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# ***Proposal***

CLASSROOM/TEACHING INFRASTRUCTURE DEVELOPMENT FUND:  
**MODERNIZATION OF EN.2050 CIVIL ROOM**  
WINTER-SPRING 2006

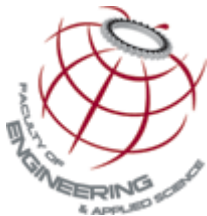
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***Submitted to:***

***V.P Academic  
Memorial University of Newfoundland***

***Submitted by:***

***S. Bruneau on behalf of  
Civil Engineering Discipline Chair  
Faculty of Engineering and Applied Science  
Memorial University of Newfoundland***



PR. xx\_01  
January 20, 2006  
St. John's, Nf., Can



***This proposal has been prepared on request from Tahir Husain, Discipline Head of Civil Engineering and follows the guideline application form specific to the infrastructure development fund..***

## **1.0 Project/Initiative Title**

The modernization of the Civil Engineering Lecture Room, EN.2050.

## **2.0 Unit and Contact Information**

Civil engineering undergraduate discipline, Faculty of Engineering and Applied Science.

Proposal requested by Tahir Husain, 737-8781

Proposal drafted by Steve Bruneau, 737-2119 - Primary contact person.

## **3.0 Project Description**

The EN.2050 classroom requiring modernization is used by all undergraduate civil engineering students for the duration of their undergraduate degree program. This translates to 20-40 students all day, every calendar day, for winter, spring and summer semesters. This highly utilized space, shown in the attached photos, may be characterized as a low, wide and deep windowless classroom with a tiled floor, institutional lighting and miscellaneous furnishings. The space is subdivided via mobile sound barriers, into two primary parts: the lecture area with about 40 desks, and the computer area in the rear. Presently the lecture facilities consist of a raised narrow stage, spanning a broad chalkboard and a pull-down screen. A second chalkboard and pull down screen are offset centre stage for additional support. A small mobile lectern and an AV cart w/overhead projector are the compliment of the electronics supporting this lecture facility.

It is proposed that the following actions be taken to improve the safety and enhance the quality and capability of instruction in EN2050:

Rebuild the existing stage, remove the centre chalk board and manual pull-down screen. Paint the front of the classroom, install an automated/motorized screen, a permanent console containing a dedicated on-line lecture computer, related cabling, a ceiling mounted data projector, a small mobile desk for monitor, mouse, keyboard and notes. Install two dry-erase white boards flanking the centre stage screen and modify the lighting if necessary to ease viewing and note-taking.



## 4.0 Summary of Estimated costs

*DRAFT - cost estimate for civil room improvements*

	Item	Description	Est. Cost CAD
Electronics	Computer	3ghz sona video board soundblaster	\$ 2,000
	Monitor	19 inch LCD secured to desk	\$ 500
	Data Projector	Mitsubishi/infocus 3000 lumen min	\$ 3,600
	Mouse	Remote/wireless gyration	\$ 150
	Keyboard	Remote/wireless gyration	\$ 100
	Speakers	Altec Lansing or Klipsh w/base	\$ 150
	Motorized Screen	switched from desk/podium	\$ 2,000
	Tablet( optional)	Writing device	
	ELMO (optional)	Projection device	
Infrastructure	Desk/podium		\$ 500
	Secure cabinet	Use the spare available in 1007?	\$ 200
	Cabling		\$ 500
	Stage improvements		\$ 2,500
	White Boards		\$ 800
Installation		Stage, cabinet and cabling work	\$ 4,000
		<b>Subtotal</b>	<b>\$ 17,000</b>
		<b>Estimate uncertainty 15%</b>	<b>\$ 2,550</b>
		<b>TOTAL</b>	<b>\$ 19,550</b>

## 5.0 Implementation Schedule

The estimated start date of the project is in February, 2006 upon approval of proposal. The equipment procurement may take place over the following 6-8 weeks and the fabrication and installation of the balance of equipment and infrastructure may proceed through the spring semester. It would be expected that a fully functional system be ready for use by the end of the summer semester August, 2006 (approx. 6 month project duration in total).

## 6.0 Benefits of Proposed Changes

### (a) Solutions Provided

The project will eliminate a dangerously high and narrow stage/step for instructors and provide a safer and more functional replacement. Removal of the chalkboards will reduce the release of dust in the classroom, and can improve instructor's ability to communicate through writing on a higher contrast surface using a variety of colours.



The project also eliminates potential discrimination of visually impaired and hearing impaired students by providing for the use electronic projection of high contrast, large scale fonts and the amplification of instructors speech.

Lastly, the installation of on-line digital projection will provide instructors with a means of demonstrating computer aids, expose students to civil discipline related electronic multi-media, display on-line projects, digital slide shows, videos etc. This will improve the preparedness of instructors and can facilitate and streamline transmission of notes between the instructor and students, and, allow for future interactive or remote instruction from guest speakers anywhere in the world.

(b) Further the Goals of MUN

The project furthers the goals of the university by improving the quality of instruction, and the learning of students. It will provide the same tools currently available at other schools and assist in future development of on-line related education.

(c) Number of students benefiting

The number of students benefiting from this project will be 20-40, every academic semester of the calendar year. These students will receive all instruction (approx 20 lectures per week) via this new infrastructure.

