

Introduction

The Public Baccalaureate Prioritized Capital Project List

The Evergreen State College stands in full support of the Public Baccalaureate Prioritized Capital Project List. In response to the 2003 Legislature's enactment of Engrossed Substitute House Bill (ESHB) 2151 and further guidance in section 908 of the 05-07 appropriations act (SB 6095), the Washington State public four-year institutions, in consultation with the Higher Education Coordinating Board (HECB) and the Council of Presidents, have prepared a single prioritized capital project list for the 2005-07 biennium.

The four-year institutions, with assistance from the Council of Presidents, and in consultation with the HECB, met in a series of intensive meetings in a collaborative negotiated process to develop the Public Baccalaureate Prioritized Capital Project List. This single prioritized list, which reflects the broad public interest as well as the interests and priorities of the individual institutions, has been approved by all six of the Boards of Regents and Trustees of the respective institutions, including:

**Central Washington University
Eastern Washington University
The Evergreen State College**

**Washington State University
Western Washington University
The University of Washington**

This single list not only complies with the criteria framework and SB 6095, but meets the highest priority needs of all six of the State's four-year institutions, and is also consistent with the HECB Capital Budget Criterion Framework. Additionally, the list reflects the common project definitions jointly developed by the HECB, the Governor's Office of Financial Management, the Joint Legislative Audit and Review Committee, and the State's higher education institutions.

Each institution's respective mission, strategic plan, and ten-year capital plan provides the basis for the individual projects prioritized in this common list. In developing this list, the baccalaureate institutions have respected the fiduciary responsibilities vested in their individual Boards, and therefore, the list represents a request for funding from state general obligation bonds and Gardner-Evans bonds.

The prioritized list is based on an essential State funding request for the four-year institutions of approximately \$665 million, which the institutions listed above agree represents the funding level necessary to maintain, preserve, renovate, renew, and build capacity at public baccalaureate institutions to meet the higher education needs of Washington's citizens.



THE EVERGREEN STATE COLLEGE
OFFICE OF THE PRESIDENT

August 17, 2006

The Honorable Christine Gregoire
State of Washington
PO Box 40002
Olympia, WA 98504-002

Dear Governor Gregoire:

Please find attached The Evergreen State College's 2007-09 Capital Budget Request and the Ten-year Capital Plan. We are proud of the quality and diversity that our higher education system offers in supporting the many needs and expectations of the students in our great state. We believe that Evergreen with its special niche on an interactive and interdisciplinary liberal arts curriculum is a vital component of that system. Our graduates learn to think, inquire, challenge and understand. Perhaps more importantly, a liberal arts education enables our students to assume both personal and community responsibilities to ensure that a better world is offered to future generations. This budget balances the fiscal realities facing the state and the College's requirement to meet its education and facilities stewardship goals.

Evergreen's Strategic Plan and Campus Master Plan are the basis for this capital budget request and ten-year plan. Three primary issues are identified in these plans: providing responsible stewardship for our property and aging infrastructure; upgrading the campus infrastructure to meet projected technological needs and demands; and providing a quality educational experience in modernized facilities.

This budget request is consistent with prior capital budget submissions and continues to closely integrate operating and capital budgets. The projects are linked and coordinated to create an integrated, multi-biennium "ensemble" model for the College as outlined in OFM guidelines. This budget also reflects the Higher Education Coordinating Board's priority for enabling equitable access to quality learning environments through integrated facility preservation and building modernization programs. The needs identified in this budget are also included fully in the Council of President's integrated and prioritized 07-09 capital program for the public baccalaureate institutions.

It is worth noting that the second sequence of the Ten-Year Capital Plan is already accomplished. The Seminar II building, which was completed in 2004, was recently certified as a LEED Gold building and is providing most of the surge space as we undergo the renovations of the Daniel J. Evans Library and Campus Activities Buildings. With your support, our largest academic building, the Daniel J. Evans Library, was funded last biennium for the second phase of a major renovation. The project is currently in the final stages of design. We are positioned to begin the

next critical step in our ten-year capital plan and are requesting funding for the renovation of the Campus Activities Building.

The three components of our 2007-09 Capital Budget Request are to: 1) continue to make the progress on our campus-wide preservation backlog reduction plan; 2) renovate the Campus Activities Building; and 3) make necessary capital improvements to the Longhouse Educational and Cultural Center.

The beautiful Evergreen campus is a source of great pride to those of us at the College and in the State of Washington. Our 30 year old built environment has realized intensive use by our unique and effective educational programs, and we have been struggling to adequately meet our academic program needs. However, with the completion of Seminar II, completing the first phase of the Daniel J. Evans Building renovation and starting the second phase of this major renovation, we are well on our way toward addressing those challenges. This request reflects the College's commitment to fully complete an integrated coordinated sequence of preservation and program projects to modernize our physical plant over the next decade.

I want to thank you for your commitment to our educational system and to your continued support for Evergreen's capital program. Please let me know if my staff or I may help as you formulate your 2007-09 capital budget policy.

Sincerely,

A handwritten signature in black ink, appearing to read 'Thomas L. Purce', written in a cursive style.

Thomas L. Purce
President

The Evergreen State College

Improving the Value of an Evergreen Education

**2007-2017 Biennial
Capital Budget
Request**

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Executive Summary

The Evergreen State College (TESC) was authorized in 1967 by the legislature (RCW 28B.040.010) as the only public State College in Washington and admitted its first students in the fall of 1971. Evergreen is a public liberal arts college of 4,171 undergraduate students and 299 graduate students. Evergreen is authorized by RCW 28B.040.200 to provide Bachelor of Arts and Bachelor of Science degrees. In addition, RCW 28B.040.206 allows the college to provide master's degrees.

The president of the college is hired by and is directly responsible to the eight member Board of Trustees for the administrative direction and supervision of all operations of the college. Thomas L. (Les) Purce became the President of the Evergreen State College in July 2000.

Our mission focuses on providing innovative teaching and experiential, hands-on learning. We provide full time interdisciplinary academic programs in liberal arts and sciences. Our classes are small to promote active student participation. Faculty and students use narrative evaluations instead of grades. We also offer Evening and Weekend academic programs for students, many of whom are working adults who cannot attend full time. 58% of our students receive financial aid. 56% of our degree seeking undergraduate students are transfers from other institutions, primarily Washington's community colleges.

In addition to our Olympia campus, we provide upper-division, off campus programs to seven tribal sites, Tacoma's inner city, and the Grays Harbor community. Our public service centers assist legislative policy development and enrich school districts, community colleges, businesses and tribes across the state. The College has earned a national reputation as one of the best liberal arts colleges in the country. In the past biennium the College has received several awards not only for its facilities and infrastructure projects but also for its academic programs. The College has been recognized with a LEED Gold certification from the Green Building Council for the recently completed Seminar II building (first Gold building in the state), 2005 Outstanding Bicycle and Pedestrian Award from Washington State Department of Transportation for the Evergreen Parkway Road Modernization and 2006 Honorable Mention from the American Planning Association and the Planning Association of Washington for the Evergreen Parkway project. Additionally, the College has been designated as a Green Power Partner by the US Environmental Protection Agency for our purchase of 100% Green Power for the campus and received the Power Player Award from Puget Sound Energy and Seattle Power and Light for this commitment. In the academic arena the College has been recognized as one of 40 schools that change lives (only public college in the West and one of two in the nation) by Loren Pope in his book, *Colleges That Change Lives: 40 Schools That Will Change The Way You Think About Colleges*. The College has also been named by *The Princeton Review* as one of the nation's "best value" four-year colleges. Lastly, the National Survey of Student Engagement by the Carnegie Foundation for the Advancement of Teaching indicated that The Evergreen State College was one of the most academically challenging colleges in America.

Mission Statement

Mission: To be the nation's premier interdisciplinary, public liberal arts college.

Principles: This mission is based on a set of principles that guide the development of all college programs and services. Founded as an experimental public liberal arts college, Evergreen's focus is *teaching and learning* and a commitment to offering a distinctive liberal arts curriculum that incorporates:

- A faculty committed to interdisciplinary scholarship and teaching, and team teaching
- Student engagement and success (learning, persistence, satisfaction, graduation)
- Faculty and students committed to the five foci of interdisciplinary education, personal engagement in learning, linking theory and practice, collaboration, teaching and learning across significant differences
- The preparation of students in their academic fields with the skills to communicate, solve problems, and work collaboratively and independently as responsible global citizens who can act locally in communities and support the practices of democracy, social justice, diversity, and sustainability
- Curricular and pedagogical substance, experimentation, and innovation
- Multiple modes of study including full-time day; Evening and Weekend Studies; undergraduate and graduate study, as well as study abroad, field studies, and community service opportunities wherever possible
- Meaningful narrative evaluations
- Close student/faculty collaboration and undergraduate research opportunities

Internal Values: Evergreen has many distinctive values that are long-standing and should be preserved. As we think about the future, these values describe what kind of college we want to be. They guide our decision-making.

We are committed to building a community that fosters:

- The traditions of a liberal arts education that produces thoughtful, well-educated, ethical, and active citizens.
- An environment of cooperation and respect for one another and for cultural differences
Shared governance and open access to governance processes for all
- Willingness to solve grievances by responding to conflict in compassionate and constructive ways
- Locatable and accountable decision-making
- Affirmative action and comparable worth
- Formal policies that match these values
- Reciprocal local, regional, and national partnerships in the work of Evergreen's public service centers as they disseminate the best work of the college and bring back to the college the best ideas of the wider community.

We, at Evergreen, are proud of the innovative and energetic public liberal arts education we provide our students. For thirty-six years students have been the center of our mission. We are a small school that nurtures students and enables them to think and act effectively in the regional, national and global contexts. Our students are passionate about pursuing their education here because they want to make a difference in the world. Our faculty is equally passionate about working directly with all of our students, providing them with interdisciplinary programs that reflect the real world they will work in.

As evidenced by these principles, an important part of Evergreen's educational mission is engagement with the community, the state, and the nation. One focus of this engagement is through the work of public service centers that both disseminate the best work of the college and bring back to the college the best ideas of the wider community.

Overview

The Evergreen State College, located in Olympia, was established in 1971 to "help students realize their potential through innovative, interdisciplinary educational programs in the arts, humanities, social and natural sciences". Evergreen's unique and valuable role in the educational system has been repeatedly reaffirmed by its consistently high rankings in national educational rating surveys.

Our mission focuses on teaching and hands-on learning. We provide full-time interdisciplinary academic programs of liberal arts and sciences. Our classes are small to promote active student participation. Faculty and students use narrative evaluations instead of grades. We also offer evening and weekend academic programs for students, many of whom are working adults who cannot attend full time. Fifty-eight percent of our students receive financial aid. Fifty-six percent of our degree seeking undergraduate students are transfers from other institutions, primarily Washington's community colleges. In addition to the Olympia campus, TESC provides upper division off campus programs to five tribal sites, Tacoma's hilltop area, and the Grays Harbor community. The College's public service centers assist in legislative policy development and enrich school districts, community colleges, businesses and tribes across the State. We have earned our well-deserved national reputation as one of the best liberal arts colleges in the country.

The institution consistently meets its goal of providing a high quality undergraduate and graduate education to students by offering a specialized curriculum of liberal arts and sciences structured in a unique framework of interdisciplinary studies. Through student focused faculty-student-administration relationships and collaborative teaching and learning curriculums, the college graduates students with the diverse independent thinking skills that will be critical to the society of the future. In keeping with its institutional mission, Evergreen offers selected master's programs of statewide significance utilizing the college's unique resources. Evergreen in two of its masters programs emphasizes public service responsibilities to state government, and the statewide efforts to improve the quality of public education.

Evergreen approaches the lifelong learning process³ with the tools of a traditional college: the disciplines of the humanities, the arts, the natural sciences and the social sciences. However, those disciplines are transformed by Evergreen into teaching and learning experiences characterized by:

- Interdisciplinary learning communities which immerse students in the complexities and diversities of multiple perspectives and which foster the applied development of cooperation, problem solving,

- communication and integration;
- Internships and applied projects which bridge theory and practice;
- Small classes and narrative evaluations which require, even at the beginning level, active involvement of students;
- Independent study options and self-evaluations in which students take responsibility for their own learning; and
- An environment that celebrates diversity as a resource for learning.

Undergraduate Education

Evergreen's undergraduate programs are designed to meet the educational needs of its students while remaining sensitive to the necessities required to juggle work, school, and family responsibilities. Recognizing the needs of both learning and life, Evergreen has expanded on its success by providing a non-traditional curriculum to non-traditional places and students.

In addition to our Olympia campus, we serve students from traditionally underserved populations on Tacoma's Hilltop area at our Tacoma campus, students in Grays Harbor, and students at five tribal sites throughout the state. These off-campus programs offer upper-division courses. These programs allow students to live and work in their own communities and tailor their learning in an interdisciplinary program that is relevant to their community.

One of our fastest growing programs is the Evening and Weekend Studies Program (formerly Part-time Studies Program). Since 1993 student enrollment in part-time studies has grown steadily from 91 students and 2 programs to a projected enrollment of approximately 510 students per quarter in 15 programs this coming academic year (2006-07). The program continues to address needs of traditionally under-served populations that cannot attend college on a full time basis. Students in the part-time programs typically are either adult learners with life responsibilities, or younger students seeking singular course skills. To ensure efficient use of facilities and to meet public needs, classes are offered in the evenings and weekends.

The part-time studies program, currently located in different areas of campus, was relocated to the new Seminar II classroom building when it opened in March 2004. Consolidating the program in the College's newest building will allow increased enrollment, improved access to faculty and greater public access to the program. Given the recent expansion of the program and the predicted need for life long learners in the work place, the growth potential for this program is ensured.

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Graduate Education

Evergreen currently offers three master's degree programs: Masters in Teaching, Masters of Public Administration, and Masters of Environmental Studies. Evergreen is not authorized to offer a Ph.D. program.

The Masters in Teaching (MIT) program is an innovative, team-taught program encompassing the psychology, philosophy and history of education, multi-cultural studies, and research and teaching methods. A group of approximately sixty students and three or four faculty members form a learning community that essentially remains together for two academic years. In March 1998, Evergreen's MIT program became the first in the state to be approved by the State of Washington Board of Education under new state education reform guidelines.

Evergreen's Master of Public Administration (MPA) program is committed to thoroughly preparing students to seek democratic, equitable, and practical solutions to the challenges facing state and local governments. The core sequence provides sustained instruction in the analytical, administrative, and communications skills needed for effective public service. Typically students complete the sixty quarter-hour degree requirements in six to eight academic quarters. To satisfy the degree requirement, a student must participate in a sequence of five core programs, twelve elective credits and an applications project. This program meets a unique need for the people of the State to have an adequately trained cadre of dedicated public service employees. Evergreen recently began a tribal MPA program, which will provide professional training and leadership for tribal members who wish to serve their own communities as managers and administrators.

The Masters of Environmental Studies (MES) program focuses on the relationship between science and policy, combining a deep understanding of ecological and environmental issues with study of environmental policy development and implementation. The MES program consists of required core courses taken by all students, elective course work, and submission of a thesis. The core courses in this program are taught by interdisciplinary teams of faculty members drawn from both natural and social sciences. Given the needs of preserving our natural environment and providing a clean and healthy quality of life for the citizens of the State of Washington this program provides a critical function to the State.

Public Service

Evergreen's commitment to public service is demonstrated by its six public service entities.

Washington State Institute for Public Policy

The Washington Legislature created the Institute in 1983 with a mission to carry out public policy research, at legislative direction, on issues of importance to Washington State. The Institute conducts research using its own policy analysts, academic specialists from all of Washington's universities, and consultants. A board of directors, representing the legislature, the governor, and public universities, governs the Institute and guides the development of all activities.

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Labor Education and Research Center

Through a library of resources and educational programs, The Evergreen State College Labor Education and Research Center support working people, community members, and students in gathering information about labor history, organization of work, life, and culture. Labor Center-sponsored events seek alternative approaches to systems and symptoms of discrimination.

The Longhouse Education and Cultural Center

The Longhouse—the only building of its kind on a public campus in the United States—provides essential classroom space and serves as a multi-purpose, multi-use space to support Native American Studies. This unique building, opened 9 years ago, has provided such a significant value to the Evergreen, Native American peoples, and local communities, that included in the 2007-09 biennium minor works program is a request for an addition to the building. In keeping with Evergreen's grounded academic principles the Longhouse attracts conferences and events that educate, entertain, and enrich the College and State residents on the role of past and current Native American communities. In keeping with Evergreen's unique role and mission that includes serving the educational needs of Washington State's Native American tribes, Evergreen has mounted an ambitious public service initiative to strengthen relationships with tribal communities through the Reservation-based programs, and through an emerging

economic development/arts initiative with Western Washington Tribes. Recently, the Native American programs offered through the Longhouse Education and Cultural center were awarded a Ford Foundation grant to broaden the educational program and to become a national resource for native artists by use of its Artist-in Residence program

The Washington Center for the Improvement of Undergraduate Education

The Washington Center for Improving the Quality of Undergraduate Education is a statewide faculty development initiative to improve teaching and student learning. Forty-six two-year and four-year, public and private colleges and universities are affiliated with the Center. Evergreen, through the Washington Center, received a grant from the Fund for the Improvement of Post-Secondary Education to support nationwide dissemination of Evergreen's learning community style of teaching and learning.

For greater public access, the program was housed in the Seminar II Building when it opened in March 2004.

The Evergreen Center for Educational Improvements (K-12 Center)

The Evergreen Center for Education Improvement (ECEI) assists school communities across Washington State in attaining their objectives for improving K-12 programs by concentrating on improving curriculum and assessment. This Center was recently nationally recognized when it received a \$2.1 million dollar grant. The Center was also recently recognized when it was named fiscal agent for the State's Inter Institutional College Awareness Program (CAP). The Center, which works directly with teachers, uses integrated studies and the State's benchmarks to assess student learning and design curriculum; as well as providing technical assistance to needs identified by individual schools and by school districts. To improve public access to this highly visible state and national program it was relocated into the College's new academic building, Seminar II, when it opened in March 2004.

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Northwest Indian Applied Research Institute

The Northwest Indian Applied Research Institute provides a variety of services to the indigenous people of Western Washington. Two of their most recent projects include an initiative on improving state-tribal relationships and development of a curriculum on tribal governments for the MPA.

Strategic Planning Elements

Evergreen's strategic plan forms the basis for its capital budget request and 10-year plan. Three primary issues were identified in both the College's and the State's planning process: responsible stewardship of property and aging facilities; upgrading physical infrastructures to meet projected technological needs and demands; and enrollment growth. The Campus Master Plan (revised in 2005) and the Strategic Plan (adopted in 1999) together guide the planning of the College. The Campus Master Plan will have a major update in 2006-2007 once the Strategic Plan is updated and approved in late 2006. There are three goals in the updated Strategic Plan that directly relate to and provide the core for this ten year capital plan. These goals are:

Evergreen: A Place for Sustainability

Overpopulation, exhaustion of resources, poverty, and stresses on the natural environment are increasing. The need for well-educated and motivated leaders who aspire to solve these complex problems is critical. Evergreen can become a laboratory for sustainability as demonstrated in our operations, our curriculum, and in the quality of life for our employees and students. Already the premier national model for interdisciplinary liberal arts education, ultimately, Evergreen will be nationally renowned for its work and educational opportunities providing needed leadership throughout the academic, public, nonprofit, and business communities.

Strategies

- We will develop a model curriculum in sustainability that uses as its core both whole systems thinking and the liberal arts. We will connect student learning to operational practices that reflect our profound commitment to a sustainable future for all species. Our practices and purchases will originate from socially just, environmentally healthy, and fiscally responsible sources.

Milestones

- ❖ An integrated interdisciplinary and interdivisional sustainability curriculum is implemented with increased opportunities for applied learning in sustainability.
- ❖ An organizational support structure for campus sustainability is established.
- ❖ A robust plan for the reduced and efficient use of resources is initiated.
- ❖ Best sustainable practices/purchases policies are implemented.
- ❖ Evergreen's sustainability commitments, practices, and achievements are visible to the campus and wider community via a multi-faceted communication strategy.
- ❖ Evergreen's land endowment is managed for increased biodiversity and maximum educational opportunities related to sustainable practices.
- ❖ Evergreen becomes a carbon neutral college.

Metrics

- ❑ Become carbon neutral by 2020
- ❑ Become a zero-waste college by 2020
- ❑ Increase our local, local organic, and organic food purchases to 40% by 2010
- ❑ Reduce our energy consumption by 30%, on a per full time equivalent basis, by 2010
- ❑ Reduce our paper consumption to 50% by 2010
- ❑ Reduce the number of faculty/staff computers per capita by 15% by 2010
- ❑ Reduce the number of individual desktop printers by 50% and photocopiers by 10% by 2010

The college's physical resources will imaginatively enhance the learning and working environment.

Strategies

- Evergreen has completed a Facilities Condition Audit of all campus buildings to be used as a baseline for capital projects planning, renovation, and repair.

Milestones

- ❖ A new campus master plan (including housing and other auxiliary services) is completed based on curriculum planning, campus life issues, sustainability, and enrollment growth.
- ❖ Enhanced pedagogical links between the newly remodeled and connected Library, Computing,

Media, Writing, and Math centers. Regularly collected data enable informed decisions about physical resources, guided by a Campus Master Plan that is kept current.

- ❖ There is a new 10-year capital plan.

Metrics

- ❑ Complete regular updates of the Campus Master Plan.
- ❑ Submit all major capital renovations for LEED (Leadership in Energy and Environmental Design) certification.
- ❑ Conduct annual comparisons of Evergreen's deferred maintenance funding to national benchmarks.
- ❑ Increase the percentage of Facilities Labor Pool budget funding from the capital budget to operating budget sources.
- ❑ Reduce energy costs through sustainable practices.
- ❑ To the degree possible, involve students, faculty, and staff affected by the renovation in the design team decision-making processes in major renovation projects.
- ❑ The Strategic Plan and Campus Master Plan drive biennial capital budget requests and take into account the estimated life-cycle cost for capital assets.

Use technology to enhance teaching and learning and administrative support at Evergreen.

Strategies

- Evergreen intentionally fosters secure, sustainable, flexible, and accessible information technologies (IT) that support and enhance our teaching and learning philosophies and the administrative needs of the institution.
- Limited IT assets will be optimized by managing resources effectively. The focus will be on easy-to-use technology and quick and easy access to updated data. Accuracy and quality of information will improve, and strong support will make technology available to the full Evergreen community, providing technology and media literacies as part of a liberal arts education.
- Evergreen's Library and Media Services will provide a broad range of information services to both on- and off-campus users.
- Security requirements of networks, software, hardware and data will be met while ensuring appropriate user access, including control of access to confidential information and the need for academic exploration.
- The implementation of IT projects will be well-defined, predictable, and transparent.
- Classroom spaces are technologically current and functional for meeting curricular needs. These will continue to be updated as technology evolves.
- Access to digital (text and media) collections needs to improve.

Milestones

- ❖ The development process for major projects include a comprehensive assessment of the total cost of ownership of technology.
- ❖ Evergreen policies and systems are compatible with the security standards established by the Washington Department of Information Services.
- ❖ A decision is made on what cohesive-integrated collaboration tools will be used at Evergreen.
- ❖ A unified assessment to measure the integration of technology into the curriculum is conducted.

Metrics

- ❑ Increased satisfaction with the use of technology to accomplish students' academic goals.
- ❑ Increased use of appropriate tools and resources in support of faculty teaching and learning needs.
- ❑ Improved staff capacity to provide services to the community through business process automation.
- ❑ Availability and reliability of core systems demonstrate that IT emergencies (such as virus outbreaks, hacks, etc.) do not cause significant operational impacts to the college.
- ❑ A survey of programs and constituencies not located primarily on campus demonstrates an improvement in access.

General Description of Major Buildings and Building Inventory

At Evergreen, buildings are generally named according to the functions or activities they support. The only exception to this rule is the Daniel J. Evans Library Building, which is also the largest structure supporting academic programs and the most diverse in services and functions. Major activities taking place in the Library building include the Library, student computing center, student media center, photo services, controller, enrollment services, student financial aid, registrar, student advising center, academic computer center, film library, classrooms ranging from small seminar rooms to medium and large media-supported classrooms, multipurpose rooms, and academic break out spaces. Senior administration, their support staff, academic deans, faculty and staff are also housed in this multi-use structure.

All nine of the major buildings on campus function as multi-use facilities. With the exception of the Lecture Halls and College Activities Building, all major buildings have a combination of faculty, staff and student offices and classrooms. The Lecture Halls, which are multi-media capable, provide student classrooms, and double as meeting spaces for faculty, staff and administration to discuss critical college operational issues. The College Activities Building houses student activity groups, the College Bookstore, the public radio station, food service and dining operations, Conference Services, and two large classrooms. The College Recreation Center contains staff offices, classrooms, the Athletic and Wellness Center, racquetball and basketball courts, swimming and dive pools, dance and multipurpose classrooms. The Seminar Phase I Building provides several small seminar rooms, faculty and staff offices, Campus Police Services, the Emergency Communications Center, and the Counseling and Health Center. Although there are faculty and staff offices and general classrooms in the two Laboratory Buildings, they function primarily as Art and Science Labs.

During evening, weekend, and summer sessions, all major buildings are used for Evening and Weekend Program classes, State Agency seminars, conferences, and meetings, effectively utilizing the College's physical facilities around the clock throughout the year.

Building Inventory

The physical facilities of The Evergreen State College are located on 1,033 acres; approximately 300 of those acres are maintained. The following is a listing of major campus buildings and associated construction dates*:

<i>Major Buildings</i>		<i>Gross Square Footage</i>	<i>Date Constructed</i>
Daniel J. Evans Library Building		346,969	1971
Central Utility Plant & Utility Tunnels		65,049	1971
Shops Garage		12,701	1971
Modular Housing		30,623	1971
Lecture Halls		23,639	1972
Shop and Shop Addition		17,986	1972
College Activities Building, Phase I & II		112,239	1972/1991
Residence Hall A		47,510	1972
Residence Hall B	11	20,332	1972
Residence Hall C		20,332	1972

Residence Hall D	20,332	1972
College Recreation Building, Phases I & II	115,680	1973/1989
Arts Science Building, Phase I	85,268	1973
Arts Science Annex/Art Studios	27,377	1973/1988
Covered Recreation Pavilion	18,559	1973
Seminar Building, Phase I	44,910	1974
Seminar II Building	159,862	2004
Arts Science Building, Phase II	90,157	1975
Organic Farm Building	3,478	1975
Grounds Vehicle & Equipment Storage	2,700	1975
Communication Laboratory Building	116,298	1977
Housing Phase II	68,063	1987
Grounds Storage, Phase II	4,800	1988
Housing Phase III	62,412	1989
Longhouse Education & Cultural Center	<u>12,177</u>	1995
Total Square Footage	1,369,591	

2007-2017 Capital 10-Year Plan

	07-09	09-11	11-13	13-15	15-17
Minor Works: Preservation					
Health Safety/Code Compliance	\$3,000,000	\$2,015,000	\$2,550,000	\$2,500,000	\$2,000,000
Preservation	\$5,300,000	\$5,130,000	\$4,650,000	\$5,000,000	\$5,000,000
Infrastructure	\$700,000	\$1,855,000	\$1,800,000	\$1,500,000	\$2,000,000
SUB-TOTAL PRESERVATION	\$9,000,000	\$9,000,000	\$9,000,000	\$9,000,000	\$9,000,000
Minor Works: Program					
Minor Works Program	\$930,000	\$520,000	\$535,000	\$550,000	\$565,000
Longhouse	\$1,700,000				
CAB Renovation	\$4,900,000				
Science Center		\$4,120,000	\$4,635,000	\$4,775,000	
Seminar I Building		\$4,650,000			
Art Annex					\$4,920,000
SUB-TOTAL MINOR WORKS PROGRAM	\$7,530,000	\$9,296,000	\$5,170,000	\$5,325,000	\$5,485,000
Major Program Projects					
COM Building Renovation	\$8,700,000				
COM Building Expansion			\$1,900,000	\$28,630,000	
CRC Building Predesign	\$200,000				
CRC Building Renovation		\$1,030,000	\$7,430,000		
SUB-TOTAL ALL PROGRAM	\$8,900,000	\$1,030,000	\$9,330,000	\$28,630,000	
GRAND TOTAL	\$25,430,000	\$19,320,000	\$23,500,000	\$42,955,000	\$14,485,000

State of Washington
CAPITAL EXPENDITURE SUMMARY

Agency Name: The Evergreen State College	Agency Code: 376	Page: 1 of 1
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FUND	2005-2007 PROJECT NO.	DESCRIPTION	APPROP CODE	2005-2007 APPROPRIATION	ACTUAL FY 2006	ESTIMATED REAPPROPRIATION	LAPSE	ESTIMAT COMPLETION
042	06-2-951	Schools for the Deaf and Blind	H09	50,000	50,000	-	0	
042	06-2-952	Prevention and Intervention Study	H10	50,000	50,000	-	0	
057	04-1-001	Infrastructure Preservation	G13	275,159	275,159	-	0	
057	04-1-951	Facility Preservation Backlog Reduction	G17	300,000	195,462	-	0	
057	06-1-751	Infrastructure Project Savings	H05	1	-	-	0	
057	06-2-001	Lab I First Floor Class/Lab Renovation	H07	3,100,000	239,976	1,750,000	0	9/3
066	02-2-004	Seminar Phase II - Construction	G11	661,207	389,185	250,000	0	6/3
066	04-1-004	Minor Works Health Safety & Code	G20	700,000	481,165	-	0	
066	06-1-002	Life Safety Code Compliance	H01	2,000,000	374,769	400,000	0	9/3
066	06-1-003	Minor Works - Facility Preservation	H02	4,000,000	1,479,576	1,000,000	0	10/3
066	06-1-004	Infrastructure Preservation	H03	1,000,000	150,940	350,000	0	10/3
066	06-1-005	Minor Works Program	H08	500,000	199,759	75,000	0	10/3
253	06-1-750	Preventive Facility Maint & Repairs	H04	760,000	241,058	-	0	
357	04-2-006	Daniel J Evan Bldg Modernization	G12	15,499,105	13,981,544	-	0	
357	04-2-006	Daniel J Evan Bldg Modernization	H00	22,250,000	258,269	20,250,000	0	12/3
357	06-1-751	Infrastructure Project Savings	H06	1	-	-	0	
357	02-2-004	Seminar Building Phase II	H11	4,250,000	4,250,000	-	0	
				55,395,473	22,616,862	24,075,000		

Improving Our Capital Budget Process

Improved Planning and Monitoring

As Evergreen has aged and financial resources have become scarcer, the College has refined and developed its ability to prioritize the Capital Budget process. To accomplish this task, the College created a Capital Planning Review Committee in 1992. This committee, currently known as the Space Management Committee, brings together academic leadership; campus space planning, scheduling and utilization; environmental health and safety; budget; and facilities staff to make informed consistent recommendations for both campus capital projects and facilities maintenance plans.

In 1999 the College's Trustees adopted a Campus Master Plan that outlined goals and policies for land use and building construction on campus. With the adoption of the Campus Master Plan a Campus Land Use Committee was created and charged with reviewing and ensuring that all future campus development adheres to the policies and spirit of the Campus Master Plan. The Committee consisting of representatives from all areas of the campus (students, faculty, administration, staff, and other interested parties) ensures that campus development is focused on the institutions academic mission as outlined by the Campus Master Plan. The College will do a major revision to the Campus Master Plan during calendar year 2007. This revision will take into consideration the completion of the Seminar II facility, the modernization of the Daniel J. Evans Library and the program changes which have occurred since the Campus Master Plan was last approved.

In January of 2000 the Board of Trustees approved the Strategic Plan, which was then printed and distributed throughout the campus. Currently, the Strategic Plan is being updated and the update will also be used in the planned revision of the Campus Master Plan. As quoted earlier the Strategic Plan informs on the need for an integrated long-range strategic planning model that conforms closely to OFM and State guidelines. More directly however the Strategic Plan calls for:

1. The development of a 10-year Facilities Master Plan to meet the academic growth and flexibility required in a college environment.
2. Development of a long-range plan for preservation and improvement to the College's existing infrastructure.
3. The Campus Land Use Committee is to assess and develop a plan for effective land use.
4. The Space Management Committee is to assess campus space scheduling and management to ensure that space is being used effectively and efficiently.

In keeping with the Strategic Plan, the College is now implementing and will revise the multi- biennial Facilities Renewal and Adaptation Plan based on: the facilities assessment and the facility audit completed in December 2005; the space efficiency study, the revised Campus Master Plan; and the College's updated Strategic Plan. The Facilities Renewal and Adaptation Plan reflects not only capital improvements but also improved maintenance operational plans to ensure the protection and efficient operation of Evergreen's physical plant – in other words responsible stewardship of the assets. The plan outlined in the 2001-2011, 2003-13, 2005-15 and again in this budget request (2007-17) utilizes an integrated or "ensemble" model to complete renovations over a series of years using one renovation as a bridge to the next. The goal, at the program's end in 2017, is to have a renewed and revitalized campus infrastructure that continues to meet the needs of Evergreen's academic programs.

Capital Budgeting from a “Whole Campus Perspective”

Evergreen has, since its inception, always approached the capital budget from a holistic view. This is not surprising since the holistic approach is a manifestation of the College’s academic interdisciplinary model. The College has in the past considered the whole, but focused planning on a “whole building approach”, where by all work required for a particular area of a building is completed as a discrete project. Evergreen has now expanded this approach to take in the needs of the whole campus and the community. More of Evergreen’s resources will be committed to integrated or “ensemble” type projects that address campus wide issues. An example of this is the Classroom Upgrade Program: to meet future needs the College has started renovating existing academic areas e.g., the lecture halls, lab spaces; added additional classroom space with the Seminar II project; then will renovate remaining classroom space to complete the cycle. This “ensemble” of projects spread over multiple biennia will, at its conclusion, meet the College’s growing need for renewed and expanded academic space across campus.

The College has always encouraged its perspective to include multiple viewpoints. We actively engage students in our building and land use issues. Students serve on committees, review drawings, and work with facilities staff to learn the issues and complexities of building construction and usage. Students are encouraged to follow up on their ideas with academic and practical research.

Echoing society, the College is considering issues of sustainability. How can we build efficient buildings that remain programmatically flexible and can be maintained cost effectively through their life? How does the College construct buildings that maintain a healthy interior air quality and what are the issues necessary to sustain those buildings? How does the College build “green buildings” cost effectively? How do we minimize damage to a stressed environment? How does one do all of the above and meet the needs of the taxpayers by keeping costs to a minimum? The College believes these are important issues and is attempting to address them as a learning experience for our students and ultimately for the people of the State. The College’s commitment to sustainable buildings was firmly established in the construction of Seminar II, which is a green building. This building received a LEED (Leadership in Ecological and Environmental Design) Gold Rating – a first for a State building. The College is also reviewing the new LEED Existing Building standards to see if it is feasible to adopt the standards (again a first). The College is firmly committed to meeting or exceeding the State’s mandate for all major building renovation and new construction to meet the LEED Silver standard.

Meeting College Facility Needs Through an Integrated Phased ‘Ensemble’ Program to Accommodate Incremental Growth and Provide a High Quality educational Experience

The College needs to both *add* space and *modify* existing space to meet expected academic growth to accommodate expected incremental enrollment growth and provide a high quality educational experience.

The challenge is to renovate an aging structure in use beyond its normal life expectancy, while keeping it in use to meet enrollment needs. Experience shows that the College cannot close buildings for a prolonged period to complete renovations, and that the summer months are not long enough to accomplish the substantial renovations that will be required in the coming years. An integrated, phased, campus-wide renovation/construction program spread over a series of biennia will allow the College to meet its needs with minimal disruption to academic programs. OFM has identified such scheduling and phasing programs as project “ensembles” – the proposed series of renovations that started with the Labs and Lecture Hall in recent biennia; continues with the completion of Seminar II, the completion of the Daniel J. Evans Building renovation, and continuation of the ongoing phased Lab renovations in the

2005-07 biennium; followed in this biennia with the renovation of the CAB building, the improvements to the Longhouse, and the renovation of the Communications Building, and in future biennia the continuation of the science lab updates, the Seminar I renovation, and the CRC building pre-design, design and renovation. This integrated plan (“ensemble”) utilizes the Seminar II building as swing/surge space to meet the needs of the institution in the integrated process recommended by OFM and the State. The outlined adaptive reuse plan is not only the most cost effective method of meeting the State’s educational needs both operationally and capitally, but also represents a commitment to environmental stewardship by reducing depletion of natural resources incurred when old buildings are abandoned and new structures are built. Adaptive reuse as practiced by the College is good for the taxpayer, the local economy and the environment.

Lowering State Bond Obligations through Use of Local Funds

In 1995-1997 Evergreen began to receive normal school trust funds as approved by the 1993 Legislature. To minimize the impact of this change on the other regional universities, the legislature adopted the College’s suggested implementation strategy to begin its participation at 5% then incrementally increasing by 5% each biennium until the College reached the full 25% share level. Throughout the 10-year plan, Evergreen proposes to share in the cost of the capital program by expending our normal school trust funds on projects in the Life Safety/Code Compliance, Emergency Repairs, and Omnibus Minor Works for both program and preservation categories. For some years the College has been using the funds to pay for project preplanning costs. In the coming decade the College intends to use more of the Trust Funds to supplement capital work. Five years ago the College spent five hundred thousand dollars (\$500,000) of these funds on capital work, by the 2007-2009 biennia it proposes to increase that to four million nine hundred thousand dollars (\$4,900,000) if the current returns continue. We will, however, maintain a positive fund balance in this account as a way to address modulations in trust fund earnings that impact actual trust fund distributions to ensure a positive cash flow is maintained in this fund.

10-Year Capital Plan: Comparison with Previous Plan

The 10-year plan continues the approach of responsibly meeting enrollment growth needs and ensuring that the College’s aging infrastructures are maintained and modified to meet the needs of the future. The College’s proposed 10-year plan reflects our traditional commitment to meet the needs of the public by adaptively modifying and reusing present space and building systems to minimize the need for new space. This plan reflects, builds upon and updates all prior TESC Capital Plan submissions.

This College plan is a reflection of issues well thought out to be planned and executed in a staged manner, utilizing our own planning processes (Strategic Plan, Campus Master Plan, Space Efficiency Study, Facilities Condition Survey, Facility Condition Audit, and Campus-wide inclusion) while stringently adhering to the guidelines set out by the State of Washington (OFM, HECB). The College believes it has been exhaustive in exploring all issues, inclusive in considering all options, reflective of both internal and external concerns and flexible and resourceful in our plan of action. The outlined integrated (“ensemble”) approach allows the College to meet its commitment to expanded student access and responsible stewardship of State resources (both operating and capital) in a reasonable time, while not unduly burdening the State financially through utilization of a phased renovation program encompassing several biennia. This plan expands the College’s emphasis on preservation and renewal of our facilities and bonds our capital work with operational maintenance, thus fulfilling our role as good stewards of the State’s resources. The College’s continued commitment to comprehensive multi-faceted capital planning will

ensure that Evergreen continues fulfilling its mission of providing the highest quality education to all people.

The College's 2007-2009 Capital Budget Request is firmly based in the plans laid out in TESC's 1999-2001, 2001-03, 2003-05, & 2005-07 Capital Budget Plan submissions. Changes in the College plan are driven by un-funded portions of previous budget requests, ensuring that a comprehensive infrastructure preservation program is implemented, College enrollment growth needs required to meet student access goals; required technological changes; providing a high quality educational experience; improved quality in academic programs; and providing for public safety. The 2007-09 Capital Request and 10-Year Plan blended three strategies for coping with these challenges; a coordinated systemic sequence of renovation projects throughout the campus planned to minimize disruptions to on-going academic programs; and implementation of a comprehensive long term preservation and renewal program consistent with OFM and HECB recommendations. Both the long term operational maintenance plan and the 10-year capital plan have been developed in a systematic manner to complement each other and ensure delivery of quality and cost effective service to the students and public we serve.

Specific changes from our previous ten-year plan include:

- Outlying biennia (2007-2017) building renovation projects were reprioritized to reflect campus programmatic needs, facilities assessment data, and linking of operational maintenance and capital programs.

2007-17 Capital Budget Request - Primary Strategies and Critical Challenges

Three main elements comprise the Capital Budget request: preservation of existing facilities; increasing demands of users for technology; and ensuring the facilities provide a high quality educational experience.

Utilizing the “ensemble” model outlined by OFM, the College will undertake a multi-biennial sequential program of renovations to meet both the projected needs of an expanded student body and address the issue of the aging physical campus infrastructure. The integrated (“ensemble”) model developed and outlined in this budget request is so tightly inter-linked that an essential component of the program is the utilization of the College’s new Seminar II building as surge space to allow for the efficient and effective updating of existing campus spaces. Evergreen plans to operate without disruption to student services while completing a series of major renewal programs to upgrade the campus by utilizing Seminar II as “surge” space.

The College’s ten-year plan, while tightly integrated, is fairly straightforward and tightly focused on the College’s goals of preservation of existing assets, meeting student demands for technology, and increased student enrollment. With the completion of Seminar II, the College will have the necessary space to meet its growth projection of 5000 FTE by 2014. In the coming six years the general classroom and office space housed in Seminar II will give the College surge space to relocate to when undertaking major preservation work in the remaining campus buildings. Emphasis in the early part of the renovation cycle is on academic buildings and in the later phase on student support areas.

The first scheduled renovation was the Daniel J. Evans Building, scheduled in two phases (2003-05 and 2005-07) and expected to be complete in 2008. Parallel to and following that will be renovations to dedicated Laboratory areas in the science buildings scheduled over several biennia. And, renovations to the expressive and media arts lab space in the Communication building beginning in 2007-09. This phase will be completed with the renovation of the Seminar I building in 2009-11. Starting in 2007-13, we will begin a renovation sequence in areas with a student focus, starting with the CAB Building in 2007-09, and followed by the CRC in 2009-13. These renovations will be coordinated with planned housing expansions and renovations in the same time to maximize building efficiencies. Throughout the 2007-17 period, preservation of the campus infrastructure i.e., roads, walks, utility systems, etc., and smaller preservation projects will also take place. If the schedule is followed, the campus will complete its renewal cycle by the end of the period. Given that all of the projects listed in the Plan are renewals of existing buildings they should not trigger any requirements from the Growth Management Act.

It is important to view the attached plan in the context that the College used the 1999 updated Campus Master Plan and has tied it to the 10+ year Facilities Master and Modernization Plan reflected in the Capital Budget. The Space Management Committee has formulated a revised 10-year plan by re-analyzing the following: the recently updated 2010 enrollment growth plan, the current 10-year capital plan, the opening of Seminar II, the renovation/modernization of the Daniel J. Evans Library, and the HECB space capacity study and the resulting master planning conclusions. The Space Management Committee identified the need for a planned sequential renovation of existing spaces to both preserve existing facilities and meet future enrollment growth. The Seminar II and the Evans Building Modernization planning provided further information about how constructing a new building and a multi-biennial existing facility modernization program will affect capacity and use of classrooms, offices, and

laboratories for academic use. Changing program needs have also gone through modified pre-planning screens, allowing a tuning of the timing and scope of renovations that will be needed over the next 10 years.

The projects in our 10-year plan are inextricably linked and tightly coordinated over the years based on the principles of the Campus Master and Strategic Plans, the renewal needs of the campus structures themselves, increased use of facilities, growing user demands, and the ability to provide a high quality educational experience. The model utilized above follows closely a sequenced phased renovation plan utilizing excess capacity in the early years to allow for enrollment growth in later years, and effectively meeting the demands the public place on us as stewards of public facilities.

Campus Master Plan and a sequenced phased renovation plan utilizing excess capacity in the early years to allow for enrollment growth in later years, and effectively meeting the demands the public place on us as stewards of public facilities.

It is important to note that as the Evergreen campus was developed and built in a very short time period during the period 1970-1975; its buildings will all need major renovation at about the same time. Typically, for a building built in the 70's one can assume a major component design life of 20 years, with an operating life of 25-30 years if well maintained. The buildings at Evergreen are all reaching or exceeding the 30-year mark in the coming biennium. If accelerated replacement times for unanticipated 'external' changes are factored in i.e., the integration of technology; increased energy consciousness; environmental sensitivity; increased building code requirements; reduced maintenance funding; decades of unfunded inflation; interior air quality issues; and increased user demands and expectations; it becomes clear that Evergreen's buildings are at the end of their 'practical utile lives' and direly need major renovation in the short term.

Renovation of the Campus Activity Building (CAB): The next major component of the plan is for the renovation of the infrastructure and exterior of the Campus Activity Building, which houses the College's food service area, its educational radio station, KAOS, the bookstore, student activities, and various support space necessary to provide program support to the students. The 112,000 square foot facility was completed in 1972 and other than normal maintenance, and the closing in of an outdoor area to provide a more watertight structure, has had no significant improvements or renovation in the past 35 years. The increase in student population over this time has also stretched the capability of the facility to provide programmatic support to the students as well as the need for a more modern food service area. The College's students recently approved a fee to improve the programmatic elements of this facility in regards to the increased student use and student desires for better food service spaces, lounge and recreational areas, and a more open and welcoming environment.

Renovation and Expansion of Communication Laboratory Building (Comm Building): The next major component of the plan is for the renovation of the Communications Building, which houses the College's theatre, music, dance, and computer and graphic arts programs. The 120,000 square foot building, completed in 1977, was never fully built out to meet programmatic needs. Consequently, some of the major components of the College's most demanded and nationally ranked programs have never met the needs of its students. Requests for funding to update and expand the building to meet the College's needs are: design and renovation of existing structure in 2007-09 as per the pre-design completed in 2002; and the design and construction of an addition containing a proscenium theater - design 2011-13, construction 2013-15.

Renovation of Remaining Major Campus Buildings: To complete the integrated "ensemble" of campus renovation projects Evergreen has renovated the second and third floor laboratory areas in the Lab II building in 2003-05; is in the design/construction stage on the laboratories on the first floor of the Lab I building with construction expected to be complete by the Fall quarter of 2007 [both part of an underway "ensemble" series of renovation projects]; design/construction CAB Building in 2007-09; design/construction of the Comm Building in 2007-09; pre-design/design/construction CRC Building from 2007-13; renovation Seminar I Building in 2009-11; and the design/construction of a major addition to the Comm Building during the period 2011-15. Supplementing this program will be minor preservation projects on buildings that have already received partial renovations i.e., LGI Lecture Hall, major repairs/renewals to campus infrastructures i.e., roads, water, sewer and utility distribution systems; and renovations to smaller program facilities such as the Longhouse and the Arts Annex. If the plan is followed, by 2017 the College will have completed a program of integrated systematic renewals on all of its major buildings.

Related Projects:

2007-09 Capital Plan

Campus Activities Building (CAB) Renovation	\$4,900,000
<i>The CAB, built in 1972, has never undergone a major renovation. Building systems (electrical, mechanical, conveyances, roofs, specific building application equipment, finishes, life safety codes, seismic, circulation, etc.) will be beyond their practical life. It is recommended that a renovation program be designed and implemented this biennium to meet the preservation needs. The comprehensive Facilities renovation plan will incorporate both a capital replacement plan (using capital funds) and improvements in operating methodology and techniques (using operating funds) to deliver cost effective facilities maintenance to the State. This work will be coordinated with planning initiatives and time frames underway for Housing and the CRC to develop a comprehensive renovation program for all student centered space on campus. Students approved a fee in May 2006 for programmatic renovations to the space which will occur in conjunction with the major renovation of the facility infrastructure. Student funding will provide for improved food service areas, better lounge and recreational space and a more open and welcoming environment throughout the facility.</i>	

Longhouse Cultural Center Building Expansion	\$1,700,000
<i>This project proposes to both expand the Longhouse by approximately 1800 sq. ft., and improve current circulation and space issues in the building. The expansion will accommodate the Northwest Indian Applied Research Institute, and the Native Economic Development Program. The renovation creates office, research space, a corridor gallery, and resource display areas necessary to support the programs listed above.</i>	

Communications (COM) Building Renovation	\$8,700,000
<i>Like other buildings on campus, the Communications building is showing it's age, and will need major renovation. A pre-design was completed this biennium reviewing the existing COM building and exploring the option of adding a full size theater. It is recommended that the existing building be renovated in the 2007-9 biennium and the theater design start in the 2011-13 biennium with construction to follow. Given the proposed Library renovation in 2003-07 and projected space needs and funding capacity this project is recommended to start in 2007-09.</i>	

College Recreation Center (CRC) Renovation – Pre-Design	\$200,000
<i>The CRC, built in 1972, has never undergone a major renovation. Building systems (electrical, mechanical, conveyances, roofs, specific building application equipment, finishes, life safety codes, seismic, circulation, etc.) will be beyond their practical life. It is recommended that a pre design for renovation be completed this biennium to meet the preservation needs. The comprehensive Facilities renovation plan will incorporate both a capital replacement plan (using capital funds) and improvements in operating methodology and techniques (using operating funds) to deliver cost effective facilities maintenance to the State. As with the CAB this work will be coordinated with planning initiatives and time frames underway for Housing and the CRC to develop a comprehensive renovation program for all student centered space on campus.</i>	

2009-11 Capital Plan

Seminar I Building Renovation **\$4,650,000**

The Seminar I Building, built in 1974, has never undergone a major renovation. Building systems (electrical, mechanical, conveyances, roofs, specific building application equipment, finishes, life safety codes, seismic, circulation, etc.) will be beyond their practical life. It is recommended that a renovation program be designed and implemented this biennium to meet the preservation needs. The comprehensive Facilities renovation plan will incorporate both a capital replacement plan (using capital funds) and improvements in operating methodology and techniques (using operating funds) to deliver cost effective facilities maintenance to the State.

Science Center Renovations **\$4,120,000**

This category of work is a placeholder acknowledging that Science Centers in academic buildings are on shorter renovation cycles (10 years or less) due to changes in technology. This work would upgrade areas of the Lab Buildings that were renovated a decade ago, and create dedicated space for sub fields of sciences that emerge.

Campus Recreation Center (CRC) Renovation - Design **\$1,030,000**

Design for renovation is completed to meet the preservation needs. This design will be based on the predesign work and will ensure that the renovation can begin as soon as the funding is provided in the next biennium.

2011-13 Capital Plan

Science Center Renovation **\$4,635,000**

This category of work is a placeholder acknowledging that Science Centers in academic buildings are on shorter renovation cycles (10 years or less) due to changes in technology. This work would upgrade areas of the Lab Buildings that were renovated a decade ago, and create dedicated space for sub fields of sciences that emerge.

Communications Building Expansion – Design **\$1,900,000**

This project re-examines the COM Building Pre-design and starts design on a proposed theater addition on the building. The Communications Building was originally designed as a support building for a large proscenium theater that was never built. Creation of this theater will allow the College to achieve it's academic goals in teaching the performing arts, and serve as a resource for the Olympia area.

Campus Recreation Center (CRC) Renovation **\$7,430,000**

Renovation of the CRC Building to meet preservation and programmatic needs.

2013-15 Capital Plan

Science Center Renovation **\$4,775,000**

This category of work acknowledges that the Science Centers in academic Building are on shorter renovation cycles (10 years or less) due to changes in technology. This work would upgrade areas of the Lab Buildings that were renovated a decade ago, and create dedicated space for sub fields of sciences that emerge.

Communications Building Expansion - Construction **\$28,630,000**

This project re-examines the COM theater Building Pre-design and starts construction on a proposed theater addition on the building. The Communications Building was originally designed as a support building for a large proscenium theater that was never built. Creation of this theater will allow the College to achieve it's academic goals in teaching the performing arts, and serve as a resource for the Olympia area.

2015-17 Capital Plan

Arts Annex Renovation **\$4,920,000**

This project will provide a major renovation to a facility that has seen increased usage in recent years. The facility has not had a major renovation since its construction in 1973. This work will modernize the building infrastructure, provide flexible space to meet changing programmatic needs in the areas of visual, environmental and expressive arts, and sustainable design. The project will ensure that the building can be cost effectively maintained and provide a high quality educational experience.

Responsible Stewardship of the College's Physical Resources

As stated earlier, most of the College's buildings are now over 30 years old and having never undergone major renovations, have exceeded their "design" life and are approaching the end of their "utile" life. The original campus was well conceived and executed but is feeling the stress of increasing student populations, declining building systems, recent changes in technology, extended hours of building use to meet student needs, reductions in operating budgets, inflationary increases that are not reflected in operating budgets, changes in the modes of delivery of academic programs, and more sophisticated user demands. The design requirements of a student population thirty years ago are no longer compatible with

the needs and expectations of incoming students. The College's buildings were built in an era of cheap energy, and before the widespread use of personal computers. Given the age of buildings, in the coming years, the College will see major system failures as the systems are already past their "design" life, and beginning to exceed their "useful" life. To compound issues, each biennium brings upgraded life safety and building code requirements requiring both building modifications and changes in operational practices. In the last biennium the Facilities unit outlined a long-range facilities maintenance and adaptation program utilizing both the 'ensemble' model and the asset preservation model outlined by OFM. This model already in operation will be refined in the coming biennium.

To support the model and follow OFM and legislative guidelines, the College is moving to close the gap between the Operating and the Capital Budgets. In July of 1999 the College's Facilities organization reorganized itself to provide improved and more cost effective maintenance and capital operations. Maintenance groups were consolidated; staff training programs have been implemented to improve service levels and productivity; new maintenance programs have been implemented; the computerized work order system was updated; the College is moving to new maintenance models; and finance and information systems have been updated. Capital programs were consolidated under a Project Management Group. This unit is working on the development of new College construction standards; participating in ongoing staff training; has improved coordination with space planning; and is improving construction and renovation review for both constructability and long term maintenance.

Last biennium a comprehensive condition survey of TESC's facilities was undertaken utilizing guidelines proposed by JLARC (Joint Legislative Action Review Committee), APPA (Association of Physical Plant Administrators), and NACUBO (National Association of College and University Business Officers). The survey adds to and builds upon previous campus condition surveys and in-depth consultant condition reports on major campus systems i.e., mechanical, electrical, elevators, roofs, roads, etc. In addition, the College completed a facilities audit by Marx Okubo in December 2005. This information when combined with that from the 2003-05 biennium has given the College a firm foundation upon which to plan and execute a program to reduced the deferred maintenance backlog. Following the 2001 "Nisqually" earthquake, the College reviewed its 1990 seismic survey and now has a current seismic survey and phased retrofit plan that reflects current post "Northridge" design standards. The College's program of automating operations where ever possible will continue, as will the close coordination between operations, space management, and capital planning to ensure the most effective use of energy.

Depth has been added to Facilities Services with the transfer of the Environmental Health and Safety Office. The safety emphasis has been shifted from enforcement to coordination and training: physical and environmental health is engineered from the beginning on all operational and capital work. To improve and streamline the space planning function, Space Management now reports to Facilities. Space Management staff continues to receive training to improve space utilization: the College has implemented a new computer system to enhance reporting capacities; and the staff has expanded their roles in the College to ensure efficient scheduling and assignment of space.

Adoption of both the 10-year Capital Program ²⁴ and a refocused Facilities group will ensure that the College's facilities will meet the needs of the College and the people of the State of Washington in delivering premium services in a planned, cost effective manner. Future work and efforts will be planned in concert with the work already being assessed by the Capital Policy/Communications Committee, and best practices in the fields of capital construction and operational maintenance.

It should be noted that the categories listed below are one of two components of the College's preservation and renewal plan. A major portion of the College's renewal activity takes place in the major renovations listed in the preceding section. It is the College's preference to undertake major renewals on a building wide basis whenever possible to reduce cost, minimize disruption, and maximize effect.

Related Projects:

<i>Life Safety/Code Compliance</i>	<i>\$3,000,000</i>
Work undertaken to alleviate health hazards and reduce risks for students, faculty, staff and visitors. Projects include air quality improvements, improve hazardous waste handling; PCB ballast replacement, abatement; walkway lighting, emergency phone installation and other critical safety and code compliance projects.	
<i>Omnibus Minor Works - Preservation</i>	<i>\$5,300,000</i>
This category includes work necessary to extend the useful life of college facilities. These projects are needed to protect state assets and to prevent further damage to property.	
<i>Infrastructure</i>	<i>\$700,000</i>
This category includes non-arterial road restoration, Kaiser Parkway intersection, campus walkway improvements and Driftwood Road repairs.	

Upgrading to Meet Today's Growth Standards and Demands

At the College's conception, most classroom space was designed for small, seminar-based classes of less than twenty students. Growth in the size of the College has required that class size increase due to the College being funded at marginal levels. Changes in the nature, structure, and content of the academic program have limited the effectiveness of current space, and in some cases have rendered the spaces ineffective for instruction. The College's Space Efficiency study, charged with evaluating campus space use, developed a multi-year plan to upgrade current space to meet future programmatic requirements. Original College academic areas were designed to accommodate multiples of 20 students per space e.g., a seminar room for 20 students, a classroom for 40 or 60. New College spaces are designed to accommodate multiples of 25 students, and wherever cost effective, are designed to accommodate multiples of 30 students as a factor for additional growth.

Evergreen has managed to meet its growth needs over the years by fully utilizing its space, undertaking minor building modifications to improve efficiency ~~and~~ add space; and by absorbing additional students in the evening and weekend programs. The Tacoma Campus student population has continued to remain strong with 213 students in 2005-06 at its leased campus facility. The Evening and Weekend Studies Program and the daytime program require the renovations listed above for the Daniel J. Evans Building to improve our services to the 4,184 students enrolled on the Olympic Campus for 2005-06.

While the Seminar II building meets the College's needs for general classroom space, student growth capacity in other required areas i.e., dedicated science labs, Library, computer center, academic and student support services, etc., will be met through "recaptured" space (increases in building efficiency following renovations) from other campus renovations (Daniel J. Evans, Science Labs, COM Building, etc). The expansion through newly renovated, "recaptured" space is also cost effective for the State as

expanded capacity is met without additional new building construction, thus meeting the need at the same maintenance cost. With the addition of Seminar II and the other needed renovations and space “recaptures”, the College will be able to meet its 5000 FTE student growth goal.

It should be noted that an additional limit to growth would be the ability of the existing buildings to meet the greater needs and expectations of the twenty-first century student. As stated earlier, without major renovation the College’s aging facilities infrastructure will not be able to meet the needs of future student populations.

Related Projects:

2007-09 Capital Plan

<u>Campus Activities Building (CAB) Renovation</u>	<u>\$4,900,000</u>
<p><i>The CAB, built in 1972, has never undergone a major renovation. Building systems (electrical, mechanical, conveyances, roofs, specific building application equipment, finishes, life safety codes, seismic, circulation, etc.) will be beyond their practical life. It is recommended that a renovation program be designed and implemented this biennium to meet the preservation needs. The comprehensive Facilities renovation plan will incorporate both a capital replacement plan (using capital funds) and improvements in operating methodology and techniques (using operating funds) to deliver cost effective facilities maintenance to the State. This work will be coordinated with planning initiatives and time frames underway for Housing and the CRC to develop a comprehensive renovation program for all student centered space on campus. Students approved a fee in May 2006 for programmatic renovations to the space which will occur in conjunction with the major renovation of the facility infrastructure. Student funding will provide for improved food service areas, better lounge and recreational space and a more open and welcoming environment throughout the facility.</i></p>	

<u>Longhouse Cultural Center Building Expansion</u>	<u>\$1,700,000</u>
<p><i>This project proposes to both expand the Longhouse by approximately 1800 sq. ft., and improve current circulation and space issues in the building. The expansion will accommodate the Northwest Indian Applied Research Institute, and the Native Economic Development Program. The renovation creates office, research space, a corridor gallery, and resource display areas necessary to support the programs listed above.</i></p>	

<u>Communications (COM) Building Renovation</u>	<u>\$8,700,000</u>
<p><i>Like other building on campus the Communications building is showing it's age, and will need of major renovation. A pre-design was completed this biennium reviewing the existing COM building and the exploring the option of adding a full size theater. It is recommended that the existing building be renovated in the 2007-9 biennium and the theater design start in the 2011-13 biennium with construction to follow. Given the proposed Library renovation in 2003-7 and projected space needs and funding capacity this project is recommended to start in 2007-9.</i></p>	

College Recreation Center (CRC) Renovation – Pre-Design **\$200,000**

The CRC, built in 1972, has never undergone a major renovation. Building systems (electrical, mechanical, conveyances, roofs, specific building application equipment, finishes, life safety codes, seismic, circulation, etc.) will be beyond their practical life. It is recommended that a pre design for renovation be completed this biennium to meet the preservation needs. The comprehensive Facilities renovation plan will incorporate both a capital replacement plan (using capital funds) and improvements in operating methodology and techniques (using operating funds) to deliver cost effective facilities maintenance to the State. As with the CAB, this work will be coordinated with planning initiatives and time frames underway for Housing and the CRC to develop a comprehensive renovation program for the entire student centered space on campus.

Small Program Repair and Improvements – SRI Projects **\$650,000**

This category is intended to meet the unanticipated needs and demands to completed minor modifications to the size, location, or arrangement of space as programmatic needs arise.

Computer Labs **\$280,000**

This phased project proposes to create small dedicated computer teaching labs (similar to the CAL Lab, currently dedicated to scientific computing i.e. Laboratory support, GIS, etc.) to support various academic specialty programs across campus.

2009-11 Capital Plan

Seminar I Building Renovation **\$4,650,000**

The Seminar I Building, built in 1974, has never undergone a major renovation. Building systems (electrical, mechanical, conveyances, roofs, specific building application equipment, finishes, life safety codes, seismic, circulation, etc.) will be beyond their practical life. It is recommended that a renovation program be designed and implemented this biennium to meet the preservation needs. The comprehensive Facilities renovation plan will incorporate both a capital replacement plan (using capital funds) and improvements in operating methodology and techniques (using operating funds) to deliver cost effective facilities maintenance to the State.

Science Center Renovations **\$4,120,000**

This category of work is a placeholder acknowledging that Science Centers in academic Building are on shorter renovation cycles (10 years or less) due to changes in technology. This work would upgrade areas of the Lab Buildings that were renovated a decade ago, and create dedicated space for sub fields of sciences that emerge.

Campus Recreation Center (CRC) Renovation - Design **\$1,030,000**

Design for renovation is completed to meet the preservation needs. This design will be based on the predesign work and will ensure that the renovation can begin as soon as the funding is provided in the next biennium.

Small Program Repair and Improvements – SRI Projects **\$520,000**

This category is intended to meet the unanticipated needs and demands to completed minor modifications to the size, location, or arrangement of space as programmatic needs arise.

2011-13 Capital Plan

Science Center Renovation **\$4,635,000**

This category of work is a placeholder acknowledging that Science Centers in academic Building are on shorter renovation cycles (10 years or less) due to changes in technology. This work would upgrade areas of the Lab Buildings that were renovated a decade ago, and create dedicated space for sub fields of sciences that emerge.

Campus Recreation Center (CRC) Renovation **\$7,430,000**

Renovation of the CRC Building to meet preservation and programmatic needs.

Communications Building Expansion – Design Development **\$1,900,000**

Expansion of the COMM Building to meet programmatic needs.

Small Program Repair and Improvements – SRI Projects **\$535,000**

This category is intended to meet the unanticipated needs and demands to completed minor modifications to the size, location, or arrangement of space as programmatic needs arise.

2013-15 Capital Plan

Science Center Renovation **\$4,775,000**

This category of work is a placeholder acknowledging that Science Centers in academic Building are on shorter renovation cycles (10 years or less) due to changes in technology. This work would upgrade areas of the Lab Buildings that were renovated a decade ago, and create dedicated space for sub fields of sciences that emerge.

Communications Building Expansion – Construction **\$28,630,000**
Expansion of the COM Building to meet programmatic needs.

Small Program Repair and Improvements – SRI Projects **\$550,000**
This category is intended to meet the unanticipated needs and demands to completed minor modifications to the size, location, or arrangement of space as programmatic needs arise.

2015-17 Capital Plan

Arts Annex Renovation **\$4,920,000**
This project will provide a major renovation to a facility that has seen increased usage in recent years. The facility has not had a major renovation since its construction in 1973. This work will modernize the building infrastructure, provide flexible space to meet changing programmatic needs in the areas of visual, environmental and expressive arts, and sustainable design. The project will ensure that the building can be cost effectively maintained and provide a high quality educational experience.

Small Program Repair and Improvements – SRI Projects **\$565,000**
This category is intended to meet the unanticipated needs and demands to completed minor modifications to the size, location, or arrangement of space as programmatic nee

Improving the Value of an Evergreen Education

Reappropriations

Daniel J. Evans Library Modernization Project - Phase II Estimated Amount: \$20,250,000

As identified in the college's 2007-09 Capital Budget Request, substantial completion of this phase of the project will be in December 2008. This re-appropriation request aligns funding with project funds flow to meet contract obligations.

Lab I - First Floor Renovation Estimated Amount: \$1,750,000

This project will begin construction in May 2007 in order to reduce the impact on various College programs scheduled in this building. This project is currently scheduled to be substantially complete by September 2007.

Seminar II Building Estimated Amount: \$250,000

This project was in hiatus due to the significant claim that was mediated during 2005-2006. Since the completion of the project there has been ongoing issues with the contractor's work and the discrepancies between the contract documents and what was actually constructed for the College. The settlement of the claim and final payment to the contractor in July 2006 released funds to correct many of the deficiencies found by the architect during the completion inspection. Some of the deficiencies required additional plans and specifications to be prepared by a variety of consultants which along with the heavy use of the building have delayed the completion of the repairs. The repairs will be completed during the first year of this biennium.

Life Safety/Code Compliance Estimated Amount: \$400,000

Given that most of our code compliance projects can only be accomplish during summer months so as not to disrupt academic programs, we anticipate that some of the work scheduled for the summer of 2007 will spill over into the first year of next biennium. Upon accounting close of the 2005-07 fiscal year the actual re-appropriation level will be adjusted to reflect final ending balances.

Minor Work Preservation Estimated Amount: \$1,000,000

Given that most of our preservation projects can only be accomplish during select periods of the academic year so as not to disrupt academic programs, we anticipate that some of the work scheduled for the academic year 2006-07 will spill over into the first year of next biennium. Upon accounting close of the 2005-07 fiscal year the actual re-appropriation level will be adjusted to reflect final ending balances.

Infrastructure Preservation Estimated Amount: \$350,000

Given that most of our infrastructure projects need to be scheduled during the dryer months of the year so as to ensure less disruption to not only the campus community but also to our local community, we anticipate that some of the work scheduled for the academic year 2006-07 will spill over into the first year of next biennium. Upon accounting close of the 2005-07 fiscal year the actual re-appropriation level will be adjusted to reflect final ending balances.

Minor Works Program

Estimated Amount: \$75,000

Given that most of our minor works program projects can only be accomplish during select periods of the academic year so as not to disrupt academic programs, we anticipate that some of the work scheduled for the academic year 2006-07 will spill over into the first year of next biennium. Upon accounting close of the 2005-07 fiscal year the actual re-appropriation level will be adjusted to reflect final ending balances.



STATE OF WASHINGTON

DEPARTMENT OF ARCHAEOLOGY & HISTORIC PRESERVATION

1063 S. Capitol Way, Suite 106 • Olympia, Washington 98501

Mailing address: PO Box 48343 • Olympia, Washington 98504-8343

(360) 586-3065 • Fax Number (360) 586-3067 • Website: www.dahp.wa.gov

August 3, 2006

Mr. Paul Smith
Director of Facilities Services
The Evergreen State College
2700 Evergreen Parkway NW
Olympia, WA 98505

In future correspondence please refer to:

Log: 080306-02-TN

Property: Evergreen College Capitol Construction Exemptions GEO 05-05

Re: No Historic Properties Affected

Dear Mr. Smith:

Recently, the Department of Archaeology and Historic Preservation (DAHP) was contacted concerning the Capital Construction 07-09 Biennium Projects. We have reviewed the abovementioned projects on behalf of the State Historic Preservation Officer (SHPO) under the guidelines of the Governor's Executive Order 05-05 (GEO 05-05). My review is based upon documentation contained in your communication.

The following college campus projects are exempt from further review under GEO 05-05:

1. Campus Activities Building Renovation
2. Longhouse Expansion
3. Communications Laboratory building Renovation
4. College Recreation Renovation Pre-design

If additional information on the project becomes available, or if any archaeological resources are uncovered during construction, please halt work in the area of discovery and contact the appropriate Native American Tribes and DAHP for further consultation. If Federal funds or permits are required to complete these tasks, then the projects shall be reviewed under Section 106 of the National Historic Preservation Act.

Thank you for the opportunity to review and comment. If you have any questions, please contact me.

Sincerely,

Russell Holter
Project Compliance Reviewer
Russell.Holter@dahp.wa.gov



DEPARTMENT OF ARCHAEOLOGY & HISTORIC PRESERVATION

Protect the Past, Shape the Future

CBS

State of Washington
Capital Budget FTE Summary

2:38:38PM
8/24/2006

Budget Period: 2007-09
Agency: 376 The Evergreen State College
Version: P1 Budget Request

<u>Fund/AT Code</u>	<u>Fund/Appropriation Type Title</u>	<u>2005-07 BIENNIUM</u>		<u>2007-09 BIENNIUM</u>	
		<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
057-1	State Building Construction Account - State	204,621	204,621	204,621	204,621
066-1	TESC Capital Projects Account - State	53,874	53,874	53,874	53,874
	Total Funding	258,495	258,495	258,495	258,495

<u>Range</u>	<u>Job Class Title</u>	<u>2005-07 BIENNIUM</u>		<u>2007-09 BIENNIUM</u>	
		<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
36	Drafting Technician	1.0	1.0	1.0	1.0
39	Project Assistant	1.3	1.3	1.3	1.3
57	Project Manager	3.0	3.0	3.0	3.0
Exe	Budget Analyst	1.0	1.0	1.0	1.0
Exe	Director - Proj Mgmt	1.0	1.0	1.0	1.0
	Total FTEs	7.3	7.3	7.3	7.3

THE EVERGREEN STATE COLLEGE
2007-20017 10-YEAR CAPITAL PLAN

Date: September 1, 2006

PRESERVATION PROJECTS

According to OFM Capital Budget Instruction, projects in this section include only those which maintain and preserve existing state facilities and assets, and do not significantly change the program use of the facility. The Evergreen State College has expanded this definition to include those projects, which impact the life and safety of students, faculty, staff and visitors. Preservation and renewal projects have appeared in Evergreen's capital budget request and long range plans for many years.

The identification and ultimate prioritization of preservation projects is accomplished through the work of Facilities Services each biennium. This survey brings together the functions of Academic Leadership, Budget, Campus Planning, Space and Scheduling, Facilities and Environmental Health and Safety.

The criteria for priorities are:

- Protection of People – Health and Life Safety;
- Code Compliance
- Preservation of Property; and
- Cost Savings.

The results of this process of identification, prioritization and scheduling appear in the following preservation project request.

Improving the Value of an Evergreen Education

Preservation Backlog Reduction Plan

The pride the College takes in facilities is apparent to all campus visitors. At first glance the appearance of Evergreen's facilities suggests that the physical plant is in excellent repair. The positive impression starts with the grounds when entering the campus and is reinforced by the clean exterior and interior of the campus buildings. All of this underscores the College's commitment to providing a physical environment conducive to teaching and learning.

On closer examination, however, the number of undone minor repairs shows the effects of declining resources and a mounting deferred maintenance backlog. The aging campus infrastructure, now well beyond its design life, is approaching the end of its "useful" life. Systems, as they age, are becoming more costly to maintain, falling short of user needs, and with a growing student body the allocation of limited space has become a critical issue for the day time programs. Each new biennium adds increased code requirements; an increased failure rate of aging building systems driving emergency repairs and maintenance costs up; and increasingly sophisticated user demands and usage adds stress to aging systems. Infrastructure repairs (roads, walks, utility systems) are also at the end of their "utile" life and current and future budgets will reflect an increase in those areas. Evergreen has been proactive in apportioning capital funds to address the most critical work, but the building decline process continues to grow at an exponential rate as the plant ages.

Evergreen's current preservation backlog reduction plan is a culmination of both past commitment and current efforts to identify, request funding for and reduce our growing maintenance backlog. In the last biennia, Facilities staff started to formalize a progressive maintenance program that will work in conjunction with the 10-year capital plan to reduce the backlog over successive biennia. The program will incorporate both the concept of project 'ensembles' in its comprehensive multi-year phasing, and prioritize work based on the use of the recent Facility Condition Audit. Whenever practical, backlog reduction will take place as part of a major building renovation. However, in some buildings uneven building system wear will require that single component repairs be undertaken. The plan has been phased to allow maximum wear on the system, so no system will be replaced until either justified by necessity or by inclusion in a larger renovation program. However, in all cases safety and continuous operation of all facilities will not be compromised. To ensure that maintenance levels are high on renovated buildings, each renovated area will be commissioned upon completion and periodically recommissioned.

Evergreen's strategic plan calls for the development of a long range facilities maintenance and adaptation plan to ensure that existing buildings and grounds continue to support the campus community and its environmental health well into the next millennium.

The College was physically assessed in 2003 using a standardized assessment process that was developed in 1985 based upon procedures and forms contained in the "Facilities Audit Workbook" published by APPA and NACUBO, and by the newly developed JLARC standards. The College was reassessed in 2005 using the JLARC standards. The information from the 2005 facility condition audit was combined with the 2003 assessment and a series of consultants reports focused on preservation needs of various major systems: roads, mechanical, electrical, roofs, elevators, etc. The College also updated its seismic survey following the 2001 Nisqually earthquake. The process has been refined and improved based upon

our needs and to accommodate entry of information into a computerized tracking system.

The campus is inspected biannually and an assessment of need as well as a related cost estimates are developed. Teams of College staff members including the facilities engineer, construction coordinator, maintenance supervisors and senior trades staff conduct the inspections. Additionally, the College has independently surveyed all major building systems (roofing, mechanical, electrical, elevators, etc.) and has developed a 10-year matrix detailing estimated system life, recommended major repair and/or replacement priorities, milestones, and estimated costs. Also surveyed are major campus infrastructure elements i.e., central utility plant, electrical distribution system, campus exterior lighting, roads, walks, sewers, steam tunnels, potable water distribution, fire hydrant system, trails, athletic fields, etc. Each biennium the areas will be resurveyed and the matrixes updated.

Other elements considered in the College's building assessment model are:

- Review of work order trends by building and system type to note emerging patterns of excessive failure/repair rates.
- Review of safety issues, inspection data and reports to identify trends or patterns that may indicate issues.
- Feedback from building users on perceived condition of buildings and ability to meet program needs.
- Ten-year Capital Plan to sequence major repairs with major renovations if possible.

Criteria used to set priorities follow OFM Guidelines and can be summarized:

- life safety;
- causing damage to asset;
- causing loss or impaired use of asset;
- causing increased cost of operating facility;
- preservation of asset;
- modification of existing asset to meet existing program;
- modification of asset to meet new program;
- new construction

The College's process for establishing and monitoring preservation will always be reviewed for ways to improve. Where ever possible the College tries to link operating to capital.

Funding requests for the Ten-year plan are determined from all of the information listed above and throughout this document. Estimates are based on historical data, feedback from staff, contractors, and consultants, prior work experience of facilities staff, and projected system life expectancies. If the recommended Ten-year plan is followed, the College will reduce the maintenance backlog down to almost nothing. It should be noted that requests for preservation and program funding (since they are interlinked) decline over the ten-year period.

The Evergreen State College 2007-2009 Preservation Reduction Plan

	Category/Project Name	Estimated Total Project
	Life Safety & Code Compliance	
1	Campus Water Storage Tank Renovation	\$225,000
2	Campuswide Fire Alarm Upgrades	\$260,000
3	Campuswide Thermal Insulation Renovation	\$250,000
4	Campuswide Elevator Upgrade	\$250,000
5	Campus Trail Restoration	\$55,000
6	Exterior Door Renovation	\$90,000
7	ADA Compliant Rest Rooms & Access Improvement	\$275,000
8	Campuswide Security Program	\$410,000
9	Exterior Lighting Improvement	\$265,000
10	Steam Tunnel Renovation	\$170,000
11	Roadway Visibility	\$150,000
12	Grounds Repair & Improvement	\$325,000
13	Seismic Reinforcement for Exterior Columns	\$275,000
	Total Life Safety & Code Compliance	\$3,000,000
	Facilities Preservation	
1	Interior Surface Upgrade	\$175,000
2	Campus Roof Renovation	\$745,000
3	Ceiling Tile Improvements	\$85,000
4	Restroom Renovation	\$100,000
5	Campuswide Flooring Upgrade	\$280,000
6	Public Space Renovation	\$235,000
7	Exterior Valve Renovation & Restoration	\$175,000
8	Irrigation System Upgrades/Renovation	\$115,000
9	Building Exterior Envelope Preservation	\$350,000
10	Water Distribution System Renovation/Improvement	\$250,000
11	Campuswide Meter Upgrade	\$290,000
12	Campuswide Data System Modernization	\$950,000
13	Campuswide Signage	\$200,000
14	Campuswide Classroom Modernization	\$250,000
15	Campuswide DDC Upgrades/Renovation	\$325,000
16	HVAC Heating/Cooling Coil Replacement	\$350,000
17	Brick Paver Renovation/Restoration	\$250,000
18	Pedestrian Sidewalk Repair	\$175,000
	Total Facilities Preservation	\$5,300,000
	Infrastructure	
1	Non-arterial Roadway Restoration	\$375,000
2	Overhulse Road Renovation	\$250,000
3	High Voltage Cable Replacement	\$75,000

Total Infrastructure

\$700,000

The Evergreen State College 2009-2011 Preservation Reduction Plan

	Category/Project Name	Estimated Total Project
	Life Safety & Code Compliance	
1	Campuswide Fire Alarm Upgrades	\$250,000
2	Industrial Ventilation Renovation/Restoration	\$300,000
3	Campuswide Thermal Insulation Restoration	\$250,000
4	Campus Trail Restoration	\$100,000
6	Exterior Door Renovation	\$90,000
7	ADA Access Improvements	\$175,000
8	Campuswide Security Program	\$430,000
9	Medium Voltage System Upgrade	\$250,000
	Undesignated and Design Service	\$170,000
	Total Life Safety & Code Compliance	\$2,015,000
	Facilities Preservation	
1	Campuswide DDC Controls Upgrade/Renovation	\$350,000
2	Campuswide Data System Modernization	\$975,000
3	Building Exterior Envelope Preservation	\$350,000
4	Re-piping of galvanized piping systems Phase I	\$950,000
5	Pool Renovation/Restoration	\$225,000
6	Campuswide Flooring	\$200,000
7	Campus Roof Renovation	\$680,000
8	Interior surface Upgrades	\$250,000
9	Water Distribution System Renovation/Improvement	\$250,000
10	Restroom Renovation	\$350,000
11	Campuswide HVAC Upgrade	\$375,000
	Undesignated and Design Service	\$175,000
	Total Facilities Preservation	\$5,130,000
	Infrastructure	
1	Fireweed Lane Renovation	\$175,000
2	Dogtooth Lane Renovation	\$195,000
3	Driftwood – Lewis to Overhulse Renovation	\$425,000
4	HVAC/Utility Infrastructure Renovation/Improvement	\$600,000
5	Brick Paver Renovation/Restoration	\$250,000
	Undesignated and Design Service	\$210,000
	Total Infrastructure	\$1,855,000

The Evergreen State College 2011-2013 Preservation Reduction Plan

	Category/Project Name	Estimated Total Project
	Life Safety & Code Compliance	
1	Campuswide Fire Alarm Upgrades	\$250,000
2	Campuswide Security Program	\$360,000
3	Campuswide Thermal Insulation Restoration	\$250,000
4	Campus Trail Restoration	\$100,000
5	Exterior Door Renovation	\$90,000
6	ADA Access Improvements	\$150,000
7	Campuswide Fire Sprinkler Installation	\$450,000
8	Steam Line Asbestos Abatement	\$350,000
9	Exterior Lighting Improvement	\$250,000
10	Medium Voltage Improvements/Retrofits	\$300,000
	Total Life Safety & Code Compliance	\$2,550,000
	Facilities Preservation	
1	Campuswide DDC Controls Upgrade/Renovation	\$350,000
2	Campuswide Data System Modernization	\$950,000
3	Building Exterior Envelope Preservation	\$350,000
4	Re-piping of galvanized piping systems Phase II	\$950,000
5	Campuswide Flooring	\$250,000
6	Interior Surface Upgrades	\$250,000
7	Water Distribution System Renovation/Improvement	\$350,000
8	Restroom Renovation	\$350,000
9	Campuswide Office Upgrades	\$250,000
10	Campuswide Lighting Controls Upgrade	\$325,000
11	Campuswide Grounds Upgrade	\$175,000
	Undesignated and Design Service	\$100,000
	Total Facilities Preservation	\$4,650,000
	Infrastructure	
1	Campus Walkway Improvements	\$250,000
2	HVAC/Utility Infrastructure Renovation/Improvement	\$500,000
3	Brick Paver Renovation/Restoration	\$450,000
4	Lewis Road Renovation	\$500,000
	Undesignated and Design Service	\$100,000
	Total Infrastructure	\$1,800,000

THE EVERGREEN STATE COLLEGE
2007-20017 10-YEAR CAPITAL PLAN

Date: September 1, 2006

PROGRAMMATIC PROJECTS

According to OFM Capital Budget Instructions, projects in this section include those, which are intended to accomplish a program goal such as changing or improving the use of existing space, or creating a new facility or asset through construction or purchase.

The identification and ultimate prioritization of preservation projects is accomplished through the work of the Space Management Committee that is on-going throughout each biennium. This committee, chaired by the Director of Facilities and Academic Dean, brings together the functions of, Academic Leadership, Budget, Campus Planning, Space and Scheduling, Facilities and Environmental Health and Safety.

The results of this process of identification, prioritization and scheduling appear in the following programmatic project requests.

APPENDIX:

Communications Building

Executive Summary: Pre-design Study

1.0 Executive Summary

The original campus was well conceived and executed but is now feeling the stress of increasing student populations, declining building systems, recent changes in technology, changes in the modes of delivery of academic programs and more sophisticated user demands. Changes in the nature, structure and content of the academic programs have limited the effectiveness of current space, and in some cases have rendered the spaces ineffective for instruction. Evergreen has managed to meet its growth needs over the years by more fully utilizing its space, undertaking minor building modifications to improve efficiency and add space; and by absorbing additional students in the evening and weekend program. The Renovation and Expansion project addresses many of the key needs facing the Expressive Arts Program and the College as a whole. The renovation of the 94,260 sq ft. Communications Building will be the first phase of the project followed by a 59,825 square foot expansion at the South end of the existing building. Combined, these two projects will allow this building to be the “hub” for multi-disciplinary, technologically advanced large assemblies, student and community performances and academic growth.

The predesign study for The Evergreen State College Communications Building Renovation and Expansion outlines the background, evaluation and findings for a two-phase project: renovating the existing 25-year-old facility and expansion of the facility to include a 668-seat multi-use performing space. The Communications Building renovation and expansion, individually and together, will result in a revived center for learning, exhibition and performance.

The renovation, focused primarily on preservation of this 25-year-old building, will also enhance programming capacity and upgrade and combine fragmented media spaces. The expansion will realize the original intent of the buildings spaces by adding a proscenium/thrust 668 seat multi-use performing space. This space will be technically, acoustically, and functionally designed to enable cutting edge performance, film, lecture and teleconferencing functions that will be available to all academic programs, conference services, college administration and the community

The proposed projects significantly strengthen the College's ability to meet its' mission and uphold its underlying principles. The critically needed spaces for rehearsal, performance, multi-media presentations, and production are key components in preparing Evergreen students to excel in a rapidly changing workplace. The new theatre component of the program will provide a new laboratory model for the application of the diverse technological and performance skills supported in the Expressive Arts program. Equally important the theater will provide a place on campus to bring together large communities in ways that reinforce the campus mission of creating connections between diverse groups and the regional community.

The College's principles prioritize support of the learning process as an active pursuit, emphasizing community-based learning, with research and applications focused on issues and problems found within students' communities. The unique multi-disciplinary approach uses performing and media arts as a core study area for many programs across campus. The central role that these programs play within the campus academic structure places a high level of importance on the facilities to meet a very wide range of student, faculty and administration needs. The increasing importance of communication, media and technology literacy is embraced within all academic programs.

Throughout the predesign process, the team has worked closely with faculty and staff to identify space needs and the alternatives for providing this space. This process has resulted in a two phase project that uses and retains the best features of the existing facility while renovating building systems that have reached their useful life expectancy and expanding those areas that

have experienced dramatic changes in technology, program and demand over the last 25 years.

In summary these projects:

- **Restore and preserve a major existing academic building** that has not had a major renovation since it was built more that 25 years ago.
- **Reinforce the College’s “combining theory and practice” philosophy** by creating needed student work, practice, and rehearsal spaces in the Communications Building.
- **Provide improved support to all core student programs** that are currently limited in their access to the Communications Building due to demand limitations.
- **Solve acoustic and building system deficiencies** and problems through system upgrades and reprogramming of adjacent spaces.
- **Increase efficiency of use** through the reprogramming of space in the Renovation project.
- **Provide for innovation in and advancement of technology** with both infrastructure improvements and the creation of new technology learning spaces.
- **Enable the college to bring to the campus regional and national speakers, drama, music, conference, and moving image events that currently cannot be presented on campus.** A large multi-use theater can be a gateway for the regional community to interact with the college

The Expansion Project is planned around the idea of creating a unique theater and rehearsal/ multi-media studio lab facility that will give opportunities to apply and test the theoretical ideas found within the college academic programs. By bringing together conventional and non-conventional performing environments in one facility, students will be better able to connect their classroom and real-life experiences. The Renovation is planned with a similar idea of maximizing opportunities for students and faculty by providing flexible spaces where all forms of performance and media can be accommodated. Throughout the design, a theme of openness and visual connections will reinforce the idea of breaking through traditional boundaries between users, departments, and programs across the Evergreen campus.

The Renovation Project, with an escalated project cost of \$8.8 million, focuses on preservation of the existing building. Major building components addressed in the project include:

- Heating and Ventilation
- Plumbing piping and fixtures
- Fire protection
- Lighting and electrical power
- Floor, wall and ceiling finishes
- Doors and door hardware

The project also incorporates changes to existing interior spaces to meet the major program

needs. The programmatic components of the project include:

- New Rehearsal & Multi-Media Lab Spaces
- “Media Nest” Lab space and project rooms
- A Multi-Track Recording Studio & Teaching Lab
- A new Video Master Control facility
- Improved wayfinding within the building to create a stronger sense of community
- Improvements of building interior finishes and lighting
- Moderate mechanical and electrical systems improvements targeting energy conservation, improved indoor air quality and system code compliance
- New elevator to serve the south end of this four-story building

The Expansion Project, with an escalated cost of \$35.9 million, will serve a wide range of needs for the entire Evergreen campus community. The major programmatic components of the project include:

- New Rehearsal/ Multi-media Lab Space
- A Multi-use Performance Space
- Additional Scene Shop Space
- New Gateway Entry to the Campus

The recommended alternatives included in this predesign study have been chosen based on the needs analysis, the cost and the cross-campus benefits realized when the projects come to fruition. The renovation project selected is the moderate version of the three renditions studied. The expansion project is pared back to include only new square footage absolutely necessary to support a multi-use theater.

2.0 Project Analysis Section

2.1 Project Description

- 2.1.1 **Agency Name:** The Evergreen State College
2.1.2 **Agency Code:** 376
2.1.3 **Project Identifier:** 2002-2-011
2.1.4 **Project Title:** Communications Building Renovation and Expansion Predesign
2.1.5 **Agency Contact:** Paul F. Smith, Director of Facilities
Lab II 1254, 2700 Evergreen Parkway NW
Olympia, WA 98505
360-867-6155

2.2 Project Description and Scope

2.2.1 Mission

The College Mission Statement, which includes the Principles that guide Evergreen's educational programs and the Strategic Plan Goals and Objectives Summary were used to evaluate the responsiveness of this project to the overall direction of the College. A number of excerpts from the Principles are included here as prime examples of the responsive nature of the renovation and expansion projects preliminary design:

- Academic offerings are interdisciplinary and collaborative, a structure that accurately reflects how people learn and work in their occupations and personal lives.
- College offerings require active participation in learning, rather than passive reception of information, and integrate theory with practical applications.
- Faculty and staff continually review, assess and modify programs and services to fit changing needs of students and society.

The Evergreen State College Strategic Plan describes the goals and objectives that are the basis for the future development of the campus. This project fits clearly into these goals through its emphasis on developing spaces for interdisciplinary curriculum that enhance diversity, emphasize technology and encourage community partnerships. The predesign programming process evaluated current and projected student and faculty demands, while balancing the resources available to meet them.

2.2.2 Goals

The Communications Building renovation and expansion, individually and together will result in a revived center for learning, exhibition and performance. The renovation will enhance programming capacity and upgrade and combine fragmented media spaces. The expansion will realize the original intent of the building's spaces by adding a proscenium/thrust 668 seat multi-purpose performing space. This space will be technically, acoustically, and functionally designed to enable cutting edge performance, film, lecture and teleconferencing functions that will be available to all academic

programs, conference services, college administration and the community. Expanded support spaces, media research area, a lobby and gallery space will be included in this facility.

2.2.2.1 Administrative - Policy, Program and Service

The Expressive Arts program is integrated into many of the various areas of study throughout the College, therefore this facility program must address a wide range of the principles and goals set forth in the Mission Statement and the Strategic Plan. In defining the scope of the project the planning team worked from these primary goals to establish a facility renovation and expansion program. These principles are addressed by the program as follows:

Teaching is Central The program emphasizes teaching space with the introduction of many new multi-purpose flexible studio/rehearsal labs specifically equipped to teach the expressive arts with current and future technology.

Interdisciplinary and Collaborative The program creates new studio labs for students to work on collaborative projects. By increasing the teaching and workspace the facility will allow more students from across campus to participate in the program.

How to Learn and How to Apply The types of spaces proposed in the program are directed towards hands-on learning consistent with the Evergreen methodology. The multi-faceted nature of the expressive arts make this student directed type of study applicable to a wide range of disciplines and interests.

Community Based Learning The program for a new larger performance facility is central to establishing a greater connection to the local community and to creating a stronger sense of community within the campus.

Perspective of Diverse Groups By increasing the number of performance spaces and their size, the program aims to allow a greater variety of events, speakers and performances. This increased diversity is critical to linking Evergreen students to the world around them.

Changing Needs of Students and Society The expressive arts have changed dramatically over the last several decades through the use of technology and the impact of media on our society. The program will allow students to use new media technologies in creative ways through open "media nest" labs and specially equipped performance labs.

2.2.2.2 Technical and facility needs

The technical and facility needs are documented in detail in the Building Program and in Section 3.3 Space Requirements/Elements. The Communications Building Renovation and Expansion will support a growing student body and the growth in the

Expressive Arts program with state-of-the-art environments for rehearsal, performance, and learning. Over the last ten years technology has had a major impact on all areas of the expressive arts; the renovation and new facilities proposed by this report will make these technologies a key component of the students learning experience from the classroom and labs to the study and rehearsal spaces. Advanced computing, communications and multimedia technologies will be integrated into all spaces. The building will be designed to accommodate changes in technology through the use of a flexible infrastructure.

