Community Planning Workshop: Integrating Smart Growth into Planning Curricula with Planning and Design Concepts

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Bio

Dr. Chilton is an Assistant Professor of Geography and Earth Sciences at the University of North Carolina at Charlotte. He received his PhD in Urban and Public Affairs from the University of Louisville.

Dr. Chilton's primary research focuses on sustainable urban development—specifically on brownfields redevelopment. He is currently the Principal Investigator on an EPA sponsored research grant to develop a replicable methodology for more fully measuring the social, environmental and economic benefits of brownfields redevelopment. Dr. Chilton is also interested in suburban development and racial mobility, physical planning and community health, aging-in-place and retrofitting greyfields (abandoned suburban shopping centers). In addition to his EPA grant, Dr. Chilton is currently working on Biggs Fellowship (sponsored by TIAA-CREF) exploring planning barriers to aging-in-place.

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David Walters is a Professor of Architecture and Urban Design at the University of North Carolina at Charlotte. He received his undergraduate and graduate degrees from the University of Newcastle-upon-Tyne in England.

Professor Walters' primary research focuses on design-based community planning, particularly in relation to the use of form-based zoning ordinances as implementation techniques for master plans and small area plans. His recent book, *Design First: Design-based Planning for Communities* (co-authored with his wife, Linda Luise Brown) was published by The Architectural Press in Oxford, England, in 2004. He is currently writing a follow up book entitled *Designing Community: Charrettes, Master Plans and Form-based Codes* for the same publisher, scheduled for publication in 2007. This volume examines these planning methodologies in more detail and specifically relates American practice under the rubric of New Urbanism to similar efforts in Great Britain. Professor Walters is also co-editing a book on new office design and its impact on communities entitled *The Future Office* for Taylor and Francis in the UK, also to be published in 2007.

Introduction

At the University of North Carolina Charlotte, The Department of Geography and Earth Sciences and The School of Architecture team teach a Community Planning Workshop. The purpose of the class is to promote inter-disciplinary thinking, collaboration, and understanding between planners and architects. At its core, the community planning workshop attempts to break down traditional barriers between land use planning and design. The goal of the course is to cultivate design and drawing skills among planning students. For the architects, the course exposes students to data collection, analysis and evaluation skills and the role of mapping/GIS to understand the built environment. Planning students have traditionally been zoning-map driven and less familiar with the design elements essential to creating a sense of place. Likewise, architecture students often lack the necessarily knowledge of land use regulations, ordinances, and real world development constraints. The Community Planning class attempts to bridge the gaps between disciplines to promote holistic, sustainable development principles.

The community planning workshop is an applied course firmly rooted in sustainable development. Each project is carefully chosen to cultivate skills in environmental planning and design. For instance, a strip mall or single-family housing subdivision would not qualify as a project for the class. The following projects have been completed to date:

- Project 1: Creating an urban core in a sprawling, auto-dominated suburban landscape

- Project 2: Providing local policy-makers with multiple alternative design scenarios to preserve rural character and green space in a threatened exurban environment

- Project 3: Creating a land-use vision and design guidelines for a rural village that recently imposed a growth moratorium

The strength of the class is its transferability. That is, the course model is simple and can be applied in myriad contexts. The skill sets of the students tend to be similar each year.

Thus, they can be applied in an urban, suburban or rural context. The key is for project management (faculty) to find suitable projects and direct students accordingly. When the course was first established, projects tended to fit the individual interests of faculty. However, the course has evolved and now reacts to community demand—which seems to be limitless. As demand has increased, faculty has the luxury of picking appropriate projects rather than seeking willing partners. In fact, the latest project was the first project to be funded. As the course matures, faculty will continue to build upon the successes of the past to retain funding for each course. The money is used to reimburse students for travel, to bring in outside experts to seminars and work sessions, and to publish student work.

Partners

The success of the class is dependent upon strong community partners. For this reason, it is important to include a faculty member with extensive ties to the local community. This serves two purposes. One, it increases the number of potential partners in the region and builds a steady demand for the course through both formal and informal planning circles. The three projects above have partnered with local government, non-profits and research organizations. The extensive network of community contacts adds variety to the course. Each semester is a new project with different goals and objectives. Students have focused on infill development, rural preservation, transit-oriented development, suburban place-making, and alternative design scenarios. Both students and faculty benefit from the changing nature of projects that keep the course fresh and always require different approaches and creative responses.

