#### **University of Florida**

# New Degree Program Pre-Proposal Form Bachelor of Science in Sustainability and the Built Environment College of Design, Construction and Planning

- 1. This form should be used to request permission to plan a new degree programs at the University of Florida. Approval of this pre-proposal does not constitute approval of the new degree; it only gives the requesting unit permission to develop the complete proposal. Submit this cover page, a draft of Table 1-A, (for under-graduate) or Table 1-B (for graduate), Table 3, and Table 4 (found on the institutional research website at http://www.ir.ufl.edu/acadpgms.htm); and a brief two to three page description of the proposed new academic program that addresses the following points: Name of the program and proposed degree (e.g. Chemistry, B.S.) with CIP code
- 2. Description and rationale for the proposed new degree
- 3. Relationship to existing campus programs
- 4. Role of proposed program in fulfilling the university's strategic plan
- 5. Anticipated resources (should be consistent with information provided in Table 2 and Table 3
- 6. Planned implementation date
- 7. SUS institutions offering similar programs and relationship of these similar programs to the proposed program.

If a Bachelor's degree program do you anticipate:

1. Requesting exception to the 120 credit hours to degree as required by state
statute? Yes <u>X</u> No
2. Requesting limited access status? <u>X</u> Yes No
Please include complete contact information:
Contact name: Peggy Carr
Campus phone number: 392-4836 x 308
Email address: mcarr@ufl.edu
Campus mail address: Box 115701

### TABLE 1-A PROJECTED HEADCOUNT FROM POTENTIAL SOURCES

(Baccalaureate Degree Program)

Source of Students	Yea	ır 1	Year 2		Year 3		Year 4		Year 5	
(Non-duplicated headcount in any given year)*	HC	FTE	HC	FTE	HC	FTE	HC	FTE	HC	FTE
Upper-level students who are transferring from other majors within the university**	5	0	5	0	5	0	5	0	5	0
Students who initially entered the university as FTIC students and who are progressing from the lower to the upper level***	5	0	20	0	20	0	20	0	20	0
Florida community college transfers to the upper level***	4	0	4	0	4	0	4	0	4	0
Transfers to the upper level from other Florida colleges and universities***	1	0	1	0	1	0	1	0	1	0
Transfers from out of state colleges and universities***	0	0	0	0	0	0	0	0	0	0
Other (Explain)***Sophomore students transferring from other majors within the university	15	0	30	0	45	0	45	0	45	0
Totals	30	0	60	0	75	0	75	0	75	0

<sup>\*</sup> List projected annual headcount of enrolled students majoring in the program.

TABLE 1-A1
ANTICIPATED STUDENT COHORTS

	Year 1 HC	Year 2 HC	Year 3 HC and Beyond
FTIC	0	0	0
Sophomore	15	15	15
Junior	15	30	30
Senior	0	15	30
Total	30	60	75

<sup>\*\*</sup> If numbers appear in this category, they should go DOWN in later years.

<sup>\*\*\*</sup> Do not include individuals counted in any PRIOR CATEGORY in a given COLUMN.

## TABLE 3 ANTICIPATED REALLOCATION OF EDUCATION & GENERAL FUNDS

Program and/or E&G account from which current funds will be reallocated during Year 1	Base before reallocation	Amount to be reallocated	Base after reallocation
Graduate Teaching Assistantships*	0	0	\$0
1.5 FTE New Faculty Line**	0	0	\$0
Totals	\$0	\$0	\$0

 $<sup>*</sup>Support for Graduate Teaching \ Assistantships \ will \ not \ be \ reallocated, \ only \ earmarked.$ 

<sup>\*\*</sup> The new money needed to support the equivalent of 1.5 FTE is estimated to be \$90,000.

TABLE 4
ANTICIPATED FACULTY PARTICIPATION\*

Faculty Code	Faculty Name or "New Hire" Highest Degree Held Academic Discipline or Speciality	Rank	Contract Status	Initial Date for Participation in Program	Mos. Contract Year 1	FTE Year 1	% Effort for Prg. Year 1	PY Year 1	Mos. Contract Year 5	FTE Year 5	% Effort for Prg. Year 5	PY Year 5
A	Kim Tanzer (Intro to Sustain.)	Professor	Tenure	Fall 2009	9	1.00	0.06	0.06	9	1.00	0.06	0.06
	Architecture											
A	Kay Williams (Cultural. Sustain.)	Asso. Prof.	Tenure	Fall 2009	9	1.00	0.06	0.06	9	1.00	0.06	0.06
	Landscape Architecture											
A	Maruja Torres (Sust. Prob. Solv.) Interior Design	Asst. Prof.	Tenure	Fall 2009	9	1.00	0.06	0.06	9	1.00	0.06	0.06
A	Peggy Carr (Methods of Inq) Landscape Architecture	Professor	Tenure	Spring 2010	12	1.00	0.06	0.06	12	1.00	0.06	0.06
	•	mp p	TID D	E 11 2010		0.00	0.00	0.00		1.00		0.25
A	Sustainability Practicum TBD	TBD	TBD	Fall 2010	0	0.00	0.00	0.00	9	1.00	0.25	0.25
A	Field Experience in Sustainability	TBD	TBD	Fall 2010	0	0.00	0.00	0.00	9	1.00	0.25	0.25
	TBD											
A	Capstone in Sustainability TBD	TBD	TBD	Spring 2011	0	0.00	0.00	0.00	9	1.00	0.25	0.25
A	Ind Research in Sustainability	TBD	TBD	Spring 2011	0	0.00	0.00	0.00	9	1.00	0.25	0.25
	TBD											
A	Degree Director TBD	TBD	TBD	Fall 2012	0	0.00	0.00	0.00	9	1.00	0.25	0.25
	Total Person-Years (PY)							0.24				1.49

