

RAIC SYLLABUS

THESIS PROJECT SUMMARY

Prepared for

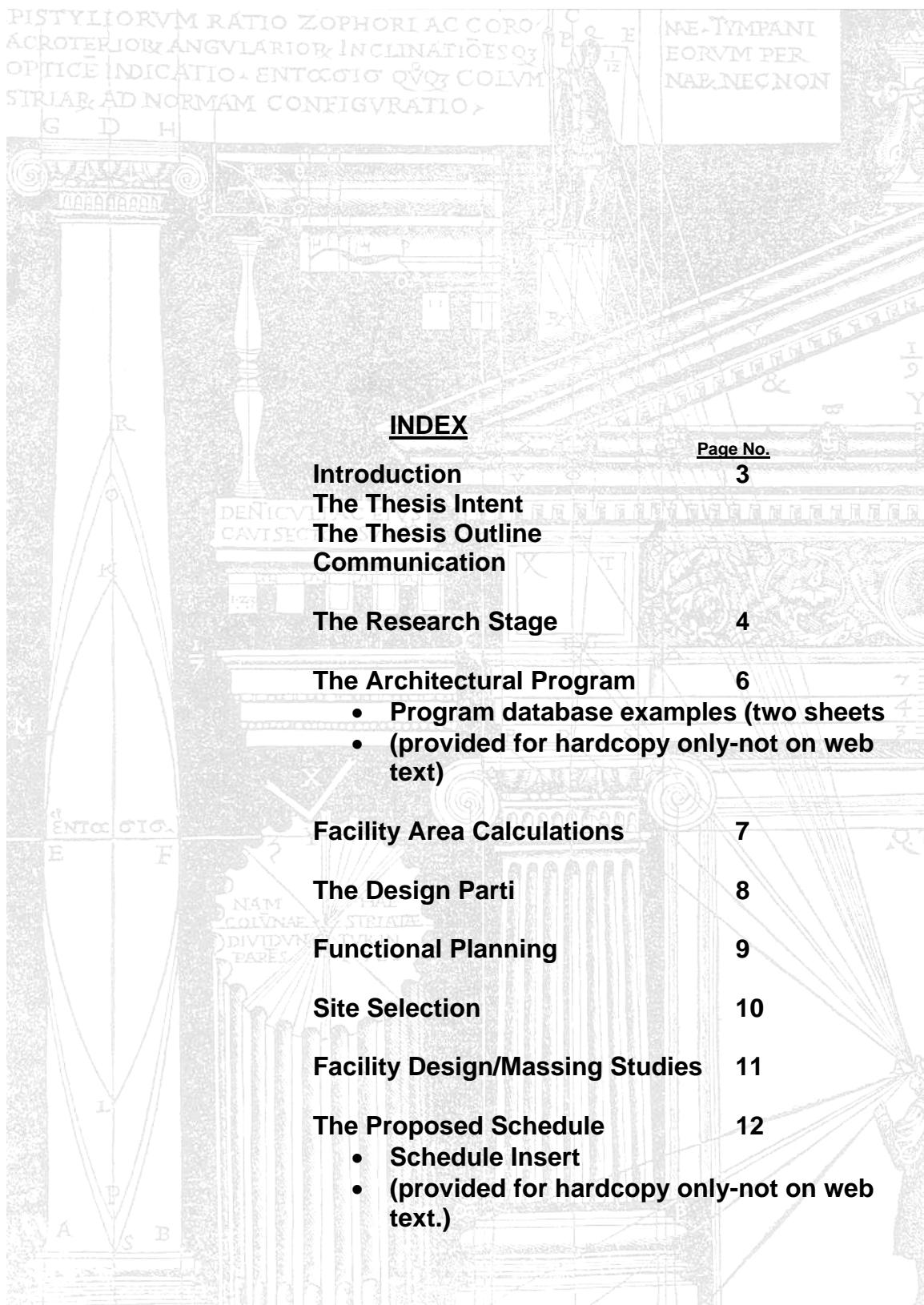
**ROGER MITCHELL, SAA, MRAIC
REGINA SYLLABUS COORDINATOR**

**“A DESIGN
FOR
ARCHITECTURAL EDUCATION”**

Kurt Dietrich

SK85ON23

4 May 2005



Introduction:

This summary was prepared for Roger Mitchell as an update on the thesis development as of 4 May 2005.