Strong community partnerships also build recognition for the University. From a faculty perspective, the course is a tremendous community service project. For the student, exposure to non-profits and research organizations provides them with a direct link from planning and design theory to practice. Students can also use the work with well-known clients to augment their job qualifications and portfolios.

Roles & Expectations

As mentioned earlier, one of the primary goals of the course is to fuse design and planning practices to expose students to new ideas, concepts and methodologies. While no exact metrics have been developed to measure how much planning knowledge is acquired by architects (and vice versa), discussions with students reveal a new respect for their peers. We have found that most students profoundly misunderstood the applicability and transferability of skills in other disciplines to their own field of study. By working together, students have developed a greater appreciation for the contributions of multi-disciplinary approaches to real world problems.

Students are expected to actively engage in roles outside their disciplines. Planners are encouraged to draw, sketch and suggest sustainable design strategies. Particularly, planners learn new technological and visual software tools that allow the public to fully comprehend planning's impact on the landscape. Likewise, architects are expected to engage in planning activities like data collection, analysis, mapping, and application. To achieve these goals, students are generally divided into teams of four, two planners and

two architects. Initially, teams are independent and work on similar tasks. As the project matures, some teams are merged as preferred alternatives from the initial group work are fine-tuned. However, this is dependent upon the project. Outcomes have ranged from four separate and distinct products to one unified project.

The role of faculty varies from project-to-project. Typically, faculty plan the fall term project in the early spring semester of the academic year. Partners are identified and contacted about the class and its services. After meeting with potential clients, the faculty develops a contract of sorts detailing the scope of the work, project deliverables and timelines. Typically, the faculty meets again with the client to solidify plans. Once finalized, the faculty and client formalize a work plan that includes active participation by the client. The pre-course work with stakeholders is typically as follows:

- Client identification (capitalizes upon community contacts and year-round networking)
- Meeting with clients to discuss project, goals and objectives
- Integration of client into work schedule

Throughout the project, faculty plays multiple roles. Early in the semester, faculty work as project managers and teachers. In the first class, the goals and objectives of the class are outlined and communicated. Partners in the project attend class to explain their organization and its goals. A general schedule for the first three weeks of the class is as follows:

Weeks 1-3:

- Stakeholder introduction
- Articulation of goals, objectives and timeline
- Break-down into teams
- Education in smart-growth principles
- Initial data collection

During the initial phase of the project it is imperative to anchor the work in smart growth principles. Assigned readings, class discussions and lectures are used to educate planners and architects. In some cases, faculty works with students from outside their respective discipline. Since this is a graduate level course, students are expected to be familiar with disciplinary approaches to smart growth. Generally, the first three courses include theoretical approaches to planning, emerging paradigms that integrate planning and design and value-conflicts in applied planning. Sources of data, research design and methodological rigor are also covered in the first project phase.

In the second phase, the faculty role changes from educator to information broker and project management. As students collect and analyze data, they often require assistance finding appropriate sources information for their endeavors. For instance, they sometimes need help with non-Census sources of data like the Home Mortgage Disclosure Act (HMDA) database, local property management databases, and environmental data sources. Faculty works with students to identify best practices in the field and provide

students with a variety of information from books, internet sources and experts in the field. The circular flow of information between students and faculty is critical to meeting initial project deadlines. In our courses, each faculty member plays an active role in acquiring and disseminating data to students.

Project critiques and reviews are dispersed throughout the semester at appropriate intervals. The purpose of the reviews is to insure timely delivery of a quality product. During the reviews, suggestions are made regarding the direction of the groups. In the first review, it is important for faculty to make major programmatic changes when necessary. Failure to do so can lead to excessive workloads later in the project as students are forced to make abrupt changes in direction that require new maps, drawings and narratives.