(d) Consequences of *Not* Receiving Funds

The consequences of failing to receive this funding may result in the injury to an instructor from the improper nature of the existing stage. Without the the enhanced media equipment an instructor will be less inclined to reach for modern and developing learning tools, would have a diminished capability for demonstration, would compromise the ability of visually impaired to see lecture materials, would continue to burden instructors with clumsy paper note transfers and remove the incentive for instructors to have all lectures compiled prior to instruction date.

For more information on the proposed modernization please contact Steve Bruneau at 737-2119.

## APPENDIX A



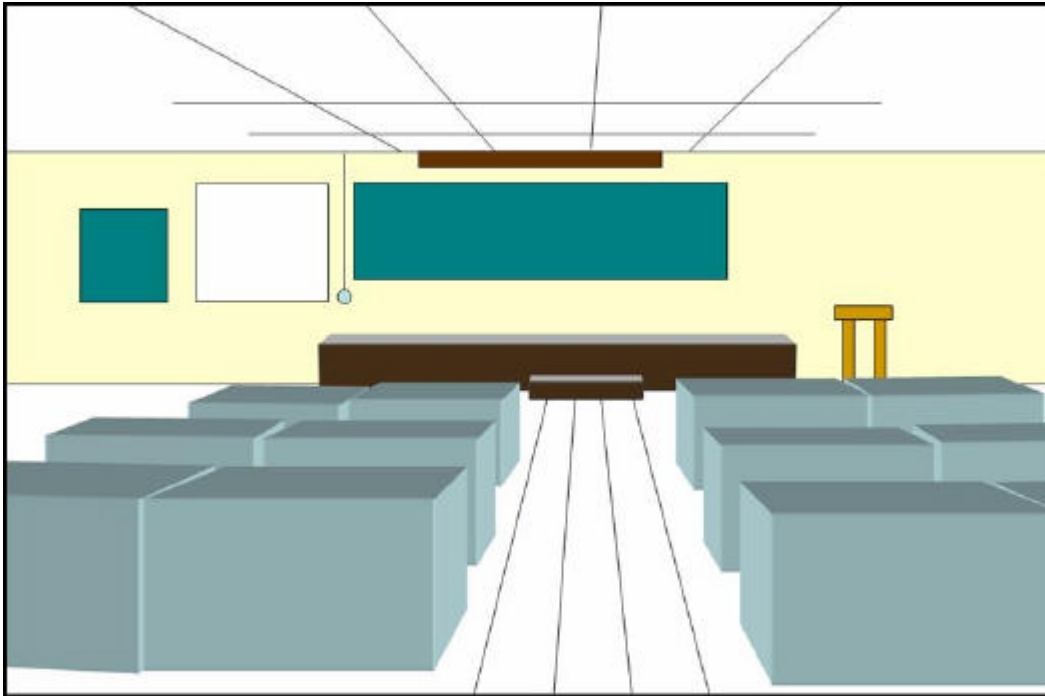
EN2050 - Civil Room panorama



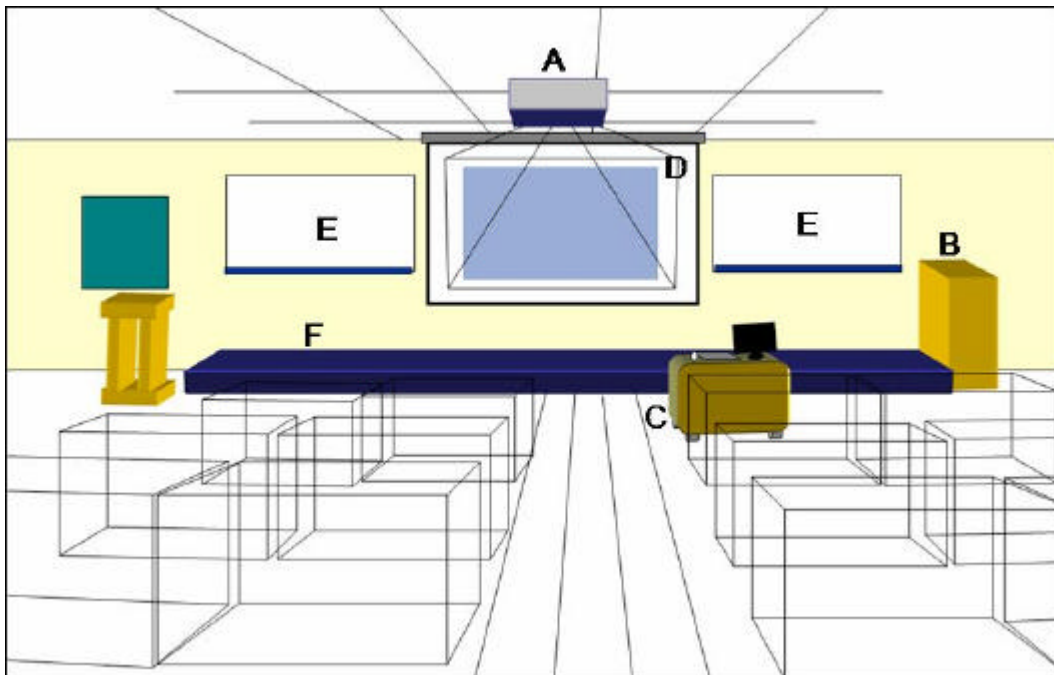
EN2050 - Forward view



EN2050 Lecture facilities



Schematic of existing Lecture facilities in EN2050



Schematic of EN2050 with proposed changes: A) Data projector B) Console containing computer C) mobile desk with mouse, keyboard, monitor D) Motorized screen, E) white boards F) reconstructed lower and wider stage.