The Thesis Intent:

The intent of this thesis is to provide a design solution for a building to facilitate instruction of an educational curriculum related to architectural design principles.

The Thesis Outline:

The parameter applied to the educational delivery process for the purpose of this study involves elementary grades seven and eight students coming to the proposed facility for one afternoon each week during a single reporting period of the standard school year.

The delivery process for the curriculum developed through the research stage is based the requirements for curriculum structure as provided by SaskLearning as well as the Components of Differentiated Learning (*Differentiating Instruction in the Regular Classroom, Diane Heacox, Ed.D.*):

Communication:

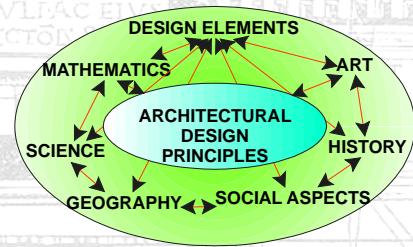
A website has been developed to facilitate communication between the advisors, mentor, educators and student. It is the responsibility of the student to update the site as progress continues, ensuring that the website is current on a weekly basis. All information noted herein as well as full development of the curriculum sections can be found at:

www.kdietrich.com

The Research Stage:

The thesis research stage involved the development of an educational curriculum for the purpose of instruction in architectural design principles. The designated sections of curriculum are:

- History of Western Architecture
- Art in Architecture
- The Science of Buildings
- Social Elements
- Geography/Geology
- Mathematics
- Design Elements.



A brief summary of the History and Art curriculum follows on the next page. Each curriculum section has been completed in point form with long text developed for the final submission.

Each completed curriculum section is reviewed with the Mentor during the weekly meetings. A full explanation of the section is provided to the educators at separate meetings during which the completed curriculum section is turned over for their review and use in the classroom.

Full copies of the curriculum sections are available on request, or can be downloaded from the website. Sections in process at this time are: Geography/Geology, Mathematics (in point format) and Design Elements (in full format).

Curriculum Section Front-end:

HISTORY OF WESTERN ARCHITECTURE

Abstract:

The study of architectural history provides an understanding of the cultural forces that shaped architectural development. The history of architecture chronicles the formation of the architectural profession through the experience of guilds and formal education. The philosophies and design thrusts of relative periods and practitioners are reviewed as the profession changes through time.

Preamble:

This section provides an overview of the history of architecture in Western Civilization. It includes an outline of architecture covering the major periods of development. The section provides opportunities for discussion relative to the influence of society and context on architectural design.

Component Initiative:

The goal of this section is to provide instruction on how architecture reflects the society and cultural period of development. The secondary goal illustrates how building styles and theories evolved through the centuries. This section will also review how the influence of culture and society changed the development of architectural forms.

ART IN ARCHITECTURE

Abstract:

The expression of human nature can be found through many artistic formats, fueled by the emotional thrust and intentions of the artist. Artistic works relative to the human condition spring from the artist's perception and interpretation of the "truth" relative to the human condition. Architecture, as seen in the adjacent fields of art, also searches for "truth" in design through the representational process of design.

Preamble:

Public perception and acceptance of the unique personal creative skills provided by architects has been in place since the early days of design. Though the public may not always agree or perceptions may be biased, the special position relative to building design has existed. It is primarily through a lack of understanding that the specific role of an architect has been misunderstood.

Architectural design as an art form relies on the architect's understanding of "truth" in design. Truth means many things in construction depending on which subtrade you may be conversing with, and there are likely as many interpretations of "truth" as there are tradesmen on site at any time.

Component Initiative:

The goal of this section is to provide information and instruction on how artistic drawing techniques or representation (sketching) and presentation relate to the process of architectural design.

This section also focuses on the use of artistic means of communication relative to the design process. Communication methods are presented in the manner of visual imaging relative to the proposed design solution. These methods of communication are critical in the process of architectural design. Communication forms the bridge between the architect's vision and the client's understanding.