Faculty is also instrumental in working with stakeholders to make sure that their needs are being met. Stakeholders attend and participate in all review sessions. Faculty can act as a conduit between stakeholders and students. It is sometimes necessary for faculty to intervene on behalf of the students when stakeholders attempt to micro-manage or depart from the stated objectives of the class. Most stakeholders are involved in long-term projects, yet the class is limited to 14 weeks. As managers, the faculty must keep the project focused.

The role of stakeholders has been mentioned above. However, stakeholders have additional responsibilities beyond the classroom. They are charged with arranging public meetings or forums for students to present final products to the community. They also insulate students from political pressure, allowing students to apply sustainable concepts in creative ways. By attending review sessions, stakeholders are kept abreast of project progress and obstacles. On many occasions, stakeholders have assisted faculty in finding project-specific data like citizen surveys that are not always publicly available. Most importantly, the stakeholders must be honest about expectations throughout the life of the project. Failure to communicate with faculty could lead to a low-quality final product.

Smart Growth Principles

The Community Planning class integrates multiple smart growth principles into community projects. Consequently, the course does not target certain principles. The smart growth principles utilized reflect the unique nature of the project. As Table 1 shows, many of the principles were directly or indirectly addressed by the projects.

Table 1: Smart Growth Matrix

	Project		
Smart Growth Criteria	1	2	3
Create Range of Housing Opportunities and Choices	x	x	x
Create Walkable Neighborhoods	x	x	x
Encourage Community and Stakeholder Collaboration	x	x	x
Foster Distinct, Attractive Communities with a Strong Sense of Place	x	x	x
Make Development Decisions Predictable, Fair and Cost Effective		x	x

Mix Land Uses	x	x	x
Preserve Open Space, Farmland, Natural Beauty and Critical Environmental Areas	x	x	x
Provide A Variety of Transportation Choices	x	x	
Strengthen and Direct Development Towards Existing Communities	x	x	x
Take Advantage of Compact Building Design	x	x	x

During the initial learning phase of the project, students are instructed that many smart growth principles are mutually reinforcing. For instance, producing walkable neighborhoods is dependent upon compact building design, mixed land uses and a sense of place that provides incentives for activity. A strong emphasis on cost-effective solutions is instilled as a rationale for engaging in smart growth. We consider cost-efficiency to be a driver of wider-citizen acceptance of smart growth. That is, appealing to the long-term cost advantages of smart growth—rather than focusing narrowly on the environmental benefits—builds bridges to constituencies focusing on tax stewardship.

Multiple sources, including the EPA's Smart Growth Network, are used to teach the fundamentals of smart growth. Students are provided reports on sprawl, new urbanism, design and planning for sustainability. Reports from The Sierra Club, The Congress for New Urbanism, the EPA, the American Farmland Trust and more progressive planning departments (Austin and Portland) are used to put smart growth in a real world context. Showing the students how smart growth principles are codified into planning directives and documents is particularly insightful to students who tend to think of planning and zoning as a one-dimensional activity of segregated land uses. From a design perspective, students read David Walters' *Design First* book that links planning and design to sustainability. The book is an effective resource because it uses multiple local case studies that allow students to explicitly associate sustainability with the real world.

Data

Again, much of the data is project-specific. For the purposes of cross-training students, architects are generally required to familiarize themselves with Census data products while planners are expected to learn some design applications. For mapping purposes, a variety of shape files and Census variables are needed to contextualize the projects. Using a collaborative process, students tend to learn from one another during the project. Stakeholders have been important sources of project-specific data like surveys, interviewees, and budgets.

Even though data acquisition has not been difficult, the relevance of some survey data has created complications. In the rural preservation workshop during 2004, a resident survey from 2001 was used to frame the growth issues most important to citizens. The survey was not administered in the context of updating the county's long-range plan, but the results were used to determine goals related to the long-range plan. Opponents of the plan update used this piece of information to attack the legitimacy of the project. The problem manifested itself to the stakeholder organization and did not reflect negatively on the student's work. In fact, it provided students a valuable lesson in the role of politics in local planning.

The following sections outline three distinct Community Planning Workshops undertaken at UNC Charlotte. After outlining the course content, the projects are more fully explained. Lessons learned from the projects are provided in the concluding section.