Faculty				PY	Workload by Budget Classsifica	tion
Code		Source of Funding		Year 1		Year 5
A	Exisitng faculty on a regular line	Current Education & General Revenue		0.24		1.49
В	New faculty to be hired on a vacant line	Current Education & General Revenue		0.00		0.00
C	New faculty to be hired on a new line	New Education & General Revenue		0.00		0.00
D	Existing faculty hired on contracts/grants	Contracts/Grants		0.00		0.00
E	New faculty to be hired on contracts/grants	Contracts/Grants		0.00		0.00
		Overall Totals for	Vear 1	0.24	Vear 5	1.49

<sup>\*</sup>Please refer to Tables 5-1 thru 5-3 in the Preproposal for further explantion

#### 2. Description and Rationale

The proposed Bachelor of Science in Sustainability and the Built Environment is a four year 120 credit hour program of which 45 hours are required courses including a 3 credit hour capstone course, and 24 hours of approved electives. Two tracks are proposed, one is a general degree program accessible to students at either the sophomore or junior levels. The second track is for students interested in a combined bachelors and masters degree. The combined degree offering that will be immediately available is: a 4+1 in urban and regional planning. Additional combined degrees under development are a 4+3 in architecture, a 4+2 in building construction, a 4+2 in interior design and a 4+2 in landscape architecture.

The degree is comparable to an Interdisciplinary Studies degree and will sit at the College level. It will allow the College to coalesce the globally recognized expertise of the existing faculty in the area of sustainability as applied to built environments through our established academic units: the Schools of Architecture and Rinker School of Building Construction; and the Departments of Interior Design, Landscape Architecture and Urban and Regional Planning (Please refer to the Appendix A, Sustainability Expertise of Faculty in the College of Design, Construction and Planning). A combination of existing and new courses in the College will support the degree along with a wide variety of courses from the Colleges of Liberal Arts and Sciences, Business, Agriculture and Life Sciences and Engineering. Preliminary discussions with Associate Deans from Liberal Arts and Sciences, Agriculture and Life Sciences and Business were very supportive and targeted courses are believed to have capacity for the additional students. Meetings with the College of Engineering and at the departmental level have yet to be completed.

The equivalent of one and a half additional faculty lines is requested to support the degree. These funds will be used to buy out the time of existing faculty who will teach the new courses needed to support the degree. With this small investment, the College will be able to significantly increase student credit hour production, create the potential for combined degree programs in order to retain outstanding UF undergraduates in our graduate programs; and create a faculty/student nucleus for research into an increasingly crucial focus area that will strongly affect the well-being of Florida and our nation. Two examples of the types of topics that research will inform are the conservation of energy and materials in construction and the conservation of energy and land resources resulting from various patterns of human settlement.

Admission will be limited to existing UF students who wish to change majors and transfer students. The degree is anticipated to attract students with an initial interest in a supporting discipline, including the six disciplines in college (the five above plus historic preservation) and disciplines such as geography, political science, and resource economics. The required coursework has been designed to be easily completed in as little as two years plus a summer. This is consistent with the limitation of access through the change-of-majors and transfer portals.

The demand for graduates with this degree is here now. Whether it is working with LEED certification, designing and applying environmentally sensitive materials, marketing the availability of these materials to designers and their clients or working in regulatory and review agencies that enforce sustainability expectations, those working in the realm of the built environment recognize the importance of sustainability for the nation's future and the future of their industries. Green roofs provide an excellent example. New green roof products are coming on the market almost every day. While the original products are designed by architects and engineers, marketing the products must be accomplished by individuals who understand the importance of the use of green roofs and the ways they will benefit individual users and the greater good. Graduates with a UF Bachelor of Science in Sustainability and the Built Environment would be perfect for such a position. (Please refer to Appendix B, a request for interns to work in a business dedicated to sustainability. This came as an unsolicited request and serves as an early indication of the support this degree will receive).