The Architectural Program:

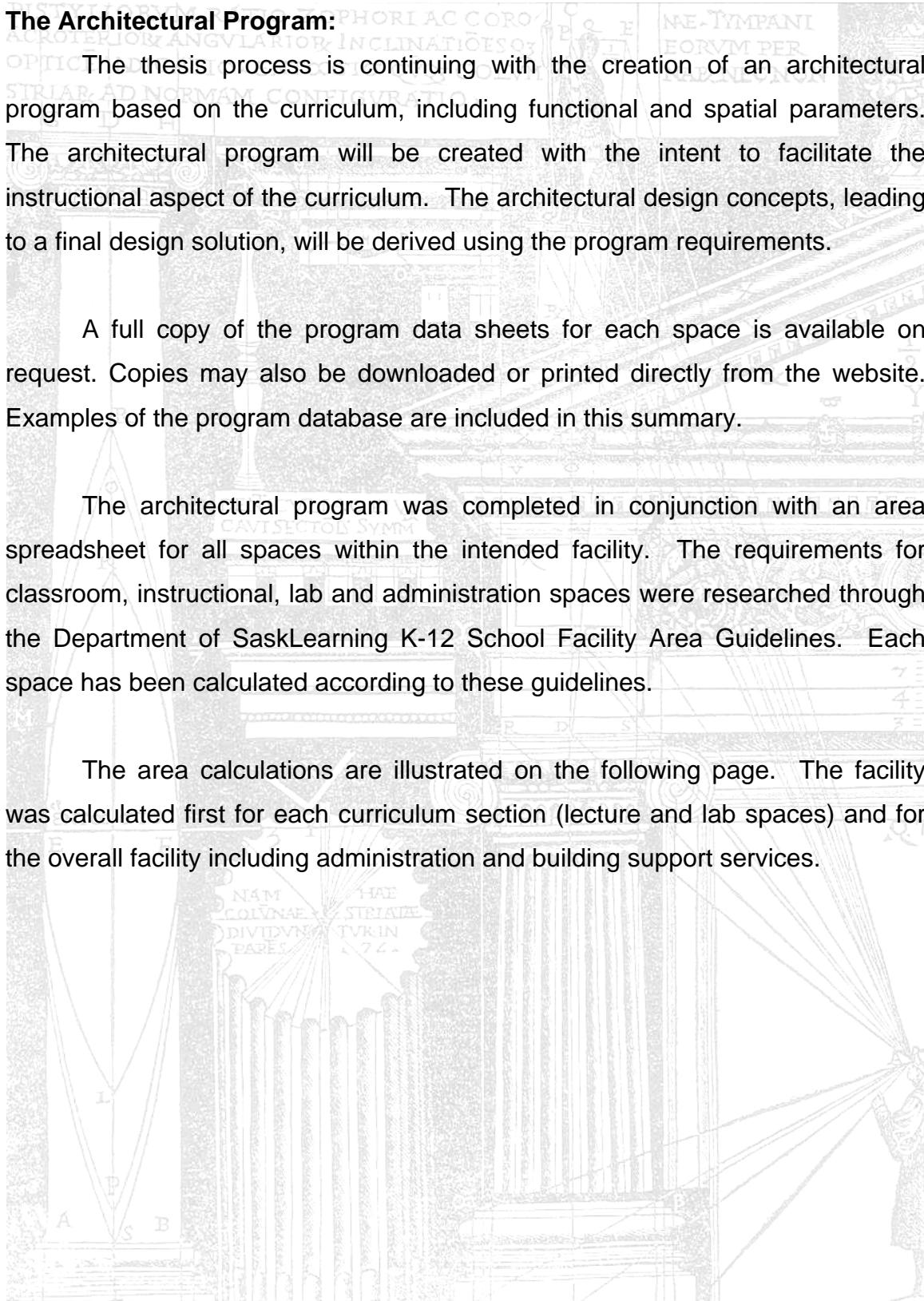
The thesis process is continuing with the creation of an architectural program based on the curriculum, including functional and spatial parameters.

The architectural program will be created with the intent to facilitate the instructional aspect of the curriculum. The architectural design concepts, leading to a final design solution, will be derived using the program requirements.

A full copy of the program data sheets for each space is available on request. Copies may also be downloaded or printed directly from the website. Examples of the program database are included in this summary.

The architectural program was completed in conjunction with an area spreadsheet for all spaces within the intended facility. The requirements for classroom, instructional, lab and administration spaces were researched through the Department of SaskLearning K-12 School Facility Area Guidelines. Each space has been calculated according to these guidelines.

