Three persons have been appointed to new directorships in the Support Services area at BYU, according to an announcement made today by President Dallin H. Oaks.

The three are Edwin Cozzens of Orem, director of Planning and Architecture; R. Sears Hintze of Provo, director of Physical Facilities, and Clyde J. Bair of Lehi, director of Housing and General Services.

Oaks made the announcement as part of a reorganization following the appointment of Fred A. Schwendiman to the newly created position of Support Services Vice President at the university. Schwendiman has been assistant vice president in charge of physical plant since 1974.

Cozzens came to BYU in 1971 as facilities engineer and has been supervisor of the Architectural and Engineering Division since 1976. He is responsible for the planning and architecture of buildings at BYU and in the worldwide LDS Church educational system.

The Cowley, Wyo. native graduated in civil engineering from the University of Wyoming. He is a member of the American Society of Civil Engineers and the Association of Physical Plant Administrators. He and his wife, Janice, have four children.

Hintze joined the BYU staff in 1954 and formed the Housing and Maintenance Department. As the university grew, the department was changed to Auxiliary Maintenance, and Hintze was named director, having responsibility for "receiving and stores," laundries, and housing for more than 9,000 persons.

He is a native of Salt Lake City and a graduate of BYU. He is also an Army veteran, having served in Europe and Asia during World War II, and is a member of the Association of Physical Plant Administrators. Hintze and his wife Virginia have five children, three of whom are married (The Daily Universe, 15 December 1978).

1979, February 7 Harold Anderson appointed director of Physical Plant Services, includes Construction under Paul Rasmussen
Ed Haines, director of Space Utilization, reporting to R. Sears Hintze
Bruce Barrett, director of Auxiliary Areas, reporting to R. Sears Hintze

1981, June 18 R. Sears Hintze died
Campus 1978-1981

Building Name Signs - 1980

From Campus Planning Committee minutes of 12 November 1979: "The need to replace the Fletcher Building name sign raised questions about the type of signs to use in the future on a replacement basis. Planning was asked to study alternate, more permanent, sign types which would decrease the maintenance presently necessary on the redwood signs. There was a desire also to achieve a more aesthetic type of sign." A granite sign with the building name and the beehive logo was subsequently approved and funded.

Redwood building name signs served from about 1960 to 1980

The BYU logo was changed in 2001
A cast bronze medallion was cemented over the beehive logo
Land Purchases

Ben E. Lewis served as Vice-President of nearly all non-academic programs of the university from 1952 to 1979. In 1983 President Jeffrey R. Holland expressed the feelings of all who worked close to this man when he said, "Ben Lewis has had more of an impact on the growth of the university campus than probably anyone else, including President Wilkinson." Although he was not a member of the Physical Plant Department, his leadership and success in the purchase of property is a vital part of this department's history.

Included on the following pages, are some of Brother Lewis' land purchasing experiences, in his own words.

Ben E. Lewis, Executive vice-president
Brigham Young University

The development of a Master Plan for the University [about 1953] was a major undertaking, and I gave thoughtful and prayerful consideration as to who would be most qualified to serve on a committee responsible for the development of a superior master plan. The first person that came to mind was Fred Markham, a local architect, who had been involved with the planning of a number of buildings on the University campus, and who was a long time resident of Provo, and had a feel for the growth of the University and the community. I went to see him, and invited him to serve as a committee member. He readily accepted. We talked about getting a qualified person to serve as a third member of the committee whose training and experience would enable us to move forward quickly with competence. The name of William Wurster emerged from the list of persons we considered. He was serving at the time as the Dean of the School of Architecture at the University of California, and had been in charge of developing the master plans for several of the California Universities. I called and talked with him.
Brigham Young University campus, 1954, when Ben Lewis began purchasing more land
on the phone and he agreed to come to Provo to discuss with us the possibility of serving as a member of our planning committee. He came. He was both knowledgeable and impressive, and both Fred Markham and I felt comfortable and good about him. We were able to work out an agreement with him, and were delighted with his willingness to get underway immediately with the project.

The three of us held several meetings together, and we came up with a plan that envisioned a new major access to the upper campus, with the connection road coming off of Provo City’s 12th North. The plan called for the eventual elimination of all the temporary war-housing structures, and the construction of a number of new permanent academic structures. We considered the flow of both pedestrian and mobile traffic, the development of single and married student housing, athletic facilities and play fields, theaters and music practice areas, a major library, and the likelihood of many new programs never heard of which would undoubtedly emerge with the coming years.

In considering all the different kinds of facilities that would undoubtedly be needed, we came face to face with the fact that the existing land ownership of the University was extremely limited, and that the land requirements might be as much as three or four times what the University currently owned, if the University were ever to become a great University. The land needed to be purchased was almost staggering, and would require the expenditure of millions of dollars. Was the Board prepared to come up with the amount of money that would inevitably be required? As a planning committee, our obligation was to look into the future, and bring to the attention of the Board a realistic presentation of what a realistic future might bring, and this could be the basis for their study and discussion of the kinds of decisions they will be called upon to make. I reported to President Wilkinson that our plan would be available for his presentation at the next Board meeting, and I must admit I felt apprehensive about the decision the Board might make.

About this same time a Brother Harry Lindley came to see me to talk about his home which was located on the hill just east of the Joseph Smith Building. Harry was a painting contractor, and a long time resident of Provo. He told me that many years before when Franklin S. Harris was serving as President of Brigham Young University, he had gone to President Harris with an offer to sell his home to the University for $5,000. He explained he had received an offer from someone who wanted to buy his home, and had $5,000 for it. He had lived in the home for a number of years, and had always felt that if the time ever came when the University planned to expand, his home would be the first one they would want to buy, and he felt the University should be the one to have it. Consequently, before selling it to anyone else he went to President Harris, and told him...
about the offer he had received, and said he felt the University should have the first opportunity to buy it, and that he would sell it for the same price as the offer he had received. He said President Harris was anxious to buy the home, and took it to his Board to get approval for the purchase. But the Board did not approve the purchase. Lindley went on to say that the man, who had wanted to buy his home, received a work transfer out of State, so Harry Lindley continued to live in his home.

Now, Brother Lindley had come to see me, having heard from someone that I was involved with the master planning for the University, and he had a similar story to tell. Someone had come to see him, and wanted to buy his home, and had offered to pay him $18,000 for it. He told me he was reluctant to sell it to the man who wanted to buy it because he felt it would be a property the University would one day want to own, and if the University wanted it, he would be willing to sell it for the same price as he had been offered. I told him I was sure we wanted to acquire it, but would need time to take the matter to the Board of Trustees to get their authorization to buy.

I went to President Wilkinson, and told him about my visit with Harry Lindley, and suggested this be one of the items he present to the Board at the same time the Proposed Master plan was presented. He agreed, and included it on the agenda to be taken to the Board. I went with President Wilkinson to the Board meeting. A lengthy discussion took place about the proposed Master plan, and also the matter of the Lindley property. No decision was reached. Instead, President David O. McKay, who was both President of the Church and Chairman of the University’s Board of Trustees, appointed the President of the Council of the Twelve, Joseph Fielding Smith, and Elder Harold B. Lee, to go to Provo and look at each property that would need to be purchased if the Master Plan was approved, and get an estimate of what each property would cost. They were also to look at the Lindley property, then come back with a recommendation as to what action the Board should take, both as to the purchase of the Lindley property and the approval of the Master Plan.

There was no time to lose. I asked Floyd Taylor to help me prepare the necessary papers President Smith and Elder Lee would need to have when they came to look at the properties. Floyd, at that time, was the ticket manager for athletic events on campus. Prior to his coming to the University, he had been in the real estate business, and had a good background in helping to provide the necessary material. The two of us went immediately to the County Assessor’s office, and put together maps of all the properties and their owners located within the boundaries proposed in the Master Plan. Then we proceeded to get help from two appraisers familiar with property values in the area, and together we assembled rough estimates of the dollar values of

Campus 1978-1981

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each of the properties. All this was done on a confidential basis, and the figures had to be rough since this was not the time to
go into each of the homes to make appraisals. I chose to list ten properties to a page, which resulted in thirty pages of
individual properties. We showed the individual dollar estimates, but I purposely did not total the amounts on each page, nor
the total for all the properties. The total values ran into the millions of dollars, and I didn’t want to scare our two Brethren who
were coming, and run the risk of killing the project before it ever got under way.

Copies were made of the assembled material, and put in loose-leaf books. We were ready for our visit from the two
Brethren. I called President Smith on the phone, and told him we were ready for him and Elder Lee to come down to see the
properties. A time was agreed upon, and the two Brethren came down. I had Floyd Taylor sit in with me as we thumbed
through the pages of our report to give them an overlook at what had been assembled, then together we drove from place to
place to look at each property, and review the estimate of what each of the properties might cost. It took two and a half days to
look at all the properties, and invariably, after looking at each property, President Smith would shake his head and turn to Elder
Lee and say, “This is going to cost a lot of money.” He said it so often, it was discouraging. At the end of two and a half days
we were ready to collapse, and collapse we did. We picked the shade of a tree on the edge of a dry irrigation ditch, and sat on
the ground on the banks of the ditch where we could see the Lindley house just a short distance away. After a lengthy
discussion, President Smith turned to Elder Lee and said, “Elder Lee, we’ve been given a terribly tough assignment where we
have to go back to our Brethren and make our recommendations as to what action we think should be taken. This is going to
cost a lot of money. What do you think our recommendation should be?

Elder Lee carefully weighed his words. “President Smith, if we go ahead and approve the purchase of all these
properties to accommodate the proposed Master Plan, we will have a lot of people accuse us of being land-grabbers, but if we
don’t approve going ahead with the purchases, then fifty years from now, people will accuse us of being short-sighted. I don’t
know about you, President Smith, but I believe I would rather go down in history books as being a land-grabber than being
short-sighted.”

Elder Lee’s words rekindled new life in me. This was one of the thrilling moments of my life. The tiredness brought on
by the long and tedious hours spent assembling the necessary information for this occasion, faded into oblivion. I became a new
man. It was time to take the two Brethren to their car which had been parked while we drove around looking at the properties.
As they climbed into their car to return to Salt Lake, Elder Lee said, “President Smith, I think we ought to include in our
recommendation that the Lindley property be purchased.” With that they were on their way. Surely the Hand of God was
present in what had taken place that day.

Campus 1978-1981
563
At the next meeting of the Board of Trustees, approval was given to the Master Plan concept, and to the purchase of the Lindley property. In giving its approval, the Board put two restrictions: (1) Property purchases would need to have approval of the purchase on an individual basis by the Board, no final purchase was to be made without that approval, and there was to be no blanket authorization for purchases of groups of properties. (2) Current property appraisals were to be made, and no purchases would be approved that exceeded the appraised value.

These two restrictions had the effect of slowing down the purchase of properties key to the fulfillment of the Master Plan, but those were the ground rules, and we were obligated to abide by them. I do not spend time here going into the details of the many problems encountered in the purchase of needed properties. It was a time when property values were increasing, and many of our original off-the-cuff estimates of property values proved to be unrealistic. Floyd Taylor and I developed a close working relationship. I would authorize him to make contact with property owners, and in most cases he would be the one to handle the purchase negotiations. Once a common understanding had been reached with a property owner, I would prepare the necessary information to be taken to the Board to get approval for the property purchase. Once this approval was given, I prepared the necessary papers to go to the Committee on Expenditures to get the actual authorization of the funds to be paid out. Floyd would take the check, and get the necessary legal documents signed. Floyd did a heroic job in dealing with the property owners, and was eminently successful in getting closure on the many properties to be purchased.

This whole program of property acquisition turned out to be a time-consuming major undertaking. Persuading people to give up their homes, and start over again at a new location was not an easy task, and sometimes took years to consummate. In fact, after all these years, there are still individual properties to be bought. It so happened that the bulk of the properties to be bought were within the boundaries of the Stake where I served as Stake president. Most of the people we dealt with were cooperative and desirous of doing what the Church and the University wanted them to do. But there were a few who were resentful, and felt that I, as their Stake President, was putting ecclesiastical pressure on them to move. I tried to be overly careful to avoid having anything like that happen, but getting the support of a minority of people who are critical of the Church and what it is trying to accomplish, is not always easy. Elder Lee was right when he said there would be some accuse us of being land-grabbers. But now, with the passing of the years, the majority of the people realize what was trying to be accomplished, and are supportive of the University and the role and influence it plays in the well being of the area.

Campus 1978-1981
564
Those of us involved in the growth and expansion of the University have been privileged to feel the “Hand of God” in the consummation of certain property acquisitions.

The purchase of properties did not come overnight, it extended over a period of years. During this same period of time, the University was constructing new buildings, and concurrently the construction of roads and the extension of utilities required a close working relationship with Provo City. The Mayor and City Commissioners requested that I serve on the City Planning Commission so as to insure a sound development and a cooperative effort on the part of both the City and the University. The City had no funds with which to buy property, the result being that in the give and take development of basic traffic patterns, it was mostly give on the part of the University. For example, the extension of University Avenue running north from 12th North, the main road extending east from 12th North onto the Upper campus and serving the privately owned residences to the east of the University, and the extension of 9th East going north past 14th North would never have been possible without the University donating the land to the City to enable the roads to have been built. These examples, plus countless others, required ongoing joint conferences. My serving on the City Planning Commission required being involved with all the other developments taking place throughout the City. After serving a number of years on the City Planning Commission, I requested an honorable release, explaining somewhat facetiously that at the start of my tenure on the Commission I had many friends, but now it had dropped down to just one, and I needed to be released before I lost that one. Frankly, we did experience a compatible relationship between the University and the City in spite of the divergent points of view inherent in each side looking out for its own interests. 

(Ben E. Lewis)
Auxiliary Services Laundry

Building Addition - 1980

The laundry building was constructed in 1968 on 900 East and 1600 North. The need for additional space was met by construction of an addition to the north.

Project 7-63164 Data

Plans and Specifications: Fetzer & Fetzer Architects
Structural Engineer: Ralph L. Wadsworth
Mechanical Engineer: Van Boerum and Frank Associates
Electrical Engineer: Becherer, Nielson Associates
Owners Representative: Fred A. Schwendiman
Contractor: Far West, Inc. Kent C. Tolboe
Floor area: 7,000 gross sq. ft.
Final Project Amount: $290,580.88
Final Cost per Sq. Ft.: $37.15


Laundry Building addition interior, installation of equipment
Physical Plant Service Station - 1980

A more efficient automotive and heavy equipment servicing facility was needed for many years at Brigham Young University. Funds were provided and construction began in mid 1979 on a service station structure that would have sufficient fuel pumps, wash and lubrication equipment and adequate space for an efficient operation.

Project 134 Data

- **Preparation of Building Program:** Ephraim Hatch and Allen Albach
- **Preparation of Plans and Specifications:** Curt Jolley, Ferral Ogilvie and Mark Robertson
- **Owner's Representative:** Fred A. Schwendiman
- **Contractor:** Elias Staheli
- **Total Project Amount:** $496,024.61
- **Location of project:** Southeast corner of campus, 900 North 850 East
- **Floor Area:** 1963 sq. ft.

Service Station construction - 5 October 1979

Completed Physical Plant Service Station - 10 December 1980

Buildings 1978-1981 567
John Taylor Comprehensive Clinic Building - 1980

After the sale of the Lower Campus in 1976, authorization was given to construct replacement facilities. A committee was appointed by President Oaks to "study, define and recommend the best alternatives for constructing new facilities." It was his desire that colleges and programs be consolidated wherever possible with this construction. On July 10, 1974 a report was submitted to President Oaks. As a result of this report and subsequent architectural studies, it was decided, among other things, to construct a clinic building near the edge of the campus.

Brigham Young University operates a number of clinics for the training of graduate students in the caring professions. LDS Social Services now provides a full range of therapeutic and licensed services for Church members in Utah County. The University and LDS Social Services entered into a cooperative arrangement to improve the quality of services to clients and to enhance the training of future professionals. A building was constructed at 1190 North, 900 East, Provo, Utah where all of these functions could be housed together. This organization is called The BYU Comprehensive Clinic. Disciplines and services included are as follows:

- Communicative Disorders Clinic
- LDS Social Services
- Marriage and Family Counseling Clinic
- Psychology Clinic
- Public Health Nursing Clinic
- Research Development and Management Services
- Audiology and Speech Pathology

The Taylor building was named for John Taylor, a man whose life of service to others included serving as a former Methodist minister before his later conversion to the LDS Church as well as serving four missions for the Church before he became its third president.
Architect’s rendering of the Taylor Comprehensive Clinic - 1980
31 October 1977 - BYU Campus Planning Committee considering the Clinic and other building projects
Left to right: Harold Anderson, President Dallin Oaks, Ben Lewis, Fred Schwendiman, Albert Haines, and Robert Thomas

570
The John Taylor Comprehensive Clinic site as seen from the east with the Law Building in the background - November 1977

**Project 7-63138 Data**

**Architect:**
Willard Nelson, Assoc.
BYU Project Architect, Warren Jones

**Structural Engineer:**
E.W. Allen & Assoc.

**Mechanical Engineer:**
Heath Engineering Co.

**Electrical Engineer:**
Nielson Engineering

**Date of Bid Opening:**
7 July 1978

**General Contractor:**
Hogan and Tingey, Centerville, Utah

**Date of Contract:**
14 August 1978

**Contractor's Representative:**
Eric D. Hogan

**Owner's Representative:**
Fred A. Schwendiman

**Floor Area of Building:**
33,787 gross sq. ft.

**Final Project Amount:**
$2,646,198.85

**Cost per Square Foot:**
$62.67

**Project Coordinator:**
W. A. Stephensen

**Completion Date:**
11 December 1979


571
View to the west - canal in a pipe underground - Clinic Building up to the square roof framing under way - April 5, 1979


572
Leo Ellsworth Meat and Livestock Center - 1980

The Department of Animal Science was established at Brigham Young University in 1922. This department grew in scope and number of students over the years in response to the increasing worldwide interest in food production and the emphasis placed on this field by The Church of Jesus Christ of Latter-day Saints.

Before construction of the Leo Ellsworth Meat and Livestock Center, livestock and animal science laboratory facilities consisted of World War II surplus buildings made over to serve as best they could. In spite of many physical inadequacies, the Brigham Young University Animal Science faculty have produced an alumni that has earned this department a respectable reputation. The building houses livestock, showing and judging facilities, an instructional meat laboratory, and an arena where animal shows, judging events, and riding classes can be conducted. The center’s facilities also include outdoor pens.

In recognition of this success and his faith in this institution's future, Leo Ellsworth, a rancher of Desoto, Georgia, generously provided the necessary funds to plan and construct a meat and livestock center. Brigham Young University is grateful to Brother Ellsworth and his wife, Hilda.

With the closing of the equestrian program in 2002 and other restructuring in the College of Biology and Agriculture, the arena and other parts of the building were no longer needed by the college. The building is currently being considered for remodeling to accommodate other university needs. The building will then be renamed the Leo Ellsworth Building.

Project 7-63143 Data

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<td>Environmental Associates, Salt Lake City</td>
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<td>Structural Engineer:</td>
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<td>Mechanical Engineer:</td>
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<td>Electrical Engineer:</td>
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<td>Date of Bid Opening:</td>
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<td>General Contractor:</td>
<td>Far West Builders, Salt Lake City</td>
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<td>Contractor's Representative:</td>
<td>Kent C. Tolboe</td>
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<td>Owner's Representative:</td>
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<td>Floor Area of Building:</td>
<td>51,975 sq. ft.</td>
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<td>Final Project Amount:</td>
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<td>Cost per Square Foot:</td>
<td>$50.17</td>
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<td>Completion Date:</td>
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574
Architect's rendering of the Leo Ellsworth Meat and Livestock Center - 1980

575
An Ellsworth Building Planning Meeting. Left to right: Boyd Datwyler, Landscape Architect; Norman Faldmo, BYU Architect; Fred A. Schwendiman, Support Services Vice-President; Max Wallentine, Associate Dean, Biological and Agricultural Sciences; Leon Orme, Chairman, Animal Science Department; Delos Ellsworth, Director, Benson Institute; Ron Pace, Animal Science Faculty; Warren Jones, BYU Architect
The Ellsworth building site, and various stages of the building construction


577
A class demonstration of an animal surgical procedure

578
Abattoir during processing of beef cattle

579
In 2002 the College of Biology and Agriculture underwent a restructuring that included the closure of the equestrian program. That left the main arena in the EMLC and the nearby horse barn empty while the College considered alternative uses for the vacant space. It was determined that the EMLC should be renovated into a high density storage facility for the university that would also include the College’s storage needs. In 2005, the EMLC will be remodeled to accommodate the university’s moving and roofing operations as well as general university storage. This will replace the moving and storage space at B77 (the former UVSC building). The horse barn is being converted into an animal research facility.
Smith Fieldhouse Addition - 1980
Women's Intercollegiate Athletic Facilities

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<td>Ephraim Hatch</td>
<td>Markham &amp; Markham</td>
<td>Heath Engineering Co.</td>
<td>Nielson Engineering</td>
<td>Paulsen Construction Co.</td>
<td>Craig Paulsen</td>
<td>Fred A. Schwendiman</td>
<td>Allen Reckling</td>
<td>3,900 gross sq. ft.</td>
<td>$418,829.56</td>
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Smith Fieldhouse Women's Athletic Facility under construction

581
Wilkinson Center Patio Enclosure -1980

The center patio of the Wilkinson Center received limited use since its completion in 1964. This area was enclosed on all four sides, but there was no roof or protection from above. Even during good weather it was not a desirable facility for programs or display activities, primarily because of peculiar air movement.

With the construction of a roof over this 8,378 sq. ft. area it became useful for many functions.

Project 7-63159 Data

Architect: Fowler/Ferguson/Kingston/Ruben
Structural Engineer: KKBNA
Mechanical Engineer: Bridgers & Paxton
Electrical Engineer: Becherer
Date of Bid Opening: 16 April 1980
General Contractor: Paulsen Construction Co.
Contractor's Representative: Byron Paulsen
Owner's Representative: Fred A. Schwendiman
Floor Area of Patio: 8,800 sq. ft.
Final Project Amount: $479,823.00
Cost per Square Foot: $54.03
Completion Date: 10 October 1980

Patio before it was enclosed

582
Structural framing covering the Wilkinson Center Patio - 17 September 1980


583
The Wilkinson Center Patio enclosed and ready for use

584
Wilkinson Center South Addition -1981

BYU Food Services moved into the Ernest L. Wilkinson Center in 1964 when the projected student body size was 15,000. Since that time, the student body has increased in number to over 25,000. As a result of this growth, cafeteria space and conference rooms where food can be served are far short of the demand.

Preliminary studies indicated the feasibility of constructing an addition to the south side of the building on the second and third floor levels. This addition would bridge over the service dock areas with sufficient clearance to allow large truck access as at present.

Project 7-63159 Data

Building Program: Ephraim Hatch
Architect: Markham and Markham, Provo
Structural Engineer: Dixon Markham
Mechanical Engineer: Bridgers & Paxton
Electrical Engineer: Nielson Engineering
Date of Bid Opening: 16 April 1980
Contractor's Representative: John Wallace
Owner's Representative: Fred A. Schwendiman
Floor Area of Building Addition: 28,225 gross sq. ft.
Final Contract Amount: $1,495,000.00
Cost per Square Foot: $57.52
Project Coordinator: Francis "Finn" Murdoch
Completion Date: 1 July 1981

The pedestrian overpass in the center of this photograph was removed to make way for the second and third floor south addition to the Wilkinson Center.
Wilkinson Center south addition under construction - November 1980


586
Wilkinson Center south addition completed - 18 November 1981

Third level dining room in south addition

Kitchen addition

President's reception room in south addition - October 1981


587
Wymount Terrace Married Student Housing - 1979 - 1982

A shortage of married student apartments in Provo prompted Brigham Young University to finance, plan and construct 200 two-bedroom units and 3 years later, an additional 80 units.

### Project 7-63163 Data, First Phase - 1979

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<th>Plans and specifications:</th>
<th>Fowler, Ferguson, Kingston &amp; Ruben Architects</th>
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<td>Structural Engineer:</td>
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<td>Contractor:</td>
<td>Finn B. Paulsen, Inc.</td>
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<td>155,253 gross sq. ft.</td>
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<td>Total Project Cost:</td>
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### Project 7-63198 Data, Second Phase - 1982

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<td>Structural Engineer:</td>
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<td>Project Cost per Sq. Ft.:</td>
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Model of Wymount Terrace Married Student Housing Project


588
Wymount Terrace building site - 11 May 1978

Wymount Terrace buildings - finished

Centrally located laundry facility

Chapel in Multi-Purpose Building

589
Utilities 1978 - 1981

1979
Heating Distribution System MTC
Extension of Utilities to Northeast Campus

1980
Utility Room Equipment for Continuing Ed. Bldg.
Modernization of Mechanical systems for energy conservation - HFAC
SNLB - Heating and Cooling System
Extension of Utilities to Northeast Section of Campus
The Beginning of CNA
Capital Needs Analysis within the Church Educational System
Prepared by Doug Christensen, with input from Harold Anderson and Edwin Cozzens
2004

In 1980, the Commissioner of the LDS Church Educational System, Henry B. Eyring, made a request to complete a study to determine the capital asset needs and funding requirements needed to deal with the replacement and continued improvement of existing educational buildings and campuses within the educational system. The purpose of the initial study was to determine the amount of annual funds that would be needed to ensure a functional and excellent learning environment for the Church Educational System for the years to come.

This initial meeting was attended by Commissioner Henry B. Eyring, associate commissioner Harold Western; BYU representatives, Ed Cozzens, Harold Anderson & Sears Hintze. There was an urgent need for such a study. The concerns of the Board of Trustees was getting a handle on the up and down funding requests coming from higher education and the concern of how much need for funding the campuses have for the future. The building boom in the 1960’s indicated a need coming in the 1980’s.

Upon returning to campus, a meeting was held with Ed Cozzens, Harold Anderson, Sears Hintze and Doug Christensen, Business Support Director for both the Physical Facilities and Auxiliary Maintenance organizations. The request from the Commissioner’s Office was reviewed and the assignment was made to Doug to suggest a way that this kind of a study could take place. Doug proceeded to prepare a plan.

This plan originally consisted of 8 objectives. These objectives came from various sources of information and logic as to how to achieve the results being asked for. The original 8 objectives were:

- Separate Capital and Operating Funds
- Project 40-year, Average Annual Fund Limit
- Manage with an Annual Capital Funding Limit
- Detailed list of Capital Replacements vs Funds only
- Prioritization of ALL Institutional Needs
- Project new Space Needs based on Utilization
- Establish a Replacement Standard for assets
- "Life-Long" program of Maintenance & Planning

Doug Christensen
Current Practices Search

The early part of the discovery plan consisted of a search for existing work and studies that had been completed in this area of practice. A popular plan introduced in 1979 came from a program put together by Stanford University. The plan was based on formulas. The analysis of a building would be broken into systems and structure. A life cycle would be put on each system and then the cash flow would be projected. This result would suggest the amount of funding needed each year to meet the capital renewal needs of an asset. This approach was reviewed and shared with the Commissioner’s Office. It was their guidance to us that they did not feel confident that funding would be made available without line items showing where the funding was going to be used. This program went against some of the established principles of trying to maximize the useful life of an asset. In order to reach that stated objective it was suggested that we write our own program and collect a database of assets.

We contacted BYU Computer Services about our project. We had already begun the computing of existing processes in Physical Facilities. This project was now the first priority. Bryce Goodwin worked for Computer Services and was assigned to us to program the system. Bryce had not only a Computer Science degree but had an MBA. It was great that he had a business background. It helped him understand our approach and business system.

Choosing Assets

Once we had decided that we were going to develop a database, a series of meetings were held with the shop and department leaders to determine what assets ought to be collected. The following people became the category leaders in the program:

- Cliff Riley: Utility Systems
- Paul Reese: Parking lot and roads
- Boyd Datwyler: Landscaping
- Roy Peterman: Grounds
- Ed Terris: Interiors
- Ted Sneddon: Roofs & waterproofing
- Eldon Henricksen: Retrofit projects
- Ron Jones: Mandatory and Compliance issues
- Norm Faldmo: Building retrofits
- Anne Schroeder: Space remodeling
Study becomes an Operational Model

As the study focus and conditions were being completed, it became obvious that the work of completing the study had produced a detailed look at the needs of each institution. It was proposed part way into the study that the study concepts be kept and tracked to see how successful the principles were. Even though the database would be used annually to determine what the needs were, the thought of looking at what we had planned for the next five years and how successful the plan was would be of great value. It was suggested that the study be renewed or re-assessed every 5 years. A strategic process was established. The process suggested that by redoing the database every 5 years would give additional insight as to change and trends that were happening at each institution and would allow for another snapshot to compare and assess the change that had taken place. A proposal was accepted to complete a study every 5 years. At the beginning of each 5-year period a study of the current asset conditions would be frozen and the annual process of determining the capital needs for that period of time would be followed. This introduced the overall management process that would be used to govern this program. The key beginning principles are listed below:

Annual needs request represented the highest priority at each institution.
One funding source for BYU-Provo, BYU-Hawaii, and Ricks College combined.
Required needs vs. lower priority needs would be determined by each institution
A funding limit for each year would be defined. If needs were less than limit, the difference could be saved for future needs and/or additional assets (buildings, additions to buildings, etc.).
Each institution would determine their annual needs.
Presidents would work together to justify any major improvements (over $250,000) and any additions to any campus. These would be the priorities for funding each year.
Priority funding went to maintaining current assets before adding assets.
Replacement funding was assigned to the items rather than a budget year. This allowed for maximum useful life of an asset so funding would be available when needed and not a one-time fund as part of an annual budget.
Inflation factor was adopted by using the ENR index.

1981-1982

The first request for capital needs funding under this new program was in the 1981-1982 budget. The database was completed. An annual new funds rate was figured by extending the cash flow of all items to 40 years and then dividing that accumulated number by 40 years. This provided the 40-year average annual cash flow. This suggested that the annual new funds needed to cover all CNA items was $9.6 million to meet the needs of BYU-Provo, BYU-Hawaii.
and Ricks College. The Board of Trustees reviewed the proposal and suggested a starting annual limit of $7 million. The reason for the lower amount was to see how the system would work and if the suggested life cycle projections would hold up. Later, the Seminary, Institute and Church Schools divisions completed the same kind of program. Due to the growth factor and the buildings being located throughout the world, their amount was not a firm limit until later. This had been the first time that an annual limit had been set for capital funding.

**Annual Capital Needs Inspection and Review Process**

To determine the annual capital needs each year, a process of annual inspections and reviews was developed. This unique approach was designed to inspect the remaining life cycle of one year from the life cycle file, to track problems coming from repairs or emergencies and determine a new remaining life of those items and to review the facility master plan for any one-time projects that were needed. The reason for this inspection is to determine if there was additional life left in the capital asset and determine what the real needs were for the year. The result of the inspection program was not only to identify needs but also to make a judgment on the remaining life of an asset. The goal in this process is to maximize useful life by deferring replacement until the useful life had been spent. The maximum utilization of the investment in each asset allowed managers over that asset the ability to maximize the return of investment. Moving the funding with the asset allows a judgment to be made at the time of need and not the time of funding. This inspection process allows those who manage these assets to better align the assets to their real or actual life cycle. By doing this adjustment, it makes the projection of funding needs in the database more accurate. The inspection process also allows managers of assets to solve problems that come during the year. Any asset in the database can be brought forward to solve problems. Assets can also be funded immediately through an emergency fund or can be part of an annual inspection process. The inspection process deals with all the current capital needs at each institution. The users and stakeholders of each institution complete the annual review process for the facility master plan projects. Requests for needs are made at the college/division level, and then shared with the vice-presidents at each institution. Replacement items are shared with the stockholders. The vice-presidents choose the capital needs projects that best align with the objectives of that area. The vice-presidents at each institution submit their priorities to the Campus Planning and Use Committee. During this priority setting process the inspection results are completed. Coordination between the inspected assets and the facility master plan projects takes place. This coordination assumes that the inspections and the project requests are in harmony and result in good long-term planning for the asset and the institution. This coordination takes place before the approval of needs process so that college/division and vice-presidents can see the whole picture of the capital needs being proposed. The Campus Planning and Use Committee approves the annual capital needs request. It should be pointed out that the list of needs suggests a funding amount. Funding resources are not finalized until all of the institution’s needs have been reviewed. Funding approval happens after the needs have been finalized. *(See Appendix F for all of CNA history up to 2005.)*