Course Outlines

Project 1: Creating an Urban Core in Suburbia

Premise: One of the most difficult tasks in contemporary planning and urban design is retrofitting expansive suburban patterns of development so that they follow more sustainable principles and practices. Most suburban and 'edge city' development is wasteful in its use of land and other natural resources, with uses segregated from one another in ways that demand the use of automobiles for every task and make pedestrian life all but impossible.

Sustainable development principles include more compact settlement patterns, with mixed uses, a walkable urban structure served by good public transit, and respect for the natural environment. Sustainable development also means re-embedding meaningful urban and natural public spaces as the setting for a renewed and reinvigorated public and communal life. Sustainability refers not only to ecologically sound practices but also to social factors of equal opportunity, diversity and social justice.

Objectives:

i) To acquaint students with contemporary theory and practice in planning and urban design, particularly as these relate to issues of sustainable development.

ii) To give students experience in applying planning and urban design theory and methods to actual problems.

iii) To provide students with experience in compiling and analyzing community-scale data, working with citizens, professional planners and designers, and elected officials, and preparing oral reports and technical documents.

iv) To examine what it means for the planner and urban designer to demonstrate ethical responsibility to the public interest, to clients and employers, to colleagues and oneself.

Content: The Planning Workshop has the Charlotte-Mecklenburg regional area as its focus. Projects will be derived and solicited from real-life community conditions, and orchestrated by faculty for student development. The workshop will also emphasize a long-term perspective.

Workshop projects will focus on the following issues in community planning:

- sustainable land use planning
- urban design
- transportation
- infrastructure financing
- community development
- economic development
- environmental management.

The specific project for this semester focuses on our own neighborhood of University City, and in particular the creation of a mixed-use, walkable 'town centre' on Highway 29 adjacent to the hospital, new university developments, existing retail sites that are candidates for redevelopment, and the planned new light-rail station.

Method: A review of contemporary policies in community planning, growth management for sustainable development, and urban design will be presented in readings, lectures, seminar discussion and case studies. The majority of the semester will involve collaborative project work in small teams, on the given planning and design problem in workshop format. These workshop activities will build upon and extend conventional classroom instruction.

Required Texts: *The Next American Metropolis: Ecology, Community and the American Dream*, Peter Calthorpe
The Ecology of Place, Timothy Beatley and Kristy Manning

OUTLINE SYLLABUS

Week 1	Conceptual bases of the course and Project Introduction
Week 2	Principles of Sustainable Planning
Week 3	Practices for Sustainable Planning; Principles of Urban Design
Week 4	Project initiation and definition
Week 5	Written and diagrammed statements of group approaches to project to Stakeholders
Week 6	Data Collection: Context and Community
Week 7	Data Collection: Precedent and Policies
Week 8	Policy Statement and Graphic Presentation
Week 9	Interim Review with Stakeholders
Week 10	Project Development: Urban Design and Sustainable Development
Week 11	Project Development
Week 12	Project Development: Economic Factors
Week 13	Project Development
Week 14	Internal Presentation Review
Week 15	(Exam Week) External Presentation to Community Leaders

Project 2: Alternative Design Scenarios

County Land Use Plan Update:
Alternative Settlement Pattern Development

Purpose

The UNC Charlotte Urban Institute, together with faculty and staff from other areas of the University, are conducting a comprehensive land use planning process for Stakeholder County, NC. The project began in January, 2004, and will be completed in the fall of 2005. During the Fall Semester 2004, the Community Design class will assist the Institute with the portion of the project called "Assess Existing and Alternative Land Development Patterns." Students will work in groups to analyze land use and growth patterns, existing zoning requirements, infrastructure capacity, and environmental conditions. Using this knowledge, students will develop future land development scenarios for sub-regions within Stakeholder County.