The area calculations are illustrated on the following page. The facility was calculated first for each curriculum section (lecture and lab spaces) and for the overall facility including administration and building support services.



Facility Area Calculations:

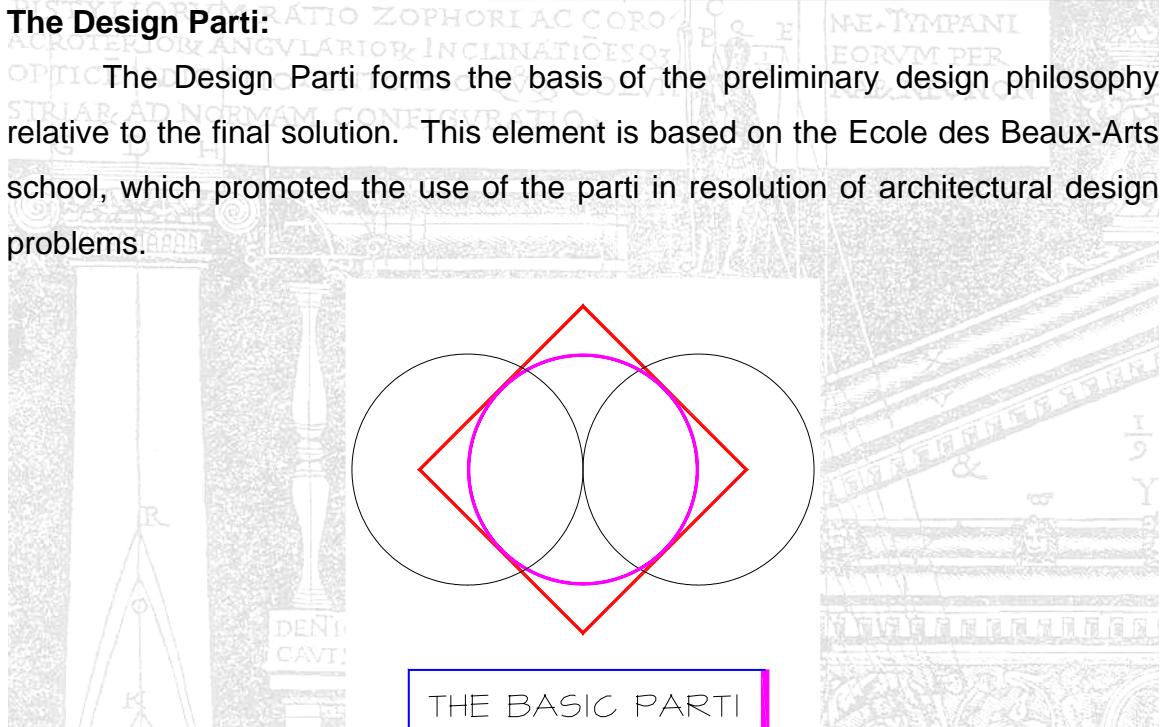
1.0 INSTRUCTIONAL AREA BREAKDOWN <i>(Note: Areas contained in Total Area Spreadsheet)</i>								
Item.	Curriculum Course Section	Lecture Area						Sub-total
		Students	Student Area	Instructors	Instructor Area	Circulation	Storage	
1.1	Architectural History of Western Civilization	30	75.00	1.00	15.00	18.00	4.50	112.50
2.1	Science of Buildings	30	75.00	2.00	30.00	21.00	15.75	141.75
3.1	Art in Architecture	30	75.00	1.00	15.00	18.00	4.50	112.50
4.1	Social Elements	30	75.00	2.00	30.00	21.00	4.50	130.50
5.1	Geology / Geography	30	75.00	2.00	30.00	21.00	4.50	130.50
6.1	Mathematics	30	75.00	2.00	30.00	21.00	4.50	130.50
7.1	Design Elements	30	75.00	2.00	30.00	21.00	4.50	130.50
		210	12.00					
								888.75
Item. Curriculum Course Section								
Item.	Curriculum Course Section	Lab Area						Sub-total
		Students	Student Area	Instructors	Instructor Area	Circulation	Storage	
1.2	Architectural History of Western Civilization	20	74.25	2.00	29.70	20.79	15.59	140.33
2.2	Science of Buildings	30	112.50	3.00	67.50	36.00	27.00	243.00
3.2	Art in Architecture	20	74.25	2.00	29.70	20.79	15.59	140.33
4.2	Social Elements	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5.2	Geology / Geography	20	74.25	2.00	29.70	20.79	15.59	140.33
6.2	Mathematics	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7.2	Design Elements	20	74.25	2.00	29.70	20.79	15.59	140.33
		109	11.00					
								804.33

