# Project Management (DOH Experience) for Project used National Budget and Loan Budget by Punya Chupanit

- Budget Preparation
- Project Procurement
- Project Management
  - \* Variation Order
  - \* Overrun Problem
  - \* Payment
- Example of Construction Project under ADB-2608 THA

- Budget Preparation
- Project Procurement
- Project Management
  - \* Variation Order
  - \* Overrun Problem
  - \* Payment
- Example of Construction Project under ADB-2608 THA

#### **Step for Budget Preparation**

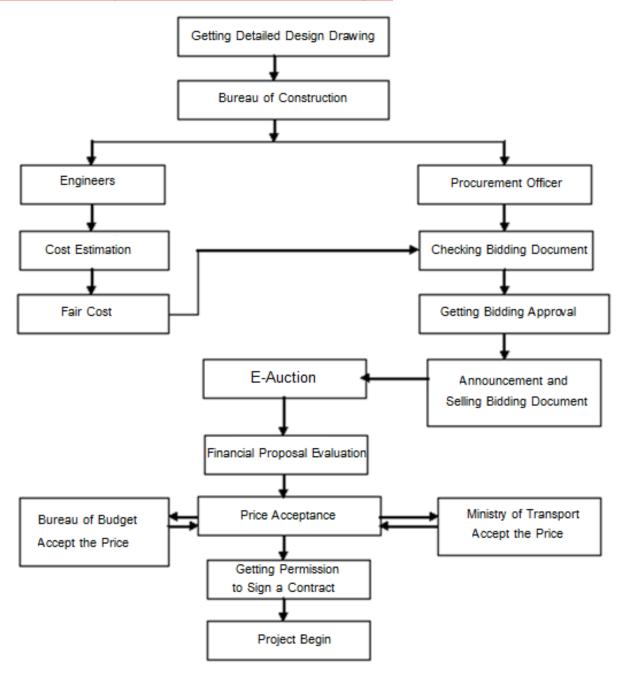
- Feasibility Study
   Financial Return on Investment
   EIA (Environmental Impact Assessment)
   EHIA (Environmental Impact Assessment (EIA) with a health component)
- 2 Project Approval by Office of The National Economic and Social Development Board (NESDB)
  - \* Follow the National Strategy
  - \* Rate of Return EIRR (Economic Internal Rate of Return > 12%
  - \* EIA and EHIA approved by National Environment Board
- 3 Implementing Agency Consulting with Bureau of Budget and Public Debt Management Office (PDMO)
- 4 If Bureau of Budget says OK, project will be implemented by National Budget.
- 5 If Bureau of Budget says NO, project will be implemented by Loan Budget.

#### Step for Budget Preparation

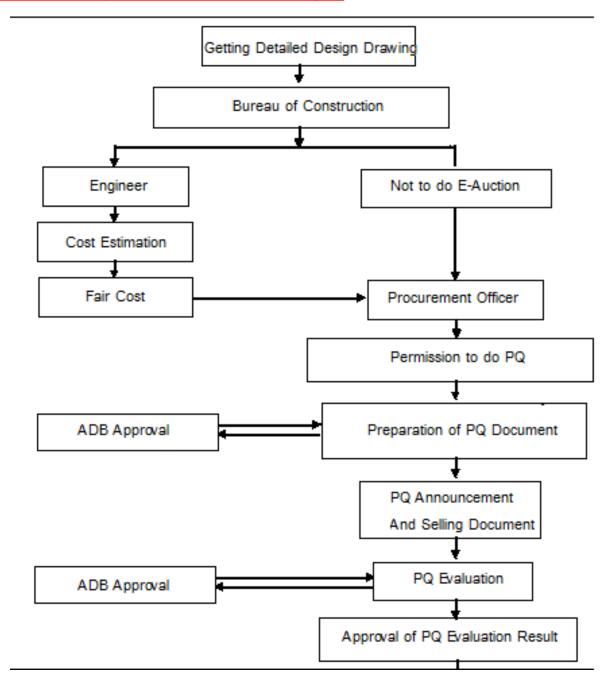
- 6 Every projects have to be approved by the Cabinet and National Legislative Assembly.
- 7 The Steps for Loan Project (Use ADB-2608 Loan project for example)
  - \* Cabinet approves loan project.
  - \* PDMO talks to loaner and negotiate for the best deal.
  - \* ADB does the project assessment including EIRR, EIA, EHIA, Resettlement and ADB policy.
  - \* ADB concludes with PDMO about the loan condition.
  - \* Cabinet and National Legislative Assembly approve Loan Agreement.
  - \* Signing Loan Agreement