Each scenario will designate areas where the County will support more intensive growth and land development, and areas designated to support lower growth and land development. While sustainable development is the goal, students must balance design and planning techniques with local market conditions. Models to examine include the following:

- Traditional large lot subdivision
- Conservation subdivision
- Farmland preservation & open space protection
- Cluster development & rural village-and-hamlet
- Mixed-use and neo-traditional development
- Service-oriented developments

COURSE REQUIREMENTS & EVALUATION

Prompt & regular class attendance is expected. Given the magnitude of this project, class time must be fully utilized. Your final grade will be determined by the quality of your final project. Prior to the final submission, groups will be evaluated and reviewed by faculty and project staff. Grades will be determined by the following components:

Assignment	Date	Percent
First Review	September 16	10
Second Review	October 7	10
Third Review	October 28	10
Fourth Review	November 11	10
Final Project	December 14	60

Required Text

Walters, David and Linda Brown, 2004, "Design First: Design-based Planning for Communities," Oxford, UK: The Architectural Press.

Class Schedule

Week 1 Course Introduction
Identify four groups (1 per study area)
Hand out first group exercise:
Research, assimilate and analyze data on study area

Readings:

- www.cnu.org (do the tour and scan reports; search reports for "The Need for New Models of Rural Zoning")
- http://www.isa-arbor.com/publications/ordinance.asp
- http://www.landslides.com/Slidesets/mutations/index.html
- http://nh.gov/oep/resourcelibrary/referencelibrary/c/culdesacs/ (Read "The Loop Lane: A Cul-de-Sac Alternative")

Week 2 Design and Planning Concepts

Readings:

- David Walters, first half of book
- http://www.designadvisor.org/
- http://www.mrsc.org/subjects/planning/rural/ruralpage.aspx

Week 3 Design and Planning Methods

Readings:

- David Walters, second half of book
- Duany, Andrés; Talen, Emily. "Transect Planning," Journal of the American ***Planning*** Association, Summer2002, Vol. 68: 3, p245-64.

Week 4 Review 1: Group summary of study areas
Description of area
Analysis of strengths and weaknesses
Identification of appropriate strategies
Review with Planning Team and Stakeholder Planning Staff

Week 5 Site visit: North and East Stakeholder groups to East Stakeholder community forum

- Other groups work in class on strategy development

Week 6 Site visit: South and West Stakeholder groups to West Stakeholder community forum

- Other groups work in class on strategy development

Week 7 County Infrastructure Analysis and Pattern Generation

	Review 2: Planning strategy outline concepts (second half of class)
Week 8	Refinement of planning and design strategies
Week 9	Refinement of planning and design strategies
Week 10	Review 3: Planning and design strategies by area o Review with external critics
Week 11	Study area development
Week 12	Review 4: Study Area Development Draft Proposals Review with Planning team and Stakeholder County Planning Staff
Week 13	Compilation of all narratives, analyses, drawings, maps
Week 14	Project Finalization
Final	Public Presentation (Stakeholder City, NC)

Proposal for Project 3: Creating a land-use policy and design guidelines for a rural village that recently imposed a growth moratorium.

Community Planning Workshop: David Walters and Ken Chilton

The purpose of the Community Planning class for the fall semester of 2005 will be to develop a vision for the future development of Stakeholder City. The model for determining the future vision consists of the following five steps[1]:

- Community Profile: Collect, analyze and map demographic, survey and environmental data. Analyze existing subdivision and land use ordinances for strengths and weaknesses.

- Trends Analysis: Analyze data and provide slow-growth, moderate-growth and fast-growth scenarios.

- Vision Statement: Hold public workshops to gauge community input on possible and preferred scenarios. Conduct a visual preference survey (VPS) among public workshop participants. All of this information will be culled to craft a community vision.

- Action Plan: Provide a development vision that identifies goals, strategies and actions to realize community goals. The action plan will identify best practices in alternative growth policies.

Work Plan

Data collection, analysis, mapping and elaboration of growth trends will require 4 weeks of class time. Generation of growth scenarios and drawings will require an additional 2 weeks of class time. Near the seventh-week of class, students will travel to Loudoun County, Virginia and possibly numerous eco-villages in North Carolina to interview planners and community leaders on best practices in growth management and environmental design. Throughout the first half of the semester, students will also be developing a VPS. David Walters and Ken Chilton will be responsible for insuring a useful, unbiased VPS that avoids common weaknesses of the method.

