

MINUTES of MEETING

Briefing on Infrastructure Development for the Luang Prabang Agriculture and Forestry College (LAFC)

November 4th, 2009



***The cover picture
shows a bird view
version of the final
Master Plan
including
administration,
teaching,
accommodation and
sports areas***

Briefing on Infrastructure Development for Luang Prabang Agriculture and Forestry College (L AFC)

Date: November 4th, 2009

Time: 9.00 to 12.00

Place: MAF Meeting Room

1. Summary of Decisions:

- 1) *The meeting appreciates the overall planning approach - rather than a rolling planning - and a stage-wise implementation based on the available resources.*
- 2) *Among the two options presented, Option A is accepted as the overall Master-plan for L AFC infrastructure development.*
- 3) *The meeting appreciates the separation of specific areas and agrees on the presented land-use pattern.*
- 4) *MAF and L AFC agree to arrange for official land titling papers for the college compound.*
- 5) *SURAF CO agrees to conduct a survey to assess erosion and arrange for related preventive erosion measures, if necessary.*
- 6) *The meeting agrees on the detailed designs presented for teaching, accommodation and dining facilities.*
- 7) *L AFC and SURAF CO management agrees to develop facility management guidelines and establish related responsibilities.*
- 8) *SDC agrees to support contacts and meetings with other donors to get additional funding for implementing constructions, which are not yet covered by SDC through the phase 1 budget.*
- 9) *The meeting agrees to the presented time-schedule until May 2010.*
- 10) *SURAF CO agrees to prepare a schedule with relates the milestones of component 5 to those of the other components, based on the agreements made in the Plan of Operations.*
- 11) *MAF agrees to discuss new staffing requirements and will elaborate solutions for posting additional staff.*

2. Participants:

NAME	POSITION	ORGANIZATION
Dr Phet Phomphiphak (Chair)	Director General	Dep. Organization & Personal, MAF
Mr Petsamone	NPD SURAFCO	Dep. Organization & Personal, MAF
Dr Babara Boeni	Country Director Laos	SDC
Mr Somsack Chandala	Program Officer	SDC
Ms Anne Sophie Gindroz	Country Director Laos	Helvetas
Mr Khamphoui Phonexay	Director General	L AFC
Mr Thongsamout Phoummasone	Deputy Director and NPM SURAFCO	L AFC
Mr Daniel Schwitter	Infrastructure Consultant	SKAT
Mr Konrad Erhard	Infrastructure Consultant	SKAT
Ms Andrea Schroeter	CTA	SURAFCO

3. Minutes of Meeting

a. Welcome and Opening

The chair opens the meeting pointing out the objectives, which focus on a) gaining an understanding of the L AFC infrastructure development, b) the agreement on the L AFC Master Plan, including budget framework and c) the agreement on related time schedule.

b. Discussion on Planning Approach

The amount for construction provided within the SURAFCO's 3 years budget was based on the most urgent infrastructure needs, did however not consider an overall master plan for infrastructure development. Based on L AFC and MAF needs an overall assessment has been conducted, pointing out requirements of about 3 Mill. US\$. This is two times more than available. L AFC leadership opt for an overall planning with a complete campus design and a step-by-step implementation. An overall plan will allow to structure infrastructure ideas on the whole and can be used to attract further donors.

Decision taken:

- 1) The meeting appreciates the overall planning approach - rather than a rolling planning - and a stage-wise implementation based on the available resources.*

c. Discussion on options for Master Plan

Two options for the infrastructure master plan have been elaborated:

Option A is based on the assumption that the centre of the college remains at the same place. Main advantage of this option is seen in the possibility to make use of the existing buildings. In light of the present budget limitations this option will allow the college to be functional at any time, even further financial resources cannot be accessed.

Option B is located further north of the present centre and would assume a complete new compound beyond the main fishpond. Main advantage of this option is seen in the utilization of the unused area. Furthermore construction would not interfere the present teaching.

SDC favours option A: The step-by-step introduction could utilize the available resources and would not rely on additional resources at the same time. Ongoing investments by MAF for renovation are considered in the overall plan and would otherwise be wasted. With this option the college remains operational, even other resources cannot be attracted.

MAF also agrees with the LAFC decision on option A.

