Chapter 7 1957-1974

Aerial view of Brigham Young University Upper Campus - 1964
Introduction - 1957 - 1974

This chapter of the Brigham Young University Physical Plant Department history begins with the appointment of Sam Brewster, October 3, 1957, as director of the combined departments of Physical Plant and Campus Planning and Development. It extends through to the end of President Wilkinson’s term, and continues on three more years into President Dallin H. Oaks term to 1974 when Sam Brewster retired.

During these years the studentbody cumulative daytime enrollment increased from 10,847 in 1957 to 28,270 in 1971 (B.Y.U. Enrollment Resume, prepared by the Office of Institutional Research September 1971). The floor area of campus buildings was increased a comparable amount. In 1957 there was 1,252,008 gross square feet of floor area in permanent buildings and 449,495 gross square feet in temporary buildings, totaling 1,701,503 gross square feet. In 1971, 14 years later, permanent floor area had been increased to 4,690,206 gross square feet—over three times what it was in 1957. During this same period of time, temporary building floor area was decreased to nearly one half, from 449,495 gross square feet in 1957 to 246,379 gross square feet in 1971. Adding both permanent and temporary floor areas together reveals a total gross floor area increase of 3,235,082 square feet in this 14 year period, or an increase of nearly three times (Construction Records, Physical Plant Department).

At the end of his term in 1971 President Ernest L. Wilkinson made the following statement about this tremendous period of growth and construction:

…it must be understood that what we have accomplished during the last twenty years would not have been possible without the vision, sacrifice, endurance and toil of the prior administrations, and the financial contributions of Abraham Smoot, Jesse Knight and many others. They deserve as much credit for our present progress as those of us who are living today. And it could never have been accomplished except for the loyal guidance and generous support of the Board of Trustees who determine the policies and have provided nearly all the funds for this institution (Address to Newcomen Society April 2, 1971 at Provo, Utah, page 19).
The magnitude of this physical growth is evident in the following financial report which includes all campus buildings, utilities and ground improvements for the years 1957 to 1971.

<table>
<thead>
<tr>
<th>Fiscal Period</th>
<th>Beginning Balance</th>
<th>Additions (Net)</th>
<th>Ending Balance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calendar year ended Dec. 31, 1954</td>
<td>$17,520,250.60</td>
<td>$8,544,262.27</td>
<td>$26,064,512.33</td>
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<tr>
<td>Calendar year ended Dec. 31, 1958</td>
<td>26,064,512.33</td>
<td>6,154,846.34</td>
<td>32,219,358.67</td>
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<tr>
<td>Eight months ended Aug. 31, 1959</td>
<td>32,219,358.67</td>
<td>2,603,367.19</td>
<td>34,822,725.86</td>
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<tr>
<td>Fiscal year ended Aug. 31, 1960</td>
<td>34,822,725.86</td>
<td>7,111,963.32</td>
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<tr>
<td>Fiscal year ended Aug. 31, 1961</td>
<td>41,934,689.18</td>
<td>5,170,813.96</td>
<td>47,105,503.14</td>
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<tr>
<td>Fiscal year ended Aug. 31, 1962</td>
<td>47,105,503.14</td>
<td>8,536,369.97</td>
<td>55,641,873.11</td>
</tr>
<tr>
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<td>9,581,935.44</td>
<td>65,223,808.55</td>
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<td>14,706,614.62</td>
<td>80,930,423.17</td>
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<td>79,930,423.17</td>
<td>10,115,551.83</td>
<td>90,045,975.00</td>
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<td>3,526,610.10</td>
<td>93,572,585.10</td>
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<td>3,859,634.70</td>
<td>97,432,219.80</td>
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<tr>
<td>Fiscal year ended Aug. 31, 1968</td>
<td>97,432,219.80</td>
<td>6,546,684.44</td>
<td>103,978,904.24</td>
</tr>
<tr>
<td>Fiscal year ended Aug. 31, 1969</td>
<td>103,978,904.24</td>
<td>10,515,005.41</td>
<td>114,493,909.65</td>
</tr>
<tr>
<td>Fiscal year ended Aug. 31, 1970</td>
<td>114,493,909.65</td>
<td>12,201,174.80</td>
<td>126,695,084.45</td>
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<tr>
<td>Fiscal year ended Aug. 31, 1971</td>
<td>126,695,084.45</td>
<td>16,515,213.55</td>
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<td>8,954,481.17</td>
<td>152,164,779.17</td>
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<td>Fiscal year ended Aug. 31, 1973</td>
<td>152,164,779.17</td>
<td>7,196,060.71</td>
<td>159,360,839.88</td>
</tr>
</tbody>
</table>

Summary for period 17,520,250.06 141,840,589.82 159,360,839.88

(BYU Financial Services)
Ernest L. Wilkinson resigned as president on August 1, 1971 after 20½ years of service. Dallin H. Oaks was appointed president of Brigham Young University and served in that capacity for nine years, to 1980. The changeover from one president to the next was without incident so far as the Physical Plant Department was concerned. Several major building projects were in the process of planning or construction at that time. The library space in the new law building was increased in size but, other than that, everything in planning or under construction continued on unchanged.

Student enrollment has been near constant, and within the 25,000 limit at any one time, over the past three years (Institutional Research, BYU). Campus maintenance has increased slightly as a result of new buildings completed.

The personnel of the Physical Plant Department increased only slightly in number during the years from 1971, when Dallin H. Oaks became president, to 1974 when Sam Brewster retired. In 1971 there were 244 full-time employees. Twenty-four more were added during the following three years, bringing the total to 268 in 1974. Approximately 677 students are employed by the Physical Plant Department. This number would be equivalent to 338 full-time persons.

The Physical Plant Department work force in 1974 totals 606 full-time equivalent employees. (Physical Plant Department Accounting Records)

A few changes were made in the organization of the Physical Plant Department. June 1, 1973 Gerald Matthews (Fire and Safety) was transferred to Personnel Services. September 1, 1973 the Typewriter Shop was separated organizationally from the mechanical Shop. Space on the lower level of the building was remodeled for this function, and the move was made in the spring of 1974. Swen Nielsen, chief of the Security Section, resigned to accept the position as chief of Provo City Police Department. Robert Kelshaw was elevated to chief of BYU Security. On August 31, 1974 Sam F. Brewster retired as director of the Department of Physical Plant, after nearly 17 years. Fred Schwendiman, assistant vice-president for business, was appointed to succeed Sam Brewster as director, effective September 1, 1974. (Physical Plant Department Records)
Personnel - 1957 - 1974

In October 1957, the Department of Campus Planning and development and the Department of Physical Plant were consolidated into one department—the Department of Physical Plant—under the administrative direction of one person, the Director of Physical Plant. Three major sections within the Department of Physical Plant were established as follows: Planning, Construction, and Maintenance and Operations (“Expanding Brigham Young University” by Sam F. Brewster, Casebook on Campus Planning and Institutional Development, U.S. Dept. of Health, Education, and Welfare, p.20).

The duties of this new, consolidated Physical Plant Department were the same as the combined duties of the two former departments. Changes were made, in both duties and personnel, soon after the consolidation was completed, however. Electronics and Public Address Equipment Maintenance (Francis Boyer) were transferred to the Audio Visual Aids Department in April of 1958 (Physical Plant Dept. Records).

Offices of the Physical Plant Department were located in a temporary war surplus building (B-15) located east of the Eyring Science Center. Shops and other service operations were located in several temporary war surplus buildings and in houses on property which had been purchased to provide land for future campus development.

Several new duties were added to those of the Physical Plant Department and several changes were made within the department during the years 1958 and 1959. A Junior College Construction Section was added, consisting of two men—A.E. Carlson and William Woolf. The Security Section, which had been functioning under the Dean of Students, was transferred to the Physical Plant Department and an Air Conditioning Shop was begun with one man, Russell Walker. The office of Assistant to the Director in charge of Maintenance and Operations was discontinued.

In the fall of 1961 the Security Section of the Physical Plant Department moved into the recently completed Smoot Administration Building. In September of 1962 a new building was completed for the shop and office functions of the remainder of the Physical Plant Department. Up until that time, they had been housed in various places at more than twenty locations on campus. The new building was a great help to the Physical Plant team. It came at a time when campus construction was moving at
a rapid rate and campus maintenance was increasing with each new building and landscaped area. The wisdom of its construction at that time (1962) is evidenced by the efficiency and speed with which campus construction was accomplished over the years that followed.

Ever changing conditions and new problems to solve required adjustments to the Department. The scheduling of buildings and facilities was transferred out of the Department of Physical Plant to University Relations in 1960, and the campus telephone service responsibilities were transferred to Financial Services in 1961 (Physical Plant Dept. Records).

By 1968 a new organization chart was prepared incorporating the following changes: Harold Anderson was made Assistant Director in charge of Maintenance and Operations, M. Ephraim Hatch was appointed Special Projects Coordinator, and Eldon Henrichsen was appointed Shops Coordinator. The Planning and Construction Section were consolidated under the supervision of Paul G. Rasmussen, and the office of Junior College Development was closed resulting from a decision by the Board of Trustees not to build junior colleges in various parts of the world as previously intended (Physical Plant Dept. Records).

Two and one half years later, in January of 1971, a new organization chart was made to incorporate changes that had taken place up to that date. This is the year that President Ernest L. Wilkinson retired. Most significant of the changes made to the Department at that time was the inclusion of all church schools, worldwide. An additional section was added consisting of an architect, Norman Faldmo, and an engineer, Edwin Cozzens. The name of the department was changed from Physical Plant to Facilities Planning, Construction, and Maintenance, Church Educational System.

A realignment of duties within the BYU campus organization was also effected. William Stacey was employed to supervise the Heating and Chilled Water Plant, and the Mechanical, Electrical and Air Conditioning Shops. Edwin Sneddon was employed to supervise the Carpenter, Paint, Vehicle Maintenance, Upholstery Shops, and the Motor Pool and Stadium. This realignment did not result in any change in shop supervisors, it just reduced the number of men reporting to the Assistant Director, Harold J. Anderson.

Personnel 1957-19774
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Sam F. Brewster, a native of Temple, Texas, graduated from Texas A. & M. University and obtained the M.L.A. degree in landscape architecture from Massachusetts University in 1932. He was a landscape specialist for the Alabama Extension Service in Auburn for five years, a regional planner in charge of recreation and conservation for the Tennessee Valley Authority from 1933 to 1937, and Commissioner of Conservation (Governor’s Cabinet) State of Tennessee from 1937 to 1940. From 1940 to 1957 he served as Director of the Department of Buildings and Grounds at Auburn University -- with three of these 17 years spent in the U.S. Air Force. Mr. Brewster came to BYU, as Director of the Department of Physical Plant, from Auburn University in October 1957.

Photograph at right was taken in the Planning Office of B-15 in 1959. Ben E. Lewis at left, Director of Auxiliary Services and member of Campus Planning Committee. Sam F. Brewster at right, Director of Physical Plant Department and chairman of Campus Planning Committee.
Physical Plant Department Personnel - 1962

Personnel 1957-1974

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First Row L to R
Lloyd Ririe, Dwaine Williams, Dan Schaugaard, Ross Rieske, Sterling Fox, Wendell Russon, Kay McAllister, Guy Farley, Edgel Liechty, Eugene Steffen, Boyd Lehmberg, Grant Peterson, Carlos Stolworthy, Cecil Layton, Oreian Hanson, William Graham, John L. Smith.

Second Row

Third Row
Scott McClellan, Carr Greer, Marietta Clifford, Marie Fanene, Julia Goff, Cornelia De Haas, Amanda Daley, Get tie Lear, Erma Zufelt, Laura Olson, Lela Goodrich, Carole Farnsworth, Kathy Corbett, Gwen Butler, Myrna Maughan, LaRue Burningham, Willadeen Hamson, Judy Pierce, Janice Fortie, Clara Carr, Gerald Mathews.

Fourth Row

Fifth Row

Sixth Row

Seventh Row

Eighth Row

Ninth Row

Personnel 1957-1974
252
Front Row L to R

Second Row

Third Row

Fourth Row

Fifth Row

Sixth Row

Personnel 1957-1974
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Brewster will retire

Sam F. Brewster, director of the Physical Plant Department at BYU since 1957 and an international authority in his field, will retire in August, it was announced today by Pres. Dallin H. Oaks of BYU.

"Sam Brewster's 17 years of service to BYU must rank among the most distinguished and most significant in the history of the university," President Oaks states. "Our campus, which is widely renowned for its beauty and effectiveness, bears the mark of his genius."

Brewster has directed the planning, construction, and maintenance of the spacious Provo campus during a period of intensive growth in which BYU became the largest church-related university in the nation, with a student body of 25,000 and a campus of 430 acres, 580 buildings, and 5.5 million square feet of floor space.

He also has been involved with the planning and construction of buildings for other educational institutions of the Church, such as Ricks College and Church College of Hawaii. He is a former president of the National Association of Physical Plant Administrators of Universities and Colleges and served three terms as vice-president for professional standards.

He came to BYU from Auburn University in Alabama, where he was director of buildings and grounds.

A native of Temple, Texas, he graduated from Texas A & M University and studied three months in England, performing special work in landscape architecture. From 1928 to 1933 he was landscape specialist for the Alabama Extension Service in Auburn. During these five years he also attended Harvard University and received the M.A. degree in landscape architecture from Massachusetts University in 1932.

He also served as regional planner in charge of recreation and conservation for the Tennessee Valley Authority (1933-37), commissioner of conservation on the Tennessee governor's cabinet, and was a lieutenant colonel in the Air Force during World War II.

In addition to his school duties, Brewster has been an official on numerous conservation planning boards and commissions and on beautification organizations and civic clubs in Alabama, Tennessee, and Utah.

He has been listed among "America's Young Men" and "Prominent Tennesseans" and has written numerous articles on home and school beautification and landscape architecture. BYU awarded him an honorary doctor of public service degree in 1970.

He also has served on the board of directors on the National Conference on State Parks, the American Planning and Civic Association, and the International Association of Game, Fish, and Conservation Commissioners. He has conducted many physical plant workshops at universities and was a consultant to the Cuban Tourist Commission in Havana.

In Provo he has served as a trustee of the Community Congregational Church, Kiwanis Club board member, member of the Chamber of Commerce, Utah National Parks Boy Scout Council, and chairman of the Diaconate Board of United Church of Christ, and member of several professional societies.
Fred Schwendiman appointed

Fred A. Schwendiman, now assistant vice president for business at BYU, has been appointed director of the Physical Plant Department, effective in August, it was announced Thursday by President David H. Oak.

Schwendiman will succeed Sara F. Bevan, who will retire in August after serving as physical plant director since 1957.

Schwendiman will be in charge of planning, construction, and maintenance of the big BYU campus, which includes 418 acres, 300 buildings, and 2.5 million square feet of floor space. He will also have responsibility for planning and construction at other LDS Church schools, including Rexburg College at Rexburg, Idaho, and the BYU-Hawaii Campus.

Ben E. Lewis, executive vice president, said, “Mr. Schwendiman brings a wealth of experience to this position having served at BYU for more than 20 years in campus related assignments.”

In his present position, he has been in charge of student housing, food service, auxiliary special services and maintenance, laundry, purchasing department, warehousing, property management, campus bookstores, farm properties, and other business affairs. Each of these areas has a manager who reports to Mr. Schwendiman.

Many of his present duties will be assigned to other University officers, C. Larry Curtis, Wilkinson Center manager and assistant dean of student life, will take over general direction of the bookstore, food operations, and special events management, including the Marriott Center.

Rulon Craven, administrative assistant for business affairs, will assume added responsibility for housing, Dean Hurst, director of auxiliary maintenance, and G.R. Peterson, purchasing agent, will continue to report to Schwendiman.

A member of the BYU administration since 1953, Schwendiman served in the Pacific in World War II and currently holds the rank of captain in the Naval Reserve. He also serves as a Naval officer procurement advisor and liaison officer to the commandant of the 12th Naval District.

He received the bachelor’s degree from the University of Utah and attended Harvard Graduate School of Business.

Before joining the BYU staff he was manager of Lagoon resort, a personnel officer with the Veteran Administration, vocational rehabilitation examiner with the Utah Department of Education, an account executive for KSL Television, and personnel officer and examining advisor with the U.S. Civil Service Commission.
At a banquet honoring Sam F. Brewster at his retirement, President Oaks announced the new name of the Physical Plant Building. The following morning, August 8, 1974, workmen installed “Sam F. Brewster” in matching metal letters above the existing inscription, “Physical Plant Building.” The Universe followed with an article and photographs.
Campus Planning

Soon after the 1953 campus master plan was adopted it became evident that a student body of 12,000—upon which that plan was based—was not going to be the ultimate size of Brigham Young University. Various specialists and committees worked on this problem for several years, resulting in a decision to plan for a student body of 15,000. A more realistic and acceptable plan was then developed (1957) based on this new enrollment figure. This 1957 campus master plan was approved by the Board of Trustees on November 22, 1957 (Minutes of the Board of Trustees, November 22, 1957).

The 1957 plan was revised from time to time as campus developments suggested improvements. A study of these plans will reveal that changes were only minor. All buildings, utilities, and roads constructed since 1957 have been located in accordance with the basic concepts of the 1957 campus master plan.

Not long before the approval of the 1957 plan, a new Campus Planning Committee had been appointed with Sam F. Brewster as chairman. Minutes of the first meeting of this committee give pertinent information, including members, objectives, and procedures that this committee would follow. The effectiveness and importance of this committee is evidenced by the confidence the President demonstrated in its recommendations throughout the years to follow (Minutes of Campus Planning Committee, 1957 – 1971, Physical Plant Dept. files). Following is a copy of the minutes of the first meeting:

To: President Wilkinson
From: Campus Planning Committee
Subject: Minutes of the Campus Planning Committee Meeting held October 15, 1957
October 28, 1957

The first meeting of the newly established Campus Planning Committee was held Tuesday, October 15, 1957, in the Faculty Lunchroom of the Joseph Smith Memorial Building at 12:15 p.m. All members of the Committee were present as follows: Sam Brewster, Chairman, Milton Marshall, Guy Pierce, Armin Hill, Clyde Sandgren and Ben Lewis. Also attending was Fred Markham, who was invited as a guest. The following business was transacted:

1. **Time Schedules of Committee Members**
   Members of the Committee agreed to submit to Brewster a schedule of their regular appointments for classes and meetings so that meetings of the Campus Planning Committee can be scheduled so as not to interfere with other regular commitments.
2. **Meetings**  
Meetings will not be regularly scheduled, but will be on call as required.

3. **Minutes**  
Ben Lewis will have responsibility for writing up the minutes of the meetings. Each member of the Committee will be provided with copies of minutes, regardless of whether they were able to attend the planning meeting or not. Brewster pointed out that the intent will be for the minutes to state succinctly the recommendations of the Committee so that these can be submitted to the President and he can indicate his approval or disapproval. Two copies will be sent to the President, one which he can return to the Committee Chairman with his approval or disapproval indicated, and the other for his files.

4. At this point Dean Hill, Guy Pierce and Clyde Sandgren were excused because of prior commitments. The remaining Committee members and Fred Markham adjourned to the office of Ben Lewis to discuss the overall campus plan.

5. **Overall Campus Plan**  
The Committee spent time reviewing the overall campus plan. No final decisions were made. Further discussion will take place at a subsequent meeting.

6. **Heat Tunnel**  
Leland Perry, Harold Anderson and Carr Greer came into the meeting at 2:30 p.m. to discuss the location of the proposed heat tunnel to the Men’s Residence Halls (Physical Plant Dept. files 1957 – 1971).

   During the finalization of the 1957 plan, an invitation was sent out to several administration and faculty members by the chairman of the Campus Planning Committee, inviting their review and comments of this plan. This memorandum is included in the history as it reveals some planning philosophy at that time, and names of persons involved.
To:  Dean A. Smith Pond, Graduate School.
     Dean Raymond Farnsworth, Bio. & Agr. Sciences.
     Dean Weldon J. Taylor, Commerce Dept.
     Dean Asahel D. Woodruff, Education Dept.
     Dean Gerrit DeJong, Jr., Fine Arts Dept.
     Dean Leonard W. Rice, Humanities & Social Sciences.
     Dean Armin J. Hill, Physical & Engr. Sciences.
     Dean Milton F. Harvigson, R. P. & H. E., & A.
     Dean Wesley P. Lloyd, Student Personnel Services.
     Director Harold G. Clark, Extension Division.
     Mr. Raymond E. Beckham, Alumni Association.

Gentlemen:

The Campus Planning Committee is presently engages in trying to develop a Campus Master Plan that
will be acceptable to all. Such a comprehensive plan is needed to aid in the orderly and pleasing placement of
buildings, driveways, walks and landscape features. In a study of such a plan, consideration must be given to
the interrelationship of colleges, one to another, in order to avoid duplication of facilities, also, to avoid, insofar
as possible, the future necessity of “leap frogging” buildings of one college group over buildings of another
college group, because of inadequate planning.

A tentative plan has been developed to the point where we believe you gentlemen should again review it
and make such comments and suggestions as will aid the planners in their work. We are, therefore, holding a
meeting in Room 235, Eyring Science Building, at 3 P.M., Thursday, October 24th, for this purpose. If you can
schedule this meeting, we would like very much to have you attend, and to give us the benefit of your
experience and thinking.

Respectfully yours,
Sam F. Brewster, Chairman,
Campus Planning Committee

cc:  President Wilkinson
     Members, C. P. C.
     Fred L. Markham
     (Physical Plant Dept. files 1957 – 1971)
Excerpts from Campus Planning Committee Minutes are included on the following 11 pages to convey to the reader of this history what this Committee did, how they functioned, and the President's response to some of their recommendations.

Campus Planning Committee meeting - 1959  
Left: Armin Hill, Sam Brewster Ben Lewis and Milton Marshall
Examples of Campus Planning Committee Minutes

Campus 1957-1974

266
TO: President Ernest L. Wilkinson
FROM: Campus Planning Committee

November 23, 1959

A special meeting of the Campus Planning Committee was held Monday morning, November 23, 1959, at 10:00 A.M. in the Campus Planning Office.

Those in attendance from the Campus Planning Committee were: Hilton Marshall, Armin Hill, Guy Pierce, Ben Lewis, and Sam Brezwater, Chairman. Also in attendance were: Dean Oren Mather, William Pereira and Jim Langanelli.

The purpose of the meeting was to bring to a conclusion a decision regarding the employment of Mr. Pereira and Associates as the architect for the Fine Arts Building.

1. Mr. Pereira was asked to comment on whether he felt the building could be planned and built to follow the program requirements, stay within the square footage, and at the same time keep within the budget. Mr. Pereira stated he was confident this could be done, and that while it would require great care in planning, he was satisfied that a fine building could be developed within the budget figures. He agreed to the square footage within the amount specified.

2. The importance of having the Fine Arts Building harmonize with the other buildings on campus was discussed. Mr. Pereira agreed this could and would be done.

3. The matter of engineering consultants was discussed for such things as structural, electrical, mechanical, acoustical, and theatrical. Mr. Pereira was advised that these consultants were not to be hired without the approval of the University. He will submit the names of the firms being recommended, and their qualifications, to the University for its approval.

4. Mr. Pereira was asked who would be the person responsible for running the project. He answered by saying that he would give the project his personal attention, particularly during the design period.

5. Question was posed as to the timing for preparation and completion of plans. Mr. Pereira indicated four months for schematics, four months for preliminaries, and six months for completion of working drawings ready for bidding.

Following the discussion it was moved, seconded, and unanimously approved that:

A recommendation be made to President Wilkinson that the architectural firm of Mr. Pereira and Associates be employed to prepare the architectural plans on the Fine Arts Building.

Presidential Action: (Approved) 11/23/59

/disapproved

October 17, 1960

TO: President Ernest L. Wilkinson
FROM: Campus Planning Committee

S U B J E C T: Minutes of the Campus Planning Committee Meeting held at 3:30 P.M. Wednesday, October 17, 1960.

Those in attendance: Sam Brezwater, Chairman; Hilton Marshall; Armin Hill; Ben Lewis.

The following business was transacted:

1. Sam Brezwater presented a report relating to the overloads on the electric power lines on the Joseph Smith Building. On several different occasions at critical times, there have been blackouts due to the overload. This problem has been studied and a proposal made that in the interest of safety and also insuring adequate power during periods when performances are being held, that there be installed an additional transformer, this to be located on the roof of the building at the side of the bell tower. This would be out of sight and would not interfere in any way. This has been checked with Fred Krabben, architect for the building, and he feels that this is a desirable location. The estimated cost for this job is $1,600. After discussion by the Committee, it was moved, seconded, and unanimously approved that a recommendation be made to President Wilkinson that:

   For safety purposes and to provide continuity of service this project, estimated to cost $1,600, be approved.

   (Approved) 10/25/60

   (Disapproved)

2. The Committee members went to the intersection of 9th North and 7th East to study the traffic problems that have developed there and to consider what can best be done to improve the traffic flow and control. They were met there by Captain Christensen and Gerald Mathews. The following was agreed to in principle: (a) That there be a stop sign to stop traffic coming from the east and heading west. (b) That there be a yield right of way sign for the traffic coming from the west and heading through the intersection to the east. (c) That traffic moving from the south and turning west at the intersection onto the campus be given preference and not be required to stop. (d) That there be a yellow line just prior to the intersection in the north traffic lanes to separate those automobiles planning to go straight west and those planning to turn left to the south. (e) That there be a yellow traffic line painted on the road going east to keep the cars in
PHYSICAL PLANT SUPERVISORS’ MEETING
April 23, 1974

The following were present at the meeting:

Sam F. Brewster, conducting
Harold J. Anderson
Wendy Jarvis
Bob Kelshaw
Rudy Walkar
J. Petty Jones
Dave Williams
Ed Madsen
Al Nelson
Norm Palomo (excused)
Lee Bigelow
John Paulsen
Jack Meredith
Norm Crosby
Paul G. Ramussen
Scott McClellan
Kay Christensen
Graen Clement
Ed Yoriss
Eldon Heinrichsen
Bill Stacey
R. H. Hatch
Ted Sneddon
Ed Coxson (excused)
Allen Albach (excused)
Guy Parley
Bill Graham

Prayer: Guy Parley

The following items were discussed:

1. Clothing for Shop Personnel

Mr. Brewster said he had discussed the question of clothing for the men in the shops with Ben Lewis and his staff on Monday. He said a meeting will be held immediately to settle the question as to whether the university will pay for half the uniforms and all the laundering, or if the university will pay for the uniforms and let the employees launder their own. He commented that it was his opinion that our department would rather launder their own, and will try to get a decision this week.

2. Supplemental Life Insurance

Mr. Brewster told the staff about a new supplemental life insurance program that is going to be available to employees in the immediate future. Information is going to be sent out by mail soon and Mr. Brewster suggested that the employees discuss it with their spouse and respond immediately so that the program can be initiated.

3. Long Distance Telephone Calls

It was suggested by Mr. Brewster that people in the department making long distance calls try to use the Watts line as much as possible because it can be used more economically than by dialing direct. It was also pointed out that sometimes, by using a little foresight, a letter might do the same job as a telephone call.

Physical Plant Supervisors' Meeting
April 23, 1974
Page 2

4. BYU Rodeo

Mr. Brewster said that the rodeo is going to be on campus now. After some talk about giving it to Provo City, it was decided that it should stay at the BYU. It will be operating under the Animal Husbandry Department on a trial basis for two years with Ron Pace as rodeo coach. The members of the staff were asked to support these people in every way possible to help make the rodeo a success. Policies and guidelines will soon be determined and Physical Plant people will be notified of their responsibilities and work orders issued.

5. Motion Picture Studio Addition

It was announced that approval has been given to start planning an addition to the Motion Picture Studio. The program has been written and is now at the printers. The addition will be less than 8,000 sq. ft. - not large but very sophisticated. It is expected that this project will move ahead rapidly. Assignment of an architect has been approved.

Mr. Brewster said he has asked Scott to get an aerial topo on about 20 acres in that location since there will be master planning to be done on the whole area to cover the next several years.

6. Administrative Assistant

Mr. Brewster said that an Administrative Assistant has been engaged to work directly with Ben E. Lewis. The new assistant's name is Carl Bailey who is a CVA and previously auditor for Mountain Fuel Supply Company. It was felt that quite a bit of Physical Plant business will be carried on with Brother Bailey.

7. Bookstore Addition

The Bookstore Addition Project will be out to bid on April 29 and bids will be opened on Wednesday, May 22. This means that the parking lot west of the Bookstore will go out of existence about the end of May. Mr. Brewster explained that the area between the Bookstore and the Library is going to be a very congested spot for the next few years until the rerouting of underground utilities, the Bookstore addition and the library addition are completed. It is planned at the present time that there will be no through vehicle traffic into that area from the east, but rather from the south between the Chemical Stores Building and the Madsen Building and east of the Crying Science Center.

Mr. Brewster said he will welcome any suggestions or ideas on the subject as to how to help move traffic and keep the congestion to a minimum.
8. Status of Tools

Harold said that Ted has compiled a list of tools required by the shops, and will submit it to Mr. Brewster for his review and approval today. After this has been done, Harold will submit it to Keith Duffin and Lyman Durfee for their approval.

9. Abuse of Service Parking Areas

It has been reported that people with stickers that allow them special parking privileges have been parking in service parking areas, making it difficult for authorized vehicles to find parking space. Mr. Brewster asked Chief Karlshaw to research this problem and see what can be done about getting it resolved.

It was suggested that all the special stickers be withdrawn and new, tougher-to-get stickers be issued. The new stickers probably should exclude parking in service areas and handicapped parking areas.

10. Water Analyst for Physical Plant

Bill said he has offered the man the job as the new water analyst, but he will not know if he is coming or not until the man's health report is received. In the meantime, details are being arranged so that he can possibly be housed in office space previously used by Gerald Mathews, which is being used for storage at the present time.

11. Centennial History

Eph said he is working hard on the Physical Plant section of the centennial history, and is trying to wind it up as soon as possible. He said that in order to make it more of a functional work, he has broken it down into volumes according to the terms of each presidential office. Each president will have one volume under his name, except for President Wilkinson, who will have two due to the tremendous physical growth of the university during his administration.

Eph said he used photos wherever possible because they make a more interesting book. He was asking for contributions of photos, humorous situations, etc., from anyone who has anything to contribute.

The volumes Eph has been compiling will be used by the Centennial History Committee in writing the final history and then filed in the archives for future reference. Mr. Brewster said he feels that someone should float a budget and get the volumes reproduced into book form, because the form they are in right now won't be too lasting.

12. Student Enrollment Policy

The question of student employment was discussed, and Mr. Brewster said that salaries have not been decided yet, but that when he mentioned to the administration the particular problem this department has of hiring students in the summer, Keith Duffin told him that if he can't live within the present rules, the rules might have to be changed. Mr. Brewster told the staff that if they have any problems along this line they are to let him know and he will get help.

13. New Secretary

Eph said that he hired a new secretary today, and she is Irish. She will begin her duties here on May 6.

14. Mr. Brewster said word has come to him that some people in the department have been 'putting down' other sections of the department. He asked that everyone be more quick to compliment than to condemn and said he would appreciate their not making derogatory remarks about employees in the department.

15. Budget

Harold said he is going to declare a moratorium on new Special Project requests now with the exception of site development. He also said that this doesn't mean there isn't plenty to do, because work orders have been authorized. There is a need to get these projects done before any more appropriations are made.

Harold said the operations budget has been adjusted as of the end of March, and it is just a matter of carrying on the projects. He would like anyone with equipment recommendations to come in and talk to him.

16. New Building Requests

Mr. Brewster said that the church is tightening up on budgets. It will no longer be enough to justify the need for a new building, but they will require details on costs for maintenance, grounds, utilities, custodial, security and all fringe benefits over a span of thirty years.

It was noted by Harold that no one is better qualified to furnish this information than Physical Plant because Scott already has the backup material on existing buildings.
Physical Plant Supervisors' Meeting
April 23, 1974
Page 5

17. Mr. Brewster said that the development of the university
has not stopped. Right now there is a committee working on
the needs of the university, both academic and physical.

18. Church College of Hawaii

Mr. Brewster said that the new dean of the Hawaii campus,
Brother Dan Anderson, and his assistant, Tom Peterson, will be
here this week to work out some of the problems to relate that
campus with BYU. Mr. Brewster noted that he feels it is the
best thing that has happened to that school if they will gear
the educational philosophies to the students and their needs.
He said he also thought the name will be changed.

19. Mr. Brewster's Retirement

Mr. Brewster said he will be leaving as Director of Physical
Plant as of August 31, 1974, and that there will be no change in
policy until then. His successor will be named within the next
few days. He also stated that he feels it is a good thing to
bring in a new administrator and get new ideas, and that he
feels good about the future of this department.

April 24, 1974

1. New Director of Physical Plant

A special staff meeting was held Wednesday, April 24 in which
a new Director of Physical Plant was introduced. Ben Lewis
introduced Fred Schwendiman as the man who will succeed Mr.
Brewster.
Brigham Young University Campus - 1966

Campus 1957-1974

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Brigham Young University 1968 Master Plan

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Campus Planning 1957-1974 Summary

It can be seen from the above minutes of the Campus Planning Committee that the years from 1957 to 1974 were years of tremendous growth on the Brigham Young University Campus. There was never a time when a major building project was not underway. Most of the time there were several projects of major proportion in process at the same time. Part of the success of these building years may be credited to the development of a well-ordered path through which all projects were led.

The 1957 campus master plan could not have been realized without the purchase of additional land. An accelerated land purchase program was initiated with the result that the main campus was expanded from approximately 200 acres in 1957 to 550 acres in 1971 (Physical Plant Dept. files).

Plans of the existing campus were prepared for general university use by the Physical Plant Planning Section at intervals of two or three years. Copies of the 1968 and 1970 Existing Campus Plans are included in this history.

In conclusion, the plan developed in 1953 and revised and enlarged in 1957, has provided the guidelines upon which the Brigham Young University campus has been built. The test of time has not found the basic plan wanting, in spite of the fact that the student body grew beyond 15,000, which was the number planned for in 1957. The concept of three corridors—physical education on the west, academics in the center, and housing on the east, all running parallel to each other in a north-south direction—has made it possible to expand in an orderly way beyond the previously planned size for 15,000 students. In 1962 Sam F. Brewster made a statement about the 1953 and the 1957 master plans which describe what should happen before it actually did.

It is expected that the master plan will be restudied, revised, and redrawn again and again as the University grows and develops. The plan always can be kept fresh and workable if future planners continue to study and revise but always keep framework or skeleton of the basic master plan. In this way there can be maintained a predetermined scheme of things that still will allow for changes and additions of which earlier planners were not aware (Casebook on campus planning and institutional development, U.S. Department of Health, Education, and Welfare, 1962, p. 22).
Houses and Property Purchases - 1957

A revised campus master plan was adopted and approved by the Board of Trustees, November 22, 1957. For the next few years, property purchases were accelerated. Most of the property which fell within the revised campus plan was purchased in small plots with houses on them. Approximately 100 homes were acquired this way. Until academic building construction required the removal of houses, they have been maintained and used by the University for student housing, faculty offices, art studios, storage, etc.

About half of these 100 homes have been moved or razed over the past 15 years to make room for campus development. Many more should be removed to improve the beauty and unity of the campus; but space needs are so great, that this cannot be done. As new buildings are built, this problem is being relieved and the homes in odd and awkward places are disappearing.

The purchase of these many parcels of the land was not an easy matter. Exorbitant prices were asked in too many cases. Those persons representing BYU who were responsible for these purchases exercised great skill and patience in the process of obtaining critically needed ground at the best possible price.

*A view looking north east on Phillips Lane, typical of the many houses that have been purchased for the land*
Restroom Building South of Smith Fieldhouse - 1959

South of the George Albert Smith Fieldhouse are a number of tennis courts and playfields. This area is heavily used during the day and into the night since it is a lighted area. In 1959 a restroom building was constructed to serve students using these playfield facilities. In addition to the restrooms in this 633 square foot (Space Utilization Office, Inventory of Buildings) building is a small storage room for athletic equipment.
The Physical Plant Department and various academic departments of the Brigham Young University surplus materials and equipment from time to time. Many of these items are too valuable to throw away or sell as scrap. It has been decided that they should be stored for a period of time in hopes that they can be reused somewhere on campus. In about 1959 a small part of ground at the Animal Sciences Laboratory at 2230 North Second West was fenced in for the storage of this surplus material and equipment. Sheds and inexpensive storage buildings were constructed on the site to protect some of the items. There are five structures within this fenced area totaling 5,080 square feet of floor space (Inventory of Buildings, Space Utilization Office) on one level. They are situated in a “U” shape forming a center court where large bulky items that can withstand the weather can be stored. This facility was demolished when the Ellsworth Building was built in 1980.
Ten Tennis Courts South of Smith Fieldhouse - 1959

Plans were prepared by the Physical Plant Department for the construction of ten lighted tennis courts to be located south of the George Albert Smith Fieldhouse and west of the existing six tennis courts that were constructed earlier. The Okland Construction Company of Salt Lake City were the contractors on this project which was completed July 23, 1959 (Construction Record, Physical Plant Planning Office, BYU).
Eight Tennis Courts North of Helaman Halls - 1959

Construction was completed November 16, 1959, on eight lighted tennis courts located north of Helaman Halls. Plans for this project were prepared by the Physical Plant Department. The Okland Construction Company of Salt lake City were the contractors on this project (Construction Record, Physical Plant Planning Office). These courts and the baseball diamond were demolished when the Miller Park (baseball and softball) facility was constructed.

Baseball diamond and tennis courts north of Helaman Halls - 1959

Restroom Building in play area north of Helaman Halls - 1959

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Pedestrian Underpass and Stairway to Smith Fieldhouse - 1960

The frequent large assemblies and devotionals being held in the George Albert Smith Fieldhouse created severe traffic problems where pedestrians crossed over the Peripheral Road. In the fall of 1960, construction was completed on an $83,000 pedestrian underpass and enlarged stairway down to the Fieldhouse. This facility made it possible for students to pass under the Peripheral Road without obstructing the flow of automotive traffic above. Snow melting equipment was included in this project which prevents snow and ice from accumulating on the ramp and stairs.

With the completion of the Marriott Center in 1971, large gatherings in the Fieldhouse are less frequent. However, the Richards Physical Education Building draws numerous students all hours of the day and night, and thus justifying this underpass and walk-way for the present and the years to come.
Pedestrian Underpass and Stairway to Smith Fieldhouse completed and in use
In 1964 an outdoor swimming pool facility was constructed east of the Helaman halls resident buildings. Included in this project is a large outdoor pool with a diving board, a small wading pool, and a 1,140 sq. ft. bath house with dressing and rest rooms for men and for women. A water heating boiler and filtering equipment are also housed in the bath house. The pool area is surrounded with an attractive privacy fence and the area is completely landscaped.

The Physical Plant Planning Section prepared plans for this project. Physical Plant shop personnel constructed the bath house, and the pool was built by a swimming pool contractor, Fiesta Pools of Salt Lake City, Utah (Physical Plant Department Records).
Second Stadium Construction - 1964

A focal point for color and excitement, the football stadium, located at 1600 North on the Provo Canyon Road, was completed for the season of 1964. A substantial amount of donated labor, equipment, and materials made this project possible. It is of all steel construction with seating capacity for 30,000 – 4,800 of which are chair seats. A rubberized-asphalt track encloses the football field. Located high above the west stadium seating is a two-level press box adequate for 120 pressmen. Team dressing rooms, storage areas, and food preparation facilities are located under the stadium seating. Parking for over 10,000 cars is provided in asphalt parking lots near the stadium. There are 42 ticket gates for rapid handling of crowds.

Architectural plans were prepared by Fred L. Markham, architect, of Provo, Utah. After the sight was prepared by donated labor, the construction and erection were contracted to Tolboe Construction Company of Salt Lake City and Pittsburg-Des Moines Steel Company of Provo (Dedicatory Program, October 6, 1970, p.8).

When the stadium was completed in 1964, it included 32,776 square feet of enclosed space. In subsequent years, additional space under the stadium seating has been enclosed. Seminary and Institutes have occupied most of this space with staff personnel involved in the preparation of educational media. At the present time (1972), the total enclosed space in the new stadium totals 80,300 square feet (Space Utilization Office, Inventory of Buildings). The university’s moving operation and furniture storage has occupied most of the space since 1982.
Aerial view of completed Stadium - 1964

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In 1967 interest in rodeo activities was sufficient to justify the construction of a rodeo facility complete with arena chutes, corrals, public restrooms and night lighting. This facility has been used a limited number of times during the following five years. At the present time (1974) negotiations are in process to transfer this facility to Provo City. Eventually this program was dropped and the facilities were removed. Intramural fields were created in this area in 1982 to meet growing needs for student recreation.
Ironton - Constructed, 1924 - Given to BYU, 1968

The Columbia Steel Company of California was attracted to Utah by the successful production of steel during World War I in Midvale, Utah. They constructed the Ironton Plant south of Provo during the years 1923-24 and operated continuously until 1930. The original plant consisted of one blast furnace, coke ovens and associated facilities. The number two blast furnace and the sintering plant were built in 1943. Ironton was phased out of production in 1962 after the development of the Geneva Steel Plant west of Provo. At the time of its closing, the plant consisted of the following facilities: two blast furnaces, a sintering plant, a pig machine, two batteries of coke ovens with by-product plant and gas holder, power station with boiler house and steam lines, railroad tracks, garage, locomotive repair shop, car loading tower, cooling tower compressor building, hammer mill, storage tanks, offices and supporting facilities.

September 20, 1968, the U.S. Steel Company announced that it was donating the Ironton property to the Brigham Young University for development as a modern industrial park complex. This site consists of approximately 385 acres located midway between Provo and Springville, west of highway 91. May 16, 1969, invitations were sent out for bids to demolish the Ironton plant and clear the site. The Learner Company of Oakland, California, submitted the most attractive bid to salvage and clean up this area. They offered the BYU $51,176 for the privilege of salvaging and selling all scrap metal and other materials, with the understanding that they would leave the site clear and clean above ground.

At the same time demolition and clearing of the site was going on, a study was being made to develop a master plan for this proposed industrial park. This study included soil bearing properties, water table, accessibility of site to major highways, and other pertinent factors that should be considered in master planning. A summary of recommendations concerning this proposed industrial park was prepared on May 8, 1971, by a committee consisting of Sam Brewster, Clyde Sandgren, Ben Lewis, and Don Nelson. The recommendation was as follows: “After careful consideration of all the data, it is the combined judgment of this committee that the Ironton Plant property not be developed as an industrial park.” This came as a shock to many people who were certain that great things would happen at this site. Reasons given for this conclusion were briefly as follows: 1) A high water table limits the soil bearing capacity and increases the cost of installation of utilities, etc. 2) Poor soil conditions also limited the load bearing capacity. It was determined that 80 percent of the area was not capable of supporting industrial buildings. 3) Highway access is limited due to steep terrain near US 91. 4) The D&RG Railroad divides this site from adjacent Springville pasture area which was also to be included in the proposed industrial park. A high transmission electrical power line, which would cost an excessive amount to relocate, interferes seriously with the proposed building locations. 5) Environmental problems such as high cost of waste disposal due to high water table. Possible communicable diseases as a result of rodents and insects now infesting the area and feasible high costs of mosquito abatement and other necessary control.

At the present time, other alternatives are being considered for the use of this land.
Ironton before demolition - 1968

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Road and Parking Lot Construction - 1968

The construction of roads on campus in accordance with the 1957 master plan was a series of major projects over a period of several years. By 1968 most of the peripheral road was completed along with other associated service roads and parking lots. This work was let out to bid, and built by various road contractors of the area (Physical Plant Dept. Records).

BYU Road Construction

Photo at right from the left: Sam F. Brewster, President David O. McKay and Ernest L. Wilkinson cutting a ribbon opening the east and north portions of the peripheral road - 1968

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Deseret Towers Swimming Pool - 1970

After the Deseret Towers resident halls were completed it was decided to build an outdoor swimming pool facility similar to the one at Helaman Halls. A large outdoor swimming pool with a diving board and a wading pool was constructed by Rocky Mountain Pools Inc. of Sandy, Utah. The bathhouse, and all other work, was done under contract by the Groneman Construction Co. of Orem, Utah. Plans were prepared by the Physical Plant Planning Section and construction was supervised by the Physical Plant Construction Section.

Built in 1970, the bathhouse has 1351 sq. ft. of floor space in it and houses all mechanical equipment, dressing and rest rooms for men and for women (Physical Plant Department Records).
A change to the appearance of the campus, of sentimental significance, was the removal of the old stadium seating east of the Richards Building. (Physical Plant Department Records and The Herald, July 12, 1972)
Parking Lot South of Wilkinson Center Constructed - 1973

Small parking lot in an area where the old war surplus Carpenter and Mechanical Shops previously stood
Mall Landscaped - 1973

Mall between the J. Reuben Clark Law Building on the east and the James E. Talmage Math-Computer Science Building on the west

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Road Removed and Pedestrian Mall Constructed - 1973

Pedestrian mall between the Clyde Engineering Building on the left and the Martin-Widtsoe Building on the right

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Page School 1958

The Page School, located on 1650 North Canyon Road, was constructed in 1912. It served for many years as an elementary school in the Alpine School District. It was built according to the basic school building plan of that period, four class rooms on a ground floor and four classrooms on a second floor. A one story addition, consisting of two classrooms, restrooms, and a gymnasium, was constructed in recent years. The population in the vicinity of the Page School did not increase as rapidly as was expected due primarily to the rapid expansion of the Brigham Young University. The school was eventually closed; and in 1958, it was sold to the BYU along with two acres of land for $75,000. The purchase of this property by the University was primarily for the land. The building, however, has been used for women’s physical education, Life Sciences laboratory work, and presently as a repair shop for the Department of Electronic Media. The land surrounding this school has been surfaced and is part of the parking lot serving the new BYU stadium.
Zoological Research Laboratory (B39) - 1958

In 1958 a 2,560 square foot pre-fabricated metal building (Space Utilization Office, Inventory of Buildings) was erected at 535 East 800 North. This building has been used over the years by the Zoological Department for research and other academic activities (Consolidated report of the Physical Plant Department, BYU, 1947 through 1957). This building was razed in 2002.
The history of these temporary buildings covers a period of time from 1958 to 1970. Many additions, changes and relocations took place during this time. In 1958 a 400 square foot frame building was erected south of the Fletcher Engineering Building to house machine shop tools for the construction of laboratory equipment. In 1960 a 500 foot addition was built. In 1963 a 1,200 square foot addition was built and in 1964, B-37 (The Press Paper Storage Building) as constructed directly west of the Machine Shop. In 1968 all press facilities and storage were moved to a new building on Wyview Drive. The Press Paper Storage Building, consisting of 2,400 square feet, was then opened into the Machine Shop. Two years later in 1970, it was necessary to remove this facility for the construction of the Engineering Building. The paper storage part of this structure was moved to a site southwest of the Central heating Plant. A new addition was constructed making the total floor area 4,800 square feet. This facility is now (1972) known as the Research Machine Shop (Space Utilization Office, Inventory of Buildings).
Helaman Halls - 1958

A plan was completed for the construction of a housing complex with one central building for feeding and recreational purposes, surrounded by multi-story residence buildings. A central building of 40,322 square feet designed by Lowell E. Parrish of Salt Lake City was completed Aug 20, 1958. Five residence buildings designed by Kegley, Westphall & Arbogast of Los Angeles, California, were also completed at this same time. This three floor, lift slab construction provided sleeping rooms, each for two students and two conveniently located bathrooms for each floor. The construction contract was awarded to Okland – Garff Construction Company of Salt Lake City. The Owner’s Representative for the first phase of this project was Joyce W. Tippetts.

A second phase of this project, two additional residence buildings, was completed August 8, 1959. The same plans were used on this contract, however, Paulsen Construction Company of Salt Lake City were the builders and Sam F. Brewster was the Owner’s Representative.

A third phase of this housing complex, the eighth resident building, was completed November 7, 1969. Basically this same plan was used with minor revisions by the firm Arbogast, Jones & Theiss of Los Angeles, California. The Okland Construction Company built this last building with Sam F. Brewster as Owner’s Representative.

An outdoor swimming pool was completed in 1964 with a 1,140 square foot bathhouse, restroom facility. At the present time, 1972, these ten buildings total 348,278 gross square feet. There are 1,904 students housed, 1,190 men and 714 women (Construction Record, Physical Plant Planning Office) (Inventory of Building, Space Utilization Office).

Each of these buildings was completely renovated in phases between 1993 and 2005 to bring the buildings up to current code requirements and to better meet the needs of the students.
Helaman Halls 1958

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Motion Picture Studios - 1958

Motion picture productions began seriously in 1953 on the BYU campus. Temporary quarters were provided at a site where the Wilkinson Center now stands. In November of 1958, a permanent sound stage with shops and offices was constructed on a beautiful, isolated tract of land in the river bottoms northwest of Provo. This first structure of 16,509 square feet was designed by architect, Bruce Dixon, and erected by the Paulsen Construction Company of Salt Lake City. The demand for motion pictures and film strips grew rapidly in the Church. A second sound stage of 10,505 square feet, which included a storage building, was nearing completion on September 15, 1964, when it caught fire in the middle of the night. Considerable damage was suffered. However, reconstruction began immediately and work was completed by June of 1965. A scene storage building (B-44) of 7,333 square feet was constructed near the original sound stage in 1967. This building is a metal pre-fabrication structure and serves the motion picture, drama, and music departments. Various small buildings have been erected to serve primarily as movie sets. Names such as Ghost Town Front (B-02, B-03) and Crystal Palace Set are used to identify these structures. These buildings are also used for storage of scenery and equipment. At the present time, 1972, there is 27,014 square feet of permanent building floor area and 9,063 square feet of temporary building floor area, totaling 36,077 square feet.

This facility is well-equipped and meets an important need of the Church. Numerous educational movies and film strips have been produced at this location for the missionary program, seminaries and institutes, Church schools, and the Church in general.
President Wilkinson appointed an ad hoc committee to assist in the preparation of a building program for this project. Members of this committee, the architect, and a representative from the Physical Plant Department visited four west coast colleges and universities to obtain helpful information for the planning of this building. Architects William Rowe Smith and Fred W. Needham were appointed to prepare plans for a College of Business Building. A construction contract was awarded to the Okland Construction Company of Salt Lake City who commenced work in May of 1959. This building was ready for occupancy in August of 1960 (Construction Records, Physical Plant Planning Office).

This building is the first of four which will enclose the second quadrangle of the Brigham Young University campus. It is rectangular in shape measuring 312 feet from north to south and 66 feet from east to west. Four floors, including a basement, are utilized entirely for instructional purposes with a total of 78,222 square feet (Space Utilization Office, Inventory of Buildings). This building contains 34 classrooms, 68 faculty offices, offices for the Dean of the College of Business, four laboratory areas, and a lecture hall which will seat 330.

It was intended from the beginning that an addition would be constructed to this building when needed. Corridors and other features were so arranged to facilitate this addition. Land was reserved to the west for this purpose. Construction of an addition was commenced in October of 1966 and completed in September of 1967. This Annex of 45,962 square feet (Space Utilization Office, Inventory of Buildings), built to the west from the north end forming an “L”, was built to meet the greatest campus need, that of classrooms and faculty offices. The College of Business, later to be renamed the School of Management, eventually outgrew even this additional floor area and a new building (Tanner Building) was approved. At that time the Jesse Knight Building was renovated to accommodate the College of Humanities whose departments were spread out around various campus locations. The name of the building was then changed to Jesse Knight Humanities Building, to give the college a sense of identity, until 2005 when most of the college relocated to a new building, the Joseph F. Smith Building. Humanities was then dropped from the name and it is expected that the building will be completely renovated to accommodate various academic and administrative programs including Humanities and University Police.

The type of construction in both the 1960 and 1966 addition is reinforced concrete with brick and cast stone exterior walls. Ceilings are acoustical tile, floors are covered with linoleum and asphalt tile. Interior walls are painted lava block and Sheetrock.

Jesse Knight was a mining millionaire and an important financial benefactor to BYU as well as a member of the university’s Board of Trustees.
Jesse Knight Building soon after completion - 1960 - Fountain north of Smoot Building in foreground

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A Case Study classroom in the Jesse Knight Building - 1960

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William H. Snell Industrial Arts Building - 1960

The Industrial Arts Academic Departments were housed in a war surplus frame building from 1947 to 1960. It was necessary, in 1960, to construct a new facility for these departments in order to make room for the new library which was to be built on the site of this temporary building. Plans were drawn by Dean L. Gustavson, an architect of Salt Lake City, to meet program requirements prepared by the Industrial Education Building Committee and the Department of Physical Plant. Garff, Ryberg & Garff Construction Company was awarded the contract for this structure. Named after William H. Snell, an Industrial Arts teacher of long standing at Brigham Young University, this building includes faculty offices and well-equipped shops for instruction in industrial and technical education fields. A total of 34,593 square feet is distributed on two floors of equal size and the Welding Gas Generator Building of 635 square feet (Space Utilization Office, Inventory of Buildings). This very attractive and functional building is brick on the lower portion with aluminum extruded frame work around gray and black glass panels on the upper portion. Industrial and technical education has increased greatly in popularity over the past few years. At the present time, a critical shortage of teaching space exists in these departments and a realignment of colleges will make it possible for some of this class-work to be conducted in the new Engineering Sciences and Technology Building which is now, 1972, nearing completion.
William H. Snell Building - 1960

Buildings 1957-1974

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Alumni Building - 1961

For sixteen years the Alumni Association was housed in temporary quarters at seven different locations on campus. February 28, 1961 (Construction Record, Physical Plant Department), construction was commenced on an 11,995 square feet (Inventory of Buildings, Space Utilization Office) Alumni House. Markham & Markham of Provo, Utah, were the architects on this project which cost $224,315 (Construction Record, Physical Plant Planning Office).

Placed near the entrance to campus to greet alumni and students, this structure provides the Alumni Association with office and mailing facilities, and a spacious reception hall. It is constructed in an “L” shape with two floors on one leg and a high ceiling reception hall in the other. Construction is steel roof and floor joists resting on bearing walls. A beautiful view in all directions is available at the site chosen for this building on the brink of a hill at the northwest corner of the main campus.

A 1990 renovation added an upgraded air conditioning and heating system, a fire escape, and lower ceilings.
Abraham O. Smoot Administration and General Services Building - 1961

After President Ernest L. Wilkinson obtained the approval of the Board of Trustees to commence planning of an administration and general services building, Henry P. Fetzer of Salt Lake City was contracted to produce drawings and specifications. Construction began on October of 1959 by the Garff, Ryberg and Barff Construction Company. Construction was completed July 16, 1961, at a total contract cost of $2,366,244 (Construction Records, Physical Plant Department, BYU).

This building with 100,377 square feet of floor space is constructed in an X-shape of pre-cast and poured-in-place concrete. Extensive use is made of white cast stone, glass and metal. The main foyer features blue mosaic tiling on cantilever stairways. There are four floors, three above ground and one below ground surrounded by a continuous window well which provides ample light for the basement level. There is a large plaza south of the building with an illuminated fountain and pool. Near this fountain is a flagpole and a statue of Brigham Young.

This building is devoted almost entirely to offices, 250 total, including the administration, registrar, records, security, financial services, housing, purchasing, Dean of Students, Graduate Dean, student counseling, and many others.

This administration building is fittingly named in honor of Abraham Owen Smoot, whose life in the Church was marked by undeviating loyalty and by service to his community. It was as president of the original trustees of Brigham Young Academy that he rendered one of his most enduring services. Without his stalwart support both financial and otherwise, the Academy undoubtedly would have collapsed because of the difficulties which beset it (Dedicatory Program, October 10, 1962, pp. 6-9).
A. O. Smoot Administration Building - Jesse Knight Building at left - 1961

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Serious planning for a new library building began in 1957 when it was determined that remodeling or adding to the existing Heber J. Grant Library building would be adequate for only a few years. After a Building Program had been written approval was obtained from the Board of Trustees, and the architectural firm of Lorenzo S. Young, Salt Lake City, was engaged to prepare drawings and specifications. The architect, Lyman Tyler, BYU Library Director, and Ephraim Hatch of the Department of Physical Plant visited six university campuses to study recently constructed libraries. They obtained helpful information in the planning of this new building. A contract was awarded to Garff, Ryberg and Garff Construction Company, with construction beginning in July of 1959. The new library building was completed and ready for occupancy September 1, 1961, at a cost of $2,934,658 (Construction Record, Physical Plant Planning and Construction Office).

This building has 204,425 square feet of floor space divided equally on five floors (Inventory of Buildings, Space Utilization Office). Two floors are located below ground and three above. The building was planned to house one million volumes and provide study space for three thousand students at one time. Flexibility was achieved by placing support columns uniformly throughout the building with sufficient lighting and floor load capacity for either book storage or study. When first completed, the book collection was considerably less than one million volumes, allowing use of limited space for classrooms for a few years. The library is operated on an open stack basis except for the University Archives and special collection area.

The basic structure of the building is reinforced concrete. Golden buff brick and cast stone are used on exterior walls. The building is air-conditioned including humidity control. Birch furniture was custom designed and built in Salt Lake City. Interior areas devoted to study are divided into small sections with colorful partial partitions.

The building has endured well through the first eleven years of its life. The millionth volume was purchased recently, which is its planned capacity. The student body has grown from 11,000 to 25,000 since 1961. To keep pace with this increased demand, a major library building addition is in the planning stage (1974 Construction Record, Physical Plant Planning and Construction Office).

On October 10, 1962, the library was named in honor of Joshua Reuben Clark, Jr., a great scholar, teacher, lawyer, diplomat and counselor to three Presidents of the L.D.S. Church, January 10, 1974, this building was renamed the Harold B. Lee Library after recently deceased President of the Church. This change in name was necessary because the Law School Building, which was nearing completion, was to be named the J. Reuben Clark Building (Construction Records, Physical Plant Planning and Construction Office).
Harold B. Lee Library study and book stack area - 1961

Buildings 1957-1974
315
Physical Plant Building - 1962

The Department of Physical Plant has been quartered in many buildings on campus over the years. By 1960, a great need existed to consolidate all Physical Plant functions into one building. President Wilkinson obtained approval of the Board of Trustees to proceed with planning for a building to meet these needs. Sam F. Brewster, Director of the Department of Physical Plant, worked closely with the architects, Lorenzo S. Young and Partners of Salt Lake City, in the development of a very functional and beautiful building. A location was selected at the southeast corner of the campus for this structure which was built by Paulson Construction Company of Salt Lake City, at a project cost of $853,588. Construction commenced December 15, 1961, and was completed September 21, 1962 (Construction Records, Physical Plant Planning Office).

This building of 78,385 gross square feet (Inventory of Buildings, Space Utilization Office) includes the Physical Plant Department administrative offices, a drafting room, a warehouse for building and maintenance supplies, shops for electrical, carpentry, air-conditioning, plumbing, painting, typewriter repair, shops and storage space for the grounds maintenance section, the automotive section, and the motor pool.

The Physical Plant Building is constructed on two levels in the shape of a square with an inner court. The center court serves the upper floor level of the building and an outer court serves the lower level. With this plan, all shops and storage areas are accessible to trucks at dock level, or in the case of the grounds and automotive maintenance shops, to drive vehicles into these areas. The office portion of the building is mechanically air-conditioned and the shop areas are provided with evaporative coolers. Golden buff brick is used throughout on the exterior of this reinforced concrete structure. Interior walls are painted lava block, structural glazed tile, and wood paneling. A storage shelter for motor pool cars has been built east of the building. Remodeling since its construction has been minimal, even though changes in campus maintenance and construction has increased many times.

The Physical Plant Department, with over 200 full-time employees, is able to operate efficiently and economically in this specifically designed facility.

The building was named, in 1981, after native Texan Sam F. Brewster, an international authority in his field who directed the planning, construction, and maintenance of the university’s spacious Provo campus as well as that of other educational institutions of the LDS Church. Brewster was also former president of the National Association of Physical Plant Administrators of Universities and Colleges and served three terms as the association’s vice president of professional standards.
Physical Plant Building - 1964

Buildings 1957-1974

317
William Row Smith, an architect of Salt Lake City, was engaged to prepare plans for the construction of a married student housing project in the early 1960’s. A trip to various campuses with outstanding married student housing projects was made by the architect, a housing administrator, and a representative from the Physical Plant Department. Ideas gained from this trip and from other sources went into the preparation of plans for the construction of 24 resident apartment buildings and four additional support structures. There were one, two, and three bedroom apartments included in this project. A central laundry facility, where student families could do their laundry, was provided. A furniture storage building provided furniture for students on a rental basis, and a central administration business office in the project made the unit complete.

Tolboe and Harlin Construction Company was awarded the contract on these lift slab buildings with lava block walls. The project was completed in two phases. The first group was completed August 31, 1962, and the final group of buildings was completed March 15, 1963. There are 108 one-bedroom apartments, 60 one-bedroom with study, 264 two bedroom, and 30 three-bedroom apartments. These 28 buildings have a totally of 363,074 gross square feet (Construction Record, Physical Plant Planning Office) (Inventory of Buildings, Space Utilization Office).
Wymount Terrace project under construction - 1962

Buildings 1957-1974

319
Physical Plant Greenhouse - 1963

The beauty of many campus building interiors is improved by tropical plants. In order to maintain these plants in good health and appearance, it is necessary to move them into a greenhouse periodically where they can receive extra sunshine and special sprays for pest control. The large numbers of plants that are seen in BYU buildings are only possible through a carefully supervised program and the aid of a greenhouse.

In 1963 a 3,480 square feet (Inventory of Buildings, Space Utilization Office) greenhouse was constructed near the northeast corner of the Physical Plant Building, just south of the ROTC Building. Approximately 500 square feet of this total is devoted to a brick head house constructed by Ralph Dixon Construction Company. The greenhouse was constructed by Lord and Burnham, Irvington, New York (Construction Record, Physical Plant Planning Office).
Interior of Physical Plant Greenhouse - Howard Carpenter at left, Blaine Poulsen at right

Buildings 1957-1974
321
Ernest L. Wilkinson Center - 1964

The Ernest L. Wilkinson Center is the product of many years of effort on the part of many people, students and faculty alike. By 1950 alumni, servicemen, missionaries, faculty, and staff had contributed over $80,000 toward a union building. With their consent this fund was channeled into construction of the George Albert Smith Fieldhouse. Then in September 1953 President Wilkinson appointed a committee to determine needs in an activity center for the University. A student building fee was instituted. After years of planning a contract was awarded to Mark B. Garff, Ryberg, and Garff Construction Company and Okland Construction Company. Work began on June 16, 1961, and the building was completed on April 7, 1964, almost three years later. Architect was Fred L. Markham.

Total floor area in the center is 287,539 square feet on six levels (Space Utilization Office, Inventory of Buildings). It ranks as one of the largest activity centers in the nation. Only three or four universities have larger union buildings, and some of their area is used for hotel rooms.

Total cost for the center, including furnishings, is $6,765,000, of which 60 percent was provided by students, 18 percent by the Division of Auxiliary Services of the University, and 22 percent by the Church.

Even before construction began, a director was appointed. He oversees a veritable beehive of activity because the building is used constantly between 6 a.m. and 10:30 p.m., Sunday through Thursday, and until midnight on Friday and Saturday. The center is used for rehearsals, meetings, art shows, literary groups, movies, plays, firesides, special clinics and conferences, receptions, dances, dining, and many similar functions.

The center provides meeting places for several of the BYU Branches which meet in the building on a staggered schedule through the day on Sunday and on Tuesday evenings. In addition, all LDS Branches on campus use the facilities in the center for social functions and recreational activities.

The spacious ballroom with balconies provides dancing space for 2,000 couples, and 3,000 couples can dance at one time when all suitable areas of the building are used. The colorful, functional cafeteria, with an adjacent snack bar, seats approximately one thousand, and 4,000 people can be fed at one time, using all suitable areas of the center. The Sky Room, on the sixth level, seats 100 for dinner and dancing and up to 250 for a banquet.

A beautifully arranged bookstore occupies the three levels of the south-west wing, providing essential services to the entire University family.

The theater, used for live productions as well as movie programs, seats 430. Closed circuit television may be viewed by up to 3,000 people. A games area includes 20 bowling lanes with the most modern equipment obtainable.
12 ping-pong tables, and other miscellaneous games.

There are many meeting rooms of all sizes which can be used by groups of from 20 to 3,000. Two music listening rooms with stereo facilities are available. The building also contains a seven-chair barber shop, a photo studio, a U.S. post office, a credit union office, a large craft shop, music practice rooms, two TV rooms, the Honor Council Office, a Lost and Found Department, and storage space. Student Body offices are located on the fourth level of the building. Student publication offices are on the fifth level.

In truth, the Ernest L. Wilkinson Center already is indispensable to the functioning of the University. It is difficult now to imagine how the University managed before the center was constructed or to picture campus life in the future without this attractive, functional activity center (Dedicatory Program, Ernest L. Wilkinson Center, April 3, 1965, BYU).
North entrance lobby of Wilkinson Center

Bookstore in Wilkinson Center

Cafeteria in Wilkinson Center

Bowling alley in Wilkinson Center

Buildings 1957-1974
324
Franklin S. Harris Fine Arts Center - 1964

Plans were prepared for the Franklin S. Harris Fine Arts Center by William L. Pereira and Associates, Los Angeles. Construction by the Alfred Brown Company of Salt Lake City, commenced on June 18, 1962, and was completed in the fall of 1964 (Construction Record, Physical Plant Planning Office). It is one of the most comprehensive centers of its kind ever commissioned by an American University.

The Harris Fine Arts Center has been designed to conform in scale and architectural style with the rest of the campus, while still preserving its own unique identity. Principal materials are brick and cast stone.

This five level structure covers about two acres of land and contains 268,286 square feet of floor space (Inventory of Buildings, Space Utilization Office). In plan it resembles a gigantic “H” formed by four wings connected to a central gallery which measures 165 feet long, 65 feet wide and over 50 feet high. Two major theaters, a concert hall seating 1,451 and a 612 seat drama theater exit into this central gallery, with four open courts between the theaters and the wings for sculpture and courtyard landscape. The central gallery serves not only for exhibition of art but also as a foyer for the entire building.

In addition to the two large theaters, there is also a 280 seat experimental theater, a 150 seat arena theater and a 436 seat choral rehearsal hall that also serves as a recital hall. Other facilities include an opera workshop; art storage area; band rehearsal room; symphony orchestra rehearsal room; 64 class, seminar, laboratory and studio rooms; 112 offices, reception and conference rooms; 57 music practice rooms; 26 speech practice cubicles; rooms for theater storage, scenery and dressing rooms, drama and rehearsal areas; lobby and foyer areas; television, radio, audio-visual and recording rooms.

About 35% of all students, regardless of their majors, take classes in the arts. Students enrolled in fine arts and communication courses increased 25% over the preceding year with the completion of this building, which illustrates in a graphic way the importance of physical facilities in education. The facility and academic programs teach and train the future leaders of the Church to recognize and understand the arts and their role in the abundant life.
Model of Harris Fine Arts Center - 1962
Buildings 1957-1974
326
Harris Fine Arts Center after completion - 1964

Buildings 1957-1974
327
Harris Fine Arts Center Concert Hall

Buildings 1957-1974
329
Herbarium and Range Science Laboratory (B49) - 1964

Six years before the Widtsoe and the Martin Life Sciences Buildings were constructed, the need for more laboratory space became critical. Approval was given in 1964 for the construction of a small, semi-permanent structure to temporarily meet the needs of the Biological and Agricultural Sciences until a larger permanent facility could be built (Construction Record, Physical Plant Planning Office, BYU).

The Physical Plant Planning Section prepared working drawings and specifications for a building of 6,624 gross square feet (Inventory of Buildings, Space Utilization Office) which was built by Tolboe Construction Company for the sum of $57,700 (Construction Record, Physical Plant Planning Office). Completed for the beginning of school in September of 1964, this facility provided two faculty offices, two supply dispensing stock rooms, and five classroom laboratories (Construction Record, Physical Plant Planning Office). Since 1964 the usage has varied. At the present time, it is devoted primarily to range sciences and herbarium.

A location was selected on the south edge of the main campus at the corner of 500 East and 800 North. The structure is brick on the outside walls, sheetrock on the inside walls, acoustical tile on the ceiling attached to a wood truss system (Construction Record, Physical Plant Planning Office, BYU).

B49 became the home of the Ezra Taft Benson Agricultural and Food Institute in 1982.

Herbarium and Range Science Laboratory - 1964

Buildings 1957-1974

330
The University Dairy operated a temporary Quonset building north of the Central Heating Plant for a number of years. The demand for more milk products to meet the needs of a growing student body, and a place where dairy processing could be taught was justification for the construction of a new and larger building.

Lorenzo S. Young and Partners of Salt Lake City, Utah, were engaged to prepare plans and specifications for a new Dairy Products Laboratory Building. Construction began February 20, 1964, and was completed in November of the same year at a project cost of $430,227 (Construction Record, Physical Plant Planning Office). Tolboe Construction Company was the general contractor. This 21,170 square feet building (Inventory of Buildings, Space Utilization Office) includes a storage area and mechanical rooms in the basement; a service dock, a can washing room, a processing room, a refrigeration room, a cheese curing room, a sales room, a testing laboratory, and an office on the ground level. A site in the northeast corner of the campus was chosen for this building.

The retail portion of this facility was named the Creamery after a 1996 expansion made room for added business and BYU Takeout was established there. The Creamery sells dairy products and bakery goods and is open to the public as well as to the campus community.
Boathouse (Biology Laboratory, Utah Lake) - 1964

Land was leased from Provo City for the establishment of a lake side laboratory. This area was later given to the state of Utah to serve as a State Park. The lease with BYU was maintained (Construction Record, Physical Plant Planning Office, BYU). In 1964 a 722 gross square feet (Inventory of Buildings, Space Utilization Office) boathouse was constructed on this property which is located south of the Provo River at the point it empties into Utah Lake. This boathouse provided shelter for a war surplus life boat which was equipped with a cabin and other accessories to serve as a research facility for the College of Biological and Agricultural Sciences (Construction Record, Physical Plant Planning Office, BYU).

The Boathouse is constructed on wood pilings in an “A” frame shape. A channel from the river is provided for easy exit and entrance (Construction Record, Physical Plant Planning Office, BYU).

In 1964 a concrete boat loading ramp was constructed adjacent to the Boathouse; and in October of 1970, a metal building measuring 24 feet by 24 feet was built west of the original Boathouse. The area has been fenced and a weather observation tower has been installed (Construction Record, Physical Plant Planning Office, BYU).
Construction of additional housing was authorized and the firm of Lorenzo S. Young & Partners of Salt Lake City prepared plans for a group of seven floor and basement dormitory type buildings and a central food service building. Rooms in these dormitories were designed for one and two occupants. Each floor is served by elevators, and in the basement there are facilities for clothes washing, storage, etc. Christiansen Brothers and Finn B. Paulsen Company were awarded the contract for the construction of five residence buildings and the central building. Completion of this phase of the project was September 1, 1964.

A sixth resident building was constructed in this same area to be served by the central building by Alfred Brown Company of Salt Lake City. It was completed September 15, 1969. Some modifications to the plans for this sixth building were performed by Robert Fowler Associates who had assumed the ownership of the Lorenzo S. Young firm after his death. A swimming pool with a bathhouse was completed in 1970. Plans for this structure were prepared by the Physical Plant Department. The total footage of these eight buildings is 321,189 gross square feet. A seventh residence hall followed in 1978.
Deseret Towers - 1964

Buildings 1957-1974
334
In 1965 a large brick and cast stone sign was constructed at the entrance to the campus on 1200 North and 150 East. As a courtesy and aid for the many visitors coming to the Brigham Young University campus, an information booth was also constructed at this same location. This booth of 160 gross square feet, complete with a turnout, drive-up window and parking space, is staffed by a person who is familiar with the campus and has maps and other literature for guidance purposes. Heat lights and a telephone make it possible to provide a service at all hours and seasons as required.

Construction funds for the information booth were provided by the class of 1967. Markham & Markham were the architects and Ralph Dixon was the contractor.

No longer needed, the information booth was razed in 2000 and the signs have been updated and beautified.
Stephen L Richards Physical Education Building - 1965

For many years the Brigham Young University has had a correlated program functioning in physical rehabilitation, in intramurals, in sports activities, and in intercollegiate athletics. The rapid growth of the studentbody at this time and the increased interest in physical education produced acute shortages of teaching space and facilities, particularly in the Department of Women’s Physical Education. The departments of health, recreation and youth leadership were additions to the curriculum at that time. Facilities for teaching swimming had never been available on campus. The need for larger and more adequate physical education facilities was recognized by the board of Trustees and authorization was given for the preparation of plans for a new physical education building which is now known as the Stephen L. Richards Building.

President Ernest L. Wilkinson appointed an ad hoc committee from representative areas of the College of Physical Education to assist in the preparation of a written program of requirements. Members of this committee were Milton F. Hartvigsen, C. J. Hart, Israel Heaton, Leona Holbrook, Edwin R. Kimball, Thane Packer, and Ray Watters. This committee worked closely with Sam Brewster, Director of the Department of Physical Plant, and Ephraim Hatch in the preparation of a building program. Fred Markham and three members of the committee, Milton Hartvigsen, Edwin R. Kimball, and Leona Holbrook, along with Sam Brewster and Ephraim Hatch visited eight Physical Education buildings on campuses from Michigan to California studying new buildings of this type.

The architectural firms of Markham, Nelson, Dixon and Long, combined under the name “Central Utah Architects”, prepared plans and specifications for a physical education building. Mark B. Garff, Ryberg and Garff Construction Company and Okland Construction Company combined as general contractors for this project. Construction began December 11, 1963, and was completed in the autumn of 1965 (Construction Record, Physical Plant Planning Office).

This building is of contemporary design to complement the general character of other campus buildings. The exterior of the building consists of buff brick masonry panels set in exposed structural columns and beams. Interior wall surface includes structural glazed tile, ceramic tile, and painted concrete block. Gymnasium ceilings consist of roof decking supported on exposed steel trusses and joists. Other areas have suspended mineral acoustical tile ceilings. All major corridor floors are terrazzo, gymnasium floors are hardwood, with asphalt tile on classrooms, offices, and other areas. Locker and shower floor areas are surfaced with quarry tile. Students are able to dress for physical education activities in this building and go through a 180-foot tunnel underground to the nearby George Albert Smith Fieldhouse for physical facilities of that building without being exposed to winter weather.
This 237,154 square feet building (Inventory of Buildings, Space Utilization Office) is 620 feet long and 280 feet wide; covering more than the entire playing field and track of the old stadium which formerly occupied this site. All offices and classrooms are air-conditioned for optimum temperature and ventilation control. It is located at the foot of a hill, west of the main campus with walkways from the second floor connecting with stairways leading to the main campus.

This building now includes three swimming pools; two large gymnasiums; two small gymnasiums; two dance studios; offices for faculty members, department heads, intramurals activities, and the Dean of the College of Physical Education; seven classrooms; a Human Performance Research Center; an adaptive physical education room; youth leadership training rooms (scouting); driver training facilities; and a laundry.

The three swimming pools are housed in one large room with a balcony on two sides which will seat 1,100 spectators at intercollegiate competition events and other programs. Spectators look down onto the pools and surrounding decks, which are beautifully tiled in pleasing patterns made up of several shades of blue. One pool is designed for beginning swimmers; one is of regulation size for intercollegiate competition; and one is for diving. The three pools combined hold 528,000 gallons of water, carefully filtered to keep it clean. Six underwater observation windows allow teachers and coaches to observe the swimmers and divers below the surface of the water. There is also provision for TV monitoring from these windows.
Ground breaking of Richards Building
Leona Holbrook, chairman of women’s physical education, in foreground, faculty in background

Diving pool in Richards Building
Swimming and diving pools in Richards Building

Buildings 1957-1974
338
Engineering Laboratory Building (B38) - 1966

A pre-fabricated commercially built metal building of 4,110 square feet (Space Utilization Office, Inventory of Buildings) was constructed southeast of the Fletcher Building in 1966. This facility has been used by Engineering Departments since its construction. It was located east of the future Clyde Building.
High Pressure Research Laboratory (B41) - 1966

In 1966, a pre-fabricated metal building of 6,267 square feet (Space Utilization Office, Inventory of Buildings) was constructed southeast of the Fletcher Building. This building is located parallel to and adjacent to B-38, another pre-fabricated metal laboratory building. B-41 was constructed primarily for high pressure research work under the direction of Dr. Tracy Hall, inventory of man-made diamonds.
Geology Bone Storage Building (B45) - 1967

In 1967, a metal building of 1,952 square feet (Space Utilization Office, Inventory of Buildings) was constructed north of the Physical Plant stockade for the storage of bones and geology field equipment. It continues to be used for storage for the Geology Department.
The Indoor Tennis Courts Building, located south of the George Albert Smith Fieldhouse, was built at a project cost of $251,567. Willard C. Nelson Associates was the architect and Kaze & Gammon was the general contractor. Construction commenced on March 8, 1968, and was completed October 2nd of that same year (Construction Record, Physical Plant Planning Office).

Four regulation-size tennis courts and additional space for folding bleachers are included in this building of 29,850 square feet (Inventory of Buildings, Space Utilization Office). The entire floor area is clear of any support columns or other obstructions. A ceiling height of 40 feet provides ample clearance for the trajectory of tennis balls during play.

The structure of the building consists of laminated wood arches resting on reinforced concrete columns. The concrete floor has received a special finish which is ideal for the game of tennis. Net support posts, umpires’ chairs, and all other necessary fixtures are included in this project. Seating for 1,300 spectators is provided on roll-out type bleachers located at each end of the building. Adequate heating, lighting, and ventilation provide an excellent year-round environment for tennis instruction, free play, and tournaments. The building also serves as an instructional center, thus more efficiently utilizing its full potential.
Indoor Tennis Courts Building under construction - 1968

Interior of Tennis Courts Building

Tennis Courts Building complete and in use - 1968

Buildings 1957-1974

343
Auxiliary Services Buildings - 1968

A large spacious site north of Wyview Drive and west of 900 East Street was selected for the construction of three Auxiliary Services Buildings in 1967. Plans were prepared by the architectural firm Holland, McGill, and Pasker of Salt Lake City. The construction contract was awarded to Iverson Construction Company, also of Salt Lake City. This complex of three buildings provides office space, work room and storage facilities for auxiliary maintenance, laundry, food service, receiving, and the University Press. These three buildings, totaling 155,576 gross square feet (Space Utilization Office, Inventory of Buildings) were completed and occupied in October of 1968 (Construction of Record, Physical Plant Planning Office). There is ample parking on all sides of each building and room for expansion of the buildings when necessary. Since their completion, these facilities have served the various departments using them well, greatly improving their efficiency.
Daniel Wells ROTC Building - 1968

The Daniel Wells ROTC Building houses both the Army and the Air Force ROTC units. It is located on the southeast corner of the Ernest L. Wilkinson Center parking lot and faces west. This building of 15,305 gross square feet (Inventory of Buildings, Space Utilization Office) was completed in October 1968. Young and Fowler Associates of Salt Lake City designed the building and the Paulsen Construction Company built it at a cost of $241,888 (Construction Record, Physical Plant Planning Office). The building’s gold buff brick exterior matches the majority of the buildings on campus. The building is fully air conditioned for year-round comfort. There are two floors and a basement. The basement contains supply facilities for both ROTC units. The departmental offices are located on the second floor with the Army at the north end of the building and the Air Force at the south. The first floor contains a large joint-use classroom, two smaller classrooms, two libraries, and cadet offices. Provisions have been made in the building construction to accommodate further expansion of facilities. This is the only Army or Air Force ROTC building in the state that has been built exclusively for ROTC.

The building was named in honor of Daniel Wells, a Mormon pioneer, soldier, civic leader, and counselor to LDS Church President Brigham Young.
Eyring Science Center Remodelings - 1968

Very few buildings continue for many years after completion without alterations or additions to them. The Eyring Science Center is no exception. Many changes have been made to this building since its completion in 1950. Most significant of these is the construction of an underground physics laboratory, north of the building. This addition of 14,750 sq. ft., completed in November of 1968, is entirely underground with several feet of dirt on top. The reason for this type of construction was to provide a well shielded place for a nuclear accelerator installation. Ashworth Associates were the architects and Paulsen Construction Co. of Salt Lake City was the contractor of this $283,697 project.

Another significant addition to the Eyring Science Center was the construction of a planetarium. Fred L. Markham was the architect and Witt Construction Co. built it. Edwin Sneddon, who later joined the Physical Plant staff, was the contractor’s representative. A $25,000 gift from the Summerhays family of Salt Lake City provided the major part of the construction cost in 1957.

The observatory dome on top of the Eyring Science Center was constructed in 1950; however, it was not until June 1959 that a 24” telescope was purchased from the Tinsley Laboratories of Berkley, California, for $22,496 (Physical Plant Department Records).
Interior of Underground Physics Laboratory
Photographs taken 1974

Observatory on roof of Eyring Science Center
Ferral Ogilvie of Physical Plant Planning Section

Interior of Observatory with 24” telescope installed - 1959

Buildings 1957-1974
348
Thomas L. Martin Classroom Building - 1969

For many years a need for additional lecture room was felt on the Brigham Young University campus, particularly in the area of Life Sciences. The value of demonstrations and other visual teaching aids is apparent in this field. A classroom building located convenient to faculty offices and laboratories where teaching materials could be transported easily was urgently needed. Approval was obtained for a classroom and laboratory building. Programming and early planning was made for a classroom and laboratory building. As planning developed, it was decided to operate the two functions. The laboratory building is located just south of this classroom building and is known as the Widtsoe Life Sciences Laboratory Building. Plans were then prepared by Central Utah Architects, which included the local firms of Markham, Nelson and Dixon. Tolboe Construction Company of Salt Lake City was the general contractor. Construction began on July 10, 1968, and was completed in the summer of 1969.

The Thomas L. Martin Classroom Building has three floor levels; one below ground and two above. There are four lecture halls seating 254 students each, four seating 90 each, five with 75 student capacity, three with 60, and eight with 40. Classrooms are well-equipped with visual and electronic teaching aids. Careful attention has been given to acoustical design to insure good listening conditions. These classrooms serve the College of Biological and Agricultural Sciences, and, in addition, are available for general campus use.

There are 40,468 feet of floor area on the three levels of this building, which is located adjacent to the John A. Widtsoe Life Sciences Laboratory Building, with connecting corridors on all three floors.

White panels of cast stone dominate the exterior of the building. The upper level of this building overhangs the ground level on all sides providing a wide sheltered walkway to the entrances. Corridors and office ceilings are of suspended acoustical tile construction. Corridor floors where traffic is heavy are surfaced with terrazzo and all other floors are covered with vinyl asbestos tile. The building is air conditioned and all classrooms are without windows to accommodate slide and movie projection, a major part of Life Science instruction.

The Martin Building underwent a major remodeling in 2000 to upgrade the building, its classrooms and instructional facilities.

The building was named to honor Dr. Thomas L. Martin, a nationally known agronomist and former dean of the College of Applied Sciences (now known as the College of Biology and Agriculture).
Thomas L. Martin Building in foreground - Widtsoe Building in background - 1969

Buildings 1957-1974
350
Classroom in Thomas L. Martin Building

Buildings 1957-1974
351
John A. Widtsoe Life Sciences Laboratory Building - 1970

For many years a great need existed for a laboratory building designed specifically for Life Science work. The heavy enrollment in Life Science classes necessitated instruction and laboratory work being taught in many buildings in different parts of the campus. Practically all laboratories were remodeled spaces originally built for other purposes.

A Life Sciences Building ad hoc planning committee was appointed by President Wilkinson to advise and assist in the preparation of a building program. The following are the members of this committee: Rudgar H. Walker, R. Chase Allred, Hervert H. Frost, B. F. Harrison, Don H. Larsen, Max Wallentine, Fred G. White, and Fred A. Schwendiman. Under the direction of Sam F. Brewster and assisted by M. Ephraim Hatch, a building program was prepared listing the needs to be met in this new facility, along with a description of each individual room. Visits were made to twelve university campuses where buildings of this type were studied. A trip report including photographs and technical data was prepared to assist the architect in the preparation of plans and specifications. Members of the visiting team to these various university campuses were Sam F. Brewster, Rudgar H. Walker, Fred L. Markham, Frank Bridgers, and Ephraim Hatch. Both the program and the trip report were made with the understanding that it would serve both the laboratory and classroom part of this facility. It was later during the architectural stage that it was determined to separate these functions into two buildings which are now known as the John A. Widtsoe Life Sciences Laboratory and the Thomas L. Martin Classroom Building.