This degree proposal is in direct response to one of the goals established by the College in its 2007 Strategic Plan (ratified by the Faculty Council in 2007). The Goal reads as follows:

<u>Goal 7</u>: Assume a leadership role at the University of Florida and at the national level in offering courses and programs dealing with sustainability.

#### **Strategies**

- Develop and offer an undergraduate major (and minor) in Sustainability and the Built Environment
- Support Legislative Budget Request for campus-wide sustainability program
- Implement the Sustainable Design concentration and certificate during 2007-08
- Support research that advances the field of sustainability in the built and natural environments
- Develop additional courses in sustainability as part of a campus-wide program
- Ensure that DCP research centers, including but not limited to the Powell Center for Construction and the Environment, advance research on sustainability
- Actively participate in local, state, national and international issues regarding sustainability
- Give priority to research projects by faculty and students dedicated to sustainability issues
- Develop continuing professional education opportunities through courses in sustainability, including courses for LEED certification
- Green DCP facilities through coordinated efforts of faculty, student and staff, led by the Sustainability Committee
- Establish DCP Sustainability Committee as a standing college committee engaged in activities related to instruction, research and service

#### Measures

- # of students selecting sustainability courses and specializations/certificates
- # of courses offered
- course enrollments
- # of joint endeavors with professional and community groups to advance applications of sustainability
- Research outputs in sustainability (articles, books, chapters, funded and unfunded projects)

The following list of degree objectives serves as a summary of the description and rationale.

#### **Degree Objectives:**

- 1. To provide a globally recognized program that emphasizes the theory and principles of sustainability and their relationship to the planning, design, construction, and management of the built environment.
- 2. To build on the rare combination of disciplines found in the UF's College of Design, Construction and Planning and the existing faculty's strength and expertise in the area of sustainability.
- 3. To create a nucleus for research in the interdisciplinary area of sustainability and the built environment.
- 4. To add interdisciplinary work in sustainable built environments to the list of service learning opportunities the College can offer its students and the global community.
- 5. To increase undergraduate student credit hours generated in the College of Design, Construction and Planning by providing a flexible undergraduate degree program.
- 6. To provide opportunities for combined bachelor and master degree programs in architecture, building construction, interior design, landscape architecture and urban and regional planning resulting in a higher caliber of graduate student and increased graduate student credit hour production within the College of Design, Construction and Planning.
- 7. To serve as a preparatory program for traditional master degree programs in architecture, building construction, interior design, landscape architecture and urban and regional planning, thereby increasing graduate student credit hour generation.

#### 3. Relationship to Existing Campus Programs

The College of Design, Construction and Planning is the only AAU institution to offer these six built environment disciplines of architecture, building construction, historic preservation, interior design, landscape architecture and urban and regional planning. Nor does any other Florida institution of higher learning offer this collection of disciplines. This new degree capitalizes on this unique association of disciplines by cutting across them to create a cluster of faculty and courses to address an issue of pressing human need: a sustainable built environment. The new degree is supported by a core group of senior faculty who are already globally recognized for their leadership in

sustainability. Additionally, there is a similar core of existing junior faculty who are developing expertise and recognition for their work in sustainability and the built environment and they too shall support this new degree. (Please see Appendix A.)

Tangible examples of the leadership shown in this area by the College are the design and construction of the campus' first LEED rated building for the Rinker School of Building Construction and the subsequent design and implementation of a green roof on the Perry Construction Yard. These accomplishments resulted from the collaboration of experts in architecture, building construction, interior design and landscape architecture. Other examples of leadership shown by the College are the Graduate Certificate in Sustainable Architecture offered through the School of Architecture and the Graduate Certificate in Sustainability offered through the College.

In addition to the faculty of the College of Design, Construction and Planning, a number of other colleges have faculty who are leaders in the area of sustainability. These include the Colleges of Agriculture and Life Sciences, Engineering, Liberal Arts and Sciences, Law and Business. This degree proposes to take advantage of this collective strength by incorporating into the curriculum many of the courses offered by these individuals. These course offerings were identified in the 2006 study prepared by the College of Law's Conservation Clinic entitled "Fostering Curriculum Development and Cross-Campus Collaboration in Sustainability at the University of Florida". In that study courses were evaluated and classified as follows:

Tier 1 – those based in sustainability theory and practice, either in an interdisciplinary manner or in the context of a single discipline

Tier 2 – those which generally relate to the principles of sustainability, and

Tier 3 – those which implicitly address one or more of the principles of sustainability.

The study found the following distribution of courses:

Tier 1-17 courses (8 in Design, Construction and Planning, 4 in Agriculture and Life Sciences, 3 in Liberal Arts and Science and 1 each in Engineering and Law)

Tier 2 - 39 course in 8 colleges

Tier 3 – at least 53 courses with almost every college represented.