Decision taken:

2) Among the two options presented, Option A is accepted as the overall Master-plan for LAFC infrastructure development.

d. Discussion on land use pattern

Presently the college facilities are scattered around the whole compound. There is a need to specify certain areas for specific activities. A land-use pattern separating farm, academic, students residential, administration, teachers' residential and sports areas was presented.

SDC enquires on the land use title for the whole compound. LAFC clarifies that the Province handed over the compound to the college in 1988 with a handing over certificate. They are presently working on an official land title to be issued by the province.

MAF is asking about detailed data on erosion, which might lead to a reduction of the overall college area. In the past no specific information on erosion has been collected. The project agrees to facilitate a survey and arrange for preventive measures, if necessary.

Decision taken:

3) The meeting appreciates the separation of specific areas and agrees on the presented land-use pattern.

4) MAF and LAFC agree to arrange for official land titling papers for the college compound.

5) *SURAFCO agrees to conduct a survey to assess erosion and arrange for related preventive erosion measures, if necessary.*

e. Discussion on Designs

Detailed designs for teaching, laboratories, dormitories and dining/cooking facilities were presented. Criteria for developing the designs consider appropriate materials and technologies, low-maintenance cost, minimum input of artificial energy and minimized land use to create a modern and motivating learning environment.

The meeting appreciates the designs presented.

SDC raises the issue on how to cover the increasing operational costs of the new buildings, e.g. increasing costs of electricity. What kind of funding system is presently in place? Is MAF able to provide additional resources?

So far costs are covered partial by MAF, through income generating activities and through students' contributions. There is a need to assess demand for upcoming costs and for developing a clear and transparent cost sharing mechanism to insure smooth operations.

SDC also pointed out the need to ensure facility management.

LAFC informed that the new organisational set up includes a section for facility and students management. Together with the project they will work out TOR and facility management criteria and guidelines.

Decision taken

6) *The meeting agrees on the detailed designs presented for teaching, accommodation and dining facilities.*

7) *LAFC and SURAFCO management agrees to develop facility management guidelines and establish related responsibilities.*

f. Discussion on budget support and promotion

Implementing the complete master plan assumes additional resources from other donors or the ministry at a later stage. Promotion and coordination is needed to attract further support.

SDC is convinced to achieve considerable improvements with the provided resources and the concept presented. SDC is committed to a longer-term involvement and expresses readiness to support MAF in attracting additional funding for the infrastructure development. SDC offers to facilitate meetings with potential other projects, e.g. the ADB northern upland development program to start in 2011.

MAF is convinced that they can attract additional funding by having an overall master plan. They will address potential donors and appreciate SDC's support in promoting and facilitating those efforts.

Decision taken

- 8) *SDC agrees to support contacts and meetings with other donors to get additional funding for implementing constructions, which are not yet covered by SDC through the phase 1 budget.*

g. Discussion on schedule

A schedule has been presented, which aims to start construction by beginning of April. The schedule specifies preparation of detailed designs, implementation guidelines, bidding documents, selection, construction start and ground work to be done until May 2010.

The meeting appreciates the presented time-schedule.

SDC requests to relate the presented construction milestones with the milestones and activities of the other components.

SURAFCO informs that a plan of operations for the upcoming year has been agreed with all coordinators involving activities and milestones of all components.

Decision taken

- 9) *The meeting agrees to the presented time-schedule until May 2010.*
10) *SURAFCO agrees to prepare a schedule with relates the milestones of component 5 to those of the other components, based on agreements made in the Plan of Operations.*

h. Discussion on staffing

SDC is interested in the staffing arrangements and commitments made by LAFC and MAF related to the new requirements of managing the new infrastructure and implementing the new curriculum.

LAFC informs that a meeting will be held in the afternoon to discuss the new staffing requirements and related organizational set up.

Decision taken

- 11) *MAF agrees to discuss new staffing requirements and will elaborate solutions for posting additional staff.*

i. Closing

The chair closes the meeting informing about further discussion to take place in the afternoon between MAF, LAFC and SURAFCO on a) framework and acknowledgement of the new curricula, b) discussion on new organisational set up and c) staff requirements, including discussion on options how to utilize the Xieng Ngeun Compound and staffs presently posted there.