- Budget Preparation
- Project Procurement
- Project Management
  - \* Variation Order
  - \* Overrun Problem
  - \* Payment
- Example of Construction Project under ADB-2608 THA

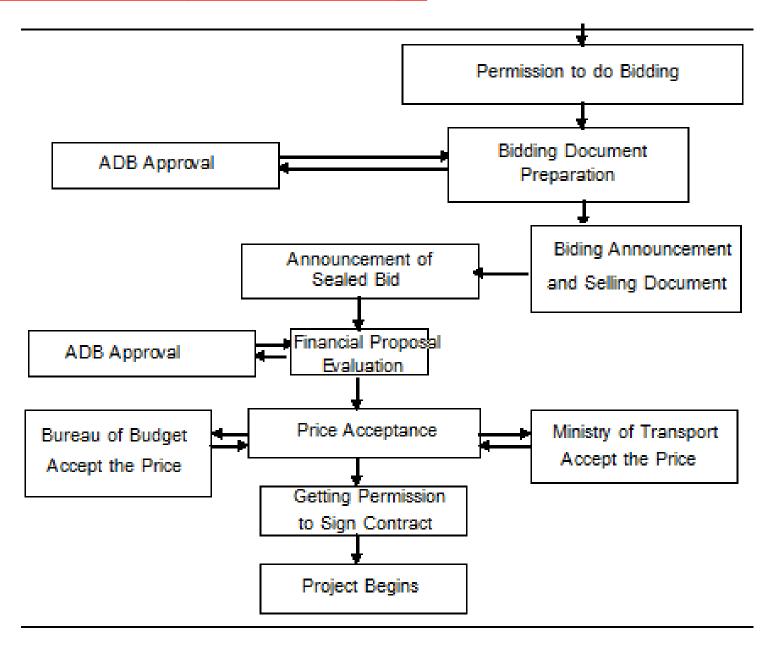
#### **Procurement for Project used National Budget**



#### <u>Procurement for Project used Loan Budget</u>



#### <u>Procurement for Project used Loan Budget</u>



### Right to Bidding

	Right to	) Bid	Max Number of Working Projects		
Contractor Level	Highway Category	Max Project Price Million Bahts	Max Number of Project	Highway Category	
Special	Special 1 - 5 Not Limit		6	Normal	
	and Bridge 1 - 4		4	Normal + 1 Special	
1	Special 1 - 5	500	3	Normal	
2	Special 1 - 5	300	2	Normal	
3	1 - 5	150	2	Normal	
4	3 - 5	60	2	Normal	

## **Highway Category**

		Hgihwa	ay Category					
	Special	1	2	3	4	5	Urban	Frontage
AADT	> 8,000	4,000 - 8,000	2,000 - 4,000	1,000 - 2,000	300 - 1,000	< 300		
Design Speed km / hour								
- Flat Terrain		90 -	110		70 - 90	60 - 80	60	70 - 80
- Slope Terrain		80 -	110		55 - 70	50 - 60	60	70 - 80
- Mountainous Terrain	1	70 -	- 90		40 - 55	30 - 50	60	60 - 70
Max Gradient %								
- Flat Route	4		4		4	4	Existng Condition	4
- Slope Route	6		6		8	8	Existng Condition	6
- Mountainous Route	6		8		12	12	Existng Condition	8

#### **Contractor Qualification**

Contractor Category	Road W	/ork	Bridge Work		
	Share Capital	Bank Credit	Share Capital	Bank Credit	
Special	400 400		400	400	
1	1 100		50	50	
2	40	40	20	20	
3	3 20		10	10	
4	5	5	5	5	

Balance Sheet for last three years show benefit.