The study revealed no degree or minor offered at the University of Florida that emphasized sustainability, although the following programs did exist:

- The graduate certificate in sustainable architecture within the School of Architecture
- The "sustainability subject area" within the graduate School of Natural Resources and the Environment Interdisciplinary Ecology Program
- The Environmental Studies Minor for students in the College of Engineering
- The Environmental and Land Use Law Certificate Program with the College of Law, and
- The Tropical Conservation and Development Program in the Center for Latin American Studies.

Since the time of the Conservation Clinic study, the College of Design, Construction and Planning graduate certificate in sustainability was developed and adopted and an undergraduate minor is under development by the University's Sustainability Committee. Its home College has yet to be determined but the College of Liberal Arts and Sciences and the College of Agriculture and Life Sciences are logical choices. If this undergraduate minor is created it will be complimentary to the Bachelor of Science/Arts in Sustainability and the Built Environment.

#### 4. Role of Proposed Program in Fulfilling the University's Work Plan

"From Achievement To Recognition: The Strategic Work Plan for the University of Florida" March 8, 2007, contains several goals and statements that this proposal specifically addresses:

- (15) Goal: Continue to improve the academic quality of undergraduate students and develop strategies to improve the graduation rates incrementally while maintaining academic integrity of degree programs and providing students the flexibility to find a major that is the best fit for their interests and talents.
  - This degree will provide an additional undergraduate educational opportunity for students at the University of Florida.
  - It is designed to be a highly flexible degree program to accommodate a broad range of students.
- (18) Goal: As appropriate, increase the size and quality of graduate and professional programs to align with top ten AAU public institutions while addressing state, regional and national needs.
  - This degree will enhance the offerings of our College, adding to its national reputation and contributing to our innovative programs.
  - No other AAU institution offers the full range of built environment disciplines found here in the College and this new degree program only enhances its uniqueness.
  - Determining ways of accommodating human settlement in sustainable ways is of importance to the state, region, nation and globe.

Ecology and Environment and Interdisciplinary Work

- The Work Plan includes an emphasis on ecology and environment; and interdisciplinary collaboration. Given that sustainability is generally accepted to be built on an understanding of the three "Es", ecology, economy and ethics, the proposed degree will be responsive to and dependent on all. Sustainability is inherently interdisciplinary and the degree will be supported by a broad range of specialists within the College of Design, Construction and Planning and across campus.
- (42) Goal: Strengthen the educational and research facets of professional programs and colleges with special emphasis on interdisciplinary endeavors, as appropriate.
  - The degree program specifically responds to this Goal. There are currently successful researchers in six disciplines within the College that sometimes

collaborate. Creating a nucleus of faculty clearly associated with the specialty of sustainability will significantly contribute to the potential for additional interdisciplinary collaboration among them.

"The University of Florida aspires to join the ranks of the nation's top public research universities."

• Perhaps the most important in the Work Plan, this statement clearly emphasizes the role of research with the institution. The degree program proposed and the interdisciplinary research it will foster are seen as a critical step in the progress of research in sustainability and the built environment.

"The ultimate goal of the university is excellence in every facet of its work and while recognizing the importance of setting priorities, a part of the strategy of indentifying promising areas of investment is not to let other areas fall into neglect or to suggest that support of their projects and areas are not also essential.

• A focus on sustainability and the built environment is not specifically mentioned as a priority in the work plan, but it has clearly become a priority within the University community and a new degree program with it as its focus would further demonstrate the University's leadership in this realm.

#### **5.** Anticipated Resources

#### Teaching

To assess the program's impact on teaching resources, it is necessary to recap the existing and new courses that will support the program. The data from Tables 5-1 and 5-2 below were used to complete tables 3 and 4 at the beginning of this proposal.

<u>Table 5-1</u> Existing DCP Courses/New DCP Courses **REQUIRED** for the BSBE

Course Number	Name	Existing or Proposed	Faculty	Credit Hours	Number of Semesters Offered per Year	Additional Faculty FTE/Yr to Support Degree	Additional GTA FTE/Yr to Support Degree
LAA 2330	Site Analysis	Existing	Linscott	3	2	.0*	.25*
DCP 3xxx	Social & Cultural Sustainability	Proposed	Williams	3	1	.0625**	0
DCP3xxx	Methods of Inquiry	Proposed	Carr	3	1	.0625**	0
DCP 3xxx	Sustainable Problem Solving	Proposed	Torres	3	1	.0625**	0
FTE Totals						.1875	.25

<sup>\*</sup> Presumes new degree will capture some existing students enrolled in this course

<sup>\* \*</sup>Based on the assumption that 50% of the class will be in the BSBE degree and the balance will be from other majors in the college or across campus

<u>Table 5-2</u> Existing DCP Courses/New DCP Courses that serve as **POTENTIAL TOPICAL COURSES** for the BSBE