**Support to the Reform of the Agriculture and
Forestry College in Luang Prabhang Laos**

Component 5: Infrastructure and equipment

Wrap-up meeting 03.11.09 MAF Vientiane



D. Schwitter / K. Erhard Architects Skat, Switzerland

Presentation Outline

- 1 Aims of the meeting**
- 2 Project outcomes and vision**
- 3 Definition of needs and overall budget envelope**
- 4 Campus mapping**
- 5 Final Master Plan**
- 6 Design considerations**
- 7 Building designs**
- 8 Cost estimate Phase 1**
- 9 Plan of Action Nov. 2009 – June 2010**
- 10 Discussion / Open Questions**

1 Aims of the Meeting

Presentation of mission results (final architectural design and cost estimate) and get approval in principle by all decision makers to go ahead with construction detail planning and structural design

2 Project outcomes and Vision

Outcome 5* **Improved Infrastructure and Equipment**

The infrastructure of the LAFC is functional and attractive for students and teachers, allows optimized teaching and learning in theory, applied theory and practice, offers a broad and modern access to information, while remaining slim and manageable

*SDC Project Document FINAL, February 2009

Vision**

The “LAFC should become the leading Agricultural Education Institution for upland areas of Laos”.

**Expressed by Mr. Khamphoui, Director LAFC, 20.10.2009

3 Definition of needs and overall budget envelope

Infrastructure needs and overall budget defined in the Project Document of SDC (ref.: Project Document *FINAL* dated February 2009)

Nos	Type of facility	unit	area	\$/m2	CHF	CHF
8	Classrooms big	m2	720	278	200000	
1	Sanitary block male	m2	240	250	60000	
1	Sanitary block female	m2	22	250	60000	
1	Girl's hostel room	m2	720	236	170000	
1	Canteen with kitchen stuff	m2	320	250	80000	
Sub total						570000
3	Water supply systems	LS				240000
	Renovation of old buildings	LS				245000
Grand total						1055000

Infrastructure needs and budget defined by the LAFC Management (ref.: revised Schedule of Rooms and Areas of Milestone Meeting Nr. 1 dated 16.10 2009)

		unit	area	\$/m2	US \$	US \$
1	Academic	m2	2661	250	665250	
2	Administration	m2	326	250	81500	
3	Residential	m2	4782	250	1195500	
	Total net area	m2	7769			
	Circulation and walls 40%	m2	3108			
Sub total						2719150
4	Staff housing	m2	2360	250		590000
Grand total						3309150

US \$ 3309150 x 1.08 = CHF 3573882

Physical Planning Strategy

Option 1, rolling planning: The planning of physical facilities done in line with the presently available budget from SDC. The physical requirements for this approach are stipulated in SDC's tender documents on which also the Mission TORs of the architects are based. If additional funds can be raised at a later stage, planning would have to be done accordingly. By following this approach the vision of becoming a leading model school could hardly be met in terms of infrastructure.

Option 2, overall planning: The architects come up with a complete campus design (Master Plan) that satisfies the infrastructure needs for the college in its envisaged stage. It will allow the college to develop over time to the above vision expressed by the Director. The implementation of the physical facilities would have to be done in two or more construction phases.

The MAF and the College Management requested to consider an overall planning approach to ensure an economical and careful utilization of the available resources

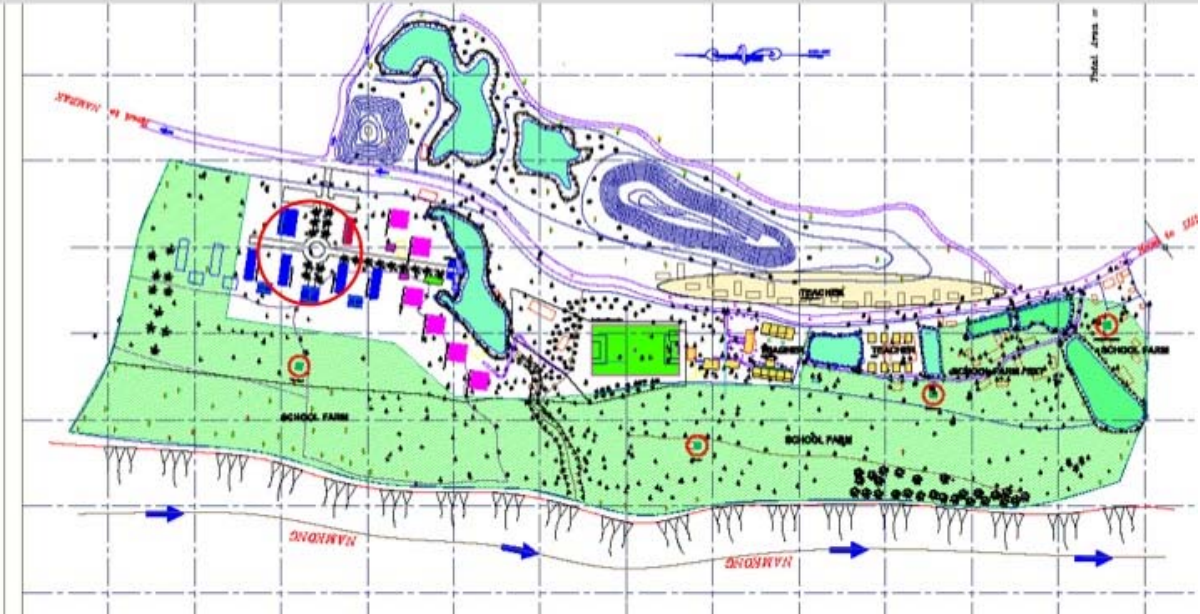
(Outcome Milestone Meeting No. 2, 20.10.2009)