#### **Contractor Qualification**

	List of Equipment	Min Spec		Min Numl	ber of Equ	ipment	
			Special	1	2	3	4
1	Crawler tractor or Back hoe	120 hp	4	3	2	1	1
2	Front end loader or Back hoe	95 hp	6	5	4	2	1
3	M otor Grader	115 hp	5	4	3	2	1
4	Self propelled rubber tire roller	8 ton	8	6	4	2	1
5	Steel wheel roller 2 - 3 wheels	8 ton	5	4	3	2	1
6	Self propelled vibrating roller	100 hp	8	6	4	2	1
7	Dump truck	6-10 wl.	12	10	8	6	4
8	Watertruck	5,000 lit	10	8	6	2	1
9	A sphalt distributor truck	5,000 lit	1	1	1	-	-
10	M echanical rotary broom	-	2	2	1	-	-
11	Blower	-	2	2	1	-	-
12	A sphalt hot-mix plant	60 ton/hr	1	1*	1*	-	-
13	A sphalt paver 2.5 m.	-	1	1*	1*	-	-
14	Concrete Batch plant	15 cu.m/hr	1	1*	1*	-	-
15	Concrete Paver & Finisher 2.5	-	1	1*	1*	-	-
16	M obile crane	35 ton	1	-	-	-	-
17	Concrete mixer or transit truck	3.5 cu.m	4		-		
18	Pile driver	5 ton	2	-	-	-	-

#### **Contractor Qualification**

Contractor	r Category	Construction History within last 10 years				
Current Level	Previous Level	Contract Value of Complete Project with DOH or Other Goverment Office (Million Bahts)	Min Number of Contract with DOH	Cummulative Contract Value of Complete Project with DOH and Others (Million Bahts)		
Special	1	450	5	1,200		
1	2 or 3	120	3	250		
2	3 or 4	20	1	100		
3	4	-	-	50		

<u> </u>								
	Eligibility and	Qualification Criteria		Compliance	Requirements		Documentation	
N.	Cultinat	Di	6!I- F-4!4-		Joint Venture			
No.	Subject	Requirement	Single Entity	All Parties Combined	Each Partner	One Partner	Submission Requirements	
1. E	ligibility							
1.1	Nationality	Nationality in accordance with ITA, Sub-Clause 4.2	Must meet requirement	Existing or intended JV must meet requirement	Must meet requirement	N/A	Forms ELI – 1.1 and 1.2, with attachments	
1.2	Conflict of Interest	No conflicts of interest in ITA, Sub-Clause 4.4	Must meet requirement	Existing or intended JV must meet requirement	Must meet requirement	N/A	Application Submission Form	
1.3	Bank Ineligibility	Not having been declared ineligible by the Bank, as described in ITA, Sub-Clause 4.7	Must meet requirement	Existing JV must meet requirement	Must meet requirement	N/A	Application Submission Form	
1.4	Government- Owned Entity	Applicant required to meet conditions of ITA, Sub- Clause 4.8	Must meet requirement	Must meet requirement	Must meet requirement	N/A	Forms ELI – 1.1 and 1.2, with attachments	
1.5	United Nations resolution or Borrower's country law	Not having been excluded as a result of the Borrower's country laws or official regulations, or by an act of compliance with UN Security Council resolution, in accordance with ITA 4.11	Must meet requirement	Must meet requirement	Must meet requirement	N/A	Forms ELI – 1.1 and 1.2, with attachments	

	Eligibility and (	Qualification Criteria		Compliance	Requirements		Documentation
No.	Subject	Requirement	Single Entity	All Parties Combined	Joint Venture Each Partner	One Partner	Submission Requirements
2. H	istorical Contrac	t Non-Performance	•				
2.1	History of Non- Performing Contracts	Non-performance of a contract did not occur within the last two (2). Years prior to the deadline for application submission based on all information on fully settled disputes or litigation. A fully settled dispute or litigation is one that has been resolved in accordance with the Dispute Resolution Mechanism under the respective contract and where all appeal instances available to the applicant have been exhausted.	Must meet requirement by itself or as partner to past or existing JV	N/A	Must meet requirement by itself or as partner to past or existing JV	N/A	Form CON-2
2.2	Failure to Sign Contract	Not being under execution of a Bid Securing Declaration pursuant to Sub-Clause 4.9 for two (2) years	Must meet requirement	Must meet requirement	Must meet requirement	N/A	Application Submission Form
2.3	Pending Litigation	All pending litigation shall in total not represent more than fifty percent (50%) of the Applicant's net worth and shall be treated as resolved against the Applicant	Must meet requirement by itself or as a partner to past or existing JV	N/A	Must meet requirement by itself or as a partner to past or existing JV	N/A	Form CON – 2

No.	Subject	Kequirement	Single Entity	All Parties	Each Partner	One Partner	Submission				
				Combined			Requirements				
3. Fi	3. Financial Situation										
3.1	Financial	Submission of audited	Must meet	N/A	Must meet	N/A	Form FIN - 3.1				
	Performance	balance sheets, or if not	requirement		requirement		with				
		required by the law of the					attachments				
		Applicant's country, other									
		financial statements									
		acceptable to the									
		Employer, for the last five									
		(5) years to demonstrate:									
		(a) the current soundness	(a) Must meet	(a) N/A	(a) Must meet	(a) N/A					
		of the Applicant's financial	requirement		requirement						
		position and its prospective									
		long-term profitability, and			4 > > 1/4	4 > 14 4					
		(b) capacity to have a	(b) Must meet	(b) Must meet	(b) N/A	(b) N/A					
		minimum cash flow amount	requirement	requirement							
		for each package (in million									
		Bahts):									
		Package I: 68.3 MB Package J: 66.7 MB									
		Package K: 81.7 MB									
		Package L: 85.3 MB									
		Package M: 97.5 MB									
		Package N: 78.3 MB									
		Package 0:106.7 MB									
		Package P: 73.9 MB									
		Package Q: 60.8 MB									
3.2	Average	Minimum average annual	Must meet	Must meet	Must meet	N/A	Form FIN - 3.2				
	Annual	construction turnover in	requirement	requirement	twenty-five						
	Construction	million Bahts, calculated as		· .	percent (25%)						
	Turnover	total certified payments			of the						
		received for contracts in			requirement						
		progress or completed,			'						
		hotwoon fiscal years 2008									

				Combined			Requirements
4. E	xperience						
4.1	General Construction Experience	Experience under construction contracts in the role of contractor, subcontractor, or management contractor for at least the last five (5) years prior to the application submission deadline, and with activity in at least nine (9) months in each year.	Must meet requirement	N/A	Must meet requirement	N/A	Form EXP – 4.1
4.2 (a)	Specific Construction Experience	Participation as contractor, management contractor or subcontractor, in at least one (1) contract within the last five (5) years, each with a value of at least as indicated below, in million Bahts that have been successfully and substantially completed and that are similar to the proposed works as stated in Section VI. The similarity shall be based on the physical size, complexity, methods and technology or other characteristics as described in Section VI, Scope of Works (in million Bahts):	Must meet requirement	Must meet requirement	N/A	Must meet requirement for one contract.	Form EXP 4.2(a)

# Bidding

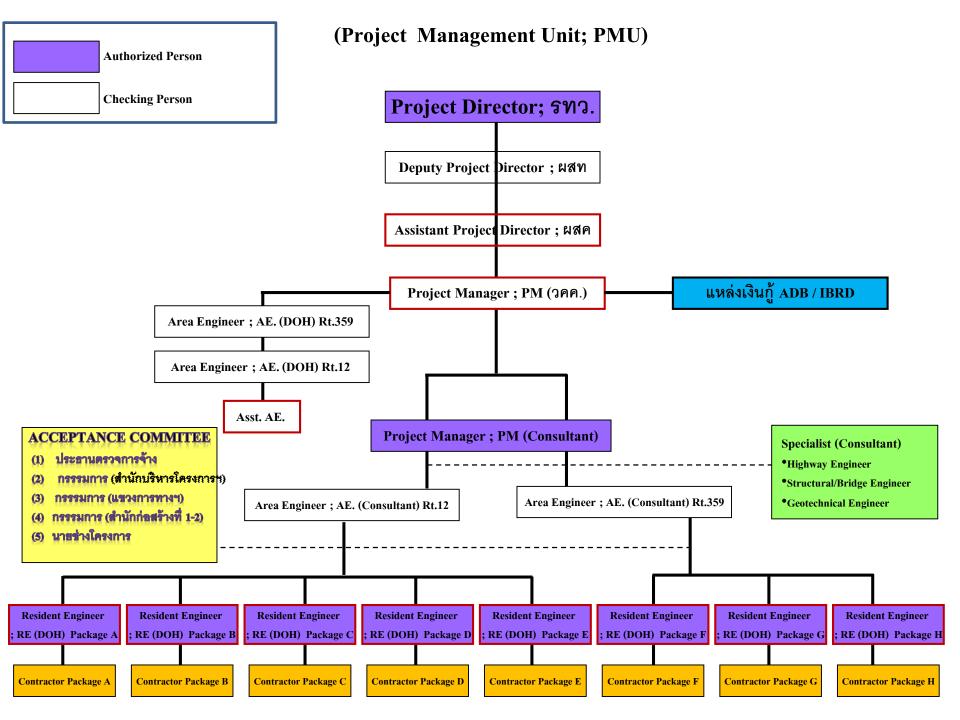
ADB Project uses Seal Bid

\* Nobody knows the Calculated Price.