On October 13, students will lead a public workshop to gather citizen input on the future growth of Mineral Springs. Both the Community Profile and Trends Analysis results will be presented at the workshop. However, the citizenry will be responsible for using the data to answer the question *where do we want to be?* Information from the workshop will be used to guide the production of the Action Plan.

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[1] Adapted from Steven C. Ames "New Oregon Model: A Comprehensive Community Visioning Process." Cited from *Popular Government*, Spring/Summer 2004, pp. 14-22.

The action plan will be broken down into two sub-sections: the village core and the rural hinterland. Teams of students will produce mutually reinforcing visions for both the core and the hinterland.

A final community workshop will be conducted in early December for students to present their work to the public. The final product will include all data, maps, scenarios, drawings and narrative in a report format (roughly corresponding to the Oregon Model layout).

End Products and Actions Taken

Project 1: Alternative Design Scenarios

During the fall semester of 2004, the Community Planning class at UNC Charlotte worked with the UNC Charlotte Urban Institute to develop an array of alternative development scenarios to guide future land use in an exurban county. Currently, sprawling development patterns are threatening the rural heritage and environmental quality of the county. The class completed a significant amount of work under difficult political and time constraints. Both the UNC Charlotte Urban Institute and the Stakeholder County's Planning Department were satisfied by the quality of the work produced by the class.

To date, this project was the most difficult because it sparked controversy in the stakeholder county. Essentially, the planning process itself was assailed by a vocal and organized anti-planning faction. Many within this group were opposed to the concept of planning and ascribed to a narrow private property rights paradigm. The group denigrated local politicians who pushed for the land use planning update, and two of those politicians were voted out of office in November elections. While the work of students was well-received by county planners and community leaders, the impact of the work on the local community has been limited. A newly elected county leader emphatically stated that future planning documents should not include the words "smart growth or sustainability."

Project 2: Taming Suburban Sprawl

The Community Planning class at UNC Charlotte worked with the University City Partners (UCP) in 2003 to develop plans for an urban "core" in University City. At the time, UCP was a fledgling organization and the work conducted by the class was an invaluable asset—not only in the quality of the work but also for several other reasons.

The work has focused and engaged the UCP Board in the process in a way that has had an incalculable benefit on the workings of a recently formed working group. The community planning class's study has provided the baseline data for everything UCP has done subsequently. UCP has used the open space analysis in the CCDS Open Space Institute, and will use it again in meetings with local politicians and business leaders. The UCP has also presented the findings to local groups from service clubs to Chamber of

Commerce Real Estate Conferences. The quality of the analysis coupled with the strong visuals has brought its concepts to life for people.

The project also strengthened ties between UCP and the university. UCP has hired two planning students as interns since the conclusion of the project. UCP has designated faculty members as "experts" at a series of public meetings and events analyzing growth and redevelopment in the University City area. Students have used the portfolio they developed to showcase their work to potential employers. In addition, one architect has successfully petitioned the Department of Geography and the School of Architecture to design a dual master's degree in Planning and Architecture—a first within the university.

Project 3: Creating a land-use policy and design guidelines for a rural village that recently imposed a growth moratorium

The third project is in progress, and illustrates how the courses are designed and presented to clients. The same general template that was used for large-scale urban projects is being used in a rural context. The project was made possible through faculty contacts in the larger planning and design community. Faculty attended local planning forums and testified on behalf of implementing a growth moratorium. Local leaders held meetings with faculty to understand how the Community Planning Workshop could enable the city to produce a quality visioning document in a fiscally challenging environment. Students have reacted enthusiastically to the project because they have been entrusted by elected officials to produce a planning vision for a city. Students have met with the mayor, town council and ordinary citizens. They are administering a written survey and a visual survey. They are preparing detailed graphics and three-dimensional products to show community residents how growth might eventually affect the town—aesthetically, environmentally and physically.

Lessons Learned

Lessons from the Community Planning Workshop are constantly integrated into new courses. That is, the class is an iterative process where programmatic change is constant. While the general course template remains intact from semester-to-semester, political, technological and economic lessons are learned by faculty and incorporated into project management.