3 Campus Mapping

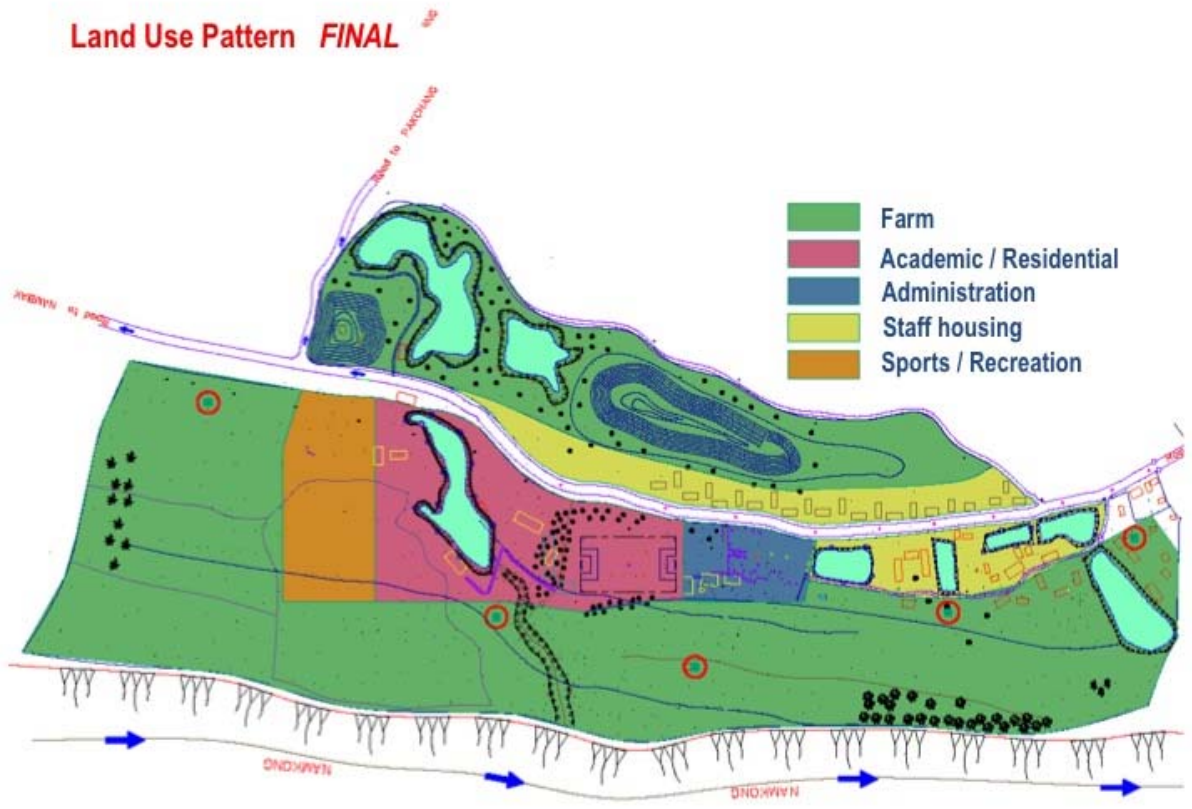
Option A (Center of College remains at the same place)



Option B (Center of College is moved to the North of the compound)



Land Use Pattern FINAL



5 Master Plan

The campus in its final stage



The campus after completion of Phase 1





6 Design considerations

General design objectives :

to create a modern and motivating learning area for students

to provide comfortable living conditions with a minimum and meaningful input of artificial energy

to apply appropriate materials and technologies

to keep investment and running costs low

to minimize land use and reduce ecological damage

Classrooms should have an adequate size. It was found that an area of 1.6 m² / student should be applied (equivalent to the SOS-School in Luang Prabhang).