With approval from the Board of Trustees, the architectural firm, Central Utah Architects which included three local architects, Markham, Nelson and Dixon, prepared plans and specifications for a structure devoted entirely to faculty offices and life science laboratories. This building, named for John A. Widtsoe, now stands as a companion to the Thomas L. Martin Classroom Building.

Construction began on the Widtsoe Building July 10, 1968, and was completed in the summer of 1970. Tolboe Construction Company of Salt Lake City was the general contractor. This building is constructed as a nine floor tower with two levels below ground and seven above. The second, third and fourth levels are accessible from the Thomas L. Martin Classroom Building through connecting corridors. In addition to faculty offices and general science laboratories, there are fresh and saltwater aquaria, an electron microscope, and housing for experimental laboratory animals. This 183,914 square foot building (Inventory of Buildings, Space Utilization Office) has two elevators serving all floors.

The structural design of this building is poured-in-place reinforced concrete. The exterior of the building reveals a vertical column system with buff brick panels. Interior walls are constructed of painted concrete block and structural glazed tile as functional requirements dictate. Corridor and office ceilings are of suspended acoustical tile construction. The laboratory ceilings are painted exposed structure with all utilities visible and accessible for easy maintenance. Main corridor floors are surfaced with terrazzo and all other floors are covered with vinyl-asbestos tile, seamless resin or sealed concrete. The building is air-conditioned.
Architects considered the Widstoe Building one of the most complicated structures on campus at the time due to the vast network of lines for water, distilled water, gas, electricity, compressed air, exhaust, air conditioning, and built-in equipment such as laboratory benches, cupboards, and storage cases.

This building was named in honor of John A. Widstoe, a member of the LDS Church’s Quorum of the Twelve Apostles, scientist, and president of two universities.
Laboratory in John A. Widtsoe Building
Helaman Halls Project - 1958-1970

Five residence halls and the central George Q. Cannon Building were constructed in 1958. Two additional residence halls were completed in 1959 and an eighth in 1970. Each of the halls accommodates 234 students, two to a room, for a total of 1,872 in the entire complex. (1000 Views of 100 Years, p.222) Each of these buildings was completely renovated in phases between 1993 and 2005 to bring the buildings up to current code requirements and to better meet the needs of the students.

Buildings 1957-1974

355
Talmage Mathematical Sciences - Computer Building - 1971

A great need existed prior to the construction of the Mathematical Sciences/Computer Building for classrooms, faculty offices and a consolidation and enlargement of computer services. After approval from the Board of Trustees, President Wilkinson appointed a committee to study space problems of the campus and prepare a Program document for a building that would meet these needs. Members of this committee included Sam F. Brewster, chairman; Robert K. Thomas, Gary Carlson, Kenneth Hillam, Dale Richards, and Howard Campbell.

Fred L. Markham, Willard Nelson, and Bruce Dixon, three local architects, combined to form the firm of Central Utah Architects for this project. A contract was signed with Okland Construction Company February 11, 1970, and the project was completed January 28, 1971, in time for the Spring Semester of school (Construction Records, Physical Plant Planning Office, BYU).

This building of 63,512 gross square feet (Inventory of Buildings, Space Utilization Office) includes 100 faculty offices, 30 classrooms, seminars, and a computer center. The departments of Mathematics, Statistics, Computer Science, Institutional Research and the Computer Center are housed in this building.

This building is located at the west end of an east-west mall between the Jesse Knight Building and the Smith Family Living Center. There is a fountain constructed on the east side of this building which provides an attractive terminal for this mall. The building is air-conditioned. There are three floors above ground and a partial basement. The Computer Center of approximately 14,000 net square feet is isolated from the remainder of the building to permit 24-hour operation. This computer can be used from many locations on campus by a cabling system to terminals where required.

The building was named after James Edward Talmage, a renowned scientist, author, and educator who taught at BYU and later served on the LDS Church’s Council of the Twelve Apostles and on the BYU Board of Trustees, and who was known for his keen intellect and numerous published works.

Built of earthquake-resistant design in an unusual one-, two-, and three-story construction, the facility provided specialized air conditioning and heating systems for its computer center. Though its outside design harmonized with other campus structures built at this time, the Talmage Building has a unique stone façade using a motif of mathematical symbols designed by the architects.
In 1990, the building was renovated and a four-story expansion was built to help meet the expanding needs of the departments of Computer Science, Mathematics, and Statistics as well as a growing campus-wide need for accommodations to house computers, which were necessary due to the dramatic growth in computer-related education. The expansion added a 220-seat auditorium, facilities for 250 computer workstations, office space, and a commons area that joins the two structures.
Timp Lodge - 1971

In 1928, Church members in the Provo, Edgemont area purchased land from the Stewart family for a girl’s Canyon Home. This land, approximately ten acres, is located below Stewart Falls up to the north fork of Provo Canyon near what is now called Sundance. Joseph Nelson was appointed architect and fund raising began. In 1931, a road was constructed to the site. A stone foundation for what is now known as Timp Lodge was begun in 1923 by the Collins Brothers. Ross Jensen provided the siding for the building, which was constructed by volunteer labor under the direction of C.A. Tolboe. Many, many girls enjoyed a vacation at this summer camp through the following years.

The population grew in the Provo area until nine stakes were using this Canyon Home for summer activities. During this time, the surrounding land was being developed for recreational purposes such as Timp Haven now called Sundance; and many private summer homes were built. About 1970 this site was no longer an isolated mountain camp, and it became necessary to relocate this girl’s camp to another site to the south in a canyon east of Fairview. It was then (1971) decided to sell this property to Brigham Young University. Minor improvements have been made to the building and surrounding property making it suitable for special workshops and other one-day activities.

As the building now stands (1972), there is 7,321 gross square feet included on two floors. The lower, ground floor consists of a small apartment for a caretaker, a kitchen, a dining area and a large room with a hard wood floor and a large stone fireplace. The upper floor is one large room with the roof structure exposed. The upper floor served as dormitory space when the building was used as a girl’s summer camp (A History of the MIA in Utah Stake. Compiled by Helen Adele Durrant Sovine and LaRue Baldwin Smith, pp. 28, 30, and 32) (Karl A. Miller, Utah Stake High Council, assigned to the YWM1A camping program in 1963). The property and buildings serve the campus as a retreat for meetings and socials.
Parasitology Research Laboratory (B50) - 1971

In 1971 a small building of 960 square feet (Space Utilization Office, Inventory of Buildings) was constructed south of the rodeo grounds, just east of second West Street for parasite research. This isolated site was chosen because there are noisy dogs involved in this work. This work became obsolete and the building was razed in 2004.
Joseph K. Nicholes Chemistry Stores Building - 1971

For many years, chemicals for various departments on campus were being stored and dispensed from the Eyring Science Center and a temporary building located nearby. Conditions were very crowded and unsafe for many years.

In June of 1969, an ad hoc committee consisting of Kay LeRoy Nelson, Chairman; Richard Meibos, Fred G. White, and Rudgar Walker prepared a program of requirements for a chemistry stores building. This early planning was done under the supervision of Sam F. Brewster, Director of the Physical Plant Department, and with the assistance of M. Ephraim Hatch, architectural programmer.

Central Utah Architects, a Provo firm, was engaged to prepare plans and specifications for a chemistry stores building in accordance with the “program requirements.” Vincent Construction Company was awarded the contract for a 20,835 square feet building (Space Utilization Office, Inventory of Buildings) to be constructed immediately south of the Eyring Science Center. This two level brick building was completed in January of 1971 (Construction Record, Physical Plant Planning Office). Equipped with a freight elevator and ample storage space with adequate fire prevention devices, this facility now serves all of the campus needs for chemical supplies.
Creer Building - 1971

In 1971 the library found it necessary to rent storage space off campus and place seldom used books at this location in order to make room for new and more frequently used materials in the main library structure. The Creer Building of 10,080 square feet (Space Utilization Office, Inventory of Buildings) is located at 744 South 100 East in Provo. This lasted only until 1976.
Wyview Park - 1971

In 1971 a group of 150 mobile home units was purchased and set up on a tract of land between University Avenue and Second West from 1800 North to 2230 North to provide housing for married students. This project includes 36 one-bedroom units, 78 two-bedroom units, and 36 three-bedroom units. There is a central building of 5,514 square feet which houses laundry facilities, and administrative offices, etc. (Inventory of Buildings, Space Utilization Office and Construction Record, Physical Plant Planning Office). This trailer park was demolished in 1997 to accommodate replacement married student apartments.
Pleasant View Chapel Property - 1971

The Pleasant View Chapel, with slightly over one acre of land, located northwest of the Stadium, was purchased by BYU in 1971. The building on this property was constructed in the years from 1927 to 1932 on the site of an earlier Pleasant View Chapel (Interview with Mrs. Earl Foote by Ephraim Hatch, August 7, 1974).

At the present time (1974), this facility is used by four campus branches for church activities (Space Utilization Office Records). It is also used for limited dance classes. When this facility was no longer needed, it was razed in 1990. It became the site of a new BYU Stake and Ward Building.
Marriott Activities Center - 1971

Plans for the construction of a multi-purpose auditorium to be constructed on the Brigham Young University campus were announced by President Ernest L. Wilkinson in September of 1968. The need for this facility was unquestioned because the student body had grown four-fold since the George Albert Smith Fieldhouse was constructed in 1951. The site chosen for this new activities center was directly north of the Abraham O. Smoot Building between 1430 and 1650 North. It was decided to accommodate basketball, devotional and forum assemblies, convocations, religious and public gatherings, music, dance, and other activities. The main purpose for the new activities center was basketball; and the building was designed primarily for that function (BYU News Bureau, News Release dated September 17, 1968).

It was financed through gate receipts, student building fees, and public contributions. President Wilkinson emphasized the fact that none of the costs of the building would come from tithes or other funds of the Church (BYU News Bureau, News Release dated September 17, 1968). J. Willard Marriott, for whom the building is named, made a generous contribution of over $1,000,000 (Opening Game Program, December 1, 1971). People who were prominent in the fund raising and planning of this building were as follows: President Ernest L. Wilkinson, Ben E. Lewis, Robert K. Thomas, Robert Smith, Dr. DaCosta Clark, Sam F. Brewster, J. Elliott Cameron, Milton Hartvigsen, Stan Watts, Floyd Taylor, Floyd Millet, Lorin Wheelwright, David Dredge, David Schulthess, Darrel Monson, Harold Goodman, Charles Henson, Grant Elkington, Richard Ballou, Mark Hathaway, Earl Glade, Robert Drake, James Lawrence, and Ronald Hyde (Construction Record, Physical Plant Planning Office).

According to the Construction Record of the Physical Plant Planning Office, the Marriott Activities Center seats a total of 23,054 as follows:

<table>
<thead>
<tr>
<th>Type</th>
<th>Seats</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chair Seats</td>
<td>10,092</td>
</tr>
<tr>
<td>Bleacher Seats</td>
<td>12,590</td>
</tr>
<tr>
<td>Special Seating: TV, ushers, officials, etc.</td>
<td>372</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>23,054</td>
</tr>
</tbody>
</table>

Buildings 1957-1974

364
The architectural firm chosen for this project was Robert Fowler and Associates of Salt Lake City. Tolboe Construction Company submitted the most favorable bid in the amount of $7,947,000. The structural engineer was George S. Nelson, mechanical engineering was done by the firm of Bridgers & Paxton, and the electrical engineer was Blomquist and Brown (Construction Records, Physical Plant Planning Office).

This building measuring 384 feet by 344 feet is larger than two football fields side by side. There is 274,456 square feet of floor space, on several floor levels, under three acres of roof (Inventory of Buildings, Space Utilization Office). The inside volume of this room is approximately 8,000,000 cubic feet. It is 100 feet from the roof down to the playing floor, or the equivalent to a ten-story building. The playing floor is located 35 feet below the outside grade. A continuous concourse encircles the building with 22 portals into the arena area. Entrance into this concourse is through 18 double doors at each of the four corners of the building. There are 37 rows of bleacher seats below the concourse level and 23 above. There are 29 rows of chair seats below the concourse level and 14 above. The roof of this structure, called a space frame, is unique in that it is one large steel truss, not several trusses placed side by side. It was constructed on the ground level and then raised up 35 feet into place on top of 38 steel columns. This is the largest project ever done, both in weight and method. The steel in this space frame, weighing over 2,500,000 pounds, was fabricated by Mountain States Steel Company. After the steel space frame was in place, the dirt was removed down to the playing floor level. The building is fully air-conditioned and the air is electronically filtered (Construction Record, Physical Plant Planning Office).

The public address system was designed by Dr. C. P. Boner, famous for this achievement in designing the sound system for the mammoth Houston Astrodome. There is a circular scoreboard suspended over the playing floor with a cluster of loud speakers hung underneath. The sound system is capable of producing 3,000 watts of audio power. Over 300 microphone outlets are available throughout the structure to accommodate various kinds of performances. An electronic organ has been installed which plays through the existing sound system (Inventory of Buildings, Space Utilization Office).

The outside of the building presents an interesting face of golden duff brick in a punctuated pattern. The four corners are rounded, giving a pleasing architectural affect. To the north and east of the Marriott Activities Center is parking for 3,000 cars, and to the south are two pedestrian ramps, making it possible for students and faculty to walk from campus without crossing vehicular traffic (Construction Record, Physical Plant Planning Office).
Marriott Center under construction on site north of BYU Campus - 1969

Buildings 1957-1974
366
Excavation of interior after roof frame was lifted

Buildings 1957-1974
367
Marriott Center under construction - 1970

Buildings 1957-1974
368
Completed Marriott Center - 1971

Buildings 1957-1974

369
The Catholic Church closed the St. Francis School, and it stood empty for a few years prior to the time that the BYU rented it to commence the school of law. A lease was signed on February 1, 1972 for the use of this 45,402 sq. ft. building located at 300 North on 900 East Street in Provo, Utah. Acquiring this space has made it possible to begin building a law book collection and to commence the first class of students.

The law school moved out of the St. Francis Building and into the new J. Reuben Clark Law School for the 1975-76 school year (Space Utilization Office Records). The university continued to use the St. Francis School for a variety of programs until 1981.
Engineering Science and Technology Building (Clyde) - 1973

The four departments of engineering—civil, electrical, mechanical, and chemical—organized in 1952, operated from the Harvey Fletcher Engineering Laboratory Building for many years. As needs for specialized laboratories and as the enrollment increased, it has been necessary to expand engineering into various temporary buildings nearby. The Board of Trustees authorized construction of a new engineering building which was completed in the spring of 1973.

Central Utah Architects, a Provo association, prepared the plans for this structure which was built by Hogan and Tingey, contractors of Salt Lake City. This building of 198,232 gross square feet (Space Utilization Office, Inventory of Buildings) and costing approximately $5,500,000 is located south of the Fletcher Engineering Building (Construction Record, Physical Plant Planning Office).

The following persons were involved in the preparation of a building program to guide the architect and to serve as a document for approval by the Board of Trustees: Sam F. Brewster, Armin J. Hill, D. Allan Firmage, Ralph L. Coates, Milton G. Willie, Lawrence S. Bowman, Jens J. Jonsson, Gary Carlson, and Ephraim Hatch.

Just before completion of this building the College of Physical Sciences and Industrial and Technical Education were realigned to include the Departments of Chemical Engineering, Civil Engineering, Electrical Engineering, Mechanical Engineering and Technology—and elements of Computer Services assisting in instruction and research.

This new building of five floors—one underground—includes ten classrooms, ninety faculty and departmental offices, four seminar rooms, a conference room, an auditorium, study and display areas, and eighty fully equipped laboratories. In addition, the facilities are adapted to allow two BYU branches of the Church to hold meetings in the building each week (Dedicatory Program, February 19, 1974).

Originally called the Engineering Sciences and Technology Building, in 1976 it was officially named after the founder of the W. W. Clyde Construction Company and six other successful firms. Clyde was known as “the dean of Utah highway builders” and was also a generous contributor to the university. Included in the Clyde Building’s five stories are offices, lecture rooms, a computer complex, and engineering and technology laboratories, including a solid state laboratory in which transistors can be made from scratch. Facilities are also available for environmental, high-pressure, saline water, thermodynamics, nuclear, and transport processes research.
Laboratory Classroom, Engineering Sciences and Technology Building - 1974

Buildings 1957-1974

376
1958
Conversion of No. 1 boiler to gas, central Heating Plant, $30,289.  
8” water, 12” sanitary sewer, and 15” storm sewer to Helaman Halls project.  
4” sewer line to Page School.  
Gas, sewer and water lines to Motion Picture Studio project.

1959
Addition of Boiler #4, Contract “A”, $159,419. 
4” culinary water line to Central Heating Plant. 
4” sewer, 2” water, and 1-1/2” gas lines to Restroom Building south of Smith Fieldhouse.

1960
Electrical Distribution system, Part II, $63,673. 
HTW lines to Snell and Physical Plant Buildings, $39,000. 
Extension of Utilities, Phase II, III, Electric, Sanitary, and Storm Sewer lines, $481,000. 
Sprinkling system for Business, Library and Administration Buildings, $49,048. 
HTW lines to Smith Fieldhouse, $81,559. 
HTW equipment vaults, $50,750.
1961
Underground electrical distribution, Phase III, $48,322.
6” water main and 10” sewer to Harold B. Lee Library, sewer trench was 30’ deep.
4” culinary water, 6” sewer and 18” storm drain to Administration Building.

1962
HTW lines to Alumni Building, $14,970.
Sanitary sewer, water and storm sewer lines to Wymount Terrace project.
Sprinkling system for married student housing, $65,360.
Extension of Underground Electrical Distribution system, Phase IV, $235,087.
1963
HTW lines to Physical Plant Building, $15,361.

1964
Boiler No. 5 stoker and auxiliaries, $319,996.
Extension of underground electrical distribution system, Phase V, $56,900.
Auxiliary electrical distribution system, $68,523.
Sprinkling system for Wilkinson Center, $12,075.
Sprinkling system for Harris Fine Arts Center, $9,340.
Utility distribution system, Phase I, $239,413.
Sprinkling system for Stadium, Phase I, II, and III.
Sprinkling system for residence halls and Dairy Building, $18,641.
Gas, 8” water, 8” sanitary sewer, and 24” storm sewer to Deseret Towers project.

1965
Sprinkling system for parking lot north of Fine Arts Center and Biology Lab, $5,631.
HTW expansion drums, $41,950.
Sprinkling system for Fieldhouse addition and Physical Education Building, $19,528.

1966
Water and sanitary sewer line to Nuclear Research Laboratory south of Grant Building.

1967
6” sanitary sewer and 8” storm sewer to Jesse Knight Building Annex.
Addition to coal handling, Heating Plant $261,957.
Interior of a utility tunnel

Utilities 1957-1974
380
1968
4” sanitary sewer and 2” water lines to Faculty Office Building.
4” gas line and 4” sanitary sewer line to Wells ROTC Building.
8” sanitary sewer, 3” water and gas lines to Auxiliary Services Complex.
Tennis Court lighting, $7,656.
Lighting of playing fields, $56,536.
Extension of Underground electrical distribution lines, $137,539.

1969
Steam line and 4” sanitary sewer to High Pressure Laboratory Building.
10” water line to area of the Engineering Analysis Center.
8” cast iron and glass sewer lines and 10” water lines to Martin and Widtsoe Buildings.

1970
Chilled water Central Building for chiller, $795,200.
Electrical power extension for central chilled water building, $812,572.
HTW Boiler No. 6, $945,688.
HTW Steam Generators, $181,189.
Sewer line replacement to President’s home.
4” water line in area of baseball dugouts.

Installation of high temperature water lines
east from Smoot Building - 1961
1971
Extension of Electrical Distribution, $187, 606.
1” water line and 4” sewer line to Physical Plant
Motor Pool Building.
10” water line, 12” sanitary sewer line and a 15” storm
sewer line to Marriott Center.
Extension of electrical distribution lines, $229, 687.
Gas, water and sewer, electrical and T.V. utilities to
Wyview Home Park. (Construction Records, Physical
Plant Department.)
High temperature water line installation - 1960

Excavation for utility tunnel - 1960
Excavation Problems - 1964

Death for a construction worker from a trench cave-in - 1964

Utilities 1957-1974
384
Central Heating and Chilled Water Plant - 1957 - 1974

In 1958 a third High Temperature Water boiler was added to meet the needs of a rapidly growing campus. The Central Heating Plant in 1962, consisting of one steam boiler and three high temperature water boilers, was capable of producing a maximum of 190 million BTU/Hr. – 15 million of this was produced by the steam boiler. Several major buildings including the Wilkinson Center were on the drawing boards or nearly completion. An addition to the Central Heating Plant was completed in August of 1966, which added space sufficient for three additional high temperature water boilers. One boiler of 100 million BTU capacity was installed at this time. In December of 1967 two coal silos were constructed west of the Central Heating Plant.

In 1970 a 9,373 square foot building was constructed northwest of and adjacent to the Central Heating Plant for the installation of water chiller units to air condition campus buildings. This structure was sized to accommodate two 1,600 ton absorption type chiller units. At the time of construction, one unit was installed and chilled water lines were run across the campus to the Marriott Center and the Math Sciences/Computer Building with provision to connect into major buildings along the route at a later date. A second 1,600 ton chiller unit was planned for installation in 1972 which would increase the capacity sufficient to accommodate several major buildings in addition to the Marriott Center. It was intended that an addition may be constructed in the future to the north, which would provide space for an additional 3,200 tons of cooling capacity. It was also intended that with 6,400 tons of chilling capacity in the Central Chilled Water Plant, all buildings on the campus may eventually be connected and air-conditioned in the spring and fall seasons with this central unit. During summer months when additional cooling is needed, the existing electrical centrifugal units now located in most major buildings will be run and their capacity added to the chilled water distribution lines. It is expected that this combined capacity will be sufficient to air-condition all campus buildings (Construction Record, Physical Plant Planning Office).
Oil fired boilers in temporary shelter north of Central Heating Plant - 1961

Utilities 1957-1974
387
Interior of Central Heating Plant - 1961

Utilities 1957-1974
388
Central Heating Plant - 1970

Utilities 1957-1974
390
Central Heating Plant controls - 1971 - Mark Jensen in photograph

Utilities 1957-1974
391
Central Chilled Water Plant - 1970

Utilities 1957-1974

392
The telephone exchange for the B.Y.U. has remained in the basement of the Smith Family Living Center since 1957. At that time there were six positions on the switchboard and 200 trunk lines to the Provo City exchange (The Monitor, M.T. & T. April 1957, p.12). In 1963 the telephones in B.Y.U. housing were transferred to the Provo City exchange, which left capacity in the B.Y.U. exchange for considerable expansion in the administrative and academic areas. The number of telephones on campus increased from year to year. By 1969 there was a total of 2,346 sets on campus; 1700 of these were main stations, and 646 were extension phones. The number of positions on the B.Y.U. telephone exchange has increased from 6 in 1957 to 8 in 1969, and then to 12 in 1971 (James Marshall, Manager of B.Y.U. Telephone Services).

Telephone service has been provided to the B.Y.U. campus by the Mountain States Telephone and Telegraph Company down through the years. This service has been coordinated by the Physical Plant Department up to November of 1961 when it was transferred to the University Comptroller, and later to Financial Services (Interview with Evelyn Christensen May 10, 1974 by Ephraim Hatch).
Radio Communication - 1957 - 1971

As the university grew in size the need for radio contact with Physical Plant Department personnel became more urgent. In 1954 a license was obtained and a two-way radio system was installed consisting of one base station, units in six trucks and four portable units. This system functioned well—within limitations. Truck units were useless however, when a man left his vehicle and entered a building to perform his work. Both the truck and the portable units were extremely expensive and it was not economically feasible to equip all staff and supervisory personnel with them. After four years of operation, in 1958, it was decided to abandon this two-way radio system and look for something else that would do the job (Harold J. Anderson, Asst. Director, Physical Plant Dept.).

Various kinds of radio equipment were tested from time to time—beginning in 1960. Nothing was found that adequately met all requirements. Other departments on campus expressed a need for some kind of radio communication with their staff and it was decided to consider a campus-wide radio paging system. It was not until 1965 that a suitable type of equipment was found. A license was obtained and in the early part of 1966 it was possible to dial a number on any telephone, state a message to a person out on campus, and have it received over a pocket-size unit by that person and no one else.

The success of this system is evidenced by the fact that by 1971 there were 180 portable paging units issued to university staff and administrative personnel (Minutes of Physical Plant Department Staff Meetings).
Utility Annual Costs - 1957 - 1971

As the studentbody and faculty grew in number, and as the floor area of buildings was increased, it could be expected that the annual utility costs would also increase. From the tabulation of utility costs below, it may be seen that, while utility costs increased seven times from 1957 to 1971, the enrollment and floor area only increased approximately three times. This disproportionate increase may be attributed to inflation and the advent of building air-conditioning. Other, more minor factors may be higher room light levels and more electrically operated equipment in laboratories and shops.

Utility Costs for BYU Campus 1957 - 1971

<table>
<thead>
<tr>
<th>Year</th>
<th>Water $</th>
<th>Gas $</th>
<th>Sewer $</th>
<th>Power $</th>
<th>Total $</th>
</tr>
</thead>
<tbody>
<tr>
<td>1957</td>
<td>20,883</td>
<td>525</td>
<td>4,740</td>
<td>86,825</td>
<td>112,973</td>
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<tr>
<td>1958</td>
<td>27,716</td>
<td>608</td>
<td>5,944</td>
<td>112,997</td>
<td>147,265</td>
</tr>
<tr>
<td>*1959</td>
<td>12,124</td>
<td>27,060</td>
<td>2,795</td>
<td>37,745</td>
<td>79,724</td>
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<tr>
<td>1959 - 60</td>
<td>26,763</td>
<td>39,200</td>
<td>4,412</td>
<td>153,577</td>
<td>223,952</td>
</tr>
<tr>
<td>1960 - 61</td>
<td>23,042</td>
<td>34,540</td>
<td>4,528</td>
<td>186,970</td>
<td>249,080</td>
</tr>
<tr>
<td>1961 - 62</td>
<td>23,975</td>
<td>34,327</td>
<td>6,241</td>
<td>214,869</td>
<td>279,412</td>
</tr>
<tr>
<td>1962 - 63</td>
<td>16,306</td>
<td>26,189</td>
<td>6,385</td>
<td>219,360</td>
<td>268,240</td>
</tr>
<tr>
<td>1963 - 64</td>
<td>32,360</td>
<td>21,393</td>
<td>9,275</td>
<td>269,268</td>
<td>332,296</td>
</tr>
<tr>
<td>1964 - 65</td>
<td>31,604</td>
<td>16,711</td>
<td>13,979</td>
<td>375,708</td>
<td>438,002</td>
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<tr>
<td>1965 - 66</td>
<td>44,880</td>
<td>16,748</td>
<td>21,092</td>
<td>435,685</td>
<td>518,405</td>
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<tr>
<td>1966 - 67</td>
<td>41,941</td>
<td>19,241</td>
<td>21,664</td>
<td>469,015</td>
<td>551,861</td>
</tr>
<tr>
<td>1967 - 68</td>
<td>50,639</td>
<td>21,735</td>
<td>22,857</td>
<td>493,420</td>
<td>588,651</td>
</tr>
<tr>
<td>1968 - 69</td>
<td>47,112</td>
<td>45,591</td>
<td>23,854</td>
<td>550,012</td>
<td>666,569</td>
</tr>
<tr>
<td>1969 - 70</td>
<td>47,708</td>
<td>37,616</td>
<td>25,943</td>
<td>616,622</td>
<td>727,889</td>
</tr>
<tr>
<td>1970 - 71</td>
<td>59,341</td>
<td>42,139</td>
<td>28,452</td>
<td>696,832</td>
<td>826,764</td>
</tr>
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</table>

*Eight months only. On September 1, 1959 the University changed from calendar to fiscal year.