One of the most appealing aspects of the course is its unpredictability. Since it is an applied course, students and faculty are challenged by changing client needs and unexpected political realities. As such, one of the main lessons learned is to build in *flexibility*. Faculty must be keen observers of the class's progress and the client's wishes. At times, faculty members have to take a strong managerial role to properly motivate and direct students. In some instances, though, faculty act as a buffer for students, objecting to changes in the project's goals or activities that would stifle student creativity and the smart growth focus.

It has been our experience that students enjoy visioning processes more than routinized work assignments. The workload for *Project 2* was so ambitious that students engaged in specified roles that failed to challenge them or expose them to new ideas. Working at the scale of an entire county is perhaps too cumbersome for a project. At the county-wide scale, planning is perhaps over-politicized and clients facing political opposition have tended to dilute the smart growth components of the project.

However, *Project 1* was well-received by all students because teams were encouraged to be creative and innovative. The scale of the project was neighborhood-specific. Students had creative freedom to design transit stops, compact housing, open space and parks, new road networks and eco-industrial parks. The nature of the project allowed students to divorce themselves from many of the real world political and economic constraints faced by students working on *Project 2*.

While students gain knowledge from political processes, controversial real-world projects negatively affect the freedom to innovate. Despite pleas by stakeholders to "be creative," students often expressed concerns about the political acceptability of some sustainable development concepts. In the future, projects will be more rigorously selected to weed out those that are especially politically contentious. Planning, by its nature, is intrusive and threatens the status quo. The lesson for faculty is to pick your battles wisely. Projects need to balance smart growth with both student and client expectations.

Project 3 will have political overtones, but stakeholders have insured faculty that students will be encouraged to apply sustainability concepts to the towns' vision. The project has the political support of the Mayor, and town residents are fearful that their hamlet will be swallowed up by unplanned development. Thus, the political culture is vastly different from *Project 1*. Some landowners are indeed wary of the moratorium and planning process, but students have no choice but to work with skeptics to produce a useful planning and design vision.

This leads to another critical lesson. Namely, policy recommendations need to be grounded in economic efficiency. While sustainability, quality of life, sense of place and rural heritage are viable concepts, students have been challenged to link their recommendations to finite budgets and economic reality. Legitimacy is linked to practicality in real-world planning exercises. Linking smart growth to economic efficiency is often times overlooked, but it is essential to broadening the base of "smart growth" adherents. In fact, student projects are moving away from a smart growth language to a generic planning lexicon. Rather than labeling a growth typology as "conservation" or "preservation", we simply refer to Scenario A or Scenario B. This tends to lesson opposition.

Another lesson gleaned from the classes is related to ownership of the project. Students in *Project 2* had complete ownership of their projects, and were responsible for presenting their final product to stakeholders. Control over content and presentation empowers students and builds professional confidence. Breaking down the barrier between

"student" and "professional" is an important by-product of the class and should be encouraged. When faculty presents student findings for political or other reasons, it relegates students to the role of research assistant. Ownership of the project by students fuels creativity and is a built-in quality control mechanism.

Related to project ownership is the concept of project professionalization. In the current project, three public forums are being conducted. In each forum, students are referred to as project staff and their credentials as practicing planners, architects, interns and professionals are communicated to the public. Planning opponents often seize upon the fact that "students" are producing the work to denigrate its quality. A proactive assertion of staff competence and professionalism works to dampen invalid criticisms. Furthermore, quantification of value is used by faculty to demonstrate the project value to community members. The following table illustrates the value of each product.

	Project 1	Project 2	Project 3
Students	18	16	26
Hours/week	108	96	156
Hourly Rate	$25	$25	$25
Value (15 weeks)	$40,500	$36,000	$58,500

The above estimates are crude and conservative; they reflect only personnel costs and omit project management (faculty), travel, copying, technology, etc. Yet, they provide a useful estimate for clients to justify products to constituents.

Smart Growth in the Classroom

Perhaps the greatest benefit of the class is its inculcation of smart growth values on future planners and designers. Firmly rooting real-world projects in smart growth principles that are economically sound is a tremendous asset in paradigm change. The format used in this class is adaptable and particularly useful across an array of projects. It provides a template for proponents of smart growth to build bridges with willing partners on their respective campuses.