Dormitories are often overcrowded and lack maintenance. It was agreed that the rooms should be designed for small groups of students to create a hygienic and modern environment, to make maintenance easier, and to endorse self control.



Water and sanitation: uncontrolled access to toilets and bathrooms are unhygienic and smelly. It is important that access to bathrooms is allocated to specified user groups.



Catering is problematic and needs to be planned carefully. In the Luang Prabhang University as well as in the Oudomxay Vocational Training Center the catering systems are not functioning. Even if the colleges are provided with modern facilities, they are not used by the students who seem to prefer cooking and eating on their own.



Laboratories have to be well planned and adjusted to the curriculum. Teachers need to know how to utilize the equipment.

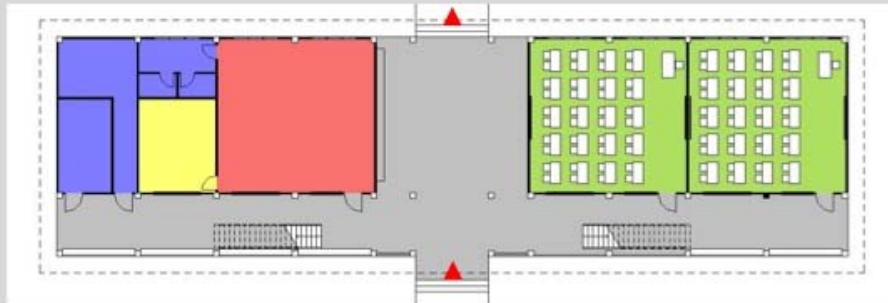


Facility management is crucial. A simple but efficient design endorses preventive maintenance. However, a good school needs a well trained facility management team including adequate operational budget.