Course Number	Name	Existing or Proposed	Topic Course will Address	Faculty	Credit Hours	Number of Semesters Offered per Year	Additional Faculty FTE/Yr to Support Degree	Additional GTA FTE/Yr to Support Degree
BCN 1582	International Sustainable Develop.	Existing	Intro to Sustainabi lity & Built Environm ent	Kiebert/ Ries	3	2	.0*	.25*
DCP 1xxx	Introduction to Sustainability	Proposed	Intro to Sustainabi lity & Built Environm ent	Tanzer	3	1	.0625**	.125**
ARC 1701	Survey of Arch History	Existing	History of a Built Enviro. Discipline	Staff	3	3	0***	0***
BCN 3012	History of Construction	Existing	History of a Built Enviro. Discipline	Dukes	3	4	0***	0***
IND 2100	History of Interior Des 1	Existing	History of a Built Enviro. Discipline	Hylton	3	1	0***	0***
IND 2130	History of Interior Des 2	Existing	History of a Built Enviro. Discipline	Hylton	3	1	0***	0***
LAA 2710	History of Land Architecture	Existing	History of a Built Enviro. Discipline	Williams	3	1	0***	0***
URP 4000	Preview of Urban & Regional Planning	Existing	History of a Built Enviro. Discipline	GTA	3	3	0***	0***
DCP 4xxx	Sustainability Practicum	Proposed	Sustain. Practicum	Macedo, Acomb	6	1	.25	.25
DCP 4xxx	Field Experience in Sustainability	Proposed	Sustain. Practicum	TBD	6	2	.25	0

Course Number	Name	Existing or Proposed	Topic Course will Address	Faculty	Credit Hours	Number of Semesters Offered per Year	Additional Faculty FTE/Yr to Support Degree	Additional GTA FTE/Yr to Support Degree
DCP 4xxx	Capstone Project in Sustainability	Proposed	Sustain. Capstone	Gold, Torres, Acomb, Ries	6	1	.25	0
DCP 4xxx	Independent Research in Sustainability	Proposed	Sustain. Capstone	Kuenstle Ries, Kibert	3 - 6	1	.25	0
FTE Totals							1.0625	.625

<sup>\*</sup> Presumes new degree will capture some existing students enrolled in this course

<u>Table 5-3</u> Summary of Additional FTEs to Support BSBE (from Tables 5-1 and 5-2)

	Faculty	GTAs
FTEs from Teaching	.1875	.25
Required Courses		
(Table 5-1)		
FTEs from Teaching	1.0625	.625
Topical Courses		
FTEs for	.25	0
Administration		
Totals	1.5	.875

Thus the new degree will require the equivalent of one and a quarter FTEs of teaching faculty support and the earmarking of approximately one FTE of Graduate Teaching Assistance. This degree proposal represents a request for the faculty line support. The GTA support will come from existing budgets within the College. There will be no reallocation of funding, only earmarking of existing funds. The funding for faculty support will be used to buy out the time of existing faculty who wish to teach the courses that support the degree. A combination of adjunct faculty and doctoral students will be used to replace the bought out faculty. In addition to state support, support from private donors and foundations will be sought.

#### Administration

Initially the director for the degree program will be an existing faculty member who will serve without release time. Eventually the Director will be selected from existing faculty and provided with a .25 FTE release.

<sup>\* \*</sup> Based on the assumption that 50% of the class will be in the BSBE degree and the balance will be from other majors in the college or across campus

<sup>\*\*\*</sup> Presumes all students in the new degree program would already be enrolled in this or a similar course, as these are large enrollment classes that serve a wide variety of students from across campus.

#### Advising

Advisement will be provided by the program director and the two existing advisors located in the Dean's Office.

#### Space

Most courses needed to support this degree exist. Vacant seats will first be filled and then course caps will be raised to accommodate the increased demand. Two courses have excellent potential to be delivered electronically, BCN 1582 and the new Introduction to Sustainability course. Eight new courses are required for the degree program, six will require classroom space, one will require studio space and one will require students to work as interns in an off-campus setting. The classroom and studio space for the new classes will be found in areas under the control of the College at off-peak times.

6. Planned Implementation Date

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Activity	Dates	Status
Initial Program	Fall, 2007	In Process
Development		
Presentation of Draft	Fall, 2007	In Process
Curriculum to Faculty:		
College of Design,		
Construction and Planning		
Presentation to Curriculum	Spring, 2008	
Committee College of		
Design, Construction and		
Planning for Approval		
Presentation to University of	Spring, 2008	
Florida Curriculum		
Committee		
Presentation to University	Fall, 2008	
Senate		
Proposal to Board of	Fall, 2008	
Trustees		
Include Degree Program in	Fall, 2008	
Draft Undergraduate		
Catalogue Language		
Implement Program	Fall 2009	

#### 7. SUS Institutions Offering Similar Programs

A Fall 2007 internet search of other SUS institutions revealed no degree programs in sustainability and the built environment. The following institutions have design, construction or planning programs, but a detailed review of each revealed no degree programs with an emphasis on sustainability and the built environment.

Florida A & M University

Architecture

Landscape Architecture

Florida Atlantic University

Architecture

Urban and Regional Planning

Florida International University

Architecture

**Construction Management** 

Interior Design

Landscape Architecture

Florida State University

Urban and Regional Planning

University of North Florida

**Construction Management** 

University of South Florida

Architecture

Throughout these programs there are individual courses that address sustainability. Here are a few samples.

FAMU: Architecture: Green Design/Sustainable Planning FSU: Urban and Regional Planning: Sustainable Development

UNF: Building Construction: Green Construction/Sustainability

USF: Architecture: Green Building Seminar

## Appendix A Sustainability Expertise of Faculty in the College of Design, Construction and Planning

#### **Senior Faculty**

Charles J. Kibert, Ph.D. – Professor, Rinker School of Building Construction

Charles J. Kibert was the Director of the Center for Construction and Environment from 1991-1999 and of the Rinker School from 1999-2002. He is a co-founder and chairman of the Cross Creek Initiative, a non-profit industry/university joint venture seeking to implement sustainability principles into construction. His research interests are: construction waste management, environmental impacts of construction, construction and demolition (C&D) debris recycling, and sustainable development and construction. He is the Coordinator of an international working group known as Task Group 16 of Conseil International du Batiment (CIB) on the subject of Sustainable Construction. Dr. Kibert teaches a newly developed graduate course on sustainable construction, and an undergraduate course on sustainability at the University of Florida, as well as continuing education courses to industry on these subjects. He organized the 1st International Conference on Sustainable Construction held in Tampa, Florida in November 1994, an event attended by 300 construction industry people from 30 countries. He also organized Green Building Materials '96 held in Gainesville, Florida in June 1996. His publications include Construction Ecology: Nature as a Basis for Green Buildings (2002) and Green Building Design and Delivery (2007).

#### Kim Tanzer – Professor, School of Architecture

Kim Tanzer's teaching and research focuses on the relationship between the human body and large shared spaces such as the city and the landscape, with an emphasis on creating sustainable environments. In her writing, teaching and architectural and urban design she forges connections between the phenomenal experience of space and more abstract understandings of the environment developed by architectural professionals. In addition to recent architectural projects, including the preliminary design of the Center for Women's Studies and Gender Research on the University of Florida campus and a master plan with Tina Gurucharri for Gainesville's Depot area, Tanzer has worked extensively in Gainesville's Fifth Avenue/Pleasant Street historically African-American neighborhood. For her community-based teaching, practice and service she has received local and national awards. In addition to numerous scholarly and popular articles Tanzer recently co-edited The Green Braid: Towards an Architecture of Ecology, Economy, and Social Equity, with Rafael Longoria, published by Routledge Press and Volume 60, Issue 4 of the Journal of Architectural Education entitled "Environmental Architectures and Sustainability" with Vincent Canizaro. Tanzer currently serves as the President of the Association of Collegiate Schools of Architecture, following a three year term as the Southeast Regional Director from 2000-2003. During the 2005-06 academic year she served as Chair of the University of Florida Faculty Senate, and in that capacity as a member of the University of Florida Board of Trustees. She served as a member of the Editorial Board of the Journal of Architectural Education from 2005-2007. Tanzer was co-founder and founding Executive Director of the Florida Community Design Center and retains a seat on the Board of Directors. She maintains a private architectural practice in Gainesville.

#### Martin Gold – Associate Professor, School of Architecture

Professor Gold has over ten years of experience in design, teaching and research specializing in the environmental technologies with an emphasis on infrastructural, multifamily and residential projects responsive to the climate and character of the Florida landscape. These efforts have garnered state and national design awards. He teaches graduate and undergraduate design studio, lecture and seminar courses and supervises master and doctoral

projects that advance research based environmental design and sustainable methodologies with a focus on acoustics and illumination. Mr. Gold's research and practice in acoustics is nationally recognized including awards and work on a variety of project types including large scale commercial, municipal, environmental, religious and residential. He presents seminars on acoustics and sustainable design annually to professional design organizations, municipal agencies and universities.

#### Michael Kuenstle - School of Architecture

Michael W. Kuenstle, AIA received his Graduate Architecture degree from Columbia University in 1991 and his Bachelor of Architecture degree from the University of Houston in 1989. He served as Adjunct Associate Professor at the New York Institute of Technology from 1990 to 1993 and has served as Assistant and Associate Professor in the School of Architecture at the University of Florida since 1993. He is co-founder and principal partner in the research-based architecture firm of Clark + Kuenstle Associates, Inc. and has exhibited, published and received design awards for his building projects throughout the U.S. and Canada. He received his early technical training in the Chicago office of Skidmore, Owings and Merrill and has continued to work on projects in New York, Los Angeles, Atlanta, and Toronto and most recently in Florida where Kuenstle now practices and teaches architecture full time. His current teaching and research focus on issues related to building design principles and practices for sustainable and livable coastal communities, building aerodynamics, and school facilities design and construction in the state of Florida. He served as principle investigator for two significant funded research projects for the Florida Department of Education and is co-author of the following publications: Education Facility Security Handbook (2007), Florida Building Code Handbook (2006) and Florida Safe School Design Guidelines (2004). Kuenstle currently serves as State Director to the Florida Association of the American Institute of Architects.

#### Glenn Acomb – Lecturer, Department of Landscape Architecture

Professor Acomb joined the faculty from private practice in 2000 after having served on the Adjunct Faculty for 5 years. His scholarly interests include sustainability in site and land development, community design, and water conservation in the landscape. He is co-founder of the University of Florida's Program for Resource Efficient Communities, an IFAS Extension Service cross-discipline research group that explores sustainability in land development throughout Florida. His funded research includes the sustainable site and landscape design of the Madera Model Home for the St. Johns River Water Management District and the preparation of a collection of prototypical site and landscape designs for single-family residential lots. Professor Acomb designed the University of Florida's first green roof, atop the Charles Perry Construction Yard building in spring, 2007, through research funding from the Florida Department of Transportation.

#### Peggy Carr – Professor, Department of Landscape Architecture

Professor Carr is Associate Dean for Undergraduate Student and Academic Affairs of the College of Design, Construction and Planning. Her primary area of research interest is the relationship between land use change and regional conservation strategies – making land use sustainable. She is the co-author of the book *Smart Land-Use Analysis, The LUCIS Model* (2007). In the last ten years she has served as the principal investigator for projects for the U.S. Agency for International Development, U.S. Environmental Protection Agency, Florida Department of Environmental Protection, St. Johns River Water Management District, 1000 Friends of Florida, and the Florida Trail Association.

#### Kay Williams – Associate Professor, Department of Landscape Architecture

Professor Williams joined the faculty in 1981 with scholarly interests in cultural landscapes, cultural sustainability and history and theory of landscape architecture. She currently serves as Chair of the College of Design, Construction and Planning Faculty Council and has served the profession of landscape architecture in her capacities as Chair of the Landscape Architecture Body of Knowledge Task Force, 2000-present, Chair, of the American Society of Landscape Architects LARE Preparation Task Force (later the ASLA Committee on LARE Preparation) 1997-00, and as Chair of the Landscape Architecture Accreditation Board, from 2000-03.

#### Paul Zwick, Ph.D. – Professor, Department of Urban and Regional Planning

Dr. Zwick is Associate Dean for Research and Graduate Programs. His research has been directed at the design, development, and analysis of paradigms used for computer applications in Urban and Environmental Planning, and Engineering. More specifically, his research efforts have been directed at the analysis and design of dynamic models and the use of spatial analysis systems, commonly referred to as geographic information systems. For the past eight years he has been the principal or co-principal investigator for the development of an environmental geographic information system for the Florida Department of Transportation and for the Florida Geographic Data Library. The FGDL is a data library for the dissemination of GIS data to the citizens of Florida, including secondary schools, libraries, planning agencies, private corporations and businesses, and individual citizens. He is the co-author of the book *Smart Land-Use Analysis, The LUCIS Model* (2007).

#### Ruth Steiner, Ph.D. – Associate Professor, Department of Urban and Regional Planning

Dr. Steiner received her doctoral degree from the University of California, Berkeley. Her research and teaching areas include transportation policy and planning; land use and transportation interactions; multimodal transportation planning; growth management; transportation concurrency; pedestrian and bicycle facility design; travel behavior; travel demand management; planning research design; environmental impact assessment; and school siting. From 1990-1994, she worked as a research associate at Lawrence Berkeley National Laboratory in Berkeley, California on a project to analyze the energy consumption in the transportation sector in Organisation of Economic Co-operation and Development (OECD)countries. She is co-author of Energy Efficiency and Human Activity: Global Trends and Prospects (Cambridge University Press, 1992). Transportation and the infrastructure and energy demands it creates will be an important part of sustainable solutions for our communities of the future.

#### **Junior Faculty**

#### Robert Ries – Rinker School of Building Construction

Robert J. Ries is the Rinker Professor of Construction and Associate Director of the Powell Center for Construction and the Environment in the M. E. Rinker, Sr. School of Building Construction. Dr. Ries's primary research work is focused on improving the environmental performance of buildings and the built environment. His work includes environmental life cycle assessment (LCA) in the building domain, LCA studies of building systems, modeling construction processes, and building process modeling. His research also addresses developing LCA methodology such as incorporating optimization, managing uncertainty, and assessing impact at variable temporal and spatial scales. Recent work has been published in journals such as *Energy and Buildings, Building and Environment, Journal of Industrial Ecology, and the International Journal of Life Cycle Assessment.* Dr. Ries teaches courses in green design and construction and sustainable development that are both required and elective courses in the undergraduate and graduate programs in the School.