Facility Area Breakdown:

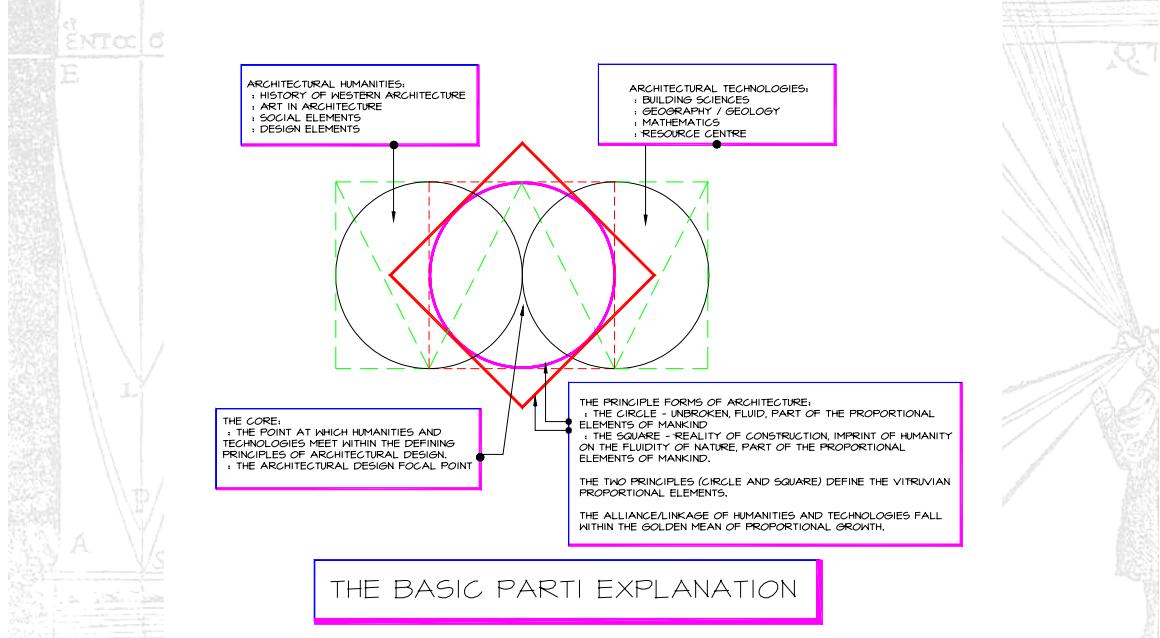
Item.	Area Name	Staffing/Students	Area		Subtotal
			Units	Unit Rate	
1.0 Instructional Area					
	Lecture Area				888.75
	Lab Area				804.33
					1693.08
2.0 Resource Area					
	General Resource Area	319	0.5		159.60
	Seminar / Computer	9	5		45
	Resource Administrator	9	7		63.00
	Media Storage	268	15%		40.14
					307.74
3.0 Administration					
3.1	Administrator's Office	1	14.00		14.00
3.2	General Office	2	12.00		24.00
3.3	Workroom	319	0.20		63.84
3.4	Visiting Lecturer	1	12.00		12.00
3.5	Staff Room	319	0.20		63.84
3.6	Staff Lockers	32	0.44		14.04
3.7	Staff Washrooms	23	4.40		13.49
3.8	General Storage	319	0.15		47.88
					253.10
4.0 Building Support Services					
4.1	Student Washrooms	21	3.00		63.84
4.2	Maintenance Areas		10%		201.00
4.3	Building Service Areas		5%		110.55
4.4	Student Commons		20%		338.62
					714.01
5.0 AREA TOTAL					2967.93
6.0 Circulation				20%	593.59
7.0 Wall Allowance				9%	320.54
8.0 GRAND TOTAL				<i>Square Metres</i>	3882.05

The Design Parti:

The Design Parti forms the basis of the preliminary design philosophy relative to the final solution. This element is based on the Ecole des Beaux-Arts school, which promoted the use of the parti in resolution of architectural design problems.

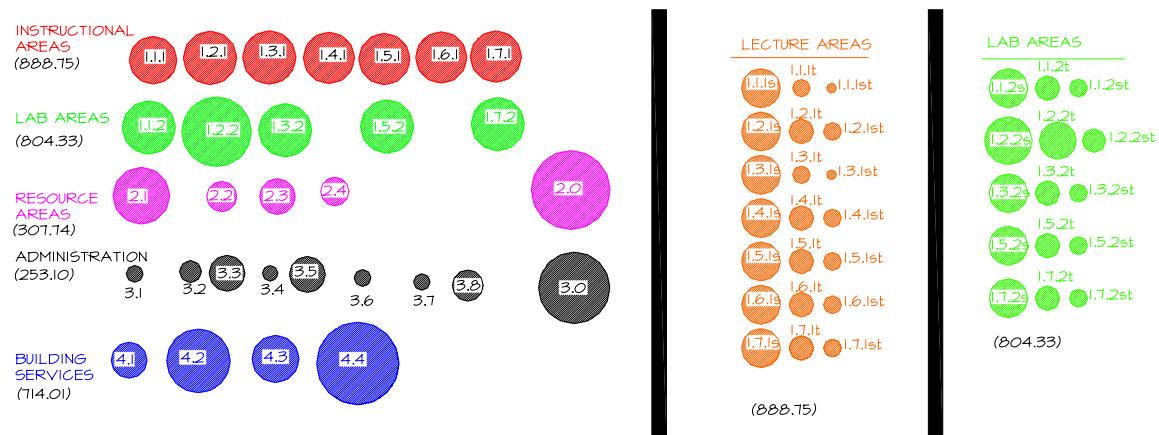


The Parti developed for the architectural solution is based on basic architectural forms with development using the golden mean ratios of expansion. The basic parti explanation is:

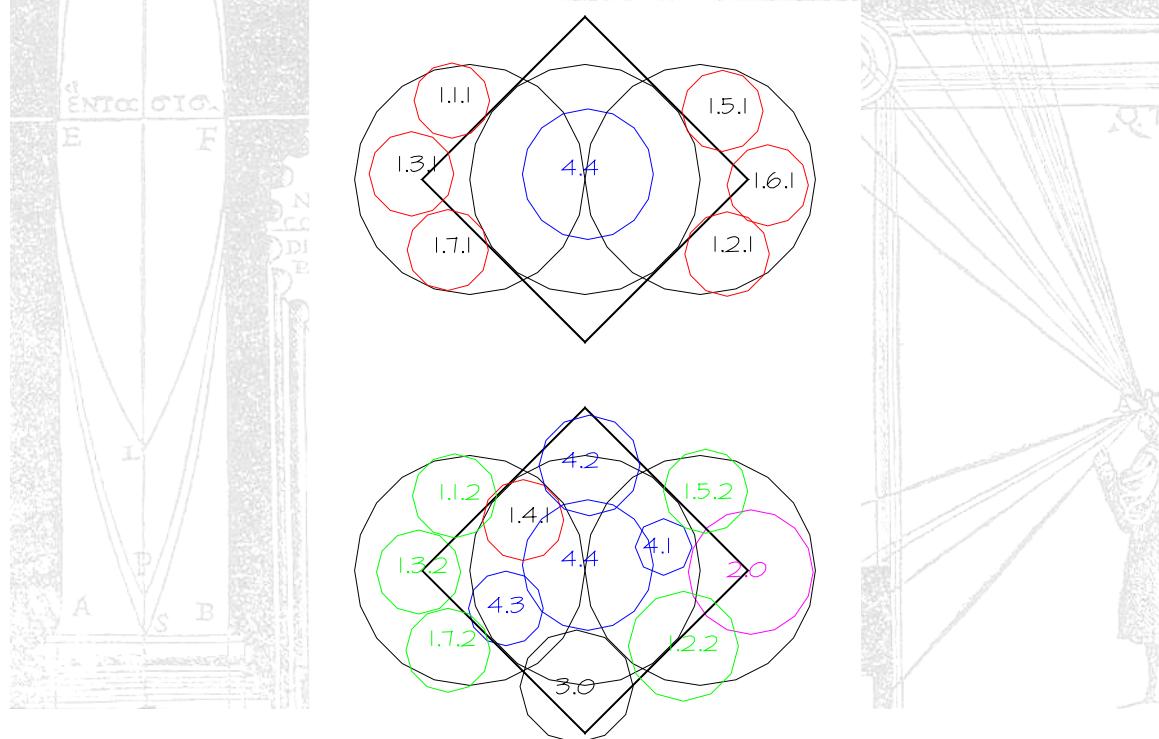


Functional Planning:

Functional planning is underway with the development of bubble diagrams, functional relationship analysis and area allocations within a facility. This process is tied into the site selection stage in order to meet the criteria established in the architectural program.

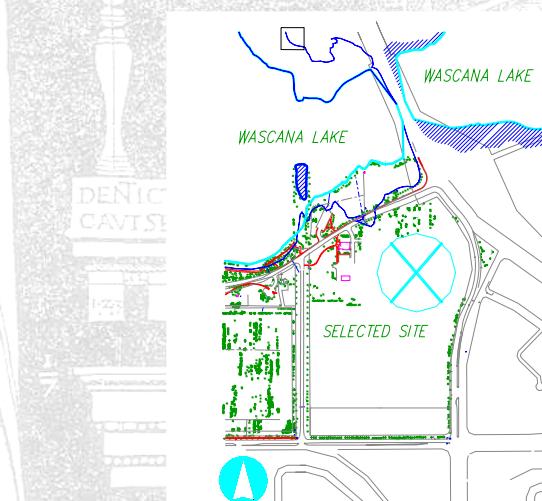


Preliminary relationships and organization, along with circulatory options are currently in process.

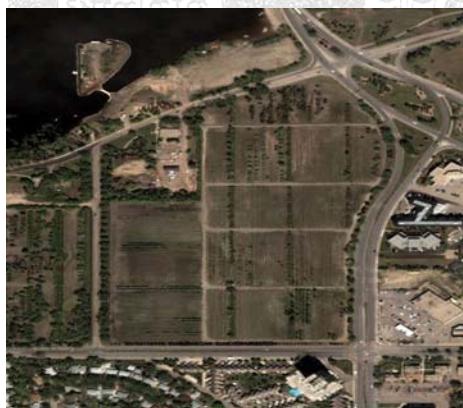


Site Selection:

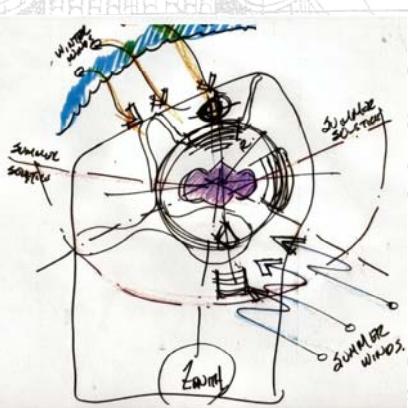
Site selection was completed using criteria developed through the Geography/Geology section related to urban planning issues and constraints. Sites were investigated along the Educational Corridor surrounding the University of Regina and SIAST Wascana Campus. The final site selected is the Wascana Centre Tree Nursery, located at the South-East corner of Wascana Lake, adjacent the Broad Street Bridge. Use of this site for the purposes of the thesis has been granted by Wascana Centre.



Site analysis is being completed concurrent with facility design studies.



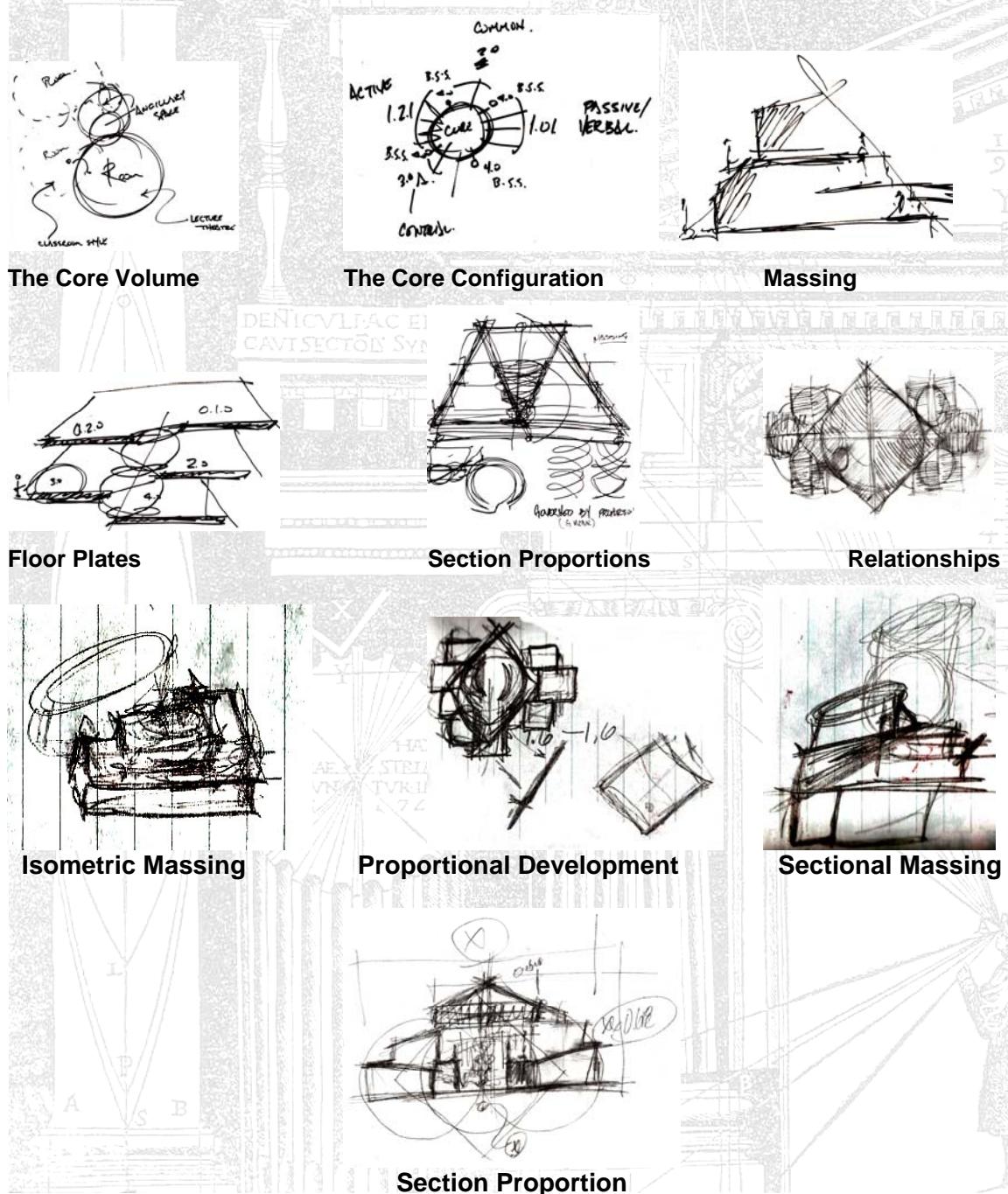
Satellite Site Image



Preliminary Analysis

Facility Design/Massing Studies:

Sketching is ongoing relative to the facility design elements, massing studies and site placement. These sketches are being completed in conjunction with the functional planning and site analysis components of the project. A small representation of the sketches are included herein.



The Proposed Schedule:

A copy of the proposed schedule follows on the next page. Elements in development have been flexible in the application of the schedule.

The curriculum sections remain approximately four weeks behind, due to CERB experience log book requirements (to facilitate registration) and development of the design program, areas and building parti.

The design elements are approximately six weeks ahead of schedule since several major components (areas, program, parti and site selection) have been completed.

The schedule has involved weekly meetings with Mentor (Wednesday afternoons at 3:30 p.m., location is flexible) to review progress and future works. Meetings with Educators have occurred upon completion of each curriculum section. Additional classroom time with students has also been conducted during this period. Agendas for all Mentor meetings and Educator review sessions have been completed. These text documents are posted on the website for review by all parties.

The overall completion date remains fixed on 12 December 2005.