7 Building Designs

Classroom Block 830 m²



GF



UF

Classroom Block Perspective View



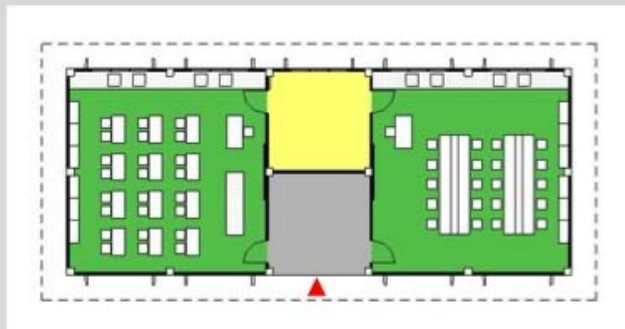
Internal Yard

Classroom Block Perspective View



Path to Canteen / Dormitories

Laboratories 165 m2

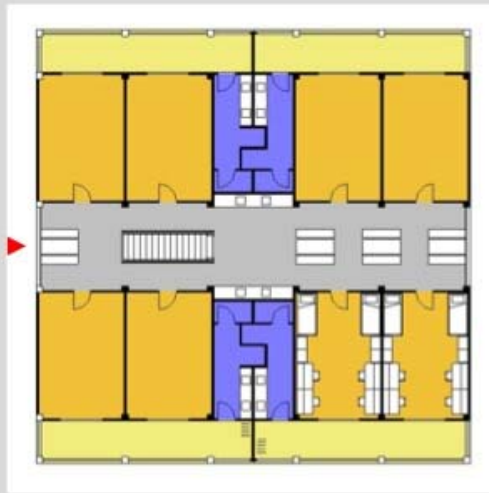


Plan

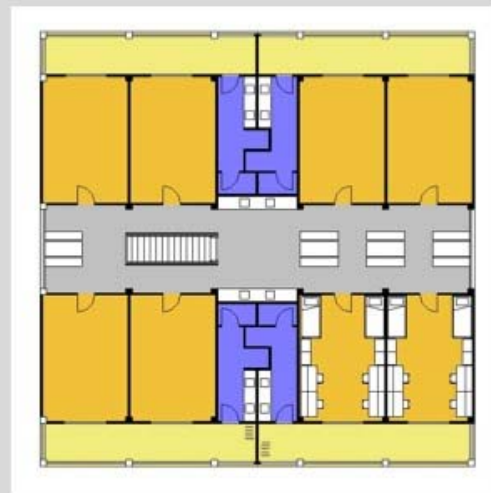


Elevation East

Dormitory 825 m²



Plan GF 413 m²



Plan UF 412 m²

▪

Dormitory



Corridor internal perspective



Study Room internal perspective

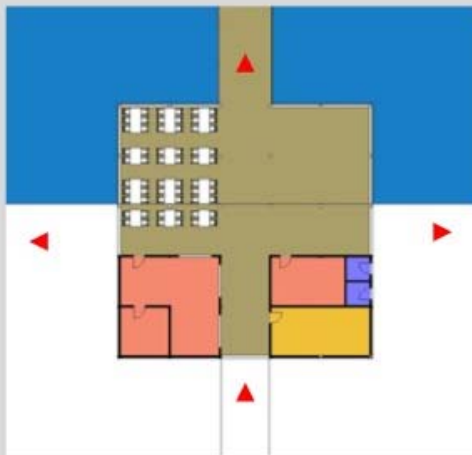
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Dormitory



Perspective View

Canteen 335 m²



Plan GF

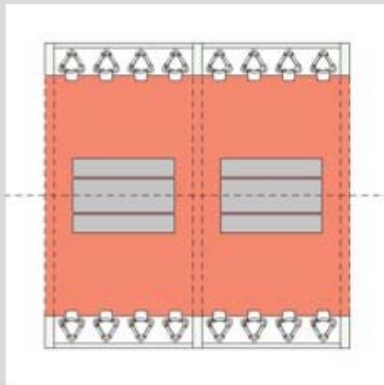
Terrasse	201 m ²
Kitchen / Store / Shopkeeper	134 m ²

Canteen



Perspective View

Outdoor Kitchen 32 m²



Plan



Perspective View

8 Cost estimate Phase 1

	unit	area	\$/m2	US \$	US \$
1 Academic					228850
1.1 School Building	m2	830	230	190900	
1.2 Laboratory Building	m2	165	230	37950	
2 Residential					438260
2.1 Dormitory male	m2	825	250	206250	
2.2 Dormitory female	m2	825	250	206250	
2.3 Ward house male	m2	56	230	12880	
2.4 Ward house female	m2	56	230	12880	
3 Catering					81850
3.1 Canteen	m2	335	230	77050	
3.2 External Kitchen	m2	32	150	4800	
4 Furniture / Equipment					35000
4.1 Furniture Classrooms	5%			10500	
4.2 Laboratory	0			0	
4.3 Dormitories	5%			20000	
4.4 Canteen	5%			4500	
5 Internal Roads					33500
5.1 Laterite	m1	150	70	10500	
5.1 Pavements	m1	200	115	23000	
6 Sports and Others					0
6.1 Soccer Field					0
6.2 Assembly, Flag Post etc.					0
7 Water Supply (as per budget SDC)	LS				240000
8 External Electrification					0
9 Renovation of old buildings					0
Grand total					1057460

9 Plan of Action Nov. 2009 – June 2010

No	What	Who	November	December	January	February	March	April	May	June
1	Architectural Designs	Skat	◆	Master Plan/Architectural Layouts/Building Designs						
2	Cost estimates	H / OS			Water Supply / Electro / Farms					
3	Construction Design Plans	H / OS		◆	◆	Detail Plans, Civil-, Electrical-, Sanitary, WS				
4	Verification of Construction Designs	Skat				◆				
5	Bidding / Contracting	H / OS				◆	◆	◆	◆	◆
7	Construction implementation	H / OS						◆	◆	◆
8	Facility Management	H / OS							◆	

◆ Milestones:

1	Masterplan and Architectural Plans approved by all stakeholders	04.11.2009
2	Construction Design Plans completed	24.12.2009
3	Civil-, Electrical-, and Sanitary Engineers Plans completed	31.01.2010
4	Floating of Tenders	06.02.2010
5	Contracts signed	15.03.2010
6	Commencement of Construction	01.04.2010
7	Facility Management Set Up in place	01.05.2010
8	Completion of Ground Beams	01.06.2010

Dates: