this project is to provide a new Arts and Education facility for the University of Utah in Salt Lake City, Utah. High standards of architecture and structural design are required to be compatible with the user and owner's requirements. Selection of the building structural systems must balance concerns for safety, cost and function.

The facility will consist of approximately five-story, 84,000 gsf educational building that will contain dance studios, art studio, flexible-use spaces, classrooms, and supporting offices.

The design of the new facility must compliment University of Utah architectural standards and fit within the University's master plan design. As the building site is not yet set, structural design will possibly need to take sloping site conditions into consideration.

The structural system shall conform to the functional layout of the architectural floor plan. The structural system shall balance factors of structural integrity, performance, economy, flexibility of future use, and local availability of materials. Special design considerations must me made for tall ceiling heights and vibration performance of long-span floor bays in dance studios.

The building will need to take into consideration its close proximity to the East Bench Branch of the Wasatch fault. While the exact location of the fault is not known, studies in the vicinity by Simon Bymaster, Inc., indicate that the proposed sites for the building will not cross the fault line and that further exploration on the site for the fault is not necessary. The University of Utah, may, however, at its option decide to engage in further exploratory investigation to verify the seismic risk in the specific site location. Please see Appendix E for reference materials.

Foundations/Geotechnical

A geotechnical report shall be provided by a geotechnical firm, signed and stamped by an engineer licensed in the state of Utah. The geotechnical report shall specifically address all items as required by the current International Building Code. In addition to minimum code reporting requirements, the Geotechnical Report must also include the following information:

1. Soil type and soil site seismic classification.
2. Frost depth.
3. Lateral earth pressures. Active, at-rest, passive pressures shall be provided including the values for seismic load conditions.
4. Sliding coefficient of friction.
5. Excavation requirements including cut and fill slopes including recommendations for excavation shoring and stabilization.

6. Compaction requirements including recommendations for stabilization of slopes or soft soils encountered.
7. Recommendations for the remediation of moisture sensitive soils, either expansive or collapsible, shall be provided if present on the site.
8. The possibility of using the native soil to meet structural fill requirements.
9. Requirements for support of concrete slabs on grade and pavement. This should include subgrade moduli for designing slabs on grade where applicable.
10. The soils shall be tested for water soluble sulfate content and the report shall discuss recommendations for managing the level of sulfates and mitigating their effect on the structure and its elements.

Structural Framing Systems

Structural framing system(s) must be designed to support minimum dead and live loads required by the current International Building Code and other special requirements identified in DFCM and University of Utah Design Criteria standards.

Floor framing must also be designed for vibration control following industry standard recommendations such as AISC Design Guide 11 Floor Vibrations Due to Human Activity. Particular attention to the differences in floor vibrations caused by rhythmic activity (dance studios) and walking excitation (classrooms and corridors) shall be addressed.

Lateral Force Resisting System

Lateral wind and seismic forces will be resisted by a lateral-force-resisting system meeting all requirements of the current International Building Code. The design team shall show how they plan on managing the inter-story drift with relation to exterior building enclosure depending on the type of lateral system chosen for the building.

Codes and Standards

Minimum codes and standards to be used for new building design are:

1. International Building Code (IBC) 2009.
2. American Institute of Steel Construction (AISC) with Commentary.
3. American Concrete Institute (ACI) 318.
4. American Iron and Steel Institute (AISI) specifications for the Design of Cold-Formed Steel Structural Members.
5. American Welding Society ANSI/AWS D1.1 Structural Welding Codes.
6. Steel Joist Institute (SJI) for Open-Web Joists and Girders.
7. Steel Deck Institute (SDI).
8. DFCM Design Criteria.
9. University of Utah Design Criteria.
10. American National Standards Institute (ANSI).

Structural Design Criteria

The structure is designed to support actual dead loads plus live loads and combinations according to the 2009 International Building Code and DFCM Design Standards. These loads are as follows:

Dead Load	Actual dead loads.
Live Load	Minimum requirements per IBC 2009 with additional requirements per University of Utah and DFCM Design Criteria standards.

Snow Load (also include drift per ASCE-7)

Exposure Category	= C
Ground Snow Load (P_g)	per ASCE-7 and Utah Snow Load Study per Utah State Amendments to IBC.
Importance Factor (I_S)	= 1.1

Seismic Loads

Occupancy Category III
Importance Factor (I_E) = 1.25
Spectral Response Coefficients are to be determined in accordance with current United States Geological Survey Maps.

Wind Loads

Exposure Category	= C
Basic Wind Velocity (V)	= 90 mph (3 second gust)
Importance Factor (I_W)	= 1.15

5.3 Mechanical / Plumbing

Mechanical Systems - 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, December 2009, 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 from the central campus system is available from the HPER mall.

The main distribution tunnel from the high temperature generators to the campus passes to the west of the building site. Maintain required clearance from the tunnel (10 foot minimum from tunnel wall).

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 be supplied from the new South plant. Connection will be at the manhole that is in Central Campus Drive adjacent to the David Eccles School of Business. Anticipated demand is 206 tons, and anticipated service size is 5", minimum.

CULINARY WATER

Extend a 3" culinary line and an 8" fire protection line to the project site from a new 8" line. Because these lines are on the middle campus zone, 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 ..... $97_{DB}/62_{WB}$ °F
cooling tower .....70_{WB} °F

Indoor design temperature setpoints:

Room Type	Summer		Winter	
	Occupied	Unoccupied	Occupied	Unoccupied
Open Public Areas (Circulation, Lobbies)	75	85	72	65
Private Offices	75	85	72	65
Open Staff Work Areas	75	85	72	65
Copy Rooms	75	85	72	65
Conference Rooms	75	85	72	65
Reading Rooms	75	85	72	65
Classrooms,	75	85	72	65
Training Rooms	75	85	72	65
Dance Rooms	72	85	72	65
Art Rooms	75	85	72	65
Mechanical Rooms / Penthouse	80	85	60	55
Elevator Rooms	80	85	60	55
Restrooms	75	85	72	65
Kitchens	75	85	72	65
Storage Rooms	80	85	60	55

HUMIDITY

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

SUSTAINABILITY

The University desires that the new Beverley Taylor Sorenson Arts and Education Building demonstrate sustainable design, construction and operation principles. High performance mechanical systems are central to this vision, not only because they directly affect energy consumption, but also water consumption, indoor air quality and thermal comfort. Additionally, those systems, in order to function at their highest level, require commissioning and on-going measurement and verification. This program lists steps that the mechanical designer must to take to exceed code-minimum standards in each of those categories, through an integrated design process with all design team members, and a commitment to high-performance design.

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
- Acceptance testing requirements, in tabular form, for use by the installing contractor and verification by the design engineer. This may be incorporated into the commissioning documentation
- 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.

ENERGY EFFICIENCY

DFCM will engage a separate Energy Specialist to perform an energy analysis of the project, according ASHRAE Standard 90.1-2007; Appendix G. The analysis will consider reducing energy consumption in each of the following categories: lighting, space cooling, space heating, pumps, heat rejection, ventilation fans, internal loads and external loads.

The design team will be required to attend a Design and Technology Charrette, to evaluate the building design and consider technologies, including but not limited to, daylighting, natural ventilation, evaporative cooling, demand-controlled ventilation, green roof, spectrally selective glazing, low flow faucets, and on-site renewable system(s).

The design team will also identify and evaluate the suitability of any potential incentives, policies or rebates for energy efficiency and renewables, offered by federal, state, or

local authorities, as well as those offered by private entities and utility companies. Of particular note is the Rocky Mountain Power FinAnswer incentive program. The design team and the University of Utah's Campus Design and Construction will evaluate the effectiveness of the program's alternative paths and pursue the incentive, accordingly.

The energy analysis will be used, wholly or in part, for the basis of evaluating several energy related project requirements, referenced throughout the program document. These include demonstrating compliance with the Utah State Building Energy Efficiency Program's High Performance Building Standard – 2009 (as part of the DFCM design requirements), the University of Utah's Office of Sustainability's energy efficiency requirements, estimating U.S. Dept. of Energy's ENERGY STAR rating, and estimating potential project incentives, as referenced above.

At this time, the most stringent of energy efficiency requirements applied to the project are related to the University of Utah's Office of Sustainability prerequisites. These prerequisites include a requirement to achieve fifteen (15) points under Energy and Atmosphere Credit 1- Optimize Energy Performance (EAc1) of LEED-NC v3.0, which equates to a forty percent (40%) reduction of energy cost(s).

ENERGY MODELING

In order to evaluate the project's potential to meet this requirement, and to establish a credible Baseline and Target energy use index (EUI – kbtu/ft^2/yr), 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 comprehensive documentation including: a narrative that contains discussion of energy efficiency measures applied to the preliminary analysis, a Performance Rating Method Compliance Report, and simulation output reports, is offered as Appendix B. It is also important to note that the preliminary energy analysis does not include any assessment of simple payback or life-cycle cost analysis. The design team may be required to demonstrate life-cycle cost effectiveness, in the event that the energy efficiency measures applied to the project interfere with the project budget and how it relates to the energy efficiency requirements, for the project.

Figure 1 provides the EUI and energy consumption percentage, by end-use category, for each of the Baseline Design and the Proposed Design. Inspection of this figure indicates a Baseline EUI = 95.8 and a target EUI for the Proposed Design of 53.0.

Figure 2 provides a comparison of energy consumption, by end-use category, in terms of actual energy consumed, for the Baseline and Proposed Designs.

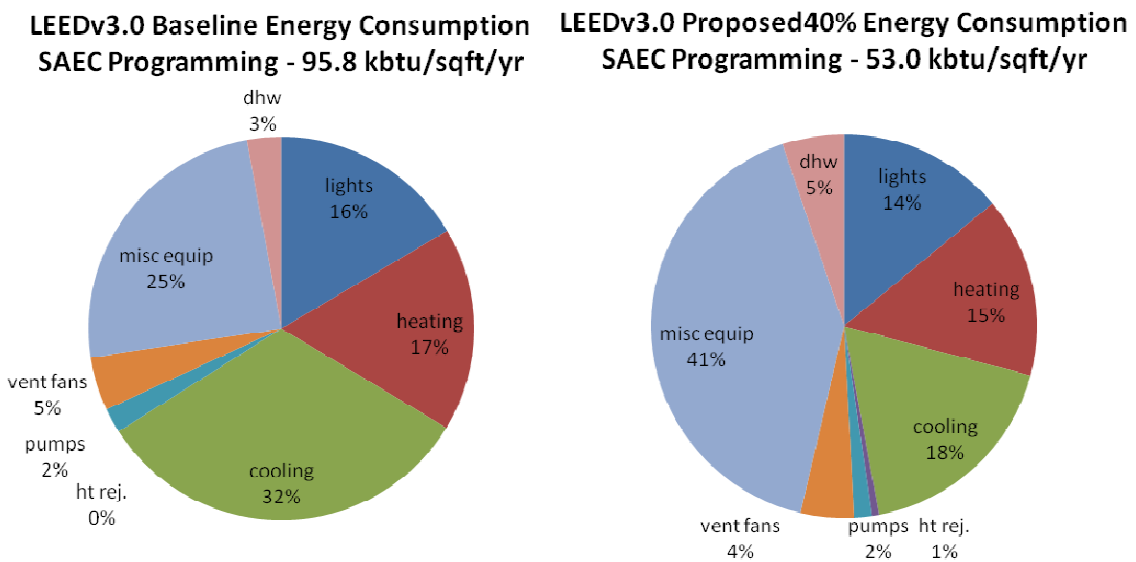
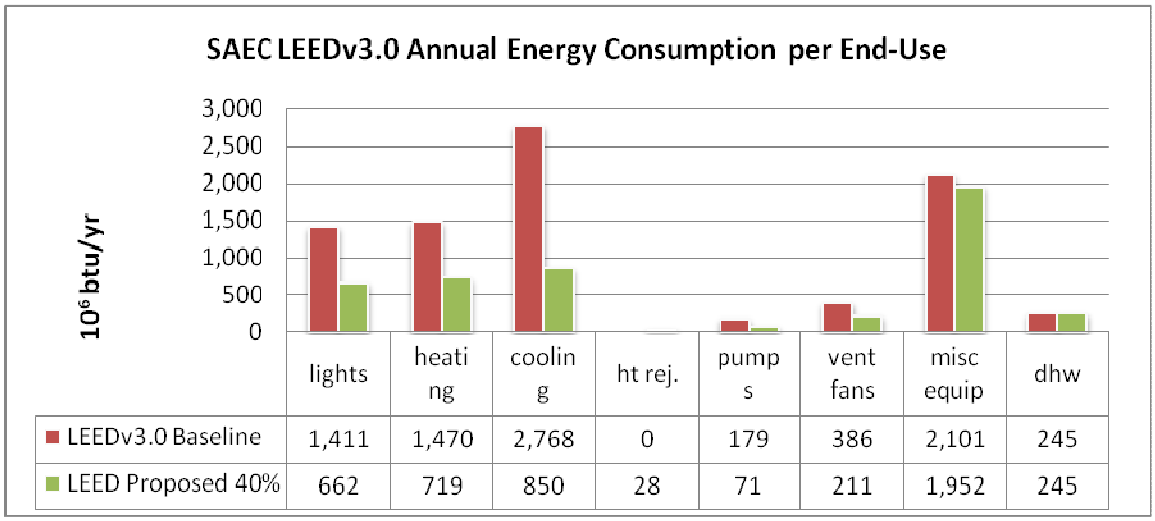


Figure 1 - Energy Study Baseline & Proposed EUI & Energy Consumption by End-Use-Category



	lights	heating	cooling	ht rej.	pumps	vent fans	misc equip	dhw
LEEDv3.0 Baseline	1,411	1,470	2,768	0	179	386	2,101	245
LEED Proposed 40%	662	719	850	28	71	211	1,952	245

Figure 2 - Energy Study Proposed EUI & Energy Consumption by End-Use-Category

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, and to develop a preliminary group of energy efficiency measures that may be appropriate for the project. The analysis is not intended to constrain the design team to prescriptive Energy Efficiency Measures.

Because of the aggressive energy efficiency goals/requirements of the project, much of the approach or consideration to design, for all disciplines, will be heavily tied to the results and implications of the energy analysis. As such, additional evaluation of EEM

effectiveness is recommended through life cycle cost analysis (LCCA). A general description of EEM's applied to the Proposed Design model are summarized below. More details regarding the actual parameters and definitions used in the analysis are offered as part of attached Performance Rating Method Compliance Report.

BUILDING ENVELOPE

- Improved Wall Insulation
- Improved Fenestration Assembly U-factor
- Improved Fenestration Assembly SHGC

ELECTRICAL SYSTEMS & PROCESS LOADS

- Significant Reduced Lighting Power Densities
- Lighting Occupant Sensor Controls
- Daylighting Controls
- ENERGY STAR Rated Equipment (process load reduction)

HVAC & PLUMBING SYSTEMS

- Indirect/Direct Evaporative Cooling
- Variable Speed Supply Air Fan & Cooling Tower Fan Control
- Improved Supply Air Fan Efficiency
- Improved Hydronic Pump Efficiency & Variable Speed Pump Control
- Improved Economizer Control
- Relief Air Energy Recovery

Additional EEM's that were not applied to the preliminary analysis, but may be considered by the design team include, but are not limited to the following.

- Building and/or Fenestration Shading
- Dedicated Outdoor Air System (DOAS)
- Demand Control Ventilation (DCV)
- Elevator Motor Efficiency
- Low Flow Plumbing Fixtures
- On-Site Renewable Energy

Further reduction of process load, through proper documentation of scheduled process equipment, is also recommended toward meeting energy efficiency goals, where EEM's applied to the preliminary analysis cannot be carried through the design completion. For example, significant reduction of lighting power density (LPD) is assumed for most occupied spaces in the preliminary analysis, which implies aggressive use of advanced lighting technologies. As the design progresses, these assumptions may conflict with budgetary constraints, occupant requirements, and/or other owner/occupant necessities. If this case arises, shifting electrical demand/consumption away from the process load, to be used for lighting may be considered.

For the preliminary energy analysis, the following items are provided as additional documentation in the appendix:

- Performance Rating Method (PRM) Compliance Report
- Baseline and Proposed System Checksums Reports
- Baseline and Proposed Monthly Energy Consumption Reports
- Baseline and Proposed Monthly Utility Costs Report

Inspection of the System Checksums Reports (SCR) provides information that will be useful to the design team, beyond what is offered in terms of energy analysis reports. For example, the Proposed Design SCR offers preliminary calculations of peak heating and cooling loads (also important toward planning the demand placed on the campus central plant utilities), design air flow rates/capacities, and several other points of reference data relating to HVAC building and system design parameters that can be utilized for the Schematic Design Phase.

The building geometry/layout used for the models constructed for the preliminary energy analysis is based on the Block & Stack Diagrams offered in Section 3.5 of the program document and is situated on SITE 4, as described in Section 4.2.5 of the program document. Significant modifications made to the building, during the design phase, or use of alternative site location (which may require significant changes to the building layout, based on site constraints) can significantly impact the results of the preliminary energy analysis and may require reevaluation of the Baseline, and therefore, Target EUI's, which will be the responsibility of the design team to demonstrate, if necessary.

As referenced in the PRM Compliance Report, the analysis also relies on the assumptions that the project will utilize campus central plant high-temperature hot water & chilled water. These utilities, as well as electricity, are billed to the facility through rates determined by University of Utah Plant Operations, as described in the PRM. Alterations from these assumptions (central plant hot/chilled water vs. building chiller/boiler and campus electric billing vs. Rocky Mountain Power electric billing), during the design phase, may also have appreciable impacts to the results of the energy analysis and the design's ability to meet the energy efficiency goals and requirements of the project.

INTERNAL LOADS

Use the following loads if more specific design information is not available:

People:	250 Btuh, sensible 200 Btuh, latent
Lights:	.85 watt/ft^2, overhead
Equipment:	1 laptop PC per person in lecture halls and classrooms 1 desktop PC per seat in offices 1 copier per 10 people in office groups

Modify internal load calculations as required when more specific design information becomes available, in order to maintain indoor design temperatures.

Reference attached energy model documentation for modeled lighting and equipment power density.

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 62.1-2004, Ventilation for Acceptable Indoor Air Quality, 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/ft^2, 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.

MEASUREMENT AND VERIFICATION

Install continuous metering equipment for the following uses:

High temperature water Btu consumption at building
Chilled Water
Domestic cold water

The University of Utah requires an ultrasonic flow meter, with clamp-on (out of flow) transducers for the high temperature water. The preferred vendor is Panametrics, Model DF868.

Note that this level of Measurement and Verification is not adequate for LEED credit.

Systems

GENERAL DESCRIPTION

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 penthouse mechanical room.

Provide single duct air distribution; with VAV reheat boxes in all zones. Use minimum two row coils in perimeter zones, and single row coils in interior zones. Provide a ducted return air system, and 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

Provide single custom air handler, for installation in a roof penthouse, as follows:

AH-1: 4” double wall construction
85,000 cfm
4.0” TSP
MERV 7 filter bank, face area = 200 ft^2
2 each backward inclined, 12 blade direct drive plenum fans, 50 HP ea
Heating coil: 5/8” diameter 0.035” thick tubes, 2 rows, 6 fpi, 200 ft^2 face area
Chilled water coil: 5/8” diameter 0.035” thick tubes, 4 rows, 10 fpi, 200 ft^2 face area
Direct Evaporative Media: 12” GlasDeck, stainless steel sump, 170 ft^2 face area

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	
	(bhp/1,000,000 Btuh)	**(W/gpm)**
Full Load	2.50	23.3
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:

Load	**Maximum Water Transport Energy**	
	(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 shall comply with NFPA, campus fire marshal 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
Dance Theatres:	Ordinary Hazard, Group 1
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 ft^2. area.
Ordinary-Hazard, Group 1 Occupancy:	0.15 gpm over 1500 ft^2. area.
Ordinary-Hazard, Group 2 Occupancy:	0.20 gpm over 1500 ft^2. area.
Special Occupancy Hazard:	As determined by authorities having jurisdiction.

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

Office Space:	225/400 ft^2.
Storage Areas:	130/400 ft^2.
Mechanical Equipment Rooms:	130 ft^2.
Electrical Equipment Rooms:	130 ft^2.
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 shall comply with NFPA 13, campus fire marshal and State of Utah Fire Marshal requirements.

CONTROLS

Provide Direct Digital Control (DDC) system. Reference University of Utah Design Standards, Chapter 6 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.

Assume 95 zones.

5.4 Electrical / Technology

Electrical Systems - 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 this program by reference and are not restated in the program 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
Utah State Fire Marshal Laws, Rules and Regulations

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. At the time this program is written, there is an existing feeder (F73) with sufficient capacity that is available in manhole (32B) that is to be installed as part of the Business Building project that is under construction. Depending on which site is finally selected, this manhole may be in very close proximity to the new building. As part of the Sorenson Arts Building project, feed from this manhole with a new duct bank to the new building. A new 15 kV switch will be required, and the campus preference is to use on-grade, pad-mounted switches as opposed to underground vault-mounted switches. This approach has been reviewed and approved by the campus electrical shop and facilities electrical engineer, however, given the uncertainty of the timing of this project in relation to other projects that may or may not occur, and that would affect the capacity of existing feeder(s) in the area, the design engineer shall verify existing conditions and capacities of 12,470V feeders in the area before making a determination on how to connect to the campus distribution system. It should be noted that there is concern with the capacity of the Stadium Substation, from which the feeder originates that will serve the new building. 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, however, this is yet another unknown factor that needs to be verified during the design of the building.

Load on existing feeders is a critical factor. No one feeder shall be loaded to more than 50% of its capacity to allow for back-up switching to occur on any feeder. Prior to

finalizing any design direction on the medium voltage system, a load study shall be performed that includes existing loads and the anticipated load of the new building. Design system to maintain a loop arrangement to allow sectionalizing of the system to occur without having to take an outage. 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, solid dielectric type switch with protected ways to serve the building transformer(s) and at least one spare way for future use. 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.

Two of the proposed building sites (Site 1 and Site 2) are very near a medium voltage duct bank that was recently relocated as part of the Business Building project (the line runs north-south, directly east of the Business Building). The design team shall be aware of this line and avoid site work that would require this line to be relocated again.

Telecommunications
It is preferable on campus to provide telecommunications service entrances from two separate directions in order to establish redundant paths. Depending on the final building location, manholes M321 (to the southwest of potential building sites) and manhole M32 (to the northwest of potential building sites) are two possible manholes from which to take service. Provide a minimum of two 4" conduits from each manhole into the building main telecommunications room. Coordinate the final site telecommunications design with University of Utah Netcom department.

Building Service and Distribution

Main Service
Design main electrical room close to the pad-mounted transformers for building. The main switchboards shall be provided with Square D “Powerlogic” type digital metering that is connected to the Campus central power monitoring system via data lines. To the greatest extent possible, separate different types of loads onto different feeders and load centers, such as motors, lighting, convenience power and “clean” computer power.

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 will 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 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:
Design all wiring in raceways, minimum ¾”C. Type MC or AC cable is strictly prohibited. Design 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 and technology systems whether furnished as part of the construction contract or furnished by the Owner. Stub conduits to the future outdoor amphitheater for power and communications.

Equipment and Furniture
It is the responsibility of the design engineer to obtain equipment catalog sheets and installation diagrams and include power and raceway for all equipment requiring electrical connections. 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 Study
A fault current and coordination study shall be performed by a licensed electrical engineer to indicate available fault current at all points in the building distribution system. 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.

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
Refer to program and space plan sheets for basic requirements. Where requirements cannot be identified, the following shall be used as a general guideline. Each outlet location shall be coordinated with the design team and end user during the design.

Dance Studios: Ensure that there is at least one outlet for each 12’ of wall space. Provide outlet on dedicated circuit for the AV cabinet.

Dressing Rooms/Lockers: GFI outlets on dedicated circuits at mirrors and counter tops. Outlets shall be switched per reference codes and standards for Green rooms.

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.

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 diesel generator for the new building. Locate generator outdoors in a screened area with weather-protective, sound-attenuating housing and skid-mounted, doublewalled tank. Fuel supply shall be minimum 18 hours at full load. Design at least two transfer switches: one for emergency and one for standby ("optional") 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)
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, design lighting with a minimum efficacy of 90 lumens per watt. Specify 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. Specify lamps complying with EPA TCLP requirements.

Comply with ASHRAE 90.1 requirements, except that overall energy target requirements should be exceeded by 30%. Design 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.
Design parking areas to comply with RP-20-98, except that the minimum illuminance shall exceed 1 footcandle with a 15:1 uniformity. Design pedestrian areas to 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 Dance Studios), design 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.

In the Main Studio, provide infrastructure to support the Theatrical Lighting Control System as described in Section 5.5 of the program narrative. Electrical infrastructure for this system shall include dedicated feeder(s) and wiring, junction boxes, pull boxes, terminal cabinets, cable trays, conduit, enclosures, standard receptacle and device back boxes and any other electrical materials or hardware as required to provide a complete system.

In the Costume Construction area, provide at least 75 FC average task lighting using color-corrected lighting technologies.

For the Donor Wall and areas likely to contain artwork, provide accent lighting to supplement the general ambient lighting.

Select occupancy sensors for the appropriate applications and control for daylight harvesting. Specify dual technology ceiling mounted directional sensors in private offices and studios 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. Integrate lighting control for energy savings with lighting control for audiovisual.

Design 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			
SPACE	**AVE. ILLUMINATION LEVELS IN FOOTCANDLES (FC)**		**CONTROL REQUIREMENTS**
	AMBIENT	**TASK**	
Public Circulation and Lobbies	20 FC	N/A	ON/OFF WITH OCCUPIED SCHEDULE AND MANUAL OVERRIDE; DAYLIGHTING WHERE PROVIDED
Private Offices, Reading Rooms	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
Dance Rooms	10 FC - 50 FC	N/A	OCCUPANCY SENSOR AND MULTI-SCENE VARIABLE CONTROL
Art Rooms	30 FC	50 FC	OCCUPANCY SENSOR AND MANUAL SWITCH, DAYLIGHTING WHERE PROVIDED
Mechanical Rooms / 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
Kitchens	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" and University of Utah Design Standards. Only FCI as distributed by Nelson Fire Systems is allowed on campus. Design 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. Design strobes visible from all locations except private offices. Design 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. 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 will 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 will 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

General

This project is under the requirements of the DFCM High Performance Building Rating System, and is also under consideration for LEED™ Silver Certification. The following general areas shall be addressed in the electrical design in order to meet sustainable design criteria:

Light Pollution Reduction: Design 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:

1. 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.
2. Enclosed Spaces (offices, conference rooms, equipment rooms, etc.): Provide occupancy sensors with local “off” override switches.
3. 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.
4. 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.
5. 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 will be an integral process of the design and construction. Participate fully with the Commissioning Agent during design, and specify that the electrical systems installers are 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 Systems - 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.

DFCM, Division of Facilities Construction and Management, Design Criteria
EIA/TIA, Electronics Industries Association/Telecommunications Industry Association
IBC, 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

Structured Cabling Systems

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

Voice and data service will originate from the designated campus demarcation, and will be comprised of a combination of category 3 copper cabling for voice, and single and multimode fiber for data. This cabling will terminate in the main telecommunications room, or MDF. From the MDF, a backbone of category 3 copper cable for voice, and a

combination of multimode and single mode fiber cabling for data will be provided to each subsequent wiring closet, or IDF on each of the floors for voice and data signal distribution. From that point, horizontal cabling will be provided to each of the voice/data outlet “drops”.

Typical Voice/Data Outlet
For non-teaching spaces, design each typical voice/data outlet with 3 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 three 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 University of Utah desires that the building include a wireless LAN. Provide data outlets at University of Utah designated locations for wireless access points. Include 1 IG duplex outlet on dedicated circuits by each wireless access point data outlet.

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

Voice and 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
A complete access control system will be specified to control entry to all perimeter entry/exit points, and at select sensitive interior spaces. Card readers will be the proximity type, and will comply with established campus standards. Card readers will report to central door controllers. Coordinate door hardware to minimize the aesthetic impact to the appearance of the building.

Video Surveillance
A complete video surveillance system will be specified to provide for visual monitoring at all building entry/exit points, at select main building thoroughfares, elevator lobbies, and at select sensitive interior areas. 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 with minimum 20" video monitors for viewing. 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 for installation as part of the building construction work, to be completed with all building trades. Audio and video systems will be specified for full compliance with established campus standards.

Classrooms
The classrooms will be provided with fully integrated audio, video, and control system. Provide a projector in a 16:9 format, with a ceiling recessed, square format electric roll-up, tension cabled, projection screen. Size projection screen using industry-wide accepted mathematical formulas appropriate for the nearest and furthest viewers. Locate the projection screen in close coordination with seating layouts to assure appropriate viewing sight lines. Provide a projector with a minimum native resolution of 1366 X 768. As with screen sizing, utilize industry-wide accepted mathematical formulas to calculate the required light output for each projector to assure that images will not be "washed out" by ambient room lighting. Include all video system calculations in the construction drawings.

Provide an audio system for the playback of portable and fixed media source audio only. Voice reinforcement systems are not required. Include front wall mounted, stereo speaker systems. Provide lectern/instructor's desk mounted computer video, composite video and S-video inputs, with their associated audio signals, to the permanently mounted projector/audio system. Provide an audio system output for connection to a portable assisted listening system for compliance with the Americans with Disabilities Act. Provide resident source devices including, but not limited to, computers and Blu-ray DVD players, with an input for portable MP3 players.

Provide an integrated control system to control all AV system functions, room lighting, and motorized window coverings where applicable. Locate the touch panel interface on the lectern/instructor's desk. Specify control system manufacturers in compliance with established campus standards. The touch screen control panel will be programmed in full compliance with the end user's desired button layout, configuration, and labeling. In addition, macros (multiple events) will occur when a button on the touch panel is engaged.

Conference Room
The conference room will be equipped with an audio system for teleconferencing (not video conferencing) and media source device playback. The conference room table will be permanently wired with microphones for the capture of meeting participant audio. Mix audio signals using digital signal processors (DSP's) with resident echo cancellation processor blocks. Amplify audio signals to recess ceiling mounted distributed speaker systems.

A video system will be provided for large screen display of meeting subject matter. Size the square format, ceiling recessed, electric roll-up, tension cabled, projection screen using mathematical formulas appropriate for the nearest and furthest viewers. Locate the projection screen in close coordination with seating layouts to assure appropriate viewing sight lines. Provide projectors in a 16:9 aspect ratio with a minimum native resolution of 1366 X 768. As with screen sizing, utilize mathematical formulas to calculate the required light output for each projector to assure that images will not be "washed out" by ambient room lighting. Include all video system calculations in the construction drawings.

In addition to the microphones, the conference room table will be permanently wired with computer video and audio inputs. This connectivity will be provided in a "hidden" connection panel mounted flush in the table. Basic source devices including a Blu-ray DVD players will also be provided.

A fully-integrated control system will be provided for control of all audio and video system components, lighting systems, and motorized window coverings (where applicable). To meet this need, a touch screen control panel will be provided and integrated into the table "hidden" connection panel. Specify control system manufacturers in compliance with established campus standards. The touch screen control panel will be programmed in full compliance with the end user's desired button layout, configuration, and labeling. In addition, macros (multiple events) will occur when a button on the touch panel is engaged.

Distance Education
In addition to the above requirements, distance education capability will also be provided in the classrooms. The distance education equipment will include, but not be limited to, microphones for the students and instructor, cameras for the students and instructor, and supplementary video monitors for the students and instructor. The rooms will be provided with the capability for connection to the Utah Educational Network, and will each be provided with a CODEC providing the capability to connect each room to remote sites that are not part of the Utah Educational Network.

Lobby
The lobby will be equipped with a single large screen flat panel monitor. The approximate 50" monitor will be wall mounted in coordination with the architectural design team. The monitor signal source will be an owner designated computer. Video signal and control commands will be transported to the monitor via UTP cable. Remote control of the monitor will be provided at the owner designated source computer location.

Facility-wide Paging Systems:
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.

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.

5.5 Theatrical Technical Criteria

2.1.4 Main Studio

The *Main Studio* shall be a flexible rehearsal space with the ability to host informal performances for an audience of approximately 220 people. The space can be divided, using double operable partitions (acoustic air walls), for use as two *Senior Dance Studios* or used as a single open room for large scale rehearsals or informal performance. What follows are descriptions of the various Theatrical Systems required for the *Main Studio* to fully function. Components of several of the systems shall be housed in required support spaces which include the *Control Booth (5.2.1), Dimmer Room (5.2.2) and Sound Equipment Room (5.2.3)*. Theatrical equipment and systems costs are NOT included in base building costs. Structural support, fastenings, electrical power and control-voltage electrical provisions required for the installation and complete function of the theatrical equipment and systems shall be included in base building costs.

Studio Floor
The floor system is a primary functional system within this space; and the only theatrical system that is included in base building costs. The floor will be a dance floor resiliently-mounted assembly consisting of plywood substrates with a hardwood topping surface with a specially designed sleeper and resilient pad support system. The resilient floor system shall be capable of supporting a 150-pound per square foot live load, as well as a 250-pound point load.

Fixed and Telescopic Seating Riser Systems
The seating area shall be a motorized telescopic system of seating platforms with self-storing theatre seats and railings. When retracted into its storage position, the seating will be “self masking” using fascia panels that provide a decorative front design to conceal the hidden seating platforms. Setup or storage of the telescopic system should not take more than 15 minutes to execute. Audience seating shall include articulating, fully upholstered theatre seats. Seating will include accommodations for persons with limited mobility in conformance with applicable State of Utah requirements and Federal ADA guidelines. Aisle lights will be provided to comply with prevailing code, delivering a minimum of 0.2 foot-candles continuous along the aisle/egress path under projection/performance conditions.

Theatrical Rigging Systems
The rigging system will accommodate limited hanging and shifting of scenery, stage draperies, masking and elements of the stage lighting systems. The system shall rely on a fixed pipe grid located over the entire room with spacing approximately 4’-0” on center both ways. An upper-level *Technical Gallery* will ring the room allowing for additional lighting and rigging points with convenient, safe access. The *Technical Gallery* will connect to the *Control Booth*.

An upstage traveler track will be provided for manual, bi-parting full-stage black traveler. Side masking draperies will be mounted on railings of the *Technical Gallery* catwalks for easy access and hanging by technicians. Side lighting "pipe ends" may be hung on *Technical Gallery* railings with tail-downs for additional lighting positions when and where required.

Theatrical Draperies
A complement of velour masking draperies or “blacks” will be provided. The inventory will be modest; sized to the upstage area. It will include legs and a full width traveler curtain. A leno cyclorama (filled scrim) on a walk along track will be provided for sky background effects and to provide a scenic projection surface. All curtain fabrics will be certified fire retardant, treated to comply with national and local building and fire codes.

Theatrical Lighting Control Systems
Technical lighting shall be provided from positions on the pipe grid and T*echnical Gallery*. Lighting positions will be circuited with 96 branch load circuits terminating at a dimmer rack in the dimmer room. The dimming system will be based on a "dimmer per circuit" concept, utilizing a 20 amp capacity dimmer for each circuit. An alternate distributed dimmer integrated batten system should be considered.

Dimmers will be digitally controlled from a portable console located in the *Control Booth*. This same console will also used for technical sessions at an in-audience location. All control devices will be interconnected on an Ethernet based control network. Dedicated network receptacles will be located throughout the studio for convenient access. The system will support wireless hand-held focus remote controllers, which will provide basic control access for focus or service sessions.

The *Dimmer Room* must be fully air conditioned with its own thermostatic control. The dimming equipment to be used will require the ambient room temperature be maintained at no more than 80°F (27°C).

Given the tight space “backstage”, a compact version of a Production Control Panel will be provided, with many of the necessary controls that relate to the basic operation of the *Main Studio*. This panel typically contains controls for house lighting, work/rehearsal lighting, cue lights, production intercommunications and paging, and other production-related items.

Red signal lights, operated at the Production Control Panel, will be strategically located in backstage technical and performer waiting areas. These signal light stations will consist of signal lights and receptacles for portable plug-in units that can then be placed where desired.

Architectural lighting will consist of a dual system, utilizing both filament-type incandescent “halogen” lighting fixtures which are zoned and dimmer controlled and HID, CFL or LED fixtures for selective illumination of the room in its various configurations.

House lighting will be controlled at the theatrical lighting control console and a touch panel in the “on-stage“ production control panel, as well as panels located at each entrance to the room. Controls also include A switched system of "blue lights" or “running lights” mounted along the perimeter walls of the “stage” will enable low floor illumination of back stage circulation areas for performers and technicians.

The control booth will be equipped with fluorescent work lighting and incandescent track lighting. The track lighting will be dimmed with local wall-box dimmers and is intended to be used as the sole source of lighting during performances.

Theatrical Lighting Fixtures
Lighting for theatrical performances will be provided by portable lighting instruments clamped on the pipe grid or rails of the technical gallery as well as from side lighting pipes, ladders and over-stage electrics battens. A full complement of fixtures, with varied wattages and focal lengths suitable to specific functions and respective mounting locations will be provided. All theatrical lighting, with the exception of followspots, will utilize quartz-halogen lamps.

Theatrical Sound, Video and Communication Systems
The *Main Studio* requires Sound and Video systems that support two distinct room configurations and several functional requirements. In the instructional mode, the Main Studio is divided into two *Senior Dance Studios.*

Each *Senior Dance Studio* segment will be equipped with a sound system including full range loudspeakers on each side of the room for instructor voice reinforcement and dance music playback, and an Assistive Listening System conforming with applicable State of Utah requirements and Federal ADA guidelines. Source equipment will include music playback equipment including at least a CD player with remote controllable variable speed/variable pitch, and a docking device for a portable MP3 player. Source and control equipment will be located for convenient access by the instructor.

Each *Senior Dance Studio* segment will be equipped with a video system including one or more large screen flat-panel displays of suitable size for group instructional viewing. Sources will include at least a Blu-ray/universal disc player, the video signal of the MP3 player dock, and an input for a portable computer in both analog VGA and various digital signal formats. The video/computer signal input, switching and transport sub-system shall support High-bandwidth Digital Content Protection (HDCP) end-to-end.

To support the *Main Studio* single room studio/rehearsal configuration, the two *Senior Dance Studio* segment sound and video systems will be interconnected by a control system action to function as a single larger system.

To support the *Main Studio* single room performance configuration, a performance sound system will be provided. In general, this will provide for robust music and sound effects playback and light reinforcement with separate coverage and zone controls to the audience zone and the performer zone. The instructional mode loudspeakers will be incorporated into the performance mode system as surround and effects loudspeaker channels. The system will include a compact digital audio mixing system and computer audio playback system. The system will include copper and optical fiber cable infrastructure for microphone, line level audio and video/computer signals. Interface plugging panels will be located at strategic locations in the room including the technical galleries and pipe grid to provide for connection of portable devices without portable cables crossing paths of travel or paths of egress. An Assistive Listening system will be provided, using wireless RF or infrared transmission technology, including a Code compliant quantity of portable receivers.

For performance mode support, the video/computer graphics system will include additional source equipment located at the Control Booth. The projection system will consist of a video projector located in the *Control Booth,* for projecting multimedia backdrops, and an infrastructure of cabling and interface receptacle panels within the *Main Studio* for video and program source playback from laptop, Blu-ray/DVD and other digital devices. The system will provide connections and wiring to allow for possible use of multiple classroom-scale video projectors to provide a low-cost approach to implementing projected scenery or other immersive visual environment effects.

Reconfiguration of the audio and video system into the various functional/instructional modes will be implemented by means of a programmable control system with multiple touchpanels to provide a self-evident user interface. Programming of the control system will be defined to provide for “lockout” of some or all public-space touchpanel functions when the room is in performance mode.

A minimal quantity of portable equipment including wired and wireless microphones, loudspeakers, cables, patch cords and stands shall be recommended for purchase.

A simple local two-channel party line intercom system will provide technical two-way voice communication between various technical positions. Portable party line belt packs and headsets stations shall be provided. The sub-system will be connected to the facility wide matrix intercom to allow coordination throughout the building.

A program monitor/page/recall system will be installed throughout the *Studios* and their associated support areas to allow for audio monitoring or performances and page announcements.

2.1.1 Introductory Studio
2.1.2 Junior Dance Studios
2.1.3 Senior Dance Studios

The *Introductory Studio, Junior Dance Studios and Senior Dance Studios* shall serve the daily needs of Tanner Dance, including the Fine Arts Pre-school.

Studio Floor
The floor system is a primary functional system within this space; and the only theatrical system that is included in base building costs. The floor will be a dance floor resiliently-mounted assembly consisting of two ¾" tongue and groove plywood substrates with a hardwood topping surface with a specially designed sleeper and resilient pad support system. The resilient floor system shall be capable of supporting a 100-pound per square foot live load.

Theatrical Rigging and Draperies
A walk-along track will be provided for manual, bi-parting draperies along one wall in each of the spaces to allow for coverage of the mirrors.

Theatrical Lighting Control Systems
None Provided

Theatrical Lighting Fixtures
None Provided

Fixed and Telescopic Seating Riser Systems
None Provided

Theatrical Sound, Video and Communication Systems
Each *Dance Studio* will be equipped with a sound system including full range loudspeakers on each side of the room for instructor voice reinforcement and dance music playback, and an Assistive Listening System conforming with applicable State of Utah requirements and Federal ADA guidelines. Source equipment will include music playback equipment including at least a CD player with remote controllable variable speed/variable pitch, and a docking device for a portable MP3 player. Source and control equipment will be located for convenient access by the instructor. Interface plugging panels will be located in each room near the piano.

Each *Dance Studio* will be equipped with a video system including one or more large screen flat-panel displays or a video projector and screen of suitable size for group instructional viewing. Sources will include at least a Blu-ray/universal disc player, the video signal of the MP3 player dock, and an input for a portable computer in both analog VGA and various digital signal formats. The video/computer signal input, switching and transport sub-system shall support High-bandwidth Digital Content Protection (HDCP) end-to-end.
A minimal quantity of portable equipment including wired and wireless microphones and accessories shall be recommended for purchase.

A program monitor/page/recall system will be installed in each *Dance Studio* and the associated support areas to allow for audio monitoring or performances and page announcements originating from the *Main Studio.* Each *Dance Studio* will include connections to the Production Intercom system at the *Main Studio* to allow for *Dance Studio* use as dressing and assembly/waiting area for large performance events in the *Main Studio.*

2.1.5 Art Studio

The *Art Studio* shall provide a space for the creation of visual arts for the Fine Arts Pre-school, general Tanner Dance curriculum, as well as 3015 series classes.

Theatrical Rigging and Draperies
None Provided

Theatrical Lighting Control Systems
None Provided

Theatrical Lighting Fixtures
None Provided

Fixed and Telescopic Seating Riser Systems
None Provided

Theatrical Sound, Video and Communication Systems
The *Art Studio* will be equipped with a portable sound system including full range loudspeakers at the instructor area of the room for instructor voice reinforcement and visual material audio playback. Source equipment will include playback equipment including at least a docking device for a portable MP3 player. Source and control equipment will be located for convenient access by the instructor. Interface plugging panels will be located in each room near the instructor zone.

The *Art Studio* will be equipped with a video system including an installed motorized front projection screen and a video projector for group instructional viewing. Sources will include at least a Blu-ray/universal disc player, the video signal of the MP3 player dock, and an input for a portable computer in both analog VGA and various digital signal formats. The video/computer signal input, switching and transport sub-system shall support High-bandwidth Digital Content Protection (HDCP) end-to-end.

A minimal quantity of portable equipment including wired and wireless microphones and accessories shall be recommended for purchase.

4.4 Dressing Rooms

Group dressing rooms for the *Dance Studios* are provided adjacent to these spaces. As part of the base building costs, provide continuous dressing/makeup counters with individual stations set on 30" centers. Each station shall include a lockable drawer and individual mirror with color-corrected fluorescent lighting. Use of fluorescent lighting for makeup is becoming widely accepted, now that color temperatures closely mimic incandescent or tungsten lighting. Per National Electrical Code requirements, all lighting and receptacles at dressing/makeup counters will be locally switched and indicator lights shall be located outside of the dressing rooms, by the door, so that the status of circuits within the dressing rooms will be known to staff and faculty.

Theatrical Sound, Video and Communication Systems
A program monitor/page/recall system will be installed in each *Dressing Room* to allow for audio monitoring or performances and page announcements. Each *Dressing Room* will include a receptacle connection to the Production Intercom system at the *Main Studio.*

4.6.1 Costume Fabrication, 4.6.2 Costume Laundry / Dye and 4.5.6 Costume Storage

A suite of rooms including *Costume Fabrication*, *Laundry and Dye*, and *Costume Storage* shall support the production and distribution of over 400 costumes a year. Both *Costume Fabrication* and *Laundry and Dye* shall be equipped with supplementary lighting systems to accommodate fitting spots and color matching. Sufficient circuiting to support multiple pieces of machinery running simultaneously shall be necessity as will proper ventilation in the *Laundry and Dye* room where a spray booth for painting fabric will be located. The *Costume Storage* area shall be supplied with both a mechanical assist mobile shelving system as well as a garment conveyor system.

2.2.1 Multifunction Hall

The *Multifunction Hall* shall be a flexible classroom space providing the ability to host lectures or workshops for groups of 200 and then be quickly reconfigured into two to four smaller meeting spaces.

Fixed and Telescopic Seating Riser Systems
The seating area shall consist of two motorized telescopic units of seating platforms with self-storing theatre seats and railings. Setup or storage of the telescopic system should not take more than 15 minutes for two technicians to execute.

Audience seating shall include articulating, fully upholstered chairs. Seating will include accommodations for persons with limited mobility in conformance with applicable State of Utah requirements and Federal ADA guidelines. Aisle lights will be provided to comply with prevailing code, delivering a minimum of 0.2 foot-candles under projection/performance conditions, continuous along the aisle/egress path.

Theatrical Rigging Systems
None Provided

Theatrical Draperies
None Provided

Theatrical Lighting Control Systems
None Provided

Theatrical Lighting Fixtures
None Provided

Theatrical Sound, Video and Communication Systems
The sound reinforcement system for the *Multifunction Hall* will be a ceiling distributed system of loudspeakers strategically placed in each quadrant of the room to allow for the various configurations, and an Assistive Listening System conforming with applicable State of Utah requirements and Federal ADA guidelines. The loudspeaker and ALS system shall be zoned to work independently for each segment or combined as a single system. Wired and wireless microphone inputs will be provided at each room segment. A digital signal processing system will be used to implement automatic microphone mixing and room combining.

The projection system shall consist of two ceiling mounted projectors, and an infrastructure of cabling and interface receptacle panels within the space for video and program source playback from laptop, Blu-ray/DVD and other analog and digital devices. . The video/computer signal input, switching and transport sub-system shall support High-bandwidth Digital Content Protection (HDCP) end-to-end.

A simple local two-channel party line intercom system will provide technical two-way voice communication between various technical positions when required. Portable party line belt packs and headsets stations shall be provided. The sub-system will be connected to the facility wide matrix intercom to allow coordination throughout the building.

Building and Campus Connectivity

The entire building shall be wired to allow for audio, vide and production communication with other areas within the building as well as other Fine Arts or Education facilities around Campus. Infrastructure should exist throughout the building which would allow a Professor to gather students in a large public space and hold an informal class, projecting instructional materials on a nearby wall.

5.6 Food Service / Elevator / Acoustical

Food Services

The program for the BTSAEC may include a café with light food preparation and serving areas. Tenants of the BTSAEC have requested that the design team include a food services consultant to design kitchen/food preparation/serving areas with input from campus food services if such a facility were to be included. Furnishing and installing food services equipment would be included in the contract for construction. Please refer to Appendix Section F for reference materials from the campus food service provider which may assist in opening design discussions.

Elevators

During schematic design, the project team, including the construction manger, should evaluate whether to obtain the services of an independent elevator consultant or to include the elevators in the initial bid package. In order to minimize coordination difficulties, it will be important to have an independent consultant or the selected vendor on board as part to the project team prior to the beginning of construction documents for the main bid package.

Acoustics

In order to validate and achieve the goals outlined in this section, an acoustical engineer may be warranted as a component of the design team. The engineer may be hired either by the owner or the design team, as negotiated.

To become a vibrant node of student life on the U of U campus, the BTSAEC must successfully balance the need for the social and interactive aspects of the student experience with the quiet, contemplative needs of research and academic instruction. In order to accommodate numerous types of public and private space with differing acoustical needs in a single building, the BTSAEC must take into account the appropriate sound absorption, acoustical separation, and background noise control measures needed to maintain quiet research and work spaces while allowing comfortable group study and gathering to occur in the lobbies, in and around studios, and in other designated areas of the building.

In order to ensure that the acoustics in each space are optimal for their use, and to ensure the acoustical separation of differing spaces within the BTSAEC, designers much consider three essential components of sound transmission: the source of sounds, the path of sound waves, and the perception of the receiver. The perception of the receiver can be influenced, and unwanted noise eliminated, by carefully planning the source and path of sound waves. This planning involves a delicate balance of space considerations, background noise acoustical absorption and acoustical isolation.

Acoustical separation can be accomplished to a great extent through effective space planning. For example, the BTSAEC program zoning diagram positions many of the noisiest areas of the building, such as children's circulation spaces, the café, are clustered about the common atrium space of the building. Because the conceptual plan

of the BTSAEC includes a move toward more interactive spaces, and because meeting rooms are interspersed throughout the main circulation spine of the building, each subdivision of space must be considered separately. The core areas requiring acoustical control include suites of collaborative Center's offices and work areas, the administrative team for Tanner Dance, academic classrooms and dance studios.

While there is need for acoustical control of the most vibrant and sometimes noisiest space, the client team understands that one of the focuses of the BTSAEC is a collaborative arts and education center where the processes for learning can be loud. Thus control may be needed at the perimeter of individual spaces, in addition to the boundaries of working groups. Dance studios have live music performed during instruction, classrooms may include drumming and acting, the Multifunction Hall may have audio visual presentation. Control of noise and vibration from these spaces in critical in crafting a fully functioning facility. The amount of background noise in a space can have a significant impact on the comfort level of its users; too much background noise can be distracting, while too little will only accentuate the noises of conversation, computer keys clicking, shoes on hard surfaces, music and other sounds created through general use. Recommended Noise Criteria (NC) for spaces are as follows:

Space Type	NC Rating
Open Public Areas (Circulation, Reference)	35-40
Children's Room (Family Study)	35-40
Computer Work Areas	40
Private Offices	30-35
Open Staff Work Areas	35-40
Copy Rooms	40
Teleconference Rooms	max 25
Reading Rooms	25-30
Classrooms, Training Rooms	25-30
Assistive Devices Lab	30-35

Salter, Charles M. "Acoustics for Libraries." Libris Design Project, <http://www.librisdesign.org/>

Designers may need to consider both sound absorption and sound isolation in the design process to achieve their NC targets. Interior finish materials are the principal contributors to sound absorption. Typically, suspended acoustical ceiling tiles are programmed to prevent sound reflection off the ceilings. Solid core doors, drop down acoustical sweeps, and insulated wall construction will assist in separating the noisiest spaces from the most contemplative. Dance floor design to absorb footfall will be important. The sound absorption properties of typical finish materials, expressed in terms of Noise Reduction Coefficient (NRC), are listed in the following table:

Sound Absorption (Common Building and Furnishing Materials)	NRC
Walls	
Unglazed Brick	0.00
Gypsum Board, ½ inch	0.05
Coarse concrete block	0.35
Shredded wood fiberboard (2 inches on concrete)	0.75
Floors	
Wood	0.10
Carpet on concrete (no underlay)	0.30
Carpet on foam rubber	0.55
Ceilings	
Plaster on lath	0.05
Suspended acoustical tile, ¾ inch thick	0.95

Cohen, Aaron and Elaine. Designing and Space Planning for Libraries. R.R. Bowker Co: New York, 1979.

While sound absorption helps control the noise level within a space, sound isolation helps control the transmission of sound from one space to another. Sound transmission properties of wall assemblies are expressed in terms of a Sound Transmission Coefficient, or STC. As with sound absorption, STC-rated walls should be used to reduce sound transmission into some spaces and out of others. We recommend STC-rated partitions surrounding or separating programmed spaces in accordance with the following table:

Space Type	STC
Open Public Areas (Public Services, Research Assistance)	40-45
Children's Room (Family Study)	50-55
Computer Work Areas	40-45
Private Offices	45-50
Open Staff Work Areas	45-50
Copy Rooms	50-55
Teleconference Rooms	45-50
Reading Rooms	45-50
Instruction Rooms, Training Rooms	40-45
Lab for Assistive Devices	40-45
Mechanical Rooms	55-65

Elevator Rooms	55-65
Restrooms	55-65

Impact noise or structure-borne vibration can contribute to poor acoustics as much as airborne sound. Such concerns within the BTSAEC include the sounds of footsteps on hard surfaces of common areas, vibrations from dance studios and vibrations created by mechanical equipment. Absorption of structural born noise resultant from foot fall should be a significant factor in the selection of the structural systems for the building. The structural engineer will be able to make well versed recommendations on the utilization of specific structural systems. Impact and vibration are expressed in terms of Impact Isolation Class (IIC). We recommend using floor/ceiling assemblies above and/or below the listed spaces having the following IIC ratings:

Space Type	**IIC**
Open Public Areas (Circulation, Reference)	50
Computer Work Areas	50
Private Offices	50
Open Staff Work Areas	50
Copy Rooms	55
Teleconference Rooms	50
Reading Rooms	50
Instruction Rooms, Training Rooms	50
Lab for Assistive Devices	55
Mechanical Rooms/Penthouse	65*
Elevator Rooms	65*
Restrooms	55

* If this IIC cannot be achieved, design to minimum IIC of 55 and isolate all vibration producing equipment.

Certain areas within the BTSAEC will be more acoustically problematic, particularly if they are located near the quiet areas. The most common areas of acoustic disturbance within building such as this are circulation areas and performance/practice areas. These areas will require more acoustic mitigation. Lobbies and common circulation spaces will need a special degree of absorption to combat the noised generated by copiers, hard reflective surfaces, footsteps and conversing groups. Special consideration will need to be taken in selecting not only ceiling tiles, but also floor and wall surface finishes. Restrooms in the BTSAEC may also be acoustically problematic. This can be solved in part by space planning, isolating restrooms away from the quiet area and location restroom entrances in sound absorbing maze like hallways. Low background noise and masking noise generated by fans may also be necessary, however. The staff break room will also tend to be noisy and because staff will be constantly entering and exiting

the room, will need to absorb sound even while the door is open. This will require careful attention to the materials used to finish and furnish the room.

5.7 Expansion Strategies

Near the completion of the programming phase, the client team removed a number of program elements from the space summary to accomplish project budget goals. The elements include one Jr. Studio and a group of Center's spaces (6 Offices, 8 Open Workstations, 2 Collaborative Work Areas, and two Workrooms). As the bidding environment was volatile at the close of the programming phase, it is unknown whether these elements may be able to be added to the project during the design phase. If these elements were added back to the program their relationships mirror those of the existing spaces outlined on room data sheets and graphics.

There are no further necessities to allow for expansion of the BTSAEC. Although, coordination with the Campus Master Plan is helpful in understanding development of other sites in the vicinity of the BTSAEC. This long term perspective must take into account the future of Milton Bennion Hall as a resource of instruction, faculty office and administrative offices for both the College of Education and as a campus-wide resource.

SECTION 6

COST ESTIMATE

6.1 Total Project Cost

The cost model used in this facilities program is based on the conceptual building design prepared by the programming team of CRSA. The conceptual design graphics at the time of the production of the DRAFT program have not been formally approved by the Steering Committee of the Beverley Sorenson Arts and Education Complex project.

The preliminary visualization process was an integrated component of the programming phase. Graphic illustrations served as check to the programming efforts. In addition, the project form developed in concert with discussions with UofU Planning, Facilities, and the UofU Operations teams to inform and improve the program.

With respect to construction cost, the conceptual design graphics and the underlying design concepts represent a reasonable indicator of the quality of the building sought by UofU and the Steering Committee for the new Sorenson Arts & Education Complex Building.

During the course of the programming effort, the uncertainties of the current construction market in Utah were a recurring topic of discussion. We are aware that the State of Utah, as well as the nation, is in the midst of a recession. With that said, it is difficult to know if there will be inflation in the coming year or to what level. An inflation rate of 0% per annum was used, based on an estimated bid date of Winter 2010.

This programming effort has moved in parallel with the cost estimate. In 2008, the Utah Legislature approved the total project cost of $24,000,000 for the BTSAEC. The joint planning team from the Colleges of Education and Fine Arts and the Tanner Dance Program is in the process of finalizing the remaining funding to realize these privately-funded project objectives. While funding-related decisions that could be made to this point have been made, significant uncertainty remains because of two factors that will remain unknown until after this program is complete:

- The actual date for the approval to proceed with design and construction of the BTSAEC building.
- The actual construction cost increases that occur between now and the time of bidding.

The following pages present the cost estimate. This estimate synthesizes information collected from the CBE Details dated October 12, 2009 as well as construction costs from the detailed cost estimate completed at the DRAFT stage of the programming process and dated February 2, 2010 in reference to the final space summary. Both the CBE and the detailed cost estimate are included in

Appendix C. Adjustments were made to the space summary subsequent to the DRAFT cost estimate to align the project to the budget. These adjustments resulted in a reduction in gross square footage from 89,062 gsf to 83,823 gsf. The cost estimate does not include site development for the new BTSAEC as a single site has not been selected. An allowance for site development costs of $1,535,000 has been held based upon average costs associated with the three sites under consideration with additional funds for utility connections. This allowance includes traditional site development, existing utility relocation, and the BTSAEC portion for development of the proposed South Campus Walk, a joint project with the David Eccles School of Business. The allowance for Soft Cost/Fees includes the A/E fees as well as FF&E, IT, 1% Utah Art, Testing and Inspection, Moving/Occupancy, Commissioning, and other costs as detailed in the CBE. In addition, it includes 1.5% or $359,999 for Integrated Branding, Showcasing, Way Finding, and Donor Recognition not noted in the CBE. The FF&E cost estimate based upon the 83,823 gsf space summary is also included in Appendix C. It must be noted that the FF&E budget from the CBE allows only $1,393,342 total dollars while the FF&E estimate totals $2,376,551 or an overage of 58.6%. The steering committee will determine whether FF&E items will be omitted or additional funds raised to cover the overage during design. The cost estimate summarizes the project by specification division breakdown. The programming team utilized more detailed area costs to illustrate the development costs of studio and non-studio spaces to assist in reducing square footage to meet budget.

Total Project Cost – 83,823 gsf Building

Sorenson Arts and Education Complex Building	$ 14,570,906
General Conditions	$ 874,254
Contractor Overhead and Profit	$ 582,836
Design Contingency	$ 1,457,091
	$ 17,485,087
Escalation	$ 0
BTSAEC (Building Estimated Cost)	$ 17,485,087
BTSAEC (Building Budget from 10/12/2009 CBE)	$ 17,416,780
Building Construction Overage from CBE Budget	$ 68,307
Site Development	$ 1,535,000
Utility Fee	$ 20,000
High Performance Building	$ 280,752
Soft Costs / Fees	$ 4,436,288
BTSAEC Total Project Construction Estimate	$ 23,757,127
Overall Project Budget from CBE	$ 23,999,916
Over / (Under) Budget	**$ (242,789)**

AREA	DESCRIPTION	SPACES	NASF	TOTAL NET SF	NET TO GROSS	TOTAL GROSS SF	COMMON	COFA/COE	VTD/CDT	$/GFS	UNIT COST	COMMON	COFA/COE	VTD/CDT
	ENTIRE PROGRAM			**53,126**		**83,823**								
1	**PUBLIC / COMMON RESOURCES**			**3,880**		**4,002**								
1.1	**Entrances and Lobbies**													
1.1.1a	Vestibule	1	80	80	1.00	80			80	190	$ 15,200			$ 15,200.00
1.1.1b	Vestibule	1	80	80	1.00	80		80		190	$ 15,200		$ 15,200	
1.1.2a	Lobby - Floor	1.5	200	300	1.00	300			300	190	$ 57,000			$ 57,000.00
1.1.2b	Lobby - Floor	1.5	200	300	1.00	300		300		190	$ 57,000		$ 57,000	
1.1.3	PA Lobby - Children drop-off / pick-up	1	1,200	1,200	1.00	1,200			1,200	190	$ 228,000			$ 228,000
1.1.3a	Receptionist													
1.1.3b	Waiting Area													
1.1.3c	First Aid Area													
1.1.3d	Retail Display / Storage													
1.1.3e	Tots Waiting Area													
1.1.4	Commons (main bldg lobby)	1	1,200	1,200	1.00	1,200		1,200		190	$ 228,000		$ 228,000	
1.1.5	Coat Check / Storage	2	80	160	1.10	176		176		155	$ 27,280		$ 27,280	
1.2	**Food Service**													
1.2.1	Food Service Venue	1	200	200	1.20	240	240			190	$ 45,600	$ 45,600		
1.2.2	Staff Breakroom / Kitchen	1	300	300	1.20	360		360		155	$ 55,800		$ 55,800	
1.2.3	Vending Area	1	60	60	1.10	66		66		155	$ 10,230		$ 10,230	
2	**ACADEMIC INSTRUCTION**			**23,640**		**30,732**								
2.1	**Performing Arts**													
2.1.1	Introductory Studio	1	1,600	1,600	1.30	2,080			2,080	210	$ 436,800			$ 436,800
2.1.2	Jr Dance Studio	1	1,600	1,600	1.30	2,080			2,080	200	$ 416,000			$ 416,000
2.1.3	Sr Dance Studio	2	2,400	4,800	1.30	6,240			6,240	200	$ 1,248,000			$ 1,248,000
2.1.4	Main Studio	1	5,800	5,800	1.30	7,540			7,540	225	$ 1,696,500			$ 1,696,500
2.1.5	Art Studio	1	1,200	1,200	1.30	1,560			1,560	210	$ 327,600			$ 327,600
2.2	**Teacher Development**													
2.2.1	Multifunction Hall	1	2,400	2,400	1.30	3,120		3,120		225	$ 702,000		$ 702,000	
2.3	**Continuing Education / Outreach**													
2.3.1	Small Classroom	2	720	1,440	1.30	1,872		1,872		180	$ 336,960		$ 336,960	
2.3.2	Large Classroom	4	1,200	4,800	1.30	6,240		6,240		180	$ 1,123,200		$ 1,123,200	
3	**OFFICE SPACE**			**9,680**		**11,616**								
3.1	**Reception / Waiting**													
3.1.1	Reception / Waiting - Tanner	1	200	200	1.20	240			240	155	$ 37,200			$ 37,200
3.1.2	Reception / Waiting - Centers	1	200	200	1.20	240		240		155	$ 37,200		$ 37,200	
3.2	**Private Offices**													
3.2.1	Directors Office	2	120	240	1.20	288			288	155	$ 44,640			$ 44,640
3.2.2	Office (3 offices per 8 centers)	24	120	2,880	1.20	3,456		3,456		155	$ 535,680		$ 535,680	
3.2.3	Staff Office	4	100	400	1.20	480			480	155	$ 74,400			$ 74,400
3.3	**Open Workstations**													
3.3.1	Open Workstation - Tanner Hoteling	8	100	800	1.20	960			960	155	$ 148,800			$ 148,800
3.3.2	Open Workstation - Centers	32	100	3,200	1.20	3,840		3,840		155	$ 595,200		$ 595,200	
3.3.3	Open - Collaborative Work Area	8	220	1,760	1.20	2,112		2,112		155	$ 327,360		$ 327,360	

AREA	DESCRIPTION	SPACES	NASF	TOTAL NET SF	NET TO GROSS	TOTAL GROSS SF	COMMON	COFA/COE	VTD/CDT	$/GFS	UNIT COST	COMMON	COFA/COE	VTD/CDT
4	**SUPPORT RESOURCES**			**12,270**		**14,933**								
4.1	**Meeting Space**													
4.1.1	Board / Large Conference Room	1	400	400	1.20	480		480		180	$ 86,400		$ 86,400	
4.1.6a	Conference / Meeting Room	4	240	960	1.20	1,152		1,152		155	$ 178,560		$ 178,560	
4.1.6b	Conference / Meeting Room	1	240	240	1.20	288			288	155	$ 44,640			$ 44,640
4.1.7	Small Group Meeting Room	4	120	480	1.20	576		576		155	$ 89,280		$ 89,280	
4.2	**Workroom Space**													
4.2.1a	Mail / Copy / Workroom	3	250	750	1.20	900		900		155	$ 139,500		$ 139,500	
4.2.1b	Mail / Copy / Workroom	1	250	250	1.20	300			300	155	$ 46,500			$ 46,500
4.3	**Instruction Support**													
4.3.1	Introductory Studio Storage	1	200	200	1.20	240			240	180	$ 43,200			$ 43,200
4.3.2	Introductory Studio Snack Prep	1	180	180	1.30	234			234	180	$ 42,120			$ 42,120
4.3.6	Table / Chair Storage	3	200	600	1.20	720		720		130	$ 93,600		$ 93,600	
4.3.7	3015 Storage	4	120	480	1.20	576		576		130	$ 74,880		$ 74,880	
4.3.8	Kitchenette / Catering	2	180	360	1.20	432	432			180	$ 77,760		$ 77,760	
4.4	**Dressing & Restrooms**													
4.4.1	Introductory Studio Restroom	2	100	200	1.30	260			260	150	$ 39,000			$ 39,000
4.4.2	Dressing Room Male	1	280	280	1.30	364			364	150	$ 54,600			$ 54,600
4.4.3	Dressing Room Female	2	500	1,000	1.30	1,300			1,300	150	$ 195,000			$ 195,000
4.4.4	Parent / Student Dress	1	170	170	1.30	221			221	150	$ 33,150			$ 33,150
4.4.5	Dancers Restroom	2	150	300	1.00	300			300	150	$ 45,000			$ 45,000
4.4.6	Faculty Dressing Room Female	1	400	400	1.30	520			520	150	$ 78,000			$ 78,000
4.4.7	Faculty Dressing Room Male	1	260	260	1.30	338			338	150	$ 50,700			$ 50,700
4.4.8	Shower Room	2	100	200	1.30	260			260	150	$ 39,000			$ 39,000
4.5	**Storage**													
4.5.1	Archive / Library	1	400	400	1.20	480			480	180	$ 86,400			$ 86,400
4.5.3	Storage Props / Musical Instruments	1	800	800	1.20	960			960	130	$ 124,800			$ 124,800
4.5.4	Art Studio Storage Fabrication	1	400	400	1.20	480			480	130	$ 62,400			$ 62,400
4.5.6	Costume Storage	1	500	500	1.20	600			600	130	$ 78,000			$ 78,000
4.5.11a	Building-Wide Active Storage Area	9	80	720	1.20	864		864		120	$ 103,680		$ 103,680	
4.5.11b	Building-Wide Active Storage Area	2	80	160	1.20	192			192	120	$ 23,040			$ 23,040
4.5.11c	Building-Wide Active Storage Area	1	80	80	1.20	96	96			120	$ 11,520	$ 11,520		
4.6	**Specialty Support**													
4.6.1	Costume Fabrication	1	1,200	1,200	1.20	1,440			1,440	150	$ 216,000			$ 216,000
4.6.2	Costume Laundry / Dye	1	300	300	1.20	360			360	150	$ 54,000			$ 54,000

AREA	DESCRIPTION	SPACES	NASF	TOTAL NET SF	NET TO GROSS	TOTAL GROSS SF	COMMON	COFA/COE	VTD/CDT		$/GFS	UNIT COST	COMMON	COFA/COE	VTD/CDT
5	**BUILDING RESOURCES**			**3,656**		**3,696**									
5.1	**Restrooms**														
5.1.1a	Public Restroom - to be determined	4.5	400	1,800	1.00	1,800		1,800			150	$ 270,000		$ 270,000	
5.1.1b	Public Restroom - to be determined	1.5	400	600	1.00	600			600		150	$ 90,000			$ 90,000
5.1.2	Staff Restrooms - to be determined	2	68	136	1.00	136	136				150	$ 20,400	$ 20,400		
5.2	**Equipment**														
5.2.1	Control Booth	1	200	200	1.10	220			220		120	$ 26,400			$ 26,400
5.2.2	Dimmer Room	1	100	100	1.10	110			110		120	$ 13,200			$ 13,200
5.2.3	Sound Equipment Room	1	100	100	1.10	110			110		120	$ 13,200			$ 13,200
5.3	**Janitor**														
5.3.1	Janitors Closet	3	50	150	1.00	150	150				120	$ 18,000	$ 18,000		
5.3.2	Janitors Supply / Equipment Storage	1	120	120	1.00	120	120				120	$ 14,400	$ 14,400		
5.4	**Building Service**														
5.4.1	Grounds Storage Room	1	50	50	1.00	50	50				120	$ 6,000	$ 6,000		
5.4.2	Loading Dock - Receiving (Interior)	1	200	200	1.00	200	200				120	$ 24,000	$ 24,000		
5.4.3	Truck Bay and Dock(Exterior)	1	200	200	1.00	200	200				120	$ 24,000	$ 24,000		
	TOTAL ASSIGNABLE SPACE			53,126	1.22	64,979									
6	**NON-ASSIGNABLE SPACE**			-		18,844									
6.1	Mechanical & Electrical					7,148	7,148				138	$ 986,381	$ 986,381		
6.2	Circulation					9,747	9,747				190	$ 1,851,902	$ 1,851,902		
6.3	Inaccessible Space					1,949	1,949				90	$ 175,443	$ 175,443		
	TOTAL INTERIOR SPACE			**53,126**	63%	**83,823**	**20,468**	**30,130**	**33,225**	83,823	$ 173.83	$ 14,570,906	**$ 3,177,646**	**$ 5,164,770**	**$ 6,228,490**
				1.58			24%	36%	40%	76%			22%	35%	43%
	% of "usable" (common n.i.c.)							**48%**	**52%**						
								39,864	43,959					**$ 6,675,976**	**7,894,930**
	% of "overall" (indiv % common incl.)							**48%**	**52%**					46%	54%
									building budget			$ 17,416,780			
									overhead/profit	4%		$ 582,836			
									general conditions	6%		$ 874,254			
									design contingency	10%		$ 1,457,091			
									construction estimate			**$ 17,485,087**			

6.2 Peer Institutions and Comparative Cost Models

The BTSAEC is in many ways a unique facility, with a little over half of its space dedicated to the instruction of dance and support of the Tanner Dance Program and the other half split between research office areas and instructional space for the College of Education. As such there is no recent direct comparable facility in Utah, although there are facilities built within the last five years that have components that are comparable, which provide a range of construction costs. Although the facility neither revolves around performance venues, nor lab, but is rather a balance of large volume and small volume spaces, balanced by the pragmatics of support spaces versus high quality, inventive public spaces. Thus, the following projects create a range – projects mostly bid within the last decade, with some similarities to the BTSAEC – that illustrates that before the market downturn planning for a budget average in the mid-to-upper $200 per gross square foot was a reasonable assumption.

Project Name/Location	GSF	Date Bid	Bid Amount	$/GSF
Primarily Theatrical Projects				
ASU Eller Dance Theater	25,600	01.2002	$ 10,500,000	$410
Theatre & Cultural Center, Coastline Community College, Westminster, CA	33,840	06.2004	$ 14,700,000	$434
Primarily Academic Office and Instruction Projects				
Cronkite School of Journalism & Mass Communication, ASU	223,000	06.2007	$ 55,000,000	$246
U of O College of Education	64,000 new + 50,000 renovation (114,000 gsf) 114,000	09.2007	$ 34,000,000	$309
U of U College of Humanities	55,000	09.2005	$ 15,200,000	$276
U of U Sutton Geology	92,000	02.2008	$ 20,567,000	$224
UVU Digital Learning Center	196,000	07.2008	$ 41,000,000	$210
USU BEERC, Vernal	69,000	04.2009	$17,175,000	$249

Due to the immense changes in the economy in which projects have bid for 30% less than estimated, it is unclear how these numbers correlate to the a project that is planned to be priced in late-2010.

APPENDIX

Appendix A – ALTA Survey

Appendix B – Energy modeling reports
- **Efficiency measures**
- **Performance Rating Method Compliance Report**
- **Simulation output report**

Appendix C –Cost Budget Estimates
- **DFCM Capital Development Projects Cost Budget Estimate Details (CBE)**
- **DRAFT Program Cost Estimate**
- **FF&E Cost Estimate**
- **Theatrical Systems Cost Estimate**
- **Site Utility Relocation Estimate**
- **Site Development Cost Estimate**

Appendix D – Strategic Academic Plan

Appendix E – Fault Investigation Study

Appendix F – Chartwells Food Service Kiosks

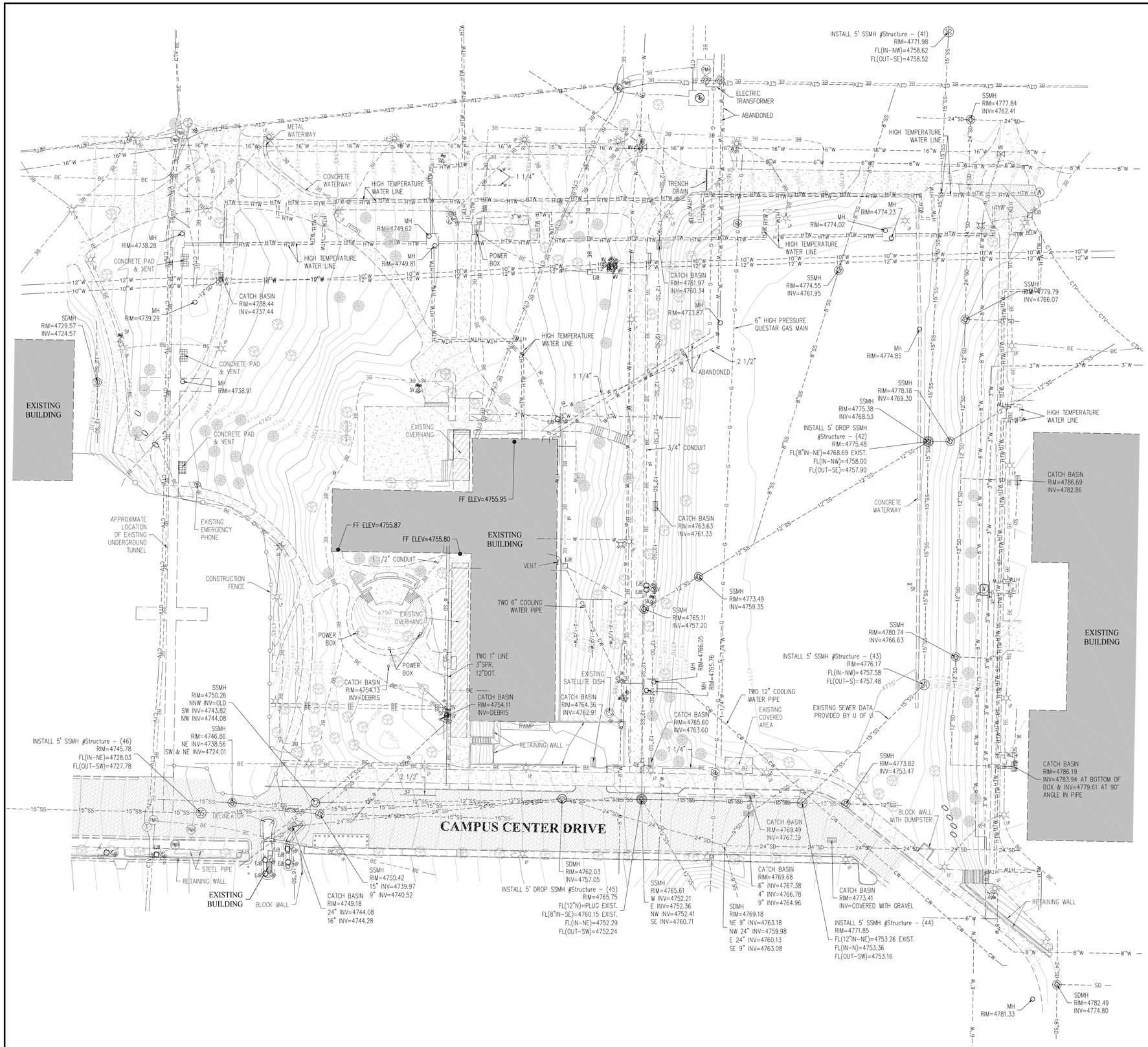
Appendix G – Campus Master Plan (Select Sections)

Appendix H – Parking Study

Appendix I – Additional Stacking & Zoning Diagrams

Appendix J – Preliminary Code Review

Appendix A – ALTA Survey



LEGEND

BE	EXISTING BURIED POWER LINE
SD	EXISTING STORM DRAIN LINE
SS	EXISTING SEWER LINE
W	EXISTING WATER LINE
CTV	EXISTING COMMUNICATION LINE
HTW	EXISTING HIGH TEMPERATURE WATER LINE
CW	EXISTING CHILLED WATER LINES
G	EXISTING GAS LINE
	EXISTING CHAIN LINK FENCE
	EXISTING FLOWLINE
	EXISTING CURB GUTTER
	EXISTING CURB
	EXISTING BUILDING
	EXISTING CONCRETE
	EXISTING ASPHALT
PP	EXISTING POWER POLE
EJB	EXISTING ELECTRIC JUNCTION BOX
	EXISTING SANITARY SEWER MANHOLE
	EXISTING STORM DRAIN MANHOLE
LP	EXISTING LIGHT POLE
W	EXISTING WATER MANHOLE
	EXISTING BOLLARD
SV	EXISTING SPINKLER VALVE
WV	EXISTING WATER VALVE
	EXISTING FIRE HYDRANT
T	EXISTING COMMUNICATIONS MANHOLE
PM	EXISTING ELECTRIC MANHOLE
	EXISTING MANHOLE
	EXISTING SIGN
	EXISTING ROCK
	EXISTING PINE TREE
	EXISTING TREE
XXXX'	EXISTING MAJOR CONTOUR LINE
XXXX'	EXISTING MINOR CONTOUR LINE

TOPOGRAPHIC SURVEY NOTES

THE LOCATIONS OF UNDERGROUND STRUCTURES, UTILITIES OR IMPROVEMENTS AS SHOWN HEREON ARE BASED ON ABOVE GROUND APPURTENANCES VISIBLE AT THE TIME OF THE SURVEY DONE ON OCTOBER 30, 2009 TO THE SURVEYOR AND ON FILES PROVIDED BY LENARD BARNEY WITH THE U OF U. EXACT LOCATIONS OF UNDERGROUND STRUCTURES, UTILITIES OR IMPROVEMENTS MAY VARY FROM LOCATIONS SHOWN HEREON. ADDITIONAL UNDERGROUND STRUCTURES, UTILITIES OR IMPROVEMENTS MAY EXIST.

ELEVATIONS, SIZES, TYPES AND CONDITIONS OF UNDERGROUND STRUCTURES, UTILITIES OR IMPROVEMENTS AS SHOWN ON THIS PLAT ARE APPROXIMATE ONLY AND SHOULD BE VERIFIED WITH THE APPROPRIATE AGENCY OR CONTROLLING PARTY BEFORE DESIGN OR CONSTRUCTION.

ENVIRONMENTAL CONDITIONS WERE NOT EXAMINED OR CONSIDERED AS A PART OF THIS SURVEY. NO STATEMENT IS MADE CONCERNING THE EXISTENCE OF UNDERGROUND OR OVERHEAD CONTAINERS, FACILITIES, DEPOSITS OR DISPOSALS THAT MAY AFFECT THE USE OR DEVELOPMENT OF THIS PROPERTY.

UNLESS OTHERWISE SHOWN, NO ATTEMPT HAS BEEN MADE AS PART OF THIS PLAT AND THE SURVEY ON WHICH IT IS BASED TO DISCLOSE THE LOCATIONS, SIZE, TYPE OR CONDITION OF ANY TREE, HEDGE, GROUND COVER, LAWN, PLANTINGS OR ANY OTHER LANDSCAPING OR SPRINKLER HEADS, PIPES OR ANY APPURTENANT PARTS THEREOF. ADDITIONAL LANDSCAPING OR IRRIGATION FACILITIES MAY EXIST.

FLOOD AND EARTHQUAKE ZONES HAVE NOT BEEN DETERMINED AS PART OF THIS SURVEY.

NO.	REVISIONS	BY	DATE

DRAWN GKD
SURVEYED MSW SFM
CHECKED MSW
DATE 10-NOV-2009

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SORENSON ARTS COMPLEX
TOPOGRAPHIC SURVEY

COMP. FILE 09064-Extopo

PROJECT NO. 09064

SHEET NO. 1 OF 1

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Appendix B – Energy modeling reports

- **Efficiency measures**
- **Performance Rating Method Compliance Report**
- **Simulation output report**

LEED NC v3.0 - EAc1.1-15 Optimize Energy Performance
(Preliminary Energy Analysis)

PROJECT NAME: University of Utah – Sorenson Arts & Education Complex
DATE: March 10, 2010

SAEC NARRATIVE

The following is intended to provide general comments regarding the preliminary energy analysis approach, energy efficiency measures (EEM's) and energy modeling process.

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, by the time the program document is released, and/or 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, and to develop a preliminary group of energy efficiency measures that may be appropriate for the project. The analysis is not intended to constrain the design team to prescriptive EEM criterion, as applied here, which may or may not be appropriate, as the project advances.

As stated in the body of the program document, the primary intent of the energy analysis was to establish a reliable energy use index (EUI – kbtu/ft2/yr) for the project's Baseline Design (95.8) and, to itemize the Baseline energy consumption by end-use category. This provided the basis for establishing a reasonable target EUI (53.0) and list of potentially suitable EEM's, for the Proposed Design.

Because of the aggressive energy efficiency goals/requirements of the project, much of the approach or consideration to design, for all disciplines, will be heavily tied to the results and implications of the energy analysis. As such, additional evaluation of EEM effectiveness is recommended through life cycle cost analysis (LCCA). A general description of EEM's applied to the Proposed Design model are summarized below. More details regarding the actual parameters and definitions used in the analysis are offered as part of attached Performance Rating Method Compliance Report.

Envelope
- Improved Wall Insulation
- Improved Fenestration Assembly U-factor
- Improved Fenestration Assembly SHGC

Electrical Systems & Process Loads
- Significant Reduced Lighting Power Densities
- Lighting Occupant Sensor Controls
- Daylighting Controls
- ENERGY STAR Rated Equipment (process load reduction)

HVAC & Plumbing Systems
- Indirect/Direct Evaporative Cooling
- Variable Speed Supply Air Fan & Cooling Tower Fan Control
- Improved Supply Air Fan Efficiency
- Improved Hydronic Pump Efficiency & Variable Speed Pump Control
- Improved Economizer Control
- Relief Air Energy Recovery

Additional EEM's that were not applied to the preliminary analysis, but may be considered by the design team include, but are not limited to the following.

- Building and/or Fenestration Shading
- Dedicated Outdoor Air System (DOAS)
- Demand Control Ventilation (DCV)
- Elevator Motor Efficiency
- Low Flow Plumbing Fixtures
- On-Site Renewable Energy

Further reduction of process load, through proper documentation of scheduled process equipment, is also recommended toward meeting energy efficiency goals, where EEM's applied to the preliminary analysis cannot be carried through the design completion. For example, significant reduction of lighting power density (LPD) is assumed for most occupied spaces, in the preliminary analysis, which implies aggressive use of advanced lighting technologies. As the design progresses, these assumptions may conflict with budgetary constraints, occupant requirements, and/or other owner/occupant necessities. If this case arises, shifting electrical demand/consumption away from the process load, to be used for lighting may be considered.

For the preliminary energy analysis, the following items are provided as additional documentation.

- Performance Rating Method (PRM) Compliance Report
- Baseline and Proposed System Checksums Reports
- Baseline and Proposed Monthly Energy Consumption Reports
- Baseline and Proposed Monthly Utility Costs Report

Inspection of the System Checksums Reports (SCR) provides information that will be useful to the design team, beyond what is offered in terms of energy analysis reports. For example, the Proposed Design SCR offers preliminary calculations of peak heating and cooling loads (also important toward planning the demand placed on the campus central plant utilities), design air flow rates/capacities, and several other points of reference data relating to HVAC building and system design parameters that can be utilized for the Schematic Design Phase.

The building geometry/layout used for the models constructed for the preliminary energy analysis is based on the Block & Stack Diagrams offered in Section 3.5 of the program document and is situated on SITE 4, as described in Section 4.2.5 of the program document. Significant modifications made to the building, during the design phase, or use of alternative site location (which may require significant changes to the building layout, based on site constraints) can significantly impact the results of the preliminary energy analysis and may require reevaluation of the Baseline, and therefore, Target EUI's, which will be the responsibility of the design team to demonstrate, if necessary.

As referenced in the PRM Compliance Report, the analysis also relies on the assumptions that the project will utilize campus central plant high-temperature hot water & chilled water. These utilities, as well as electricity, are billed to the facility through rates determined by University of Utah Plant Operations, as described in the PRM. Alterations from these assumptions (central plant hot/chilled water vs. building chiller/boiler and campus electric billing vs. Rocky Mountain Power electric billing), during the design phase, may also have appreciable impacts to the results of the energy analysis and the design's ability to meet the energy efficiency goals and requirements of the project.

End SAEC Narrative

Performance Rating Method Compliance Report		
Project Name:	Sorenson Arts & Education Complex (SAEC)	
Project Address:	Univ of Utah Campus Center Drive Business Loop	Date: March 02, 2010
Designer of Record:	CRSA Architects	Telephone: (801) 355-5915
City, State:	Salt Lake City, UT	
Principal Heating Source:	Fossil Fuel	
Weather Data:	UT_SLC_Intl_A_UTAH.TM3	
Climate Zone	5B	

Space Summary			
Building Use	**Conditioned Area (sf)**	**Unconditioned Area (sf)**	**Total (sf)**
1. Conf./Mtg/Multipurpose	4,796	0	4,796
2. Gym/Exercise - Playing Area (Dance)	18,449	0	18,449
3. Electrical/Mechanical	2,403	400	2,803
4. Active Storage	2,408	0	2,408
5. Restrooms	3,790	0	3,790
6. Corridor/Transition	12,427	0	12,427
7. Class/Lecture/Training	1,236	0	1,236
8. Dressing/Locker/Fitting Room	2,698	0	2,698
9. Audience/Seating - Perf. Arts	6,626	0	6,626
10. Office - Enclosed	2,000	0	2,000
11. Workshop	1,491	0	1,491
12. Laundry - Washing	300	0	300
13. Food Prep	424	0	424
14. Lobby - Perf. Arts	29,935	0	29,935
Total	88,983	400	89,383

Advisory Messages			
	Proposed Building Design	Baseline Building	Difference
Unmet Heating Hours	154	234	-80
Unmet Cooling Hours	0	0	0
Number of Warnings	0	0	0
Number of Errors	0	0	0
Number of Defaults Overridden	0	0	0

Description of differences between the Proposed and Baseline Buildings is attached

Additional Building Information	
Number of Floors	6
Simulation Program	Trane Trace 700 v6.2.4
Utility Rate: Electricity*	U of U Central Billing ($0.05 / kWh)
Utility Rate: Natural Gas	N/A
Utility Rate: High-Temp Hot Water*	U of U Central Billing ($8.63 / 10^6 btu)
Utility Rate: Chilled Water*	U of U Central Billing ($8.87 / 10^6 btu)
Utility Rate: Other	N/A

* Source for utility rates: Orfeo Kostrencich, Associate Director - Plant Operations
Demand charges from Rocky Mountain Power to Plant Operations are included in the Central Billing rates, by Plant Operations.

Performance Rating Method Compliance Report		
Comparison of Proposed Design vs. Baseline Design energy Model Inputs		
Building Element	**Proposed Design Input**	**Baseline Design Input**
Envelope		
Above Grade Wall Construction	Mass Construction, Cement Exterior, 2" Polyiso. Ci, 4" Furred Stud-24" o.c. w/ R-13.0 Batt Insulation, 5/8" Gyp. U-Factor = 0.045	Steel-Framed, Stucco Exterior, R-13.0 Batt Insulation + R-7.5 Ci, 6" Stud-16" o.c., 5/8" Gyp. U-Factor = 0.064
Below Grade Wall Construction	N/A	N/A
Roof Construction	Steel Truss Roof. R-20 Ci entirely above deck. Mylar film w/ reflectivity = 0.3.	Steel Truss Roof. R-20 Ci entirely above deck. Mylar film w/ reflectivity = 0.3.
Exterior Floor construction	N/A	N/A
Slab-on-Grade Construction	6" Unheated concrete with R-10, vertical perimeter insulation, from to of grade down, to top of footing.	Same as Proposed Design.
Window-to-Gross Wall Ratio	22.90%	Same as Proposed Design.
Fenestration Type(s)	Double-pane, metal frame, tinted, Low-E glass w/ thermal breaks.	Double-pane, metal frame, tinted, Low-E glass w/ thermal breaks.
Fenestration Assembly U-factor	0.377	0.55
Fenestration Assembly SHGC	0.369	0.40
Fenestration Visible Light Trans.	0.644	0.44
Fixed Shading Devices	None	N/A
Automated Moveable Shades	None	N/A
Electrical Systems & Process Loads		
Ambient Lighting Power Density & Lighting Design Description	See attached table for Proposed and Baseline Design's Lighting Power Density and Receptacle Equipment Loads.	See attached table for Proposed and Baseline Design's Lighting Power Density and Receptacle Equipment Loads.
Process Lighting	None	Same as Proposed Design.
Lighting Occupant Sensor Controls	Each thermal zone for regularly occupied rooms is modeled with lighting occupant sensors => 10% LPD credit, per Table G3.2	N/A
Daylighting Controls	Photosensors continuously controlling 100% lighting fixtures to 50fc for all zones indicated to have fenestration.	N/A
Exterior Lighting Power (Tradable)	None	Same as Proposed Design.
Exterior Lighting Power (Non-Tradable)	None	Same as Proposed Design.
Receptacle Equipment	See attached table for Proposed and Baseline Design's Lighting Power Density and Receptacle Equipment Loads.	See attached table for Proposed and Baseline Design's Lighting Power Density and Receptacle Equipment Loads.
Elevators (Escalators)	Included with "Other Process Loads"	Included with "Other Process Loads"
Refrigeration Equipment	None	Same as Proposed Design.
Other Process Loads	Additional 48 kw process load included as a direct load to the meter demonstrating documented reduction of non-regulated loads, i.e. EnergyStar products.	Additional 53 kw process load included as a direct load to the meter to comply with LEED EAc1 req. for 25% of Baseline performance to be non-regulated.

Performance Rating Method Compliance Report		
Building Element	**Proposed Design Input**	**Baseline Design Input**
Mechanical & Plumbing Systems		
HVAC System Types	Indirect/Direct Evaporative Cooling VAV w/ reheat. Split DX conditions data/comm.	Table G3.1.1A System #7 - VAV w/ reheat. Per Exception (b) to G3.1.1, System #3 - PSZ-AC serving data/comm. room.**
Design Supply Air ΔTemp	20˚F	20˚F
Supply Fan Control	Supply/Relief: Variable Speed Drive Exhaust: Const. Volume	Supply: Variable Speed Drive Exhaust: Const. Volume
Fan Power	Supply: 4in. wg @ full load rate = 0.000220kw/cfm Relief: 1in wg. @ 0.000321kw/cfm	Supply: 4in. wg @ full load rate = 0.000351kw/cfm Relief: 1in wg. @ 0.000321kw/cfm
Economizer Control	Per G3.1.2.6, OSA economizer activated whenever the outside air temp is low enough to satisfy cold deck temperature requirement(s).	Per G3.1.2.6, OSA economizer controlled by outdoor dry bulb up to 75˚F.
Demand Control Ventilation	None	Same as Proposed Design.
Unitary Equip. Efficiency (CLG)	Split DX SEER 13.0	PSZ-AC SEER 13.0
Unitary Equip. Efficiency (HTG)	N/A	80% thermal efficiency
Chiller Type, Efficiency & Capacity	N/A - Central Plant Purchased Chilled Water	Per G3.1.3.7-8-9 & Table 6.8.1C. Two screw chillers equally sized @ COP = 4.90 (0.7175 kW/ton), 56degF entering & 44degF leaving water temps with reset based on outdoor dry bulb temperature.
Cooling Tower	One two-cell cooling tower with VSD fan control.	Per G3.1.3.11. Open cooling tower with two speed axial fan.
Boiler Efficiency	N/A - Central Plant Purchased High-temp Hot Water	Per G3.1.3.2 & Table 6.8.1F. Two equally sized natural draft boilers @ 80% Eff.
CHW Loop & Pump Parameters	Primary pumping with VSD pump control and loop temperature set to be a constant 55˚F. Pump power is modeled @ 12.4 W/gpm.	Per G3.1.3.10. Variable primary pumping with VSD pump control. Pump power is defined @ 22 W/gpm.
CDW Loop & Pump Parameters	Condenser water supply temp set to 89degF with control to allow as low as 70degF leaving water temp, based on outdoor wet bulb temps. Pump power defined @ 10.9 W/gpm with VFD control.	Per G3.1.3.11. Condenser water supply temp set to 85degF with control to allow as low as 70degF leaving water temp, based on outdoor wet bulb temps. Pump power defined @ 19 W/gpm.
HTW Loop & Pump Parameters	Primary pumping with VFD pump control. Pump power is defined @ 23.3 W/gpm.	Per G3.1.3.3-4-5. 130degF entering & 180degF leaving water temperature with reset based on outdoor dry bulb temperature. Pumping modeled as primary loop only with continuous variable flow @ 19 W/gpm.
Domestic Hot Water System(s)	Stand-alone electric hot water heater @ 28 Mbh maximum hourly demand. No recirculation.	Same as Proposed Design.
** G3.1.1 Indicates that System #7 shall be modeled with a separate HVAC system for each floor. This action was not performed on the Baseline Design, for this study, and the Baseline Performance is based on one HVAC system for the entire building.		

System Checksums

By CEA

VAV w/ Reheat | **Variable Volume Reheat (30% Min Flow Default)**

COOLING COIL PEAK

Peaked at Time: Mo/Hr: 7 / 16
Outside Air: OADB/WB/HR: 96 / 62 / 43

	Space Sens. + Lat. Btu/h	Plenum Sens. + Lat Btu/h	Net Total Btu/h	Percent Of Total (%)
Envelope Loads				
Skylite Solar	0	0	0	0
Skylite Cond	0	0	0	0
Roof Cond	0	47,779	47,779	2
Glass Solar	319,581	0	319,581	13
Glass/Door Cond	142,085	0	142,085	6
Wall Cond	97,826	27,309	125,135	5
Partition/Door	0		0	0
Floor	0		0	0
Adjacent Floor	0	0	0	0
Infiltration	176,787		176,787	7
Sub Total ==>	736,279	75,088	811,367	33
Internal Loads				
Lights	207,951	117,417	325,367	13
People	691,966	0	691,966	28
Misc	136,905	0	136,905	6
Sub Total ==>	1,036,822	117,417	1,154,239	47
Ceiling Load	49,819	-49,819	0	0
Ventilation Load	0	0	382,330	15
Adj Air Trans Heat	0		0	0
Dehumid. Ov Sizing			0	0
Ov/Undr Sizing	8,751		8,751	0
Exhaust Heat		-71,274	-71,274	-3
Sup. Fan Heat			186,666	8
Ret. Fan Heat		1	1	0
Duct Heat Pkup		0	0	0
Underflr Sup Ht Pkup			0	0
Supply Air Leakage		0	0	0
Grand Total ==>	1,831,671	71,413	2,472,079	100.00

CLG SPACE PEAK

Mo/Hr: 8 / 16
OADB: 95

	Space Sensible Btu/h	Percent Of Total (%)
Envelope Loads		
Skylite Solar	0	0
Skylite Cond	0	0
Roof Cond	0	0
Glass Solar	376,527	24
Glass/Door Cond	137,205	9
Wall Cond	99,880	6
Partition/Door	0	0
Floor	0	0
Adjacent Floor	0	0
Infiltration	220,217	14
Sub Total ==>	833,829	53
Internal Loads		
Lights	207,951	13
People	325,694	21
Misc	136,905	9
Sub Total ==>	670,549	43
Ceiling Load	48,144	3
Ventilation Load	0	0
Adj Air Trans Heat	0	0
Ov/Undr Sizing	9,536	1
Grand Total ==>	1,562,058	100.00

HEATING COIL PEAK

Mo/Hr: Heating Design
OADB: 7

	Space Peak Space Sens Btu/h	Coil Peak Tot Sens Btu/h	Percent Of Total (%)
Envelope Loads			
Skylite Solar	0	0	0.00
Skylite Cond	0	0	0.00
Roof Cond	0	-61,050	2.07
Glass Solar	0	0	0.00
Glass/Door Cond	-435,931	-435,931	14.75
Wall Cond	-139,474	-178,870	6.05
Partition/Door	0	0	0.00
Floor	0	0	0.00
Adjacent Floor	0	0	0
Infiltration	-696,469	-696,469	23.56
Sub Total ==>	-1,271,875	-1,372,320	46.43
Internal Loads			
Lights	0	0	0.00
People	0	0	0.00
Misc	1,706	1,706	-0.06
Sub Total ==>	1,706	1,706	-0.06
Ceiling Load	-40,738	0	0.00
Ventilation Load	0	-998,413	33.78
Adj Air Trans Heat	0	0	0
Ov/Undr Sizing	0	0	0.00
Exhaust Heat		46,267	-1.57
OA Preheat Diff.		-367,556	12.44
RA Preheat Diff.		-265,374	8.98
Additional Reheat		0	0.00
Underflr Sup Ht Pkup		0	0.00
Supply Air Leakage		0	0.00
Grand Total ==>	-1,310,907	-2,955,689	100.00

TEMPERATURES

	Cooling	Heating
SADB	55.0	110.0
Ra Plenum	77.2	68.1
Return	77.2	68.1
Ret/OA	83.2	38.7
Fn MtrTD	0.3	0.0
Fn BldTD	0.6	0.0
Fn Frict	1.7	0.0

AIRFLOWS

	Cooling	Heating
Diffuser	80,770	34,027
Terminal	80,770	34,027
Main Fan	80,770	34,027
Sec Fan	0	0
Nom Vent	24,734	16,389
AHU Vent	24,734	16,389
Infil	11,433	11,433
MinStop/Rh	34,027	34,027
Return	87,711	42,927
Exhaust	31,675	25,289
Rm Exh	4,492	2,533
Auxiliary	0	0
Leakage Dwn	0	0
Leakage Ups	0	0

ENGINEERING CKS

	Cooling	Heating
% OA	30.6	48.2
cfm/ft²	0.90	0.38
cfm/ton	392.08	
ft²/ton	433.88	
Btu/hr·ft²	27.66	-33.34
No. People	1,756	

COOLING COIL SELECTION

	Total Capacity ton	Total Capacity MBh	Sens Cap. MBh	Coil Airflow cfm	Enter DB/WB/HR °F	Enter DB/WB/HR °F	Enter DB/WB/HR gr/lb	Leave DB/WB/HR °F	Leave DB/WB/HR °F	Leave DB/WB/HR gr/lb
Main Clg	206.0	2,472.1	2,288.1	78,749	83.2	60.4	53.8	52.6	48.2	50.7
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Total	206.0	2,472.1								

AREAS

	Gross Total	Glass ft²	Glass (%)
Floor	89,383		
Part	0		
Int Door	0		
ExFlr	0		
Roof	20,667	0	0
Wall	58,464	13,268	23
Ext Door	541	0	0

HEATING COIL SELECTION

	Capacity MBh	Coil Airflow cfm	Ent °F	Lvg °F
Main Htg	-1,890.5	34,027	52.6	110.0
Aux Htg	0.0	0	0.0	0.0
Preheat	-1,089.4	24,734	7.0	52.6
Humidif	0.0	0	0.0	0.0
Opt Vent	0.0	0	0.0	0.0
Total	-2,980.0			

System Checksums

By CEA

VAV w/ Reheat | **Variable Volume Reheat (30% Min Flow Default)**

COOLING COIL PEAK

Peaked at Time: Mo/Hr: 7 / 16
Outside Air: OADB/WB/HR: 96 / 62 / 43

	Space Sens. + Lat. Btu/h	Plenum Sens. + Lat Btu/h	Net Total Btu/h	Percent Of Total (%)
Envelope Loads				
Skylite Solar	0	0	0	0
Skylite Cond	0	0	0	0
Roof Cond	0	47,284	47,284	2
Glass Solar	356,612	0	356,612	17
Glass/Door Cond	79,314	0	79,314	4
Wall Cond	44,735	12,530	57,266	3
Partition/Door	0		0	0
Floor	0		0	0
Adjacent Floor	0	0	0	0
Infiltration	174,811		174,811	8
Sub Total ==>	655,472	59,815	715,287	33
Internal Loads				
Lights	74,289	36,100	110,389	5
People	689,850	0	689,850	32
Misc	135,952	0	135,952	6
Sub Total ==>	900,092	36,100	936,192	43
Ceiling Load	27,035	-27,035	0	0
Ventilation Load	0	0	378,048	17
Adj Air Trans Heat	0		0	0
Dehumid. Ov Sizing			0	0
Ov/Undr Sizing	17,791		17,791	1
Exhaust Heat		-45,559	-45,559	-2
Sup. Fan Heat			158,561	7
Ret. Fan Heat		0	0	0
Duct Heat Pkup		0	0	0
Underflr Sup Ht Pkup			0	0
Supply Air Leakage		0	0	0
Grand Total ==>	1,600,389	23,321	2,160,320	100.00

CLG SPACE PEAK

Mo/Hr: 8 / 16
OADB: 95

	Space Sensible Btu/h	Percent Of Total (%)
Envelope Loads		
Skylite Solar	0	0
Skylite Cond	0	0
Roof Cond	0	0
Glass Solar	420,001	31
Glass/Door Cond	75,686	6
Wall Cond	41,669	3
Partition/Door	0	0
Floor	0	0
Adjacent Floor	0	0
Infiltration	220,217	16
Sub Total ==>	757,574	57
Internal Loads		
Lights	74,438	6
People	323,577	24
Misc	135,952	10
Sub Total ==>	533,968	40
Ceiling Load	25,020	2
Ventilation Load	0	0
Adj Air Trans Heat	0	0
Ov/Undr Sizing	20,201	2
Grand Total ==>	1,336,763	100.00

HEATING COIL PEAK

Mo/Hr: Heating Design
OADB: 7

	Space Peak Space Sens Btu/h	Coil Peak Tot Sens Btu/h	Percent Of Total (%)
Envelope Loads			
Skylite Solar	0	0	0.00
Skylite Cond	0	0	0.00
Roof Cond	0	-67,716	2.49
Glass Solar	0	0	0.00
Glass/Door Cond	-243,012	-243,012	8.94
Wall Cond	-97,461	-125,022	4.60
Partition/Door	0	0	0.00
Floor	0	0	0.00
Adjacent Floor	0	0	0
Infiltration	-696,469	-696,469	25.62
Sub Total ==>	-1,036,942	-1,132,220	41.65
Internal Loads			
Lights	0	0	0.00
People	0	0	0.00
Misc	1,706	1,706	-0.06
Sub Total ==>	1,706	1,706	-0.06
Ceiling Load	-38,653	0	0.00
Ventilation Load	0	-998,413	36.73
Adj Air Trans Heat	0	0	0
Ov/Undr Sizing	0	0	0.00
Exhaust Heat		44,466	-1.64
OA Preheat Diff.		-367,556	13.52
RA Preheat Diff.		-266,330	9.80
Additional Reheat		0	0.00
Underflr Sup Ht Pkup		0	0.00
Supply Air Leakage		0	0.00
Grand Total ==>	-1,073,889	-2,718,347	100.00

TEMPERATURES

	Cooling	Heating
SADB	55.0	102.8
Ra Plenum	76.4	68.2
Return	76.4	68.2
Ret/OA	83.7	38.7
Fn MtrTD	0.3	0.0
Fn BldTD	0.6	0.0
Fn Frict	1.7	0.0

AIRFLOWS

	Cooling	Heating
Diffuser	69,121	34,008
Terminal	69,121	34,008
Main Fan	69,121	34,007
Sec Fan	0	0
Nom Vent	24,734	16,389
AHU Vent	24,734	16,389
Infil	11,433	11,433
MinStop/Rh	34,007	34,007
Return	76,062	42,907
Exhaust	31,675	25,289
Rm Exh	4,492	2,533
Auxiliary	0	0
Leakage Dwn	0	0
Leakage Ups	0	0

ENGINEERING CKS

	Cooling	Heating
% OA	35.8	48.2
cfm/ft²	0.77	0.38
cfm/ton	383.95	
ft²/ton	496.50	
Btu/hr·ft²	24.17	-30.69
No. People	1,756	

COOLING COIL SELECTION

	Total Capacity ton	Total Capacity MBh	Sens Cap. MBh	Coil Airflow cfm	Enter DB/WB/HR °F	Enter DB/WB/HR °F	Enter DB/WB/HR gr/lb	Leave DB/WB/HR °F	Leave DB/WB/HR °F	Leave DB/WB/HR gr/lb
Main Clg	180.0	2,160.3	1,982.6	66,893	83.7	60.4	53.3	52.6	47.9	49.5
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Total	180.0	2,160.3								

AREAS

	Gross Total	Glass ft²	Glass (%)
Floor	89,383		
Part	0		
Int Door	0		
ExFlr	0		
Roof	20,667	0	0
Wall	58,464	13,268	23
Ext Door	541	0	0

HEATING COIL SELECTION

	Capacity MBh	Coil Airflow cfm	Ent °F	Lvg °F
Main Htg	-1,653.8	34,007	52.6	102.8
Aux Htg	0.0	0	0.0	0.0
Preheat	-1,089.4	24,734	7.0	52.6
Humidif	0.0	0	0.0	0.0
Opt Vent	0.0	0	0.0	0.0
Total	-2,743.2			

MONTHLY ENERGY CONSUMPTION

By CEA

------- Monthly Energy Consumption -------

Utility	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
Alternative: 1	**90-1-2007 Baseline Sys#7**												
Electric													
On-Pk Cons. (kWh)	100,837	91,909	106,518	100,935	108,247	111,748	113,873	118,662	107,333	107,297	99,643	99,848	1,266,850
On-Pk Demand (kW)	267	276	278	293	306	323	341	355	350	292	274	253	355
Purchased Hot Water													
On-Pk Cons. (therms)	3,353	2,379	1,584	845	257	23	1	9	152	654	2,031	3,406	14,695
On-Pk Demand (therms/hr)	26	21	18	18	14	4	0	3	11	16	18	20	26
Purchased Chilled Water													
On-Pk Cons. (therms)	44	86	661	1,143	2,554	4,712	6,357	6,097	3,822	1,882	305	21	27,682
On-Pk Demand (therms/hr)	7	7	11	13	17	21	25	25	25	14	10	3	25

Energy Consumption		
Building	95,785	Btu/(ft2-year)
Source	190,880	Btu/(ft2-year)
Floor Area	89,383	ft2

Environmental Impact Analysis	
CO2	No Data Available
SO2	No Data Available
NOX	No Data Available

MONTHLY ENERGY CONSUMPTION

By CEA

------- Monthly Energy Consumption -------

Utility	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
Alternative: 2	**40% savings w/ VAV**												
Electric													
On-Pk Cons. (kWh)	78,260	69,892	78,742	73,461	77,649	77,884	79,520	83,553	77,991	79,918	76,463	78,268	931,602
On-Pk Demand (kW)	196	202	189	189	191	193	200	210	204	205	200	197	210
Purchased Hot Water													
On-Pk Cons. (therms)	1,675	1,067	817	415	136	33	10	19	84	347	1,062	1,530	7,194
On-Pk Demand (therms/hr)	17	15	13	11	6	1	0	0	4	11	15	15	17
Purchased Chilled Water													
On-Pk Cons. (therms)	0	0	5	11	229	1,104	3,107	2,585	1,205	159	0	0	8,405
On-Pk Demand (therms/hr)	0	0	2	2	5	12	17	17	18	8	0	0	18
Water													
Cons. (1000gal)	1	2	12	22	50	109	205	184	104	37	6	0	732

Energy Consumption		
Building	53,025	Btu/(ft2-year)
Source	124,693	Btu/(ft2-year)
Floor Area	89,383	ft2

Environmental Impact Analysis	
CO2	No Data Available
SO2	No Data Available
NOX	No Data Available

MONTHLY UTILITY COSTS

By CEA

Utility	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
					------- Monthly Utility Costs -------								
Alternative 1													
Electric													
On-Pk Cons. ($)	5,042	4,595	5,326	5,047	5,412	5,587	5,694	5,933	5,367	5,365	4,982	4,992	63,342
Purchased Hot Water													
On-Pk Cons. ($)	2,894	2,053	1,367	730	221	20	1	8	131	564	1,753	2,939	12,682
Purchased Chilled Water													
On-Pk Cons. ($)	39	76	587	1,014	2,265	4,180	5,638	5,408	3,390	1,669	270	19	24,554
Monthly Total ($):	7,974	6,725	7,279	6,790	7,899	9,787	11,333	11,349	8,887	7,598	7,005	7,951	100,579

Building Area = 89,383 ft²

Utility Cost Per Area = 1.13 $/ft²

Alternative 2													
Electric													
On-Pk Cons. ($)	3,987	3,562	4,011	3,745	3,957	3,966	4,050	4,252	3,972	4,070	3,895	3,988	47,456
Purchased Hot Water													
On-Pk Cons. ($)	1,445	920	705	358	117	28	9	17	73	300	916	1,320	6,208
Purchased Chilled Water													
On-Pk Cons. ($)	0	0	4	10	204	979	2,756	2,293	1,069	141	0	0	7,455
Monthly Total ($):	5,433	4,482	4,721	4,113	4,277	4,974	6,815	6,561	5,113	4,511	4,811	5,308	61,120

Building Area = 89,383 ft²

Utility Cost Per Area = 0.68 $/ft²

Appendix C – Cost Budget Estimates

- **DFCM Capital Development Projects Cost Budget Estimate Details (CBE)**
- **DRAFT Program Cost Estimate**
- **FF&E Cost Estimate**
- **Theatrical Systems Cost Estimate**
- **Site Utility Relocation Estimate**
- **Site Development Cost Estimate**

Capital Development Projects
CBE Details

Project Name:	**Sorenson Arts and Educaton Complex (Draft 2009 10-12)**				
Agency/Institution:	**University of Utah**				
Project Manager:	**Rick James DFCM - Mark Grabl University of Utah (Working Draft)**				
Description	**Explanation**	**Units**	**Unit Cost**	**Cost**	**Escalated Cost**
					$ 23,999,916
Facility Cost		**GSF**			
New Facility Cost Details:					
		63,500	$ 274.28	$ 17,416,780	$ 17,416,780
				$ -	$ -
				$ -	$ -
				$ -	$ -
				$ -	$ -
				$ -	$ -
Subtotal - New Facility Costs		**63,500**		**$ 17,416,780**	**$ 17,416,780**
Remodel Facility Cost Details:					
				$ -	$ -
				$ -	$ -
				$ -	$ -
				$ -	$ -
				$ -	$ -
				$ -	$ -
Subtotal - Remodel Facility Costs		**-**		**$ -**	**$ -**
TOTAL FACILITY COST		**63,500**		**$ 17,416,780**	**$ 17,416,780**
Utility Cost Details:					
Water Utility Fee				$ -	$ -
Sewer Utility Fee				$ -	$ -
Electricity Utility Fee				$ -	$ -
Storm Sewer Utility Fee				$ -	$ -
Connection Fees		1	$ 20,000	$ 20,000	$ 20,000
				$ -	$ -
TOTAL UTILITY FEE COST				**$ 20,000**	**$ 20,000**
Additional Construction Cost Details:					
				$ -	$ -
				$ -	$ -
				$ -	$ -
				$ -	$ -
				$ -	$ -
TOTAL ADDITIONAL CONSTRUCTION COST				**$ -**	**$ -**
Site Cost Details:					
				$ -	$ -
				$ -	$ -
Site Development Fees		160,000	$ 8	$ 1,280,000	$ 1,280,000
				$ -	$ -
				$ -	$ -
				$ -	$ -
				$ -	$ -
				$ -	$ -
				$ -	$ -
				$ -	$ -
				$ -	$ -
				$ -	$ -
TOTAL SITE COST				**$ 1,280,000**	**$ 1,280,000**
HIGH PERFORMANCE BUILDING	If N/A, change YES to NO. To supercede 1-1/2% calculation enter amount in unit cost	**YES**		**$ 280,752**	**$ 280,752**
TOTAL CONSTRUCTION COST				**$ 18,997,532**	**$ 18,997,532**
OTHER PROJECT INFORMATION:					
Total Net Square Feet:	**42,000**	66.14%			$ 23,999,916
Base Cost Date:	**9/1/2009**				
Estimated Bid Date:	**2/1/2011**				
Estimated Completion Date:	**10/1/2012**				
Last Modified Date:	**10/14/2009**				
Inflation Escalation Factor Included:	**0.00%**				
Location Factor Included:	**0.00%**				

Capital Development Projects
CBE Details

Hazardous Materials Cost Details:					
Pre-Construction Survey				$ -	$ -
				$ -	$ -
Plan and Monitoring				$ -	$ -
				$ -	$ -
Abatement/Removal				$ -	$ -
				$ -	$ -
TOTAL HAZARDOUS MATERIALS COST				**$ -**	**$ -**
Pre-Design/Planning:					
Planning Fund Reimbursement				$ -	
				$ -	
Programming		$ 18,997,532	1.40%	$ 265,965	
				$ -	
Environmental Assessment				$ -	
				$ -	
Geotechnical Investigation/Surveys		1	$ 20,000	$ 20,000	
				$ -	
TOTAL PRE-DESIGN/PLANNING COST				**$ 285,965**	
Design Costs:					
A/E Design Fees					
		$ 18,997,532	8.00%	$ 1,519,803	
				$ -	
				$ -	
				$ -	
				$ -	
Total A/E Design Fees				$ 1,519,803	
Additional Printing Costs				$ -	
High Performance Design	If N/A, change YES to NO. To supercede 1/4% calculation enter amount in unit cost	**YES**		**$ 47,494**	
Value Management Costs				$ -	
				$ -	
TOTAL DESIGN COST				**$ 1,567,296**	
Property Acquisition:					
				$ -	
				$ -	
				$ -	
				$ -	
TOTAL PROPERTY ACQUISITION COST				**$ -**	
Furnishings & Equipment Costs:					
Furnishings Detail:					
		17,416,780	4.00%	$ 696,671	
				$ -	
				$ -	
				$ -	
				$ -	
				$ -	
				$ -	
				$ -	
Total Furnishings				$ 696,671	
Equipment Detail:					
		17,416,780	4.00%	$ 696,671	
				$ -	
				$ -	
				$ -	
				$ -	
				$ -	
				$ -	
Total Equipment		17,416,780	4.00%	$ 696,671	
FF&E Design Costs				$ -	
				$ -	
TOTAL FURNISHINGS & EQUIPMENT COSTS				**$ 1,393,342**	
Information Technology Costs:					
				$ -	
		17,416,780	1%	$ 174,168	
				$ -	
				$ -	
				$ -	

Capital Development Projects
CBE Details

TOTAL INFORMATION TECHNOLOGY COST				**$ 174,168**
UTAH ART	If N/A, change YES to NO. To supercede 1% calculation enter amount in unit cost	**YES**		**$ 189,975**
Testing & Inspection Costs:				
Building Code Inspection		$ 18,997,532	0.65%	$ 123,484
				$ -
Material Testing		$ 18,997,532	0.05%	$ 9,499
				$ -
Special Inspections		$ 18,997,532	0.05%	$ 9,499
				$ -
TOTAL TESTING & iNSPECTION COSTS				**$ 142,481**
Moving/Occupance Costs:				
				$ -
		17,416,780	0.10%	$ 17,417
				$ -
				$ -
TOTAL MOVING/OCCUPANCY COSTS				**$ 17,417**
DFCM Management:				
				$ -
				$ -
				$ -
				$ -
TOTAL DFCM MANAGEMENT				**$ -**
User Fees:				
				$ -
				$ -
				$ -
				$ -
TOTAL USER FEES				**$ -**
Commissioning:				
				$ -
		$ 63,500	$ 1.33	$ 84,455
				$ -
				$ -
TOTAL COMMISSIONING COSTS				**$ 84,455**
Other Costs:	Utility Shut Downs	$ 18,997,532	0.13%	$ 24,697
Energy Study	$10K if withing RMP area, $25K otherwise	1	$ 10,000	$ 10,000
Integrated Modeling	Energy modeling for LEED and full building analysis	1	$ 25,000	$ 25,000
Campus Orders	Combined total of FM Support	$ 18,997,532	0.30%	$ 56,993
	Signage Lump Sum	17,416,780	0.60%	$ 104,501
TOTAL OTHER COSTS				**$ 221,190**
Previous Funding:				
(Only show state appropriated funding & include costs covered by that funding in appropriate category.)				
				$ -
				$ -
TOTAL PREVIOUS FUNDING				**$ -**
Other Funding Sources:				
(List and describe each source)				
				$ 23,999,916
				$ -
				$ -
				$ -
TOTAL OTHER FUNDING SOURCES				**$ 23,999,916**

PROJECT ESTIMATE	CONSTRUCTION CONTROL CORPORATION	2/2/2010

PROJECT NAME……..…..UofU SORENSON ARTS AND EDUCATION COMPLEX
LOCATION……..……..SALT LAKE CITY, UT
ARCHITECT…..……..…CRSA SF 89,062
STAGE OF DESIGN……PROGRAMMING

UNI #	DESCRIPTION	UNIT QTY	UNIT COST	
A	**SUBSTRUCTURES**		**$ 7.88**	**$ 701,487**
B	**SHELL**		**$ 62.55**	**$ 5,570,541**
C	**INTERIORS**		**$ 45.54**	**$ 4,055,747**
D	**SERVICES**		**$ 71.55**	**$ 6,372,386**
E	**EQUIPMENT & FURNISHINGS**		**$ 5.04**	**$ 449,242**
F	**SPECIAL CONSTRUCTION AND DEMOLITION**		**$ -**	**$ -**
G	**SITEWORK**		**$ 8.61**	**$ 766,800**
	SUBTOTAL		**$ 201.17**	**17,916,203**
	GENERAL CONDITIONS	**6%**	**$ 12.07**	**$ 1,074,972**
	OVERHEAD & PROFIT	**4%**	**$ 8.05**	**716,648**
	DESIGN CONTINGENCY	**15%**	**$ 30.17**	**2,687,430**
	TOTAL ESTIMATED CONSTRUCTION COST		**$ 251.46**	**$ 22,395,254**

PROJECT ESTIMATE	CONSTRUCTION CONTROL CORPORATION	2/2/2010

PROJECT NAME……..…..UofU SORENSON ARTS AND EDUCATION COMPLEX
LOCATION……..……..SALT LAKE CITY, UT
ARCHITECT…..……..…CRSA SF 89,062
STAGE OF DESIGN……PROGRAMMING

UNI #	DESCRIPTION	UNIT QTY	UNIT COST	
A	**SUBSTRUCTURES**			
	Continuous Footings	141 CY	$ 285.00	$ 40,280
	Spot Footings	141 CY	$ 295.00	$ 41,693
	Below Grade Foundation Wall	11,264 SF	$ 19.68	$ 221,676
	Slab on Grade	25,829 SF	$ 3.55	$ 91,693
	Foundation Waterproofing	10,138 LF	$ 4.60	$ 46,633
	Building Area Site Clearing	25,829 SF	$ 0.39	$ 10,073
	Building Excavation	15,306 CY	$ 5.00	$ 76,531
	Backfill & Compaction w/ Imported fills	3,827 CY	$ 19.65	$ 75,192
	Remove Excess	15,306 CY	$ 5.00	$ 76,530
	Building Grading	25,829 SF	$ 0.39	$ 10,073
	Gravel Under Slab	505 TN	$ 22.00	$ 11,112
	TOTAL SUBSTRUCTURES			**$ 701,487**
B	**SHELL**			
B10	**Superstructure**			
	Metal Roof Deck	28,000 SF	$ 1.95	$ 54,600
	Metal Floor Deck	63,233 SF	$ 1.85	$ 116,981
	Floor Structure 14#/SF	885,262 LB	$ 1.65	$ 1,460,682
	Roof Structure 7#/SF	442,631 LB	$ 1.65	$ 730,341
	Topping slab	63,233 SF	$ 3.55	$ 224,477
B20	**Exterior Enclosure**			
	Exterior Wall Framing	46,680 SF	$ 3.60	$ 168,048
	Rigid Roof Insulation	28,000 SF	$ 2.55	$ 71,400
	Roofing	28,000 SF	$ 2.65	$ 74,200
	Metal Wall Cap	704 LF	$ 9.65	$ 6,794

PROJECT ESTIMATE	CONSTRUCTION CONTROL CORPORATION	2/2/2010

PROJECT NAME……..…..UofU SORENSON ARTS AND EDUCATION COMPLEX
LOCATION……..……..SALT LAKE CITY, UT
ARCHITECT…..……..…CRSA SF 89,062
STAGE OF DESIGN……PROGRAMMING

UNI #	DESCRIPTION	UNIT QTY	UNIT COST	
	Exterior Wall Sheathing	46,680 SF	$ 1.65	$ 77,022
	Vapor Barrier	46,680 SF	$ 1.89	$ 88,225
	Exterior Wall Finish- Brick	15,404 SF	$ 18.00	$ 277,279
	Exterior Wall Finish- Metal Panel	15,404 SF	$ 52.00	$ 801,029
	Exterior Wall Finish- Stone	15,404 SF	$ 40.00	$ 616,176
	Building Fireproofing	89,062 SF	$ 1.65	$ 146,952
	Exterior Glazing- 30% of exterior	9,803 SF	$ 32.50	$ 318,591
	Curtainwall	4,201 SF	$ 65.00	$ 273,078
	Fire Stopping/ Caulking	89,062 SF	$ 0.25	$ 22,266
	Exterior Aluminum Doors Double	6 EA	$ 3,800.00	$ 22,800
	Exterior Aluminum Doors Single	1 EA	$ 1,800.00	$ 1,800
	Exterior HM Doors	8 EA	$ 950.00	$ 7,600
	Metal Flashings	800 SF	$ 6.50	$ 5,200
	Caulking & Sealants	1 LS	$ 5,000.00	$ 5,000
	TOTAL SHELL			**$ 5,570,541**
C	**<u>INTERIORS</u>**			
	Stud Frame Partitions	63,546 SF	$ 2.05	$ 130,269
	5/8" Gypsum	173,772 SF	$ 1.35	$ 234,592
	Interior Doors- Single	220 EA	$ 990.00	$ 217,800
	Interior Doors- Double	30 EA	$ 1,450.00	$ 43,500
	Interior Glazing	8,000 SF	$ 34.50	$ 276,000
	Identifying Devices	1 LS	$ 15,000.00	$ 15,000
	Desktop	20 LF	$ 165.00	$ 3,300
	Vanity	60 LF	$ 195.00	$ 11,700
	Plam Base Cabinet	503 LF	$ 195.00	$ 98,085

PROJECT ESTIMATE	CONSTRUCTION CONTROL CORPORATION	2/2/2010

PROJECT NAME……..…..UofU SORENSON ARTS AND EDUCATION COMPLEX
LOCATION……..……..SALT LAKE CITY, UT
ARCHITECT…..……..…CRSA SF 89,062
STAGE OF DESIGN……PROGRAMMING

UNI #	DESCRIPTION	UNIT QTY		UNIT COST	
	Reception Desk	30	LF	$ 365.00	$ 10,950
	Storage cubbies	24	LF	$ 95.00	$ 2,280
	Wall Hung Cabinets	294	LF	$ 165.00	$ 48,510
	High Density Storage Shelving	72	LF	$ 950.00	$ 68,400
	Adjustable Shelving	425	LF	$ 59.00	$ 25,075
	Other Millwork	89,062	SF	$ 3.25	$ 289,452
	Acoustical Treatments	1	Allow	$ 50,000.00	$ 50,000
	Restroom Mirrors	400	SF	$ 11.65	$ 4,660
	Stairs Decorative	864	SF	$ 98.00	$ 84,672
	Decorative Free Standing Railing	726	LF	$ 300.00	$ 217,800
	Stairs	2,000	SF	$ 59.00	$ 118,000
	Free Standing Railing	544	LF	$ 125.00	$ 68,000
	Wall Mounted Railing	544	LF	$ 55.00	$ 29,920
	Terrazzo	2,460	SF	$ 25.00	$ 61,500
	Entrance Mat	160	SF	$ 29.00	$ 4,640
	Carpet Tile	22,720	SF	$ 3.33	$ 75,658
	Sprung Dance Floor	15,400	SF	$ 19.65	$ 302,610
	VCT	4,429	SF	$ 4.00	$ 17,716
	Sealed Concrete	3,660	SF	$ 0.59	$ 2,159
	Sheet Vinyl	630	sF	$ 3.75	$ 2,363
	Ceramic Tile	4,037	SF	$ 8.50	$ 34,314
	Flooring other areas	35,566	SF	$ 3.00	$ 106,698
	Ceramic Wall tile	10,779	SF	$ 7.95	$ 85,689
	Base	14,481	SF	$ 3.25	$ 47,063
	Ceiling	89,062	SF	$ 5.25	$ 467,576

PROJECT ESTIMATE	CONSTRUCTION CONTROL CORPORATION	2/2/2010

PROJECT NAME……..…..UofU SORENSON ARTS AND EDUCATION COMPLEX
LOCATION……..……..SALT LAKE CITY, UT
ARCHITECT…..……..…CRSA SF 89,062
STAGE OF DESIGN……PROGRAMMING

UNI #	DESCRIPTION	UNIT QTY		UNIT COST		
	Ballet Bar	280	LF	$ 59.00	$	16,520
	Dance Mirrors	3,920	SF	$ 11.65	$	45,668
	Curtains	340	LF	$ 49.00	$	16,660
	Paint Gypsum Wallboard	173,772	SF	$ 0.46	$	79,935
	Retractable Bleachers	225	Seats	$ 465.00	$	104,625
	Dock Bumpers	1	Set	$ 500.00	$	500
	Lockers	150	EA	$ 368.00	$	55,200
	Locker Bench	150	LF	$ 65.00	$	9,750
	Operable Wall Bulkhead	100	LF	$ 49.65	$	4,965
	Operable Wall	1,200	SF	$ 52.00	$	62,400
	Markerboard	512	SF	$ 14.65	$	7,501
	Tackable Wall Surface	2,400	SF	$ 4.65	$	11,160
	Projection Screen	6	EA	$ 950.00	$	5,700
	Projector Mounts	2	EA	$ 350.00	$	700
	Specialties	89,062	SF	$ 4.25	$	378,514
	TOTAL FINISHES				**$**	**4,055,747**
D	**SERVICES**					
	Plumbing	89,062	SF	$ 6.50	$	578,903
	HVAC	89,062	SF	$ 30.00	$	2,671,860
	Fire Protection	89,062	SF	$ 2.75	$	244,921
	Electrical Service & Distribution	89,062	SF	$ 6.75	$	601,169
	Electrical- Power	89,062	SF	$ 3.65	$	325,076
	Electrical Lighting	89,062	SF	$ 12.00	$	1,068,744
	Special Systems	89,062	SF	$ 5.00	$	445,310
	Fire Alarm	89,062	SF	$ 2.25	$	200,390

PROJECT ESTIMATE	CONSTRUCTION CONTROL CORPORATION	2/2/2010

PROJECT NAME……..…..UofU SORENSON ARTS AND EDUCATION COMPLEX
LOCATION……..……..SALT LAKE CITY, UT
ARCHITECT…..……..…CRSA SF 89,062
STAGE OF DESIGN……PROGRAMMING

UNI #	DESCRIPTION	UNIT QTY	UNIT COST	
	Telecommunication	89,062 SF	$ 2.65	$ 236,014
	TOTAL SERVICES			**$ 6,372,386**
E	**EQUIPMENT & FURNISHINGS**			
	Blinds	9,803 SF	$ 8.65	$ 84,794
	Entrance Mats	150 SF	$ 29.65	$ 4,448
	Passenger Elevator- 5 stop	2 EA	$ 180,000.00	$ 360,000
	TOTAL EQUIPMENT & FURNISHINGS			**$ 449,242**
F	**SPECIAL CONSTRUCTION & DEMOLITION**			
	TOTAL SPECIAL CONSTRUCTION & DEMOLTION			**$ -**
G	**SITEWORK**			
	Site Development	72,000 SF	$ 10.65	$ 766,800
	TOTAL SITEWORK			**$ 766,800**

Beverley Taylor Sorenson Arts and Education Complex - FFE List

TOTAL SQUARE FOOTAGE:	**84,000**	
TOTAL FF&E ESTIMATE:	**$2,376,551**	*Price Reflects Discount
Common ESTIMATE:	**$29,012**	
COFA / COE ESTIMATE:	**$817,631**	
VTD / CDT ESTIMATE:	**$1,529,908**	

	COST	QUANTITY	UNIT COST	SPACES	TOTAL COST w/ discount
Common		**Quantity**	**Unit Cost**	**# of Rooms**	**$29,012**
4.3.8 - Kitchenette / Catering	$7,095			2	$9,933
LF 24" deep base cabinets w/ worksurface	$765	17	$45		
LF 15" deep upper cabinets	$300	6	$50		
24" x 48" 2-door storage cabinet	$550	1	$550		
Garbage (large)	$150	1	$150		
Ice machine	$2,300	1	$2,300		
Microwave oven	$330	1	$330		
Refrigerator - standard size	$1,000	1	$1,000		
Stove/oven combo	$1,500	1	$1,500		
Rolling storage cart	$200	2	$100		
4.5.11c - Building-Wide Active Storage	$5,805			2	$8,127
LF heavy duty open shelving, 24" deep (5 shelves, adjustable)	$4,875	15	$325		
36" wide 4-drawer lateral file	$930	3	$310		
5.3.1 - Janitors Closet	$2,700			3	$5,670
LF open shelving, 15" deep - (5 shelves, adjustable)	$2,400	8	$300		
Broom hooks (6)	$300	1	$300		
5.3.2 - Janitors Supply / Equipment Storage	$5,760			1	$4,032
LF 24" deep base cabinet w/ worksurface	$720	16	$45		
LF open shelving, 12" deep - (3 shelves, adjustable)	$2,160	12	$180		
LF open shelving, 24" deep - (5 shelves, adjustable)	$3,600	12	$300		
5.4.3 - Truck Bay and Dock (Exterior)	$1,250			1	$1,250
Dock bumpers	$300	2	$150		
Dock hood	$350	1	$350		
Dock leveler	$900	1	$900		
COFA/COE		**Quantity**	**Unit Cost**	**# of Rooms**	**$817,631**
1.1.2 - Floor Lobby	$5,900			1.5	$6,195
Lounge chair, small/medium scale, upholstered	$5,000	5	$1,000		
24"x24" side table	$600	1	$600		
Table lamp	$300	1	$300		
1.1.4 - Commons	$24,396			1	$17,077
6' Banquette seat	$9,600	8	$1,200		
36" x 72" Table	$2,272	4	$568		
Lounge chair, small/medium scale, upholstered	$6,000	6	$1,000		
18" ø side table	$968	4	$242		
Armless chairs, stackable	$588	12	$49		
36" ø table	$968	4	$242		
12' x 12' Area Rug	$4,000	1	$4,000		
1.1.5 - Coat Check	$4,490			1	$3,143
LF shelf & rod, 12" deep	$3,200	20	$160		
LF 12" deep worksurface w/ drawer	$90	2	$45		
Coat hooks (1)	$200	40	$5		
10' Wooden bench	$1,000	2	$500		
1.2.2 - Staff Breakroom	$5,274			1	$3,692
LF 24" deep base cabinet w/ worksurface	$405	9	$45		
LF 15" deep upper cabinet	$450	9	$50		
24" x 48" 2-door storage cabinet - 7' high	$550	1	$550		
48" ø table	$951	3	$317		
Armless chairs, stackable	$588	12	$49		
Dishwasher	$1,000	1	$1,000		
Microwave oven	$330	1	$330		
Refrigerator - standard size	$1,000	1	$1,000		
1.2.3 - Vending Area	$150			1	$105
Garbage (large)	$150	1	$150		

Beverley Taylor Sorenson Arts and Education Complex - FFE List

2.2.1 - Multifunction Hall	$333,640			1	$333,640
Classroom chairs, stackable	$4,240	80	$53		
4'x8' Whiteboard	$4,400	8	$550		
Theatrical Rigging Systems	$25,000	1	$25,000		
Telescopic Seating	$200,000	1	$200,000		
Sound, Video, Communication and Projection	$100,000	1	$100,000		
2.3.1 - Small Classroom	$19,055			2	$26,677
Classroom chairs, stackable	$1,855	35	$53		
24" x 48" folding table	$7,200	16	$450		
Lectern	$1,000	1	$1,000		
Projector (ceiling mounted)	$1,000	1	$1,000		
Retractable screen - 12' square	$3,000	1	$3,000		
Sound and Communication / Distance Learning	$5,000	1	$5,000		
2.3.2 - Large Classroom	$45,855			4	$128,394
Task chair on casters	$22,400	50	$448		
24" x 72" folding table	$11,550	25	$462		
4'x8' Whiteboard	$1,100	2	$550		
LF Tack surface - 4' high	$1,440	24	$60		
30" x 72" movable work table	$365	1	$365		
Projector (ceiling mounted)	$1,000	1	$1,000		
Retractable screen - 12' square	$3,000	1	$3,000		
Sound and Communication / Distance Learning	$5,000	1	$5,000		
Single Classroom items	$51,700			1	$36,190
52" LCD digital monitor, wall mounted	$1,700	1	$1,700		
Laptop computer	$48,000	24	$2,000		
Laptop storage & charging cart	$2,000	1	$2,000		
3.1.2- Reception / Waiting	$7,701			1	$5,391
LF work surface, 24" deep - Systems furniture	$564	12	$47		
LF 12" deep transaction counter, counter height	$400	8	$50		
24" x 24" side table	$1,200	2	$600		
Refrigerator - under counter	$350	1	$350		
Lounge chair, small/medium scale, upholstered	$4,000	4	$1,000		
Table/floor lamp	$300	1	$300		
3-drawer mobile pedestal	$128	1	$128		
42" wide 2-drawer lateral file	$211	1	$211		
Task chair on casters	$448	1	$448		
Garbage (small)	$100	1	$100		
3.2.2- Standard Office	$3,781			24	$63,521
LF work surface, 24" deep - Systems furniture	$611	13	$47		
3-drawer mobile pedestal	$128	1	$128		
5' oval table on casters - Systems furniture	$453	1	$453		
Task chair on casters	$448	1	$448		
Guest chair, stackable	$278	2	$139		
LF lockable binder bins, 15" deep - Systems furniture	$444	6	$74		
LF open shelving, 15" deep - Systems furniture	$400	8	$50		
LF Slatwall - Systems furniture	$234	6	$39		
Slatwall accessories package - Systems furniture	$35	1	$35		
4'x3' Whiteboard	$350	1	$350		
Coat hooks (6)	$300	1	$300		
Garbage (small)	$100	1	$100		
3.3.2 - Open Workstation	$2,043			32	$45,763
LF work surface, 24" deep - Systems furniture	$376	8	$47		
15" wide 4-drawer vertical file	$228	1	$228		
3-drawer mobile pedestal	$128	1	$128		
Task chair on casters	$448	1	$448		
LF lockable binder bins, 15" deep - Systems furniture	$444	6	$74		
LF Slatwall - Systems furniture	$234	6	$39		
Slatwall accessories package - Systems furniture	$35	1	$35		
Under shelf task light	$50	1	$50		
Garbage (small)	$100	1	$100		
3.3.3 - Collaborative Work Area	$4,244			8	$23,766
36" x 60" movable work table - 42" high	$1,644	4	$411		
12" x 60" storage cabinet on casters w/ doors - 42" high	$2,600	2	$1,300		

Beverley Taylor Sorenson Arts and Education Complex - FFE List

4.1.1 - Board / Large Conference Room	$14,732			1	$10,312
LF 24" deep base cabinets w/ worksurface	$450	10	$45		
LF 15" deep upper cabinets	$500	10	$50		
30" x 60" movable work table	$2,142	6	$357		
Meeting, upholstered	$6,288	16	$393		
Guest chair, stackable	$2,502	18	$139		
4'x6' Whiteboard	$1,000	2	$500		
Projector (ceiling mounted)	$1,000	1	$1,000		
Retractable screen - 6' square	$500	1	$500		
Refrigerator - under counter	$350	1	$350		
Sound and Communication	$1,200	1	$1,200		
4.1.6a - Conference / Meeting Room	$16,998			4	$47,594
LF 24" deep base cabinets w/ worksurface	$225	5	$45		
LF 15" deep upper cabinets	$250	5	$50		
30" x 60" movable work table	$1,428	4	$357		
Guest chair, stackable	$1,946	14	$139		
4'x6' Whiteboard	$500	1	$500		
Projector (ceiling mounted)	$1,000	1	$1,000		
Retractable screen - 6' square	$500	1	$500		
Sound and Communication	$1,200	1	$1,200		
4.1.7- Small Group Meeting Room	$1,819			4	$5,093
30" x 60" movable work table	$357	1	$357		
Guest chair, stackable	$1,112	8	$139		
4'x3' Whiteboard	$350	1	$350		
4.2.1a - Mail / Copy / Workroom	$6,311			3	$13,253
LF 24" deep base cabinets w/ worksurface	$1,080	24	$45		
LF 15" deep upper cabinets - lockable	$1,200	24	$50		
LF Slatwall - Systems furniture	$351	9	$39		
Slatwall paper trays - Systems furniture	$360	24	$15		
4'x3' Tackboard	$180	1	$180		
4'x3' Whiteboard	$350	1	$350		
3-compartment recycling bin	$1,200	1	$1,200		
Garbage (large)	$150	1	$150		
Copier, multifunction	$700	1	$700		
Microwave oven	$330	1	$330		
Coffee maker	$60	1	$60		
Refrigerator - under counter	$350	1	$350		
4.3.7 - 3015 Storage - Music	$7,740			1	$5,418
LF 24" deep base cabinets w/ worksurface	$540	12	$45		
LF open shelving, 18" deep - (3 shelves, adjustable)	$3,000	12	$250		
LF open shelving, 24" deep - (5 shelves, adjustable)	$2,400	8	$300		
LF open shelving, 30" deep - (5 shelves, adjustable)	$1,300	4	$325		
16" x 40" x 28" metal flat filing cabinet - 5 drawer	$500	1	$500		
4.3.7 - 3015 Storage - Art	$6,640			1	$4,648
LF 24" deep base cabinets w/ worksurface	$540	12	$45		
LF open shelving, 18" deep - (3 shelves, adjustable)	$3,000	12	$250		
LF open shelving, 30" deep - (5 shelves, adjustable)	$2,600	8	$325		
48" x 48" x 25" mobile rack paper roll dispenser for 36" rolls	$500	1	$500		
4.3.7 - 3015 Storage - Theater	$3,900			1	$2,730
LF open shelving, 24" deep - (5 shelves, adjustable)	$3,600	12	$300		
4' mobile garment rack	$300	2	$150		
4.3.7 - 3015 Storage - Theater	$3,600			1	$2,520
LF open shelving, 24" deep - (5 shelves, adjustable)	$3,600	12	$300		
4.5.11a - Building-Wide Active Storage	$5,805			8	$32,508
LF heavy duty open shelving, 24" deep (5 shelves, adjustable)	$4,875	15	$325		
36" wide 4-drawer lateral file	$930	3	$310		

Beverley Taylor Sorenson Arts and Education Complex - FFE List

VTD/CDT		Quantity	Unit Cost	# of Rooms	$1,529,908
1.1.2 - Floor Lobby	$5,900			1.5	$6,195
Lounge chair, small/medium scale, upholstered	$5,000	5	$1,000		
24"x24" side table	$600	1	$600		
Table lamp	$300	1	$300		
1.1.3 - PA Lobby	$31,511			1	$22,058
Lounge chair, small/medium scale, upholstered	$18,000	18	$1,000		
6' Upholstered bench	$1,600	2	$800		
24" x 24" side table	$1,800	3	$600		
18" ø side table	$1,936	8	$242		
14' x 24' Area Rug	$4,000	1	$4,000		
LF 12" deep transaction counter, counter height	$300	6	$50		
LF 24" deep base cabinet w/ worksurface	$360	8	$45		
3-drawer mobile pedestal	$256	2	$128		
42" wide 2-drawer lateral file	$211	1	$211		
Task chair on casters	$448	1	$448		
Table lamp	$900	3	$300		
52" LCD digital monitor, wall mounted	$1,700	1	$1,700		
1.1.5 - Coat Check	$4,490			1	$3,143
LF shelf & rod, 12" deep	$3,200	20	$160		
LF 12" deep worksurface w/ drawer	$90	2	$45		
Coat hooks (1)	$200	40	$5		
10' Wooden bench	$1,000	2	$500		
2.1.1 - Introductory Studio	$80,200			1	$80,200
LF Floor mounted, double height wood ballet barre	$2,400	80	$30		
4'x8' mirror - wall mounted	$7,200	12	$600		
4' x 8' Modular Panel - tack surface	$4,800	12	$400		
8' Wooden bench	$1,800	4	$450		
24" x 36" 2-door storage cabinet	$600	2	$300		
Built-in cubby w/ bench & storage hooks above	$2,600	20	$130		
Theatrical Draperies	$10,000	1	$10,000		
Sound, Video, Communication and Projection	$21,000	1	$21,000		
Portable distance learning equipment on mobile cart	$25,000	1	$25,000		
SF Vinyl Flooring (Optional)	$4,800	1600	$3		
2.1.2 - Junior Dance Studio	$55,200			1	$55,200
LF Floor mounted, double height wood ballet barre	$2,400	80	$30		
4'x8' mirror - wall mounted	$7,200	12	$600		
4' x 8' Modular Panel - tack surface	$4,800	12	$400		
8' Movable wooden bench	$1,800	4	$450		
24" x 36" 2-door storage cabinet	$600	2	$300		
Built-in cubby w/ bench & storage hooks above	$2,600	20	$130		
Theatrical Draperies	$10,000	1	$10,000		
Sound, Video, Communication and Projection	$21,000	1	$21,000		
SF Vinyl Flooring (Optional)	$4,800	1600	$3		
2.1.3 - Senior Dance Studio	$68,100			2	$136,200
LF Wall mounted, double height wood ballet barre	$3,000	100	$30		
4'x8' mirror - wall mounted	$7,200	12	$600		
4' x 8' Modular Panel - tack surface	$4,800	12	$400		
8' Movable wooden bench	$1,800	4	$450		
24" x 36" 2-door storage cabinet	$600	2	$300		
Theatrical Draperies	$10,000	1	$10,000		
Sound, Video, Communication and Projection	$21,000	1	$21,000		
Portable distance learning equipment on mobile cart	$12,500	0.5	$25,000		
SF Vinyl Flooring (Optional)	$7,200	2400	$3		
2.1.4 - Main Studio	$772,200			1	$772,200
LF Portable, double height wood ballet barre	$8,000	200	$40		
4'x8' mirror - wall mounted	$14,400	24	$600		
4' x 8' Modular Panel - tack surface	$9,600	24	$400		
8' Movable wooden bench	$3,600	8	$450		
24" x 36" 2-door storage cabinet	$1,200	4	$300		
Theatrical Rigging System	$135,000	1	$135,000		
Fall Protection	$10,000	1	$10,000		
Theatrical Draperies	$50,000	1	$50,000		
Theatrical Lighting Control	$120,000	1	$120,000		
Theatrical Lighting Fixtures	$80,000	1	$80,000		
Telescopic Seating	$220,000	1	$220,000		
Sound, Video, Communication and Projection	$78,000	1	$78,000		
Portable distance learning equipment on mobile cart	$25,000	1	$25,000		
SF Vinyl Flooring	$17,400	5800	$3		

Beverley Taylor Sorenson Arts and Education Complex - FFE List

2.1.5 - Art Studio	$56,124			1	$56,124
36" x 72" folding table - child height	$4,000	8	$500		
36" x 72" folding table - standard height	$4,544	8	$568		
4' x 8' Modular Panel - tack surface	$4,800	12	$400		
Folding chair (child size)	$8,400	42	$200		
Folding chair (standard size)	$12,600	42	$300		
LF 24" deep base cabinets w/ worksurface	$360	8	$45		
LF 15" deep upper cabinets	$600	12	$50		
30" x 36" 2-door storage cabinet	$1,120	2	$560		
4'x8' Whiteboard	$1,100	2	$550		
Built-in cubby w/ bench & storage hooks above	$2,600	20	$130		
Sound, Video, Communication and Projection	$16,000	1	$16,000		
3.1.1 - Reception / Waiting	$5,704			1	$3,993
LF work surface, 24" deep - Systems furniture	$517	11	$47		
LF 12" deep transaction counter, counter height	$400	8	$50		
24" x 24" side table	$600	1	$600		
Lounge chair, small/medium scale, upholstered	$3,000	3	$1,000		
Table/floor lamp	$300	1	$300		
3-drawer mobile pedestal	$128	1	$128		
42" wide 2-drawer lateral file	$211	1	$211		
Task chair on casters	$448	1	$448		
Garbage (small)	$100	1	$100		
3.2.1 - Directors Office	$3,781			2	$5,293
LF work surface, 24" deep - Systems furniture	$611	13	$47		
3-drawer mobile pedestal	$128	1	$128		
5' oval table on casters - Systems furniture	$453	1	$453		
Task chair on casters	$448	1	$448		
Guest chair, stackable	$278	2	$139		
LF lockable binder bins, 15" deep - Systems furniture	$444	6	$74		
LF open shelving, 15" deep - Systems furniture	$400	8	$50		
LF Slatwall - Systems furniture	$234	6	$39		
Slatwall accessories package - Systems furniture	$35	1	$35		
4'x3' Whiteboard	$350	1	$350		
Coat hooks (6)	$300	1	$300		
Garbage (small)	$100	1	$100		
3.2.3 - Staff Workstation	$4,340			4	$12,152
LF work surface, 24" deep - Systems furniture	$846	18	$47		
36" wide 2-drawer lateral file	$364	2	$182		
3-drawer mobile pedestal	$128	1	$128		
Task chair on casters	$448	1	$448		
Guest chair, stackable	$278	2	$139		
LF lockable binder bins, 15" deep - Systems furniture	$518	7	$74		
LF open shelving, 15" deep - Systems furniture	$700	14	$50		
LF Slatwall - Systems furniture	$273	7	$39		
Slatwall accessories package - Systems furniture	$35	1	$35		
4'x3' Whiteboard	$350	1	$350		
Coat hooks (6)	$300	1	$300		
Garbage (small)	$100	1	$100		
3.3.1 - Open Workstation	$2,043			8	$11,441
LF work surface, 24" deep - Systems furniture	$376	8	$47		
15" wide 4-drawer vertical file	$228	1	$228		
3-drawer mobile pedestal	$128	1	$128		
Task chair on casters	$448	1	$448		
LF lockable binder bins, 15" deep - Systems furniture	$444	6	$74		
LF Slatwall - Systems furniture	$234	6	$39		
Slatwall accessories package - Systems furniture	$35	1	$35		
Under shelf task light	$50	1	$50		
Garbage (small)	$100	1	$100		
4.1.6a - Conference / Meeting Room	$7,049			1	$4,934
LF 24" deep base cabinets w/ worksurface	$225	5	$45		
LF 15" deep upper cabinets	$250	5	$50		
30" x 60" movable work table	$1,428	4	$357		
Guest chair, stackable	$1,946	14	$139		
4'x6' Whiteboard	$500	1	$500		
Projector (ceiling mounted)	$1,000	1	$1,000		
Retractable screen - 6' square	$500	1	$500		
Sound and Communication	$1,200	1	$1,200		

Beverley Taylor Sorenson Arts and Education Complex - FFE List

4.2.1b - Mail / Copy / Workroom	$6,311			1	$4,418
LF 24" deep base cabinets w/ worksurface	$1,080	24	$45		
LF 15" deep upper cabinets - lockable	$1,200	24	$50		
LF Slatwall - Systems furniture	$351	9	$39		
Slatwall paper trays - Systems furniture	$360	24	$15		
4'x3' Tackboard	$180	1	$180		
4'x3' Whiteboard	$350	1	$350		
3-compartment recycling bin	$1,200	1	$1,200		
Garbage (large)	$150	1	$150		
Copier, multifunction	$700	1	$700		
Microwave oven	$330	1	$330		
Coffee maker	$60	1	$60		
Refrigerator - under counter	$350	1	$350		
4.3.1 Introductory Studio Storage	$10,800			1	$7,560
LF open shelving, 24" deep - (5 shelves, adjustable)	$10,200	34	$300		
24" x 36" 2-door storage cabinet	$600	2	$300		
4.3.2 Introductory Studio Snack Prep	$3,207			1	$2,245
LF 24" deep base cabinets w/ worksurface	$450	10	$45		
LF 15" deep upper cabinets	$300	6	$50		
30" x 60" movable work table	$357	1	$357		
30" x 60" island cabinet	$1,400	1	$1,400		
24" x 48" 2-door storage cabinet	$550	1	$550		
Garbage (large)	$150	1	$150		
4.4.2 - Dressing Room Male	$5,738			1	$4,017
LF Built-in Dressing Counter w/ Mirror	$1,380	6	$230		
Guest chair, stackable	$278	2	$139		
12" x 18" x 72" triple tier lockers, metal	$3,300	6	$550		
LF Bench & storage hooks above	$780	6	$130		
4.4.3 - Dressing Room Female	$21,254			2	$29,756
LF Built-in Dressing Counter w/ Mirror	$4,140	18	$230		
Guest chair, stackable	$834	6	$139		
12" x 18" x 72" double tier lockers, metal	$4,500	10	$450		
12" x 18" x 72" triple tier lockers, metal	$11,000	20	$550		
LF Bench & storage hooks above	$780	6	$130		
4.4.4 - Parent / Student Dress	$5,138			1	$3,597
LF Built-in Dressing Counter w/ Mirror	$1,380	6	$230		
Guest chair, stackable	$278	2	$139		
12" x 18" x 72" double tier lockers, metal	$2,700	6	$450		
LF Bench & storage hooks above	$780	6	$130		
4.4.6 - Faculty Dressing Room Female	$7,876			1	$5,513
LF Built-in Dressing Counter w/ Mirror	$2,760	12	$230		
Guest chair, stackable	$556	4	$139		
12" x 18" x 72" double tier lockers, metal	$3,600	8	$450		
LF Bench & storage hooks above	$780	6	$130		
4' x 3' Tackboard	$180	1	$180		
4.4.7 - Faculty Dressing Room Male	$31,358			1	$21,951
12" x 18" x 72" double tier lockers, metal	$2,250	5	$450		
4' x 3' Tackboard	$180	1	$180		
4.5.1 - Archive / Library	$28,928			1	$20,250
LF 24" deep w/ worksurface	$450	10	$45		
LF open shelving, 15" deep - (2 shelves, adjustable)	$2,800	14	$200		
LF open shelving, 15" deep - (5 shelves, adjustable)	$16,800	56	$300		
LF open shelving, 24" deep - (5 shelves, adjustable)	$7,200	24	$300		
36" wide 4-drawer lateral file	$310	1	$310		
36" x 48" 20-drawer map & poster cabinet	$600	1	$600		
24" x 48" movable work table	$320	1	$320		
Task chair on casters	$448	1	$448		
4.5.3 - Storage Props / Musical Instruments	$18,900			1	$13,230
LF 24" deep base cabinets w/ worksurface	$720	16	$45		
LF 15" deep upper cabinets - lockable	$800	16	$50		
LF open shelving, 15" deep - (5 shelves, adjustable)	$12,000	40	$300		
LF open shelving, 24" deep - (5 shelves, adjustable)	$6,000	20	$300		
24" x 36" 2-door storage cabinet	$900	3	$300		

Beverley Taylor Sorenson Arts and Education Complex - FFE List

4.5.4 - Art Studio Storage	$5,284			1	$3,699
LF 24" deep base cabinets w/ worksurface	$900	20	$45		
LF 15" deep upper cabinets - lockable	$600	12	$50		
24" x 36" 2-door storage cabinet	$900	3	$300		
36" x 72" movable work table	$1,684	4	$421		
48" x 48" x 25" mobile rack paper roll dispenser for 36" rolls	$1,000	2	$500		
Rolling storage cart	$200	2	$100		
4.5.6 - Costume Storage	$34,600			1	$24,220
LF Mechanical assist mobile storage	$12,600	60	$210		
LF Garment conveyor system	$22,000	110	$200		
4.5.11b - Building-Wide Active Storage	$5,805			2	$8,127
LF heavy duty open shelving, 24" deep (5 shelves, adjustable)	$4,875	15	$325		
36" wide 4-drawer lateral file	$930	3	$310		
4.6.1 - Costume Fabrication	$30,200			1	$21,140
4' mobile garment rack	$900	6	$150		
Ironing board	$120	2	$60		
15" wide 5-drawer vertical file	$456	2	$228		
30" x 36" 2-door storage cabinet	$1,680	3	$560		
4' x 8' Modular Panel - tack surface	$800	2	$400		
LF work surface, 24" deep - Systems furniture	$188	4	$47		
Task chair on casters	$4,032	9	$448		
4'x8' mirror - wall mounted	$1,200	2	$600		
48" x 108" movable cutting table w/ storage below	$4,500	3	$1,500		
Fabric rack (for bolts of fabric)	$800	2	$400		
36" x 72" movable work table	$1,684	4	$421		
Commercial sewing machine	$5,000	2	$2,500		
Standard sewing machine	$6,000	6	$1,000		
Clothing iron	$240	4	$60		
Clothing steamer	$200	2	$100		
LF open shelving, 15" deep - (5 shelves, adjustable)	$2,400	8	$300		
4.6.2 - Costume Laundry / Dye	$5,220			1	$3,654
LF 24" deep base cabinets w/ worksurface	$360	8	$45		
Ironing board	$120	2	$60		
Top-load washer	$2,010	3	$670		
Top-load dryer	$2,010	3	$670		
Two burner range top	$600	1	$600		
Clothing iron	$120	2	$60		
5.2.1 - Control Booth	$184,900			1	$184,900
LF work surface, 24" deep - Custom	$1,600	20	$80		
24" x 36" 2-door storage cabinet	$300	1	$300		
LF open shelving, 15" deep - (5 shelves, adjustable)	$3,000	10	$300		
Sound, Video, Communication and Projection	$180,000	1	$180,000		
5.2.2 - Dimmer Room	$2,500			1	$2,500
24 Circuit Dimmer Rack	$2,500	1	$2,500		

University of Utah
Beverly Taylor Sorenson Arts and Education Complex
Theatrical Systems Opinon of Probable Cost
25 March 2010

Theatrical Systems Cost Estimate

Room No.	Space	Theatrical Rigging Systems	Fall Protection	Theatrical Draperies	Theatrical Lighting Control	Theatrical Lighting Fixtures	Telescopic Seating	Sound, Video, Communication and Projection		Space Subtotal	Number of Spaces	Space Total
2.1.1	Introductory Studio			$ 10,000				$ 21,000		$ 31,000	1	$ 31,000
2.1.2	Junior Dance Studios			$ 10,000				$ 21,000		$ 31,000	2	$ 62,000
2.1.3	Senior Dance Studios			$ 10,000				$ 21,000		$ 31,000	2	$ 62,000
2.1.4	Main Studio	$ 135,000	$ 10,000	$ 50,000	$ 120,000	$ 80,000	$ 220,000	$ 78,000		$ 693,000	1	$ 693,000
2.1.5	Art Studio			$ -				$ 16,000		$ 16,000	1	$ 16,000
2.2.1	Multifunction Hall	$ 25,000		$ -			$ 200,000	$ 100,000		$ 325,000	1	$ 325,000
4.4.2	Dressing Room Male	$ -		$ -				$ 2,000		$ 2,000	1	$ 2,000
4.4.3	Dressing Room Female	$ -		$ -				$ 2,000		$ 2,000	2	$ 4,000
4.4.4	Parent / Student Dress	$ -		$ -				$ 2,000		$ 2,000	1	$ 2,000
4.4.6	Faculty Dressing Room Unisex	$ -		$ -				$ 2,000		$ 2,000	1	$ 2,000
5.2.1	Control Booth (Main Studio)	$ -		$ -				$ 180,000		$ 180,000	1	$ 180,000
	Portable Equipment							$ 75,000		$ 75,000	1	$ 75,000
	Section Subtotal	$ 160,000	$ 10,000	$ 80,000	$ 120,000	$ 80,000	$ 420,000	$ 520,000				
	Theatrical Equipment Total	**$ 1,454,000**										
Note:												

1. These estimates are based the scope of systems as described in the Program Documents in 2010 dollars. Estimates are further based on currently published manufacturers' equipment costs and similar equipment and systems designed for current projects by Auerbach Pollock Friedlander. The above Opinion of Probable Costs does not include design, tax, escalation, construction contingency, General Contractor overhead and profit, Division 26 electrical work (power, conduit and cabling), structural support, and architectural work. Delivery and installation are included with the exception of the Theatrical Lighting Fixtures. Installation of the Theatrical Lighting Fixtures is by the Owner.

2. These estimates do not include catwalks, galleries, rigging support steel, floor systems, or architectural finishes.

3. ofe tbd = Owner furnished equipment to be determined.

4. Additional costs related to Theatrical Systems that are to be carried in the Base Building Cost include: Dance Floor - $20 per square foot, Mechanical Assist Mobile Storage - $21,000 and Garment Conveyor System -

PROJECT ESTIMATE	2/17/2010

PROJECT NAME……..…..SORENSON ARTS AND EDUCATION SITE **SITE 1**
LOCATION……..……..SALT LAKE CITY, UT
ARCHITECT……..CRSA
STAGE OF DESIGN……FEASIBILITY

DESCRIPTION	UNIT QTY	UNIT COST	
Relocate Sewer line at Existing Road			
Remove Existing Sewer Line	200 LF	$ 19.00	$ 3,800
New 8" Sewer line- deep Excavation	300 LF	$ 70.00	$ 21,000
Repair Site	4000 SF	$ 5.65	$ 22,600
Sewer Manholes	2 EA	$ 3,650.00	$ 7,300
Sewer Line Connection	2 EA	$ 1,250.00	$ 2,500
SUBTOTAL			**$ 57,200**
GENERAL CONDITIONS	**8%**		**4,576**
OVERHEAD & PROFIT	**8%**		**4,576**
DESIGN CONTINGENCY	**15%**		**8,580**
TOTALS			**$ 74,932**

PROJECT ESTIMATE	CONSTRUCTION CONTROL CORPORATION	12/17/2009

PROJECT NAME……..……SORENSON ARTS AND EDUCATION SITE **SITE 2**
LOCATION……..……..SALT LAKE CITY, UT
ARCHITECT……..CRSA
STAGE OF DESIGN……FEASIBILITY

DESCRIPTION	UNIT QTY	UNIT COST	
High Voltage Line Relocation (Necessary)			
Remove Existing High Voltage Buried line to Vault	350 LF	$ 9.65	$ 3,378
New High Voltage Duct Bank	480 LF	$ 198.00	$ 95,040
Repair Site	6640 SF	$ 5.65	$ 37,516
High Voltage Connections	2 EA	$ 2,650.00	$ 5,300
Relocate High Temp Waterline (Necessary)			
Remove Existing High Temp Waterline	255 LF	$ 9.65	$ 2,461
New High Temp Waterline- Thermacore	580 LF	$ 500.00	$ 290,000
Repair Site	4360 SF	$ 5.65	$ 24,634
High Temp Waterline Connection	2 EA	$ 2,650.00	$ 5,300
Relocate 12" Cooling Line			
Remove Existing Piping	150 LF	$ 9.65	$ 1,448
New Cooling line- Thermacore	220 LF	$ 295.00	$ 64,900
Repair Site	2080 SF	$ 5.65	$ 11,752
High Temp Waterline Connection	2 EA	$ 2,650.00	$ 5,300
Relocate culinary water lines at north of site (Necessary)			
Remove Existing Piping	280 LF	$ 9.65	$ 2,702
New 12" Culinary	700 LF	$ 115.00	$ 80,500
Repair Site	5040 SF	$ 5.65	$ 28,476
Culinary Waterline Connection	2 EA	$ 1,250.00	$ 2,500
Relocate Communications Lines at MBH (Necessary)			
Remove Existing Comm Line	225 LF	$ 9.65	$ 2,171
New Communication Lines	394 LF	$ 95.00	$ 37,430
Repair Site Return LIne work	4952 SF	$ 5.65	$ 27,979
Connections	2 EA	$ 2,500.00	$ 5,000
Remove Abandoned Gas Lin			
Remove Existing Gasline	110 LF	$ 9.65	$ 1,062
Repair Site at Gas Line work	880 SF	$ 5.65	$ 4,972
Remove Abandoned 2.5" Return Line			
Remove Existing Return Line	110 LF	$ 9.65	$ 1,062
Repair Site Return LIne work	880 SF	$ 5.65	$ 4,972
SUBTOTAL			**$ 745,853**
GENERAL CONDITIONS	**8%**		**59,668**
OVERHEAD & PROFIT	**8%**		**59,668**
DESIGN CONTINGENCY	**15%**		**111,878**
TOTALS			**$ 977,067**

PROJECT ESTIMATE	CONSTRUCTION CONTROL CORPORATION	12/17/2009

PROJECT NAME……..…..SORENSON ARTS AND EDUCATION SITE **SITE 3**
LOCATION……..……..SALT LAKE CITY, UT
ARCHITECT……..CRSA
STAGE OF DESIGN……FEASIBILITY

CSI #	DESCRIPTION	UNIT QTY	UNIT COST	
	Relocate culinary water lines at north of site (Necessary)			
	Remove Existing Piping	280 LF	$ 9.65	$ 2,702
	New 12" Culinary	700 LF	$ 115.00	$ 80,500
	Repair Site	5040 SF	$ 5.65	$ 28,476
	Culinary Waterline Connection	2 EA	$ 1,250.00	$ 2,500
	Relocate Sewer line at East Side of Site			
	Remove Existing Sewer Line	339 LF	$ 19.00	$ 6,441
	New 8" Sewer line- deep Excavation	592 LF	$ 70.00	$ 41,440
	Repair Site	7448 SF	$ 5.65	$ 42,081
	Sewer Manholes	2 EA	$ 3,650.00	$ 7,300
	High Temp Waterline Connection	2 EA	$ 1,250.00	$ 2,500
	Relocate 12" Cooling Line			
	Remove Existing Piping	150 LF	$ 9.65	$ 1,448
	New Cooling line- Thermacore	220 LF	$ 295.00	$ 64,900
	Repair Site	2080 SF	$ 5.65	$ 11,752
	High Temp Waterline Connection	2 EA	$ 2,650.00	$ 5,300
	Remove Abandoned Gas line			
	Remove Existing Gasline	192 LF	$ 9.65	$ 1,853
	Repair Site at Gas Line work	1536 SF	$ 5.65	$ 8,678
	Remove Abandoned Return Line			
	Remove Existing Return Line	192 LF	$ 9.65	$ 1,853
	Repair Site Return LIne work	1536 SF	$ 5.65	$ 8,678
	SUBTOTAL			**$ 318,402**
	GENERAL CONDITIONS	**8%**		**25,472**
	OVERHEAD & PROFIT	**8%**		**25,472**
	DESIGN CONTINGENCY	**15%**		**47,760**
	TOTALS			**$ 417,106**

Site Development Cost Estimate

Site #	Existing Utility Relocation	South Campus Walk	Culinary Water to Bldg.	High Temp Water to Bldg.	Chilled Water to Bldg.	Sewer to Bldg.	Electrical to Bldg.	Total utility relocation & supply to building		Site Development Budget	$ Available for Site Development Grading & Landscaping
Site 1	$79,932	$167,000	$21,500	$137,500	$75,000	$9,500	$175,000	$665,432		$1,535,000	$869,568
Site 2	$977,067	$167,000	$9,125	$50,000	$75,000	$18,500	$175,000	$1,471,692		$1,535,000	$63,308
Site 3	$417,106	$167,000	$9,125	$50,000	$52,500	$9,500	$275,000	$980,231		$1,535,000	$554,769
	Per CCC Estimate	$20 / sf	$55 / lf	$500 / lf	$150 / lf	$45 / lf	Estimated Lump sum			Per Cost Summary	
Notes:											

1. Estimates are based on the scope of systems as described in the Program Documents in 2010 dollars.
2. Estimates have utilized general cost per lineal foot for utilities and have made assumptions about connection locations for each of the proposed sites.
3. Estimate for South Campus Walk assumes the project will bear 1/3 of the total development cost for a 60' wide path consisting of both hardscape and plantings from the existing business loop to the HPER mall. Design for the walk is not yet available.
4. The electrical duct bank will likely tie into the main lines being upgraded as part of the DESB project. The lump sum includes the power duct bank, the high voltage switches and equipment, and the telecommunications duct bank.

Appendix D – Strategic Academic Plan

THE BEVERLEY TAYLOR SORENSON ARTS AND EDUCATION COMPLEX

COLLEGE OF FINE ARTS
THE UNIVERSITY OF UTAH

Tanner Dance
THE UNIVERSITY OF UTAH

College of
EDUCATION
THE UNIVERSITY OF UTAH

THE BEVERLEY TAYLOR SORENSON ARTS & EDUCATION COMPLEX

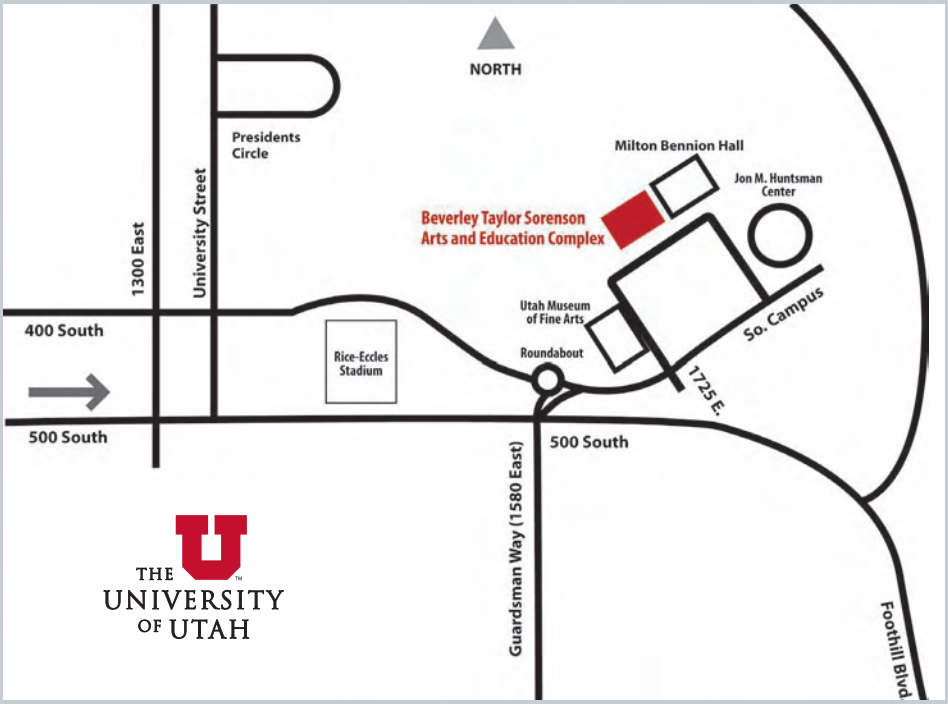
The College of Education and the College of Fine Arts are two nationally recognized academic units within the University of Utah. Four of the College of Education's departments and three of the College of Fine Arts' departments are ranked in the top 20 programs in the nation.

The two colleges embarked on a unique and unprecedented collaboration when the Sorenson Legacy Foundation gave $12 million for construction of the new Beverley Taylor Sorenson Arts & Education Complex, which will be completed in late 2011. The new Complex:

- will support five main activities: academic research; interdisciplinary pre-service teacher and arts specialist training; professional development for teachers and education leaders; programming for schools, youth, and families; and community involvement and leadership.
- will be a national source of scholarship and applied research knowledge on evidence-based arts integration instruction, delivery, and community partnership.
- will create cutting-edge multidisciplinary spaces for teacher training and professional development in the use of an integrated curriculum model to help children simultaneously explore multiple subjects, such as art and science, and improve overall learning in each subject area.
- will expand University of Utah arts integration efforts that have already reached more than 80,000 children throughout the state and will eventually serve children in all Utah schools.
- will provide critical infrastructure for renowned University faculty and programs with the expertise to drive arts integration expansion.

SITE MAP

The new Beverley Taylor Sorenson Arts & Education Complex will be built adjacent to Milton Bennion Hall (the College of Education Building).



PARTNERS

The collaborative efforts housed in the new Complex will be guided by a newly created national Center for Integrating Arts Into Academic Learning, an unprecedented partnership between the Colleges of Education and Fine Arts, which will coordinate and promote all key activities. The Center will be guided by a world-class interdisciplinary team of faculty members and school and community partners.

Five of the College of Education's academic centers will also be located in the Complex: a new, national Center for Math and Science Education; The Utah Reading and Literacy Center; The Utah Education Policy Center; The Center for the Advancement of Technology in Education; and The Eunice Kennedy Shriver National Center for Community of Caring.

The Complex will provide a new home for the College of Fine Arts' nationally recognized Tanner Dance Program, which provides dance instruction for young people of all ages and professional development for teachers. Tanner Dance is a member of the Youth Arts Division, a coordinating body representing all university arts programs—academic and professional—that provide youth arts education and professional development. Representing multiple art forms including dance, music, theatre, visual arts and film, all Youth Arts Division members (ArtsBridge Program, Kingsbury Hall's Outreach Program & Kennedy Center Partnership, Music Preparatory Division, Pioneer Theatre's School Matinee Program, Tanner Dance Program, Utah Museum of Fine Arts' Education Program, Youth Theatre at the U) will be key partners in implementing Complex activities.

Additional partners include *arts works for kids!*, University Neighborhood Partners, the Utah Arts Council, and the Utah State Office of Education.

University of Utah Beverley Taylor Sorenson Arts & Education Complex
Strategic Plan

The College of Education, the College of Fine Arts, and the Tanner Dance Program intend to engage in a major joint initiative: the construction of the Beverley Taylor Sorenson Arts and Education Complex at the University of Utah. The Complex will bring together renowned University faculty and programs to create an unparalleled force for integrating the arts into the preparation of every new teacher and educational leader and for advancing excellence in arts education that encompasses dance, music, visual art, and theater. Through the collective resources of the University of Utah, the Complex will unite and extend Beverley Taylor Sorenson's vision and the Sorenson Legacy Foundation's investments at other universities and in *art works for kids!*. It will have tremendous local impact, serving as the hub through which interdisciplinary innovation in arts and education can be harnessed and delivered directly to other higher education institutions, public schools, the local community, and the world-at-large. Our vision is of a vibrant laboratory facility in which the practice and performance of art by children is supported by interdisciplinary faculty expertise, documented training and research practices, sophisticated technologies, and well established community and school partnerships.

We project that by its second year of full operation, the Sorenson Complex will be able to:

- partner with and offer services and support to 100% of Utah's more than 500 elementary schools and 40 school districts,
- partner with and offer resources to 100% of Utah's universities and colleges,
- provide 100% of the elementary education majors at the University of Utah, in all subject areas, with innovative, research-based arts education training, and
- offer arts specialist training to fine arts majors from all Utah universities.

The Sorenson Complex will directly support existing legislation that helps to place arts specialists in Utah schools. Additionally, we will immediately begin intensive training programs for arts specialists, support their integration into schools, and provide specialists for schools without funding. The University has a strong record of preparing educators who are committed to Utah schools; 70% of its graduating teachers remain in the state, a percentage that is unmatched by other institutions of higher education.

This major project can only succeed at the University of Utah, a Research I institution and the flagship of the state higher education system. The University has a broad resource network and is located in a major, demographically diverse population center. Under the joint leadership of its Colleges of Education and Fine Arts, the offerings of the Sorenson Complex will be unprecedented not only in Utah, but around the nation and the world. In breadth, depth, and delivery, they will surpass such leaders as the Lincoln Center for the Arts in Education; the Kennedy Center for the Performing Arts, Education, and Outreach; and the Chicago Arts Partnership in Education.

II. Objective: Transforming Lives and Disciplines Through the Arts

Current research documents a truth recognized by Beverley Taylor Sorenson when she founded *art works for kids!*: that the arts profoundly change children's lives. We have yet to discover how this happens and, by extension, what the arts can tell us about how learning itself occurs and can be measured. These questions drive the field today, and the answers will fundamentally change the way we think about the arts and education, and thus how we teach and train others to teach. The Sorenson Complex will generate these answers and – through a full range of services offered to parents, teachers, and schools – apply them to real-world challenges facing children. Its objective will be twofold: 1) to give every teacher and every child in Utah innovative tools for lifelong engagement with the arts; and 2) to generate, share, and apply knowledge about how the arts shape child development.

III. The Innovative Approach: Transformation through Collaboration

To accomplish its objectives, the Sorenson Complex will house a set of core activities, detailed below, all driven by a simple yet revolutionary innovation: focused collaboration between the Colleges of Education and Fine Arts. Historically, research agendas, training programs, and community partnerships have been developed by fine arts and education faculty working in colleges that operate independently. This traditional model is still used by most higher education institutions in the country. While the University of Utah is already home to strong arts and education programs, expert faculty, and collaboration between departments, such partition at the college level results in isolated pockets of excellence, understanding, innovation, and funding. As a result, this traditional model can only go so far to address the challenges faced by teachers and children.

To bridge these gaps and address these challenges, the Sorenson Complex will abandon this model and in its place establish a single, interdisciplinary faculty cohort working toward common goals. It will also integrate the Tanner Dance Program and the programs of the Youth Arts Division in the College of Fine Arts into the research activities and community partnerships of both Colleges. By doing so it will create a laboratory setting for youth programs in each art form and new models for providing professional development services and delivering the arts to districts, schools, and communities. Finally, it will integrate the mission and identity of *art works for kids!*, vastly extending the program's reach and securing the future of the work begun by Beverley Taylor Sorenson. These collaborations will allow us to implement the best practices and ideas of all partnering entities, while pushing them in exciting new directions. The Sorenson Complex will therefore be extraordinarily unique; no other institution currently supports such levels of collaboration and creative exchange.

IV. Activities and Outcomes:
Research, Professional Development, and Community Partnerships

The Sorenson Complex will allow arts and education faculty to work together and with other colleagues to generate new knowledge about arts education and create innovative new methods for sharing information with other universities, schools, and individuals across Utah and beyond. Specifically, through the Sorenson Complex we will:

- **Create a new interdisciplinary Center for Integrating Arts into Academic Learning** that will allow us to develop and coordinate vastly expanded research, curriculum development, professional development, and community partnership programs.

- **Establish an *art works for kids! Institute*** that will expand local partnerships and extend them to include nationally prominent educators, artists, and policymakers. The Institute will serve as a robust learning and resource center by:

    - hosting lectures, forums, workshops, and performances throughout the year for teachers, school leaders, artists, families, and children;

    - providing schools, teachers, and parents with additional information and services that will be offered at the Sorenson Complex and multiple other sites, as well as through a dynamic interactive website that supports a variety of technology-driven delivery systems (podcasts, streaming video and audio, message boards); and

    - holding an annual national conference that allows educators, artists, and policymakers from across Utah and the country to addresses current topics in arts education; representatives from all state universities in Utah, including all holders of professorships funded by the Sorenson Legacy Foundation, would be asked to serve on its advisory panel.

- **House and expand the renowned community and professional development programs currently offered by Tanner Dance.** Established in 1937 by Virginia Tanner, in the 1960s Tanner Dance began offering some of Utah's first arts education programs. Now a model of excellence at promoting the essential role of the arts in the development of children, it has been recognized by the National Endowment for the Arts for its leadership. It currently serves 1,598 teachers in 73 schools in 11 districts across the state, engaging over 21,000 students annually in programs that include:

    - *Tanner Dance Side-By-Side Teacher Training Residency Program:* these yearlong programs incorporate dance and movement into the curriculum by enabling dance specialists to teach students and to collaborate with and mentor teachers. In 2006-07, the program served 3,297 students in 124 classrooms in 18 elementary schools.

- *Tanner Dance Summer Professional Development Workshop*: this two-week workshop helps pre-service and in-service teachers and arts specialists incorporate dance and other arts into the school curriculum, currently serving 24 teachers.

- *Tanner Dance Yearlong Professional Development Workshops*: this yearlong series of workshops help pre- and in-service teachers and specialists integrate all fine art forms into the school curriculum. Workshops are taught by University of Utah faculty, as well as Brigham Young and Southern Utah University faculty, and serve 50 teachers annually.

- Tanner Dance also offers a range of other professional development opportunities, including workshops, lectures, and school performances, all designed to support the Utah State Core Curriculum.

- **Integrate the activities of the Tanner Dance Program and other programs comprising the Youth Arts Division in the College of Fine Arts (Youth Theater, the Music Preparatory Division, and programs at Kingsbury Hall, Pioneer Theater Company, and the Museum of Fine Arts) into the College of Education's teacher training and community partnership programs.** The College of Fine Arts recently created the position of Assistant Dean for Community Partnerships to oversee this integration.

- **Support all these activities through existing University education research centers, applied technology centers, and community partnership programs,** several of which would relocate to the Sorenson Complex and be expanded, as indicated (*). This will allow us to place our arts education services at the very center of current research agendas and efforts to create innovative new programs, policies, and technologies.

  - *Utah Reading and Literacy Center**: integrates arts education into reading and writing in K-12 schools.

  - *Reading Clinic*: offers related assessment and intervention services for children and training for parents, teachers and schools, since 2001 directly serving 232 schools in 27 districts; 3,500 educators; and 4,000 children. Currently, over 100 students are on a waiting list for the clinic's tutoring services, and new districts must wait 2-3 years for training services. Through the Sorenson Complex and its partnerships, the Clinic will be able to meet this demand.

  - *Utah Education Policy Center**: conducts policy research directed at state and federal arts education initiatives.

  - *Center for the Advancement of Technology in Education**: creates innovative, flexible instructional technology and delivery methods.

- *Eunice Kennedy Shriver National Center on Community of Caring**: researches how the arts prevent behavior problems and academic failure and integrates this research into public schools and campus programs for children and families. The Center is part of a network serving over 1,200 schools across the country.

- *Children's Assessment and Counseling Clinic*: provides services to diagnose and treat children with education-related problems, in partnership with community groups and specialists.

- **Finally, we will partner with the Utah Education Network to expand and share the resources of the Sorenson Complex broadly across Utah and around the world,** through services offered in the Complex, campus satellites, public schools, community venues, and through a variety of technology systems.

V. Activities and Outcomes: Pre-Service Teacher Training

In addition, the Sorenson Complex will prepare future teachers, in all subjects, to understand how the arts impact learning, infuse the arts into their curriculum, and work side-by-side with arts specialists. Specifically, through the Sorenson Complex we will:

- **Establish and administer a university-wide teacher education program that integrates the arts and academic learning across all subjects, including math and science.** The Colleges of Fine Arts, Education, Science, and Behavioral and Social Science are working together now to design this program, which will be like no other in the country. The program will train teachers to use an integrated curriculum that helps children explore multiple subjects simultaneously; integrate traditionally distinct subjects (such as art and science) and apply them thematically across subjects; and collaborate with arts specialists working in schools to teach fine arts content.

- **Establish and administer a new Arts Specialist Training/Arts and Education Master's Degree program offered jointly by the Colleges of Fine Art and Education**. Degree requirements will be aligned with new legislative initiatives for integrating arts learning and academic achievement and the program will target graduating fine arts majors and working artists motivated to teach in public schools.

- **Link these initiatives to degree and training programs currently offered by the Colleges of Fine Arts and Education and Tanner Dance and expand their reach**:

  - *Teacher training components of undergraduate and Master's Degree programs currently offered by all departments in the College of Fine Arts*, spanning music, art, dance, and theater. Through partnerships with school districts, degree components are offered onsite in public schools. Over 150 students participate in these pedagogy classes.

- *College of Fine Arts, Youth Arts Division programs:* Through the Sorenson Complex, these programs will serve as a laboratory for fine arts and early childhood educators.

- *Course 3015 (MUSC 3015, ART 3015, THEA 3015, and DANC 3015):* Over 140 elementary education majors take this course each year, which helps them become familiar and conversant with art mediums and processes.

- *Tanner Dance Dancers with Disabilities Program*: Approximately 100 dance and educational majors students participate in this program annually. Through the Sorenson Complex, the program will expand to include in-depth training for arts specialists to work with children with special needs.

VI. Activities and Outcomes:

All these activities will improve our ability to infuse the arts into children's lives. Each year the Sorenson Complex will engage children in the arts through the expanded offerings of the Tanner Dance Program:

- **Tanner Dance Studio Classes**: Currently supporting 60 studio classes reaching over 1,000 students on campus and four satellite locations, through links with the Youth Arts Division the program will expand to include music, theater, and visual art.

- **Children's Dance Theatre:** The performing arm of the Tanner Dance Program established in 1949, the program comprises 300 dancers who perform throughout the state in theaters, schools, and community venues.

- **Tanner Dance Arts in Education Program**: Currently supports 3,500 scholarship students in yearlong classes held weekly at 18 elementary schools, allowing dance specialists and teachers to collaboratively integrate arts into the curriculum.

- **Tanner Dance Fine Arts Preschool**: Currently engaging 45 children ages 3 ½ to 5 in dance, music, theater, visual arts, and literature.

- **Tanner Dance Dancers with Disabilities Program**: Currently providing 15 weekly classes to over 350 children as well as adults, the program is offered in campus studios, community centers throughout Utah, and public schools. Through the Sorenson Complex, the program will expand to include training for arts specialists working with public school students with special needs.

VII: Location, Design and Use of Space

Far more than a building, the Sorenson Complex will be a vibrant hub of arts integration activity, located at one of the University's main portals. The Complex will house the collaborative arts integration partnership of the Colleges of Education and Fine Arts, including Tanner Dance Program, a unit of the College of Fine Arts. The new facility will house an expanded Tanner Dance Program, a Centers for Arts, Science, and Education space (which will house a new Center for Integrating Arts into Academic Learning), a new *art works for kids! Institute*, and the existing centers and programs described in other sections of this document. It will also have classroom, lecture, and performances spaces. Teacher training and professional development of teachers will be a major focus of all activities. Although the Youth Arts Division will not be housed in the Complex, some activities/events of the Youth Arts Division may take place in the Complex building. Uniquely, the building will also welcome multiple generations of learners—from very young children to teachers in training and other adult learners—and connect the work of a wide variety of interdisciplinary faculty.

Spaces in the Complex will be designated as classroom space, center space, non-academic space, shared space, and public/common space. Space usage and scheduling need to be further studied as part of the programming process to determine additional opportunities for shared space. However, administrative space, conference rooms, and a board room have been identified by key stakeholders as potential shared spaces.

Some of the key spaces in the new building include:

- Centers for Arts, Science and Education: 20,000 sq. ft. total
- Tanner Dance instructional spaces
- (10) classrooms with seating for 40-50; (4) of the classrooms will have the ability to be combined into an auditorium space
- Auditorium to accommodate 250 (see above)
- (2) conference rooms; ability to seat 25/ room
- (1) board room * Explore the possibility of designing the conference rooms with a divider that would allow the spaces to be combined into a single board room.
- Lobby/atrium
- Student/faculty/community common/gathering spaces
- Administrative spaces for the Tanner Dance program and the Centers for Art, Science, and Education
- A grand entry that includes themes, messaging, or other forms of communication that clearly define the meaning of arts integration

VIII: Leadership and Support Structures

Oversight of the Sorenson Complex will be directed by the Dean of the College of Fine Arts and Vice President for the Arts, the Dean of the College of Education, the Director of the Tanner Program, and faculty advisory panels appointed by and reporting to College Deans. Each College has created new staff and faculty lines that can be devoted to the success of the Complex. All partnering entities will work together to diversify and grow revenue and funding streams for the Sorenson Complex, which will include:

- Fee-based conferences and workshops
- Fee-based professional development services for teachers
- Fee-based curriculum development services for schools
- Fee-based youth programming
- Fee- based arts enrichment programming for community organizations
- Grants and sponsorships from corporate organizations
- State legislation that supports arts education
- Federal mandates to sponsor programs that support arts education

Because our offerings will surpass those of other institutions in the country, we will be well positioned to secure major funding from federal programs and nationally based corporate and private foundations focused on innovative arts education. These include the U.S. Department of Education, the National Endowment for the Arts, the Dana Foundation, Target, Bank of America, and MetLife, among others.

IX. Critical Juncture for Arts and Education

The construction of this state-of-the-art Complex represents one of the most exciting and important recent developments in the evolution of public education. The Complex will serve as the nation's premier academic hub of evidence-based, K-12 arts integration research, training, practice, and advocacy.

Over the past two decades, our educational systems have suffered devastating effects because of the near total removal of the arts from the K-12 curriculum. Beverley Taylor Sorenson recognized this national trend many years ago and began taking decisive action to restore the arts in our schools, beginning at the elementary level.

We are proud to partner with her and help expand her vision through the facility that will bear her name and house the initiatives and efforts that promote teaching through arts integration. Construction of the Beverley Taylor Sorenson Arts and Education Complex will usher in a new era of opportunity for teachers and children across Utah and beyond. We are at a critical juncture in determining the future of arts and education at the University and in the state. We also note that the collaboration between our two colleges and the Tanner Dance Program, along with many other partnering groups, provides an important new example of the interdisciplinary partnership necessary to advance public education in the 21st century.

THE UNIVERSITY OF UTAH

The University of Utah
Salt Lake City, UT 84108-1238

www.artsed.utah.edu

University of Utah
Beverley Taylor Sorenson
Arts & Education Complex Strategic Plan

ADDENDUM A

University of Utah Tanner Dance Program
Business Plan Executive Summary & Expansion Overview

Tanner Dance
THE UNIVERSITY OF UTAH

Confident that the use of wholesome creative activity allows young people of all ages to develop alert minds, healthy bodies, and strong character, Virginia Tanner established the Tanner Dance Program in 1937. Her founding philosophy of creating joyous, productive human beings through dance and the arts has become an enduring seventy-two-year legacy. Today, the program also complements and extends the University of Utah's mission of teaching, research, and service, serving more than 40,000 Utahns annually on campus and at satellite locations, as well as in elementary schools and community centers throughout Utah.

The program first came to the University of Utah in 1960 as part of the Division of Continuing Education. Since 2000, the Tanner Program has been an arts auxiliary of the College of Fine Arts and member of the Youth Arts Division, a coordinating body representing all university arts programs—academic and professional—that provide youth arts education and professional development.

The organization offers a variety of programs and services that includes:

1) Virginia Tanner Creative Dance Program
2) Children's Dance Theatre (CDT)
3) Fine Arts Preschool (FAP)
4) Arts in Education & Professional Development for Educators
5) Dancers with Disabilities for Children & Adults
6) Creative Arts Program

Some highlights and important facts about the Tanner Dance Program:

- Tanner Dance is the second oldest arts organization in Utah.

- The program is nationally and internationally recognized as a leader in both the dance and arts in education communities.

- This year, Tanner Dance was ranked in the top 3 Arts in Education programs in the nation by the National Endowment for the Arts (NEA) in its Learning in the Arts grant program.

- Tanner Dance serves as an amazing outreach program on behalf of the University of Utah
    - Provides dance training to close to 1,000 students, ages 18 months - adult, at its studio on the University of Utah campus and at four satellite locations – Bountiful, Ogden, Park City, and Sandy. A fifth outreach site may be added in 2009-2010 in a facility located in the Daybreak community in South Jordan.

    - Through the Arts in Education Dance Training Residency Program, Tanner Dance serves 4,500 K-6 elementary school students at 13 elementary schools along the Wasatch Front annually at no cost to the student (schools provide a 50% cash match to offer the program).

    - Offers professional development workshops to classroom teachers statewide.

    - The Children's Dance Theatre, the performing arm of the Tanner Dance Program, performs at the Capitol Theatre and throughout the state – Ogden, Park City, etc.

- Provides a new base of potential donors to the University of Utah
    - Alumni of Tanner Dance program (four generations of families who have danced in the program since 1937)

- Current and former parents and grandparents
    - Five years ago, Tanner Dance began an annual Grandparents' Week that brings grandparents to the University of Utah campus and the other satellite locations.

- Feeder program for future University of Utah students; Tanner Dance students come to campus and begin to build an affinity for the University of Utah. They feel comfortable on the campus and see the University as "their" university.

HISTORY

Virginia Tanner, founder of the Tanner Dance Program, left an unparalleled creative legacy. Many of the Tanner Dance faculty studied under and danced with Miss Virginia; others did not have the opportunity to know her. Still, more than 25 years after her death, Miss Virginia's vision of children persists. Another generation dances onto the world stage, engaged in imaginative thought and spurred to action through the methods she developed.

Virginia Tanner was born April 25, 1915, in Salt Lake City. During summers in the late 1930s, she studied with choreographer and modern dance pioneer Doris Humphrey at workshops in Colorado. Virginia traveled to New York City to continue this study, but in the end, her love of teaching prevailed and she chose to dedicate her art to inspiring young people. She once said, "The motivating force behind my work is not only developing excellent dancers, but more importantly, developing young people who are useful, imaginative, worthwhile human beings." This philosophy is the foundation of the Tanner Dance Program.

In 1937, Virginia created her Creative Dance Program, and in 1947, added a performing company called the Children's Theatre Dance Group. By 1949, she had re-named it Children's Dance Theatre. As Miss Virginia's dancers grew and developed their art, she began to produce formal concerts. Doris Humphrey attended the first Children's Dance Theatre concert, held in May 1949 at Kingsbury Hall. She watched in wonder, and at the end of the evening commented, "Your children have left an indelible impression with me of true creative dance… Your children offer a wonderful proof of the power of the young artist, guided wisely, untarnished by dogma or routine, unstereotyped and lovely. This source of fresh ideas in dance-art is a treasure house to which you have found the key."

In 1953, the Children's Dance Theatre received unprecedented invitations to perform at Ted Shawn's famous "Jacob's Pillow" in Massachusetts, the Connecticut School of Dance, and New York University's summer camp. A photographer from Life magazine captured the tour in a cover story and famous photograph. Walter Terry, Dean of American dance critics wrote, "From the first, there was beauty. The children were wonderfully disciplined, yet gloriously free... They danced as if they had faith in themselves, had a love of those of us who were seeing them, actively believed in their God and rejoiced in all of these."

Virginia Tanner is recognized as a pioneer of children's dance and internationally as one of the finest teachers of children's dance. The late José Limón, celebrated dancer and choreographer, proclaimed in 1978, "Salt Lake City is the most blessed city in the world to have the world's master children's dance teacher. There isn't any place, and I include New York, London, Paris, Moscow, that has anyone who can touch her genius for teaching children the exciting purity of the dancing arts."

Virginia Tanner's vision of creating joyous, worthwhile human beings through dance and the arts has become an enduring seventy-two year legacy. Since its inception, the University of Utah Tanner Dance Program has brought the joy and positive influence of the arts into the lives of more than one million students, teachers, and community members. Today, the Tanner Dance Program is different, yet remarkably the same. The organization is much larger and serves a broader range in our growing community, but Miss Virginia's founding philosophies are the guiding principles. The tradition continues: **roots**, strong training in the art form of dance, and **wings**, the nurturing of imagination and creativity.

CURRENT LEADERSHIP & VISION – MARY ANN LEE

Following Miss Virginia's death in 1979, Mary Ann Lee assumed the artistic directorship of the program. With characteristic modesty, Mary Ann said, "When I stepped into Virginia's magic shoes, I knew that her feet and mine were different sizes. But I also knew that the philosophy had to be continued and the program expanded to include many of the people that Virginia had so beautifully inspired and trained." Under Mary Ann's direction, Tanner Dance has continued to grow in size and programming, earning state, national, and international recognition.

PROGRAM OVERVIEW

Confident that the use of wholesome creative activity would allow children, ages 18 months to 18 years, to develop alert minds, healthy bodies, and strong character, Virginia Tanner established the Tanner Dance Program in 1937. An important pioneer and visionary, she dreamed of bringing "a measure of beauty into the life of a child." Inherent to the program, the organization nurtures an appreciation of dance, music, literature, theatre, and the visual arts.

The Tanner Dance Program remains committed to Virginia Tanner's original mission – creating worthwhile human beings who contribute to their community. This unique vision of giving students the opportunity to share their own voices through the arts has grown until today the program serves more than 40,000 Utahns annually at the University of Utah and in our community through the organization's programs and services.

VIRGINIA TANNER CREATIVE DANCE PROGRAM

The Virginia Tanner Creative Dance Program continues to expand each year and currently serves more than 600 dancers in classes at the University of Utah studio and satellite locations in Bountiful, Ogden, Park City, and Sandy. Classes are designed for dancers from age 18 months through adult. Every dancer is exposed to the creative process of dance, arts integration, and a commitment to excellence in an environment where they may explore and unveil their individual potential. Each year, studio dancers in kindergarten through adult classes participate in a fully produced performance at Kingsbury Hall. In addition to ongoing studio classes, the studio offers summer camps that allow dancers a more in-depth and diverse dance experience.

Classes include creative/modern dance, ballet, jazz/hip hop, and other genres such as African dance. Virginia Tanner began offering classes for adult populations because she discovered her joy and passion for dance as an adult. This legacy has continued, but due to space limitations adult classes are limited.

CHILDREN'S DANCE THEATRE

Children's Dance Theatre (CDT), the performing arm of the University of Utah Tanner Dance Program, was established in 1949 by Virginia Tanner. The company of 280 young dancers, ages 8 through 18, performs for more than 30,000 Utahns annually.

The goals of Children's Dance Theatre are to allow children to experience the joy of moving and the discipline of dance, to nurture the creative process, and to share the results of this training with a broad population base. Technique is taught for the development of strength, flexibility, control, balance, and an awareness of the body's potential. An equal emphasis is placed on creative problem-solving, balanced intellectual and physical development, and an appreciation of music, literature, and visual arts.

Every spring, CDT showcases an original work at the Capitol Theatre in Salt Lake City with matinees for school-age children and special populations. The company performs regularly with support from various private and public funding sources.

Since its inception, the company has performed at major dance festivals around the world: dance and the Child international conferences (daCi) in Sweden, England, Finland, Canada, Brazil, the Netherlands,

most recently in Jamaica, and the United States, where CDT hosted the conference in 1992; the White House Conference on Children; the International Conference and Dance Festival in Kuala Lumpur, Malaysia; and the Seattle World's Fair. In 1998, CDT held an exchange with the Welsh dance company Rubicon.

CDT received the 1993 Governor's Awards in the Arts. "Visions of Children," the 1994 concert with Pete Seeger, was featured in an award-winning video produced by KUED. In 1998, Mary Ann Lee was honored with the Madeleine Award for Distinguished Service in the Arts and Humanities. Children's Dance Theatre celebrated its fiftieth anniversary in 1999 with a year of special performances. Dancers from CDT and elementary school students who participate in the Tanner Dance Arts in Education Program performed in Salt Lake 2002 Winter Olympic events, including the mascot launch, Cultural Olympiad performances, Opening and Closing Ceremonies, and Medals Plaza ceremonies.

FINE ARTS PRESCHOOL

The Fine Arts Preschool provides children, ages 3½ to 5, with rich opportunities to experience dance, music, drama, creative writing, literature, and the visual arts. Hands-on involvement in three or four art forms daily helps children grow through experience and find joyful ways to express themselves, nurturing development of the whole child. The preschool meets Monday, Wednesday, and Friday mornings throughout the school year at the studio.

DANCERS WITH DISABILITIES FOR CHILDREN AND ADULTS

To a child with autism, spina bifida, cerebral palsy, hearing loss, osteogenesis imperfecta, Down syndrome, vision impairment, or severe emotional disability, his or her body may be a source of frustration and the cause of significantly diminished self-esteem.

The Tanner Dance Program is committed to serving children who, due to economic, physical, or emotional challenges, may not have the opportunity to experience the joy and freedom of dance. The Dancers with Disabilities Program provides 15 life-enhancing dance classes to more than 300 children.

Also designed to serve adult populations, the program offers live music and dance interaction classes at residential care facilities for Alzheimer's patients and other community programs serving adults with disabilities.

ARTS IN EDUCATION

To demonstrate and promote the essential role of the arts in the learning and development of every child, Virginia Tanner established one of Utah's first Arts in Education programs in the 1960s. The program incorporates dance and movement into academic curriculum using high-quality, innovative, and sequential arts instruction. Tanner Dance supports 4,500 scholarship students in site-based, weekly, year-long classes at thirteen elementary schools along the Wasatch Front in the Side-by-Side Dance Training Residency Program.

This program, which is financially supported by the National Endowment for the Arts, provides in-depth, curriculum-based dance experiences that engage students and classroom teachers in quality dance instruction. Other Arts in Education services include lecture/demonstrations and school performances. All Arts in Education Programs are designed to work with teachers and administrators to provide children with opportunities that offer a complete artistic experience and support the Utah State Core Curriculum.

PROFESSIONAL DEVELOPMENT FOR EDUCATORS

Professional Development is an integral part of all of the Tanner Dance programs. Over the past several years, professional development has emerged as one of our most important areas of research and development and will continue to be so as we look to the future. Currently, a wide range of professional development activities encourage communication between educators and artists, provide new approaches and opportunities for teaching and learning, and strengthen the impact of our programs in each school. In collaboration with community partners such as the National Endowment for the Arts (NEA), Utah State Office of Education, the Utah Arts Council, Salt Lake City Arts Council, Utah school districts, art works for kids!, and many other partners, Tanner Dance's Professional Development Program offers a variety of training and mentoring opportunities, as well as resources, to help educators develop new ways to stimulate learning in the arts and make connections between the various art forms and other curriculum areas. The Professional Development Program provides a framework for educators to engage in teaching and learning activities that support the needs of their students while implementing the Utah State Fine Arts Core Curriculum and prevailing state and federal mandates. In 2003, the Tanner Dance Program was awarded Utah's Best of State Award in the Educational/Training Institution category for its contributions to teacher training.

CREATIVE ARTS

Virginia Tanner added a Creative Arts Program to the studio to nurture an appreciation of music, visual arts, and theatre. Current services in this program include Kindermusik classes, visual arts, and the Arts for the Young program. The Creative Arts Program was the springboard for creating the Fine Arts Preschool.

EXPANSION & GROWTH OVERVIEW

The University of Utah Tanner Dance Program has an annual operating budget of $1,353,207. Funding for operations comes from a diversity of sources, including: operating revenue (57%), government support (33%), and donations (10%).

The new home for the Tanner Dance Program in the Beverley Taylor Sorenson Arts and Education Complex includes additional studio space than what presently exists. To simply rebuild existing spaces, with no expansion in the new Complex, would not address some of the issues facing Tanner Dance.

Tanner Dance is largely self supporting (the University provides the organization's facility, as well as O&M of the facility) and it is critically important for the program to meet rising costs and maintain its operations by increasing earned income through its revenue streams. While the organization's generated revenue has grown or maintained over the past five years, it is prevented from generating additional revenue due to the limitations of existing facilities.

Space challenges in the existing site are exacerbated by the limited times Tanner Dance can conduct classes. The majority of the students are K-12 students who can only attend classes during after-school hours or on Saturdays. There is considerable peak demand for the facility from 4:00-8:00 p.m. on weeknights and 9:00 a.m. to 12:00 p.m. on Saturdays.

In order to achieve greater utilization of the facilities and to provide a pool of children feeding into the beginning class levels, Tanner Dance conducts a preschool program on Monday, Wednesday, and Friday mornings and has created a program for dancers Kindergarten and younger, as well as adults, during school times.

There is a huge market for dance in Utah. A search in any Utah phonebook or on the internet of dance studios targeting children, as well as adults, will yield a high result. There is a long tradition of dance in Utah and TV shows such as *So You Think You Can Dance* and *Dancing with the Stars* have driven the demand for dance studios and dance classes to even higher levels.

Tanner Dance's long history dating back to 1937 and its reputation for quality instruction uniquely positions the organization in the market. Tanner Dance does very little advertising and demand is primarily created through word of mouth. However, in order to maintain and expand programming, additional space is required.

PROJECTED EXPANSION AND PROPOSED SCHEDULE

First and foremost, the proposed schedule presented demonstrates growth in the Tanner Dance Program over time. The new studio spaces will allow for potential growth of the Tanner Dance Program over the next 15-25 years.

Projected expansion and programming as demonstrated in our projected schedule diagram is based on current data and demands. In addition, our business model is reliant on our ability to be self-sustaining. With this in mind, no class or program will run at a deficit and Tanner Dance leadership will monitor this closely in the new facility.

Here are a few of the reasons additional studio space is required:

- Children's Dance Theatre (CDT): CDT is the performing arm of Tanner Dance. Dancers audition to become a member of this company. Our youngest age groups, who would benefit from the additional instruction, are only able to meet once a week. In the new building, all CDT dancers would be able to meet on the same nights twice a week. Another factor driving the additional studio space is to finish classes by 8:30 p.m. each night. Currently, our high school dancers are not finishing class until 9:00/9:15 p.m.

- Fine Arts Preschool (FAP): There is a huge demand for the Fine Arts Preschool and there is typically a wait list of anywhere from 15-20 students each year. The only advertising done of this program is via word of mouth or we would have more waitlisted students than the program is able to accommodate. Our current schedule and studio space has not allowed us to expand the Fine Arts Preschool, but in the new facility, additional studio spaces would allow us to continue the classes for 3½-K students, while allowing for space to create an afternoon session of the FAP.

- Virginia Tanner Creative Dance Program: With limited studio space, the majority of our dance classes have been focused on creative and modern dance. However, based on feedback from our CDT families, as well as feedback from families participating in the Virginia Tanner Creative Dance Program, many are taking classes at competing dance studios. Presently, Tanner Dance is unable to offer the range of dance classes the market demands. In the new facility, Tanner would be able to expand the variety of disciplines offered, as well as offer a wider variety of age levels and ability levels. We know that many of our current CDT students are taking classes at other studios in addition to paying tuition to Tanner Dance to get the additional technique (ballet, jazz/hip hop, etc.). We also know that we are losing enrollment in this program to competitors because of our inability to offer the age ranges necessary and enough options to fit more schedules.

- Dancers with Disabilities: There is a large demand for the Dancers with Disabilities Program, but the existing facility has only one ADA compliant studio. Dancers participating in this program pay a limited tuition fee, so the space competes with other revenue generating classes. In a new facility, Tanner Dance will be less limited and will actually be able to use the additional space to utilize revenue from the earned income model to offer more dancers with disabilities the opportunity to participate in the program.

- Creative Arts Program: There is a great demand from our parent population to expand offerings in the Creative Arts Program, but space does not currently permit expansion of these offerings.

- Adult Programming expansion is related to our large alumni population and requests of parents of our dancers who have expressed a desire in being able to attend a dance, yoga, ballet, or other fitness

class during their child's dance time. While adult programming is a less integral part of the organization, if studio space is sitting vacant, Tanner Dance would like to project expansion in adult classes as we know we have a market demand for it. Currently, we are only able to offer two adult classes in the existing building.

Programs that may seem less integral to the mission of the program such as the Fine Arts Preschool, adult classes, or the Creative Arts Program actually date back to Virginia Tanner's time and the organization would like to continue and further these programs in a new facility.

In planning for a new facility, Tanner Dance is using existing data, feedback from our current parents and students, and an analysis of our competitors to create a vision for our proposed expansion of offerings and schedule. The organization also has a sophisticated database system to track trends and factors driving enrollment, demands for classes and programs, and to look at potential reasons a class may have been cancelled due to low enrollment to make shifts in the schedule.

Tanner Dance has tried to be conservative in its projections of future growth. Once Tanner Dance has relocated to the new Complex and it has the opportunity to begin to implement the new ideas for the schedule, it will be in a position to determine if the growth projections should be increased or decreased.

It is also important to understand that our earned income model is meant to allow the organization to expand its outreach, arts in education program, and to assist in offering free or reduced programs to the students served in programs such as the Arts in Education Program or the Dancers with Disabilities Program. The revenue generated through the Tanner Dance Program is leveraged to garner additional public and private funds to further its mission.

It is interesting to consider **how an arts organization, let alone a children's arts organization, has thrived for more than 70 years**. The Tanner Dance Program's projection for growth will ensure the longevity of this organization and allow it to remain a viable and valuable cultural organization, not only in Utah, but nationally and internationally.

Tanner Dance Program
Growth Projections in New Complex

Fall/Spring

	Current Enrollment	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
		2% increase	5% increase	10% increase	10% increase	10% increase	5% increase	2.5% increase	2.5% increase
STUDIO	600	612	643	707	778	856	899	922	945
FAP	45	90	90	90	90	90	90	90	90
CDT	300	300	300	300	300	300	300	300	300
TOTALS	945	1002	1033	1097	1168	1246	1289	1312	1335

CDT's enrollment fluctuates between 280-300 students each year.
CDT Additional studio space would simply allow all CDT classes to meet on the same evenings.

Summer

	Current Enrollment	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
		5% increase	10% increase	15% increase	15% increase	5% increase	5% increase	2.5% increase	2.5% increase
ENROLLMENT	510	535	589	677	777	816	856	877	899

* CDT students are folded into above enrollment numbers for summer.

In Year 1, Tanner Dance does not project any signficiant increases in enrollment from its existing numbers as it will take time to move into the facility and to get used to the new space, etc.

University of Utah
Tanner Dance Program
Existing Studio Usage
Fall/Spring 2009-2010

	Monday				Tuesday				Wednesday				Thursday				Friday				Saturday			
Time	Studio 1	Studio 2	Studio 3	Art Studio	Studio 1	Studio 2	Studio 3	Art Studio	Studio 1	Studio 2	Studio 3	Art Studio	Studio 1	Studio 2	Studio 3	Art Studio	Studio 1	Studio 2	Studio 3	Art Studio	Studio 1	Studio 2	Studio 3	Art Studio
8:30 AM																								
9:30 AM					V401 Beg 4-5 yr T: Mimi M: Brent	V501 Pr Kind. T: Joni/ asst- Ivey M: Amy B							V403 4-5 year T: Sue M: Brent		KM101 Kindermusik 18-3 yrs T: Maria						V1801 Parent/Tot (18-2 1/2) T: Tad M: John	V404 Pr 4-5 year old (12) T: Chara M: Brent	V204 3 1/2 - 4 year old (12) T: Jessica M: Leslie	
10:30 AM					V101 Parent/Tot T: Mimi M: Brent	V506 Pr Kind, T: Joni/ asst - Ivey M: Amy B							V102 Parent Tot T: Sue M: Brent		KM102 Kindermusik 31/2 - 5 yrs T: Maria	S401 11:00 31/2 - 5 yrs T: Wendy M: Michael					V1013 Parent/Tot (2 1/2 - 3 yrs) T: Tad M: John	V504 Beg/ Pr Kindergarten (16) T: Liz M: Brent	V405 Beg 4 - 5 year olds (12) T: Jessica M: Lesli e	
11:30 AM										Fine Arts Preschool (15)											V1402 Dancers with Disabilities for Kids(12) T: Sethrina M: John	V603 Beg 1st Grade (16) T: Chara M: Brent	V702 Beg 2nd Grade (16) T: Jessica M: Leslie	
12:30 PM	Fine Arts Preschool (15)	Fine Arts Preschool (15)	Fine Arts Preschool (15)	Fine Arts Preschool Art Classes (15)					Fine Arts Preschool (15)	V1501 Adult Class T: Karen	Fine Arts Preschool (15)	Fine Arts Preschool Art Classes (15)					Fine Arts Preschool (15)	Fine Arts Preschool (15)	Fine Arts Preschool (15)	Fine Arts Preschool Art Classes (15)		V505 Beg Kind. T: Mary Martha J M: Brent	V903 Beg 3rd/4th T: Jessica M: Leslie	
1:30 PM					V502 Pr Kindergarten (16) T: Holly B. M: Brent				V402 4-5 year olds (16) T: Joni - Asst. Ivey M: Brent				V203 31/2 - 4 yrs T: Mary Ann Stewart/ Joni M: Brent			S201 3:00 3 1/2 - 5 S202 4:00 K-2nd T: Deja					Rehearsal space # 1 for performances 1:30-4:30 pm	Rehearsal space # 2 for performances 1:30-4:30 pm	Rehearsal space #3 for performances 1:30-4:30 pm	
2:30 PM																								
3:30 PM				Boutiful 3:00 S101 - 31/2- 5 4:00 S102 K-2 5:00 S103 3rd-5th T: Traci M:Trent			V1401 Dancers with Disabilities (12) 4-6 yrs T: Joni/Gaylyn M: Christina		V503 Pr Kind T: Liz M: Brent	V201 31/2 - 4 year T: Jessica M: Leslie		Park City S301 3:34-4:30 31/2-5 S302 4:30-5:30 K/1st S303 5:30- 6:30 2nd-4th T: Jasmine/Natalie				KM103 Kindermusik K-2nd T: Carol		3:00 V802 Beg 1st/2nd T: Sadie M: Dylan			Visual Art Class 3:00-4:00 pm T: Sabrina				
4:30 PM		CDT 5th Grade (28): 4:30-6:00 pm T: Ann Carter M: Christina	CDT 6th Grade (28): 4:30-6:00 pm T: MAL/ Asst-Natalie F M: Tristan		4:00 CDT 2nd T: Tad/Liz/Natalie M: Dylan				V701 2nd Grade Advanced (25) T: Joni M: Christina	V602 Pr 1st Grade (16) T: Liz M: Brent	V801 Pr 1st/2nd Grade (16) T: Jessica M: Leslie						V902 4:00 3rd/4th T: Sadie M: Dylan	V1301 Ballet I T: Holly M: Christina	V1601 4:00 Hip/Hop Jazz T: Olivia					
5:30 PM	CDT 4th Grade (28): 4:30-6:00 pm T: Rachel K M: Wachira				V601 Pr 1st Grade T: Tina M: Dylan	CDT 3rd Grade A (18): 4:30-6:00 pm T: Melony M: Tristan	CDT 3rd Grade B (18): 4:30-6:00 pm T:Mimi M: Christina		V901 3rd-4th Grade Advanced (25) T: Danielle M: Christina	V1002 5th-6th Grade(20): 5:30-6:45 pm T: Jessica M: Leslie	V803 Pr 1st/2nd T: Liz M: Brent	Sandy S403 4:00 K-2nd S404 %:00 3rd-5th T: Carrie L M: Jonathan	CDT 4th Grade (28): 4:30-6:00 pm T: Rachel K M: Dylan	CDT 5th Grade (28): 4:30-6:00 pm T: Ann Carter M: Leslie	CDT 6th Grade (28): 4:30-6:00 pm T: MAL M: Tristan		5:00 V1504 African T: Deja							
6:30 PM			CDT 9th Grade (28): 6:00-7:30 pm T: Tina/ Asst - Diana M: Tristan			V1001 Adv. 4th/5th T: Liz M: Christina					V1102 JH/HS T: Karin M: Wachira													
7:30 PM	CDT 7th Grade (28): 6:00-7:30 pm T: Sadie M: Dylan	CDT 8th Grade (28):6:00-7:30 pm T: Misha M: Christina				V1101 Jr High 6th-9th T: Sadie M: Christina			7:00 V1502 Adult Class T: Karen M: Tristan				CDT 7th Grade (28): 6:00-7:30 pm T: Sadie M: Dylan	CDT 8th Grade (28):6:00-7:30 pm T: Misha M: Leslie	CDT 9th Grade (28): 6:00-7:30 pm T: Tina M: Tristan									
8:30 PM	CDT HS 1 (25):7:30-9:00 pm T: Jasmine M: Dylan	CDT HS 2 (25): 7:30-9:00 pm T: Joni M: Wachira/ Christina	CDT DE (25):7:30-9:00 pm T: Chara M: Tristan										CDT HS 1 (25):7:30-9:00 pm T: Jasmine M: Dylan	CDT HS 2 (25): 7:30-9:00 pm T: Joni M: Leslie	CDT DE (25):7:30-9:00 pm T: Chara M: Tristan									
9:30 PM					Lec Dem. Reh		Lec Dem Reh																	

Fall & Spring Sessions total 32 weeks; each session lasts for 16 weeks.

Fall 2009-10 CDT Program.qxd:Layout 1 7/15/09 2:49 PM Page 1

VIRGINIA TANNER CREATIVE DANCE

UNIVERSITY OF UTAH • 190 S. Wasatch Drive • Salt Lake City, UT 84112-9359
Main: (801)581-7374 • Fax: (801)581-4091 • www.tannerdance.utah.edu

Our Philosophy: *Virginia Tanner (1915-1979), a pioneer in the world of children's dance, was guided by this premise: "The motivating force behind my work is not only developing excellent dancers, but more importantly, developing young people who are useful, imaginative, worthwhile human beings." This philosophy is the foundation of the Virginia Tanner Creative Dance Program. Classes take a holistic approach to teaching and learning, respecting each dancer's individual ability and needs. The studio is a sanctuary for children, a place where they can step into an environment that nurtures positive growth and development while gaining the technical skills of dance.*

What is Creative Dance at the Tanner Studio? *Our dance classes focus on the whole child. Through movement exploration, dancers reach progressive levels of physical skill and are taught the vocabulary of dance. Exploring the creativity and imagination of childhood, dancers have the opportunity to improvise, engage in creative problem solving and grow in cognitive, social and emotional ways as they interact in class. In the Virginia Tanner Creative Dance Program, each class has a musical accompanist to expose dancers to a variety of musical genres.*

2009/10 CALENDAR

August 7, 2009	Fall scholarship deadline
August 24	Fall session begins
August 25-29	Parent Observation Week
September 1-5	Bring-A-Friend Week
September 7	Labor Day Holiday – no classes
October 1-2	UEA – classes will be held
October 12-17	University of Utah fall break – classes will be held
November 16-21	Grandparents' Week
November 26-28	Thanksgiving holiday – no classes
December 4	Spring scholarship deadline
December 8-12	Parent Participation Week
December 12	Fall session ends
December 14 – January 2, 2010	Winter holiday break – no classes
January 4, 2010	Spring session begins
January 5-9	Parent Observation Week
January 18	Martin Luther King, Jr. Day – no classes
February 15	President's Day – no classes
March 22-27	University of Utah spring break – classes will be held
April 2-3	Tanner Dance Program spring break – no classes
April 19-24	Children's Dance Theatre concert week – no studio classes
April 27-May 1	Parent Participation Week
May 1	Spring session ends
May 3-8	Rehearsals at the Tanner Dance Studio for the May 15 performance for kindergarten-adult classes. Schedule TBA
May 10	Monitor Meeting 5:30-6:30 pm
May 11,12 & 14	Rehearsals at Kingsbury Hall for the May 15 performance. Schedule TBA
May 15	Virginia Tanner Creative Dance Studio Show performance at Kingsbury Hall 10:00 am, 1:00 pm and 4:00 pm

REGISTRATION INFORMATION

Tuition is due, paid in full, at the time of registration.

Online: Using the dancer's information, register at **www.tannerdance.utah.edu.** You can access the Web site 7 days a week/24 hours a day.

By Mail: Send signed, completed registration form with American Express, Discover, MasterCard, or VISA information or check/money order made payable in full to the **University of Utah** to:

Virginia Tanner Creative Dance Program
190 S. Wasatch Drive
Salt Lake City, UT 84112-9359

In Person: Register at the Tanner Dance Building Monday through Friday from 9:00 am to 5:00 pm.

By FAX: Send signed, completed registration form with American Express, Discover, MasterCard, or VISA information to (801) 581-4091.

Placement: Register your preschool child for the age he/she will be on the first day of class. Children in school will be placed at their Fall 2009 grade level. Class list will be posted on the first day. If your child's name does not appear on the list, please come to the office.

Class Changes: Class changes are made as enrollment demands. You will be notified if there are any changes in the schedule. If fewer than the minimum number enroll, the class will be cancelled and you will be invited to select an alternative class. If an alternative is not available, you will receive a full credit or refund.

Make-Up Class Policy: Because our classes are taught sequentially and most of them are at maximum capacity, we cannot accomodate a dancer for a make-up session.

Scholarships: Limited scholarships are available for children in kindergarten through high school. Application forms are available online. Contact the studio office for more information.

WITHDRAWAL POLICY

- Withdrawals and refund requests must be made by the parent(s) or guardian(s) to the studio office.
- 100% less a $15 processing fee by the first day of class.
- After the first day of class refunds will be made on a case by case basis.

VISITOR POLICY

Parents are invited to observe their child's first class of each session. As the session comes to a close, parents will be invited to observe and/or participate in their dancer's last class. Please make child-care arrangements for siblings and other children. The parking lot will be paid for by the studio for these days only. Please turn off cell phones and other electronic devices before entering class. To maintain a positive teaching environment, classes during the remainder of the session are closed to visitors and are for registered participants only.

DRESS

As dancers arrive for class they should leave shoes and personal belongings in the studio dressing rooms. Please do not bring any valuables. Dancers should wear leotards with footless tights or unitards. Boys may wear T-shirts with shorts. Students dance barefoot, except for ballet students. Ballet students: girls are required to wear black leotards, pink tights, and pink ballet shoes. Boys may wear T-shirts with shorts and black ballet shoes. No street shoes are allowed on studio floors.

ALL CLOTHING, SHOES, BACKPACKS, ETC., SHOULD BE CLEARLY MARKED WITH THE DANCER'S NAME. The Tanner Dance Program cannot accept responsibility for lost or stolen items. There is a lost and found box in the girls' dressing room and small items are brought to the office. Periodically, unclaimed items are donated to charity.

FALL 2009/SPRING 2010 CLASS SCHEDULE

FALL SESSION AUGUST 24 - DECEMBER 12, 2009
SPRING SESSION JANUARY 4 - MAY 1, 2010

Classes are one hour unless noted.

FALL & SPRING PAYMENT OPTION

A 5% discount is available to families who prefer to prepay tuition for fall and spring sessions. (Please note: the discount is already factored in for the full year tuition in the discounted tuition column below.) Families who do not choose this option will be offered the opportunity to re-enroll in November for spring session. Spring tuition will be the same price as fall.

YOUNG DANCERS

Class	Day	Session Time	Fall/Spring Tuition	Full Year Discounted Tuition	Code
Parent/Tot I – 18 month-2½ years. Date of birth must be prior to February 24, 2008 or earlier for fall session and July 4, 2008 or earlier for spring session.					
Parent/Tot I	Sat.	9:30-10:15 am	186.00	354.00	V1801-09/10
Parent/Tot II – 2½ - 3½ year. Date of birth must be prior to February 24, 2007 or earlier for fall session and July 4, 2007 or earlier for spring session.					
Parent/Tot II (2½-3½ yrs)	Tues.	10:45 am	246.00	468.00	V101-09/10
	Thurs.	10:45 am	246.00	468.00	V102-09/10
	Sat.	10:30 am	246.00	468.00	V103-09/10

BEGINNING DANCE

3½-4 years old	Wed.	3:30 pm	214.00	406.00	V201-09/10
3½-4 years old	Thurs.	1:30 pm	214.00	406.00	V203-09/10
3½-4 years old	Sat.	9:30 am	214.00	406.00	V204-09/10
4-5 years old	Tues.	9:30 am	214.00	406.00	V401-09/10
4-5 years old	Thurs.	9:30 am	214.00	406.00	V403-09/10*
4-5 years old	Sat.	10:30 am	214.00	406.00	V405-09/10
Kindergarten	Tues.	9:30 am	214.00	406.00	V501-09/10*
Kindergarten	Tues.	1:30 pm	214.00	406.00	V502-09/10*
Kindergarten	Sat.	10:30 am	214.00	406.00	V504-09/10*
Kindergarten	Sat.	12:30 pm	214.00	406.00	V505-09/10*
1st grade	Sat.	11:30 am	214.00	406.00	V603-09/10*
1st-2nd grade	Fri.	3:00 pm	214.00	406.00	V802-09/10
2nd grade	Sat.	11:30 am	214.00	406.00	V702-09/10*

**These classes are combined levels (beginning and previously registered).*

PREVIOUSLY REGISTERED DANCE

These classes are for those who have previously been enrolled in two sessions or more of the Virginia Tanner Creative Dance Program.

4-5 years old	Wed.	1:30 pm	214.00	406.00	V402-09/10
4-5 years old	Thurs.	9:30 am	214.00	406.00	V403-09/10*
4-5 years old	Sat.	9:30 am	214.00	406.00	V404-09/10
Kindergarten	Tues.	9:30 am	214.00	406.00	V501-09/10*
Kindergarten	Tues.	1:30 pm	214.00	406.00	V502-09/10*
Kindergarten	Wed.	3:30 pm	214.00	406.00	V503-09/10
Kindergarten	Sat.	10:30 am	214.00	406.00	V504-09/10*
Kindergarten	Sat.	12:30 pm	214.00	406.00	V505-09/10*
1st grade	Tues.	5:30 pm	214.00	406.00	V601-09/10
1st grade	Wed.	4:30 pm	214.00	406.00	V602-09/10
1st grade	Sat.	11:30 am	214.00	406.00	V603-09/10*
1st-2nd grade	Wed.	4:30 pm	214.00	406.00	V801-09/10
2nd grade	Wed.	4:30 pm	214.00	406.00	V701-09/10
(advanced by audition or recommendation)					
2nd grade	Sat.	11:30 am	214.00	406.00	V702-09/10*

**These classes are combined levels (beginning and previously registered).*

THIRD TO SIXTH GRADE DANCE

3rd-4th grade	Wed.	5:30-6:45 pm	246.00	468.00	V901-09/10
(advanced by audition or recommendation)					
3rd-4th grade	Fri.	4:00 pm	214.00	406.00	V902-09/10
3rd-4th grade	Sat.	12:30 pm	214.00	406.00	V903-09/10
4th-5th grade	Tues.	6:00-7:15 pm	246.00	468.00	V1001-09/10
(advanced by audition or recommendation)					
5th-6th grade	Wed.	5:30-6:45 pm	246.00	468.00	V1002-09/10

JUNIOR HIGH & HIGH SCHOOL DANCE

6th-9th grade	Tues.	7:15-8:30 pm	246.00	468.00	V1101-09/10
Junior/ Senior H.S.	Wed.	6:30-8:00 pm	268.00	510.00	V1102-09/10

ADULT/ALUMNI DANCE

Inter./Exp.	Tues.	12:00 pm	214.00	406.00	V1501-09/10
Inter./Exp.	Wed.	7:00-8:30 pm	268.00	510.00	V1502-09/10
Ballet	Mon.	12:30 pm	214.00	406.00	V1503-09/10
African	Fri.	5:00 pm	214.00	406.00	V1504-09/10

HIP HOP/JAZZ DANCE

5th-7th grade	Fri.	4:00 pm	214.00	406.00	V1601-09/10

BALLET

2nd-5th grade	Fri.	3:30 pm	214.00	406.00	V1301-09/10

ALL BOYS DANCE

Boys 5-8 yrs. old	Wed.	5:30-6:15 pm	162.00	308.00	V1201-09/10

DANCERS WITH DISABILITIES

Dance classes for students with various disabilities.

3-6 years old	Tues.	3:30 pm	25.00	50.00	V1401-09/10
7-10 years old	Sat.	11:30 am	25.00	50.00	V1402-09/10

SATELLITE LOCATIONS DANCE

BOUNTIFUL — Stoker School, 75 East 200 South

3½-5 years old	Mon.	3:00 pm	214.00	406.00	S101-09/10
K-2nd grade	Mon.	4:00 pm	214.00	406.00	S102-09/10
3rd-5th grade	Mon.	5:00 pm	214.00	406.00	S103-09/10

OGDEN — Eccles Community Art Center, 2580 Jefferson Avenue

3½-5 years old	Thurs.	3:00 pm	214.00	406.00	S201-09/10
K-2nd grade	Thurs.	4:00 pm	214.00	406.00	S202-09/10
3rd-5th grade	Thurs.	5:00 pm	214.00	406.00	S203-09/10

PARK CITY — The Colby School, 3770 North Highway 224

3½-5 years old	Wed.	3:45 pm	162.00	308.00	S301-09/10
5 years old-K	Wed.	4:30 pm	214.00	406.00	S302-09/10
1st-3rd grade	Wed.	5:30 pm	214.00	406.00	S303-09/10

SANDY — U of U Building, 9875 South 240 West

3½-5 years old	Thurs.	11:00 am	214.00	406.00	S401-09/10
5 years old-K	Thurs.	12:15 pm	214.00	406.00	S402-09/10
K-2nd grade	Wed.	4:00 pm	214.00	406.00	S403-09/10
3rd-5th grade	Wed.	5:00 pm	214.00	406.00	S404-09/10

CREATIVE ARTS

Visual Art — Fri. — 3:00 pm — 108.00 — VA101-09/10
2nd grade & older
"Surprise: A Recycled Halloween", with Sabrina Theodore
Seven weeks, September 11, 18, 25, October 9, 16, 23, 30.

Kindermusik — Thurs. 9:30-10:15 am — 196.00* — 372.00* — KM101-09/10
1½-3 years *"Our Time"*
Parent/caregiver present for entire class

Kindermusik — Thurs. 10:30-11:30 am — 214.00* — 406.00* — KM102-09/10
3-5 years *"Imagine That"*
Parent/caregiver present for the final 30 minutes

Kindermusik — Thurs. 3:30-4:30 pm — 232.00* — 440.00* — KM103-09/10
Kindergarten, *"Young Child, Year One"*

*Tuition includes a materials fee.

Fall09_Spring10.CDT Class Schedule:CDT TANNER DANCE SUMMER SCHEDULE 7/21/09 12:02 PM Page 1

Children's Dance Theatre

UNIVERSITY OF UTAH • 190 S. Wasatch Drive, Salt Lake City, UT 84112-9359 .
Main: (801)581-7374 • Fax: (801)581-4091 • www.tannerdance.utah.edu

Dancer Information

Dancer's Name

Date of Birth School Grade Home Phone

Dancer's Address City/State/Zip

Home E-mail Address

Lives with: Both parents ☐ Mother ☐ Father ☐ Other ☐ *specify*

Parent/Guardian Information

Mother/Guardian Name Cell Phone E-mail Address

Mother/Guardian Address (if different from dancer) City/State/Zip

Mother/Guardian Employer Work Phone

Father/Guardian Name Cell Phone E-mail Address

Father/Guardian Address (if different from dancer) City/State/Zip

Father/Guardian Employer Work Phone

University of Utah policy requires that every dancer enrolled in the Tanner Dance Program have a current signed **RELEASE AND CONSENT** form on file. If you have not yet signed this important document for your dancer for the 2009-2010 year, you may download the form from the Web site, pick one up in the studio office, or call to have one mailed to you.

Class Information

Class Code Day(s) Time

Fall or Spring Session Tuition
C2 and C3 = $313.00
C4-DE = $433.00

= $_____
SESSION TUITION

or

Full Year Discounted Tuition
C2 and C3 = $595.00
C4-DE = $823.00

= $_____
FULL YEAR DISCOUNTED TUITION

Payment Information

I am paying in full with *(check one)*:

☐ Cash
☐ Check (payable to the University of Utah)
☐ American Express/Discover/Mastercard/Visa

Credit card number Expiration Date /

Print name on card

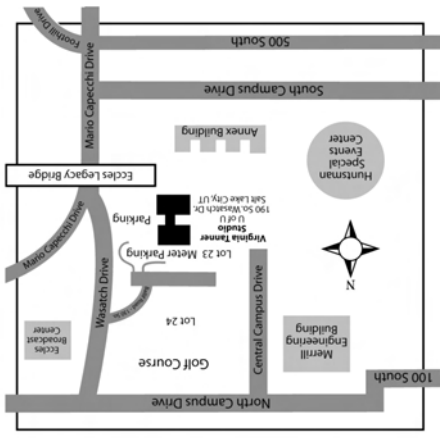
Signature

For Office Use Only

Date received _____ Employee _____
Check Date _____ Check # _____
Charge date _____ Invoice # _____
R Date entered _____ Employee _____
G Date entered _____ Employee _____

STUDIO LOCATION

The Tanner Dance building is a white building at 190 S. Wasatch Drive. Enter the parking lot at 130 S. Wasatch Drive (Ballif Road).



UNIVERSITY PARKING REGULATIONS

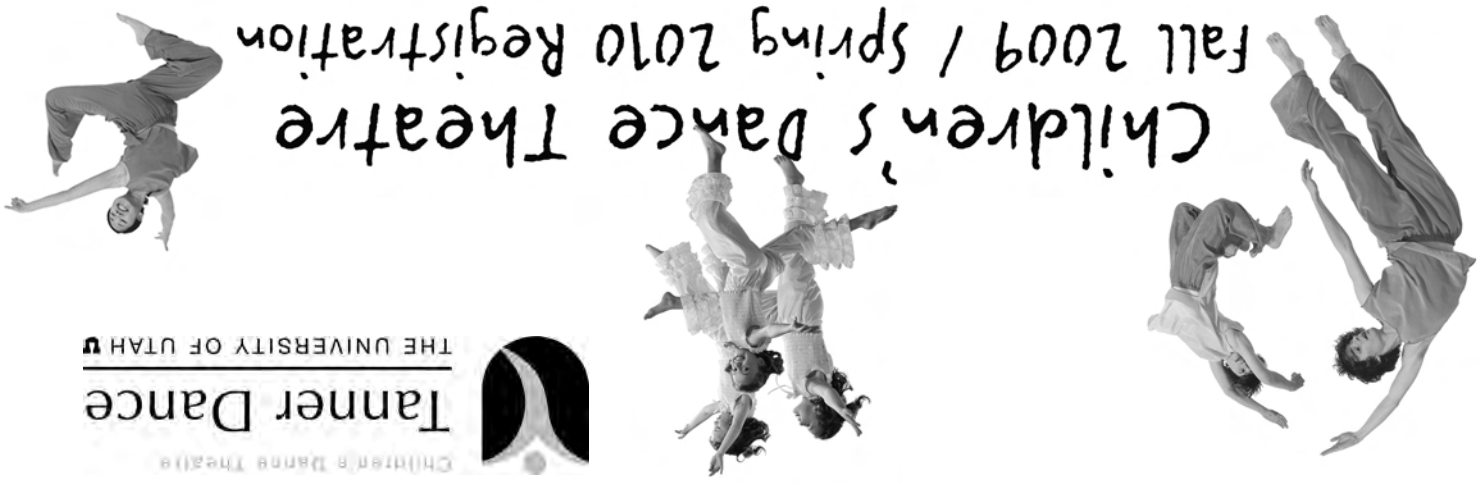
All university parking is regulated throughout the year (including University breaks) as noted below:

- The area directly in front of the studio is a red no-parking/no idling zone; parking there creates a safety hazard for children. Fire lanes and disabled parking are enforced 24 hours every day of the year. Violators will be ticketed by campus police.
- Lot #23 on the east and north sides of the studio is enforced Monday through Friday from 7 am to 6 pm except state/national holidays. **A University yearly or monthly permit is required. Parents may purchase a monthly $5.50 permit in the Tanner Dance office Monday through Friday from 9 am to 5 pm.**
- Meters are available on the north and northwest sides of the building and are monitored Monday through Friday from 8 am to 6 pm except state/national holidays.
- **Please remember to "curb your carbon"; turn your car off after 10 seconds and avoid drop-off and pick-up idling.**

For more information, contact University Commuter Services by phone at 801-581-6415 or visit the Web site at www.parking.utah.edu.

Children's Dance Theatre

Tanner Dance
THE UNIVERSITY OF UTAH



Children's Dance Theatre

fall 2009 / spring 2010 Registration

Registration Information

Tuition is due, paid in full, at the time of registration.

Online: Register by accessing our Web site and entering the dancer's information. You can access the Web site 7 days a week/24 hours a day at www.tannerdance.utah.edu. Follow the links for CDT Class Schedules and Registration.

In Person: Register Monday through Friday at the Tanner Dance Office from 9:00 am to 5:00 pm.

By Mail: Send signed, completed registration form with American Express, Discover, MasterCard, or VISA information or check/money order made payable in full to the **University of Utah** to:

Tanner Dance Program
190 S. Wasatch Drive
Salt Lake City, UT 84112-9359

By FAX: Send signed, completed registration form with American Express, Discover, MasterCard, or VISA information to (801) 581-4091.

Class Additions/Cancellations: Class additions and changes are made as enrollment demands. You will be notified if there are any changes in the schedule.

Scholarships: Limited scholarships are available for Children's Dance Theatre students. Application forms are available online. Contact the studio office for more information.

Class Attire: As dancers arrive for class, they should leave shoes and personal belongings in the studio dressing rooms. Please do not bring any valuables. Dancers should wear leotards with footless tights or unitards. Boys may wear T-shirts with shorts. Students dance barefoot, except for ballet students. Ballet students: girls are required to wear black leotards, pink tights, and pink ballet shoes. Boys may wear T-shirts with shorts and black ballet shoes. No street shoes are allowed on studio floors.

Company Rehearsal Attire: CDT dancers are required to wear black leotards and tights or unitards to all company rehearsals.

ALL CLOTHING, SHOES, BACKPACKS, ETC., SHOULD BE CLEARLY MARKED WITH THE DANCER'S NAME. The Tanner Dance Program cannot accept responsibility for lost or stolen items. There is a lost and found box in the girls' dressing room and small items are brought to the office. Periodically, unclaimed items are donated to charity.

Withdrawal Policy

- Withdrawals and refund requests must be made at the time of withdrawal by the parent(s) or guardian(s) to the studio office.
- 100% less a $15 processing fee by the first day of class.
- After the first day of class, refunds will be made on a case by case basis.

Faculty and Staff

Staff:
Mary Ann Lee – *Artistic Director*
Rebecca Meadows Anderson – *Director of Development*
Misha Bergman – *Dance Specialist/Director, Fine Arts Preschool*
Sadie Carhart – *Dance Specialist*
Nancy Cook – *Assistant Costume Designer*
Jasmine Crosby – *Dance Specialist*
Fareedah James – *Database Manager*
Rachel Jones – *Administrative Assistant*
Geri Kilpatrick – *Studio Coordinator*
Rachel Kimball – *Dance Specialist/Director, Arts in Education*
Judy Leach – *Executive Assistant*
Mariana McNamara – *Financial Manager*
Sara Oswald – *Development & Marketing Assistant*
Cynthia Turner – *Costume Designer*
Wendy Turner – *Costume Designer/ Costume Shop Supervisor*
Joni Urry Wilson – *Dance Specialist/Director, Virginia Tanner Creative Dance Program*

Faculty: Maria Baldwin, Olivia Brooks, Holly Burton, Anne Cannon, *emeritus*, Ann Carter, Anne Conrad, Amy Daly, Danielle DeFrances, Sethrina Dunlap, Jessica Dutson, Lindsay Ermidis, Karin Fenn, Natalie Fortie, Julie Goodro, Liz Boggess Hales, Melony Hamilton, Chara Huckins-Malaret, Mary-Martha Jackson, Katie Jardine, Carrie LeBaron, Sue Lundmark, Elise Dumke Miller, Tina Misaka, Deja Mitchell, Megan Morrison, Diana Neal, Corinne Penka, Holly Shaw, Mimi Skola Silverstein, Tad Simonson, Anne Marie Smith, Traci Staheli, Gaylyn Stephenson, Mary Anne Stewart, Karen Bean Strasser, Carol Stringham, Sabrina Theodore, Wendy Thurman, Bethany Uscilka, Heather Wilson

Musicians: Kristin Petersen Bolinder, Ruby Brown, *emeritus*, Amy Buchanan, Heather Carlson, Brent Fotheringham, Dylan Gregersen, Trent Hyer, Nathan Innis, Leslie Jones, Jonathan Kult, Tristan Moore, Lori Nuffer, Cecilia Pearman, Mary Anne Stewart, Wachira Waigwa-Stone, Amy Williams, John Wright, Christina Yong

2009-10 Calendar

Fall scholarship deadline	August 7, 2009
CDT Re-audition Workshop	August 17-18, 2009
CDT Parent Meeting	August 19, 2009
Dancers' Council - 6:00-8:30 pm	
New Parent Orientation - 7:00-7:30 pm	
All Parent Meeting - 7:30-8:30 pm	
Dancer Meeting - 4:15-6:15 pm	August 20, 2009
CDT fall tuition due	August 24, 2009
Fall session begins	August 24, 2009
Labor Day holiday (no classes)	September 7, 2009
UEA (classes **will** be held)	October 1-2, 2009
University of Utah fall break (classes **will** be held)	October 12-16, 2009
Coming Home performance at Weber State University	October 16, 2009
Grandparents' Week	November 16-21, 2009
Thanksgiving holiday (no classes)	November 26-28, 2009
Spring scholarship deadline	December 4, 2009
CDT dancer holiday party 4:15-6:30 pm	December 10, 2009
Fall session ends	December 12, 2009
Winter holiday break (no classes)	December 14, 2009 - January 2, 2010
CDT spring tuition due	January 4, 2010
Spring session begins	January 4, 2010
Martin Luther King, Jr. Day (no classes)	January 18, 2010
President's Day (no classes)	February 15, 2010
University of Utah spring break – classes **will** be held	March 22-27, 2010
Spring break (no classes)	April 2-3, 2010
CDT Concert Week Capitol Theatre, Salt Lake City	April 19-24, 2010
CDT (no classes)	April 26, 2010
CDT classes held	April 27 & 29, 2010
Spring session ends	May 1, 2010
High school placement	May 3, 2010

Registration for the 2009-10 lecture/demonstration performances will begin soon online.

Full Year Discount Option

Families who elect to prepay CDT tuition for the entire year (fall and spring sessions) will receive a 5% discount. Tuition is due prior to the first day of class.

Class Schedule

CLASS	DAY	TIME	FALL/SPR TUITION	FULL YEAR DISCOUNT TUITION	CODE
2nd grade	Tues	4:00-5:30 pm	313.00	595.00	C2-09/10
3rd grade	Tues	4:30-6:00 pm	313.00	595.00	C3-09/10
4th grade	Mon/Th	4:30-6:00 pm	433.00	823.00	C4-09/10
5th grade	Mon/Th	4:30-6:00 pm	433.00	823.00	C5-09/10
6th grade	Mon/Th	4:30-6:00 pm	433.00	823.00	C6-09/10
7th grade	Mon/Th	6:00-7:30 pm	433.00	823.00	C7-09/10
8th grade	Mon/Th	6:00-7:30 pm	433.00	823.00	C8-09/10
9th grade	Mon/Th	6:00-7:30 pm	433.00	823.00	C9-09/10
High School I	Mon/Th	7:30-9:00 pm	433.00	823.00	CHS1-09/10
High School II	Mon/Th	7:30-9:00 pm	433.00	823.00	CHS2-09/10
Dance Ensemble	Mon/Th	7:30-9:00 pm	433.00	823.00	CDE-09/10

Optional Classes

AFRICAN					
Any age	Friday	5:00-6:00 pm	214.00	406.00	V1504-09/10
BALLET CLASS					
2nd-5th grade	Friday	3:30-4:30 pm	214.00	406.00	V1301-09/10
HIP HOP/JAZZ					
5th-7th grade	Friday	4:00-5:00 pm	214.00	406.00	V1601-09/10
VISUAL ART					
2nd grade & older	Friday	3:00-4:00 pm	108.00*		VA101-09/10

"Surprise: A Recycled Halloween," with Sabrina Theodore
Seven weeks, September 11, 18, 25, October 9, 16, 23, 30.

*Includes materials fee.

Fine Arts Preschool
Tanner Dance
THE UNIVERSITY OF UTAH

University of Utah
Virginia Tanner Creative Dance Program
Fine Arts Preschool
190 S. Wasatch Drive • Salt Lake City, UT • 84112-9359
Telephone: (801) 587-3668 • Fax: (801) 581-4091
Web site: www.tannerdance.utah.edu

Weekly Preschool Schedule Sept. – Dec. 2009

	Miss Mimi – Whirlabouts	Miss Sue – Skipperlings		Miss Tad – Monarchs		
MON	9-12pm Music Dance Visual Art	9-12 pm Dance Visual Art Music		9-12 pm Intro to Creative Writing Music Dance		
	Choosing Time All children chose from …	Library & Quiet Games	Music	Art	Dance	Literature
WED	9-12 pm Literature & Activity Intro to Creative Writing Music	9-12 pm Literature Intro to Creative Writing Music Visual Art		9-12 pm Music Visual Art Literature		
	Choosing Time All children chose from…	Library & Quiet Games	Music	Art	Dance	Literature
FRI	8:45 am Yoga 9-12 pm Show-and-Tell Literature Dance Visual Art	8:45 am Yoga 9-12 pm Dance Show-and-Tell Literature Intro to Creative Writing		8:45 am Yoga 9-12 pm Show-and-Tell Literature Visual Art Dance		
	Choosing Time All children chose from…	Library & Quiet Games	Dance	Lobby Art/Creative Writing		Literature

* NOTE: We may be overhauling our summer schedule for Summer 2010; this schedule is based on existing summer programs.

University of Utah
Tanner Dance Program
Summer Studio Usage

	Monday				Tuesday				Wednesday				Thursday				Friday				Saturday			
Time	Studio 1	Studio 2	Studio 3	Art Space	Studio 1	Studio 2	Studio 3	Art Space	Studio 1	Studio 2	Studio 3	Art Space	Studio 1	Studio 2	Studio 3	Art Space	Studio 1	Studio 2	Studio 3	Art Space	Studio 1	Studio 2	Studio 3	Art Space
8:30 AM																								
9:30 AM		3 1/2 year old Class (12)				5 year old (12)				2nd Grade (16)											Parent/Tot II (10 kids w/an adult=20)	3 1/2 - 4 year old (12)	Parent/Tot I (7 kids w/an adult = 14)	
10:30 AM		2nd Grade (16)				Parent/Tot II (10 kids w/an adult=20)				Parent/Tot II (10 kids w/an adult=20)											Parent/Tot (10 kids w/an adult=20)	Kindergarten (16)	4-5 year olds (12)	
11:30 AM		Kindergarten-1st Grade (16)				Kindergarten (16)	Arts for the Young 9am-12pm (Dance, Visual Arts, Music)			Kindergarten-1st Grade (16)				Kindergarten (16)	Arts for the Young 9am-12 pm (Dance, Visual Arts, Music)						1st-2nd Grade (16)	3rd-4th Grade (16)		
12:30 PM	8:30 am - 1:00 pm: Summer Dance Camp (25)	CDT 2nd Grade (36)	8:30 am - 1:00 pm: Summer Dance Camp (25)	8:30 am - 1:00 pm: Visual Art part of Dance Camp (25)	8:30 am - 1:00 pm: Summer Dance Camp (25)	Adult/Yoga (10)		8:30 am - 1:00 pm: Visual Art part of Dance Camp (25)	8:30 am - 1:00 pm: Summer Dance Camp (25)	CDT 2nd Grade (36)	8:30 am - 1:00 pm: Summer Dance Camp (25)	8:30 am - 1:00 pm: Visual Art part of Dance Camp (25)	8:30 am - 1:00 pm: Summer Dance Camp (25)	Adult/Yoga (10)		8:30 am - 1:00 pm: Visual Art part of Dance Camp (25)	8:30 am - 1:00 pm: Summer Dance Camp (25)		8:30 am - 1:00 pm: Summer Dance Camp (25)	8:30 am - 1:00 pm: Visual Art part of Dance Camp (25)				
1:30 PM		Kindermusik				1st Grade (16)				4-5 year old (12)				1st Grade (16)		1:00-2:00 pm: CDT 2nd Grade Visual Art Class (36)								
2:30 PM		Kindermusik				2nd-3rd Grade (16)								2nd-3rd Grade (16)										
3:30 PM		Ballet Class (8)						Visual Art 1st-3rd grade						Ballet Class (8)										
4:30 PM						4th-6th Grade (16)								4th-6th Grade (16)										
5:30 PM																								
6:30 PM	1:00 - 7:00 pm: Summer Dance Camp (25)		1:00 - 7:00 pm: Summer Dance Camp (25)		1:00 - 7:00 pm: Summer Dance Camp (25)	Adult/Alumni Dance Class (10)	1:00 - 7:00 pm: Summer Dance Camp (25)		1:00 - 7:00 pm: Summer Dance Camp (25)		1:00 - 7:00 pm: Summer Dance Camp (25)		1:00 - 7:00 pm: Summer Dance Camp (25)		1:00 - 7:00 pm: Summer Dance Camp (25)		1:00 - 7:00 pm: Summer Dance Camp (25)		1:00 - 7:00 pm: Summer Dance Camp (25)					
7:30 PM																								
8:30 PM																								
9:30 PM																								

Summer studio session is 5 weeks.

Summer Dance Camps: Camps meet for five days total and last for 6 weeks.

Summer Teacher Workshop: Meets for one week from 9:00 am - 4:00 pm; currently we are putting the teachers into the studio spaces when there is space available or they are observing teaching that is taking place during the regular day. The space is double-booked for these two weeks.

Also offer a 3-day Sustainable Arts Professional Development Workshop during June.

Tanner Dance Program
Studio Usage Projections

MONDAY

TIME	Studio 1	Studio 2	Studio 3	Studio 4	Studio 5	Studio 6	Art Studio	Satellites
8:00 AM	Fine Arts Preschool (15) 8:30-12:00 pm (3.5 hrs)	Fine Arts Preschool (15) 8:30-12:00 pm (3.5 hrs)	Fine Arts Preschool (15) 8:30-12:00 pm (3.5 hrs)	Fine Arts Preschool (15) 8:30-12:00 pm (3.5 hrs)			Fine Arts Preschool (15) 8:30-12:00 pm (3.5 hrs)	
8:30 AM								
9:00 AM								
9:30 AM								
10:00 AM								
10:30 AM								
11:00 AM								
11:30 AM					Adult TENT	Adult TENT		
12:00 PM					Adult Fitness			
12:30 PM						Adult Pilates		
1:00 PM	FAP Expansion 1:00-4:00 pm (3 hrs)	FAP Expansion 1:00-4:00 pm (3 hrs)	FAP Expansion 1:00-4:00 pm (3 hrs)	FAP Expansion 1:00-4:00 pm (3 hrs)			FAP Expansion 1:00-4:00 pm (3 hrs)	
1:30 PM					Adult Yoga	Adult Ballet		
2:00 PM								
2:30 PM								
3:00 PM								
3:30 PM					Dancers with Disabilities			Bountiful
4:00 PM								
4:30 PM								
5:00 PM								Ogden
5:30 PM								
6:00 PM	CDT 2nd Grade (30) 4:30 - 6:00 pm	CDT 3rd Grade A (30) 4:30-6:00 pm	CDT 3rd Grade B (30) 4:30-6:00 pm	CDT 4th Grade (30) 4:30-6:00 pm	CDT 5th Grade (30) 4:30-6:00 pm	CDT 6th Grade (30) 4:30-6:00 pm		
6:30 PM	CDT 7th Grade 6:00-7:30 pm	CDT 8th Grade 6:00-7:30 pm	CDT 9th Grade 6:00-7:30 pm	CDT HS1 6:00-7:30 pm	CDT HS2 6:00-7:30 pm	CDT DE 6:00-7:30 pm		
7:00 PM								
7:30 PM								
8:00 PM	CDT Company Rehearsal 7:30-9:00 pm							
8:30 PM								
9:00 PM								
9:30 PM								

TUESDAY

TIME	Studio 1	Studio 2	Studio 3	Studio 4	Studio 5	Studio 6	Art Studio	Satellites
8:00 AM	Fine Arts Preschool (15) 8:30-12:00 pm (3.5 hrs)	Fine Arts Preschool (15) 8:30-12:00 pm (3.5 hrs)	Fine Arts Preschool (15) 8:30-12:00 pm (3.5 hrs)					
8:30 AM								
9:00 AM				Beg 4/5	Prev Reg Kindergarten	Beg Kindergarten		
9:30 AM								
10:00 AM				Parent/tot	Kindermusik	31/2-4 year old		
10:30 AM								
11:00 AM				Beg 4-4 1/2	Parent/Tot 21/2-31/2	Parent/Tot 18 mth		
11:30 AM								
12:00 PM				Adult Fitness				
12:30 PM					Adult Pilates			
1:00 PM	FAP Expansion 1:00-4:00 pm (3 hrs)	FAP Expansion 1:00-4:00 pm (3 hrs)	FAP Expansion 1:00-4:00 pm (3 hrs)				FAP Expansion 1:00-4:00 pm (3 hrs)	
1:30 PM				Adult Yoga	Adult Ballet			
2:00 PM								
2:30 PM								
3:00 PM								
3:30 PM				Dancers with Disabilities 4-6				
4:00 PM								
4:30 PM	1st Grade 4:30 - 5:30 pm	1st Grade 4:30-5:30 pm	Advanced 2nd 4:30-6:00 pm	Advanced 3rd 4:30-6:00 pm	Advanced 4th/5th 4:30-6:00 pm	Fitness for Kids		
5:00 PM								
5:30 PM								
6:00 PM	Beg 2nd grade 5:30 - 6:30 pm	Beg 3rd Grade 5:30-6:30 pm						
6:30 PM	Ballet Intermediate/ Advanced 6:30-8:00 pm	Ballet Beginning 6:30-8:00 pm	Junior High Class 6:00-7:30 pm	High School Class 6:00-7:30 pm	Beginning Hip Hop/Jazz 6:00-7:30 pm	Advanced Hip Hop/Jazz 6:00-7:30 pm		
7:00 PM								
7:30 PM								
8:00 PM			Adult Tap 7:30-9:00 pm	Adult Ballet 7:30-9:00 pm	Adult Yoga 7:30-9:00 pm	Adult Modernn 7:30-9:00 pm		
8:30 PM								
9:00 PM								
9:30 PM								

WEDNESDAY

TIME	Studio 1	Studio 2	Studio 3	Studio 4	Studio 5	Studio 6	Art Studio	Satellites
8:00 AM	Fine Arts Preschool (15) 8:30-12:00 pm	Fine Arts Preschool (15)	Fine Arts Preschool (15)	Fine Arts Preschool (15) 8:30-12:00 pm			Fine Arts Preschool Art Classes (15)	
8:30 AM								
9:00 AM								
9:30 AM								
10:00 AM								
10:30 AM								
11:00 AM								
11:30 AM					Adult TENT	Adult TENT		
12:00 PM					Adult Fitness			
12:30 PM						Adult Pilates		
1:00 PM	FAP Expansion 1:00-4:00 pm	FAP Expansion 1:00-4:00 pm	FAP Expansion 1:00-4:00 pm	FAP Expansion 1:00-4:00 pm			FAP Expansion 1:00-4:00 pm	
1:30 PM					Adult Yoga	Adult Ballet		
2:00 PM						4-5 year old 1:30-2:30 pm		
2:30 PM								
3:00 PM								
3:30 PM					3 1/2 - 4 year old 3:30-4:30 pm	Prev Reg Kindergarten 3:30-4:30 pm		
4:00 PM								
4:30 PM	1st Grade 4:30-5:30 pm	1st Grade 4:30-5:30 pm	Kindergarten 4:30-5:30 pm	Ballet Beginning 4:30-6:00 pm	Kindermusik 4:30-5:30 pm	Fitness for Kids	Visual Art	Park City
5:00 PM								Sandy
5:30 PM								
6:00 PM	Beg/Imm 4th 5:30-6:30 pm	Beg/Imm 5th 5:30-6:30 pm	Beg/Imm 6th 5:30-6:30 pm					
6:30 PM	Adult Ballet 6:30-8:00 pm	Adult Yoga 6:30-8:00 pm	Adult Modern 6:30-8:00 pm	Intermediate/Advanced Ballet 6:00-7:30 pm	Adult Tap 6:30-8:00 pm	African Dance		
7:00 PM								
7:30 PM								
8:00 PM								
8:30 PM								
9:00 PM								
9:30 PM								

Tanner Dance Program
Studio Usage Projections

THURSDAY

TIME	Studio 1	Studio 2	Studio 3	Studio 4	Studio 5	Studio 6	Art Studio	Satellites
8:00 AM								
8:30 AM								
9:00 AM				Beg 4/5	Prev Reg Kindergarten	Beg Kindergarten	Fine Arts Preschool Art Classes (15)	
9:30 AM								
10:00 AM				Parent/tot	Kindermusik	31/2-4 year old		
10:30 AM								
11:00 AM				Beg 4-4 1/2	Parent/Tot 21/2-31/2	Parent/Tot 18 mth		
11:30 AM	Fine Arts Preschool (15) 8:30-12:00 pm	Fine Arts Preschool (15) 8:30-12:00 pm	Fine Arts Preschool (15) 8:30-12:00 pm					
12:00 PM				Adult Fitness				
12:30 PM					Adult Pilates			
1:00 PM								
1:30 PM				Adult Yoga	Adult Ballet			
2:00 PM								
2:30 PM				31/2-4 year old				
3:00 PM	FAP Expansion 1:00-4:00 pm	FAP Expansion 1:00-4:00 pm	FAP Expansion 1:00-4:00 pm				FAP Expansion 1:00-4:00 pm	
3:30 PM								Ogden
4:00 PM				Kindermusik	Dancers with Disabilities			
4:30 PM								
5:00 PM								
5:30 PM								
6:00 PM	CDT 2nd Grade (30) 4:30 - 6:00 pm	CDT 3rd Grade A (30) 4:30-6:00 pm	CDT 3rd Grade B (30) 4:30-6:00 pm	CDT 4th Grade (30) 4:30-6:00 pm	CDT 5th Grade (30) 4:30-6:00 pm	CDT 6th Grade (30) 4:30-6:00 pm		
6:30 PM								
7:00 PM	CDT 7th Grade 6:00-7:30 pm	CDT 8th Grade 6:00-7:30 pm	CDT 9th Grade 6:00-7:30 pm	CDT HS1 6:00-7:30 pm	CDT HS2 6:00-7:30 pm	CDT DE 6:00-7:30 pm		
7:30 PM								
8:00 PM								
8:30 PM								
9:00 PM	CDT Company Rehearsal 7:30-9:00 pm							
9:30 PM								

FRIDAY

Time	Studio 1	Studio 2	Studio 3	Studio 4	Studio 5	Studio 6	Art Studio	Satellites
8:00 AM								
8:30 AM								
9:00 AM								
9:30 AM	Fine Arts Preschool (15) 8:30-12:00 pm	Fine Arts Preschool (15)	Fine Arts Preschool (15)	Fine Arts Preschool (15) 8:30-12:00 pm			Fine Arts Preschool Art Classes (15)	
10:00 AM								
10:30 AM								
11:00 AM								
11:30 AM					Adult TENT	Adult TENT		
12:00 PM					Adult Fitness			
12:30 PM						Adult Pilates		
1:00 PM								
1:30 PM					Adult Yoga	Adult Ballet		
2:00 PM								
2:30 PM								
3:00 PM	FAP Expansion 1:00-4:00 pm	FAP Expansion 1:00-4:00 pm	FAP Expansion 1:00-4:00 pm	FAP Expansion 1:00-4:00 pm			FAP Expansion 1:00-4:00 pm	
3:30 PM					Beg 1st-2nd grade 3:00-4:00 pm	~~Beg/Prev Reg~~ 3rd-4th 4:00-5:00 pm		Bountiful
4:00 PM								
4:30 PM								
5:00 PM	1st Grade 4:30 - 5:30 pm	1st Grade 4:30-5:30 pm	Advanced 2nd 4:30-6:00 pm	Advanced 3rd 4:30-6:00 pm	Advanced 4th/5th 4:30-6:00 pm	Fitness for Kids	Visual Art 4:00-5:00 pm	
5:30 PM								
6:00 PM	Beg 2nd grade 5:30 - 6:30 pm	Beg 3rd Grade 5:30-6:30 pm						
6:30 PM	Ballet Intermediate/Advanced 6:30-8:00 pm	Ballet Beginning 6:30-8:00 pm	Junior High Class 6:00-7:30 pm	High School Class 6:00-7:30 pm	Beginning Hip Hop/Jazz 6:00-7:30 pm	Advanced Hip Hop/Jazz 6:00-7:30 pm		
7:00 PM								
7:30 PM								
8:00 PM								
8:30 PM								
9:00 PM								
9:30 PM								

SATURDAY

TIME	Studio 1	Studio 2	Studio 3	Studio 4	Studio 5	Studio 6	Art Studio
8:00 AM							
8:30 AM	Faculty Mtg						
9:00 AM	Parent/Tot I 18 mths-21/2	4-5 year old	Beg 31/2-4			Kindermusik	Visual Art Program
9:30 AM							
10:00 AM	Parent/Tot 2 21/2-3 1/2	Beg/Prev Reg Kind.	Beg 4-5			Kindermusik	Visual Art Program
10:30 AM							
11:00 AM	Dancers with Disabilities	Beg/Prev 1st Grade	Beg/Prev 2nd Grade			Kindermusik	Visual Art Program
11:30 AM							
12:00 PM	Dancers with Disabilities	Beg/Prev Kind.	Beg/Prev 3rd-4th				
12:30 PM							
1:00 PM	Hip Hop/Jazz	Ballet	Ballet	Adult Punchcard Program	Youth Punchcard Program	Professional Development Workshops	Professional Development Workshops
1:30 PM							
2:00 PM							
2:30 PM							
3:00 PM							
3:30 PM							
4:00 PM							
4:30 PM							
5:00 PM	CDT Company Rehearsal 2:00-6:00 pm OR Professional Development Workshops 2:00-5:30 pm						
5:30 PM							
6:00 PM							
6:30 PM							
7:00 PM							
7:30 PM							
8:00 PM							
8:30 PM							
9:00 PM							
9:30 PM							

Existing Tanner Dance Parking Needs

Those using parking stalls typically purchase a special monthly parking pass for $5.50 or park in the metered stalls. Some parents will wait in vehicle during the dancer's class.

WHEN	**STALLS** Max Numbers	**SERVING**
All times	3 loading meters	Parents arriving late Walk-in for drop off
Business Hours M-F 8:00 am - 5:30 pm	25-35 parking stalls	10-12 full-time faculty 2-6 part-time faculty/musicians per hour 15 volunteers/parents per hour (when classes in session) * NOT on M, W, Fri during FAP
Evening M-Th 4:00 pm - 9:30 pm	50 parking stalls	faculty part-time faculty/musicians driving age dancers volunteers/parents
Saturday 9 am - 4:30 pm	20 parking stalls per hour	faculty part-time faculty/musicians driving age dancers volunteers/parents

Additional needs for particular events

For these events, Tanner Dance has typically paid and reserved Lot #23
In the new complex Tanner Dance would need the ability to purchase the
specific number of stalls listed below; the below numbers do not take into account expansion.
These numbers are in addition to the regular numbers listed above.

WHEN	**STALLS**	**SERVING**
Whole Week		
2nd week of Jan	75	Parent Participation/registration
Last week of April	75	Parent Participation/showings
3rd week of June	75	Parent Participation/registration
3rd week of July	75	Parent Participation/showings
Last week of Aug	75	Parent Participation/registration

3rd week of November	75	Grandparents' Week
2nd week of Dec	75	Parent Participation/showings

Specific Event
One Day

Mid January	45	Fine Art Preschool Recruitment event
Feb. 14	25	Valentine's Day Event
Mar or Apr	95	Fine Arts Preschool Spring Celebration
April	25	Field Trip to UMFA
May	25	Fine Arts Preschool year end social
5 Fridays in summer	75	Parent Participation in camps
Aug	50	Fine Arts Preschool orientation
Aug	75	CDT parent meeting
October	95	Fine Arts Preschool Halloween Parade
November	25	Fine Arts Preschool Thanksgiving
December	95	Fine Arts Preschool December social
12 additional evenings & Sat	40	Children's Dance Theatre rehearsals

Tanner Dance Traffic Flow

Please look at the attached schedules for specific hourly traffic flow.
Attached you will find a Fall/Spring grid and one for summer.

Lot #23 Parking Permit Usage Report
*** Monthly parking permits purchased by Tanner Dance**

Month	# of Permits
2008	
January	25
February	17
March	19
April	14
May	0
June	11
July	11
August	10
September	43
October	43
November	26
December	9
2009	
January	30
February	20
March	18
April	18
May	3
June	5
July	10
August	7
September	25
October	11

Beginning in September 2009, the north section of Lot#23 was converted to a temporary staging area for a construction project along HPER Mall. As a result of this project and the staging in this area, access to Ballif Road and Lot #23 was restricted to Tanner Dance traffic only.

Because the metered parking is fenced off and temporarily restricted during this project, University Commuter Services has provided 20 parking stalls on the east side of Lot #23 for Tanner Dance patrons to park at no cost.

Tanner Dance Program
Existing Traffic Flow Estimates

These numbers represent total participants, but don't reflect carpools
See grids for exact class details

Fall & Spring Session — Fall (3rd week of August - 2nd week of December); Spring (2nd week of January - 1st week of May)

Monday

8:45-9:00 am	Drop Off (d/o) **45** preschool students
12:00-12:15 pm	Pick-up (p/u) **45** preschool students
4:15-4:35 pm	d/o **84** dancers
5:50-6:10 pm	total of **168** (p/u 84; d/o 84)
7:15-7:45 pm	total of **159** (p/u 84; d/o 75)
9:00-9:15 pm	p/u **75** dancers

Tuesday

9:15-9:35 am	d/o **28** dancers
10:15-10:35 am	p/u **28** dancers
10:35-10:45 am	d/o and park **12** dancers and their parents
11:45-11:55 am	p/u and leave **12** dancers and their parents
2:25-2:35 pm	d/o 1**6** dancers
3:30-3:40 pm	total of **40** (p/u 16; d/o 24) disability students d/o
3:50-4:10 pm	d/o **30** dancers
4:30-4:40 pm	total of **60** (p/u 24; d/o 36)
5:25-5:35 pm	total of **46** (p/u 30; d/o 16)
5:55-6:10 pm	total of **58** (p/u 36; d/o 22)
6:50-7:10 pm	**10** d/o and park (adult class)
7:10-7:25 pm	p/u **22**
8:30-8:45 pm	p/u **10** and leave parking (adult class)

Wednesday

8:45-9:00 am	d/o **45** preschool students
12:00-12:15 pm	p/u **45** preschool students
12:25-12:35 pm	d/o **16** dancers
1:25-1:35 pm	total of **24** (p/u 16; d/o 8)
2:25-2:35 pm	total of **32** (p/u 8; d/o 24)
3:25-3:35 pm	total of **81** (p/u 24; d/o 57)
4:25-4:35 pm	total of **90** (p/u 57; d/o 33)
5:25-5:35 pm	total of **73** (p/u 33; d/o 40)
6:25-6:35 pm	d/o **20**

Tanner Dance Program
Existing Traffic Flow Estimates

6:45-6:55 pm	p/u **20**
6:55-7:10 pm	total of **27** (d/o 12 disability and 15 adults park)
8:00-8:15 pm	p/u **32** (12 of which are disability)
8:30 PM	p/u and leave parking **15** adults

Thursday

9:20-9:35 am	total of **24** (12 park; 12 d/o)
10:25-10:35 am	total of **48** (p/u 24; d/o 24)
12:20-12:35 pm	d/o **12**
1:25-1:40 pm	p/u **12**
2:20-2:35 pm	d/o **16**
3:20-3:35 pm	p/u **16**
4:20-4:35 pm	d/o **84**
5:50-6:10 pm	total of **178** (p/u 84; d/0 84)
7:20-7:40 pm	total of **159** (p/u 84; d/o 75)
8:50-9:10 pm	p/u **75**

Friday

8:45-9:00 am	d/o **45** preschool students
12:00-12:15 pm	p/u **45** preschool students
2:50-3:05 pm	d/o **44**
3:50-4:10 pm	total of **72** (p/u 44; d/o 28)
4:50-5:10 pm	total of **32** (p/u 16; d/o 16)
5:30-5:40 pm	p/u **12**
5:50-6:10 pm	p/u **16**

Saturday

9:20-9:40 am	d/o **36** (12 parking for parent/tot class)
10:20-10:40 am	total **76** (p/u 36; d/o 40 - 12 of which park and stay)
11:20-11:40 am	total **92** (p/u 40; d/o 52)
12:20-12:35 pm	total **60** (p/u 44 - 12 with disabilities; d/o 16)
1:20-1:35 pm	p/u **16**
1:30-1:35 pm	rehearsal drop off up to 300

Desired projected growth

Tanner Dance currently has (3) dance studios and (1) visual art space. The new facility will double instructional spaces. However, Tanner Dance will expand programming incrementally.

Tanner Dance Program
Existing Traffic Flow Estimates

Upon moving into a new facility, some immediate changes would be made that would affect traffic flow

i.e. CDT classes would be shifted so that all classes could meet on Mondays and Thursdays.

FAP would be expanded to include an afternoon session. This would increase the number of vehicles dropping off and picking-up in the afternoon hours by about 45 vehicles.

Summer Session 3rd week of June - 1st week of August
See grids for exact class details
Numbers are not exact due to carpooling; these numbers represent actual participants

Monday

8:20-8:35 am	d/o **54**
9:20-9:35 am	d/o **12**
10:20-10:35 am	total **28** (p/u 12; d/o 16)
11:20-11:35 am	total **32** (p/u 16; d/o 16)
12:20-12:35 pm	total **52** (p/u 16; d/o 36)
12:50-1:10 pm	total **94** (p/u 54; d/o 40)
1:20-1:40 pm	total **24** (p/u 12; d/o 12)
2:20-2:35 pm	d/o **8**
3:25-3:35 pm	p/u **8**
6:50-7:15 pm	p/u **40**

Tuesday

8:20-8:35 am	d/o **36**
9:20-9:35 am	d/o **12**
10:20-10:35 am	total **24** (p/u 12; park and stay of 12 parent/tot)
11:20-11:35 am	total **28** (p/u 12; d/o 16)
12:25-12:35 pm	p/u **16**
12:55-1:10 pm	total **76** (p/u 36; d/o 40)
1:20-1:35 pm	d/o **16**
2:20-2:35 pm	total **32** (p/u 16; d/o 16)
3:20-3:35 pm	p/u **16**
4:20-4:35 pm	d/o **16**
5:20-5:35 pm	p/u **16**
6:20-6:35 pm	d/o **10**
7:00-7:15 pm	p/u **50**

Wednesday

Tanner Dance Program
Existing Traffic Flow Estimates

8:20-8:35 am	d/o **54**
9:20-9:35 am	d/o **16**
10:20-10:35 am	total **28** (p/u 16; park 12)
11:20-11:35 am	total **28** (d/o 16; p/u 12)
12:20-12:35 pm	total **52** (p/u 16; d/o 36)
12:50-1:10 pm	total **94** (p/u 54; d/o 40)
1:25-1:35 pm	d/o **12**
2:20-2:35 pm	p/u **12**
6:45-7:15 pm	p/u **40**

Thursday

8:20-8:35 am	d/o **36**
11:20-11:35 am	d/o **16**
12:20-12:35 pm	p/u **16**
12:50-1:10 pm	total **76** (p/u 36; d/o 40)
1:20-1: 35 pm	total **52** (p/u 36; d/o 16)
2:20-2:35 pm	total **68** (p/u 52; d/o 16)
3:20-3:35 pm	total **24** (p/u 16; d/o 8)
4:20-4:35 pm	total **24** (p/u 8; d/o 16)
6:45-7:10 pm	p/u **40**

Friday

8:20-8:35 am	d/o **54**
12:50-1:05 pm	total **94** (p/u 54; d/o 40)
6:50-7:10 pm	p/u **40**

Saturday

9:20-9:35 am	total **24** (d/o 12; park 12)
10:20-10:35 am	total **76** (p/u 12; parking 12; d/o 52)
11:20-11:35 am	total **84** (p/u 52; d/o 32)
12:20-12:35 pm	p/u **32**

Desired projected growth

Tanner Dance expects to grow summer programming by 10-15% in a new space for the first couple of years. With the additional studio space, Tanner Dance will have the opportunity to expand its summer camp program which is in greater demand with more parents required to work full-time.

Tanner Dance also expects to see an increase in the number of teachers participating in summer workshops. These participants would require parking during that time (M-F 8am-5pm). There is a week-long workshop and a 3-day workshop.

Breaks in Programming for Tanner - no classes held
Last 2 weeks of May
First week of June
Last week of July
Last 2 weeks December
First week of January

University of Utah
Beverley Taylor Sorenson
Arts & Education Complex Strategic Plan

ADDENDUM B

Questions to be informed by
Strategic Business/Academic Plan

Compiled by Mark Grabl from Group Discussion
on 10/19/2009

Sorenson Arts and Education Complex
Questions to be informed by Strategic Business/Academic Plan
Compiled by Mark Grabl from Group Discussion on 10/19/2009

Pragmatic Questions:

1. Who are you as a combined arts and education organization? **See Strategic Academic Plan.**

2. Identify your unified program? **See Strategic Academic Plan.**

3. Is this a marriage of convenience or a marriage of passions? **The arrangement Arts, Education, and Dance is one of convenience, opportunity, and passion.**

4. What is the organizations vision for itself? **See Strategic Academic Plan.**

5. What kind of program areas will be/can be shared? **It is expected to have some expansion within successful educational centers and contraction within less successful centers. Flexibility within centers is desired. Other multi-use areas will need to be explored within program. Opportunities to combine offices for chance and interactions should be explored.**

6. What will need to be kept autonomous and why? **Virginia Tanner Dance might seem to be semi-autonomous for reasons of security of children.**

7. What is needed as the public face of the building? **The public face of the building will require a "Wow Factor" to be defined through design which will inspire creativity. Donors are expecting prominence of the design and public location. Possibilities along the HPER Mall public face should be studied further.**

8. How do the security requirements mandated by some building uses/areas affect the architectural expression of the building? **To be completed within the program.** Separate entries? **Could have separate entries as determined within programming.** After hours areas? **To be completed within the program. Of special interest will be the Tanner Dance coordination issues with drop off and building security.**

9. How will your academic pedagogy inform the way you deliver services in the new facility? **Pedagogy is expected to be active and interactive typically. This should be addressed in further detail within the program.**

Expression:

1. How might this building represent you as a combined group? **We would like to have the "WOW" factor which will entice future students and staff to join the program. Sutton Building and possibly the Warnock Building are examples of buildings with "WOW" Factors. Finally there will likely only be one**

donor "Sorenson" on the outside of the building. Research this further in Programming and Schematic Design.

2. Should separate entities be highlighted? **Separate entities should be highlighted within the whole complex.**

3. Could you rank highly public, semi public and private space within the facility? Will these spaces need to be grouped? **To be defined within programming.**

4. What is notable or may identify this unified organization to a visitor? **Secure areas will need to be defined for the drop off area which may include children of high profile parents. Entry conditions will need to be further discussed within the Program. See Strategic Academic Plan.**

5. How might your academic pedagogy affect architectural expression? **Active and interactive integration in areas might suggest non conventional architectural solutions in areas. The complex will bring together children, students, and teachers of varied ages interacting in different ways. Family and Consumer Studies impacts will need to be researched further. Additionally, Jerry Allred with Risk Management will need to provide suggestions on security expectations especially regarding children's drop off areas. See Strategic Academic Plan for more info.**

<u>Heritage of Past:</u>

1. What are your organizations priorities about being grounded in the past? **An example is Beverly Taylor Sorenson's description of "Art for Kids" within the Strategic Academic Plan "….what the arts can tell us about how learning itself occurs and can be measured…. " No real physical artifacts like statues or pictures are planned to be brought to the new facility at this time.**

2. What current processes, tools, organizational structures, communication methods, structured hierarchies, are important to maintain? What needs replacing? Why? How? **The institutionalizing of Arts and Education in new and exciting ways will be expected. This should be explored further in Programming.**

3. Each organization has artifacts, history, and possibly a branded identity – how will these be incorporated in the new facility to craft a new picture of your combined future? Of your past? **"Utah Teacher of the Year", "Artworks for Kids" and other award programs should be incorporated. This should be explored further in Programming.**

4. How do you see the building relating to the university as a whole? **This should be explored in Programming.**

5. Do you expect this building to advertise the outreach goals of the organization to attract faculty? Staff? Students? Public? How and why? **The building will exhibit the "WOW" factor to entice and invite interest in the U's Arts and Education.**

Additional outreach will take place through; UEN, Professional Academic Programs, Beverly Taylor Schools, Education Policy Center, Instruction Technology Programs, and future conferences. This facility shall reinforce the regional and strive towards becoming the national authority for arts and education. Finally, opportunities within Arts and Education integration will be experimented on without typical educational silos interferences. New and exciting interactions will develop.

Vision of Future:

1. As a combined organization – what are the "we" spaces and what are the "I" spaces? **This should be explored further in Programming.**

2. What is the first impression you want a visitor to have about the new SAEC? **Excitement and wonder about how Arts and Education are coming together in new and exciting ways. This should be explored further in Programming.**

3. Do you see the building as an iconic piece of architecture or as a supporting player in the overall institutional fabric? If it could successfully do both, would it be appropriate? **The building should function as an outreach artifact enticing interest in the Arts and Education. This should be explored further in Programming.**

4. What services, functions, resources may need to be supported as a combined arts and education organization? **See Strategic Academic Plan.**

5. How will this building support teacher training? **Explore further in program investigation and review the strategic academic plan.**

6. What is the role of Assistant Dean for Community Partnerships within this facility? **The New Director for the Center for Integrating the Arts in Academic Learning will be developed for the new complex. Joelle Lien might be acting in this position in the future. The new position would likely become a 1FTE position based in the new building. Important coordination will happen among:**

    1. **3015 courses**
    2. **"Artworks for Kids"**
    3. **Faculty and Specialty Programs**
    4. **Other Programs**

7. How does space change outreach goals? **This should be explored further in Programming.**

8. What kind spaces will support community building? **This should be explored further in Programming.**

9. What types of un-programmed space will support the combined organizations mission? **These areas will need to be researched in depth to discover what is missing between Arts, Education, and VTDP. Examples could include Study Area Café?, Break Out Areas / Conference?, Picnic Areas interacting with VTDP perhaps?, Informal Meeting Areas?, Donor Appreciation Walls?, and Creative Interactive Spaces? This should be explored further in Programming.**

10. How will you use spaces outdoors? **Amphitheater should be considered for outdoor instruction. VTDP may interact directly with outdoor areas adjacent to the building in a park or picnic setting. The outdoor space possibilities should be explored further in Programming.**

11. What kinds of things would you like to do in this new facility that you cannot directly accommodate in your current facilities today? **This should be explored further in Programming.**

<u>Donor Issues:</u>

1. **Donor involvement will likely be though the deans or departments and direct involvement will likely not happen.**
2. **A safe drop off area would be desired.**
3. **Accessibility would be desired**
4. **Donor expectations priorities will have to be explored within programming further within the steering committee. Some important items**
    a. **Site quality**
    b. **Visibility**
    c. **Accessibility**
    d. **Recognition Areas**
5. **Art installations will likely become part of the budget in the future at or near 1% of the total construction budget.**

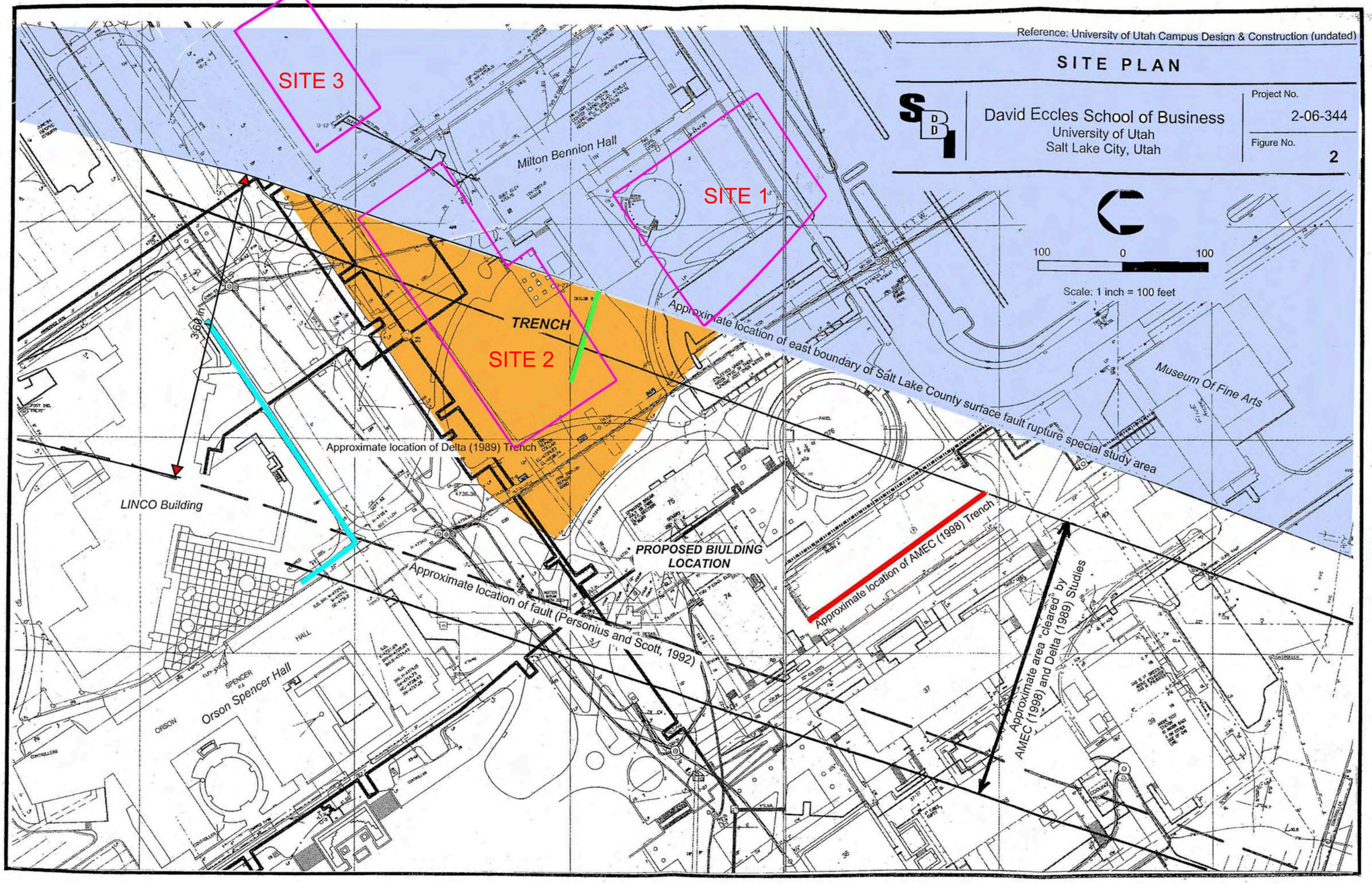
Appendix E – Fault Investigation Study

In compiling site analysis data for the Beverley Taylor Sorenson Arts and Education Building the programming team reviewed the potential sites located east of the new David Eccles School of Business within the area of campus that currently surrounds the Milton Bennion Hall. In addition, the programming team reviewed the Fault Investigation for the David Eccles School of Business (DESB) project and the attached outlining the area previously covered by Fault Investigations. The map illustrates the overlay area covered in a similar study for the College of Humanities. CRSA spoke with David Simon of Simon Bymaster, who completed a number of previous studies to ascertain:

1. To what extent is one recommended on studying the potential fault? Within 100' either side, 200', etc?
2. Whether the team could assume the study area was bounded on the east by the line noted in previous studies as "Approximate location of east boundary of Salt Lake County surface rupture special study area"?
3. If this is the area of required study can you confirm that no further study is needed east of the DESB project as the area of study has now been cleared by the results of work completed for the DESB and 1998 AMEC trench?

David Simon helped the programming team assess the need for future fault investigations in the area around Milton Bennion Hall. He conveyed that there is little need/requirements for further fault investigations. Mr. Simon felt that this area now has an overlay of fault trenching information that will indicate that the area to the west of the fault study boundary has enough information (in the area of MBH) that he would feel comfortable writing a letter indicating that no further fault investigations are needed.

CRSA created an overlay map from Simon Bymaster's previous fault investigation study on the David Eccles School to show the potential sites for the BTSAEC. The area in the blue is the area to the east of the fault study boundary in which David Simon felt needed no fault investigation, unless the client felt a need for it. The area in gold indicates a potential area for a future building that falls within the fault investigation study zone. As David Simon noted, this area is clear for future building without further fault investigations as there have been a number of overlay investigations that clear this area from the high risk associated with the overlay zone. The remaining area in white includes some area that has either cleared by earlier fault investigations, but none of this area would be included as potential building sites for this project. David Simon, Simon Bymaster, can be consulted if there is ever a need to procure a letter indicating that no further investigation is warranted.


Reference: University of Utah Campus Design & Construction (undated)
SITE PLAN
David Eccles School of Business
University of Utah
Salt Lake City, Utah
Project No.
2-06-344
Figure No.
2
100
0
100
Scale: 1 inch = 100 feet
SITE 3
SITE 1
SITE 2
Milton Bennion Hall
TRENCH
Approximate location of east boundary of Salt Lake County surface fault rupture special study area
Museum Of Fine Arts
Approximate location of Delta (1989) Trench
LINCO Building
PROPOSED BIULDING LOCATION
Approximate location of AMEC (1998) Trench
Approximate location of fault (Personius and Scott, 1992)
Approximate area "cleared" by AMEC (1998) and Delta (1989) Studies
Orson Spencer Hall

Appendix F – Chartwells Food Service Kiosks

Chartwells / University of Utah – Kiosk and Wall Mall

The Outtakes Kiosk and Wall Mall formats are ideal when space and budget are restricted. They are excellent for high-traffic areas, allowing you to capitalize on sales that may otherwise be unattainable.

Perfect for satellite operations, the Kiosk offers the full range of core Outtakes convenience items. With its flexible, modular design the Kiosk can fit into many challenging spaces such as lobby locations or high traffic hallways. The Kiosk also comes complete with a condiment center, storage cabinet and professional installation.

Kiosk Highlights

- Upscale design with high quality finishes
- Flexible formats to meet your needs
- Fully securable
- Quick turnaround
- Minimal construction requirements
- Great value for the money
- Standard format: 75K delivered and installed

Wall Mall Highlights

- Expandable modular format
- Increases market potential
- No construction required
- Fully securable
- Brings Outtakes to your customers
- Economical, efficient operations
- Quick turnaround
- Standard format: 50K delivered and installed

No matter the size, location or demographics, the Outtakes Kiosk and Wall Mall formats solutions can consistently deliver a true retail experience to all your customers.

Reggie Conerly
Resident District Manager
Chartwells/University of Utah
200 South Central Campus Dr. #30
Salt Lake City, Utah 84112
O- 801-581-5749
M- 801-608-5405

Appendix G – Campus Master Plan (Select Sections)

Executive Summary

The University of Utah Campus - Fall

EXECUTIVE SUMMARY

Introduction

Since the summer and fall of 2003, under the leadership of the new University President, Michael Young, the University of Utah faculty, staff, students and administration have pursued a process of redefining the University's mission and have arrived at a framework for academic planning that reflects the University's role regionally as well as nationally and internationally. This strategic planning process laid the ground work for the Campus Master Planning effort that is articulated in the document at hand.

The previous 1997 Long Range Development Plan and subsequent 2004 Supplement brought relevant campus planning issues to the table but the resultant plans were focused primarily on land use. The emerging interdisciplinary character of the 21st Century Campus was just beginning to be defined and the optimization of planning to accommodate this collaborative thrust of research, education and development had yet to be fully acknowledged. Silos of individualized college programs have been dissolving into cross fertilization on many levels, and the University was ripe to take on campus planning and facility development that is necessary to foster creative outcomes.

The University of Utah Mission

The mission of The University of Utah is to serve the people of Utah and the world through the discovery, creation and application of knowledge; through the dissemination of knowledge by teaching, publication, artistic presentation and technology transfer; and through community engagement. As a preeminent research and teaching university with national and global reach, the University cultivates an academic environment in which the highest standards of intellectual integrity and scholarship are practiced. Students at the University learn from and collaborate with faculty who are at the forefront of their disciplines. The University faculty and staff are committed to helping students excel. We zealously preserve academic freedom, promote diversity and equal opportunity, and respect individual beliefs. We advance rigorous interdisciplinary inquiry, international involvement, and social responsibility.

The vision for The University of Utah Campus Master Plan ("the Plan") held student enrichment as a paramount topic for investigation which led to a series of primary guiding principles that capture the tactics for planning physical growth on campus and prioritizing student life enhancement projects.

The University of Utah Campus - Winter

Campus Master Plan Purpose

The Plan is intended to guide efficient campus development for approximately the next 20 year period in a way that gives physical form to the University's mission, vision, and academic programs.

The Plan embodies strategic business, educational and service initiatives, and its development was driven by President Young's vision as referred to in his inaugural address as he spoke of "engagement, preparation and partnership."

The Plan provides an analysis of numerous campus elements, including land use, open space and landscape, pedestrian and vehicular circulation, parking, utility infrastructure, and design and development opportunities.

The Plan addresses a 1500-acre area which incorporates the main campus, including academic, research, athletics, and recreation functions, the Health Sciences Center, the Heritage Preserve and Research Park.

Process

The Plan work effort commenced in early 2007 and was led by Skidmore, Owings & Merrill LLP (SOM) and the University Facilities Planning Department with the collaboration of campus and community members. SOM, in conjunction with its consultants and members of the University, developed the Plan for The University of Utah with the goal of creating a vibrant campus for students and an inviting atmosphere for the greater community.

The primary decision making body for this exercise was led by President Young and consisted of his Cabinet which formed the Steering Committee for the study. The Planning Group established by the University Facilities Planning Department consisted of staff, faculty, and students, and was the main working group which supported the planning process. The University's Facilities Management leadership along with SOM established a broad range of stakeholder groups and individuals which contributed to the formulation of the Plan through an extensive interview process.

The process for creating the Plan consisted of five phases of work which began in 2007. These five phases were:

1 Project Start-Up
2A Discovery & Analysis
2B USTAR Site Selection
3 Develop Campus Planning Concepts
4 Refine Strategy
5 Documentation

Vision

All aspects of the Plan are guided by the following seven planning principles related to teaching, research and public life. These principles were derived from a comprehensive process involving the assessment of existing campus conditions, a determination of desired future conditions, and extensive consultation with University and community stakeholders.

A lively campus; a magnet for student, faculty, staff and public life.

- Compact campus centers to intensify student presence on campus.
- Create opportunities for interdisciplinary research and collaboration.
- Develop a strong sense of entry and establish a distinct sense of place that is tied to City and State.
- Provide adequate athletics, intramural, and recreational facilities.

State of the art facilities to support the university's mission for teaching, research and public life.

- Address growth needs of the campus, especially the Health Sciences Center.
- Establish guidelines for future development of the Golf Course and Research Park.
- Improve the quality of housing through renovation, replacement, and new construction.

A setting to foster interdisciplinary collaboration and interaction.

- Foster the synergy between research and teaching with facilities that promote collaboration and interaction.
- Provide indoor and outdoor spaces for students to study and interact with each other.

Campus as a destination for the public.

- Encourage the public to participate in a wide range of university activities, including the arts, athletics, recreation, clinical and academic programs.
- Provide adequate facilities to support public activity, including parking and other services.
- Cooperate Salt Lake City and other local services to establish a vibrant and engaging campus experience.

Functional and sustainable transportation systems.

- Improve walkability and universal access.
- Improve accessibility to transit and continue to promote alternative modes of transportation.
- Enhance routes to better support bicycling on campus.
- Improve the efficiency of shuttle bus systems.
- Clarify vehicular circulation network, especially at Health Science Campus.
- Establish a more efficient and effective parking strategy.
- Improve signage to promote safety and way-finding.

Capitalize on the natural landscape setting.

- Create smart open space and promote the intelligent use of landscape.
- Preserve significant views into, within and from the campus, including views to the Wasatch Mountains and Valley.
- Create a network of open spaces that improve campus connectivity and provides access to nature.
- Reduce the visual and physical impact of surface parking.

Leaders in environmental stewardship.

- Integrate the principles of environmental, social and economic sustainability into campus planning, design and operations.
- Promote the stewardship of campus lands and resources.

Discovery & Analysis

During the Discovery and Analysis phase of this process, the University's current physical campus structure, buildings, infrastructure systems, transportation and transit use, housing needs and academic space assessment were examined.

It was the goal of this phase of work to gain as much understanding regarding existing conditions and operations as possible in order to glean the major planning issues that needed to be addressed in a comprehensive campus master plan.

Space Needs Model

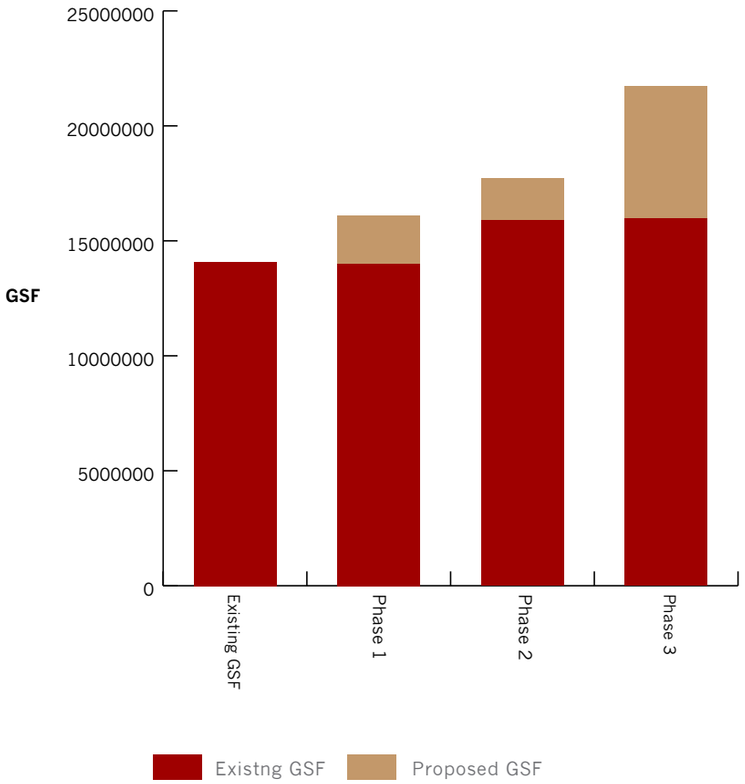
To estimate future space needs for The University of Utah, a space needs projection model was developed. The model has four time periods: 2001, 2006, 2016, and 2025. The projection years of 2016 and 2025 are based on estimating the gross square footage (GSF) needs of the campus due to changes in enrollment and faculty employment. Enrollment projections for the University as a whole, as developed by the state of Utah, were determined by year from the present through 2025.

Capital Development Program

As part of the information gathering conducted during the Discovery Phase of the project, and during consultation with The University of Utah Facilities Management, a capital development program projection was established. Many capital projects included in this development program were previously identified on the State's 5-Year Plan that was presented by the University to the Utah State Legislature during the 2008 General Session for fiscal year 2009.

Summary - Population Projection

Campus Population	2001	2006	2016	2025
Undergraduate Students	21,821	22,155	22,354	25,271
Graduate Students	5,382	6,464	6,522	7,373
Non-Credit Students	2,487	1,838	1,854	2,096
Sub-Total Students	*29,690*	*30,457*	*30,730*	*34,740*
Faculty	2,110	2,420	2,822	3,204
Staff	N/A	16,584	17,560	17,874
Total Population	**31,800**	**47,623**	**49,258**	**53,722**



Existing GSF per phase reflects growth minus demolition for that phase.

Planning Principles & Elements

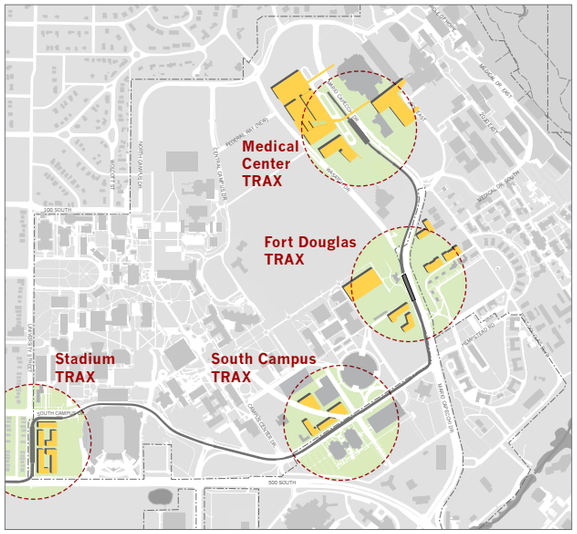
Future development of The University of Utah Campus will be guided by the following interrelated planning principles and strategies.

Establish a compact academic campus

Future development of academic buildings and facilities will be concentrated within a 10-minute walking distance from the established core area of campus. Infill development is a key strategy for achieving a vibrant, pedestrian friendly campus environment where centers of student activity are situated within convenient walking distance. A more intimate relationship between buildings and open spaces will intensify the campus and help to support the social and cross-disciplinary interaction that is central to achieving the University's mission.

Concentrate development around TRAX nodes

Development is concentrated around existing TRAX stations in order to strengthen the role of these nodes as campus gateways and important elements of the campus circulation system. Stadium TRAX: The Universe Project is envisioned as mixed-use development with housing and retail. South Campus TRAX: South Campus will incorporate student-centric retail and administrative functions. Fort Douglas TRAX: Development will include a Student Life Center and on-campus student housing. Medical Center TRAX: Expanded academic, research, and clinical functions will be located west of Mario Capecchi Drive.



Sustainable Campus Strategies:
The concept of sustainability has fundamentally shaped the development of the Campus Master Plan. The adjacent text highlights the key underlying sustainable strategies relevant to each planning principle.

A compact campus...
- uses land more efficiently
- promotes walking
- capitalizes on existing infrastructure
- preserves open space and maximizes permeable surfaces
- increases opportunities for social and academic engagement

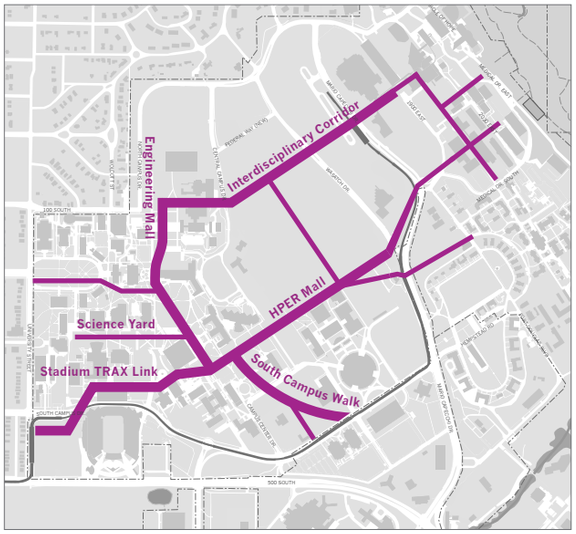
Development around TRAX stations...
- promotes transit ridership
- reduces commuter trips to campus and minimizes the associated environmental impacts
- transforms underutilized land to economically sustainable uses
- enhances connections between the campus and the surrounding community

Create a network of enhanced connections

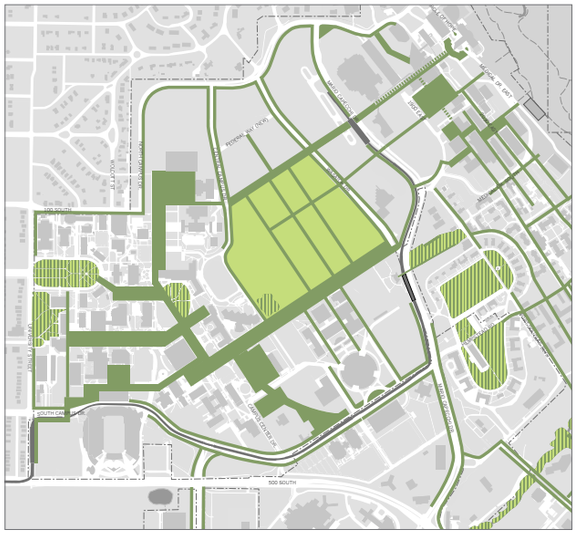
Challenges to the campus circulation system, including topography, campus scale and "missing links," will be overcome by establishing an enhanced network of pedestrian, bicycle, and campus shuttle routes and facilities. Existing circulation corridors such as HPER Mall, Engineering Mall, and Science Yard will be enhanced through renovation and upgraded facilities, while new connections such as South Campus Walk and the Interdisciplinary Corridor will be established in conjunction with the development of new buildings and facilities.

Open Space: center, connect, preserve

There are three basic concepts central to the open space plan — *Center:* A new cluster of multi-purpose sports fields will be created at the center of campus. *Connect:* Connective landscapes will become the organizing elements for long term development of the campus. New outdoor spaces, in conjunction with new development, will enhance on-campus student life and campus connections to TRAX and the city. *Preserve:* Historic and horticulturally significant landscapes will be protected and preserved in order to strengthen campus identity and character.



Interconnected network of pedestrian connections...
- improves the desirability of walking as an alternative to automobile travel
- promotes transit and campus shuttle ridership
- enhances personal health and well-being
- produces zero greenhouse gas



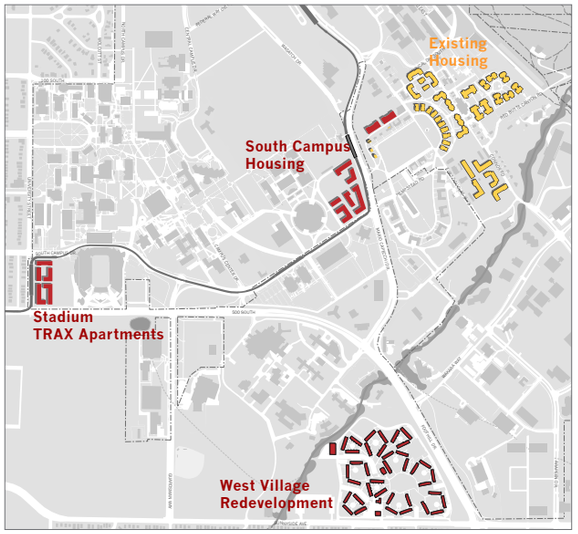
The campus open space framework...
- reduces the need for irrigation, mechanical maintenance, and use of pesticides and synthetic fertilizers by promoting native species and xeriscape where appropriate
- preserves historic or horticulturally significant landscape to strengthen connections with history and culture

Build facilities to support student engagement

New student life facilities, including on-campus housing, intramural fields and athletics facilities, and a new Student Life Center, will be established to attract and retain student engagement in campus activities. It is envisioned that these facilities will together with the existing Student Union expand the "social heart" of the campus. The Central Playing Fields will become a centerpiece of the student engagement strategy. The fields will be sited north of HPER Mall with the goal of creating synergy with the new Student Life Center and nearby on-campus student housing.

Locate new student housing on campus

The primary goal of the Plan with respect to student housing is to create opportunities for the development of on-campus student apartments. The diverse demographic mix that the University administration hopes to attract to The University of Utah will increase the number of out-of-state and international students, which will in turn increase the single student housing need. The mixed-use transit nodes at the Stadium and Fort Douglas TRAX stations are being formulated to fulfill this need and to reduce auto-dependency which in turn promotes a more sustainable campus environment.



Sustainable Campus Planning Strategies:

Facilities that promote student engagement...
- enhances opportunities for social interaction and participation with the campus community
- creates opportunities for recreation which supports the physical, mental and social well-being of students

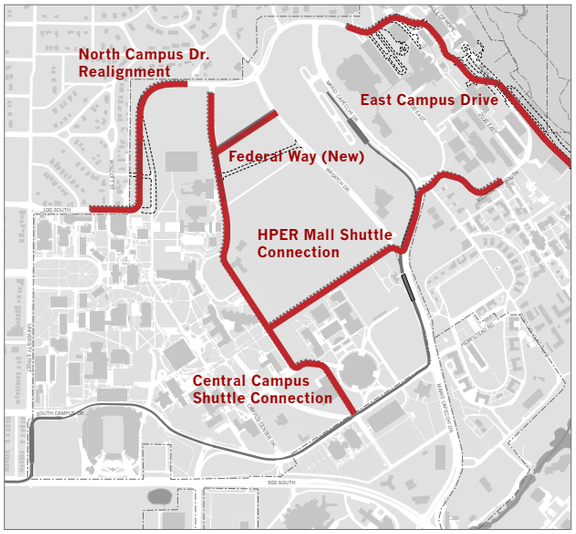
On-campus student housing...
- reduces commuter trips to campus
- promotes sustainable forms of transportation for campus trips, including walking, cycling, shuttle and transit
- increases utilization of existing campus facilities and infrastructure

Enhance transit services and circulation

The Plan establishes a comprehensive transportation strategy, in addition to proposing infrastructure improvements, that focuses on Transportation Demand Management (TDM) strategies that seek to reduce the number of commuter trips in single occupancy vehicles to and from the campus. The campus shuttle system will be enhanced through the establishment of a new connection between South Campus and Central Campus Drive, and the integration of shuttle services along HPER Mall, which will better connect the Core Campus area to Health Sciences Center and Heritage Commons.

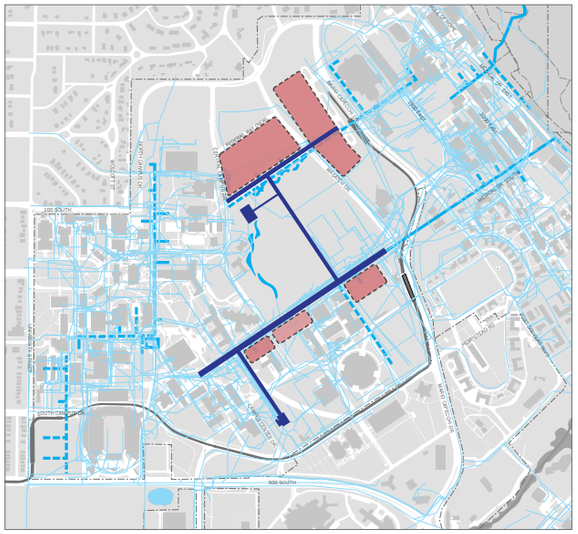
Establish sustainable campus utility infrastructure

The need to replace many existing deteriorating utilities and provide new infrastructure located in the central part of campus provides an opportunity to implement key utility infrastructure projects. Dedicated utility tunnels along HPER Mall are proposed to replace existing utility lines, and new utilities along Interdisciplinary Corridor will serve future research facility development. A chiller plant is proposed by the Plan to serve new and existing buildings located in the northern areas of the Main Campus, including the planned Interdisciplinary Quad research facilities.



New shuttle infrastructure...

- strengthens connections between TRAX and all areas of campus
- enhances access to shuttle services
- reduces vehicular usage for local / campus trips



Sustainable utility infrastructure...

- improves the reliability, efficiency, and life-cycle of utility services
- integrates “green infrastructure”, including bioswales, retention and detention ponds
- enhances water harvesting and reuse opportunities for buildings and open spaces

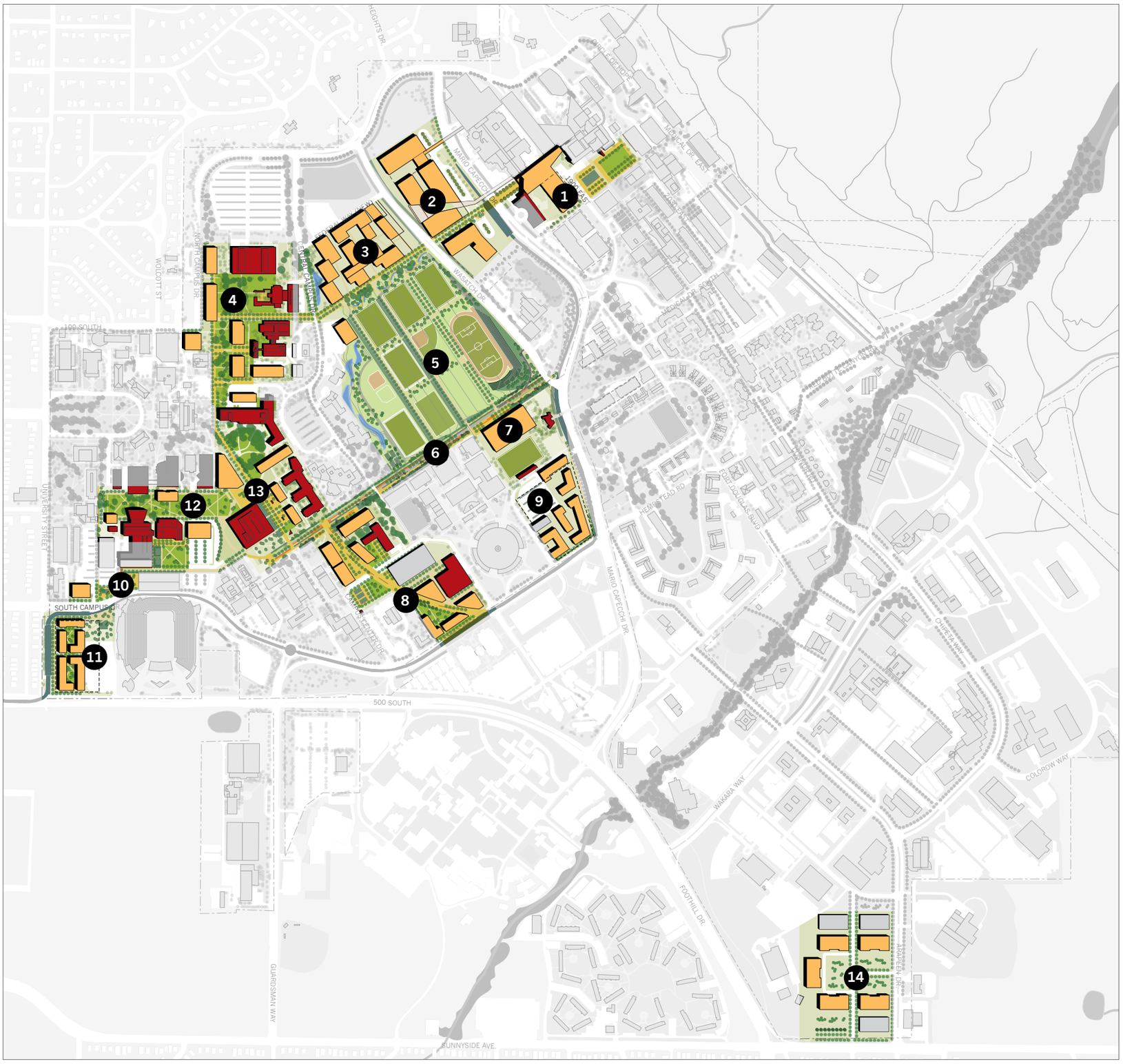
Transformative Projects

Capital development projects that contribute in a prominent manner to the transformation of the physical character of the campus have been proposed by the Plan.

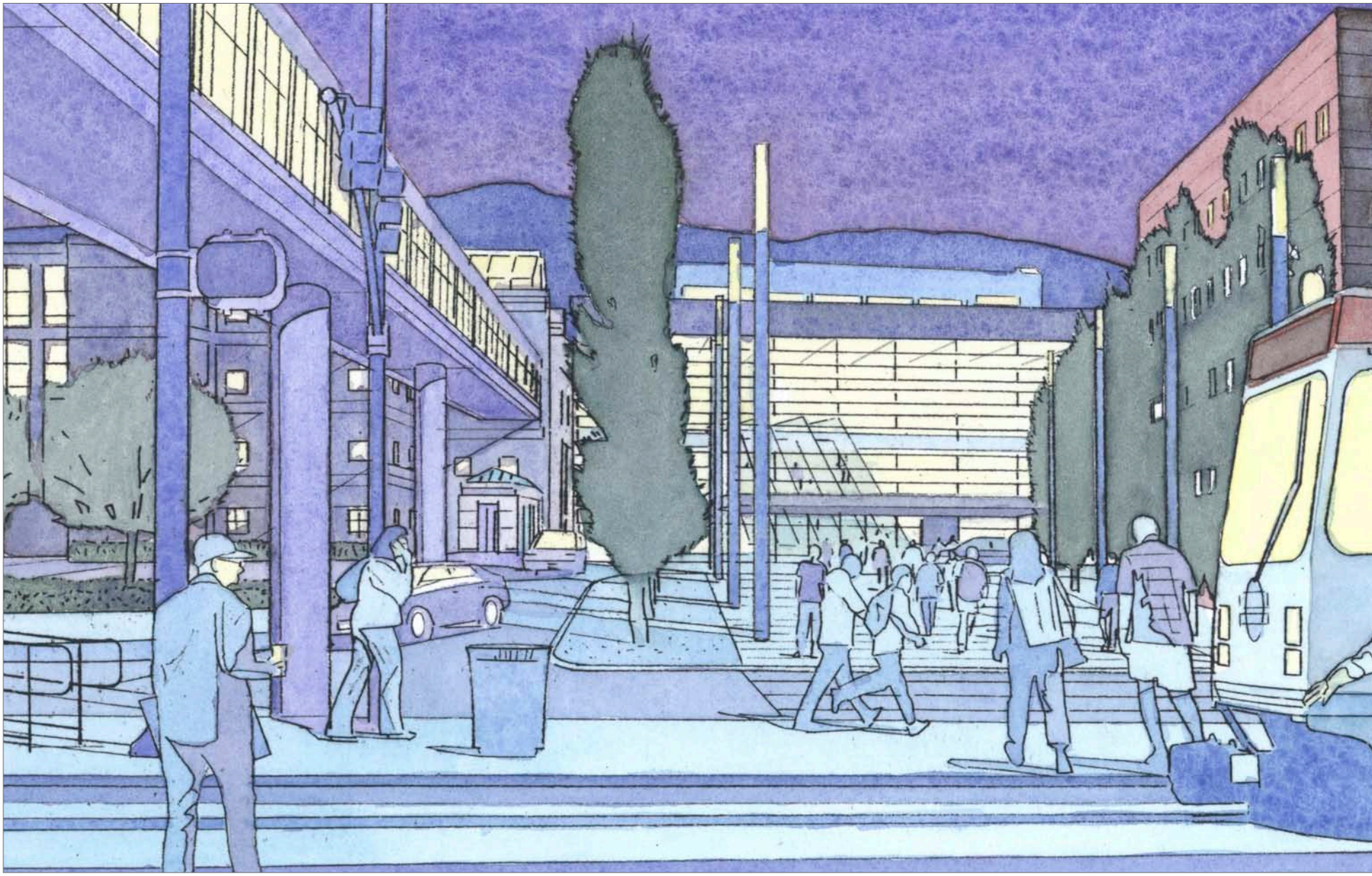
Fourteen transformative projects have been developed in response to the established campus "vision" and serve to create viable solutions that enhance student life, improve transit nodes, create campus gateways, clarify circulation, and strengthen the campus' sense of place.

The transformative projects are identified on the adjacent plan.

1. School of Medicine Replacement
2. Ambulatory Care Complex
3. Interdisciplinary Quad
4. Engineering Mall
5. Central Playing Fields
6. HPER Mall
7. Student Life Center
8. South Campus Walk
9. South Campus Housing
10. Stadium TRAX Link
11. Universe Project
12. Science Yard
13. Marriott Library Plaza
14. Business Incubator

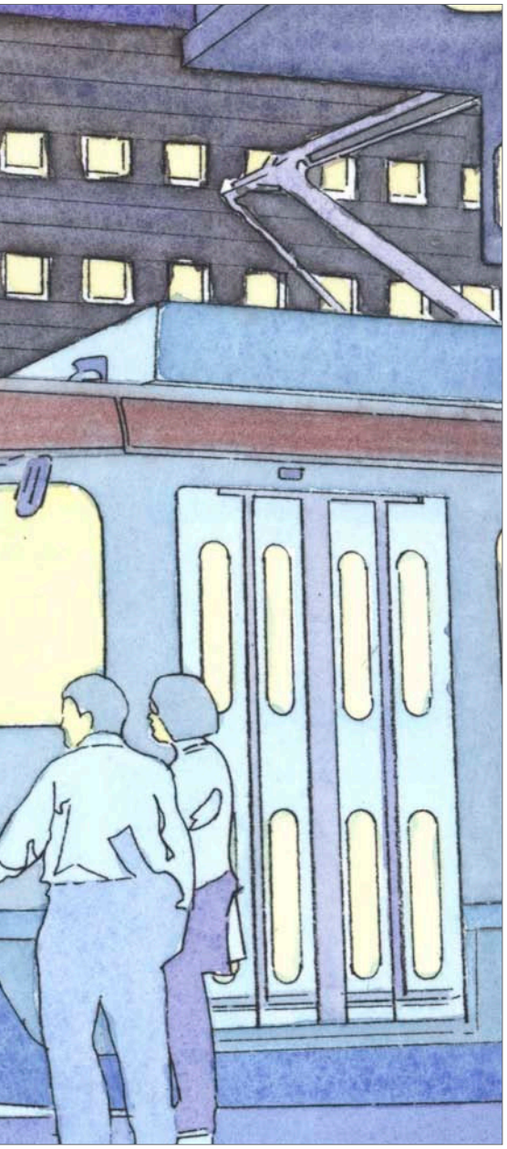


Transformative Projects



Health Sciences Center

A replacement building for the School of Medicine is proposed to be constructed north of the John A Moran Eye Center at the site currently occupied by Parking Structure 56. Located adjacent to the Medical Center TRAX station, this new School of Medicine Building will provide a public front door for the Health Sciences Center via an open, multi-story atrium space that extends to Mario Capecchi Drive. The atrium element is intended to clarify the vertical circulation from Mario Capecchi Drive to the University Hospital and to connect the University Hospital to Moran Eye Center II and Primary Children's Medical Center. It is envisioned that the new School of Medicine building will provide 640,000 ± gross square feet of space over 7 to 8 floors for academic, research and clinical support functions. The Health Sciences Center Plaza and the other smaller plazas such as the Medical Library Plaza shown here have been proposed to provide usable outdoor spaces that also allow connections with existing and new buildings. The proposed plazas will offer expansive views over Salt Lake City, while providing outdoor resting and gathering places set into the steep slope of the Wasatch foothills. New plazas may be sited partly or completely on structure, allowing for parking and service to exist beneath as needed.



1. HSC TRAX
2. School of Medicine / PCMC Drop off
3. School of Medicine Replacement
4. HSC Plaza

Interdisciplinary Corridor

A new armature for campus circulation that connects the Health Sciences Center to the Colleges of Engineering and Science will be established as part of the new Interdisciplinary Corridor development. This armature -- the Interdisciplinary Corridor – is envisioned as a multi-purpose pathway and planted area that comprises a pedestrian connection, and an informal pathway whose curvilinear form provides a shallower grade for bicycle access. Rainwater (and snowmelt) collected from viable catchment surfaces, including hardscapes and runoff from the adjacent Central Fields, will be conveyed through a series of bioswales along the entire length of the Interdisciplinary Corridor.

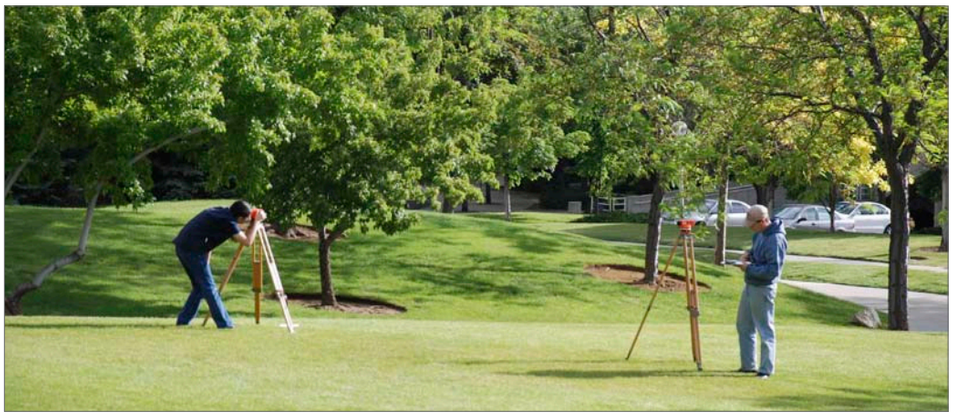
1. Interdisciplinary Corridor
2. USTAR Buildings
3. Bioswale
4. Parking Lot

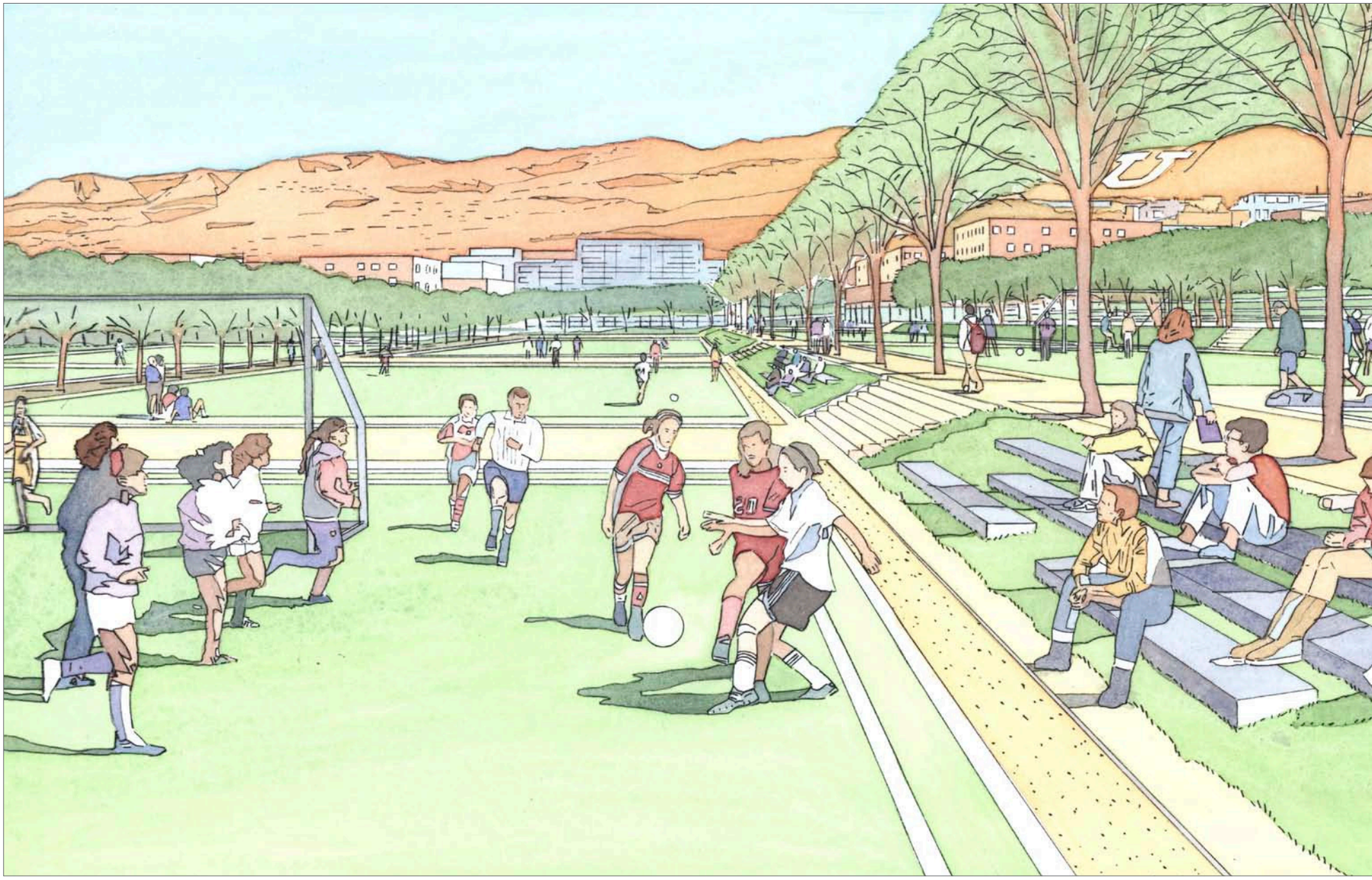
Engineering Mall

Engineering Mall will be refurbished and enhanced with new pedestrian walkways and landscape elements. The existing axial nature of the Mall will be strengthened with the introduction of new infill buildings to the east, engaging the adjacent pedestrian environment with plazas and building entrances. Gardens, seating, furniture, and lighting will be incorporated into these plazas to create a more comfortable pedestrian experience and to provide smaller gathering spaces within the larger Engineering Quad.

North Campus Drive may be realigned where it turns into 100 South at the Kennecott building. This will help to improve pedestrian safety at this intersection and it will also allow infill buildings to be sited along the western edge of Engineering Mall.

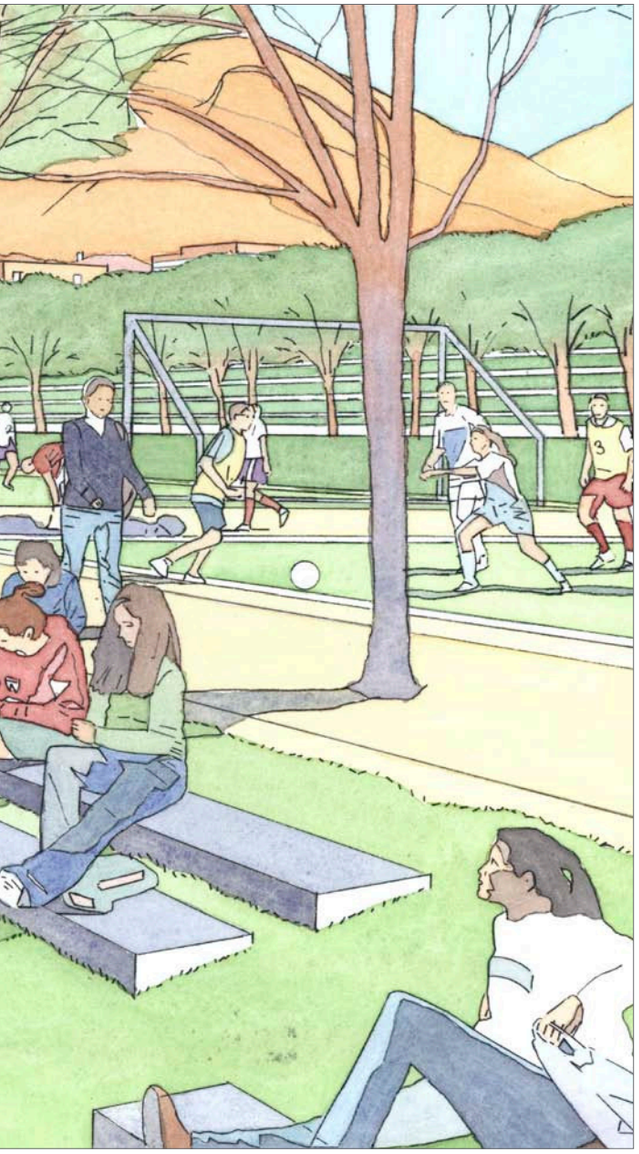
1. Merrill Engineering
2. Warnock Engineering
3. Energy & Mineral Research Lab.
4. Sutton Geology & Geophysics
5. Engineering Quad
6. Engineering Mall





Central Playing Fields

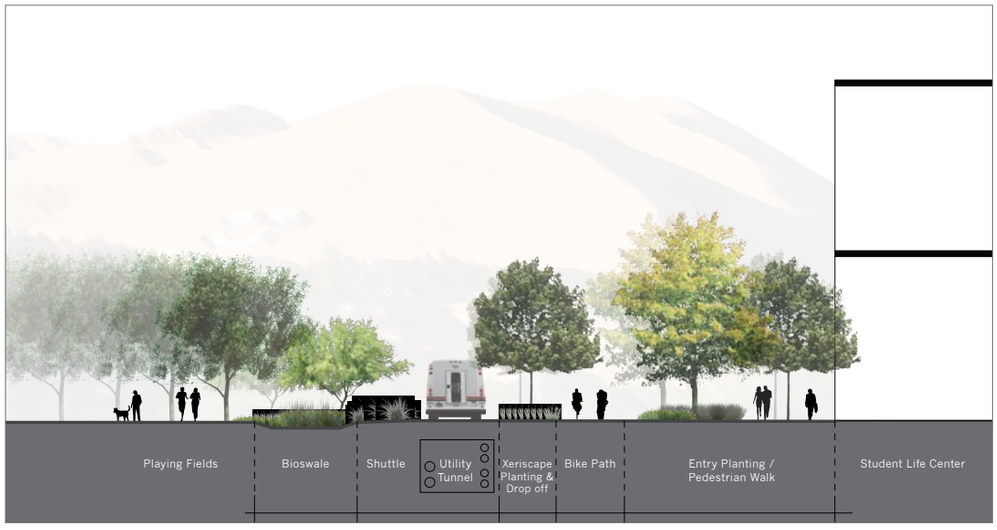
As a key component to the enhancement of student life, the Central Playing Fields will be established at the social heart of the campus. The Central Playing Fields will be organized as a cluster of terraced, multi-use recreation fields and athletic facilities that help to create an active green center for the campus, ultimately replacing existing surface parking lots, and abandoned tennis courts. The Central Playing Fields will provide green frontage for HPER Mall that also creates a core campus space linking South Campus and the Interdisciplinary Quad development to the north.



1. Central Chiller Plant
2. Tennis Courts (or Fields)
3. Women's Softball Field
4. Pedestrian / Utility Corridor
5. Intramural Field
6. Athletics Track
7. Stadium / Berm Seating
8. Bioswales

HPER Mall

A complete renovation of HPER Mall is proposed by the Plan with the goal of creating a new "multi-modal" connector with separated circulation routes for pedestrians and cyclists, as well as a new shuttle only route. Because a comprehensive utility upgrade is critical for the redevelopment along HPER Mall and for the campus at large, a new utility tunnel is proposed that should be planned concurrently with above grade improvements. Bioswales planted with grasses and woody vegetation will be integrated along the length of the Mall along its north and south edges to collect rooftop runoff from new buildings and irrigation runoff from the fields.

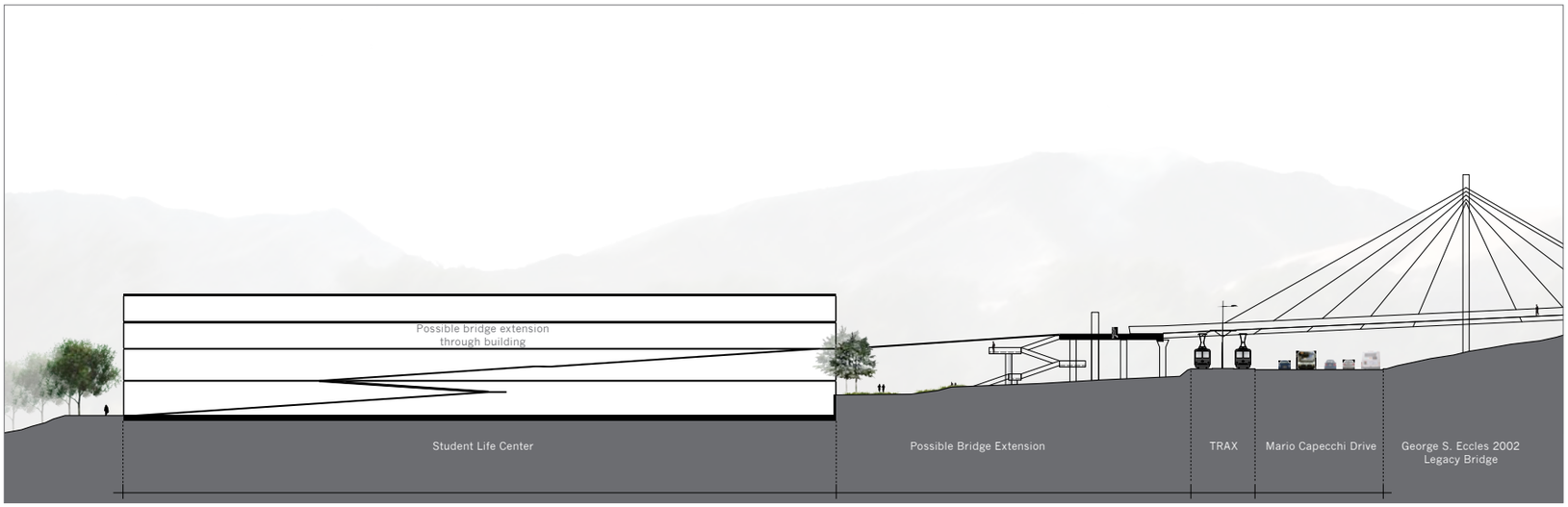


Student Life Center

The Student Life Center is envisioned as a large-scale, multi-purpose recreation facility which features over 150,000 square feet of indoor exercise equipment. The preferred site for the Student Life Center is currently occupied by the Women's Softball Field located at the eastern end of HPER Mall, adjacent to the George S. Eccles 2002 Legacy Bridge.

Given the intended location of the Student Life Center, an opportunity exists for the building to serve as an extension of the George S. Eccles 2002 Legacy Bridge and to provide a continuous pedestrian connection between the "east" and "main" areas of the campus. This connection may be realized as an extension of the bridge that passes over or through the Student Life Center building and connects with HPER Mall at ground level.

1. Student Life Center
2 HPER Mall
3. George Eccles Legacy Bridge
4. Women's Soccer Field



South Campus Walk

The Plan proposes to transform South Campus into an iconic mixed-use gateway featuring a clear, direct, and safe pedestrian connection into the core campus area. The Plan envisions a sweeping pedestrian pathway – South Campus Walk – linking South Campus TRAX to HPER Mall. South Campus Walk will feature high quality paving materials, lighting, seating, and shade trees which support a comfortable pedestrian environment. Mixed-use shopfront buildings will face onto South Campus Drive and will offer campus-centric retail that complements other existing on-campus retail at the ground floor. Upper floors may be used by the University as offices and/or classrooms.

1. South Campus TRAX Station
2. Shopfront Buildings
3. Shopfront Buildings
4. South Campus Walk
5. V. Randall Turpin University Services Building
6. Possible Graduate Education Center
7. Parking Structure
8. Plaza
9. David Eccles School of Business
10. David Eccles School of Business
11. College of Education
12. College of Education
13. Infill Classrrom Building

South Campus Housing

The Plan envisions the development of a village of single student housing located at the current Annex site. The residential buildings may be stacked apartments located above structured parking. To reinforce the importance of South Campus Drive and Mario Capecchi Drive as a major campus gateway, the building will positively address the adjacent streets and provide a distinctly urban character that is appropriate at this location.

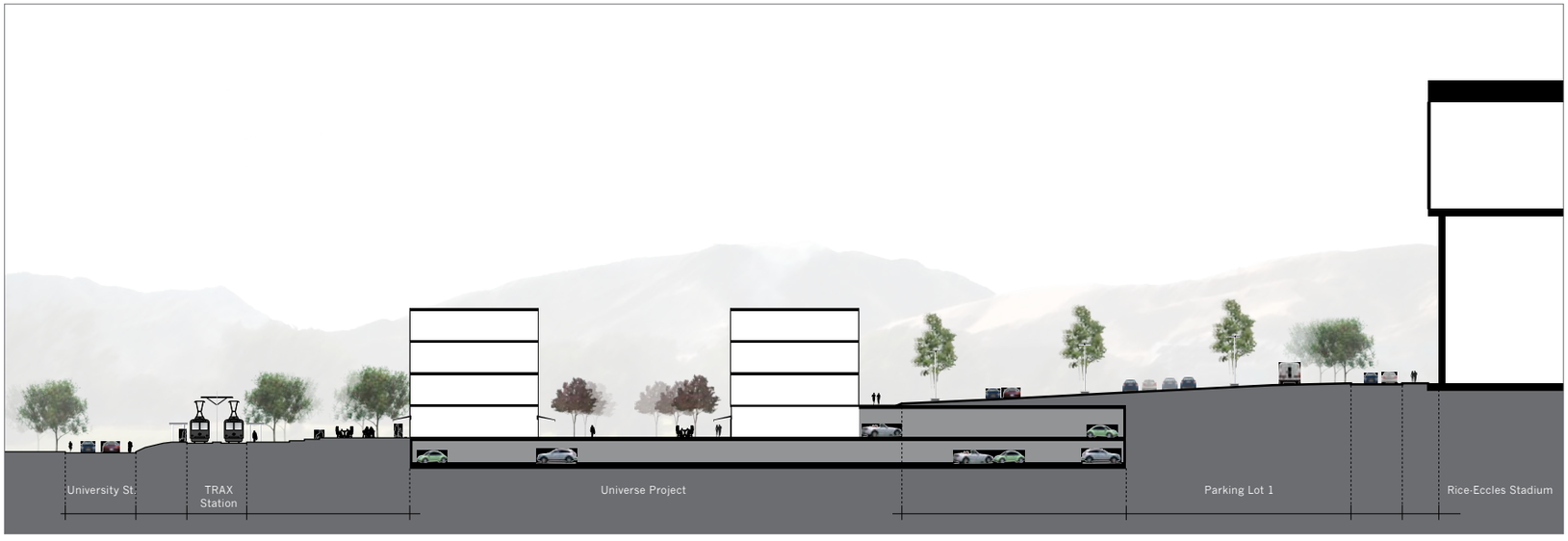
Buildings will be organized around garden courtyards internal to the site. These "outdoor rooms" will underscore the sense of community with common, intimate spaces that are comfortable, are well connected to the larger campus context and provide opportunities for social interaction and intellectual exchange by student residents.

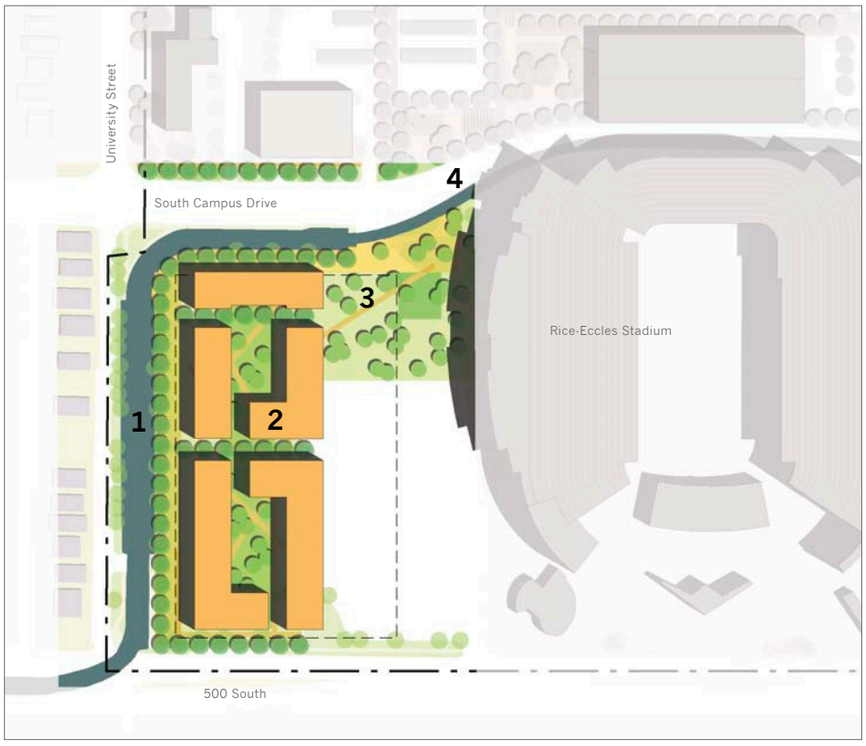
1. Fort Douglas TRAX
2. Parking Lot 22
3. South Campus Housing Phase I
4. South Campus Housing Phase II

Stadium TRAX Link

The Stadium TRAX Link will be transformed into the primary entrance into the heart of west campus, engaging pedestrians immediately in new courtyards and open spaces associated with infill development. Localized landscape improvements will be implemented along with infill buildings located along the link, transforming the entrance from the underpass into a space that marks arrival on campus. A new courtyard is proposed at the south of the Marriott Center for Dance. This new courtyard, which replaces an existing parking lot, is a key component in the campus arrival sequence.

1. Infill Classroom Building (Law)
2. Enhanced Underpass Courtyard
3. Enhanced Field House Courtyard
4. Chemistry Expansion
5. Courtyard
6. Infill Teaching Lab.
7. Pedestrian Pathway
8. Pedestrian Pathway to HPER





Universe Project

The Plan proposes to establish an urban, mixed-use housing and retail project located adjacent to the Stadium TRAX station. The development is envisioned as a cluster of four to five story stacked buildings with ground floor retail and below-grade parking. Centrally located courtyard gardens conceived as "outdoor rooms" will provide a community focus for the development. A connective network of pedestrian pathways would provide multiple routes for accessing the core campus area.

1. Stadium TRAX Station
2. Universe Project
3. Campus Gateway Plaza & Pedestrian Connection
4. South Campus Drive Underpass

Science Yard

Science Yard, extending from Pioneer Memorial Theatre to the Marriott Library, will be transformed into a core connective open space that is an integral element of pedestrian circulation on campus. It will incorporate widened pedestrian connections replete with shade trees, outdoor furniture and lighting, while a central lawn and shade trees will provide an intimate space for social and educational interaction.

1. Infill Teaching Lab.
2. Center for Cell & Genome Science
3. Infill Teaching Lab.
4. New Open Space
5. Student Learning Center
6. Marriott Library Entrance
7. Marriott Library

Marriott Library Plaza

Library Plaza will be renovated with the goal of creating smaller, more habitable spaces and an overall reduction in the amount of hardscape. New landscape elements, including paving materials, high quality lighting, comfortable seating and shade trees, will strengthen the aesthetic and functional qualities of the Plaza and encourage an increased level of use. Library Plaza will be transformed from a mere through-way to a vital campus gathering space that can serve as a central meeting place and can better accommodate outdoor classes and student events. Infill classroom buildings are proposed to frame and intensify Library Plaza and help to create a more intimate and human-scaled environment.

1. Olpin Student Union Building
2. Free Speech Area
3. Infill Classroom Building
4. Student Learning Center
5. Infill Classroom
6. Marriott Plaza
7. Marriott Library
8. HPER Mall
9. Orson Spencer Hall

Business Incubator

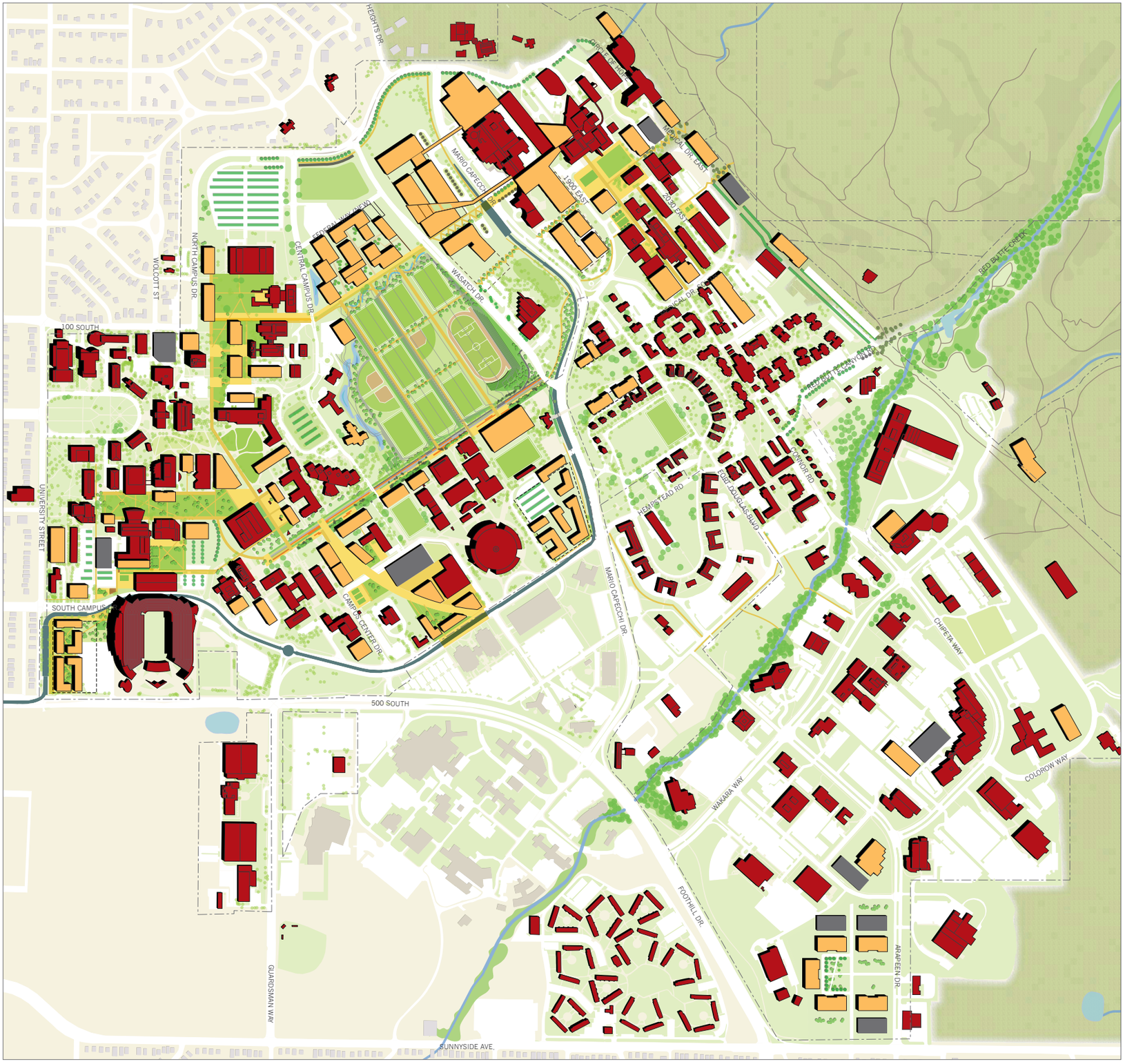
The Plan proposes the development of a Business Incubator – a group of buildings providing flexible accommodation for start-up and fledgling companies – located at the existing East Village site. The project is envisioned to include a cluster of buildings located around a central green space or quad which is provided as an informal passive recreation space for tenants and residents of the adjacent neighborhoods. A formal entrance will be located at Arapeen Drive and an internal drive aisle will provide access to parking structures located at the site's perimeter. A new north-south oriented road extending from Komas Drive to Sunnyside Avenue would be established. This new road would extend from 2200 East, located within the Sunnyside Neighborhood, into Research Park and create a more permeable boundary between the campus and community.

Conclusion

In light of the goals that the University set forth during the course of this master planning process, the team is confident that we have arrived at a planning strategy that will successfully guide the phased growth of the campus over approximately the next 20 years. The Plan will help promote the essential components that will enhance the University's development on a regional, national and international level. This master planning process has been rigorous, involving more than one hundred and forty stakeholder meetings for the direct purpose of creating a transparent process from which to glean the vital input that has enabled a broad perspective to be incorporated into the Plan. The implementation process for this Plan will require an equal and even greater energy and support from the University community. It is anticipated that the University will maintain its on-going dialogue with the neighboring community through the Community Forum and has already begun to initiate new campus "task forces" as a result of the interest and participation during the master planning process.

The planning process has sought to understand the primary issues currently facing The University of Utah and as a result, the Campus Master Plan incorporates a wide range of strategic planning goals which respond to the 21st century challenges such as sustainability awareness and conservation of natural resources as well as the technological revolution that exemplifies our times. The recommendations in the Plan focus on the enrichment of student engagement which is at the forefront of the University's mission, and will achieve practical outcomes such as Transportation Demand Management (TDM) planning, as well as the visionary goals of transforming a commuter-oriented campus into a lively collegial atmosphere.

The success of this collaborative effort can be summarized best in President Michael Young's concluding remarks to the SOM planning team in our final meeting with the Steering Committee: "When we began this process, I was hopeful that we would move well beyond the previous planning effort, but now as I see all that you have done, I am actually amazed at how far we have come!"


HEIGHTS DR.
CENTRAL CAMPUS DR.
MARIO CAPECCHI DR.
1900 EAST
2030 EAST
WASATCH DR.
NORTH CAMPUS DR.
WOLCOTT ST
100 SOUTH
UNIVERSITY STREET
SOUTH CAMPUS
CAMPUS CENTER DR.
500 SOUTH
HEMPSTEAD RD
FORNOR RD
CHIPETA WAY
COLOROW WAY
WAKARA WAY
FOOTHILL DR.
ARAPEEN DR.
GUARDSMAN WAY
SUNNYSIDE AVE.
RED BUTTE CREEK
0
200ft
500ft
1,000ft

Vision Plan

Appendix H – Parking Study

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TRANSPORTATION CONSULTANTS

Sorenson Arts & Education Building

TECHNICAL MEMORANDUM

To: Kathy Wheadon, LEED AP, CRSA
Roger Hansen, CRSA

Date: February 24, 2010

From: Preston Stinger, Fehr & Peers

Subject: Programming Phase Traffic Analysis *UT09-835*

The purpose of this memorandum is to summarize the analysis of the existing traffic conditions and the projected traffic conditions upon completion of the Sorenson Arts & Education Building (SAEB) on the University of Utah campus.

Study Area

For the purposes of this study, the roadways of South Campus Drive and 1800 East (Business Loop) and the intersection of South Campus Drive / 1800 East were analyzed. The proposed SAEB pick-up / drop-off access on the Business Loop was analyzed as well. The SAEB site and access were assumed to be east of the Milton Bennion Hall Building. See Figure 1 for a map of the study area.

The SAEB site is home to several children's arts programs, including Virginia Tanner Dance, Children's Dance Theater, and the Fine Arts Preschool. These programs have students arriving and departing all throughout the day, with considerable pickup and drop-off activity during the after-school hours. The future SAEB building site will need to allow pick-up and drop-off of students to occur safely with minimal conflict with traffic; currently, children as young as preschoolers are being directed back and forth between the classroom and their parents waiting in vehicles.

Although there are four potential proposed site designs, only one option was analyzed. Traffic operations for all four site designs are generally consistent. During the final design phase, traffic operations of the driveways should be examined in further detail.

Traffic Volumes

The p.m. peak hour traffic volumes collected in 2007 for the University of Utah Campus Master Plan were used in this study. More recent data was not able to be collected within the study area due to utility construction occurring on the Business Loop. Furthermore, the University of Utah is considering permanent closure of the Business Loop to through traffic, so previously-observed traffic patterns may not be relevant in the future.

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Sorenson Arts Center
Project Location

FIGURE 1

Fehr & Peers observed student drop-off and pick-up patterns in the evening of Monday, December 7th, 2009, and at midday on Wednesday, December 9th, 2009. These observations revealed that drop-off occurs more quickly than pick-up: drop-off typically takes one or two minutes, whereas parents will begin queuing for pick-up twenty or more minutes before students are released from classes. Most parents arrive for pick-up roughly five minutes prior to the end of class, which causes a considerable queuing problem as more parents arrive. Chart 1 shows this pattern by displaying the future projected arrivals. Chart 2 shows the future projected storage demand. This is representative of how many vehicles are projected to be on-site at any given time and is calculated based on the arrival rate and the dwell times for drop-off and pick-up vehicles.

Chart 1. Future Projected Arrivals

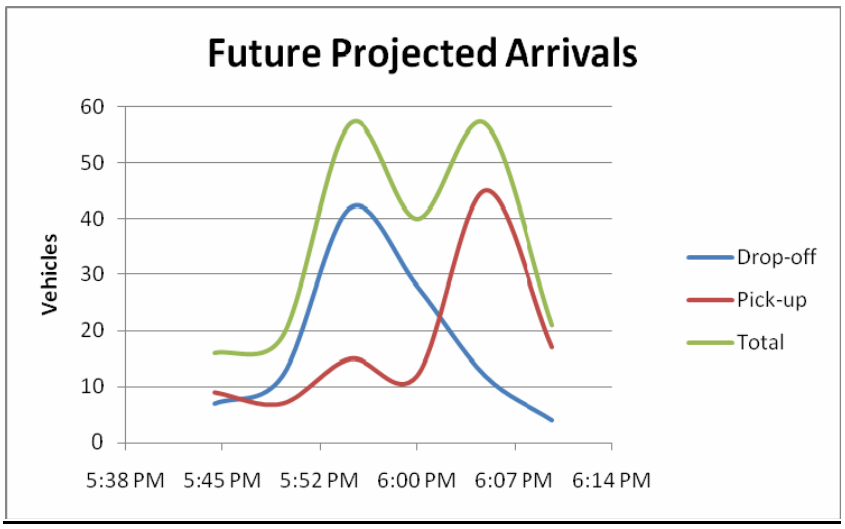
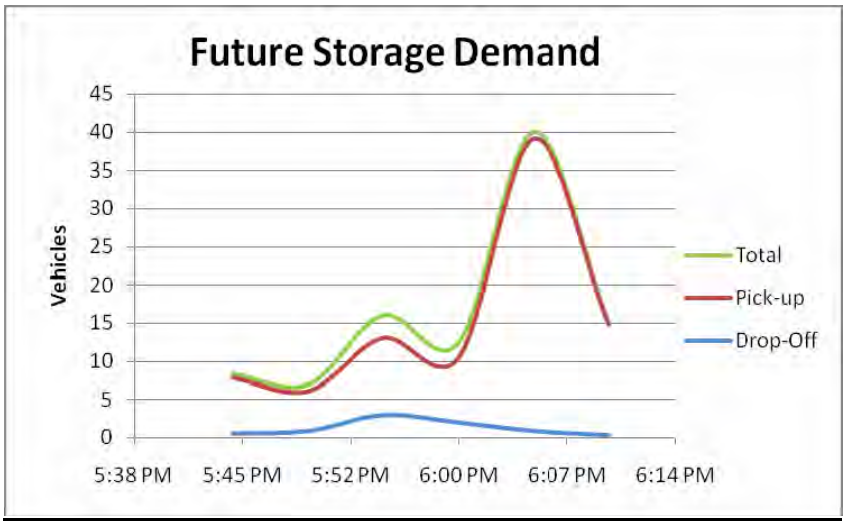


Chart 2. Future Storage Demand



Currently, the programs in the SAEB generate the highest traffic volumes in the p.m. peak from approximately 5:45 to 6:15 p.m., and this will likely be the case in the future as well. The highest peak hour generator of traffic for the SAEB will primarily be the Virginia Tanner Dance (VTD) program and, more specifically, the Children's Dance Theater (CDT) program. Other VTD programs, such as the Fine Arts Preschool (FAP), will generate much less traffic and will typically occur during off-peak times of the day. Furthermore, the FAP administrators have developed a streamlined system for delivering students to waiting vehicles which facilitates a more effective pick-up process.

Based on the draft program from CRSA and the projected full-capacity CDT student numbers (coordinated with VTD staff), the SAEB is projected to generate the following during the p.m. peak (5:45 to 6:15 p.m.), twice a week (i.e. Mondays and Thursdays):

- 210 CDT students leaving
- 210 CDT students arriving
- Average student occupancy per vehicle for CDT = two (2) *(based on collected data at the VTD facility)*
- 210 students / avg. occupancy (2) = **105 vehicles for pick-up**
- 210 students / avg. occupancy (2) = **105 vehicles for drop-off**

The above numbers were based on seven studios and maximum studio occupancy of 30 students.

Analysis Methodology

The analysis outlined in this memorandum was completed using the micro-simulation software VISSIM. This software package is used to simulate traffic conditions through the creation of a virtual roadway network. VISSIM was used due to its ability to model complex parking (short-term parking, pick-up / drop-off, etc.) and queuing situations, providing critical understanding of the relationship between the SAEB and other circulation elements in the Business Loop. VISSIM is able to record vehicle delay and queue length data that can be used to statistically analyze the performance of an intersection. Simulating the traffic conditions and queue lengths in VISSIM allows the project team to evaluate interactions between vehicles entering and exiting the proposed SAEB access on the Business Loop, and to determine whether turning movements should be restricted to facilitate better traffic movement. Intersection performance is reported based on nationally accepted standards, as outline in the Highway Capacity Manual (HCM). The HCM methodology assigns a level of service (LOS) grade to intersections based on vehicle delay. LOS is measured quantitatively and reported on a scale from A to F, with A representing the best performance and F the worst. Table 1 provides a brief description of each LOS letter designation and an accompanying average delay per vehicle for both signalized and unsignalized intersections.

For the purposes of this report, a minimum overall intersection performance for the study intersection was set at LOS D. However, if LOS E or F for an individual approach at the intersection exists, explanation and/or mitigation measures will be presented. A LOS D threshold is consistent with "state-of-the-practice" traffic engineering principles for suburban and non-CBD urbanized intersections.

Existing Traffic Conditions

Based on the Campus Master Plan the Business Loop road has approximately 300 vehicles in the p.m. peak hour near the SAEB site. Based on observations, the traffic on the Business Loop flows well with minimal delay. The intersection of South Campus Drive / 1800 East currently operates with minimal delay and has the capacity to accommodate higher traffic volumes during the p.m. peak hour. LOS for South Campus Drive / 1800 East is shown in Table 2.

TABLE 1
LEVEL OF SERVICE DESCRIPTIONS

Level of Service	Description of Traffic Conditions	Signalized Intersections	Unsignalized Intersections
		Average Delay[1] (sec / veh)	Delay[2] (sec / veh)
A	*Free Flow / Insignificant Delay* Extremely favorable progression. Individual users are virtually unaffected by others in the traffic stream.	0 to 10	0 to 10
B	*Stable Operations / Minimum Delays* Good progression. The presence of other users in the traffic stream becomes noticeable.	> 10 to 20	> 10 to 15
C	*Stable Operations / Acceptable Delays* Fair progression. The operation of individual users is affected by interactions with others in the traffic stream.	> 20 to 35	> 15 to 25
D	*Approaching Unstable Flows / Tolerable Delays* Marginal progression. Operating conditions are noticeably more constrained.	> 35 to 55	> 25 to 35
E	*Unstable Operations / Significant Delays Can Occur* Poor progression. Operating conditions are at or near capacity.	> 55 to 80	> 35 to 50
F	*Forced, Unpredictable Flows / Excessive Delays* Unacceptable progression with forced or breakdown of operating conditions.	> 80	> 50

1. Overall intersection LOS and average delay (seconds/vehicle) for all approaches.
2. Worst approach LOS and delay (seconds/vehicle) only.

Source: Fehr & Peers Descriptions, based on *Highway Capacity Manual,* 2000 Methodology (Transportation Research Board).

TABLE 2
EXISTING BACKGROUND PM PEAK HOUR LEVEL OF SERVICE

Intersection			Worst Approach[1]			Overall Intersection	
ID	**Location**	**Control**	**Approach**	**Delay (Sec/Veh)**	**LOS**	**Avg. Delay (Sec/Veh)[2]**	**LOS**
1	South Campus Drive / 1800 East	Signalized				7.5	A

1. This generally represents the worst approach LOS and delay (seconds/vehicle) and is only reported for unsignalized intersections.
2. This represents the overall intersection LOS and delay (seconds/vehicle).

Source: Fehr & Peers, February 2010.

Existing Plus SAEB Traffic Conditions

Fehr & Peers evaluated the existing plus projected SAEB traffic conditions. Chart 3 shows the resulting queue length for the southbound exiting vehicles. Chart 4 shows the resulting queue length for the entering eastbound vehicles at the driveway. Chart 5 shows the resulting queue length for the entering westbound vehicles at the driveway.

In order for the SAEB access to operate without extensive queue spillback and congestion to the Business Loop, the exit approach should be restricted to a right-turn out only. Allowing left turning vehicles at this location results in longer queues and more delay as left turning vehicles have few gaps in which to enter the traffic stream.

In general, with the above recommendation, the addition of the SAEB traffic, and more specifically the CDT traffic, will have minimal impact to the South Campus Drive / 1800 East intersection and adjacent roadways in the study area. Intersection LOS is shown in Table 3.

During the peak five to ten minutes of the p.m. peak (approx. 6:00 to 6:10 p.m.) of the CDT program, about 120-foot queues occur in both directions (eastbound left-turn and westbound right-turn) on the Business Loop directly adjacent to the proposed access location.

Chart 3. Southbound exiting right turn queue.

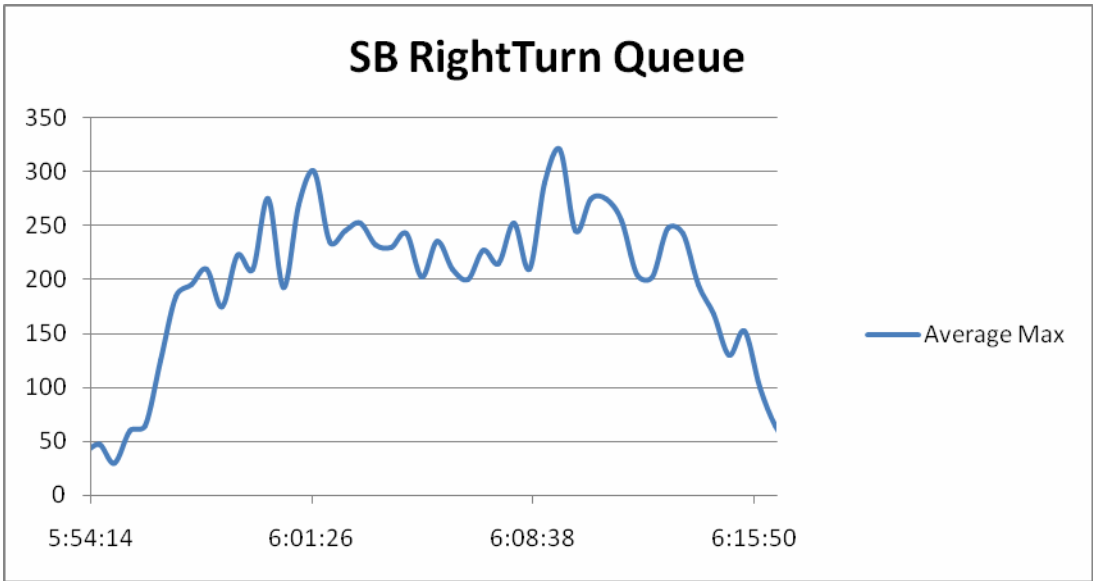


Chart 4. Eastbound entering left turn queue

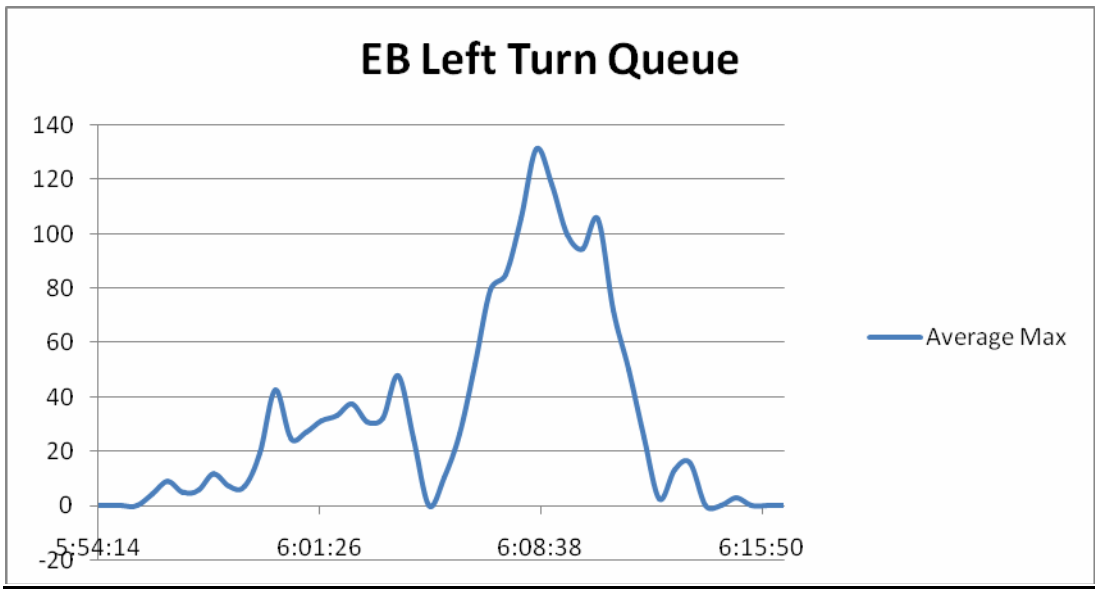


Chart 5. Westbound entering right turn queue

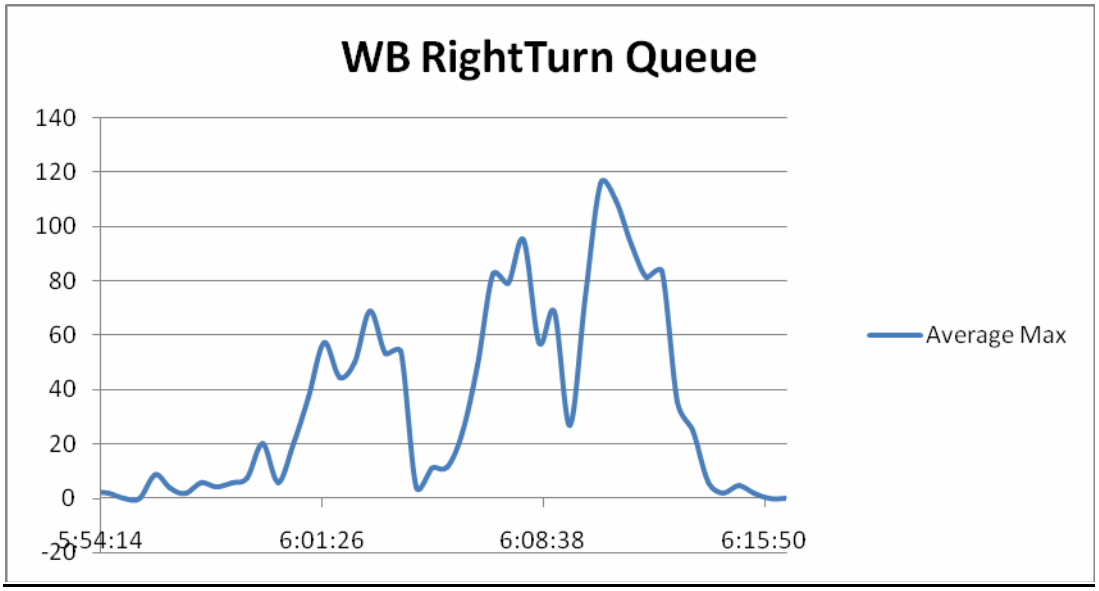


TABLE 3 EXISTING PLUS SAEB PM PEAK HOUR LEVEL OF SERVICE							
Intersection			**Worst Approach[1]**			**Overall Intersection**	
ID	**Location**	**Control**	**Approach**	**Delay (Sec/Veh)**	**LOS**	**Avg. Delay (Sec/Veh)[2]**	**LOS**
1	South Campus Drive / 1800 East	Signalized				8.4	A

1. This generally represents the worst approach LOS and delay (seconds/vehicle) and is only reported for unsignalized intersections.
2. This represents the overall intersection LOS and delay (seconds/vehicle).

Source: Fehr & Peers, February 2010.

Figure 2 shows a screen capture of the SAEB driveway from traffic simulation model. This figure shows the queues that occur on the Business Loop and on the SAEB driveway. As shown in Figure 2, the traffic analysis incorporated short-term parallel parking and angled parking near the entrance to the SAEB for the pick-up and drop-off of the VTD students. The traffic conditions shown in Figure 2 are occurring approximately at 6:05 p.m.

Figure 2. Screen Capture of SAEB Driveway and Business Loop

Potential Mitigations

Although the pick-up / drop-off area is expected to operate with relatively minor impacts to the Business Loop road for a short five to ten minute duration in the p.m. peak; to ensure good operations in this area the following mitigation measures could be considered:

- To improve the mobility of "through" traffic on the Business Loop during the SAEB p.m. peak, an eastbound left-turn and westbound right-turn storage lane could be constructed on the Business Loop road.
- Stagger the CDT class schedules to distribute the peak pick-up demand.
- Segregate the pick-up and drop-off areas (i.e. airport operations).

Conclusion

Overall, there is expected to be minimal impacts to South Campus Drive / 1800 East and the Business Loop road with the addition of the projected SAEB traffic. With the completion of the SAEB, there is projected to be around 105 pick-up / drop-off vehicles in the p.m. peak hour. Implementing the proposed mitigations will minimize delay and queue length associated with the new project access.

APPENDIX

Traffic Counts

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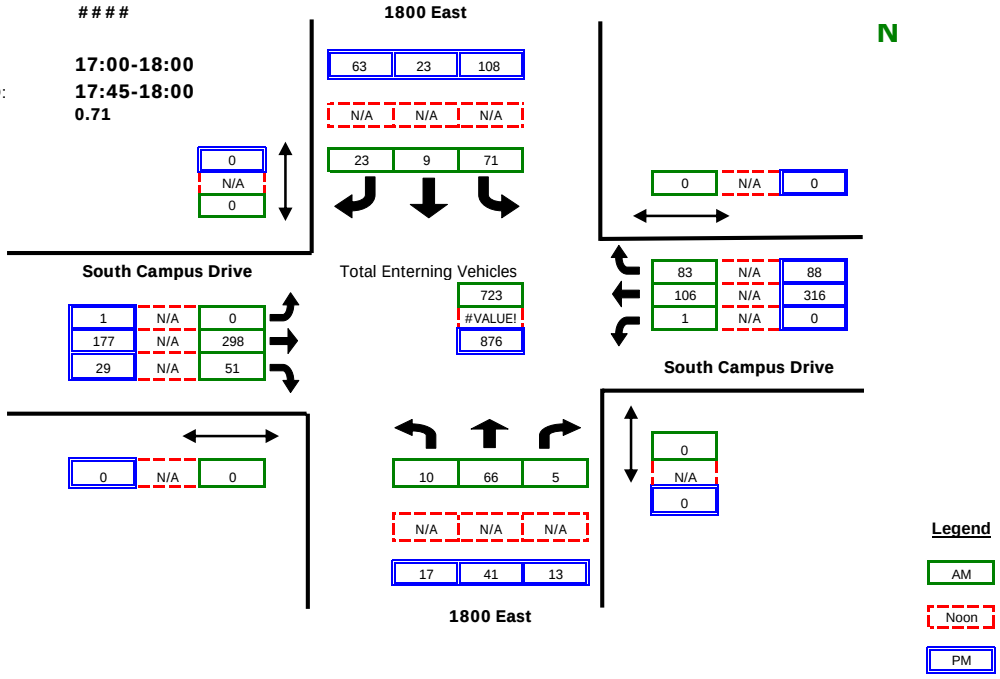
Intersection Turning Movement Summary

Intersection:	**S. Campus Dr. / 1800 E.**	**Date:**	**3-27-07, Tue**
	North/South: 1800 East	**Day of Week Adjustment:**	**100.4%**
	East/West: South Campus Drive	**Month of Year Adjustment:**	**100.2%**
Jurisdiction:	**SLC**	**Adjustment Station #:**	**332**
Project Title:		**Growth Rate:**	**0.0%**
Project No:	**07-744**	**Number of Years:**	**0**
Weather:			

AM PEAK HOUR PERIOD: **7:30-8:30**
AM PEAK 15 MINUTE PERIOD: **8:45-9:00**
AM PHF: **0.83**

NOON PEAK HOUR PERIOD:
NOON PEAK 15 MINUTE PERIOD:
NOON PHF: **####**

PM PEAK HOUR PERIOD: **17:00-18:00**
PM PEAK 15 MINUTE PERIOD: **17:45-18:00**
PM PHF: **0.71**



RAW COUNT SUMMARIES	1800 East Northbound				1800 East Southbound				South Campus Drive Eastbound				South Campus Drive Westbound			
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds

AM PERIOD COUNTS

Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
7:00-7:15	4	23	1	0	30	2	26	0	0	30	4	0	0	23	32	0	175
7:15-7:30	6	35	2	0	16	1	6	0	1	51	11	0	1	34	48	0	212
7:30-7:45	0	19	1	0	23	3	6	0	0	50	13	0	1	20	24	0	160
7:45-8:00	4	17	0	0	16	2	7	0	0	80	10	0	0	18	19	0	173
8:00-8:15	3	15	2	0	18	3	5	0	0	79	14	0	0	31	24	0	194
8:15-8:30	3	15	2	0	14	1	5	0	0	89	14	0	0	37	16	0	196
8:30-8:45	2	14	2	0	20	0	8	0	0	61	13	0	0	40	18	0	178
8:45-9:00	3	13	4	0	31	6	19	0	0	83	9	0	0	32	18	0	218

NOON PERIOD COUNTS

Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
11:00-11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15-11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30-11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45-12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00-12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15-12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30-12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45-13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

PM PERIOD COUNTS

Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
16:00-16:15	10	5	5	0	26	12	15	0	2	43	2	0	0	73	33	0	226
16:15-16:30	9	7	2	0	28	3	11	0	0	39	12	0	0	65	43	0	219
16:30-16:45	3	5	4	0	25	4	13	0	0	52	4	0	0	78	23	0	211
16:45-17:00	2	2	4	0	32	1	11	0	0	45	7	0	0	62	25	0	191
17:00-17:15	3	4	2	0	30	7	17	0	0	40	3	0	0	81	20	0	207
17:15-17:30	6	3	3	0	21	3	18	0	0	40	4	0	0	95	20	0	213
17:30-17:45	4	11	6	0	15	4	15	0	1	57	6	0	0	72	48	0	239
17:45-18:00	4	23	3	0	26	9	13	0	0	52	16	0	0	85	58	0	289

Detailed Level of Service Reports

VISSIM Post-Processor **Sorenson Arts Center**
Average Results from 10 Runs **Existing**
Volume and Delay by Movement **PM Peak Hour**

Intersection 1 **1800 East/So Campus Drive** **Signalized**

		Demand	Volume Served		Total Delay (sec/veh)		
Direction	**Movement**	**Vol. (vph)**	**Avg. (vph)**	**%**	**Average**	**Std. Dev.**	**LOS**
NB	Left Turn	16	20	124.4%	6.4	3.5	A
	Through	40	49	121.3%	10.3	2.8	B
	Right Turn	12	15	128.3%	5.8	2.2	A
	Subtotal	**68**	**84**	**123.2%**	**8.7**	**1.7**	**A**
SB	Left Turn	108	109	101.2%	13.1	3.2	B
	Through	24	21	89.2%	4.3	4.6	A
	Right Turn	64	65	101.1%	5.1	1.4	A
	Subtotal	**196**	**195**	**99.7%**	**9.6**	**2.8**	**A**
EB	Left Turn						
	Through	180	178	98.7%	6.2	1.0	A
	Right Turn	28	32	113.2%	4.1	1.8	A
	Subtotal	**208**	**209**	**100.7%**	**5.9**	**1.1**	**A**
WB	Left Turn						
	Through	316	315	99.6%	7.2	1.2	A
	Right Turn	88	94	106.6%	6.6	1.6	A
	Subtotal	**404**	**408**	**101.1%**	**7.1**	**1.0**	**A**
Total		**876**	**897**	**102.4%**	**7.5**	**1.0**	**A**

VISSIM Post-Processor **Sorenson Arts Center**
Average Results from 10 Runs **Existing + Project**
Volume and Delay by Movement **PM Peak Hour**

Intersection 1 **1800 East/So Campus Drive** **Signalized**

		Demand	Volume Served		Total Delay (sec/veh)		
Direction	**Movement**	**Vol. (vph)**	**Avg. (vph)**	**%**	**Average**	**Std. Dev.**	**LOS**
NB	Left Turn	24	22	90.8%	11.5	5.7	B
	Through	44	59	134.8%	13.9	2.3	B
	Right Turn	16	14	86.9%	5.0	2.0	A
	Subtotal	**84**	**95**	**113.1%**	**12.4**	**1.6**	**B**
SB	Left Turn	116	115	98.9%	17.0	2.9	B
	Through	24	23	94.2%	5.8	4.2	A
	Right Turn	60	59	98.7%	6.2	1.2	A
	Subtotal	**200**	**197**	**98.3%**	**12.5**	**1.9**	**B**
EB	Left Turn						
	Through	328	326	99.4%	9.5	0.7	A
	Right Turn	44	43	97.5%	6.1	1.3	A
	Subtotal	**372**	**369**	**99.2%**	**9.1**	**0.7**	**A**
WB	Left Turn						
	Through	320	319	99.8%	6.3	1.6	A
	Right Turn	220	218	98.9%	6.0	0.7	A
	Subtotal	**540**	**537**	**99.4%**	**6.2**	**1.0**	**A**
Total		**1196**	**1197**	**100.1%**	**8.4**	**0.6**	**A**

Virginia Tanner Dance Data Collection Memo

FEHR & PEERS
TRANSPORTATION CONSULTANTS

Sorenson Arts & Education Building

TECHNICAL MEMORANDUM

To: Kathy Wheadon, LEED AP, CRSA

Roger Hansen, CRSA

Date: December 10, 2009

From: Preston Stinger, Fehr & Peers

Subject: Virginia Tanner Dance Data Collection UT09-835

The purpose of this memorandum is to discuss the observations and collected data from the Virginia Tanner Dance (VTD) facility.

Observation and data was collected for two separate programs including Children's Dance Theatre (CDT) and Fine Arts Preschool (FAP).

Children Dance Theatre

The CDT program was observed on Monday December 7, 2009 from 5:45 to 6:15 p.m. This time was chosen, in coordination with VTD staff, to account for both the pick-up and drop-off of the students resulting in the typical "worst" case scenario (not including special events). The results of the data collection are explained below.

Total Vehicles
Total number of vehicles entering and exiting the site was:

Entering: **60**
Exiting: **61**

Occupancy and Parking
The occupancy of each vehicle was also counted. The occupancy was based on the number of students per vehicle and does not include the driver or other passengers. The average student occupancy of those vehicles picking-up and dropping-off was **two (2)**. The occupancy ranged from one to five students.

Approximately **33%** (20 vehicles) of the vehicles parked short-term to pick-up or drop-off. The remaining **67%** (approximately 40 vehicles) used the drive-thru lane to pick-up and drop-off.

Queue Lengths
The average queue length was approximately **150 feet** (or six vehicles). The range of queue lengths was approximately 100 feet to 200 feet (or four to eight vehicles).

Dwell Time
The average dwell time of the vehicles was as follows:

Pick-up: **4.3 minutes** (ranged from 10 seconds to 13 minutes)
Drop-off: **21 seconds** (ranged from three to 30 seconds)

Additional Observations
The vehicles picking-up had a tendency to park in the drive-thru lane for an extended period of time, thus not allowing the vehicles dropping-off to do so in the designated lane. Because of this, the vehicles dropping-off tended to pull up along side the designated lane (where the vehicles picking-up were parked) and their kids off there. This issue shows the need to have a separate lane or designated areas for both the pick-up and drop-off. It should be noted that this is an issue only when sessions are ending and starting at the same time, thus resulting in the pick-up and drop-off coinciding.

Due to the geometry and layout of the current access road to the VTD facility, there are a couple choke points that inhibit the flow of traffic (especially exiting vehicles). This causes additional delay that could potentially be mitigated with a new site location.

<u>Fine Arts Preschool</u>

The FAP program was observed on Wednesday December 9, 2009 from 11:45 a.m. to 12:15 p.m. This time was chosen, in coordination with VTD staff, to account for the pick-up of the students resulting in the typical “worst” case scenario (not including special events) for the FAP. It should be noted that due to the data being collected on this week (last week of University of Utah classes) the counts could be slightly lower. The results of the data collection are explained below.

Total Vehicles
Total number of vehicles entering and exiting the site was:

Entering: **35**
Exiting: **35**

Occupancy and Parking
The occupancy of each vehicle was also counted. The occupancy was based on the number of students per vehicle and does not include the driver or other passengers. The average student occupancy of those vehicles picking-up was **one (1)**. The occupancy ranged from one to three students.

Only two vehicles parked short-term to pick-up students.

Queue Lengths
The average queue length was approximately **75 feet** (or three vehicles). The range of queue lengths was approximately 25 feet to 125 feet (or one to five vehicles).

Dwell Time

The average dwell time of the vehicles was as follows:

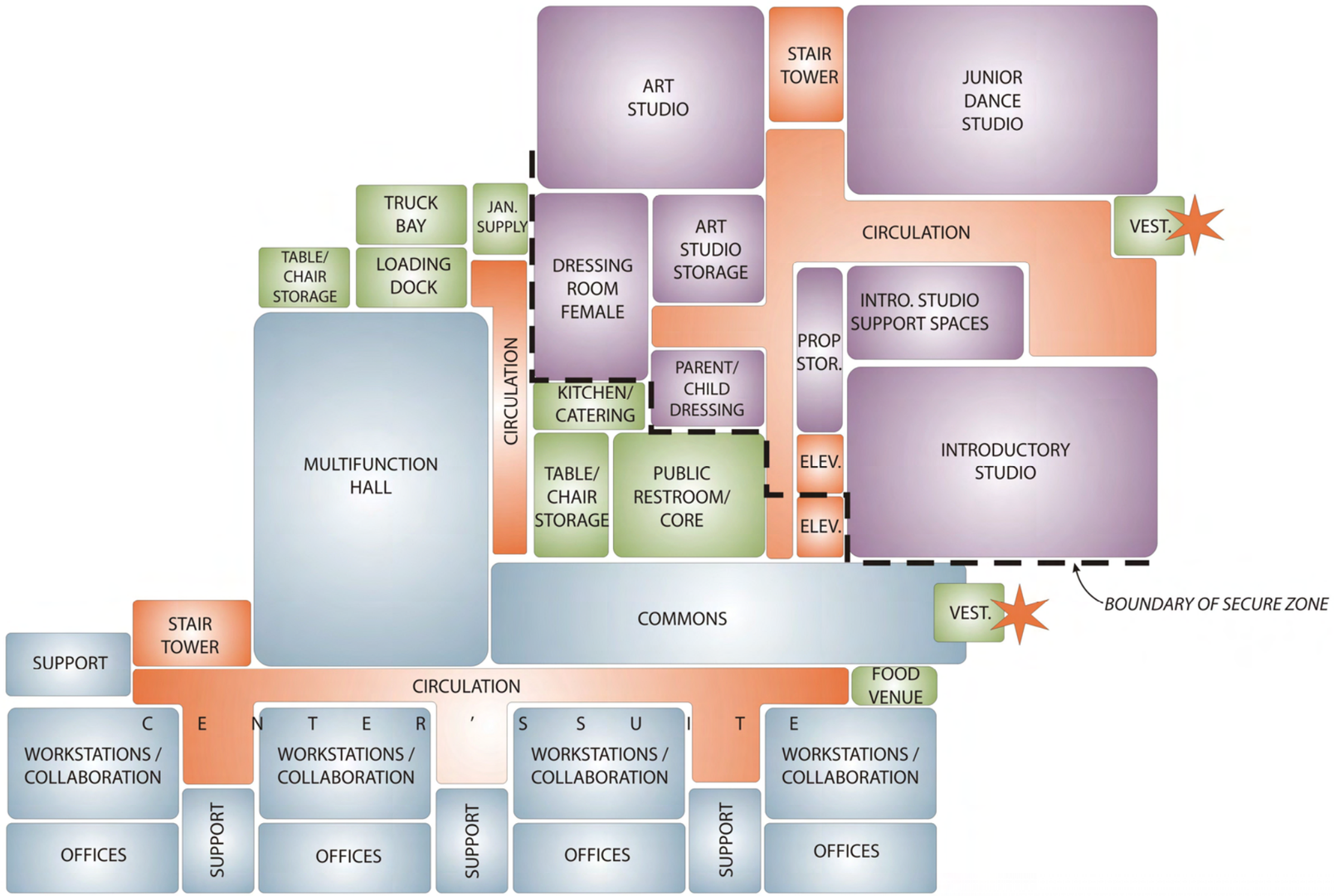
Pick-up: **3.8 minutes** (ranged from two to six minutes)

Additional Observations

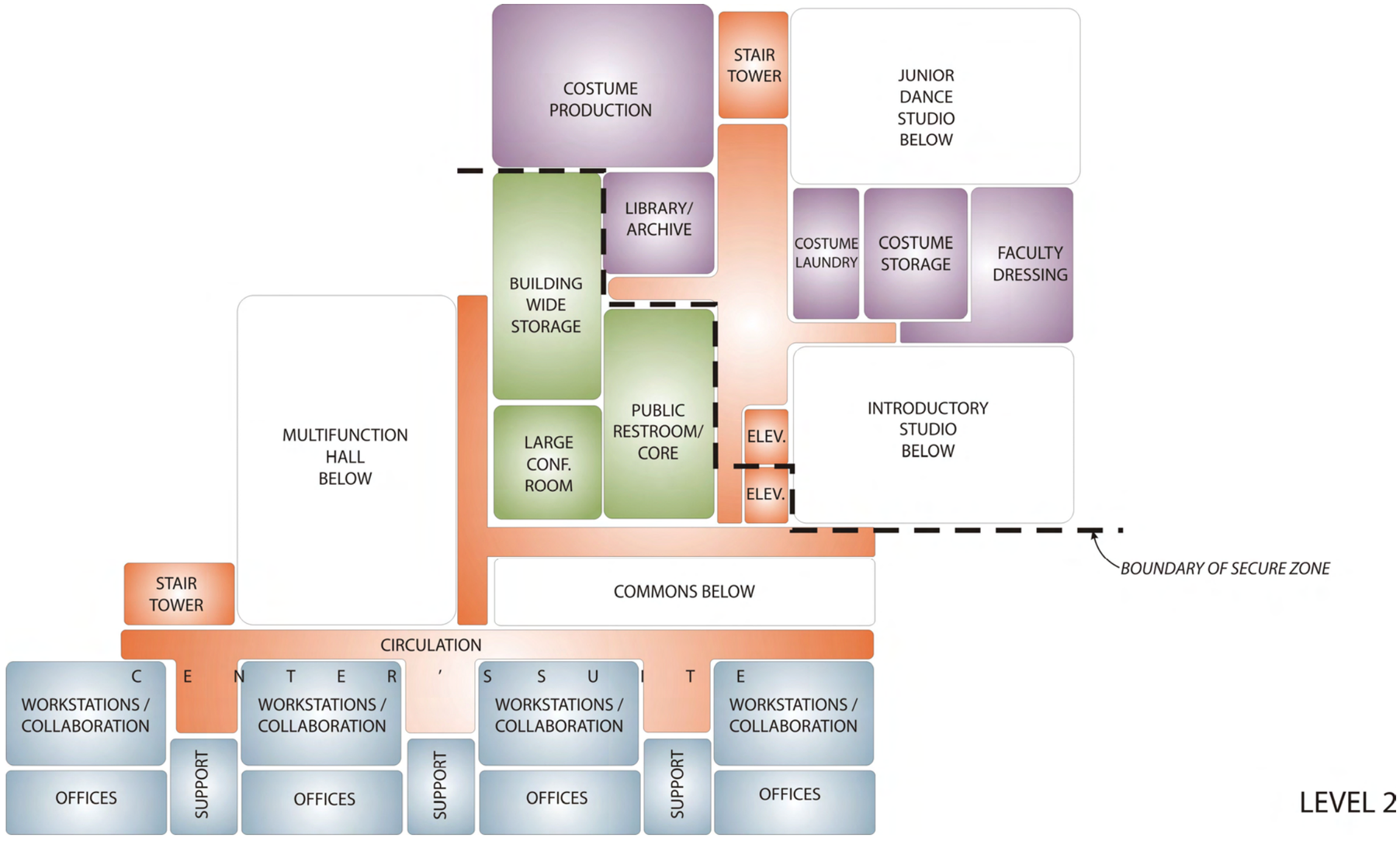
The FAP program has a very well organized system for getting the students to their respective vehicles as they arrive. The system the FAP has implemented keeps the dwell time lower and the queue lengths shorter for the vehicles picking-up.

Appendix I – Additional Stacking & Zoning Diagrams

BTSAEC – Alternate Block & Stack

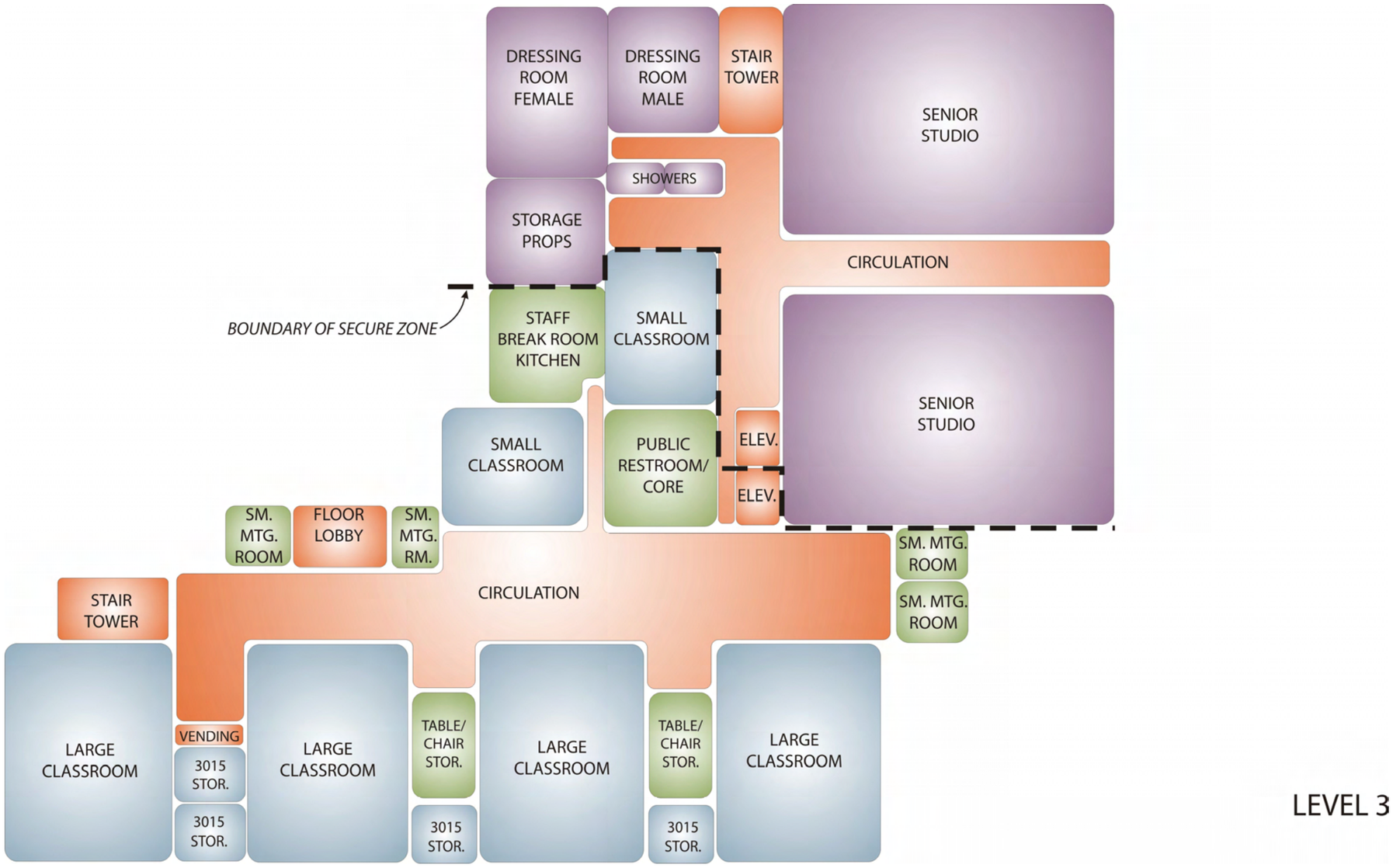


LEVEL 1


COSTUME PRODUCTION
STAIR TOWER
JUNIOR DANCE STUDIO BELOW
LIBRARY/ ARCHIVE
COSTUME LAUNDRY
COSTUME STORAGE
FACULTY DRESSING
BUILDING WIDE STORAGE
MULTIFUNCTION HALL BELOW
PUBLIC RESTROOM/ CORE
LARGE CONF. ROOM
ELEV.
ELEV.
INTRODUCTORY STUDIO BELOW
BOUNDARY OF SECURE ZONE
STAIR TOWER
COMMONS BELOW
CIRCULATION
CENTER'S SUITE
WORKSTATIONS / COLLABORATION
WORKSTATIONS / COLLABORATION
WORKSTATIONS / COLLABORATION
WORKSTATIONS / COLLABORATION
OFFICES
SUPPORT
OFFICES
SUPPORT
OFFICES
SUPPORT
OFFICES

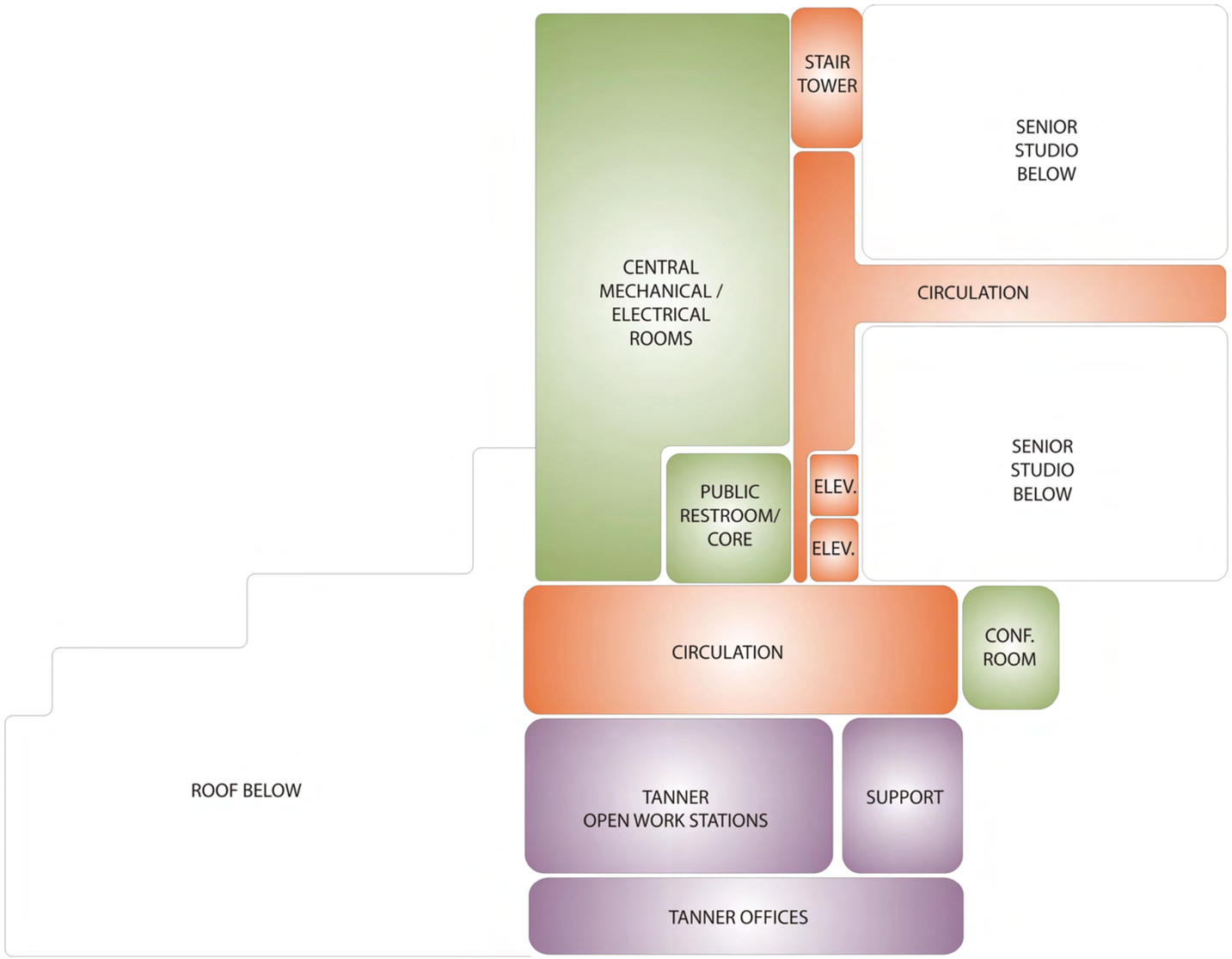
LEVEL 2

BTSAEC – Alternate Block & Stack



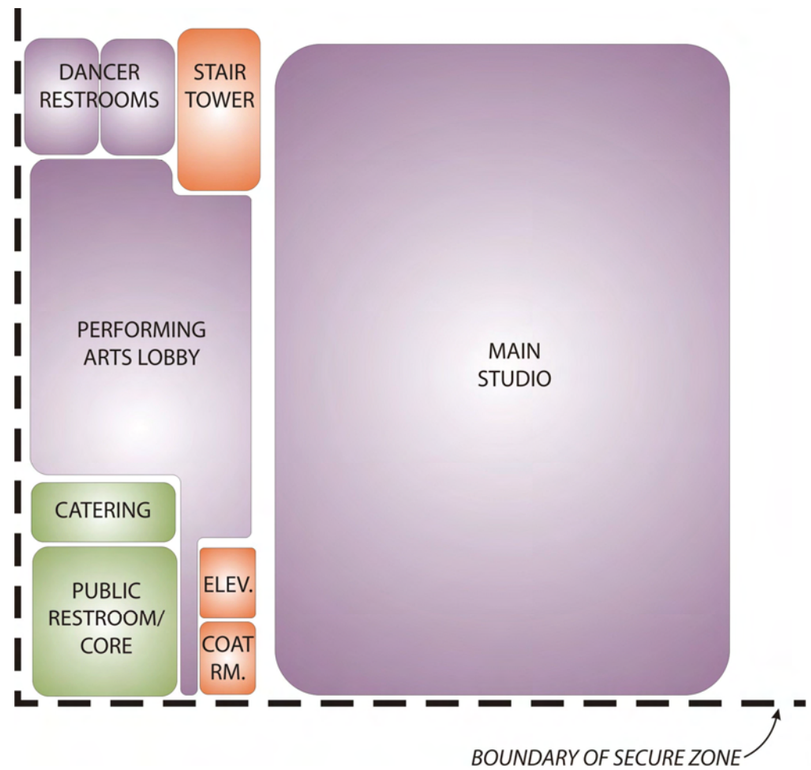
LEVEL 3

BTSAEC – Alternate Block & Stack



LEVEL 4

BTSAEC – Alternate Block & Stack



LEVEL 5

Appendix J – Preliminary Code Review

CRSA
649 E. South Temple
Salt Lake City, Utah 84102
801-355-5915
Project Description: B09-024 Beverley Taylor Sorenson Arts and Education Complex Date: Monday, 28 Jun 2010
Project Location: University of Utah
Construction by: Architect: CRSA Engineer:
Code Study by: Roger Hansen

This code study is based on the 2009 International Building Code by ICC using Plan Analyst software.

BASIC BUILDING DESCRIPTION:
Type of Construction = IB
Building has an NFPA13 sprinkler system. System is used for allowable area(506.3) and height (504.2)
Allowable area and height based on different uses not being separated by fire barriers. Most restrictive allowance. (508.3.2)

ADDRESS IDENTIFICATION:
Buildings shall be provided with approved address numbers or letters. Each character shall be a minimum 4 inches high and a minimum 0.5 inch wide. They shall be installed on a contrasting background and be plainly visible from the street or road.
When the building address cannot be viewed from the public way, a monument, pole or other approved sign shall be used to identify the structure. (501.2)
SITE DESCRIPTION:
The north side has an imaginary line between two buildings.(705.3) Distance to building = 25.0 ,the imaginary line = 12.0
The east side has an imaginary line between two buildings.(705.3) Distance to building = 25.0 ,the imaginary line = 12.0
The south side has a public way. (702.1) Distance to public way = 20.0 ,width = 60.0
The west side has a public way. (702.1) Distance to public way = 20.0 ,width = 40.0
Perimeter of the entire building = 640.0 feet.
Perimeter which fronts a public way or accessible open space = 320.0 feet.
Minimum width of public way or accessible open space = 40.0 feet.
Allowable area increased 25% due to frontage. - Section 506.2

HEIGHT OF BUILDING:
Actual height of building = 90 Allowed building height = 180 The height is within the allowed height. (504.1 and Table 503)

BUILDING INTERIOR:
AREAS ON THE 5th FLOOR
Main Studio: Occupancy Group = A1 Actual floor area = 7,540.0 Allowed floor area = 156,000.0
Ratio = .05 (Table 503 and 506)
Number of occupants = 260.0 Based on fixed seating. (1004.7)
Minimum number of exits = 2 (1015.1)
The maximum occupant load of this area is required to be posted on an approved sign at 260 occupants in a conspicuous place near the main exit or exit access doorway. (1004.3)
Minimum exit width = 52.0 inches. (1005.1)
Common path of egress travel = 50.0 feet (1014.3 and 1015.1)
The maximum length of exit access is 250 feet. (Table 1016.1) Actual travel distance not entered.
Egress doors shall be of the pivoted or side-hinged swinging type. (1008.1.2)
Egress doors shall swing in the direction of egress travel. (1008.1.2)
Exception 5: Revolving doors complying with Section 1008.1.4.1

Exception 6: Horizontal sliding doors complying with Section 1008.1.4.3
Exception 7: Power-operated doors complying with Section 1008.1.4.2
Exception 9: Manually operated horizontal sliding doors are permitted from spaces with an occupant load of 10 or less.
Exits and exit access doors shall be marked by an approved exit sign readily visible from any direction of egress travel. (1011.1)
Means of egress doors from this area require panic hardware or fire exit hardware. (1008.1.10)
There is no corridor in this area.
Minimum number of pluming fixtures: (2902.1)
Water closets: Male = 2 Female = 2 Lavatories: Male = 1 Female = 1 Drinking fountains = 1

Performing Arts Lobby: Occupancy Group = A3 Actual floor area = 1,200.0 Allowed floor area = 156,000.0 Ratio = .01 (Table 503 and 506)
Number of occupants = 240.0 Based on 5 square feet per occupant. (1004.1.1)
Minimum number of exits = 2 (1015.1)
The maximum occupant load of this area is required to be posted on an approved sign at 240 occupants in a conspicuous place near the main exit or exit access doorway. (1004.3)
Minimum exit width = 48.0 inches. (1005.1)
Common path of egress travel = 20.0 feet (1014.3 and 1015.1)
The maximum length of exit access is 250 feet. (Table 1016.1) Actual travel distance not entered.
Egress doors shall be of the pivoted or side-hinged swinging type. (1008.1.2)
Egress doors shall swing in the direction of egress travel. (1008.1.2)
Exception 5: Revolving doors complying with Section 1008.1.4.1
Exception 6: Horizontal sliding doors complying with Section 1008.1.4.3
Exception 7: Power-operated doors complying with Section 1008.1.4.2
Exception 9: Manually operated horizontal sliding doors are permitted from spaces with an occupant load of 10 or less.
Exits and exit access doors shall be marked by an approved exit sign readily visible from any direction of egress travel. (1011.1)
Means of egress doors from this area require panic hardware or fire exit hardware. (1008.1.10)
There is no corridor in this area.
Minimum number of pluming fixtures: (2902.1)
Water closets: Male = 1 Female = 2 Lavatories: Male = 1 Female = 1 Drinking fountains = 1

Kitchen: Occupancy Group = B Actual floor area = 216.0 Allowed floor area = 156,000.0 Ratio = .00 (Table 503 and 506)
Number of occupants = 1.1 Based on 200 square feet per occupant. (1004.1.1)
Minimum number of exits = 1 (1015.1)
Minimum exit width = .2 inches. (1005.1)
Common path of egress travel = 20.0 feet (1014.3 and 1015.1)
The maximum length of exit access is 300 feet. (Table 1016.1) Actual travel distance not entered.
Egress doors shall be of the pivoted or side-hinged swinging type. (1008.1.2)
Egress doors may swing in either direction. (1008.1.2)
Exception 5: Revolving doors complying with Section 1008.1.4.1
Exception 6: Horizontal sliding doors complying with Section 1008.1.4.3
Exception 7: Power-operated doors complying with Section 1008.1.4.2
Exception 9: Manually operated horizontal sliding doors are permitted from spaces with an occupant load of 10 or less.
Exits and exit access doors are not required to be marked by an exit sign. (1011.1)
There is no corridor in this area.
Minimum number of pluming fixtures: (2902.1)
Water closets: Male = 1 Female = 1 Lavatories: Male = 1 Female = 1 Drinking fountains = 1

Storage area: Occupancy Group = S2 Actual floor area = 528.0 Allowed floor area = 156,000.0 Ratio = .00 (Table 503 and 506)

Number of occupants = 1.8 Based on 300 square feet per occupant. (1004.1.1)
Minimum number of exits = 1 (1015.1)
Minimum exit width = .4 inches. (1005.1)
Common path of egress travel = 20.0 feet (1014.3 and 1015.1)
The maximum length of exit access is 400 feet. (Table 1016.1) Actual travel distance not entered.
Egress doors shall be of the pivoted or side-hinged swinging type. (1008.1.2)
Egress doors may swing in either direction. (1008.1.2)
Exception 5: Revolving doors complying with Section 1008.1.4.1
Exception 6: Horizontal sliding doors complying with Section 1008.1.4.3
Exception 7: Power-operated doors complying with Section 1008.1.4.2
Exits and exit access doors are not required to be marked by an exit sign. (1011.1)
There is no corridor in this area.
Minimum number of pluming fixtures: (2902.1)
Water closets: Male = 1 Female = 1 Lavatories: Male = 1 Female = 1 Drinking fountains = 1

Circulation: Occupancy Group = B Actual floor area = 1,218.0 Allowed floor area = 156,000.0 Ratio = .01 (Table 503 and 506)
This area is an unoccupied accessory area. Occupant load not included in totals. (Floor area, net - 1002)
Number of occupants = 4.1 Based on 300 square feet per occupant. (1004.1.1)
Minimum number of exits = 1 (1015.1)
Minimum exit width = .8 inches. (1005.1)
Common path of egress travel = .0 feet (1014.3 and 1015.1)
The maximum length of exit access is 300 feet. (Table 1016.1) Actual travel distance not entered.
Egress doors shall be of the pivoted or side-hinged swinging type. (1008.1.2)
Egress doors may swing in either direction. (1008.1.2)
Exception 5: Revolving doors complying with Section 1008.1.4.1
Exception 6: Horizontal sliding doors complying with Section 1008.1.4.3
Exception 7: Power-operated doors complying with Section 1008.1.4.2
Exception 9: Manually operated horizontal sliding doors are permitted from spaces with an occupant load of 10 or less.
Exits and exit access doors are not required to be marked by an exit sign. (1011.1)
There is no corridor in this area.
Minimum number of pluming fixtures: (2902.1)
Water closets: Male = 1 Female = 1 Lavatories: Male = 1 Female = 1 Drinking fountains = 1

5th FLOOR RESULTS:
Area on this floor =10,702.0 Floor allowed area = 156,000.0 Floor ratio = .07 (506)
Number of occupants = 502.8
Minimum number of exits = 3 (Table 1021.1)
Minimum door exit width = 100.6 inches. (1005.1) Minimum stair exit width = 150.9 inches. (1005.1)
Common path of egress travel = 25.0 feet.
The maximum length of exit access travel is 250.0 feet. (Table 1016.1) Actual egress travel = 50.0
Travel distance is ok.
Egress doors shall swing in the direction of egress travel. (1008.1.2)
Exits and exit access doors are not required to be marked by an exit sign. (1011.1)
Means of egress doors from this floor require panic hardware or fire exit hardware. (1008.1.10)
There is no corridor in this area.
Minimum number of pluming fixtures: (2902.1)
When providing fixtures for the entire floor, use these numbers. When areas have their own fixtures, use number of fixtures listed per area.
Water closets: Male = 3 Female = 4 Lavatories: Male = 2 Female = 2 Drinking fountains = 2

AREAS ON THE 4th FLOOR
Mechanical equipment room: Occupancy Group = B Actual floor area = 6,648.0 Allowed floor area =

156,000.0 Ratio = .04 (Table 503 and 506)
Number of occupants = 22.2 Based on 300 square feet per occupant. (1004.1.1)
Minimum number of exits = 1 (1015.1)
Minimum exit width = 4.4 inches. (1005.1)
Common path of egress travel = 50.0 feet (1014.3 and 1015.1)
The maximum length of exit access is 300 feet. (Table 1016.1) Actual travel distance not entered.
Egress doors shall be of the pivoted or side-hinged swinging type. (1008.1.2)
Egress doors may swing in either direction. (1008.1.2)
Exception 5: Revolving doors complying with Section 1008.1.4.1
Exception 6: Horizontal sliding doors complying with Section 1008.1.4.3
Exception 7: Power-operated doors complying with Section 1008.1.4.2
Exception 9: Manually operated horizontal sliding doors are permitted from spaces with an occupant load of 10 or less.
Exits and exit access doors are not required to be marked by an exit sign. (1011.1)
There is no corridor in this area.
Minimum number of pluming fixtures: (2902.1)
Water closets: Male = 1 Female = 1 Lavatories: Male = 1 Female = 1 Drinking fountains = 1

Circulation: Occupancy Group = B Actual floor area = 1,218.0 Allowed floor area = 156,000.0 Ratio = .01 (Table 503 and 506)
This area is an unoccupied accessory area. Occupant load not included in totals. (Floor area, net - 1002)
Number of occupants = 4.1 Based on 300 square feet per occupant. (1004.1.1)
Minimum number of exits = 1 (1015.1)
Minimum exit width = .8 inches. (1005.1)
Common path of egress travel = .0 feet (1014.3 and 1015.1)
The maximum length of exit access is 300 feet. (Table 1016.1) Actual travel distance not entered.
Egress doors shall be of the pivoted or side-hinged swinging type. (1008.1.2)
Egress doors may swing in either direction. (1008.1.2)
Exception 5: Revolving doors complying with Section 1008.1.4.1
Exception 6: Horizontal sliding doors complying with Section 1008.1.4.3
Exception 7: Power-operated doors complying with Section 1008.1.4.2
Exception 9: Manually operated horizontal sliding doors are permitted from spaces with an occupant load of 10 or less.
Exits and exit access doors are not required to be marked by an exit sign. (1011.1)
There is no corridor in this area.
Minimum number of pluming fixtures: (2902.1)
Water closets: Male = 1 Female = 1 Lavatories: Male = 1 Female = 1 Drinking fountains = 1

4th FLOOR RESULTS:
Area on this floor =7,866.0 Floor allowed area = 156,000.0 Floor ratio = .05 (506)
Number of occupants = 107.5
Minimum number of exits = 2 (Table 1021.1) Minimum number of exits to maintain exits from floor above = 3 (1021.1.1)
Minimum door exit width = 21.5 inches. (1005.1) Minimum stair exit width = 32.3 inches. (1005.1)
Minimum exit width to maintain exit width from floor above = 150.9 inches. (1005.1)
Common path of egress travel = 25.0 feet.
The maximum length of exit access travel is 300.0 feet. (Table 1016.1) Actual egress travel = 50.0
Travel distance is ok.
Egress doors shall swing in the direction of egress travel. (1008.1.2)
Exits and exit access doors are not required to be marked by an exit sign. (1011.1)
There is no corridor in this area.
Minimum number of pluming fixtures: (2902.1)
When providing fixtures for the entire floor, use these numbers. When areas have their own fixtures, use number of fixtures listed per area.

Water closets: Male = 1 Female = 1 Lavatories: Male = 1 Female = 1 Drinking fountains = 1

AREAS ON THE 3rd FLOOR
Studio: Occupancy Group = B Actual floor area = 6,240.0 Allowed floor area = 156,000.0 Ratio = .04 (Table 503 and 506)
Number of occupants = 124.8 Based on 50 square feet per occupant. (1004.1.1)
Minimum number of exits = 2 (1015.1)
Minimum exit width = 25.0 inches. (1005.1)
Common path of egress travel = 50.0 feet (1014.3 and 1015.1)
The maximum length of exit access is 300 feet. (Table 1016.1) Actual travel distance not entered.
Egress doors shall be of the pivoted or side-hinged swinging type. (1008.1.2)
Egress doors shall swing in the direction of egress travel. (1008.1.2)
Exception 5: Revolving doors complying with Section 1008.1.4.1
Exception 6: Horizontal sliding doors complying with Section 1008.1.4.3
Exception 7: Power-operated doors complying with Section 1008.1.4.2
Exception 9: Manually operated horizontal sliding doors are permitted from spaces with an occupant load of 10 or less.
Exits and exit access doors shall be marked by an approved exit sign readily visible from any direction of egress travel. (1011.1)
There is no corridor in this area.
Minimum number of pluming fixtures: (2902.1)
Water closets: Male = 2 Female = 2 Lavatories: Male = 2 Female = 2 Drinking fountains = 2

Classroom: Occupancy Group = E Actual floor area = 8,112.0 Allowed floor area = 156,000.0 Ratio = .05 (Table 503 and 506)
Number of occupants = 405.6 Based on 20 square feet per occupant. (1004.1.1)
Minimum number of exits = 2 (1015.1)
Minimum exit width = 81.1 inches. (1005.1)
Common path of egress travel = 50.0 feet (1014.3 and 1015.1)
The maximum length of exit access is 250 feet. (Table 1016.1) Actual travel distance not entered.
Egress doors shall be of the pivoted or side-hinged swinging type. (1008.1.2)
Egress doors shall swing in the direction of egress travel. (1008.1.2)
Exception 5: Revolving doors complying with Section 1008.1.4.1
Exception 6: Horizontal sliding doors complying with Section 1008.1.4.3
Exception 7: Power-operated doors complying with Section 1008.1.4.2
Exception 9: Manually operated horizontal sliding doors are permitted from spaces with an occupant load of 10 or less.
Exits and exit access doors shall be marked by an approved exit sign readily visible from any direction of egress travel. (1011.1)
Means of egress doors from this area require panic hardware or fire exit hardware. (1008.1.10)
There is no corridor in this area.
Minimum number of pluming fixtures: (2902.1)
Water closets: Male = 5 Female = 5 Lavatories: Male = 5 Female = 5 Drinking fountains = 5

Storage area: Occupancy Group = S2 Actual floor area = 912.0 Allowed floor area = 156,000.0 Ratio = .01 (Table 503 and 506)
Number of occupants = 3.0 Based on 300 square feet per occupant. (1004.1.1)
Minimum number of exits = 1 (1015.1)
Minimum exit width = .6 inches. (1005.1)
Common path of egress travel = 20.0 feet (1014.3 and 1015.1)
The maximum length of exit access is 400 feet. (Table 1016.1) Actual travel distance not entered.
Egress doors shall be of the pivoted or side-hinged swinging type. (1008.1.2)
Egress doors may swing in either direction. (1008.1.2)
Exception 5: Revolving doors complying with Section 1008.1.4.1
Exception 6: Horizontal sliding doors complying with Section 1008.1.4.3

Exception 7: Power-operated doors complying with Section 1008.1.4.2
Exits and exit access doors are not required to be marked by an exit sign. (1011.1)
There is no corridor in this area.
Minimum number of pluming fixtures: (2902.1)
Water closets: Male = 1 Female = 1 Lavatories: Male = 1 Female = 1 Drinking fountains = 1

Dressing & Restroom: Occupancy Group = B Actual floor area = 1,274.0 Allowed floor area = 156,000.0 Ratio = .01 (Table 503 and 506)
This area is an unoccupied accessory area. Occupant load not included in totals. (Floor area, net - 1002)
Number of occupants = 4.2 Based on 300 square feet per occupant. (1004.1.1)
Minimum number of exits = 1 (1015.1)
Minimum exit width = .8 inches. (1005.1)
Common path of egress travel = 50.0 feet (1014.3 and 1015.1)
The maximum length of exit access is 300 feet. (Table 1016.1) Actual travel distance not entered.
Egress doors shall be of the pivoted or side-hinged swinging type. (1008.1.2)
Egress doors may swing in either direction. (1008.1.2)
Exception 5: Revolving doors complying with Section 1008.1.4.1
Exception 6: Horizontal sliding doors complying with Section 1008.1.4.3
Exception 7: Power-operated doors complying with Section 1008.1.4.2
Exception 9: Manually operated horizontal sliding doors are permitted from spaces with an occupant load of 10 or less.
Exits and exit access doors are not required to be marked by an exit sign. (1011.1)
There is no corridor in this area.
Minimum number of pluming fixtures: (2902.1)
Water closets: Male = 1 Female = 1 Lavatories: Male = 1 Female = 1 Drinking fountains = 1

Conference room: Occupancy Group = B Actual floor area = 144.0 Allowed floor area = 156,000.0 Ratio = .00 (Table 503 and 506)
Number of occupants = 9.6 Based on 15 square feet per occupant. (1004.1.1)
Minimum number of exits = 1 (1015.1)
Minimum exit width = 1.9 inches. (1005.1)
Common path of egress travel = 20.0 feet (1014.3 and 1015.1)
The maximum length of exit access is 300 feet. (Table 1016.1) Actual travel distance not entered.
Egress doors shall be of the pivoted or side-hinged swinging type. (1008.1.2)
Egress doors may swing in either direction. (1008.1.2)
Exception 5: Revolving doors complying with Section 1008.1.4.1
Exception 6: Horizontal sliding doors complying with Section 1008.1.4.3
Exception 7: Power-operated doors complying with Section 1008.1.4.2
Exception 9: Manually operated horizontal sliding doors are permitted from spaces with an occupant load of 10 or less.
Exits and exit access doors are not required to be marked by an exit sign. (1011.1)
There is no corridor in this area.
Minimum number of pluming fixtures: (2902.1)
Water closets: Male = 1 Female = 1 Lavatories: Male = 1 Female = 1 Drinking fountains = 1

Office: Occupancy Group = B Actual floor area = 2,268.0 Allowed floor area = 156,000.0 Ratio = .01 (Table 503 and 506)
Number of occupants = 22.7 Based on 100 square feet per occupant. (1004.1.1)
Minimum number of exits = 1 (1015.1)
Minimum exit width = 4.5 inches. (1005.1)
Common path of egress travel = 20.0 feet (1014.3 and 1015.1)
The maximum length of exit access is 300 feet. (Table 1016.1) Actual travel distance not entered.
Egress doors shall be of the pivoted or side-hinged swinging type. (1008.1.2)
Egress doors may swing in either direction. (1008.1.2)

Exception 5: Revolving doors complying with Section 1008.1.4.1
Exception 6: Horizontal sliding doors complying with Section 1008.1.4.3
Exception 7: Power-operated doors complying with Section 1008.1.4.2
Exception 9: Manually operated horizontal sliding doors are permitted from spaces with an occupant load of 10 or less.
Exits and exit access doors are not required to be marked by an exit sign. (1011.1)
There is no corridor in this area.
Minimum number of pluming fixtures: (2902.1)
Water closets: Male = 1 Female = 1 Lavatories: Male = 1 Female = 1 Drinking fountains = 1

Circulation: Occupancy Group = B Actual floor area = 2,437.0 Allowed floor area = 156,000.0 Ratio = .02 (Table 503 and 506)
This area is an unoccupied accessory area. Occupant load not included in totals. (Floor area, net - 1002)
Number of occupants = 8.1 Based on 300 square feet per occupant. (1004.1.1)
Minimum number of exits = 1 (1015.1)
Minimum exit width = 1.6 inches. (1005.1)
Common path of egress travel = .0 feet (1014.3 and 1015.1)
The maximum length of exit access is 300 feet. (Table 1016.1) Actual travel distance not entered.
Egress doors shall be of the pivoted or side-hinged swinging type. (1008.1.2)
Egress doors may swing in either direction. (1008.1.2)
Exception 5: Revolving doors complying with Section 1008.1.4.1
Exception 6: Horizontal sliding doors complying with Section 1008.1.4.3
Exception 7: Power-operated doors complying with Section 1008.1.4.2
Exception 9: Manually operated horizontal sliding doors are permitted from spaces with an occupant load of 10 or less.
Exits and exit access doors are not required to be marked by an exit sign. (1011.1)
There is no corridor in this area.
Minimum number of pluming fixtures: (2902.1)
Water closets: Male = 1 Female = 1 Lavatories: Male = 1 Female = 1 Drinking fountains = 1

3rd FLOOR RESULTS:
Area on this floor =21,387.0 Floor allowed area = 156,000.0 Floor ratio = .14 (506)
Number of occupants = 565.7
Minimum number of exits = 3 (Table 1021.1)
Minimum door exit width = 113.1 inches. (1005.1) Minimum stair exit width = 169.7 inches. (1005.1)
Common path of egress travel = 50.0 feet.
The maximum length of exit access travel is 250.0 feet. (Table 1016.1) Actual egress travel = 75.0
Travel distance is ok.
Egress doors shall swing in the direction of egress travel. (1008.1.2)
Exits and exit access doors are not required to be marked by an exit sign. (1011.1)
Means of egress doors from this floor require panic hardware or fire exit hardware. (1008.1.10)
There is no corridor in this area.
Minimum number of pluming fixtures: (2902.1)
When providing fixtures for the entire floor, use these numbers. When areas have their own fixtures, use number of fixtures listed per area.
Water closets: Male = 6 Female = 6 Lavatories: Male = 6 Female = 6 Drinking fountains = 6

AREAS ON THE 2nd FLOOR
Office: Occupancy Group = B Actual floor area = 5,044.0 Allowed floor area = 156,000.0 Ratio = .03 (Table 503 and 506)
Number of occupants = 50.4 Based on 100 square feet per occupant. (1004.1.1)
Minimum number of exits = 2 (1015.1)
Minimum exit width = 10.1 inches. (1005.1)
Common path of egress travel = 50.0 feet (1014.3 and 1015.1)

The maximum length of exit access is 300 feet. (Table 1016.1) Actual travel distance not entered.
Egress doors shall be of the pivoted or side-hinged swinging type. (1008.1.2)
Egress doors shall swing in the direction of egress travel. (1008.1.2)
Exception 5: Revolving doors complying with Section 1008.1.4.1
Exception 6: Horizontal sliding doors complying with Section 1008.1.4.3
Exception 7: Power-operated doors complying with Section 1008.1.4.2
Exception 9: Manually operated horizontal sliding doors are permitted from spaces with an occupant load of 10 or less.
Exits and exit access doors shall be marked by an approved exit sign readily visible from any direction of egress travel. (1011.1)
There is no corridor in this area.
Minimum number of pluming fixtures: (2902.1)
Water closets: Male = 1 Female = 1 Lavatories: Male = 1 Female = 1 Drinking fountains = 1

Conference room: Occupancy Group = A3 Actual floor area = 1,632.0 Allowed floor area = 156,000.0 Ratio = .01 (Table 503 and 506)
Number of occupants = 108.8 Based on 15 square feet per occupant. (1004.1.1)
Minimum number of exits = 2 (1015.1)
The maximum occupant load of this area is required to be posted on an approved sign at 108.8 occupants in a conspicuous place near the main exit or exit access doorway. (1004.3)
Minimum exit width = 21.8 inches. (1005.1)
Common path of egress travel = 20.0 feet (1014.3 and 1015.1)
The maximum length of exit access is 250 feet. (Table 1016.1) Actual travel distance not entered.
Egress doors shall be of the pivoted or side-hinged swinging type. (1008.1.2)
Egress doors shall swing in the direction of egress travel. (1008.1.2)
Exception 5: Revolving doors complying with Section 1008.1.4.1
Exception 6: Horizontal sliding doors complying with Section 1008.1.4.3
Exception 7: Power-operated doors complying with Section 1008.1.4.2
Exception 9: Manually operated horizontal sliding doors are permitted from spaces with an occupant load of 10 or less.
Exits and exit access doors shall be marked by an approved exit sign readily visible from any direction of egress travel. (1011.1)
Means of egress doors from this area require panic hardware or fire exit hardware. (1008.1.10)
There is no corridor in this area.
Minimum number of pluming fixtures: (2902.1)
Water closets: Male = 1 Female = 1 Lavatories: Male = 1 Female = 1 Drinking fountains = 1

Storage area: Occupancy Group = S1 Actual floor area = 1,752.0 Allowed floor area = 156,000.0 Ratio = .01 (Table 503 and 506)
Number of occupants = 5.8 Based on 300 square feet per occupant. (1004.1.1)
Minimum number of exits = 1 (1015.1)
Minimum exit width = 1.2 inches. (1005.1)
Common path of egress travel = 20.0 feet (1014.3 and 1015.1)
The maximum length of exit access is 250 feet. (Table 1016.1) Actual travel distance not entered.
Egress doors shall be of the pivoted or side-hinged swinging type. (1008.1.2)
Egress doors may swing in either direction. (1008.1.2)
Exception 5: Revolving doors complying with Section 1008.1.4.1
Exception 6: Horizontal sliding doors complying with Section 1008.1.4.3
Exception 7: Power-operated doors complying with Section 1008.1.4.2
Exits and exit access doors are not required to be marked by an exit sign. (1011.1)
There is no corridor in this area.
Minimum number of pluming fixtures: (2902.1)
Water closets: Male = 1 Female = 1 Lavatories: Male = 1 Female = 1 Drinking fountains = 1

Costume Fabrication / Laundry: Occupancy Group = B Actual floor area = 1,800.0 Allowed floor area

= 156,000.0 Ratio = .01 (Table 503 and 506)
Number of occupants = 36.0 Based on 50 square feet per occupant. (1004.1.1)
Minimum number of exits = 1 (1015.1)
Minimum exit width = 7.2 inches. (1005.1)
Common path of egress travel = 20.0 feet (1014.3 and 1015.1)
The maximum length of exit access is 300 feet. (Table 1016.1) Actual travel distance not entered.
Egress doors shall be of the pivoted or side-hinged swinging type. (1008.1.2)
Egress doors may swing in either direction. (1008.1.2)
Exception 5: Revolving doors complying with Section 1008.1.4.1
Exception 6: Horizontal sliding doors complying with Section 1008.1.4.3
Exception 7: Power-operated doors complying with Section 1008.1.4.2
Exception 9: Manually operated horizontal sliding doors are permitted from spaces with an occupant load of 10 or less.
Exits and exit access doors are not required to be marked by an exit sign. (1011.1)
There is no corridor in this area.
Minimum number of pluming fixtures: (2902.1)
Water closets: Male = 1 Female = 1 Lavatories: Male = 1 Female = 1 Drinking fountains = 1

Dressing & Restroom: Occupancy Group = B Actual floor area = 858.0 Allowed floor area = 156,000.0 Ratio = .01 (Table 503 and 506)
This area is an unoccupied accessory area. Occupant load not included in totals. (Floor area, net - 1002)
Number of occupants = 2.9 Based on 300 square feet per occupant. (1004.1.1)
Minimum number of exits = 1 (1015.1)
Minimum exit width = .6 inches. (1005.1)
Common path of egress travel = 20.0 feet (1014.3 and 1015.1)
The maximum length of exit access is 300 feet. (Table 1016.1) Actual travel distance not entered.
Egress doors shall be of the pivoted or side-hinged swinging type. (1008.1.2)
Egress doors may swing in either direction. (1008.1.2)
Exception 5: Revolving doors complying with Section 1008.1.4.1
Exception 6: Horizontal sliding doors complying with Section 1008.1.4.3
Exception 7: Power-operated doors complying with Section 1008.1.4.2
Exception 9: Manually operated horizontal sliding doors are permitted from spaces with an occupant load of 10 or less.
Exits and exit access doors are not required to be marked by an exit sign. (1011.1)
There is no corridor in this area.
Minimum number of pluming fixtures: (2902.1)
Water closets: Male = 1 Female = 1 Lavatories: Male = 1 Female = 1 Drinking fountains = 1

Circulation: Occupancy Group = B Actual floor area = 2,437.0 Allowed floor area = 156,000.0 Ratio = .02 (Table 503 and 506)
This area is an unoccupied accessory area. Occupant load not included in totals. (Floor area, net - 1002)
Number of occupants = 8.1 Based on 300 square feet per occupant. (1004.1.1)
Minimum number of exits = 1 (1015.1)
Minimum exit width = 1.6 inches. (1005.1)
Common path of egress travel = .0 feet (1014.3 and 1015.1)
The maximum length of exit access is 300 feet. (Table 1016.1) Actual travel distance not entered.
Egress doors shall be of the pivoted or side-hinged swinging type. (1008.1.2)
Egress doors may swing in either direction. (1008.1.2)
Exception 5: Revolving doors complying with Section 1008.1.4.1
Exception 6: Horizontal sliding doors complying with Section 1008.1.4.3
Exception 7: Power-operated doors complying with Section 1008.1.4.2
Exception 9: Manually operated horizontal sliding doors are permitted from spaces with an occupant load of 10 or less.

Exits and exit access doors are not required to be marked by an exit sign. (1011.1)
There is no corridor in this area.
Minimum number of pluming fixtures: (2902.1)
Water closets: Male = 1 Female = 1 Lavatories: Male = 1 Female = 1 Drinking fountains = 1

2nd FLOOR RESULTS:
Area on this floor =13,523.0 Floor allowed area = 156,000.0 Floor ratio = .09 (506)
Number of occupants = 201.1
Minimum number of exits = 2 (Table 1021.1) Minimum number of exits to maintain exits from floor above = 3 (1021.1.1)
Minimum door exit width = 40.2 inches. (1005.1) Minimum stair exit width = 60.3 inches. (1005.1)
Minimum exit width to maintain exit width from floor above = 169.7 inches. (1005.1)
Common path of egress travel = 25.0 feet.
The maximum length of exit access travel is 250.0 feet. (Table 1016.1) Actual egress travel = 50.0
Travel distance is ok.
Egress doors shall swing in the direction of egress travel. (1008.1.2)
Exits and exit access doors are not required to be marked by an exit sign. (1011.1)
Means of egress doors from this floor require panic hardware or fire exit hardware. (1008.1.10)
There is no corridor in this area.
Minimum number of pluming fixtures: (2902.1)
When providing fixtures for the entire floor, use these numbers. When areas have their own fixtures, use number of fixtures listed per area.
Water closets: Male = 3 Female = 3 Lavatories: Male = 2 Female = 2 Drinking fountains = 2

AREAS ON THE 1st FLOOR
Studio: Occupancy Group = B Actual floor area = 5,720.0 Allowed floor area = 156,000.0 Ratio = .04 (Table 503 and 506)
Number of occupants = 114.4 Based on 50 square feet per occupant. (1004.1.1)
Minimum number of exits = 2 (1015.1)
Minimum exit width = 22.9 inches. (1005.1)
Common path of egress travel = 50.0 feet (1014.3 and 1015.1)
The maximum length of exit access is 300 feet. (Table 1016.1) Actual travel distance not entered.
Egress doors shall be of the pivoted or side-hinged swinging type. (1008.1.2)
Egress doors shall swing in the direction of egress travel. (1008.1.2)
Exception 5: Revolving doors complying with Section 1008.1.4.1
Exception 6: Horizontal sliding doors complying with Section 1008.1.4.3
Exception 7: Power-operated doors complying with Section 1008.1.4.2
Exception 9: Manually operated horizontal sliding doors are permitted from spaces with an occupant load of 10 or less.
Exits and exit access doors shall be marked by an approved exit sign readily visible from any direction of egress travel. (1011.1)
There is no corridor in this area.
Minimum number of pluming fixtures: (2902.1)
Water closets: Male = 2 Female = 2 Lavatories: Male = 2 Female = 2 Drinking fountains = 2

Classroom: Occupancy Group = B Actual floor area = 3,120.0 Allowed floor area = 156,000.0 Ratio = .02 (Table 503 and 506)
Number of occupants = 156.0 Based on 20 square feet per occupant. (1004.1.1)
Minimum number of exits = 2 (1015.1)
Minimum exit width = 31.2 inches. (1005.1)
Common path of egress travel = 20.0 feet (1014.3 and 1015.1)
The maximum length of exit access is 300 feet. (Table 1016.1) Actual travel distance not entered.
Egress doors shall be of the pivoted or side-hinged swinging type. (1008.1.2)
Egress doors shall swing in the direction of egress travel. (1008.1.2)
Exception 5: Revolving doors complying with Section 1008.1.4.1

Exception 6: Horizontal sliding doors complying with Section 1008.1.4.3
Exception 7: Power-operated doors complying with Section 1008.1.4.2
Exception 9: Manually operated horizontal sliding doors are permitted from spaces with an occupant load of 10 or less.
Exits and exit access doors shall be marked by an approved exit sign readily visible from any direction of egress travel. (1011.1)
There is no corridor in this area.
Minimum number of pluming fixtures: (2902.1)
Water closets: Male = 2 Female = 2 Lavatories: Male = 2 Female = 2 Drinking fountains = 2

Office: Occupancy Group = B Actual floor area = 5,284.0 Allowed floor area = 156,000.0 Ratio = .03 (Table 503 and 506)
Number of occupants = 52.8 Based on 100 square feet per occupant. (1004.1.1)
Minimum number of exits = 2 (1015.1)
Minimum exit width = 10.6 inches. (1005.1)
Common path of egress travel = 20.0 feet (1014.3 and 1015.1)
The maximum length of exit access is 300 feet. (Table 1016.1) Actual travel distance not entered.
Egress doors shall be of the pivoted or side-hinged swinging type. (1008.1.2)
Egress doors shall swing in the direction of egress travel. (1008.1.2)
Exception 5: Revolving doors complying with Section 1008.1.4.1
Exception 6: Horizontal sliding doors complying with Section 1008.1.4.3
Exception 7: Power-operated doors complying with Section 1008.1.4.2
Exception 9: Manually operated horizontal sliding doors are permitted from spaces with an occupant load of 10 or less.
Exits and exit access doors shall be marked by an approved exit sign readily visible from any direction of egress travel. (1011.1)
There is no corridor in this area.
Minimum number of pluming fixtures: (2902.1)
Water closets: Male = 2 Female = 2 Lavatories: Male = 1 Female = 1 Drinking fountains = 1

Lobby: Occupancy Group = A3 Actual floor area = 1,360.0 Allowed floor area = 156,000.0 Ratio = .01 (Table 503 and 506)
Number of occupants = 90.7 Based on 15 square feet per occupant. (1004.1.1)
Minimum number of exits = 2 (1015.1)
The maximum occupant load of this area is required to be posted on an approved sign at 90.66666 occupants in a conspicuous place near the main exit or exit access doorway. (1004.3)
Minimum exit width = 18.1 inches. (1005.1)
Common path of egress travel = 20.0 feet (1014.3 and 1015.1)
The maximum length of exit access is 250 feet. (Table 1016.1) Actual travel distance not entered.
Egress doors shall be of the pivoted or side-hinged swinging type. (1008.1.2)
Egress doors shall swing in the direction of egress travel. (1008.1.2)
Exception 5: Revolving doors complying with Section 1008.1.4.1
Exception 6: Horizontal sliding doors complying with Section 1008.1.4.3
Exception 7: Power-operated doors complying with Section 1008.1.4.2
Exception 9: Manually operated horizontal sliding doors are permitted from spaces with an occupant load of 10 or less.
Exits and exit access doors shall be marked by an approved exit sign readily visible from any direction of egress travel. (1011.1)
Means of egress doors from this area require panic hardware or fire exit hardware. (1008.1.10)
There is no corridor in this area.
Minimum number of pluming fixtures: (2902.1)
Water closets: Male = 1 Female = 1 Lavatories: Male = 1 Female = 1 Drinking fountains = 1

Conference room: Occupancy Group = B Actual floor area = 576.0 Allowed floor area = 156,000.0 Ratio = .00 (Table 503 and 506)

Number of occupants = 38.4 Based on 15 square feet per occupant. (1004.1.1)
Minimum number of exits = 1 (1015.1)
Minimum exit width = 7.7 inches. (1005.1)
Common path of egress travel = 20.0 feet (1014.3 and 1015.1)
The maximum length of exit access is 300 feet. (Table 1016.1) Actual travel distance not entered.
Egress doors shall be of the pivoted or side-hinged swinging type. (1008.1.2)
Egress doors may swing in either direction. (1008.1.2)
Exception 5: Revolving doors complying with Section 1008.1.4.1
Exception 6: Horizontal sliding doors complying with Section 1008.1.4.3
Exception 7: Power-operated doors complying with Section 1008.1.4.2
Exception 9: Manually operated horizontal sliding doors are permitted from spaces with an occupant load of 10 or less.
Exits and exit access doors are not required to be marked by an exit sign. (1011.1)
There is no corridor in this area.
Minimum number of pluming fixtures: (2902.1)
Water closets: Male = 1 Female = 1 Lavatories: Male = 1 Female = 1 Drinking fountains = 1

Kitchen: Occupancy Group = S1 Actual floor area = 690.0 Allowed floor area = 156,000.0 Ratio = .00 (Table 503 and 506)
Number of occupants = 3.5 Based on 200 square feet per occupant. (1004.1.1)
Minimum number of exits = 1 (1015.1)
Minimum exit width = .7 inches. (1005.1)
Common path of egress travel = 20.0 feet (1014.3 and 1015.1)
The maximum length of exit access is 250 feet. (Table 1016.1) Actual travel distance not entered.
Egress doors shall be of the pivoted or side-hinged swinging type. (1008.1.2)
Egress doors may swing in either direction. (1008.1.2)
Exception 5: Revolving doors complying with Section 1008.1.4.1
Exception 6: Horizontal sliding doors complying with Section 1008.1.4.3
Exception 7: Power-operated doors complying with Section 1008.1.4.2
Exits and exit access doors are not required to be marked by an exit sign. (1011.1)
There is no corridor in this area.
Minimum number of pluming fixtures: (2902.1)
Water closets: Male = 1 Female = 1 Lavatories: Male = 1 Female = 1 Drinking fountains = 1

Storage area: Occupancy Group = S2 Actual floor area = 2,352.0 Allowed floor area = 156,000.0 Ratio = .02 (Table 503 and 506)
Number of occupants = 7.8 Based on 300 square feet per occupant. (1004.1.1)
Minimum number of exits = 1 (1015.1)
Minimum exit width = 1.6 inches. (1005.1)
Common path of egress travel = 20.0 feet (1014.3 and 1015.1)
The maximum length of exit access is 400 feet. (Table 1016.1) Actual travel distance not entered.
Egress doors shall be of the pivoted or side-hinged swinging type. (1008.1.2)
Egress doors may swing in either direction. (1008.1.2)
Exception 5: Revolving doors complying with Section 1008.1.4.1
Exception 6: Horizontal sliding doors complying with Section 1008.1.4.3
Exception 7: Power-operated doors complying with Section 1008.1.4.2
Exits and exit access doors are not required to be marked by an exit sign. (1011.1)
There is no corridor in this area.
Minimum number of pluming fixtures: (2902.1)
Water closets: Male = 1 Female = 1 Lavatories: Male = 1 Female = 1 Drinking fountains = 1

Dressing & Restroom: Occupancy Group = B Actual floor area = 1,131.0 Allowed floor area = 156,000.0 Ratio = .01 (Table 503 and 506)
Number of occupants = 3.8 Based on 300 square feet per occupant. (1004.1.1)
Minimum number of exits = 1 (1015.1)

Minimum exit width = .8 inches. (1005.1)
Common path of egress travel = 20.0 feet (1014.3 and 1015.1)
The maximum length of exit access is 300 feet. (Table 1016.1) Actual travel distance not entered.
Egress doors shall be of the pivoted or side-hinged swinging type. (1008.1.2)
Egress doors may swing in either direction. (1008.1.2)
Exception 5: Revolving doors complying with Section 1008.1.4.1
Exception 6: Horizontal sliding doors complying with Section 1008.1.4.3
Exception 7: Power-operated doors complying with Section 1008.1.4.2
Exception 9: Manually operated horizontal sliding doors are permitted from spaces with an occupant load of 10 or less.
Exits and exit access doors are not required to be marked by an exit sign. (1011.1)
There is no corridor in this area.
Minimum number of pluming fixtures: (2902.1)
Water closets: Male = 1 Female = 1 Lavatories: Male = 1 Female = 1 Drinking fountains = 1

Circulation: Occupancy Group = B Actual floor area = 2,437.0 Allowed floor area = 156,000.0 Ratio = .02 (Table 503 and 506)
Number of occupants = 8.1 Based on 300 square feet per occupant. (1004.1.1)
Minimum number of exits = 1 (1015.1)
Minimum exit width = 1.6 inches. (1005.1)
Common path of egress travel = .0 feet (1014.3 and 1015.1)
The maximum length of exit access is 300 feet. (Table 1016.1) Actual travel distance not entered.
Egress doors shall be of the pivoted or side-hinged swinging type. (1008.1.2)
Egress doors may swing in either direction. (1008.1.2)
Exception 5: Revolving doors complying with Section 1008.1.4.1
Exception 6: Horizontal sliding doors complying with Section 1008.1.4.3
Exception 7: Power-operated doors complying with Section 1008.1.4.2
Exception 9: Manually operated horizontal sliding doors are permitted from spaces with an occupant load of 10 or less.
Exits and exit access doors are not required to be marked by an exit sign. (1011.1)
There is no corridor in this area.
Minimum number of pluming fixtures: (2902.1)
Water closets: Male = 1 Female = 1 Lavatories: Male = 1 Female = 1 Drinking fountains = 1

1st FLOOR RESULTS:
Area on this floor =22,670.0 Floor allowed area = 156,000.0 Floor ratio = .15 (506)
Number of occupants = 475.5
Minimum number of exits = 2 (Table 1021.2) Minimum number of exits to maintain exits from floor above = 3 (1021.1.1)
Minimum door exit width = 95.1 inches. (1005.1) Minimum exit width to maintain exit width from floor above = 169.7 inches. (1005.1)
Common path of egress travel = 50.0 feet.
The maximum length of exit access travel is 250.0 feet. (Table 1016.1) Actual egress travel = 75.0 Travel distance is ok.
Egress doors shall swing in the direction of egress travel. (1008.1.2)
Exits and exit access doors are not required to be marked by an exit sign. (1011.1)
Means of egress doors from this floor require panic hardware or fire exit hardware. (1008.1.10)
Corridor(s) in this area are not required to have a fire-resistive rating. (1018.1)
Minimum number of pluming fixtures: (2902.1)
When providing fixtures for the entire floor, use these numbers. When areas have their own fixtures, use number of fixtures listed per area.
Water closets: Male = 5 Female = 6 Lavatories: Male = 4 Female = 4 Drinking fountains = 4

AREAS ON THE BASEMENT FLOOR
Mechanical equipment room: Occupancy Group = B Actual floor area = 500.0 Allowed floor area =

156,000.0 Ratio = .00 (Table 503 and 506)
This area is an unoccupied accessory area. Occupant load not included in totals. (Floor area, net - 1002)
Number of occupants = 1.7 Based on 300 square feet per occupant. (1004.1.1)
Minimum number of exits = 1 (1015.1)
Minimum exit width = .3 inches. (1005.1)
Common path of egress travel = .0 feet (1014.3 and 1015.1)
The maximum length of exit access is 300 feet. (Table 1016.1) Actual travel distance not entered.
Egress doors shall be of the pivoted or side-hinged swinging type. (1008.1.2)
Egress doors may swing in either direction. (1008.1.2)
Exception 5: Revolving doors complying with Section 1008.1.4.1
Exception 6: Horizontal sliding doors complying with Section 1008.1.4.3
Exception 7: Power-operated doors complying with Section 1008.1.4.2
Exception 9: Manually operated horizontal sliding doors are permitted from spaces with an occupant load of 10 or less.
Exits and exit access doors are not required to be marked by an exit sign. (1011.1)
There is no corridor in this area.
Minimum number of pluming fixtures: (2902.1)
Water closets: Male = 1 Female = 1 Lavatories: Male = 1 Female = 1 Drinking fountains = 1

BASEMENT FLOOR RESULTS:
Area on this floor =500.0 Floor allowed area = 156,000.0 Floor ratio = .00 (506)
Number of occupants = 132.6
Minimum number of exits = 2 (Table 1021.1)
Minimum door exit width = 26.5 inches. (1005.1) Minimum stair exit width = 39.8 inches. (1005.1)
Common path of egress travel = 20.0 feet.
The maximum length of exit access travel is 300.0 feet. (Table 1016.1) Actual egress travel = 50.0
Travel distance is ok.
Egress doors shall swing in the direction of egress travel. (1008.1.2)
Exits and exit access doors are not required to be marked by an exit sign. (1011.1)
There is no corridor in this area.
Minimum number of pluming fixtures: (2902.1)
When providing fixtures for the entire floor, use these numbers. When areas have their own fixtures, use number of fixtures listed per area.
Water closets: Male = 0 Female = 0 Lavatories: Male = 0 Female = 0 Drinking fountains = 0

Total building and fire area of building (502.1 & 505.1) = 76,148.0 Building allowed area = 468,000.0
Building ratio = .2
Basement area not included in the total when checking allowable area. (506.4, Exception)

EXIT WIDTH NOTES
Exit width is in inches and based on Section 1005.1
  Width shown for all areas is based on other egress components.
  Width shown for 1st floor is based on other egress components.
  Width shown for other floors & basements is based on stairways.
  For the minimum width of doors, see Section 1008.1.1.

EGRESS CONTINUITY
The path of egress travel along a means of egress shall not be interrupted by any building element other than a means of egress component. (1003.6)

EXIT SEPARATION:
In areas where 2 exits are required, the minimum separation is 1/3 of the maximum diagonal of the area or floor measured in a straight line between exits or exit access doorways. (1015.2.1, Exception

2)
In areas with more than 2 exits, at least 2 exits must be 1/3 of the maximum diagonal of the area or floor measured in a straight line between exits or exit access doorways. (1015.2.2)
Multiple means of egress shall be sized such that the loss of any one means of egress shall not reduce the available capacity by more than 50 percent. (1005.1)

MEANS OF EGRESS ILLUMINATION:
1. The means of egress, including the exit discharge, shall be illuminated at all times the building space served by the means of egress is occupied. (1006.1)
2. The means of egress illumination shall not be less than 1 foot-candle at the walking surface level. (1006.2)
See section 1006.3 for emergency power requirements.

ADDITIONAL DOORS:
Where additional doors are provided for egress purposes, they shall conform to the requirements in Section 1008. (1008.1)
LANDINGS AT DOORS:
1. There shall be a floor or landing on each side of a door. (1008.1.5)
2. Such floor or landing shall be at the same elevation on each side of the door. (1008.1.5)
3. The floor or landing shall not be more than 1/2 inch lower than the threshold. (1008.1.7)
4. Landings shall have a width not less than the width of the stairway or width of the doorway, whichever is the greater.
Where a landing serves an occupant load of 50 or more, doors in any position shall not reduce the landing dimension to less than one half of the required width. The minimum length in the direction of exit travel is 44 inches. (1008.1.6)
5. The space between two doors in series shall be 48 inches plus the width of door swinging into the space. (1008.1.8)

BOLT LOCKS:
Manually operated flush bolts and surface bolts are not permitted. (1008.1.8.4)
Exception 3: Where a pair of doors serves an occupant load of less than 50, manually operated edge- or surface-mounted bolts are permitted on the inactive leaf. The inactive leaf shall contain no doorknobs, panic bars or similar operating hardware.
Exception 4: Manually operated edge- or surface-mounted bolts are permitted on the inactive leaf provided such inactive leaf is not needed to meet egress width requirements. The inactive leaf shall contain no doorknobs, panic bars or similar operating hardware.
Exception 2: Where a pair of doors serves a storage or equipment room, manually operated edge- or surface-mounted bolts are permitted on the inactive leaf.
The unlatching of any door or leaf shall not require more than one operation. (1008.1.9.5)
Exception 2: Where manually operated bolt locks are permitted.
Exception 3: Doors with automatic flush bolts as permitted.
LOCKS AND LATCHES:
Egress doors shall be readily openable from the egress side without the use of a key or any special knowledge or effort. (1008.1.9)
Locks and latches shall be permitted to prevent operation where any of the following exists: (1008.1.9.3)
2. The main door or doors in Group B, F, M and S areas are permitted to be equipped with key operating locking devices from the egress side provided:
2.1 The locking device is readily distinguishable as locked.
2.2 A readily visible durable sign is posted on the egress
side stating: THIS DOOR TO REMAIN UNLOCKED WHEN BUILDING IS OCCUPIED
3. Where egress doors are used in pairs, automatic flush bolts shall be permitted to be used, provided the door leaf having the automatic flush bolts has no doorknob or surface-mounted hardware.
5. Fire doors after the minimum elevated temperature has disabled the unlatching mechanism.

STAIRWAY REQUIREMENTS:
1. The minimum width of a stairway is 44 inches. (1009.1)
Exception 1 If the occupant load is less than 50, the minimum width is 36 inches.
Check floor exit requirements above to see if minimum width is greater than 44 inches.
2. The riser heights shall not be less than 4 inches or greater than 7 inches. The minimum tread depth is 11 inches. (1009.4.2) The maximum variation is 3/8 inch between the largest and the smallest in a stairway flight. (1009.4.4)
Risers shall be solid. (1009.4.5)
3. Provide a handrail on each side of stairways. (1009.12)
4. Handrail height, measured above stair tread nosing, shall be not less than 34 inches and not more than 38 inches. (1012.2)
Type I: Handrails with a circular cross section shall have an outside diameter of at least 1.25 inches and not greater than 2 inches or shall provide equivalent graspability. If the handrail is not circular, it shall have a perimeter dimension of at least 4 inches and not greater than 6.25 inches with a maximum cross-section dimension of 2.25 inches. (1012.3.1)
Type II: See Section 1012.3.2 for larger handrails.Handrail-gripping surfaces shall be continuous without interruption by newel post or other obstructions. (1012.4)
Handrails shall return to a wall, guard or the walking surface or shall be continuous to the handrail of an adjacent stair flight. (1012.6)
Where handrails are not continuous between flights, the handrails shall extend horizontally at least 12 inches beyond the top riser and continue to slope for the depth of one tread beyond the bottom riser. (1012.6)
5. The minimum headroom clearance is 80 inches (6 ft.- 8 inches.) measured vertically from a line connecting the edge of the nosing. Headroom shall be continuous to the point where the line intersects the landing below. The minimum clearance shall be maintained the full width of the stairway and landing. (1009.2)
6. Enclosed usable space under the stairs is required to be protected by 1-hour fire-resistive construction or the fire-resistance rating of the stairway enclosure, whichever is greater. Access to the enclosed space shall not be directly from within the stair enclosure. (1009.6.3)
7. There shall be a floor or landing at the top and bottom of each stairway. Every landing shall have a minimum dimension measured in the direction of travel equal to the width of the stairway. Such dimension need not exceed 48 inches where the stairway has a straight run. (1009.5)
When wheelchair spaces are required on the stairway landing, wheelchair space shall not be located in the required width of the landing.
8. A flight of stairs shall not have a vertical rise greater than 12 feet between floor levels or landings. (1009.7)

GUARDS:
1. Open sides of walking surfaces, including stairs, ramps and landings, which are located more than 30 inches above the floor or grade below are required to have a guard. (1013.1)
2. Guards and handrails shall be adequate in strength and attachment to resists a load of 50 pounds per linear foot applied in any direction at the top and to transfer this load through the supports to the structure.(1013.1 and 1607.7.1)
Handrails and guards shall be able to resist a single concentrated load of 200 pounds, applied in any direction at any point along the top, and transfer this load through the supports to the structure. (1607.7.1.1)
3. Intermediate rails, balusters and panel fillers shall be designed to withstand a horizontally applied normal load of 50 pounds on an area equal to 1 square foot, including openings and space between rails. Reactions due to this loading are not required to be superimposed with those of Sections 1607.7.1 or 1607.7.1.1. (1607.7.1.2)
4. The minimum height is 42 inches above the adjacent walking surfaces, adjacent fixed seating or the line connecting the leading edges of the treads. (1013.2)
5. Guards shall not have openings which allow passage of a sphere 4 inches in diameter from the walking surface to the required guard height. (1013.3)

Exception 1: From the height of 36 inches to 42 inches, guards shall not have openings which allow passage of a sphere 4 3/8 inches in diameter.
Exception 2: The triangular opening formed at the riser, tread and guardrail may be 6 inches.
Exception 3: Areas which are not open to the public within I-3, F, H, or S occupancies, balusters, horizontal intermediate rails, or other construction shall not permit a sphere with a diameter of 21 inches to pass through.

AREAS OF REFUGE:
Areas of refuge are not required when an automatic sprinkler system is provided. (1007.3, Exception 3)

STAIRWAY ENCLOSURES:
See Exception 2 to shaft enclosures in Section 708.2
2. The openings into the exit enclosure are required to be 1 1/2 hour fire assemblies. (Table 715.4) Openings into enclosure are limited to those necessary for exit access to the enclosure from normally occupied spaces and for egress from the enclosure. (1022.3) Doors shall be self-closing or automatic closing. (715.4.8)
3. Exit enclosure must discharge directly to the exterior of the building. (1022.2 & 1027.1)
Exception: An exit enclosure shall be permitted to terminate at an exit passageway that terminates at an exit discharge or public way.
A maximum of 50 percent of the number and capacity may exit through areas on the level of discharge provided Exception 1 or 2 is met: (1027.1)
Exception 1:
1.1 There is a free and unobstructed way to the exterior that is readily visible and identifiable from the exit enclosure.
1.2 The level of exit discharge is separated from areas below by construction conforming the fire resistance rating for the enclosure.
Exception 1:
2.1 The area of the vestibule is separated from areas below by construction conforming the fire resistance rating for the enclosure.
2.2 The depth from the exterior of the building is not greater than 10 feet and the length is not greater than 30 feet.
2.3 The vestibule is separated from the remainder of the level of exit discharge by construction providing at least the equivalent of approved wired glass in steel frames.
2.4 The vestibule is used only for means of egress and exits directly to the outside.
4. An exit enclosure shall not be used for any purpose other than means of egress. (1022.1)
5. A sign shall be provided at each floor landing designating the floor level, the terminus of the top and bottom of the stair enclosure, and the identification of the stair. (1022.8)
6. If a stairway continues below the level of exit discharge, an approved barrier is required at the level. Directional exit signs shall be provided. (1022.7)
Note: Where interior exit enclosures are extended to the exterior of the building by an exit passage way, fire-resistance of the exit passage way shall be the same as the enclosure. (1022.2, Exception)
1. Stairways are required to be enclosed with 2 hour fire barriers. (1022.1)
STAIRWAY TO THE ROOF:
One stairway shall extend to the roof surface unless the roof has a slope steeper than 4 units vertical in 12 units horizontal. In buildings without an occupied roof, access to the roof from the top story shall be permitted to be by an alternating tread device. (1009.13) Access to roof shall be provided through a penthouse complying with Section 1509.2 Exception: Access to an unoccupied roof may be a roof hatch or trap door not less than 16 square feet in area and having a minimum dimension of 2 feet. Where the roof hatch opening providing the required access is located within 10 feet of the roof edge, such roof access or roof edge shall be protected by guards. (1009.13.2)
PRESSURIZED ENCLOSURE:1. When there is a floor used for human occupancy located more than 75 feet above the lowest level of fire department vehicle access, each of the exits hall be a smoke proof enclosure or pressurized stairway. (1022.9)
2. Access to the stairway shall be made by way of a vestibule or by way of an open exterior balcony.

(1022.9.2)
Exception: Access is not required by way of a vestibule or exterior balcony for stairways using the pressurization alternative complying with Section 909.20.5.
The minimum dimension of the vestibule shall not be less than the required width of the corridor leading to the vestibule and shall not have a length less than 72 inches in the direction of egress travel. (909.20.1) The smoke proof enclosure shall be separated from the remainder of the building by not less than a 2-hour fire resistant rated fire barrier. (909.20.2)
3. A smokeproof enclosure shall exit into a public way or into an exit passageway, yard, or open space having direct access to a public way. (1022.9.1)
If an exit passageway is used, it shall be without other openings and shall be separated form the rest of the building by two hour fire resistant construction. (1022.9.1)
Exception 1: A passageway serving a smokeproof enclosure are permitted where the exit passageway is protected and pressurized in the same manner as the smokeproof enclosure.
Exception 2: A passageway serving a pressurized stairway are permitted where the exit passageway is protected and pressurized in the same manner as the pressurized stairway.
Exception 3: The fire barrier separating the smokeproof enclosure from the exit passageway is not required, provided the exit passage way is protected and pressurized inthe same manner as the smokeproof enclosure.
Exception 4: A smokeproof enclosure or pressurized stairway shall be permitted to egress through areas on the level of discharge or vestibules as permitted by Section 1027.

ELEVATOR REQUIREMENTS:
1. An approved pictorial sign of a standardized design shall be posted adjacent to each elevator call station on all floors instructing occupants to use the exit stairways and not to use the elevators in case of fire. (3002.3)
Exception 1: Sign not required for elevators that are part of an accessible means of egress complying with Section 1007.4
Exception 2: Sign not required for elevators that are used for occupant self-evacuation in accordance with Section 3008.
2. In all structures four or more stories in height, at least one elevator shall be provided that can accommodate an ambulance-type stretcher 24 inches by 84 inches in the horizontal position. (3002.4)
3. Hoistways of elevators penetrating more than three stories shall be provided with a means for venting smoke and hot gases to the outer air in case of fire. (3004.1)
Elevators shall have a fire resistance rating. (3002.1)
Elevator shaft shall have a fire-resistance rating of not less than 2 hours. (708.4)
Exception: Exterior walls shall comply with exterior wall requirements. (708.6)
Openings shall be self-closing or automatic closing by smoke detection. (708.7)
Fire door assemblies are required to have a fire-protection rating of 1 1/2 hour. (715.4)
Penetrations other than those necessary for the purpose of the shaft shall not be permitted. (707.8.1)
Elevators shall be provided with Phase I emergency recall operation and Phase II emergency in-car operation in accordance with ASME A17.1/CSA B44 (3003.2)

Elevator lobby:
1. An enclosed elevator lobby shall be provided at each floor where an elevator shaft enclosure connects more than 3 stories. (708.14.1)
2. The lobby shall separate the elevator shaft enclosure doors from each floor by fire partitions equal to the fire-resistance rating of the corridor and the required opening protection.
3. Elevator lobbies shall have at least one means of egress complying with Chapter 10.
Exception 4. Enclosed elevator lobbies are not required where the building is protected by an automatic sprinkler system.
Exception 5. Smoke partitions shall be permitted in lieu of fire partitions to separate elevator lobbies.
Exception 6. Enclosed elevator lobbies are not required where the elevator hoistway is pressurized in accordance with Section 708.14.2.

BUILDING ACCESSIBILITY
1. In addition to accessible entrances required by Sections 1105.1.1 through 1105.1.6, at least 60 percent of all public entrances shall be accessible. (1105.1)
2. At least one accessible entrance shall be provided to each tenant, dwelling unit and sleeping unit in a facility. (1105.1.6)
3. Where parking is provided, accessible parking spaces shall be provided in compliance with Table 1106.1 (1106.1)
See additional requirements for outpatient and rehabilitation facilities. (1106.3 and 1106.4)
4. At least one accessible route shall connect each accessible level. (1104.4) See exceptions.
5. Accessible routes shall coincide with or be located in the same area as a general circulation path. Where the circulation path is interior, the accessible route shall also be interior. (1104.5)
6. On floors where drinking fountains are provided, no fewer than two drinking fountains shall be provided. One drinking fountain shall comply with the requirements for people who use a wheelchair and one drinking fountain shall comply with the requirements for standing persons. (1109.5.1)
Exception: A single drinking fountain that complies with both requirements shall be permitted.
Where more than 2 drinking fountains are provided, at least 50% shall be accessible. (1109.5.2)
Exception: Where 50% yields a fraction, the number may be rounded up or down. Total must be equal to 100% or required.
SHAFT REQUIREMENTS:
Openings other than those necessary for the purpose of the shaft shall not be permitted. (708.7.1)
Penetrations other than those necessary for the purpose of the shaft shall not be permitted. (708.8.1)
Shafts that do not extend to the bottom of the building shall:
1. Be enclosed at the lowest level with the same fire-resistance rating as the lowest floor but not less than the rating of the shaft enclosure; or
2. Terminate in a room having a use related to the purpose of the shaft. The room and openings shall have a fire-resistance rating at least equal to the shaft enclosure; or
3. Be protected by approved fire dampers installed at the lowest floor level within the shaft enclosure. (708.11)
FIRE-RESISTANCE RATING FOR EXTERIOR WALLS:
North Side:
Group B - Bearing walls = 2-hr Nonbearing walls = 1-hr rating on the inside. (705.5, Tables 601 & 602)
Parapet or roof/ceiling protection required (705.11, Exception 4)
Maximum unprotected openings = 45% of wall area. Maximum protected openings = 45% of wall area. (Table 705.8)
Group E - Bearing walls = 2-hr Nonbearing walls = 1-hr rating on the inside. (705.5, Tables 601 & 602)
Parapet or roof/ceiling protection required (705.11, Exception 4)
Maximum unprotected openings = 45% of wall area. Maximum protected openings = 45% of wall area. (Table 705.8)
Group A1 - Bearing walls = 2-hr Nonbearing walls = 1-hr rating on the inside. (705.5, Tables 601 & 602)
Parapet or roof/ceiling protection required (705.11, Exception 4)
Maximum unprotected openings = 45% of wall area. Maximum protected openings = 45% of wall area. (Table 705.8)
Group A3 - Bearing walls = 2-hr Nonbearing walls = 1-hr rating on the inside. (705.5, Tables 601 & 602)
Parapet or roof/ceiling protection required (705.11, Exception 4)
Maximum unprotected openings = 45% of wall area. Maximum protected openings = 45% of wall area. (Table 705.8)
Group S2 - Bearing walls = 2-hr Nonbearing walls = 1-hr rating on the inside. (705.5, Tables 601 & 602)
Parapet or roof/ceiling protection required (705.11, Exception 4)
Maximum unprotected openings = 45% of wall area. Maximum protected openings = 45% of wall area. (Table 705.8)

Group S1 - Bearing walls = 2-hr Nonbearing walls = 1-hr rating on the inside. (705.5, Tables 601 & 602)
Parapet or roof/ceiling protection required (705.11, Exception 4)
Maximum unprotected openings = 45% of wall area. Maximum protected openings = 45% of wall area. (Table 705.8)

East Side:
Group B - Bearing walls = 2-hr Nonbearing walls = 1-hr rating on the inside. (705.5, Tables 601 & 602)
Parapet or roof/ceiling protection required (705.11, Exception 4)
Maximum unprotected openings = 45% of wall area. Maximum protected openings = 45% of wall area. (Table 705.8)
Group E - Bearing walls = 2-hr Nonbearing walls = 1-hr rating on the inside. (705.5, Tables 601 & 602)
Parapet or roof/ceiling protection required (705.11, Exception 4)
Maximum unprotected openings = 45% of wall area. Maximum protected openings = 45% of wall area. (Table 705.8)
Group A1 - Bearing walls = 2-hr Nonbearing walls = 1-hr rating on the inside. (705.5, Tables 601 & 602)
Parapet or roof/ceiling protection required (705.11, Exception 4)
Maximum unprotected openings = 45% of wall area. Maximum protected openings = 45% of wall area. (Table 705.8)
Group A3 - Bearing walls = 2-hr Nonbearing walls = 1-hr rating on the inside. (705.5, Tables 601 & 602)
Parapet or roof/ceiling protection required (705.11, Exception 4)
Maximum unprotected openings = 45% of wall area. Maximum protected openings = 45% of wall area. (Table 705.8)
Group S2 - Bearing walls = 2-hr Nonbearing walls = 1-hr rating on the inside. (705.5, Tables 601 & 602)
Parapet or roof/ceiling protection required (705.11, Exception 4)
Maximum unprotected openings = 45% of wall area. Maximum protected openings = 45% of wall area. (Table 705.8)
Group S1 - Bearing walls = 2-hr Nonbearing walls = 1-hr rating on the inside. (705.5, Tables 601 & 602)
Parapet or roof/ceiling protection required (705.11, Exception 4)
Maximum unprotected openings = 45% of wall area. Maximum protected openings = 45% of wall area. (Table 705.8)

South Side:
Group B - Bearing walls = 2-hr Nonbearing walls = 0-hr rating on the inside. (705.5, Tables 601 & 602)
Parapet not required. (705.11, Exception 3)
No limit on unprotected openings. There is no limit on protected openings. (Table 705.8)
Group E - Bearing walls = 2-hr Nonbearing walls = 0-hr rating on the inside. (705.5, Tables 601 & 602)
Parapet not required. (705.11, Exception 3)
No limit on unprotected openings. There is no limit on protected openings. (Table 705.8)
Group A1 - Bearing walls = 2-hr Nonbearing walls = 0-hr rating on the inside. (705.5, Tables 601 & 602)
Parapet not required. (705.11, Exception 3)
No limit on unprotected openings. There is no limit on protected openings. (Table 705.8)
Group A3 - Bearing walls = 2-hr Nonbearing walls = 0-hr rating on the inside. (705.5, Tables 601 & 602)
Parapet not required. (705.11, Exception 3)
No limit on unprotected openings. There is no limit on protected openings. (Table 705.8)

Group S2 - Bearing walls = 2-hr Nonbearing walls = 0-hr rating on the inside. (705.5, Tables 601 & 602)
Parapet not required. (705.11, Exception 3)
No limit on unprotected openings. There is no limit on protected openings. (Table 705.8)
Group S1 - Bearing walls = 2-hr Nonbearing walls = 0-hr rating on the inside. (705.5, Tables 601 & 602)
Parapet not required. (705.11, Exception 3)
No limit on unprotected openings. There is no limit on protected openings. (Table 705.8)

West Side:
Group B - Bearing walls = 2-hr Nonbearing walls = 0-hr rating on the inside. (705.5, Tables 601 & 602)
Parapet not required. (705.11, Exception 3)
No limit on unprotected openings. There is no limit on protected openings. (Table 705.8)
Group E - Bearing walls = 2-hr Nonbearing walls = 0-hr rating on the inside. (705.5, Tables 601 & 602)
Parapet not required. (705.11, Exception 3)
No limit on unprotected openings. There is no limit on protected openings. (Table 705.8)
Group A1 - Bearing walls = 2-hr Nonbearing walls = 0-hr rating on the inside. (705.5, Tables 601 & 602)
Parapet not required. (705.11, Exception 3)
No limit on unprotected openings. There is no limit on protected openings. (Table 705.8)
Group A3 - Bearing walls = 2-hr Nonbearing walls = 0-hr rating on the inside. (705.5, Tables 601 & 602)
Parapet not required. (705.11, Exception 3)
No limit on unprotected openings. There is no limit on protected openings. (Table 705.8)
Group S2 - Bearing walls = 2-hr Nonbearing walls = 0-hr rating on the inside. (705.5, Tables 601 & 602)
Parapet not required. (705.11, Exception 3)
No limit on unprotected openings. There is no limit on protected openings. (Table 705.8)
Group S1 - Bearing walls = 2-hr Nonbearing walls = 0-hr rating on the inside. (705.5, Tables 601 & 602)
Parapet not required. (705.11, Exception 3)
No limit on unprotected openings. There is no limit on protected openings. (Table 705.8)

Parapet walls must extend 30 inches above the roofing.
The parapet wall is required to have the same fire rating as the wall and shall have noncombustible faces for the uppermost 18 inches. (705.11)
FIRE-RESISTANCE RATING REQUIREMENTS:(Table 601 except as noted)
Exterior walls . Minimum fire resistance rating = FIRE-RESISTANCE RATING FOR EXTERIOR WALLS above
Primary structural frame must be noncombustible. Minimum fire resistance rating = 2 hr
2Interior bearing wall must be noncombustible. Minimum fire resistance rating = 2 hr
Interior nonbearing wall must be noncombustible. Minimum fire resistance rating = 0 hr
Fire-retardant treated wood shall be permitted in: (603.1 #25
25.1 Nonbearing partitions where the required fire-resistance rating is two hours or less.
25.2 Nonbearing exterior walls where no fire rating is required.
25.3 Roof construction, including girders, trusses, framing and decking.
Partitions dividing portions of stores, offices or similar places occupied by one tenant only and do not establish a corridor or serve an occupant load of 30 or more may be:
1. constructed of fire retardant treated wood
2. one hour fire resistive construction
3. wood panels or similar up to six feet in height. (603.1, 10)
Floor/ceiling assembly must be noncombustible. Minimum fire resistance rating = 2 hr
Roof/ceiling assembly must be noncombustible. Minimum fire resistance rating = 1 hr

Except in F1, H, M, and S1 uses, fire protection is not required for structural members including protection of roof framing and decking where every part of the roof construction is 20 feet or more above any floor immediately below. Fire retardant treated wood members are permitted to be used for unprotected members. (Table 601, b.)
Heavy timber shall be permitted where a 1 hour or less fire rating is required. (Table 601, c)
When the vertical distance from the upper floor to the roof is 20 feet or more, fire-retardant-treated wood shall be allowed in buildings including girders and trusses as part of the roof construction. (Table 601, b.)
Shaft Enclosure must be noncombustible. Minimum fire resistance rating = 2 hour
Stairs must be noncombustible. Minimum fire resistance rating = 0 hour

Where columns are required to be fire-resistance rated, the entire column shall be provided individual encasement protection on all sides for the full length. (704.2)
Where the primary structural frame is required to be fire-resistance rated, and supports more than two floors or one floor and a roof, members shall be provided individual encasement protection on all sides for the full length. (704.3)
Secondary members shall be protected by individual encasement protection, by the membrane or ceiling of a horizontal assembly. (704.4)

MARKING AND IDENTIFICATION:
Fire walls, fire barriers, fire partitions, smoke barriers and smoke partitions or any other wall required to have protected openings or penetrations shall be effectively and permanently identified. (703.6)
Identification shall be located in accessible concealed floor, floor-ceiling or attic spaces;
Be repeated at intervals not exceeding 30 feet; and
Suggested wording: 'FIRE AND/OR SMOKE BARRIER - PROTECT ALL OPENINGS'

Fire Partitions:
The following wall assemblies shall comply. (709.1)
Elevator lobby separation.
Fire partitions shall have a fire-resistance rating of not less than 1-hour. (709.3)
See exceptions.
Fire partitions shall extend from the top of the foundation or floor/ceiling assembly below to the underside of the floor or roof sheathing, slab or deck above or to the fire-resistive-rated floor/ceiling or roof/ceiling assembly above. (709.4)
The supporting construction shall be protected to afford the required fire-resistance rating of the wall supported.
See exceptions.

A 1-hour fire-resistive rating is required for smoke barriers. (710.3)
Smoke barriers shall form an effective membrane continuous from outside wall to outside wall and from the top of the foundation or floor/ceiling assembly below to the underside of the floor or roof sheathing, deck or slab above, including continuity through concealed spaces. (710.4)
The supporting construction shall be protected to afford the required fire-resistance rating of the wall or floor supported.
See Section 710.5 for opening requirements.
PENETRATIONS OF FIRE RESISTIVE ASSEMBLIES:
WALLS ASSEMBLIES:
Through penetrations of walls shall comply Section 713.3.1.1 or 713.3.1.2.
1. Penetrations shall be installed as tested in the fire resistance rated assembly. (713.3.1.1)
2. Penetrations shall be protected by an approved penetration firestop system. (713.3.1.2)
Exception:
Steel, ferrous or copper pipes or steel conduits. See IBC for limitations.
Membrane penetrations of walls:
The requirements are the same as for through penetrations. (713.3.2)
Exceptions:

1. Steel electrical outlet boxes that do not exceed 16 square inches provided that the area of such openings does not exceed 100 square inches for any 100 square feet of wall area. Boxes on opposite sides of the assembly shall be separated by a horizontal distance of not less than 24 inches.
2. Listed electrical boxes.
3. Sprinklers with metal escutcheon plates.

FLOOR/CEILING AND ROOF/CEILING ASSEMBLIES:
Through penetrations of floor/ceiling and roof/ceiling assemblies shall comply Section 713.4.1.1 or 713.4.1.2.
1. Through penetrations shall be installed as tested in an approved fire resistance rated assembly. (713.4.1.1)
2. Penetrations shall be protected by an approved penetration firestop system of not less than 1 hour but not less than the required rating of the floor penetrated. (713.4.1.2)
Exceptions:
1. Steel, ferrous or copper conduits, pipes, tubes and vents through a single concrete floor. See IBC for limitations.
2. Electrical outlet boxes that have been tested for use in fire-assemblies.
Membrane penetrations of fire-resistive horizontal assemblies:
The requirements are the same as for through penetrations. (713.4.2)
Exceptions:
1. Steel, ferrous or copper conduits, electrical outlet boxes, pipes, tubes and vents through concrete or masonry. See IBC for limitations.
2. Electrical outlet boxes that have been tested for use in fire-assemblies.
3. Sprinklers with metal escutcheon plates.

DUCTS AND AIR TRANSFER OPENINGS:
Dampers shall be accessible for inspection and servicing. (716.4)
Where required. (716.5) , Fire walls (716.5.1), Fire barriers (716.5.2), Shaft enclosures (716.5.3), Fire partitions (715.5.4) and Smoke barriers (715.5.5)

REQUIRED SEPARATION OF OCCUPANCIES: (508.4.4 & Table 508.4)
Uses are not separated by fire barriers. The construction of the building is based on the most restrictive use. (508.3.3)

SEPARATION OF INCIDENTAL USE AREAS: (Table 508.2.5)
Furnace rooms where any piece of equipment is over 400,000 BTU per hour input = Smoke barrier (508.2.2.1)
Rooms with any boiler over 15 psi and 10 horsepower = Smoke barrier (508.2.5.2)
Refrigerant machinery rooms = Smoke barrier (508.2.2.1)
Hydrogen cut-off rooms not classified as Group H = 1 hour
Incinerator rooms = 2 hours and an automatic sprinkler system
Stationary lead-acid battery systems having a liquid capacity of more than 100 gallons used for facility standby power, emergency power or uninterrupted power supplies. = 1 hour
Rooms containing fire pumps = 1 hour

ROOFING REQUIREMENTS:
1. The roofing on this building is required to be Class B or better. (Table 1505.1)

ATRIUM REQUIREMENTS:
1. An automatic sprinkler system is required (404.3)
   Exception 1 Areas separated by a two hour fire barrier or horizonal assembly or both.
   Exception 2 Ceiling of the atrium more than 55 feet above the floor
2. A fire alarm system shall be provided in accordance with Section 907,2,14. (404.4)
3. A smoke control system shall be installed in accordance with Section 909. (404.5)
   Exception: Smoke control is not required for atriums that connect only two stories.

4. Atrium spaces shall be separated from adjacent spaces by a 1 hour fire barrier wall. (404.6)
Exception 1: A glass wall forming a smoke partition where automatic sprinklers are spaced 6 feet or less along both sides of the separation wall or on the room side only if there is not a walkway on the atrium side. Glass shall be installed either in a gasketed frame.
Exception 2: A glass-block wall assembly in accordance with Section 2110 and having a 3/4-hour fire protection rating.
Exception 3: The adjacent spaces of any 3 floors of the atrium shall not be required to be separated from the atrium where such spaces are included in the design of the smoke control system.
5. Equipment required to provide smoke control shall be connected to a standby power system in accordance with Sections 909.11. (404.7)
6. The interior finish of walls and ceilings of the atrium shall not be less than Class B with no reduction in the class for the sprinkler system. (404.8)
7. A firefighter's control panel shall be provided in the fire command center. (404.5 and 909.16)
The smoke control system shall be tested. -- Sec. 909.18
In other than the lowest level of the atrium, where the required means of egress is through the atrium space, the portion of exit access travel distance within the atrium space shall not exceed 200 feet. (404.9)

STAGES:
1. The minimum type of construction for stages shall be as required for the building. (410.3.1) See exceptions.
2. Galleries, gridirons, catwalks and pinrails shall be constructed of materials consistent with the building type of construction. (410.3.2)
Exception: Floors of fly galleries and catwalks may be of any approved material.
3. If the stage height is greater than 50 feet, it shall be separated from the seating area by a proscenium wall by not less than a two-hour fire-resistance rating. (410.3.4)
Where the proscenium wall is required to have a fire-resistance rating, the stage opening shall be provided whth a fire curtain of approved material or an approved water curtain.
A fire curtain shall be designed and installed to intercept hot gasses, flames and smoke and to prevent a glow from a severe fire on the stage from showing on the auditorium side for a period of 20 minutes. The closing of the curtain from the full open position shall be accomplished in less than 30 seconds. (410.3.5)
4. Emergency ventilation shall be provided for all stage areas greater than 1000 sq.ft. or having a height greater than 50 feet. (410.3.7)
Ventilation shall be by one or a combination of the following:
a) Roof Vents - Two or more vents shall be located near the center of and above the highest part of the stage. The net free vent area must be at least 5 percent of the stage area. (410.3.7.1)
b) Smoke Control - A means shall be provided to maintain smoke level not less than 6 feet above the highest level of assembly seating or above the top of the proscenium opening. It shall be connected to both normal and standby power. (410.3.7.2)
5. Dressing rooms, scene docks, property rooms, workshops, storerooms and compartments appurtenant to the stage shall be separated from each other by a fire barriers with not less than a 1 hour fire-resistance rating. (410.5.2)
6. If the stage is greater than 50 feet in height or greater than 1000 square feet, it shall be equipped with an automatic fire-extinguishing system. (410.6)

When provided, fire pumps shall be located in rooms that are separated from all other areas by 2-hour fire barrier construction. (913.2.1)
Exception: Separation by 1-hour fire barriers is permitted in buildings equipped throughout with an automatic sprinkler system.
PORTABLE FIRE EXTINGUISHERS:
Portable fire extinguishers are required. (906.1)
Exception: When equipped throughout with quick response sprinklers, portable fire extinguishers shall be required only in locations specified in Items 2 through 6 in Section 906.1
See Section 906.1 and Table 906.1 for location requirements.

See Section 906.3 for size and distribution requirements.

STANDPIPE AND HOSE SYSTEMS:
Class III standpipe systems shall be installed throughout buildings where the floor level of the highest story is located more than 30 feet above the lowest level of fire department vehicle access. (905.3.1)
Exception: Class I standpipes are allowed in buildings with an automatic sprinkler system.

See sections 905.4, 905.5 and 905.6 for required locations.
See section 905.7 for cabinet requirements.

FIRE ALARM AND DETECTION SYSTEMS:
A manual fire alarm system is required. (907.2.2)
Exception: Manual alarm boxes are not required if the notification appliances will activate upon sprinkler waterflow.
See Section 907.4 for additional information about system.

ACCESSIBLE FACILITIES:
Except as noted, section numbers listed below are from ICC/ANSI A117.1-2003
WATER FOUNTAINS AND WATER COOLERS:
Accessible units must comply with the following:
1. Spout outlets for wheelchair accessible fountains shall be 36 inches maximum above the floor. Spout outlets for standing persons shall be 38 inches minimum and 43 inches maximum. (602.4)
2. The spout shall be located 15 inches minimum from the vertical support and 5 inches maximum from the front edge, including bumpers. Where only a parallel approach is provided, the spout shall be located 3 1/2 inches maximum from the front edge, including bumpers. (602.5)
3. Spouts shall provide a flow of water 4 inches height minimum. (602.6)

TOILET FACILITIES:
1. A 60 inch diameter turning space or T-shaped space is required in the toilet room. (603.2.1 and 304.3)
Doors shall not swing into the clear floor space for any fixture. (603.2.3) See exception for rooms used for individual use.
2. Water closet shall be mounted adjacent to a side wall or partition. The distance from the side wall or partition to the centerline of the water closet shall be 16 to 18 in. (604.2)
3. When the accessible water closet is not in a compartment:
Clearance around the water closet shall be 60 inches minimum, measured perpendicular to the side wall, and 56 inches minimum, measured perpendicular to the rear wall. (604.3.1)
4. When the accessible water closet is in a compartment:
Wheelchair accessible compartments shall be 60 inches wide minimum measured perpendicular to the side wall, and 56 inches deep minimum for wall hung water closets and 59 inches deep for floor mounted water closets, measured perpendicular to the rear wall. (604.8.2)
Compartment doors shall not swing into the minimum required compartment area. (604.8.3)
5. Grab bars shall have a circular cross section with a diameter of 1 1/4 inch minimum and 2 inches maximum, or shall provide equivalent graspability. (609.2)
The space between the wall and the grab bar shall be 1 1/2 inches. (609.3) Grab bars shall be mounted in a horizontal position 33 inches minimum and 36 inches maximum above the floor. (609.4)
a. Side wall grab bars are required to start within 12 inches of the backwall and extend to 54 inches from the back wall. The minimum length of the bar is 42 inches. (604.5.1)
b. The rear bar shall be 24 in long minimum, centered on the water closet. Where space permits, the bar shall be 36 inches long minimum, with the additional length provided on the transfer side. (604.5.2)
6. The top of the water closet seats shall be 17 to 19 inches above the floor. (604.4)
7. Accessible urinals shall be of the stall type or wall hung with the rim at 17 inches maximum above the floor. (605.2)
8. Accessible lavatories shall be mounted with the rim 34 inches maximum above the floor. (606.3)

9. Sinks shall be 11 inches deep maximum. (606.5)
10. Water supply and drain pipes under lavatories shall be insulated or otherwise treated to protect against contact. (606.6)
11. Mirrors located above lavatories, sinks or counters shall be mounted with the bottom edge of the reflecting surface 40 inches maximum above the floor. (603.3)

LIGHT AND VENTILATION:
1. Every space intended for human occupancy shall be provided with natural light by means of exterior glazed openings or shall be provided with artificial light. (1205.1)
When natural light is provided, the minimum net glazed area shall not be less than 8% of the floor area. (1205.2)
Any room is permitted to be considered as a portion of an adjoining room where one half of the area of the common wall is open and unobstructed and provides not less than one tenth of the floor area or 25 square feet, whichever is greater. (1205.2.1)
When artificial light is used, it must provide an average illumination of 10 foot candles over the area of the room at a height of 30 inches above the floor. (1205.3)
2. Buildings shall be provided with natural ventilation or mechanical ventilation per the International Mechanical Code. (1203.1)
Natural ventilation of an occupied space shall be through windows, doors, louvers or other openings to the outdoors. (1203.4)
The minimum openable area to the outdoors shall be 4 percent of the floor area. (1203.4.1)
Any room is permitted to be considered as a portion of an adjoining room where unobstructed openings are provided that have an area not less than 8% of the floor area of the interior room but no less than 25 square feet. (1202.3.1.1)
When openings are below grade, clear space measured perpendicular to the opening shall be one and one half times the depth of the opening. (1203.4.1.2)
3. Rooms containing bathtubs, showers, spas and similar bathing fixtures shall be mechanically ventilated. (1203.4.2.1)
GLAZING REQUIREMENTS:
All glazing in hazardous cations is required to be of safety glazing material. (2406.1)
Locations: (2406.4)
1. Glazing in swinging doors except jalousies.
2. Glazing in fixed and sliding panels of sliding door assemblies and panels in sliding and bifold closet door assemblies.
3. Glazing in storm doors.
4. Glazing in all unframed swinging doors.
5. Glazing in doors and enclosures for hot tubs, whirlpools, saunas, steam rooms, bathtubs and showers. Glazing in any portion of a building wall enclosing these compartments where the bottom exposed edge of the glazing is less than 60 inches above a standing surface.
6. Glazing in fixed or operable panels adjacent to a door where the nearest exposed edge of the glazing is within a 24-inch arc of either vertical edge of the door in a closed position and where the bottom exposed edge of the glazing is less than 60 inches above the walking surface.
Exception: Panels where there is an intervening wall or other permanent barrier between the door and glazing.
7. Glazing in an individual fixed or operable panel, other than those locations described in items 5 and 6 above, which meets all of the following conditions:
7.1 Exposed area of an individual pane greater than 9 square feet.
7.2 Exposed bottom edge less than 18 inches above the floor.
7.3 Exposed top edge greater than 36 inches above the floor.
7.4 One or more walking surfaces within 36 inches horizontally of the plane of the glazing.
See Exceptions.
8. Glazing in guards and railings regardless of the area or height above a walking surface.
9. Glazing in walls and fences enclosing indoor and outdoor swimming pools, hot tubs and spas where all of the following are present:
9.1 The bottom edges of the glazing on the pool or spa side is less than 60 inches above the walking

surface.
9.2 The glazing is within 60 inches of the water's edge.
10. Glazing adjacent to stairways, landings and ramps within 36 inches horizontally of a walking surface when the glass is less than 60 inches above the plane of the walking surface.
11. Glazing adjacent to stairways within 60 inches horizontally of the bottom tread of a stairway in any direction when the exposed glass is less than 60 inches above the nose of the tread.
See Exceptions.
WALL AND CEILING FINISH:
1. Wall and ceiling finish materials are required to comply with Sec. 803.9 and Table 803.9.
2. Textile wall and ceiling coverings shall have Class A flame spread index and shall be protected by automatic sprinklers or meet the criteria in Section 803.5, 803.6 and 803.1.4.
3. Expanded vinyl wall coverings shall comply with the requirements for textile wall and ceiling materials. (803.7)
4. Toilet room floors shall have a smooth, hard nonabsorbent surface that extends upward onto the walls at least 4 inches. (1210.1)
5. Walls within 2 feet of urinals and water closets shall have a smooth, hard nonabsorbent surface, to a height of 4 feet above the floor. (1210.2)
CEILING HEIGHTS:
Occupiable spaces, habitable spaces and corridors shall have a ceiling height of not less than 7 feet 6 inches. Bathrooms, toilet rooms, kitchens, storage rooms and laundry rooms shall be permitted to have a ceiling height of not less than 7 feet. (1208.2)

INSULATION NOTES:
1. Insulating materials shall have a flame-spread rating of no more than 25 and a smoke developed index of not more than 450. (719.2) 'concealed installation' and Sec. 719.3 'exposed installation'

Foam plastic insulations are required to be protected. (2603)

PEDESTRIAN WALKWAY:
1. The pedestrian walkway shall be of noncombustible construction. (3104.3)
Exception 1: Combustible construction is permitted when buildings are combustible construction.
Exception 2: Fire-retardant-treated shall be permitted for roof construction where connected buildings are a minimum of Type I or II construction.
2. Walkway shall be separated from the interior of buildings by fire barrier walls with a fire-resistive rating of not less than 2 hours. (3104.5)
Exceptions:
1. The distance between buildings is greater than 10 feet and the walkway and both buildings have an automatic sprinkler system per NFPA 13. See exception for glass requirements.
2. The distance between buildings is greater than 10 feet and the sidewalls of the walkway is at least 50% open.
3. Walkway is not required to be separated when buildings are on the same lot are treated as one building per Section 503.1.3.
3. The unobstructed width of pedestrian walkways shall not be less than 36 inches. The total width shall not exceed 30 feet. (3104.8)
4. The length of exit access travel shall not exceed 200 feet. (3104.9)
Exceptions:
1. If walkway has an automatic sprinkler system, length shall not exceed 250 feet.
2. If both sides are at least 50 percent open, length shall not exceed 300 feet.
3. If walkway has an automatic sprinkler system and both sides are open 50 percent or more, length shall not exceed 400 feet.
5. Separation between a tunneled walkway and the building shall not be less than 2-hour fire resistant construction.