2.3 Background

2.3.1 Existing Facilities

The existing facility on The Evergreen State College campus consists of a three-story building completed in 1977. This building houses the Expressive Arts program which includes Performing Arts, Film, Animation, Multi-media, Music, and Design. Currently, seminar rooms, multi media and animation labs, music technology labs, rehearsal spaces, performance spaces and offices are tightly packed into the existing building. A 5,000 square foot addition of paint shop space adjacent to the Experimental Theatre, shop and offices on the third floor was completed in 1997 at the South end of the original building. An addition of a 50-student design lab space was completed in 2001 which added a partial 4th floor at the North end of the original building.

While the facility has been added to over the years, the basic working and teaching spaces are now over 25 years old and compromise current teaching programs and needs. In addition, a number of acoustic separation problems dating from the original design continue to restrict efficient use of the existing facility.

2.3.2 Previous Action Taken

The expansion of the Communications Building has been a part of the College's long-range plan since the initial planning for campus facilities in 1968. More attention has been given to this component of the physical plant in the past four years due to documented un-met needs for large performance/lecture space. In 1998 grant-funding allowed the College to complete a Theater Feasibility Study.

The college recognized that there are two components to the Communications Building project: Renovation and Expansion. The renovation, focused on preserving the state's assets, has been prioritized ahead of the expansion, and designed to add significant value to the Communications Building on its own merit.

2.3.3 Legislative or Executive Intent

Pre-design funding was requested and approved by the Legislature in the 2001-2003 Capital Budget.

2.4 Analysis

2.4.1 Purpose of Project, Problem Statement

The purpose of this project is to accommodate technological advances, program growth, and disconnected space uses, improve access, replace 25 year old finishes, improve energy consumption, bring life/safety systems up to current code standards and to add the theater and support spaces originally intended in the building to compliment all academic offerings. The project is proposed as a two-phase program consisting of a renovation of the existing facility and an expansion of 59,825 square feet. The project program is aimed at increasing the number of rehearsal and multi-media teaching and performance labs to allow more students to study, create and perform.

The expressive arts today are increasingly intertwined to form new media. The program requires spaces that have a high level of technology infrastructure but are easily adaptable by students to manipulate the environment for specific projects.

In the 25 years since the existing Communications Building was constructed, the technology of communications media has redefined many aspects of the arts. New program spaces are necessary for computer labs, multi-media projects, and yet to be created new technology art forms. In addition, the existing facility has many acoustic and technical deficiencies dating to its original design and construction that need to be corrected for the efficient use of space.

Currently the Communications Building lacks a central student common work and gathering space. This type of space creates a sense of community. The interdisciplinary design of the program needs space for students to interact informally with each other and faculty.

For the campus as a whole and the greater Olympia community, Evergreen currently lacks any large assembly and presentation space. This lack of space severely restricts the campus community from bringing the variety of programs necessary to connect Evergreen with the diversity of cultural expressions now apart of our society. A new large assembly space would allow campus conferences, meetings, student program events, and other campus wide functions to be held in a quality facility.

2.4.2 Project Proposal – Solution

The Renovation and Expansion project addresses many of the key needs facing the Expressive Arts Program and the College as a whole. The renovation of the 94,260 square foot Communications Building will be the first phase of the project followed by a 59,825 square foot expansion at the South end of the existing building. Combined, these two projects will allow this building to be the “hub” for multi-disciplinary, technologically advanced large assemblies, student and community performances and academic growth.

Renovation Phase

Throughout the existing building, worn out finishes will be replaced to create a more accessible, healthy and safe environment. A second elevator will be added. Lighting, both natural and electric, will be redesigned to reduce energy consumption, improve the environment and function with computer applications. Mechanical and electrical systems will be upgraded to current standards and a number of existing severe acoustical isolation problems between rooms will be addressed. ADA compliance and hazardous materials issues will be corrected.

Renovation on the second floor is proposed for the existing room 212 which was originally the Video Master Control for the Experimental Theater when it was planned as a television studio. When constructed and put into use as an Experimental Theater, room 212 was no longer efficiently used. The new use proposed as a teaching and recording studio will allow a full class to participate in a recording session. This is not possible in the existing recording facilities. A new Video Master Control facility will be located in this area allowing for the control and distribution of signals from all of the spaces throughout the building and connection to the wider College network.

The majority of the space re-allocation renovation work is proposed for the third level of the building that currently houses seminar rooms, faculty offices, music practice rooms, animation labs and film screening facilities. Fortunately the Communications Building was designed with a number of long span spaces on the top floor. This is currently not evident due to the many interior partition walls that divide the space into a "rabbit warren" that is very difficult to navigate spatially. The proposed solution calls for the opening up of this level to create four large rehearsal/performance labs that surround a central, glazed "media nest" computer lab. The combination of this new high-technology lab, lit with the existing overhead skylights, and the elimination of the outer ring of corridors will create a new sense of community for the program. The ability to see through and across the third level is central to the idea of bringing together the diverse groups within the building.

The construction of the new Seminar II building immediately adjacent to the Communications Building may allow the displacement of some of the more typical classroom and seminar functions. In addition this level contains a number of very large offices and support spaces that are no longer appropriate to the program. The proposed plan consolidates this space together to create the new lab spaces.

The renovation will support the 100-year useful life expectancy of the Communications Building. The systems upgrades and finish replacements are designed for a 10 to 25-year life expectancy.

The total projected cost of the existing Communications Building Renovation is estimated at \$8,887,000 based on a construction start date of August 2008 and a completion in August 2009. The total MACC of the project is estimated at \$5,055,000.

Expansion Phase

The expansion has a three-fold purpose. First it will provide additional rehearsal/multi-media labs needed by current and expanding programs not possible to fit within the existing building. These labs are positioned and equipped to also allow them to be used as small performance spaces for student work. Second, a 668 seat proscenium / thrust, multi-purpose theater will provide a teaching space for the traditional dramatic arts, dance and music performances that are currently performing in rehearsal space or the small recital hall. The theater is designed for interactive video and teleconferencing as well. Third, the new theater will be a key new gathering space for the campus and community. Designed to accept events ranging from conference speakers, to orchestra, drama and dance, the facility will be the only technically equipped large performance space on the campus.

To support the new theater and rehearsal spaces the facility will include an expansion to the scene shop and the addition of a second loading dock. The dock is designed with a generous covered area that can be used for construction of large props outside. Lower level dressing rooms serve the theater stage through direct stairs. A "bustle" at the rear of the stage is designed to accept a future acoustic orchestra shell and to be used for rear screen multi-media projections in the theater.

As a link to the larger community, the theater is positioned at the south end of the Communications Building where it is on axis with the entry to a major public parking lot off the campus entry drive. The Lobby of the theater will also be a gathering space that is enhanced with a small visual art gallery designed to further integrate the arts programs across the campus. The lobby is positioned in a way that allows it to function as an expanded lobby for the very small narrow space which now serves the Experimental Theater.

The total projected cost of the 59,825 square foot Expansion is estimated at \$35,917,340 based on a construction start date of July 2013 and a completion in November 2014. The total MACC of the project is estimated at \$22,620,000.

2.4.3 Alternatives Considered

The predesign team reviewed a number of different solutions to both renovation and expansion of space. As the number of requested spaces exceeded the projected budget parameters, the committee went through a prioritization and cost modeling exercise to determine the maximum value of each component need to the program. The renovation was studied in three levels from minimal to major. The moderate program was selected because it best met new and changing program needs. This option does not change the basic configuration of any of the large performance spaces and instead concentrates on improving student work, study and rehearsal spaces. Other alternatives considered included construction of all new rehearsal spaces in lieu of renovation in the existing building. This option was rejected because the existing space would need to be renovated in either case to make it effective for current programs and technology. Analysis of the third floor level showed that the existing long span structural system allowed more cost effective renovation than the construction of new space.

The analysis of the expansion project included programs that ranged from 300 to 1000 seats in the theater and a variety of support configurations. Considerable evaluation went into comparison of seating totals to the needs of the College users and the total project costs. The final program of 668 seats meets the arts program, campus and community needs without creating such a large facility that would be difficult to operate and sustain. Three additional rehearsal/multi purpose-multi-media spaces were added to the program to allow for the projected growth of the Expressive Arts program and the College as a whole. A number of additional program elements including film screening rooms, sound studios and other specialized facilities were considered for inclusion. The multipurpose and flexible nature of the rehearsal rooms was determined to accommodate these demands effectively in the future.

2.4.4 Affected Organizations and Stakeholders

A list of stakeholders for this project includes the President's Office, S & A, Academics, Public Service Centers, College Advancement, Conference Services and Facilities. Both the interdisciplinary nature of the campus and the inclusion of a large campus meeting and performance space in the project necessitated the representation of the widest possible constituencies. The planning team included representatives of the campus-wide Media/Technology, the Expressive Arts faculty and administration, and the Facilities department. Information on program needs was collected from the various stakeholders and incorporated into the early phases of the predesign process. Open faculty meetings and electronic surveys were also used to solicit input on the program and proposed solutions.

2.5 Project Management

2.5.1 Management Organization

Capital Projects management is the responsibility of the Director of Facilities with over 30 years of experience in capital construction and facility planning and management. The following list of staff, with varying degrees of delegated authority from the Director, support the project efforts on campus: Assistant Director of Facilities, Project Management, 15 years experience in managing major capital projects, facility planning and management; College Engineer, 22 years of experience in facility maintenance and planning, licensed engineer; Project Manager, 12 years of experience planning, managing, estimating minor projects and 25 years in the construction industry; Facilities CAD Technician II, 6 years experience in CAD; Support Service/Contract Manager, 6 years experience in public works contracting.

Additional contracted support staff will be brought in during the construction phase to supplement on-site construction management. The estimated cost of this service for the renovation project is included in the C-100 at \$250,000 dollars. Consultant fees for the entire duration of the project are estimated at \$1,100,000.

Additional contracted support staff will be brought in during the construction phase to supplement on-site construction management for the expansion project. The estimated cost of this service is included on the C-100 at \$1,800,000 dollars. Consultant fees for the entire duration of the expansion project are estimated at \$3,200,000.

2.5.2 Methods of Accomplishment

The Renovation project is cost estimated using the GC/CM method of construction and construction management. The Expansion project is estimated as a design/bid/build project.

2.5.3 Recommended Strategy

The following work-breakdown structure is true for the Renovation and the Expansion project:

Evergreen Staff

- Conduct consultant selection
- Oversee the work of project consultants
- Negotiate fees of consultants working with the prime consultant and hired directly by the college (special testing, geotechnical, commissioning)
- Originate and manage all contracts
- Review and provide input to consultant budgets and schedules
- Develop contract documents, Division 0 and 1 to comply with State and Evergreen policy.
- Coordinate the review of project program with institutional administrative and user units and committees.
- Lead the construction management team including approval of all project changes, resolution of contract disputes, final acceptance, authorization of additional consultant services, budget management and reporting to senior staff, contract compliance.
- State reporting as required

Consultant Staff

- Basic Services as outlines in the General Administration Guide for Architect and Engineers fees
- Additional Services as required
- Other services as required

Construction Management Contract Staff

- Monitor Construction Site Activities 100% of the time, or less during specific times if agreed upon in advance by the College
- Prepare Daily Logs of On-site Activity
- Maintain Document Control for Owner's Permanent Records
- Analyze Construction Schedules
- Assist with Expediting RFI's and On-site Issues
- Advise the PM and A/E Team Re: Quality Assurance

- Maintain Quality Control Documentation
- Review Pay Applications, Field Authorizations, Change Order Proposals
- Attend Meetings
- Provide Daily Photo Documentation
- Coordinate Utility Shut-downs, Road Closures
- Prepare Monthly Progress Report

2.6 Schedule:

Renovation Program

Obtain Design and Construction Funding	July 2007
Schematic Design Phase:	July 2007
Design Development Phase:	Nov 2007
Issue Bid Documents, GC/CM	Mar 2008
Construction Document Phase:	Mar 2008
Final Document Review:	Aug 2008
Construction Begin	Aug 2008
Construction to Substantial Completion:	July 2009
Final Completion:	Aug 2009
Occupancy:	Sept 2009

Expansion Program

Obtain Design Funding from the State:	July 2011
Schematic Design Phase:	Sept 2011
Design Development Phase:	Dec 2011
Construction Document Phase:	Apr 2012
Final Document Review:	Oct 2012
Obtain Construction Funding from the State:	July 2013
Issue bid documents:	May 2013
Bid Opening:	July 2013
Construction to Substantial Completion:	Sept 2014
Final Completion:	Oct 2014
Occupancy:	Nov 2014

3.0 Program Analysis Section

3.1 Assumptions

Each year the programs at Evergreen are different. Students primarily enroll in a coordinated studies program that will last one quarter or all year. This one program will coordinate a variety of academic studies around a central theme. The interdisciplinary approach to most programs allows students to study an issue or topic as a whole, rather than a collection of unrelated fragments. Performing Arts programs focus on combining theory with practice. Students will read books, write papers, seminar with each other to formulate opinions on written material, listen to lectures as well as do focused workshops on a particular performing arts area such as music, theater or dance. Programs are taught by one to four faculty and range in size from 25 to 100 students. There are also many opportunities for students to work independently from the coordinated studies programs through Senior Thesis projects, Student Originated Studies programs and Individual Contracts. This unique changing program of coursework offered at Evergreen is particularly challenging in the rigid confines of the fixed use spaces of the current Communications Building design.

An example of a course that attracts students from across many areas of studies is the Mediaworks program. This is an entry-level program in film and video production, history and theory. The course stresses the linkage of theory and practice with both classroom course work and hands-on production. The work is in group, team and individual formats. As media is increasingly a primary means of communication in all fields, this course is relevant to many student's interests. This type of multi-faceted class work is typical of the courses offered in the Communications Building and the current facility does not adequately meet the needs of students for learning spaces appropriate to the program.

As a performance venue, the Communications Building supports an average of 15 performing and media arts programs, 16 part time studies programs and 5 to 25 individual projects. The programs also support an average of 28 productions during an academic year ranging from Evergreen Expressions, program productions, visiting lecture series, part time studies presentations, film events and senior thesis events. The demand for performance space from the students and campus community greatly exceeds that available in the building

The program for the renovation and expansion of the Communications Building will allow The Evergreen State College to meet the current demands of the Expressive Arts program as well as providing a resource for the entire campus community. The renovations to the existing facility will provide much needed spaces to support technological literacy across the college's curriculum, and accommodate Student Originated Studies within the Expressive Arts program. The Expansion will be key in giving the Evergreen faculty and students a complete range of opportunities in the performing arts. The current facility lacks a proscenium/thrust stage, or any performance venue with a larger seating capacity than 300. The New Theater will relieve this space demand, and will be equipped with state-of-the-art technology for video and sound production and teaching. Every part of the new building will be wired for data, allowing users to connect any place they can sit and work; the performance and rehearsal spaces will be fully

equipped with all the technology to complement the college's vision to provide students with the tools to self direct their course of study.

The Expansion project was planned around the idea of creating a unique theater and rehearsal/ multi-media studio lab facility that will give opportunities to apply and test the theoretical ideas found within the Expressive Arts program. By bringing together conventional and non-conventional performing environments in one facility, students will be better able to connect their classroom and real-life experiences. The renovation was planned with a similar idea of maximizing opportunities for students and faculty by providing flexible spaces where all forms of performance and media can be accommodated. Throughout the design, a theme of openness and visual connections will reinforce the idea of breaking through traditional boundaries between users, departments, and programs across the Evergreen campus.

The Communications Building Renovation & Expansion project will need to accommodate change as the campus grows and as technology and programs evolve. Spaces will be designed as flexible and multi-purpose to allow for these changes without significant future costs.

3.2 Existing Facilities

The existing COM building is a concrete structure that uses bearing wall construction around the major multi-story performance spaces. The roof structure is composed of long span steel joists that span between these walls. The significant amount of interior concrete wall, while beneficial for acoustic separation, contributes to a hard, internally focused series of spaces. The flexibility of uses and the adaptability of the structure are limited by the construction type, with the exception of the long span spaces on the third floor below the roof.

An addition completed in 1997 to the south end of the building contains faculty offices and an expansion of the scene shop area. A recently completed addition of a fourth floor over the north end of the building created a design studio space.

The major existing building program areas are as follows:

Seminar rooms	3,714 sq. ft.
Performance and Rehearsal Rooms	19,120 sq. ft.
Lab Spaces- Music, Film, Animation	22,854 sq. ft.
Offices	7,705 sq. ft.
Public Lobbies / Lounges	6,920 sq. ft.
Building Services	25,931 sq. ft.
Total Net sq. ft.	60,313 sq. ft.
Non Program gross sq. ft	8,016 sq. ft.
Total building	94,260 sq. ft.

3.2.1 Inventory

The room data sheets in the Appendix section 9.0 describe each existing room and its condition assessment. The floor plans in section 8.0 show the existing arrangement of

rooms in the building.

3.2.2 Condition Assessment / Serviceability

The existing COM building is a 25 year-old structure that was built with highly durable systems and finishes. Many of the systems are in need of updating due to either their operating life or changes in current standards.

The building interior finishes are harsh and minimal contributing to an unhealthy atmosphere. A series of ring corridors create a maze that discourages users from interacting with others in different areas of the building. Lighting in the corridors is very low adding to the closed in feeling. A number of acoustic isolation problems were evident immediately after construction and remain a problem today.

This building was assessed by JLARC in May 2002. A copy of the conditions survey is in the Appendix section 9.0.

3.3 Space Requirements/Elements

Elements necessary for the Expressive Arts program and required square footages are listed in the Program Summary table included in this section. The table is organized so that related elements are grouped together. Where functions of existing spaces are proposed to be changed they are listed in the new/renovation column. Detailed requirements for each of these elements were compiled on the Program Data Sheets and where necessary illustrated with corresponding Space Diagrams.

The programming process was initiated by requesting an evaluation of each existing space by the primary, secondary and technical support users. Proposals for new or modified spaces not currently available were solicited from each of the aforementioned groups as well as all faculty and staff. The predesign team and consultants toured the existing facility with user representatives and documented the conditions. All of the collected data was reviewed and edited by the predesign team.

3.3.1 Function

2.3.2 Renovation Project Introduction

2.3.3 The Communications Building Renovation project will serve a wide range of needs for the Expressive Arts Program and for the entire Evergreen campus community.

The major programmatic components of the project include:

2.3.4

- New Rehearsal & Multi-Media Lab Spaces
- "Media Nest" Lab space and project rooms
- A Multi-Track Recording Studio & Teaching Lab
- A new Video Master Control facility
- Improved wayfinding within the building to create a stronger sense of community

- Improvements of building interior finishes and lighting
- Moderate mechanical and electrical systems improvements targeting energy conservation, improved indoor air quality and system code compliance .
- New elevator to serve the south end of this four-story building

2.3.5

The level of renovation is described as moderate and includes paint and patch repairs to existing spaces with some lighting and wayfinding improvements at the building entrances. The moderate renovation also includes program reassignment to some key areas identified through the design team's programming studies. Mechanical and electrical systems include a mid level of renovation and replacement.

2.3.6 Renovation Project Program

2.3.7 Media Nest:

2.3.8 The Media Nest supports overall technological literacy through a community lab atmosphere. Adjacent to this space are small rooms for specialized technological support and office space to support a student aide and for the Animation and Music Technology lab aide currently housed elsewhere in the Communications Building. This space facilitates cross-curricular integration of programs and provides a teaching lab not currently available anywhere on campus.

2.3.9

2.3.10 Video Master Control:

2.3.11 The area currently used for Electronic Media and audio equipment storage was originally planned as a Video Master Control Room to serve the documentation of events in the Communications Building and support the advancement of the Multi-Media programs. The preservation project program accounts for this need and will provide the master control in the originally planned position. The space is currently equipped with a raised floor system and tie-lines to all spaces in the Communications Building, making the renovation an efficient process.

2.3.12

2.3.13 Multi-Track Recording and Teaching Studio:

2.3.14 This space will support a need currently not supported in the Communications Building. Classes will be able to participated fully in hands-on learning in this space, and multi-media students will be able to work with audio documentation and soundtracks for productions in the adjacent rehearsal space.

2.3.15

2.3.16 Film Editing and Screening:

2.3.17 The current film screening area and editing suites will be reconfigured to accommodate 40 people for critiques and screenings of academic work. The editing suites will be remodeled to have acoustic separation, and upgraded equipment. This area of the existing building is outdated and the renovation will maximize the space currently occupied by the program area.

2.3.18

2.3.19 Costume Shop:

2.3.20 Shop Improvements:

2.3.21 The costume shop supports the performing and media arts and is staffed by students who assist in design and construction for academic productions. The shop is a

proficiency-access space that houses sewing equipment, dying and laundry facilities, and cutting and draping areas. There is an office space directly adjacent to the shop. The costume shop will benefit from the improvements to the storage facility; it currently houses overflow.

2.3.22

2.3.23 Storage Improvements:

2.3.24 The costume checkout and storage houses the college's stock of costume pieces that are available for checkout to enrolled students doing academic work. This area will increase its capacity by adding racks above the existing ones and an area of locked storage to house more precious items.

2.3.25

2.3.26 Orchestra and Choral Rehearsal Rooms:

2.3.27 These spaces support choral and orchestral and electronic music rehearsals, lectures and seminars, and small presentations. Renovation improvements include improving equipment and room finishes, as well as adding support for small theater presentations. The conversion of these spaces will support a program need that is currently under-accommodated in the existing facility.

2.3.28

2.3.29 Experimental Theatre:

2.3.30 The Experimental Theatre is a black box style theatre that has seating for up to 300 and a completely flexible staging setup. There is a counterweight system to accommodate flown scenery, lighting and soft goods. Improvements to the Experimental Theatre in the preservation project include the addition of a new loading bridge above the current catwalk; the current configuration requires loading weights onto the rigging system from a dangerous position, far below the required height. The floor of the Experimental Theater will be repaired and refinished during the renovation to mitigate space and scheduling problems. There will be the addition of air conditioning to the floor level of the space to support better working conditions for filming and audience members during productions.

2.3.31

2.3.32

2.3.33 Expansion Introduction

2.3.34 The Communications Building Expansion will serve a wide range of needs for the Expressive Arts Program and for the entire Evergreen campus community. The major programmatic components of the project include:

2.3.35

- New Rehearsal/ Multi-media Lab Space
- A Multi-purpose Performance Space
- Additional Scene Shop Space
- New Gateway Entry to the Campus

2.3.36

The addition provides new program spaces identified through the predesign team's programming studies as key to the continued success of the Expressive Arts program.

2.3.37 **The New Theater program** was developed around a 700 seat full fly loft multipurpose performance space and associated necessary support spaces. This program scenario for new spaces was identified through the predesign team's programming studies as the minimal necessary to complete a functional facility that meets the campus needs.

2.3.38

2.3.39 Stage:

2.3.40 A full fly loft and rear bustle which facilitates bandshell storage and rear projection are two primary features of the stage space. The stage floor is at the same level as the existing floor of the Experimental Theater, Scene Shop, and loading dock. Currently there is no facility with this type of stage available on the Evergreen campus; it will afford the opportunity to the Expressive Arts program students and faculty to experiment and produce performances in a viable theater environment.

2.3.41

2.3.42 House:

2.3.43 A 700-seat house will provide enough seating capacity for larger campus-oriented events. The acoustics will be mechanically/electronically assisted to allow for the widest range of performance type without sacrificing the quality of live sound production.

2.3.44

2.3.45 Rehearsal Labs:

2.3.46 Three flat floor rehearsal labs also function as a black box theater for academic performances. Currently there is a lack of this type of space in the Communications Building; this addition will support the academic program needs within Expressive Arts, as well as the cross-curricular need for flexible presentation and rehearsal space.

2.3.47

2.3.48 Scene Shop expansion:

2.3.49 The scene shop expansion will provide the necessary space to accommodate additional performances resulting from the new theater. The shop expansion will capitalize on the existing production infrastructure.

2.3.50

2.3.51

3.3.2 Relationships

3.3.2.1 Internal:

- Media Nest supports the film and animation labs, is a new “heart” in the building.
- New Theatre Addition is directly adjacent to the existing lobby space, shops, loading dock & service entry.
- The existing Green Rooms support the Experimental Theater, the new and existing entries, Recital Hall, and the new Gallery, Rehearsal Labs and Multi-Purpose Theater.
- The Experimental Theater is supported by the new and existing dressing rooms, shops, the new Rehearsal Labs, the new and existing lobby spaces, and the new Gallery.

2.3.52

3.3.2.2 External

- The addition creates a new “gateway” entry to the entire Evergreen campus.
- The existing service drive supports the New Theater and shops expansion.

2.3.53

3.3.3 Condition assessment / serviceability: See Room Data Sheets in the Appendix section 9.0 for existing conditions.

3.3.4 Special Requirements

2.3.54

3.3.4.1 Theatrical Systems

2.3.55

2.3.56 FUNCTIONAL DESCRIPTION OF RENOVATION PROJECT THEATRICAL SYSTEMS

2.3.57 These recommendations reflect the initial project program, as indicated by available notes from meetings, discussions and correspondence with the Architects, Consultants, and members of the user group. Selections of appropriate systems and equipment are further based upon maximizing safety for the operators, performers and public.

2.3.58

2.3.59 Experimental Theatre:

2.3.60 Improvements to the Experimental Theatre in the renovation project include the addition of a new loading bridge above the current catwalk; the current configuration requires loading weights onto the rigging system from a dangerous position, far below the required height.

2.3.61

2.3.62 FUNCTIONAL DESCRIPTION OF NEW ADDITION THEATRICAL SYSTEMS

2.3.63 These recommendations reflect the initial project program, as indicated by available notes from meetings, discussions and correspondence with the Architects, Consultants, and members of the user group. Selections of appropriate systems and equipment are further based upon the following criteria:

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- Functional viability, systems must be capable of quickly changing from one configuration to another during a brief change over period.
 - Economy, for both initial installation and maintained operations during the life of the building.
 - Safety for operators, technicians, performers and public.
- 2.3.65
- 2.3.66 The systems within the 668 seat proscenium theatre will be designed to support productions at The Evergreen State College, as well as other community and touring shows, corporate uses, teleconferencing, lectures, and film. The performance areas include both the stage and the orchestra lift.
- 2.3.67
- 2.3.68 The proscenium stage will feature a resilient floor for the protection of dancers, a large trapped area, a full fly loft with a counterweighted rigging system. The orchestra lift will accommodate an orchestra pit, provide area for additional audience seating or serve as additional forestage area. The rigging system, in-house catwalks, tirms and balcony front positions will support safe and effective theatrical lighting positions for all performances.
- 2.3.69
- 2.3.70 The information below describes the systems that enable this facility to meet the performance requirements. These descriptions should serve as the schematic project criteria for the Expansion Project.
- 2.3.71
- 2.3.72 All systems are building-integrated systems, unless otherwise noted as FF&E (fixtures, furniture and equipment).
- 2.3.73
- 2.3.74 PROSCENIUM THEATER**
- 2.3.75 Theatrical Rigging Systems**
- 2.3.76 The rigging systems for the theatre will include provisions for basic hanging, shifting and storing of scenery, stage draperies, masking and elements of the stage lighting systems. The heart of the rigging system will be a full "working gridiron" located at +/-60'-0" above the stage floor. This will enable full use and random adjustment of an overhead, roof structure-supported counterweight system. The counterweight system will be a single purchase, tee bar guide system with approximately 45'-6" line, single-pipe battens on 8" centers with live load capacities of approximately 1600 lbs. each (30 lbs./lin.ft.). The stage will be rigged starting from the fire curtain smoke pocket to as close as the upstage wall as possible. Most battens will be approximately 63' long. Operation of the counterweight system will be from locking rails on the stage floor and the fly gallery. Travel will be from +3' to +58'-6" above the stage for all of the line sets.
- 2.3.77
- 2.3.78 Three tracks will be provided for manual, bi-parting, back-packing traveler curtains. Since they are mounted to counterweighted battens, all traveler curtains will be able to fly out of audience view.
- 2.3.79
- 2.3.80 Off the ends the cross-stage battens, a pair of counterweighted truss battens running upstage/downstage on each side will hold tracked lighting ladders. Tracked

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lighting ladder sets will have travel such that the low trim will set the ladders at +3' above stage floor.

2.3.81

2.3.82 To ensure maximum flexibility, all electrics batten will be assembled by the staff on any of the available general purpose batten on a per-show or per-season basis.

These batten will be circuited with the use of multi-cable (see theatrical lighting control description below). To facilitate fast rigging and manipulation of the multi-cable, a system of tracked, double-purchased hoisting pickup points will be provided and operated from the fly galleries. Ten points will be provided at each side.

2.3.83

2.3.84 The fly galleries at stage left and right will permit the random use of rope line rigging to be spotted on the gridiron at any point above the stage. The rope line system is an essential supplement to the counterweight system to ensure the ease of flying single point or three-dimensional scenery. When a batten is being loaded with scenery the counterweight arbors will be accessed from one loading gallery.

2.3.85

2.3.86 The hard proscenium dimensions will be +/-46' wide by 24'-0" high to the top of the arch. The proscenium width will be adjustable by means of tracked or swinging doors down to 40'-0" wide. The main border and some acoustical elements will be used to reduce the visual height of the proscenium when desired.

2.3.87

2.3.88 Productions often require rigging capability front of house. For this purpose, a grid of readily accessible hanging points and pipes will be provided toward the front of the audience chamber.

2.3.89

2.3.90 Production Power

2.3.91 In addition to the power required for the building's in-house systems, production power connections will be provided.

2.3.92

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2.3.93 Fire Curtain

2.3.94 As required by the building codes, emergency fire and smoke separation of the stage and audience chamber will be provided by an approved automatic single "straight lift" fire curtain. The fire curtain will be released by fusible link or "break glass" emergency boxes on stage and other automatic means as required by local codes for gravity operation. Normal re-set operation will be by hand-operated winch.

2.3.95

2.3.96 Projection Screen Assembly

2.3.97 For the formal presentation of film, a projection screen will be provided.

2.3.98

2.3.99 Theatrical Draperies (Group IIFF&E Equipment)

2.3.100 A basic complement of theatrical draperies will include a decorative main curtain, (quillotine, bi-part and manual operation), a matching main valance, black masking curtains (mid- and upstage travelers, borders, legs and tabs), and a full width white lino cyclorama. "Electrics" borders made of a heat and fire resistant material will be provided to protect adjacent draperies from damage. Storage hampers will be provided. Configurations will be determined in the ensuing design phases. The main house curtain will be lined to provide durability and maximum opacity.

2.3.101

2.3.102 All curtain fabrics will be certified fire retardant, treated to comply with pertinent national and local building and fire codes.

2.3.103

2.3.104 Theatrical Lighting Control Systems

2.3.105 Positions and Distribution

2.3.106 The theatrical lighting system will provide the most advanced technology available as well as means to incorporate future advancements over the system's life. The system design will consider the User's projected operating procedures and capabilities. The system will be configured for use by both the house technicians as well as the various local and touring groups using the facility, and will be a tool in support of creative production design.

2.3.107

2.3.108 The front-of-house lighting positions will be carefully designed within the audience chamber and shall include catwalks, side wall torm and front positions, allowing the location of theatrical fixtures at a multitude of lighting angles.

2.3.109

2.3.110 On-stage lighting positions will be from rigged counterweighted pipe battens circuited by means of multi-cable circuit drops with a circuit "fan-out" system, and selectively located wall and floor pockets. Mounted to an overhead armature at both fly galleries, multi-cable plug boxes will provide circuiting to electrics battens. All electrics can be assembled where required on any of the general purpose battens. Side lighting will be accommodated by tracked lighting ladders on counterweighted up stage/ down stage battens, floor booms and house box boom positions.

2.3.111

2.3.112 Dimming and Control

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2.3.113 Lighting positions will be circuited with approximately 350 branch load circuits which terminate at dimmer racks in the dimmer room. These circuits will be primarily 20 amp, with a certain quantity of 50 amp circuits. The dimming system will be based on a "dimmer per circuit" concept, utilizing a small capacity dimmer for each circuit, and will thus not require circuits to be patched for use. Care will be taken to assure that there is an appropriate level of circuit distribution provided for each potential performing area format.

2.3.114

2.3.115 The dimmers will be solid-state and digitally controlled from a main console or touring consoles located in the control booth, at mid-house for technical sessions or on stage. All control devices will be interconnected on an Ethernet based control network. Dedicated input network receptacles will be located at a mid-house position and on stage (see Lighting Control Data Network description below). The consoles will support a hand-held focus remote controller which will provide basic control access directly from various lighting positions for the simplification of focus or service sessions.

2.3.116

2.3.117 Production Control Panels (PCP)

2.3.118 The Production Control Panel is the primary backstage center for all controls that relate to the basic operation of the theatre. This panel typically contains controls for house lighting, work/rehearsal lighting, production intercommunications and paging, orchestra lift, and other production related items.

2.3.119

2.3.120 Auxiliary Control Panel

2.3.121 The Auxiliary Control Panel is a portable console for control of house lights, cue lights and work/rehearsal lights. It is typically used by the stage manager in rehearsal situations and performances. There will be connection receptacles on stage, at a mid-house tech receptacle panel and in the control booth.

2.3.122

2.3.123 Cue Light Signal System

2.3.124 Red signal lights, operated at the Auxiliary 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 which can then be placed where desired. The signal lights will operate on 120VAC, allowing the receptacles to also be used as non-dim circuits, which can be integrated into a lighting console cue.

2.3.125

2.3.126 Lighting Control Data Network

2.3.127 The theatrical lighting industry has developed integrated control networks modeled after the computer industry. These Ethernet-based networks provide reliable, fast communications between control devices, using "off the shelf" components that are readily available in the marketplace including inexpensive category 5 wire. Other beneficial aspects of using an Ethernet network is the headroom provided for growth and future modifications in systems communications protocols. At the present time, the lighting industry is bound to the standard protocol DMX-512. This protocol is used for all control consoles and effects devices such as color-changers and automated lights. The Ethernet network will translate DMX-512 control input to Ethernet, distribute the signal to

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the lighting positions and output DMX-512. We believe that over time, the DMX-512 protocol will be abandoned in favor of an Ethernet only network. If the change in the industry is effected prior to the building's installation, the initial system will be configured to respond.

2.3.128

2.3.129 Theatrical Lighting Fixtures (FF&E) (Group II Equipment)

Lighting for theatrical performances will be portable lighting instruments clamp-mounted on pipe rails of the catwalks, and also from side lighting positions, and on-stage "electrics battens" (see descriptions above).

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 or tungsten-halogen lamps. Two (2) followspots will be provided and will be selected for placement in the proper location at the rear of the theatre. Additional lighting equipment will include (as budget permits) color changers and automated lights.

2.3.130 House Lighting

2.3.131 House lighting will be by incandescent lighting fixtures which are zoned and dimmer controlled for selective illumination of seating areas, permitting appropriate adjustment of lighting for individual events and dim-down and dim-up before and after performances and intermissions. Further information regarding house lighting to be provided by the Architectural Lighting Designer.

2.3.132

2.3.133 House lighting will be controlled at the theatrical lighting control console, the auxiliary control panel, the on-stage production control panel, as well as through usher stations located at each entrance to the auditorium. Controls typically include zoned and master controllers, keyed take-command switches, and all-on/normal pushbuttons.

2.3.134

2.3.135 The control of dimmed lobby lighting will be consolidated into the "theatrical" control systems for simplification of design and operations.

2.3.136

2.3.137 Rehearsal and Work Lighting Provisions

Work lighting will be provided by wall and structure mounted fixtures at all off-stage levels and along ceiling catwalks. This system provides lighting in technical areas during non-performance times. Work lights will be centrally controlled as well as controlled at entry points to any given area.

Rehearsal lighting includes non-dimmed semi-permanent theatrical fixtures for use limited to rehearsals or basic presentations. A switch control section for rehearsal lights will be included in the on-stage Production Control Panel and at the Auxiliary Control Panel. Rehearsal lighting will also be controllable through the theatrical lighting control console.

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"Blue lights" will enable low floor illumination of back stage circulation areas for performers and stagehands.

The control and followspot area 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.

2.3.138 Orchestra Pit Lifts

2.3.139 The orchestra pit lift will enable rapid change-overs between an orchestra pit, additional seating or the stage apron area, and will avail access for large items to the under-stage storage area. There will be one independent mechanized lift, the lift will be mechanically driven by a screw jack or other electro-mechanical device (not hydraulic) with all appropriate guides, shear point protection and local and remote controls with emergency stop override. Seating for audiences that may be provided when appropriate may be wagon or skid-mounted. The configuration and design of this area will be determined in further design stages. The lift will have 4 stops: stage level, house seating level, orchestra pit level and storage level.

2.3.140

2.3.141 The lift will travel at a speed of 4' per minute and is not intended for production cue use. The lift will have a lifting capacity of 50 pounds per square foot. The finished floor will be identical to the stage floor. Lift controls will be keyed and contained in the Production Control Panel, as well as in a plug-in, hand-held remote control module with an umbilicus. A control receptacle for the plug-in module will be located in a floor pocket on the lift.

2.3.142

2.3.143 Stage Floor

The construction of the stage floor is very critical and is considered a working system. The floor will be a resiliently supported dance floor of double tempered Masonite top surface construction, and will provide cushion for dancers while maintaining rigidity for the prevention of floor bearing scenery from shaking under the rigors of dancer movement. The floor should be capable of supporting a 150 pound per square foot live load, as well as a 250 pound point load.

A large area of the stage will be trapped. The method that would suit the dramatic needs of the stage is using an assembly of removable panels, posts and beams. The decks panels will incorporate resiliency as required for dance.

2.3.144 Seating

Audience seating will include chairs that are self-rising, fully upholstered, and riser mounted where possible. All seating accommodations for the disabled will be provided. An inventory of loose chairs will be provided for flexibility of the wheelchair positions.

2.3.145

2.3.146 Audio Systems

2.3.147 Sound Reinforcement / Playback System

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2.3.148 The sound system will provide sound reinforcement for live speech and music events, as well as playback of prerecorded audio (CD, tape, etc.) for the range of anticipated performances including:

- Live theatrical events, including touring productions, drama, dance, etc.
- Live musical events, including traditional music, jazz groups, etc.
- Corporate and industrial events including presentations, lectures, speeches, etc.
- Audio/video archival recording

2.3.149

2.3.150 Separate loudspeaker systems will provide coverage for the entire seating area. The requirement for the various loudspeaker systems described below will be reviewed during the design development phase. In addition, the use of traditional loudspeakers vs. self-powered loudspeakers equipped with integral power amplifier sections built into the individual loudspeaker enclosure will be reviewed during the design development phase.

2.3.151

2.3.152 The sound system will not provide emergency paging capability. Emergency paging, if used on the project, must be provided by independent systems.

2.3.153

2.3.154 Theatre Loudspeaker Systems

2.3.155 Central Loudspeaker System:

2.3.156 This loudspeaker system typically provides primary sound coverage to the main floor audience seating area. Systems may be configured in a central-left-right array configuration.

2.3.157

2.3.158 Underbalcony Loudspeaker System:

2.3.159 This loudspeaker system typically provides coverage for seating areas that are shadowed from the central loudspeaker array direct sound by the balcony overhang.

2.3.160

2.3.161 Subwoofer systems:

2.3.162 Subwoofer (low frequency) loudspeakers will be deployed in positions to be determined, associated with the central loudspeaker system.

2.3.163

2.3.164 Accommodation for a 52-channel sound mixing console will be provided for use at either the Control Room position or dedicated house sound mix position, located on the main level. The mixing console will accommodate various live and prerecorded program inputs during performances and presentations, with a limited amount of preset control and automation capability. Playback, archival recording, and signal-processing equipment would be located in equipment racks adjacent to the mixing console and in the Control Room.

2.3.165

2.3.166 Playback source equipment may include, digital audio tape (DAT), mini-disc, CD/DVD disc formats and analog cassette tape. No reel-to-reel playback support is anticipated. This equipment may also support limited DAT or CD recording.

2.3.167

2.3.168 Foldback or on-stage monitor mixing is currently anticipated to be done from the in-house mixing positions rather than from a dedicated on-stage foldback console. The wiring described below will permit use of a rented console should such be necessary.

2.3.169

2.3.170 A complement of portable equipment including microphones, loudspeakers and cables will be recommended for inclusion in the contract documents or listed for direct purchase by the Owner.

2.3.171

2.3.172 Cabling Infrastructure

At the heart of the sound system will be an audio patching system to permit connection of audio signals from the stage area to the mixing console and signal processing equipment. The systems wiring infrastructure will accommodate in-house equipment and permit easy interface of touring, rental or other portable equipment.

Microphone and line-level audio signal distribution will be accomplished using traditional shielded-pair copper wiring. While a digital fiber optic solution has several benefits over copper wire including immunity to electrical (EMI) and radio (RFI) interference, elimination of ground loop possibilities, and elimination of signal loss, at this time the professional broadcast and recording users of the microphone signal distribution network have not agreed to a universal digital and fiber optic standard (or are not digital ready). At this time the added cost of digital fiber optic distribution cannot be justified against a less expensive and more universally accepted copper system designed to minimize EMI and RFI interference, ground loops, and signal loss.

An empty conduit or raceway system designed to support the future installation of fiber optic cabling, or additional standard copper cabling, will be incorporated. Empty conduit and raceways will also be provided between the new Theatre and the other media facilities in the Communications complex. Accommodation for and integration of facility-wide control wiring, including but not limited to MIDI control lines and CAT-5 or other Ethernet-style wiring distribution, will be explored during further design stages.

Sound, Video and Communication Systems receptacle panels will provide industry-standard receptacles for connection of microphone, line-level, loudspeaker, video, intercom, control and other SVC equipment with the house SVC systems wiring infrastructure. The central equipment rack room will house patch panels that provide audio and video tie line points between the Theatre's various control and equipment rooms, lobbies, and other associated areas.

2.3.173

2.3.174 Assisted-Listening System for the Hearing Impaired

An assisted-listening system will be provided, using FM wireless transmission technology. The use of a multi-channel system will be reviewed during future design phases. This type of system can be used for assisted-listening, as well as simultaneous language interpretation or for audio description for the visually impaired.

A number of portable receivers will be provided to meet the requirements of the Americans

with Disabilities Act (ADA). Accordingly, sufficient receivers must be available for 4% of the total seating capacity.

2.3.175

2.3.176 Production Intercom System

A four-channel production intercom system will provide two-way voice communication between various back-of-house and front-of-house technical positions. Portable belt packs, headsets, and loudspeaker "biscuit" stations will be provided to support the primary activities of the performance space. Two-channels of wireless intercom will also be provided.

Permanent and portable control station will be provided to control both the production intercom and program monitor/page/recall systems.

2.3.177

2.3.178 Program Monitoring / Paging / Recall System

The program monitor/page/recall system provides audio monitoring of performances, back-of-house page announcements, as well as audience recall chimes or messages to the front-of-house lobby areas. Front-of-house paging is not currently anticipated. Back-of-house paging origination will be provided from the stage manager's control station, integrated with the production intercom system.

The program monitor/page/recall system will not provide emergency paging capability. Emergency paging, if used on the project, must be provided by independent systems.

2.3.179

2.3.180 Production / Modulated Video System

A basic production video system, providing video only and modulated video & audio feeds, will be used for technical production monitoring of events and rehearsals. A fixed color video camera will be located as required to provide a full stage view. An additional color camera will be located to provide an orchestra pit conductor view. Accommodation for an infrared camera view to permit observance of scene changes in blackouts and other production images may also be desired.

Video distribution equipment will route signals to technical production areas and designated front-of-house positions. Splits from the audio monitoring system will feed archival video recording equipment, and modulated with the video source signal, allowing standard television receivers to receive the video & audio feed on a standard TV channel. Video monitors will be located near lobby concession stands to accommodate latecomers.

2.3.181

2.3.182

2.3.183 3.3.4.2 Voice, Data, and Video Communications

2.3.184 Telecommunications Systems Scope:

2.3.185 The telecommunications scope includes:

- Replacement of existing telecommunications cabling from an existing point of presence on campus to the Communications Building.
- Cabling systems for voice and data connectivity within the Communications Building

- Cable support and termination facilities for dedicated telecommunications spaces within the building, and
- Voice/data termination facilities at user locations.
- Telecommunications Systems Goals.

2.3.186

2.3.187 Telecommunications can be more than just voice and data. Telecommunications may over time encompass many other building systems including environmental control, security, audio, television, sensing, alarms, and paging, and other low voltage signal systems that convey information within buildings. The telecommunications design shall recognize that other building low voltage systems may be supported by the voice/data infrastructure over the life of the building.

2.3.188

2.3.189 Standardization

2.3.190 The design shall provide standard:

- Universal cabling infrastructure
- Cable type
- Number of ports (jacks) per outlet.

2.3.191

2.3.192 In summary, the goal of the design is to maximize the usefulness to the building owners and occupants who otherwise would live with daily problems associated with buildings that are not properly designed and constructed to support telecommunications.

A properly designed and constructed facility is adaptable to change over the life of the facility.

2.3.193

2.3.194 Definitions:

2.3.195 Entrance Facilities (EF)

2.3.196 An EF consists of the cables, connecting hardware, protection devices, and other equipment need to connect the outside (the campus) plant facilities to the (campus) premises cabling. The EF serves as the demarcation point between the service providers and the campus cabling. The location of this point for regulated carriers is determined by federal and state regulations. More simply, the EF is the single point on campus that connects to the outside world and to the ERs in each of the buildings. Generally, there is one (1) EF per campus.

2.3.197

2.3.198 Entrance Room (ER)

2.3.199 An ER is considered to be distinct from entrance facility and the telecommunications rooms because of the nature or complexity of the equipment it contains. An ER provides a controlled environment to house telecommunications equipment, connecting hardware, splice enclosures and bonding facilities and protection apparatus. More simply, the ER is the connection point between the campus network and each building. Generally, there is a maximum of one (1) ER per building.

2.3.200

2.3.201 Telecommunications Rooms (TRs)

2.3.202 A TR is for the termination of horizontal cable distribution (a.k.a. cabling to the desktop). It is also the distribution path for the riser system from floor to floor. Horizontal cables of all recognized types are terminated in the TR with compatible connecting

hardware. A TR also provides a controlled environment to house telecommunications equipment, connecting hardware and splice enclosures serving a portion of the building. More simply, a TR distributes the connectivity through the building and is a place to terminate horizontal cables. Generally, there is at least one (1) TR per floor of a building and they are stacked above the entrance room in a multi-story building.

2.3.203

2.3.204 Horizontal Cabling

2.3.205 The horizontal cabling is the portion of the telecommunications cabling system that extends from Telecommunications Room to the user telecommunications outlet.

2.3.206

2.3.207 Note: the term horizontal is used since typically the cable in this part of the cabling system runs horizontally along the floor(s) or ceiling(s) of a building.

2.3.208

2.3.209 Horizontal cabling system includes:

- Telecommunications outlets in the work area
- Cables and transition or consolidation point connectors installed between work area outlets and the telecommunications room
- Cross-connect blocks and patch panels
- Jumper and patch cords used to configure horizontal cable connections in the telecommunications room
- Spaces, pathways and structures used to distribute and support horizontal cabling

2.3.210

2.3.211 It should be noted that horizontal cabling system does not include work area cables or equipment cables between the outlet and user equipment (PC's, telephones, etc.). However, the length and type of cable required to connect telecommunications equipment to the horizontal cabling system will significantly affect end-to-end system performance and should be taken into account when planning any system.

2.3.212

2.3.213 Cable Tray

2.3.214 Cable tray is a rigid structure for the containment of larger counts of telecommunications cables. Choices include channel, ladder, solid bottom, or ventilated.

2.3.215

2.3.216 Cable Rings

2.3.217 Cable rings are rigid or flexible structures regularly placed along a horizontal distribution path to contain larger counts of telecommunication cables. Choices include metal rings and fabric bags.

2.3.218

2.3.219 Drop Pathways

2.3.220 Drop pathways are rigid structures (raceway) connecting major horizontal pathways (cable tray, cable rings) with user outlets. Drop pathways are employed to facilitate additions or revisions to the telecommunications cables serving an individual user outlet. Choices are steel or plastic conduits, surface metal or plastic raceway, and wireway.

2.3.221

2.3.222 Perimeter Pathways

2.3.223 Perimeter pathways are generally surface rigid structures that serve larger quantities of workstations within a space, and frequently provide locations where telecommunications outlets can be reached from walls at convenient levels. Typical areas include spaces where it is desired to provide for the relatively inexpensive addition or relocation of perimeter outlets throughout the life of the building. Choices include surface, recessed, molding, and multichannel.

2.3.224

2.3.225 Backbone System

2.3.226 The function of the backbone system is to provide interconnections between TRs, ERs, and the EF in the telecommunications cabling system structure.

2.3.227

2.3.228 A backbone system consists of:

- Cable pathways
- Telecommunications rooms
- Entrance room
- Telecommunications service entrance facility
- Transmission media (backbone cabling and connecting hardware)
- Miscellaneous support facilities.

2.3.229

2.3.230 Telecommunications Design

2.3.231 Design Guidelines

2.3.232 Intra-Building Infrastructure (Pathways)

2.3.233 Consist of conduit, sleeves or slots, and trays, and provide the means for placing backbone cables from the entrance room to telecommunications rooms, and from the telecommunications room to the user outlet locations.

2.3.234

2.3.235 The vertical backbone pathway consists of telecommunications rooms located on each floor, that are vertically stacked with the entrance room, and a pathway linking all of them.

2.3.236

2.3.237 The quantity of backbone pathways using 4" conduit or sleeves shall be one (1) sleeve per 50,000 square feet of usable floor space, plus two (2) spares, for a minimum of three (3) sleeves. All pathways shall be properly firestopped. Where a large number of cables are expected, additional sleeves, conduit, trays, or slots shall be provided.

2.3.238

2.3.239 Entrance Rooms

2.3.240 The ER site shall be reviewed to evaluate the potential problems caused by:

- A location that is restricted by building components that limit expansion such as elevators, core, outside walls or other fixed building walls; and accessibility for the delivery of large equipment to the ER.
- A location that may be subject to:
 - Water infiltration
 - Steam infiltration
 - Humidity from nearby water or steam
 - Heat (including direct sunlight)
- Floor loading capacity requirements insufficient to bear both the distributed and concentrated load of the installed equipment. The capacity shall be greater than 250 lbf/ft² and the concentrated loading shall be greater than 1000 lbf over the area of greatest stress.
- A location that may be subject to sources of electromagnetic interference (EMI) at a distance that will reduce the interference to 3.0V/m throughout the frequency spectrum. Special attention shall be given to electrical power supply transformers, motors and generators, x-ray equipment, radio or radar transmitters, and induction sealing devices.
- A location difficult to enter or exit by the intra-building and main backbone pathways.
- A location that is too small. The practice is to provide 0.75 square feet of ER space for every 100 square feet of workstation space. The ER shall be designed to a minimum of 150 square feet. If it is found that the density of workstations will be higher, then the size of the ER will be required to be increased accordingly.
- Insufficient HVAC provisions. HVAC shall be provided on a 24 hours-per-day, 365 days-per-year basis. If the building system cannot assure continuous operation or for large equipment applications, a stand along unit shall be provided for the ER.

2.3.241

2.3.242 Telecommunications Rooms

2.3.243 The TR Room design shall be evaluated against the following criteria:

- TR space shall be dedicated to the telecommunications function and related support facilities. Telecommunications room space should not be shared with electrical installations other than those for telecommunications.
- There should be a minimum of one (1) TR per floor. Additional rooms (one for each area up to 10,000 square feet) should be provided when the floor area to be served exceeds 10,000 square feet or the horizontal distribution distance to the workstation exceeds 90 m.
- Multiple closets on a floor shall be internally connected by a minimum of one 4"-conduit. TR should be sized according to the following table.

2.3.244

2.3.245 Horizontal Cabling

2.3.246 The horizontal cabling shall be a star topology. The maximum horizontal distance shall not exceed 90m. This is the cable length from the mechanical termination of the media at the horizontal cross-connect in the telecommunications room to the telecommunications outlet/connector in the work area.

2.3.247

2.3.248 Length limitation for cross-connect jumpers and patch cords in the cross-connect facilities, including horizontal cross-connects, jumpers, and patch cords that connect horizontal cabling with equipment or backbone cabling, should not exceed 6m in length.

2.3.249

2.3.250 Color-coded cross-connect fields are recommended to facilitate cable plant administration. Well-organized color-coding makes it possible to identify backbone and horizontal cables quickly and helps ensure that cable topology requirements are met.

2.3.251

2.3.252 Backbone Cabling

2.3.253 The backbone cabling shall use the conventional hierarchical star topology. In planning the routing and support structure for the backbone copper cabling, care shall be taken to avoid areas where sources of high levels of EMI (electromagnetic interference), such as motors and transformers, may exist.

2.3.254

2.3.255 Grounding Considerations

2.3.256 Grounding systems shall be specified help protect personnel and equipment from hazardous voltages, reduce EMI to and from the telecommunications cabling system, and minimize common mode noise and circulating ground currents that induce voltages which can disrupt telecommunications circuits.

2.3.257

2.3.258 Outline Specification

2.3.259 Conduit

2.3.260 No section of conduit shall be longer than 30m or contain more than two (2) 90° bends between pull points or pull boxes.

2.3.261

2.3.262 The inside radius of a bend in conduit shall be at least six (6) times the internal diameter. When the conduit size is greater than 50mm (2 inches), the inside radius shall be at least ten (10) times the internal diameter of the conduit. For optical fiber cable, the inside radius of a bend shall always be at least 10 times the internal diameter of the conduit. A fish tape or pull cord shall be placed in installed conduit.

2.3.263

2.3.264 Conduit fill shall be based upon a 40% fill ratio and a derating factor of 15% for each of two (2) 90° bends. A pull or splice box shall be placed in a conduit run where the length is over 30 m (100 feet), more than two (2) 90° bends; or if there is a reverse bend in the run.

2.3.265

2.3.266 Conduits should not be installed:

2.3.267 On top of cellular floor cells

2.3.268 Crosswise to cellular floor cells

2.3.269 Through areas in which flammable material may be stored

2.3.270 Over or adjacent to:

2.3.271 Boilers

2.3.272 Incinerators

2.3.273 Hot or chilled water lines

2.3.274 Steam lines

2.3.275

2.3.276 Cable Tray

2.3.277 Cable tray shall be accessible from at least one side throughout its length without interference from HVAC systems and ductwork, large conduit or conduit arrays, and building structures. Provide at least 6" between top of tray and other structures or equipment.

2.3.278

2.3.279 Perimeter Pathways

2.3.280 To the extent possible, perimeter pathways shall not be used to serve data outlets. Outlets shall be served via conduits and boxes recessed in walls and floors.

2.3.281

2.3.282 Cabling Practices

2.3.283 Cable management precautions shall be specified to prevent cable stress caused by cable tension. Appropriate cable routing and dressing fixtures shall be specified for effective organization and management of the different types of cables in telecommunications rooms.

2.3.284

2.3.285 Communications Building Schematic Design - Telecommunications

2.3.286 Intra-Campus Infrastructure

2.3.287 Intra-Campus Infrastructure provisions shall include:

- Connection of new campus voice and data network services for the Communications Building to the existing network point of presence on Campus. This existing point of presence has not yet been identified.
- Intra-Campus pathway between the network point of presence and the Communications Building. Depending on existing infrastructure in the building, there may be a requirement for additional raceway connections from the point of presence to the existing Utility Tunnel. Service from the Tunnel to the Communications Building shall be a minimum of four (4) 4" conduits dedicated to the campus voice and network data. Two of the conduits to be provisioned with (3) - 1-1/2" innerducts. Other low voltage connectivity may require additional conduits.
- Provision of connectivity cabling from the point of presence to the Communications Building, including:
- Composite (48) strand single mode optical fiber and (12) strand multi-mode optical fiber to the building, run in innerduct where placed in conduit.
- 300 pair copper voice backbone cable, including network protectors within 50 ft of entrance of cable to building.
- Bonding and grounding of intra-campus pathways shall comply with applicable electrical codes

2.3.288

2.3.289 Intra-Building Infrastructure

2.3.290 Design for the intra-building infrastructure includes:

- A combination Entrance Room and Telecommunications Room on the first floor. The designed size of the room will be tested against the design guidelines above to ensure that:
- There is space available for servers or UPS systems and for fiber optic multiplexing equipment.
- There is 'delta' space, available; i.e., space to construct a replacement data or voice communications service entrance or horizontal distribution system while the existing remains in service.
- There is space to allow adequate circulation space in front of and behind a row of free standing equipment racks with 36" deep components so that wall mounting of conductor terminations and front-access only equipment racks is not necessary.
- A single Telecommunications Room on Level 02. The presently designed space for the room will be tested against the design guidelines in a similar manner to the first floor ER/TR.
- A single Telecommunications Room on Level 03. The presently designed space for the room will be tested against the design guidelines in a similar manner to the first floor ER/TR.
- Vertical pathways between the Entrance Room and the Telecommunications rooms sized for 100% spare (future) capacity. Preliminary size: (4)-4"R to each room.

- Horizontal pathways between the Telecommunication Rooms and the horizontal cable trays sized for 100% spare (future) capacity. Preliminary size: (4)-4”R.
- Horizontal cable tray over suspended corridor ceilings on Level 01, and under raised floor areas on Levels 02 and 03. Preliminary size: 12" width.

2.3.291

2.3.292 Vertical Backbone Infrastructure:

2.3.293 Composite (12) strand multi-mode and (12) strand single mode fiber optic cable

2.3.294 100 pair voice riser per TR.

2.3.295

2.3.296 Active Equipment

2.3.297 Stand-alone UPS systems in ER/TR racks, one per active electronic rack.

Preliminary Requirements: 30A, 208V, single phase.

2.3.298

2.3.299 User Connectivity

2.3.300 User connectivity provisions shall include:

- Standard (default) outlet:
- Universal wiring plant with (2) Category 5e cables with jacks to each outlet.
- Minimum 1" conduit and 2-1/2" deep wall box.
- Fire Alarm panel, DDC panel, Access Control panel, Lighting Control panel, and any elevator phone(s) indicated in other sections of this Program.
- Cat 5e cable for each.

2.3.301 Recital Hall

2.3.302 One standard outlet for each assigned staff workstation, plus data outlets as programmed.

2.3.303 Seminar Rooms

2.3.304 Cast or raised floor box under seminar room table, with (2) Cat 5e cables per chair.

2.3.305 Faculty Studios

2.3.306 One standard outlet per studio.

2.3.307 Labs

2.3.308 Data only outlets along walls for students. Category 5e cabling count at each outlet to be determined individually for Lab. Preliminary count: (2) outlets per workstation

2.3.309 Wall phone near door to corridor, or standard connectivity at instructor's desk.

2.3.310 Conference Rooms

2.3.311 Cast or raised floor box under conference room table, with (2) Cat 5e cables per chair.

2.3.312 Standard outlet near side table (if table shown on plans).

2.3.313 Standard outlet for each 8' of counter space, above or below counter as coordinated with casework design.

2.3.314 Control Rooms

2.3.315 One standard outlet for each assigned staff, plus data outlets as programmed for assigned functions.

2.3.316 Individual Offices

2.3.317 Standard outlets on minimum of two walls, for faculty and staff.

2.3.318 Open Offices

2.3.319 Standard outlets on wall or in floor boxes (cast or raised floor) for faculty and staff.

2.3.320

2.3.321 3.3.4.3 Energy Management Systems

2.3.322 Direct Digital Controls on all Mechanical Systems in keeping with 2003-2005 OFM guidelines for the State of Washington. See Predesign section 5.2 outline specification section 15900.

2.3.323 ELECTRICAL SYSTEMS NARRATIVE

2.3.324

2.3.325 Power Systems

2.3.326 Normal Power System

2.3.327 The existing TESC Communications Building power distribution system (served from the campus primary power system via the existing Communications Building 480/277 volt, 3 phase, 4 wire and 208/120 volt, 3 phase, 4 wire substations) is adequate in power capacity for the requirements of the renovations to the existing building as well as the new theater addition.

2.3.328

2.3.329 Power loads in renovated areas in the existing building will be served by the existing local 480/277 volt, 3 phase, 4 wire and 208/120 volt, 3 phase, 4 wire power panel boards with new local branch panel boards added where sufficient existing circuits are lacking.

2.3.330

2.3.331 The new theater addition space will be served by new 480/277 volt, 3 phase, 4 wire and 208/120 volt, 3 phase, 4 wire branch power panel boards fed from the existing 480/277 volt substation. Derivation of power from the existing power system will require alteration of the existing substation distribution section to provide source circuit breakers for the new 480/277 volt panel board power feeder. The distribution voltage for the addition will be a 480Y/277V, 3 phase, 4 wire grounded Wye system. This voltage results in low copper losses, and alleviates voltage drop in feeder circuits. 480Y/277 volt is the preferred voltage for mechanical and lighting systems. A local dry type, K-13 harmonic rated transformer, 480Y/277V - 208Y/120V, will be installed in the addition to supply miscellaneous loads and convenience power.

2.3.332

2.3.333 Emergency Power System

2.3.334 Emergency egress lighting power requirements will be served by the existing building emergency power distribution system, with a small branch emergency power panel board provided in the new theater addition.

2.3.335

2.3.336 Power Distribution System

2.3.337 In general, building mechanical and lighting loads served by local 480Y/277 volt, 3 phase, 4 wire power panel boards. The major mechanical loads will be served from 480Y/277 volt, 3 phase, 4 wire motor control centers located in the mechanical spaces.

General receptacles and miscellaneous 208/120 volt loads will be fed from local panel boards in the 208Y/120 volt, 3 phase, 4 wire system. New 208/120 volt panel boards will have panel mounted transient voltage surge suppressors (TVSS).

2.3.338

2.3.339 General purpose receptacle circuits will be loaded to a maximum of 6 duplex receptacles. Receptacle circuits feeding computers will be loaded to a maximum of 5 duplex receptacles. Custodial receptacles in corridors will be on separate circuits from those receptacles in adjacent rooms. Ground fault circuit interrupter receptacles will be provided within 6' of sinks and where required by code.

2.3.340

2.3.341 Noise (electrical harmonic distortion) generating equipment such as variable frequency drives (VFD's) and electronic lighting ballasts will be specified with low total harmonic distortion (THD) requirements to reduce the negative influence on the building electrical system.

2.3.342

2.3.343 Voltage Fluctuations

2.3.344 Primary sources of voltage fluctuations in a building power system are the starting inrush currents of large motor and compressor loads. To minimize effects of these inrush currents reduced voltage starting as well as sequence start of loads will be employed for motors rated above 20 HP for loads that are not controlled by variable speed drives.

2.3.345

2.3.346 Motor Controls

2.3.347 In general, grouped motor controls, (Motor Control Centers), will be provided in the Main Electrical Room and/or in mechanical rooms. Motor controllers will be full voltage, "across the line", NEMA size 1 minimum. Control voltage will be 120 volt. Reduced voltage start (soft start) will be provided for all motors 25 HP or larger. Variable speed drive controllers, if required, will be located adjacent to equipment.

2.3.348

2.3.349 Grounding System

2.3.350 The grounding system will be in accordance with the National Electrical Code. Power system additions will be bonded to the existing building power grounding system. Grounding of conduit systems and panelboards will consist of a pathway through the conduit system with a redundant insulated green grounding conductor bonded at each panelboard and at intermediate pull boxes.

2.3.351

2.3.352 New cable trays will be bonded to the building reinforcing steel at multiple locations to create a low impedance signal ground in addition to being grounded at the main service. Each server room will have a ground bar to provide access to the building grounding system. Communication rooms will have a dedicated ground bus and insulated ground conductor system connected to the building ground system. Typically, #2 CU ground wire will be installed in each cable tray.

2.3.353

2.3.354 Building steel and columns will be tied together and joined to the grounding system. Building telecommunications ground bus will be tied to the main switchboard per the NEC.

2.3.355

2.3.356 Lighting

2.3.357 Energy efficient lighting sources will be used and ease of maintenance will be considered when selecting both lighting fixtures and light sources. Every attempt will be made to minimize the number of lamp types used on the project. F32T8 lamps will be standard for linear sources and 32 watt triple tube lamps and 40 watt twin tube lamps for compact fluorescent fixtures. All fluorescent fixtures will use electronic ballasts. Incandescent (tungsten halogen) will be used for podium and art work lighting. Exterior lighting will be predominantly metal halide light sources, selected for their excellent color rendering properties and energy efficiency.

2.3.358

2.3.359 The design of the lighting and lighting control systems will meet the Washington State Energy Code. The goal for new lighting systems in renovated areas of the existing building and in the new theater addition is to be approximately 20% below the energy use allowed by the energy code through a combination of energy efficient sources, utilization of daylight and controls to turn lights off when they are unnecessary. Fluorescent light fixtures in existing offices will be retrofitted with "paracube" parabolic louvers.

2.3.360

2.3.361 Exterior Lighting

2.3.362 Exterior walkways will be provided to match the College's lamppost lighting standards. Exterior metal halide fixtures will be provided at each entrance location. Exterior lighting will be controlled with photocell on/off controls.

2.3.363

2.3.364 Fire Alarm System

2.3.365 The existing zoned fire alarm system will be replaced with a new fully addressable, multiplexed fire alarm system will complying with the ruling fire code, ADA requirements and other applicable codes. The fire alarm system shall be by Edwards Systems Technology. Each initiation device will have its own address. Zoning shall be by building floor, with separate zones for smoke detectors, manual pull stations, and water flow devices.

2.3.366

2.3.367 The building will utilize smoke and heat detection, pull stations at exits, combination strobe/speakers (w/emergency voice paging), fireman's phone jacks in stairwells as well as intercom communications at every floor with connection back to the fire alarm annunciator. The FACP will include all devices and systems including elevator controls and all annunciation, monitors and control for stair and elevator pressurization fans along with the generator and fire pump annunciation.

2.3.368

2.3.369 Smoke detectors will be installed in public spaces, at smoke partition doors, elevator lobbies and all corridors, applicable mechanical equipment, elevator/stair shafts, electrical, telephone and machine rooms. Duct smoke detectors will be supplied for all air handling equipment with over 2,000 cfm capacity per the Uniform Mechanical Code. Air handling equipment affecting the zone of the fire will be automatically shut down.

2.3.370

2.3.371 A Graphic annunciator will be furnished indicating all floor layouts based on an AutoCAD drawing of a building section. Evacuation alarm horns and strobes will be provided throughout the building.

2.3.372
2.3.373

2.3.374 **3.3.4.4 Power Supply**
2.3.375 See Electrical Narrative in section 3.3.4.3 above.

2.3.376

2.3.377 **3.3.4.5 Building Mechanical Systems**

2.3.378

2.3.379 Mechanical Narrative

2.3.380 Existing Communications Building

Design Criteria (Most Current Applicable Version/Edition):

- Uniform Building Code
- Uniform Mechanical Code
- Uniform Plumbing Code
- Uniform Fire Code
- Washington State Energy Code
- ASHRAE Standard 52, Air-Cleaning Devices Used in General Ventilation for Removing Particulate Matter.
- ASHRAE Standard 92, Ventilation for Acceptable Indoor Air Quality.
- National Fire Protection Association (NFPA), Codes, Standards, Recommended Practices, Manuals and Guides.
- ANSI/NFPA 70, "National Electrical Code".
- Department of Labor, OSHA, Occupational Safety and Health Standards
- National Safety Council, "Accident Prevention Manual".
- Seismic Restraint Manual Guidelines for Mechanical Systems, 1991. Published by Sheet Metal and Air Conditioning Contractors National Association (SMACNA)

Design Conditions

Environmental Air Conditioning:

<u>Design Temperatures</u>	<u>Heating Cooling</u>	
Outdoor Condition		28 F/15 MPH
	Wind	82 F DB/66 F WB
General Occupied Space	70 F DB	78 F DB
Mechanical & Electrical		55 F DB
	Ventilate to	
Spaces		93 F DB

- Ventilation: 20 cfm/person in accordance with ASHRAE 62-1989. On variable air volume (VAV) systems, controls will be set up to assure that the minimum outside air quantity is delivered to the system at all times

Exterior Envelope Requirements

- General: Components of the building envelope will be insulated to meet or exceed the Washington State Energy Code.

- Minimum Thermal Requirements (not for electric resistance heat) as indicated in Table 13-1 of the Washington State Energy Code

<u>Item</u>	<u>Thermal Performance Criteria</u>
Roof/Ceiling Insulation	Resistance (R) = 21 h . ft2 . F/Btu
Exterior Wall Insulation	Resistance (R) = 11 h . ft2 . F/Btu
Opaque Doors	U = 0.60 Btu/h . ft2 . F
Floor over unconditioned space	Resistance (R) = 19 h . ft2 . F/Btu
Slab on grade perimeter Insulation	Resistance (R) = 10 h . ft2 . F/Btu
Glazing (20% to 30% of wall area)	Maximum U-value = 0.60; Maximum SC=0.65

Mechanical Systems - General

- Noise, vibration and seismic control will be provided for the appropriate mechanical systems.
- Identification of ductwork, piping, valves and equipment shall be provided.
- Insulation of Mechanical Systems will include domestic hot water/cold water/hot water circulation piping, chilled water piping, heating water piping, and supply ductwork.
- Fiberglass duct liner will be used for thermal insulation. The air handling unit casing will be lined with an acoustical perforated metal liner. Sound lining will be used on return ductwork and on short, low velocity transfer ducts to control cross talk between rooms.
- Testing and Balancing of the Air and Water Systems will be accomplished by an Agency certified by the Associated Air Balance Council or the National Environmental Balancing Bureau specializing in Air and Water System Balancing.

Air Handling Systems

- Existing HVAC Systems: The maintenance service practices of The Evergreen State College maintenance personnel have increased the life expectancy of the mechanical systems in the communications building. Mechanical equipment surveyed operates very efficiently and appears to have about 10 more years of reliability. However, extensive programmability changes for building spaces will require the existing mechanical systems to be upsized or replaced to accommodate new spaces and comply with the latest code requirements. Future code upgrades will have a strong impact on the replacement of the existing mechanical equipment.
- Air handling systems at first and second floor of communications building will be re-balanced to achieve optimal system performance. Air and heating water to new programmed building spaces will be re-distributed to comply with current code requirements. Existing diffusers, grilles, and terminal units will be removed and re-used as required. Heating water piping will be routed to feed new terminal unit heating coils.

- Variable air volume control in new remodeled areas will be by fan powered VAV terminal units with hot water heating coils.
- Existing building exhaust and return systems in communication's building will be re-balanced. Air distribution will be revised to comply with current code requirements. Exhaust and return ductwork within remodeled areas will be revised to accommodate new-programmed spaces.

Cooling System

- Chilled water cooling coils in main air handling units will be re-balanced to accommodate cooling demand.

Heating System

- Existing heating water system shall be re-balanced to accommodate heating water demand to terminal units serving new remodeled spaces. New fan powered VAV terminal units with hot water coils shall be used to offset space heat losses.

HVAC Controls

- All controls will be microprocessor based Direct Digital controls (DDC). New controls shall be compatible and be able to integrate with (EMCS) controls in communications building.

Plumbing

Plumbing design will include the following:

- Domestic water and vent piping shall be revised at remodeled areas. Piping serving demolished fixtures shall be removed and capped at mains above the ceiling.
- Damaged plumbing fixtures in communications building toilet rooms shall be removed and replaced as required. Office and classroom stainless steel sinks throughout the building shall be removed and thoroughly cleaned. Sink faucets shall be removed and replaced. Sinks shall be reused as required.

Fire Protection Systems

- Existing wet pipe fire protection coverage at Communications building remodeled areas shall be revised to provide coverage for new-programmed spaces.
- Existing wet pipe fire protection system shall be extended to cover new elevator vestibule.

Mechanical Narrative

2.3.381 New Building Addition to Communications Bldg.

Design Criteria (Most Current Applicable Version/Edition):

- Uniform Building Code
- Uniform Mechanical Code
- Uniform Plumbing Code
- Uniform Fire Code
- Washington State Energy Code
- ASHRAE Standard 52, Air-Cleaning Devices Used in General Ventilation for Removing Particulate Matter.
- ASHRAE Standard 92, Ventilation for Acceptable Indoor Air Quality.
- National Fire Protection Association (NFPA), Codes, Standards, Recommended Practices, Manuals and Guides.
- ANSI/NFPA 70, "National Electrical Code".
- Department of Labor, OSHA, Occupational Safety and Health Standards
- National Safety Council, "Accident Prevention Manual".
- Seismic Restraint Manual Guidelines for Mechanical Systems, 1991. Published by Sheet Metal and Air Conditioning Contractors National Association (SMACNA)

Design Conditions

Environmental Air Conditioning:

	<u>Design Temperatures</u>	<u>Heating</u>	<u>Cooling</u>
Outdoor Condition		28 F/15 MPH	82 F DB/66 F WB
General Occupied Space		70 F DB	78 F DB

Mechanical & Electrical		55 F DB
	Ventilate to	
Spaces		93 F DB

- Air Filtration: Filters will be 4-inch thick pleated media filters with 30% ASHRAE Standard 52 efficiency.
- Ventilation: 20 cfm/person in accordance with ASHRAE 62-1989. On variable air volume (VAV) systems, controls will be set up to assure that the minimum outside air quantity is delivered to the system at all times

Exterior Envelope Requirements

- General: Components of the building envelope will be insulated to meet or exceed the Washington State Energy Code.
- Minimum Thermal Requirements (not for electric resistance heat) as indicated in Table 13-1 of the Washington State Energy Code

<u>Item</u>	<u>Thermal Performance Criteria</u>
Roof/Ceiling Insulation	Resistance (R) = 21 h . ft2 . F/Btu
Exterior Wall Insulation	Resistance (R) = 11 h . ft2 . F/Btu
Opaque Doors	U = 0.60 Btu/h . ft2 . F
Floor over unconditioned space	Resistance (R) = 19 h . ft2 . F/Btu
Slab on grade perimeter Insulation	Resistance (R) = 10 h . ft2 . F/Btu
Glazing (20% to 30% of wall area)	Maximum U-value = 0.60; Maximum SC=0.65
Skylights	Maximum U-value = 1.30; Maximum SC=0.65

Mechanical Systems - General

- Noise, vibration and seismic control will be provided for the appropriate mechanical systems.
- Identification of ductwork, piping, valves and equipment shall be provided.
- Insulation of Mechanical Systems will include domestic hot water/cold water/hot water circulation piping, chilled water piping, heating water piping, and supply ductwork.
- Fiberglass duct liner will be used for thermal insulation. The air handling unit casing will be lined with an acoustical perforated metal liner. Sound lining will be used on return ductwork and on short, low velocity transfer ducts to control cross talk between rooms.
- Testing and Balancing of the Air and Water Systems will be accomplished by an Agency certified by the Associated Air Balance Council or the National Environmental Balancing Bureau specializing in Air and Water System Balancing.

Air Handling Systems

- HVAC Systems: Central air handling systems will be provided to serve new wing addition to Communications building. Each system will be custom air handler with variable air volume operation. These units consist of a supply fan, return fan, hot water heating coil, chilled water cooling coil, filters and economizer. Air volume on all systems will be controlled by variable speed drives on the supply and return fans.
- An air handling unit with chilled water cooling will be provided to serve the Experimental theatre. System will be sized to provide cooling to theatre and support areas. Air handler will consist of supply fan, return fan, hot water heating coil, chilled water cooling coil, filters and economizer. Air volume will be controlled by variable speed drives on the supply and return fans.
- A new exhaust system will be provided to serve all toilet and janitor rooms in new building addition.

Cooling System

- The building cooling demand to new addition will be met utilizing site chilled water. Connection to chilled water lines will be done at tunnel in basement of Communications building. Chilled water cooling coils in the main air handling units will be used to offset building heat gains. Chilled water lines in new addition will be extended to serve Experimental theatre air handling unit.

Heating System

- The building heating demand to new addition will be met utilizing steam-to-water heat exchangers. Site steam will provide the heat source to new heat exchangers. Heating water coils in the fan powered VAV terminal units, and the air handling units will be used to offset building heat losses. Hot water will be circulated throughout the new building addition with a base mounted centrifugal pump. A backup pump will be provided for redundancy.

HVAC Controls

- All controls will be microprocessor based Direct Digital controls (DDC). New controls shall be compatible and be able to integrate with (EMCS) controls in communications building.

Plumbing

Plumbing design will include the following:

- Connection to the new sanitary sewer at 5 feet outside the building.
- Domestic water and firewater supplied to new building addition will be provided by existing systems serving communications building.
- Plumbing fixtures in new building addition shall match fixtures in communications building.
- Electric water coolers will be provided in lieu of drinking fountains.
- A steam-to-water semi-instantaneous heat exchanger will be utilized to provide domestic hot water to new building addition.
- Floor drains will be provided in all toilet rooms and in the mechanical rooms.

- Hot water re-circulation will be provided on the new domestic hot water system to assure hot water at all fixtures.

Fire Protection Systems

- Fire service for new building addition will be provided from existing fire protection system serving communications building.
- Automatic, wet pipe type sprinkler systems will be provided to serve new building addition. Combination Class III standpipe with 2-1/2" hose connections will be provided in the stairwell.

2.3.382 3.3.4.6 Acoustical Systems

2.3.383 DESIGN NARRATIVE:

2.3.384 668-SEAT THEATER SOUND REINFORCEMENT SYSTEM

2.3.385

2.3.386 General

2.3.387 This report discusses fundamental theater sound reinforcement systems, features and associated costs for budgeting purposes. Costs shown are estimated audio contractor bid prices including all parts and installation. The costs shown do not include standard electrical backboxes and conduit, contractor tier markups, permits, taxes, etc.

2.3.388

2.3.389 Basic Systems

2.3.390 A. Left-Center-Right Sound System

2.3.391 For this type of sound system, three loudspeakers (or loudspeaker groups) are located above the stage opening to serve the audience. One is at far left, one is in the center and the third is at far right. Each of the three loudspeaker locations is driven separately to form a so-called "left-center-right" (LCR) sound system.

2.3.392

2.3.393 Typically, stereo sound sources are played back over the left and right loudspeakers while speech from microphones is heard over the center loudspeaker. Special effects such as locating the amplified voice of an actor according to his/her position on stage as well as spatial sound effects that illustrate movement such as jet plane flyovers, birds in flight, and so forth, can be performed. Pre-recorded stereo music sources are heard with their original left channel/right channel spatial characteristics intact.

2.3.394

2.3.395 This system offers two modes of operation using either a small fixed-in-place automatic mixer for "simple mode" operation or a larger transportable 56 channel mixer (with basic features) for larger events (Basis: Mackie SR56-8 mixer). This quasi-LCR mixer allows individual mixer input channels to be assigned to the center loudspeakers (channel) and/or be placed or panned between the left and right loudspeakers.

2.3.396

2.3.397 Primary system electronic equipment is housed in a fixed metal equipment rack(s) in the sound control booth at the rear of the theater. A smaller portable Effects Rack houses auxiliary sound shaping devices such as compressors and equalizers, a

patch panel, a cassette recorder and a CD player. The portable Effects Rack is normally used together with the larger audio mixer. Both devices may be temporarily relocated from the sound control booth to a designated side or rear audience location to allow better mixing during events such as musical performances, plays and even rehearsals.

2.3.398

2.3.399 A selection of good quality wired- and a pair of diversity wireless vocal microphones is provided along with a pair of portable stage monitor (wedge) loudspeakers. Microphone and line level input jacks plus portable monitor speaker output jacks are included in the floor of the stage, in the wings, backstage, in the orchestra pit (as applicable), and at the front of the stage. Additional portable loudspeaker output jacks are located behind the audience and at the catwalk level for surround or special audio effects.

2.3.400

2.3.401 A central patch panel permits re-routing of system mic and line level inputs to the primary and alternate (audience) mixer locations for events requiring an optional monitor mixer, broadcast feeds, etc.

2.3.402

2.3.403 "Simple Mode" operation permits a single user to turn on the sound system and set volume for up to eight microphones from back stage at a designated wall mounted remote control station. These microphones are controlled through the automatic mixer. This mixer quickly and unobtrusively turns down unused microphones for best sound quality and freedom from feedback. Small events such as lectures or group discussions can typically be accommodated without the need of a sound system operator once the microphones are plugged in and levels set.

2.3.404

2.3.405 Production headset intercom backpack jacks and fixed loudspeaker stations on four linkable channels are located in key areas around the stage and backstage, in the control room, lighting control room, spotlight positions (if any), catwalks (if any), and auxiliary rooms such as dressing and green rooms. Two channels of wireless production intercom connect with the wired intercom system.

2.3.406

2.3.407 Stage area sounds and production intercom pages may be heard over ceiling mounted loudspeakers in the control booth, backstage dressing rooms and green room to inform actors and production personnel of performance progress, stage cues, audience reactions, etc. A monaural radio frequency based hearing assist system reproduces sounds heard over the main loudspeakers through portable pocket receivers with earsets (total 28) that are borrowed by hearing impaired patrons. Estimated base sound system total cost (start): \$170,000.

2.3.408

2.3.409 B. Mixer Upgrade

2.3.410 Utilizing a higher grade 56 channel mixer with greater capabilities can significantly increase overall costs. The number of added features, degree of computer automation, monitoring or matrixing capabilities, mixer type (analog or digital), and other factors influence the overall cost. A high quality full-featured 56 channel analog mixer with computer automation features can add roughly \$125,000 or more to the base sound system cost above (Basis: Midas Heritage 3000 series mixer). Other varieties of mixers are also available at even higher cost.

2.3.411

2.3.412 C. Closed Circuit Television System

2.3.413 A small color television camera is mounted above the audience seating to permit viewing of the stage through various video monitors (high resolution) and conventional television receivers (lower resolution) scattered around the lobby, side stage, orchestra pit, control room and backstage areas to inform production personnel of program status. A second color camera provides a close-in view of the orchestra pit. An additional infrared-sensitive (low light) camera covers the backstage area.

2.3.414

2.3.415 Such a system is useful where performance cues (actor, lighting, sound effects, curtain cues, etc.) must be precisely timed to an orchestra conductor's downbeat or a specific actor's appearance or action on stage, especially under low light conditions. Performance stage scenery resets between acts in blackout conditions can be viewed using the low light camera so that progress can be monitored and lights brought up at the appropriate time.

2.3.416

2.3.417 Electronic or mechanical patching/distribution of video sources is provided at the central equipment rack. A single channel video modulator suitable for adjacent channel operation is included along with a limited TV channel distribution system. A video tape recorder or digital equivalent is included for archival recording.

2.3.418

2.3.419 Various options such as additional cameras, video switching by monitor location, remotely operated pan/tilt/zoom cameras, etc., are available. Prices start at approximately \$30,000 (add to sound system base cost) for an installation as described above.

2.3.420

2.3.421 Other Options:

2.3.422 A. Expanded Production Intercom System

2.3.423 The base production intercom system discussed above is based on Clear-Com products and is valued at approximately \$32,000 installed. The base system may be upgraded from a four channel party line system with two channels of wireless intercom to a programmable semi-automated system with assignable station groups that can be interfaced with virtually any other brand or type of existing production intercom system. Upgrade prices start at approximately \$4,500 and can reach \$25,000 or more depending on features and complexity.

2.3.424

2.3.425 B. Expanded Hearing Assist System

2.3.426 The monaural radio frequency based hearing assist system previously described is based on Gentner products and is valued at approximately \$5,000 installed with 28 pocket receivers. Such a system may be used with a virtually unlimited number of pocket receivers at an approximate cost of \$125 per additional receiver.

2.3.427 Infrared light based hearing assist systems are also available at additional cost. Stereo versions using either radio frequency or infrared technologies are available as well, also at additional cost.

2.3.428 3.3.4.7 Structural System

2.3.429 STRUCTURAL NARRATIVE

2.3.430

2.3.431 EXISTING FACILITY

2.3.432 The existing Communications Building was constructed as a three-story building in 1977. A fourth floor studio addition was added in 2001. The building is constructed with non-combustible construction. Although the roof framing and the fourth-floor studio addition are constructed with steel framing the building is classified as a concrete bearing wall building.

2.3.433

2.3.434 The roof is metal deck over steel bar joists and trusses. Lateral forces at the roof are transferred to the exterior bearing walls by diaphragm action of the metal deck. The fourth-floor studio addition is a composite steel beam system with concrete topping over metal deck over steel beams.

2.3.435

2.3.436 The third and fourth floors are concrete slabs, pan joists and beams. Nearly all the floor loads are supported by concrete bearing walls. Lateral forces at each floor are transferred to the exterior bearing walls by diaphragm action of the slabs. The building is supported by conventional concrete foundations.

2.3.437

2.3.438 Lateral forces are resisted by reinforced-concrete shear walls. The shear walls transfer the lateral forces to the foundation where resistance to sliding is provided by foundation/soil interaction. Overturning forces are resisted by the dead load of the structure.

2.3.439

2.3.440 The building appears to be in good condition based on a cursory walk-through evaluation. It is a good candidate for a remodel project. Issues related to remodeling and expansion of the building are as follows:

2.3.441

2.3.442 The building appears to be designed in accordance with the 1970 Uniform Building Code that was in force at the time of construction. The current edition of the UBC is different than the 1970 UBC and the building codes continue to evolve. The seismic force levels have increased slightly since 1970. The seismic detailing provisions for concrete bearing wall buildings have changed significantly since 1970. Consequently, we anticipate the Communication Building, (and most other concrete bearing wall buildings of that vintage), do not comply fully with the current seismic detailing provisions. Generally buildings of this era would be expected to perform reasonably well in an earthquake, but with more damage than a new building. Voluntary seismic upgrade to meet current code provisions is probably cost prohibitive and not likely to be required by the building department.

2.3.443

2.3.444 New openings in concrete walls should be limited to reduce the impact on the vertical and lateral-resisting systems. Significant openings in the walls will require an assessment of the lateral system because it is important not to reduce the lateral-resisting capacity. A significant opening could create a condition where a new shear wall has to be added.

2.3.445

2.3.446 Floor framing should be adequate to support most floor live loads. Floor loads at the upper floors should be evaluated. If there are spaces which are changed to assembly spaces or storage spaces the floors may not support the additional live load.

2.3.447

2.3.448 There is a reasonable amount of flexibility for new floor openings required by mechanical, electrical, or architectural items. It is likely that there is a need for an expansion joint between the existing building and the addition to accommodate thermal and seismic movements.

2.3.449

2.3.450 Basements, elevator pits, etc. close to the existing building should be limited to avoid undermining the existing foundations. At a new theatre addition there is significant coordination of structural components with theatre elements such as seating, orchestra pit, curtains, flylofts, catwalks, control rooms, smoke hatches, etc. Coordination for acoustical concerns is also important.

2.3.451

2.3.452

2.3.453 DESIGN CRITERIA FOR EXPANSION

2.3.454 The following design criteria are anticipated for the building renovation and expansion.

2.3.455

2.3.456 Design Codes

2.3.457 All methods, materials and workmanship shall conform to the building code that is in force at the time of construction. This is currently the 1997 Uniform Building Code, but it is likely to change to the 2000 International Building Code or the NFPA Building Code.

2.3.458

2.3.459 The loads and terminology shown below are based on the 1997 UBC.

2.3.460

2.3.461 Vertical Live Loads

2.3.462

2.3.463 Classroom 50 psf + 20 psf partition

2.3.464 Office/Admin. 50 psf + 20 psf partition

2.3.465 Corridors, Stairs 100 psf

2.3.466 Storage 125 psf

2.3.467 Mechanical Platforms 40 psf + Equipment Weight

2.3.468 Assembly Areas 100 psf

2.3.469 Stage 125 psf

2.3.470 Roof 25 psf snow plus drifting per UBC

2.3.471

2.3.472 Wind Loads:

2.3.473 80 miles per hour

2.3.474 Exposure B

2.3.475 Importance Factor = 1.0

2.3.476

2.3.477 Seismic Loads:

2.3.478 The building is located in Seismic Zone 3. Soil profile is assumed to be Sd or better.

2.3.479

2.3.480 Foundation System

2.3.481 Based on the existing building the existing soils are assumed to be competent to support conventional foundations. The foundation will be concrete continuous footings and spread footings. At exterior walls and interior bearing walls there will be continuous footings. At columns and concentrated wall loads there will be spread footings. The first floor will be a concrete slab on grade with welded wire mesh reinforcing. Slab elevations may vary to accommodate theatre seating, stage, pits, etc.

2.3.482

2.3.483 Framing

Based on occupancy of a performing arts theatre, non-combustible materials would be required. It would be most economical to construct other additions with similar materials. This type of construction is consistent with the existing construction. Potential building materials are masonry, concrete, and steel.

3.4 Future Requirements

The renovation and expansion projects each are stand-alone projects. If implemented together they will meet the original intent of the building. In the foreseeable future there are no other plans that duplicate the program spaces in either the renovation projects.

3.5 Codes/Regulations

3.5.1 Building Codes, State and Local

2.3.484 See Section 5.2 Outline Specification Section 01850

2.3.485 3.5.2 Energy Codes (RCW 39.35)

2.3.486 See Section 5.2 Outline Specification Section 01850

2.3.487

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is envisioned as a permanent, motorized two pipe		
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with an integral theatrical lighting connector strip		
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. A second, similarly configured		
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motorized electrics batten will be employed at the ante-proscenium position (see Forestage Canopy description below). Due to the varying nature of the uses		
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other		
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because of the limitations in the use of counterweight battens with t		
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There will be a crossover catwalk upstage to connect the fly galleries.		
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either of 2		
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galleries		
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(to be verified with the Acoustics Consultant), as needed for large music ensembles		
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A replica of the original decorative valance will provide a horizontal top at +/-23'-6".		
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For productions that require a smaller opening, a set of architecturally finished adjustable form and teaser panels will be provided for adjustment down to 45

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' wide by 25' high. Proscenium height may be adjusted by use of the		
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Canopy (see description below) on the audience side of the proscenium		
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or multi-panel		
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frame-style		
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motor drive		
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house curtain for		
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vertical		
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performance		
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concept		
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a flexible system that will incorporate both		
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As defined by close collaboration,		
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t		
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historic fabric		
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of the building		
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balcony		
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spotlights		

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ante-pro electrics are permanent (see rigging description above), and		
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a		
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A second lift is in two sections left and right on either side of the organ lift.		
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The orchestra pit lift will enable rapid change-over from musical/opera/dance to drama or concert via use of the thrust stage area. There will be two independent, mechanized lifts. Each will have 4 stops:		
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stage level, house seating level, orchestra pit level and chair wagon storage level. The two-lift concept provides for the following general configurations: Both lifts at stage level – Full orchestra performances Upstage lift (#1) at stage level, downstage lift (#2) at audience level – Smaller music ensemble or lecture with additional seating Both lifts at audience level – Performance on stage only with maximum seating capacity Lift #1 at orchestra pit level, Lift #2 at audience level – Additional seating with moderately sized orchestra pit Both lifts at orchestra pit level – Large orchestra pit		
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Safety devices will include tapeswitches at all shear conditions which will halt the lift if enacted, as well as interlocks at any doors or railings that will prevent lift operation if the area around the lift is unsecured for any reason.		
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, and loads associated with the Orchestra Enclosure		