#### Architecture New Hire - School of Architecture

The School of Architecture is in the process of hiring a new faculty member with expertise in sustainability. This individual would be expected to enhance the College's capability in the area of sustainability and the built environment. Here is a brief job description for this position.

#### Technology and Sustainability

Applicants for this position must be capable of teaching environmental technology with a focus on the integration of sustainable design strategies through building environmental systems, site ecology and emergent technologies. The successful candidate is expected to advance our curriculum in the area of sustainable design; develop graduate seminars; direct Master's and PhD research; and have the experience or ability to teach design studio.

#### Joseli Macedo, Ph.D. – Assistant Professor, Department of Urban and Regional Planning

Dr. Macedo was trained as an architect and urbanist, and worked for several years as an architect and professional planner in the public and private sectors receiving her certification from the American Institute of Certified Planners in 1996. After earning her Ph.D. at the University of Florida, she returned to her native Brazil where she taught at two private universities, the Pontifícia Universidade Católica do Paraná and the Universidade Tuiuti do Paraná, for three years. Currently, Dr. Macedo teaches studioes, serminars and service learning courses at the undergraduate and graduate level community. She also serves as the Undergraduate Coordinator for her Department.

Dr. Macedo's research focuses on international development planning, sustainable cities and urban design. Her work in Latin America includes projects in housing and community development and in environmental planning. Dr. Macedo has completed several projects as a consultant, such as the Consolidated Plan for the City of Miami, Florida, and the Plan for Monitoring and Regulation of Water Supply Watersheds in the Metropolitan Region of Curitiba in Brazil. Presently, she is the Director of TROPARC – Center for Environmental Design and Planning in the Americas, and she also directs a Study Abroad program every summer in Curitiba, Brazil, a city internationally recognized for its sustainable planning practices.

## Dawn Jourdan – Joint Appointment – Department of Urban and Regional Planning and College of Law

Dr. Jourdan holds a joint appointment with the Colleges of Architecture and Law at the University of Florida. Her research focuses of the impact of federal, state, and local regulation on land use decisions. Dawn's current research addresses the effectiveness of policy to create housing opportunities for the poor. A legal advocate by training, Dawn has worked with the American Planning Association and 1000 Friends of Florida, among other interest groups, to defend the principles of planning and growth management. Her expertise in land use policy is important to understanding sustainability within the regulatory context.

#### Maruja Torres – Associate Professor, Department to Interior Design

Dr. Torres-Antonini earned her doctorate under a Fulbright Fellowship from our College of Design, Construction and Planning at the University of Florida. She is registered to practice architecture in Venezuela by the national professional board, Colegio de Ingenieros de Venezuela. Prior to joining our faculty in the Summer of 2006, Dr. Torres-Antonini taught at Universidad Simón Bolívar in Caracas, Venezuela and at Iowa State University in Ames. Her teaching experience centers on design studio, architectural and interior design history and

theory, and environmental behavior. She is a member of and ad-hoc reviewer for the Interior Designers Educators Council (IDEC) and the Housing Educators Research Association (HERA), and member of the international Environmental Design Research Association (EDRA).

Her research has addressed a range of issues at the human-environment interface, including passive solar design of vernacular buildings, gaming simulation applications for sustainability education, and environmental behavior issues of collaborative housing. Her doctoral dissertation investigated the physical and social features of cohousing as instruments for achieving a sense of community. Most recently she coordinated a two-year research extension project for the development of a historic house museum in Northern Iowa. Other research efforts, conference presentations, and publications have addressed historic house museum development, interior design pedagogy, privacy issues in cohousing communities, and the potential of cohousing to effect social change.

#### Appendix B



#### **INDIGO Internship Overview**

An internship at Indigo is a unique experience unlike any that you could have anywhere in Gainesville. Why? We are the ONLY green building materials supply store in Florida with products and business that deals directly with the green building initiatives in our area.

#### Who we are and what is our mission?

Indigo is not just another retail space. We consider a triple bottom line which includes: environment, community and economics. While we are committed to being the most complete source for green building products and eco-friendly household gifts in Florida, we are also committed to education and community outreach.

Furthermore, we are committed to researching and retailing innovative materials and products in the growing green building market that can lead to a healthier home/working environment, reduce carbon emissions in all phases of production and construction, and support local economies.

#### What skills are we looking for?

Research, cost comparison, website, outreach, green home design, green product knowledge

#### What skills will you walk away with?

Communication and presentation, green product knowledge and research, community networking skills and outreach coordination skills.

#### What experiences will you gain that you can use in your field?

Integration of green home design principles, knowledge about sustainable products on the cutting edge, and implementation of architectural design various projects for customers and the community just to name a few.

Internships applications will be accepted for part time and full time positions starting the first week of January 2008. Please submit an e-mail resume with cover letter to:

Michael Amish

mike@indigogreenstore.com

OR a paper resume can be delivered or mailed to: Michael Amish 322 SW 4<sup>th</sup> Ave Gainesville, FL 32601