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Fritz J. and Dolores H. Russ College of Engineering and Technology

Summary of Accomplishments
For The Review Period of
February 2007 to February 2008

To the Faculty and Staff of the Russ College,

This past year has been one of recovery from multiple challenges. I am pleased to report that these challenges have been met and most of the significant indicators of the health and reputation of our college show improvement. The demand for our undergraduate programs is increasing, as indicated by a 23% increase in applications for Fall 2008 compared to Fall 2007, and compared to only an 8% overall increase for the university. Research activity is on an upward trend, with \$14.7M in awards for FY 2007, compared to \$14.1M in FY 2006, and that figure represents the second-highest award total ever for the Russ College. Our faculty are more active than ever in professional activities, such as leadership in state and national professional organizations, and continue to hold positions of leadership and influence at Ohio University. Also, as you have recently heard, fundraising for this year is on a record pace, with about \$3.2M already received, thus surpassing our yearly goal of \$2.5M with five months left in the fiscal year. With the exception of money to construct the new Academic and Research Center, most of these funds' investment proceeds are restricted only for the Russ College; i.e., their use is very flexible. Of course, the generous gift by our beloved friends the Russes will be realized in 2008. This gift will transform the college. Our plans will take on deeper import and activities that we assumed were impossible a year ago will now be possible. All of our faculty and students will be positively affected and this college will take its place among the nationally prominent. I am profoundly honored to be dean of the Russ College during this time.

New activities are also very exciting. In Fall 2007, we admitted our first students into the Master of Science in Biomedical Engineering and we continue to pursue the approval of the proposed Ph.D. in Civil Engineering and a new Master of Science in Engineering Management. Next week, the Ohio University Board of Trustees will consider our application for a Certificate in Construction Management. Obviously, the new Academic and Research Center is under construction and its completion is slated for August 2009. Not only will this provide the most innovative instructional spaces in the nation, but it will free space in Stocker Center that can then be dedicated to urgent needs for instructional and research laboratories.

Twice a year I brief the Russ College Board of Visitors on the state of the Russ College. I have included the presentation that I used for the most recent briefing in December of 2007. While there are minor items that are now out-of-date, I think you will find it useful

in this evaluation. If you have any questions on how the data, in particular, were gathered, please send me an email or give me a call and I will try to clarify any issues.

In the following pages, I have attempted to include information that will serve the dual purposes of evaluating 1) the appropriateness of my vision and goals for the Russ College and 2) my effectiveness as an academic dean as measured by the standard questionnaire. The summary of my accomplishments is organized as follows:

Vision and Goals: My view of where the Russ College should be over the long term, including our student environment, curricula and accreditation, attractiveness as an employer, and prominence on the national and international scenes.

Planning and Management: Questionnaire Section

Personnel Matters: Questionnaire Section

External Relations: Questionnaire Section

Unit Goals: Questionnaire Section

Overall Performance: Questionnaire Section

I understand each of you plays a role in the success and progress of the Russ College. None of the accomplishments I cite are entirely my own, and none could have been accomplished without your participation. I thank you sincerely for the opportunity to serve as your dean for the past five and a half years, and I look forward to the opportunity to continue to improve as a leader and an administrator.

The following summarizes my current view of where the college should be heading in the long term. I have attempted to use this “Dean’s Vision” as a guide in choosing areas on which to focus, both personally and as a college. “Vision” is defined as “How things will look when we get where we want to be, ten or more years in the future.” Many of these items have been articulated in past evaluation inputs but they have, in most cases, been modified to reflect my current views and the current realities of our internal and external environments.

1. Funding for a major new engineering facility will be identified, and groundbreaking will occur during 2007.
2. Our undergraduate programs will be the programs of choice for prospective students in Ohio and will be recognized as high quality choices by prospective students nationwide.
3. The Russ College will be recognized as one of the most collegial units at Ohio University.
4. The Russ College will be a top choice of first academic employment for graduating Ph.D.s.
5. Russ College faculty will be responsible for external research expenditures at a level consistent with the top 30 engineering colleges in the United States (e.g., \$200,000 per faculty member, per year).
6. Two new Ph.D. program applications will be approved by the Board of Regents.
7. Four or five areas of research or scholarly activity will be recognized as world-class or having the potential for world-class ranking.

1. Funding for a major new engineering facility will be identified, and groundbreaking will occur during 2007.

Groundbreaking for the ARC occurred in late September 2007 and actual construction activity began during winter break. Funding has now been secured and the completion date for this milestone in the Russ College's history is August 2009. I am very proud of this accomplishment that grew out of a request for space needs that I issued to the Russ College chairs in the fall of 2002. When I informed Fritz Russ of my plans for a new building, his comment was "it will take six or seven years to build a new building" and he was right. I must also thank Chuck and Marilyn Stuckey for their belief in our vision for the building and Dean Brose of the College of Osteopathic Medicine for his belief in our needs and his cooperation in preserving the Russ College vision as the project grew into a collaboration with his college.

2. Our undergraduate programs will be the programs of choice for prospective students in Ohio and will be recognized as high quality choices by prospective students nationwide.

While our retention of first year students dropped several percentage points this past year, demand itself has increased, as has our "market share" among engineering students in Ohio. As of February 1, our applications are up 23%, our admitted students are up 24%, and our "final admits", those who have placed housing deposits for Fall 2008, are up 50%. Our market share of engineering enrollment in Ohio is close to its seven-year high of 6.2% in 2001 with 6% in 2006, the latest year for which data is available. In 2004, our share was only 4.9%. As the impact of our enhanced recruiting efforts at the university level (EVPP Krendl has designated Russ College recruiting as the highest priority for the Office of Admissions) and the college level begin to take effect, I am confident we will reach our goal of 1450 undergraduates by 2010 as long as we pay close attention to the needs of our first and second year students. To that end, I urge you all to identify students at risk and to intervene, even if that intervention is only to refer them to your Assistant Chair or to the Associate Dean for Academics. All of our admitted students have the talent to succeed in our programs and we should give them every opportunity available.

3. The Russ College will be recognized as one of the most collegial units at Ohio University.

The best evidence, I think, of the collegiality of our faculty and leadership is the number and strength of our collaborations with other colleges. Examples (by no means exhaustive!) of collaborations include Drs. Kaya and Wojciechowski's involvement with faculty in the College of Arts and Sciences in nanotechnology, Drs. Goetz and Burdick's drug development work with the College of Osteopathic Medicine and the College of Arts and Sciences, Dr. Chang Liu's work on virtual environments with the Colleges of Fine Arts, Education, and Communication, the technical sales certificate in collaboration

with the Sales Centre in the College of Business, and Drs. Bayless, Stuart, Crist, and Botte's highly collaborative work with faculty in the College of Arts and Sciences and the Voinovich School. Personally, I maintain good working relationships with faculty and staff in all academic colleges and academic support units such as Finance and Administration, University Advancement, and Student Affairs.

4. The Russ College will be a top choice of first academic employment for graduating Ph.D.s.

This year we hired faculty from Virginia Tech, Embry-Riddle, Arizona, Wayne State, Johns Hopkins, Texas, and Indiana State. In their areas of expertise, these are all top-ten schools. Our chairs and the members of the search committees that recommended these new faculty should be commended. Certainly, we are competing for faculty with the best schools in the nation.

5. Russ College faculty will be responsible for external research expenditures at a level consistent with the top 30 engineering colleges in the United States (e.g., \$200,000 per faculty member, per year).

The per capita, per-year funding figure can be calculated in any number of ways; all Group I faculty can be counted, all Group I in research-oriented programs can be counted, or we can use the method of the U.S. News and World Report rankings of Graduate Schools (all research-active faculty can be counted). Using the latter method, the Russ College figure is about \$280,000 per year, clearly meeting the goal. Our faculty should be highly commended for this figure; however, more of our faculty need to be engaged in funded research so that our funding is not dependent on relatively few extremely well-funded individuals.

6. Two new Ph.D. program applications will have been approved at the university level and will be under consideration by the Board of Regents.

The program proposal for a new Ph.D. program in civil engineering has been approved by the University Curriculum Council (UCC) and the Ohio University Board of Trustees and will be considered for vote at the February 23, 2008 meeting of the Regents Advisory Committee on Graduate Studies. Gayle Mitchell, Shad Sargand, and Ludwig Figueroa have done an outstanding job in responding to comments from the other Ph.D. granting institutions and I have been in contact with the deans at these institutions to enlist their support. The proposal for a Ph.D. program in mechanical engineering has been approved by the UCC and will be presented to the Ohio University Board of Trustees at a later date, perhaps late in academic year 2008-2009.

7. Four or five areas of research or scholarly activity will be recognized as world-class or having the potential for world-class ranking.

Arguably, the Avionics Engineering Center and the Institute for Corrosion and Multiphase Systems have world class ranking. Others with clear potential include energy and the environment, mainly in the Institute for Sustainable Energy and the Environment, and the transportation infrastructure work of the Ohio Research Institute for Transportation and the Environment. Biomedical engineering, as a strategic area for the college, will also be nurtured toward prominence and bioinformatics, interactive virtual environments, and nanotechnology are all possible candidates for world class standing.

Planning and Management

Goal Achievement (is effective in planning and implementing unit goals)

In late 2002, the dean's office initiated a strategic planning process, beginning with the identification of a limited number of areas in which the Russ College would concentrate its research efforts over the next five to ten years. Each area met three criteria: 1) a critical mass of faculty existed in the college or within Ohio University, 2) the area was expected to be significant to the public interest over the time period, and 3) faculty and staff working in the area were to have a significant scholarly and sponsored research track record. These strategic research areas have been used to rank proposals for internal funding initiatives and to guide staffing decisions for the college. In addition, new graduate program initiatives were identified in civil engineering, mechanical engineering, and biomedical engineering. In 2003, the planning process was extended to undergraduate programs, where public policy awareness and leadership skills were identified as central to the distinctiveness of the Russ College undergraduate experience, a distinctiveness that we hope will position our programs to be extremely competitive in the state and the nation. It should be noted that action has been taken on all of these fronts. Given the limitations on investment that have been imposed by almost a decade of budget cuts, all of these areas have been enhanced or at least protected from cuts. We have new programs, faculty and research in biomedical engineering, we have greatly expanded our involvement in energy and environmental areas, and we have at least maintained our leadership role in civil infrastructure and avionics and we continue to pursue new programs in civil engineering.

In response to Vision Ohio, the Russ College has expanded its "skeleton" strategic plan to include more specific and shorter term goals and their corresponding action plans. In my opinion, the document is still short enough to provide planning guidance without being too long or overly prescriptive to be usable. I have tasked the chairs to develop more focused working groups in the areas of collaboration, communication, position realignment, accreditation, metrics, workload policy, and the update to the strategic plan. Most of these groups have already delivered draft reports and/or recommendations and these will be items of much discussion in the remainder of the academic year. The most well-developed of these drafts is the college metrics. Your chairs should have shared the college metrics with you, as the departmental metrics development process is well-underway and the department metrics "respond" to the challenges of the college metrics, which will be used by me to report our performance to the EVPP. I urge you to pay close attention to these metrics, as they will eventually influence promotion and tenure documents and merit pay processes that affect you directly. I thank the large number of faculty who have participated in the two 2 hour briefings that I have offered on the college metrics. However, I realize that time and schedule constraints may have prevented many of you from attending;

therefore, I intend to continue these discussions over the remainder of the academic year and strongly urge you to participate.

Academic Programming (demonstrates leadership in improving the academic reputation of the program)

The dean's office continues to support the development of new graduate programs, the student learning communities, service learning initiatives (e.g., Engineers Without Borders), the Engineering Ambassadors, the Stocker Scholars, and professional and honorary student organizations in every department and college-wide. The new student activity endowment (goal: \$1.5M, current funding: ~\$1M) has also been identified as one of four major fundraising initiatives for the college. The dean's office has also continued its support of the Engineering Management graduate track that is delivered to the regional campuses and other locales in the state and the formalization of this track is expected via a new Master of Science degree in Engineering Management.

This year, our new M.S. in Biomedical Engineering was initiated, as was the Technical Sales Certificate, and we have pending, at various levels of approval, a Ph.D. degree in Civil Engineering, a Ph.D. degree in Mechanical Engineering, and a Certificate in Construction Management.

Of course, the academic reputation of our school is directly affected by the integrity of our students' and faculty work. In the next month, the Russ College will implement its own honor code, a short but strong statement that exists in conjunction with statements of faculty responsibility and student responsibility. I am extremely proud of the college's response to the academic honesty challenges of the past several years. We have been tested and we have come through the test as a stronger college.

Fiscal Management (allocates resources and manages fiscal operations efficiently)

The college has been managed to a break-even or surplus situation all five fiscal years of my tenure as dean. This has been very challenging, since all of those years we have experienced budget cuts. In addition, endowment income is at a very low level due to changes in endowment payout (4% versus 6% five years ago) and endowment losses in the year 2000 timeframe. These losses in resources have significantly, and negatively, affected the college's ability to assist in providing matching funds, fund new initiatives, provide for faculty development, and support faculty, staff, and student activities. However, the compact with the governor is, at least for this year, intact and I expect no further reductions in support before new endowment income is available. We are in good, if not great, shape financially, and I appreciate the forbearance of the faculty during these difficult financial times.

Affirmative Action (demonstrates commitment to women and minority faculty and students)

I continue to support aggressive recruiting of faculty from under-represented groups (in engineering and technology that certainly includes women) and the college has made several recent hires that address diversity issues, in several cases using incentive funds from the Provost. Student recruiting of under-represented groups continues to be a university-wide problem area. I am hopeful that new scholarship funds, from private sources, will help alleviate our difficulty in recruiting women and other under-represented groups and I assure you that I am open to suggestions for improvement. This is a very difficult problem that many institutions are experiencing.

Personnel Matters**Communication (provides opportunities for faculty and staff to be informed about and give input on unit objectives)**

I continue to maintain an open-door policy and other activities, such as “Catch up with Colleagues” get togethers, regular meetings with chairs and Dean’s office staff, regular attendance at department/school faculty meetings, and open forums for students. However, the attendance at these events has been disappointing this past year. As many of you have heard me say, I cannot fix problems that I do not know exist. I urge you to attend these events and to encourage student participation in events directed to them. I am certainly willing to listen...I may simultaneously give you my own views, but I always note your concerns and almost always take direct action.

Interpersonal Relationships (uses human relations skills to solve problems)

Most of you know that I tend to resist pressure to solve problems by implementing new policies. Some of the most abhorrent policies I have seen have been implemented because of unwillingness to address specific, rather than systemic, problems. That is not my approach. I prefer to work with those who either have issues or who bring complaints. This sometimes leads to a large amount of time spent on individual problems, but I think the time is worth it. Our faculty and staff are highly professional and deserve personal attention.

Faculty and Staff Development (encourages and enhances faculty and staff professional growth and development)

My philosophy is that almost any type of continuing education (whether or not it appears on the surface to be directly and immediately applicable to one’s job) reaps benefits for the Russ College. Staff are encouraged to pursue educational

opportunities, and faculty are encouraged to engage in development as well. Many of the funds for faculty and staff development have eroded over the past years due to poor performance of the university's endowments and spending policy changes by the Foundation. We are beginning to experience relief from this erosion and I expect to renew funding for faculty and staff development. The benefits to the college are immense and greatly outweigh the cost.

Student Orientation (promotes outstanding teaching, advising, and student advocacy)

I strongly believe that students are the reason we're employed at Ohio University. I meet with student organizations whenever asked. The student town halls have been very useful in building trust between the college staff and the students; in fact, there have been very few frivolous suggestions and I am proud to say that most of the problems raised at these meetings have been effectively addressed. We are fortunate to have a very mature and thoughtful group of students. Please encourage your students to take advantage of opportunities to meet with my staff and me. We can often help more effectively and swiftly than can you.

External Relations

University Relations (effectively represents the unit within the university community)

As part of the office of the dean's governance function, I serve on numerous committees and working groups, including the Academic Leadership group (deans and Associate Provosts), the Vice Presidents and Deans group, and the Budget Planning Council. I attend most meetings of the Board of Trustees, the Foundation Board of Trustees, and occasionally attend meetings of the Alumni Association Board of Trustees. I interact on a weekly basis with the provost and my fellow deans, and I believe I've developed good working relationships with all concerned. I also meet privately with the Provost every month to brief her on recent developments, to discuss issues of concern in the college and the university, and to discuss the performance of the college. It is safe to say that any action taken or policy developed is effected after taking the health of the Russ College into account.

External Relations (represents the unit in a positive manner with external constituents)

Professional Activities

My main professional activities this past year have been to Chair the Ohio Engineering Deans Council, to participate in the ASEE Engineering Deans

group, and to participate in the International Space University. The Ohio Engineering Deans group recently held a meeting at the University of Cincinnati and meets three times a year, once at the ASEE Public Policy Colloquium in Washington, DC, once at Ohio State as a central location, and once at another campus on a rotating basis. As chair of the council, I also serve on the board of the Engineering Foundation of Ohio and am invited to the Board meetings of the Ohio Society of Professional Engineers. Nationally, I participated in the Public Policy Colloquium in Washington, DC and the Engineering Deans Institute in San Juan, Puerto Rico. I served as a faculty member in the Space Engineering department of the International Space University in Beijing, China in July and August 2007 and held four workshops on space mission design and space vehicle design. In addition, I led the rocket design competition and served as launch officer. No one was injured and no property was damaged.

Fund-raising Activities

As you know, fundraising is a major expectation of any dean. The Russ College currently leads the university in fundraising with \$3.2M for fiscal year 2007 as of the end of December. I spent about 35 days on travel for fundraising purposes alone to Jacksonville, FL; Washington, DC; Canton, OH; Cleveland, OH; Mayfield, OH; Akron, OH; Pepper Pike, OH; Mentor, OH; Dayton, OH; Cincinnati, OH; Columbus, OH; New York City and Long Island, NY; Jupiter, FL; Ft. Lauderdale, FL; Boca Raton, FL; and Melbourne, FL.

I attended or participated in the following events as the representative of the college:

- Conference calls with Board of Visitors members (monthly)
- Russ College Board of Visitors meetings (biannually)
- Russ College Spring Faculty and Staff Awards Celebration
- Commencement activities
- Homecoming activities
- Ohio University Foundation Board Meetings (three)
- Ohio University Board of Trustees meetings (three)
- Ohio University football games
- Russ Research Center Annual Reunion and Picnic

The four top fundraising priorities for the current fiscal year are:

- 1) Academic and Research Facility
- 2) Student Activity Endowment Fund
- 3) Robe Leadership Institute Directorship
- 4) National Asphalt Laboratory

Other External Activities and Initiatives

Other events I have attended or presided over in entirety or in part:

- Russ Prize events (Washington, DC)
- Numerous student functions, including the Tau Beta Pi Awards Banquet
- Russ College departmental advisory board meetings/presentations (several, upon request)
- Bert Fung (Russ Prize winner) lecture and dinner
- Tim Dodd (former Director of the Center for Academic Integrity) lecture and dinner
- Academic and Research Center Groundbreaking
- Nick Dinos Professorship Recognition Ceremony

A complete list of my significant (all-day obligations) activities is as follows:

Feb 4-7 Jacksonville, FL 4 days (CASE Conference)

Feb 19-21 Washington DC 3 days (Russ Prize, Future City, Alumni events)

Feb 27-28 Washington DC (ASEE Public Policy Colloquium)

March 14-15 Canton, Cleveland, Mayfield, OH 2 days (donor visits)

March 22-25 Sarasota, Belleair Beach, Clearwater Beach, Naples, FL 4 days (donor visits)

April 15-18 San Juan PR (Engineering Deans Institute)

May 1 Columbus OH (Ohio Engineering Deans Council)

May 11-12 Athens OH (Board of Visitors Meetings and Events)

May 18-21 Colorado Springs CO (Workshop Preparation for International Space University)

July 15 Rattlesnake Island OH (Chairs, Directors, and Board of Visitors Retreat)

July 20-August 7 Beijing, China (International Space University)

August 28 Cleveland, Akron, Pepper Pike, Mentor, OH 1 day (donor visits)

Sept 20 Dayton, OH 1 day (Systems Research Lab Picnic)

Sept 27 Athens OH (Bert Fung Russ Prize Winner Visit and Events)

Sept 29 Athens 1 day (Academic and Research Center Groundbreaking)

October 1-2 Athens OH (ABET Visit for Computer Science)

October 12 Athens OH (Alumni Awards Banquet)

October 18-20 Newport News, VA (Center for Academic Integrity Annual Conference)
October 22 Dayton OH (Donor Visit)
Oct 31 Cincinnati, OH 1 day (Procter and Gamble)

Nov 26 Columbus, OH 1 day (Donor Visits)
Nov 30 Cincinnati OH (Ohio Engineering Deans Council)

Dec 1-3 Naples, FL 3 days (Board of Visitors Meetings and Events)

Jan 7 Jackson OH (Dolores Russ funeral)
Jan 11 Cleveland, OH 1 day (Donor Visits)
Jan 15 NYC and Long Island, NY 1 day (Donor Visits)
Jan 23 Dayton 1 day (Donor Visits)
Jan 29-30 Jupiter, Fort Lauderdale, Boca Raton, Melbourne FL 2 days (Donor Visits)

Unit Goals

Provides effective oversight and leadership in the accreditation process

The ABET visit of 2004 was extremely successful and the 2007 visit by the Computing Accreditation Commission of ABET was also successful. However, as you are aware, accreditation under outcomes assessment is an ongoing process. In order to provide a “reality check” on our engineering and computer science programs’ accreditation status, I am hosting an all day retreat among department chairs and program accreditation leaders in February.

Supports expanded research focus areas and graduate programs

Although most monetary resources for supporting research have been allowed to remain at the department level, the dean’s office does provide small amounts of startup funding, matching funding, and travel support.

I have supported the expansion of each of the focus areas, although the particular focus areas that are targeted for special investment are decided in large part by the faculty via the strategic plan. In addition, three new graduate programs in civil engineering, mechanical engineering, and biomedical engineering are moving through the lengthy approval process, with success so far. Areas of some support that are not explicitly targeted in the the strategic plan, as yet, include interactive virtual environments and nanotechnology.

Supports infrastructure development (expansion of building facilities, etc.)

The next major expansion will, of course, be the Academic and Research Center, about which I have already written. It is, however, important to understand that since most of the classroom space in Stocker will be “moved” to the new facility,

a very large amount of space will be available for reassignment after the new facility opens. Thus, the new facility will provide *both* teaching and research space.

The Ohio Coal Research Center has also been allocated very significant space (previously occupied by DHI) on West State Street. I played a significant role in securing that space.

Is accessible to the faculty (provides opportunities for discussion, advice, and consultation)

In addition to maintaining an open door policy and holding numerous meetings with faculty, staff, and students, I believe I am accessible to faculty in the sense they feel I will listen to their concerns, even if I don't necessarily agree. Although my travel schedule is a seemingly unending challenge to my interaction with college personnel, when I'm not traveling, I make myself available, in many cases with very little or no notice. Although you will not always be successful due to circumstances beyond my control, please try to drop in and see me often. You are why this job is rewarding.