National Project uses Seal Bid

\* Everyone knows the Calculated Price.

- Budget Preparation
- Project Procurement
- Project Management
  - \* Variation Order
  - \* Overrun Problem
  - \* Payment
- Example of Construction Project under ADB-2608 THA



## **Construction Supervision**

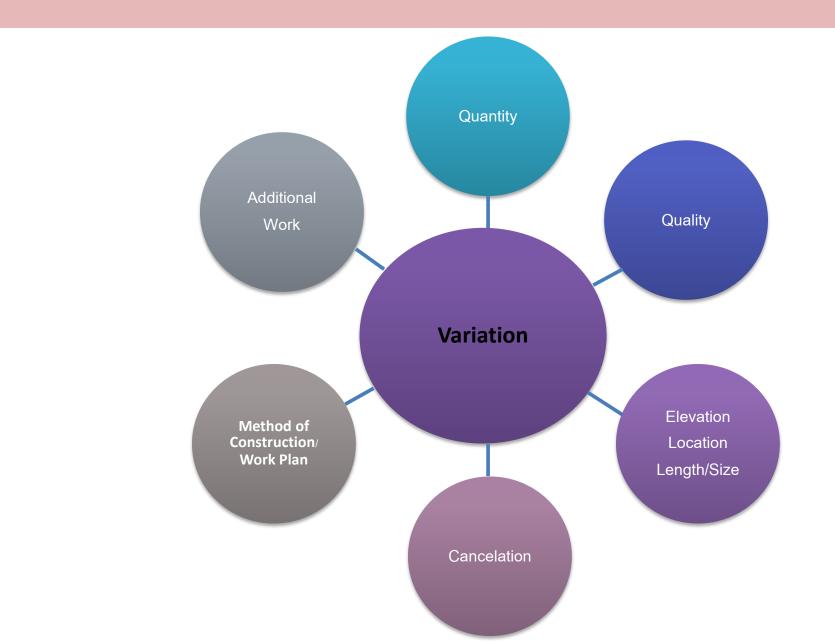
## Project Management

Environmental Management Plan

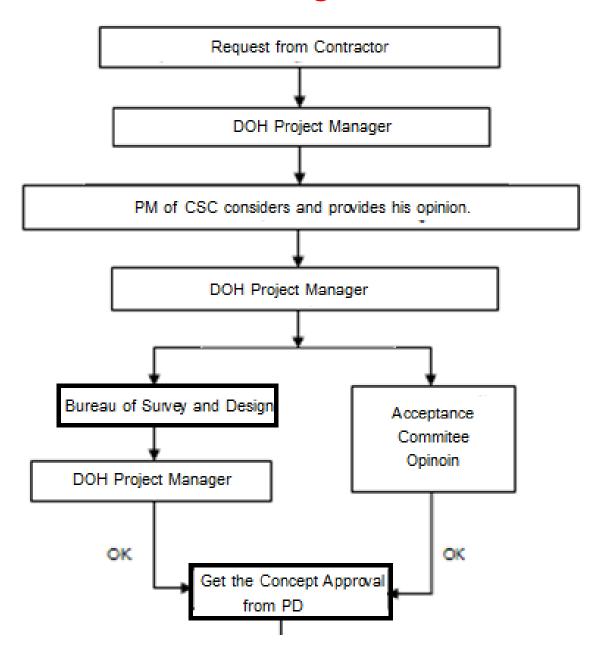
Resettlement Plan HIV/AIDS and Human Trafficking Awareness Program (HHTAP)

- Budget Preparation
- Project Procurement
- Project Management
  - \* Variation Order
  - Overrun Problem
  - \* Payment
- Example of Construction Project under ADB-2608 THA

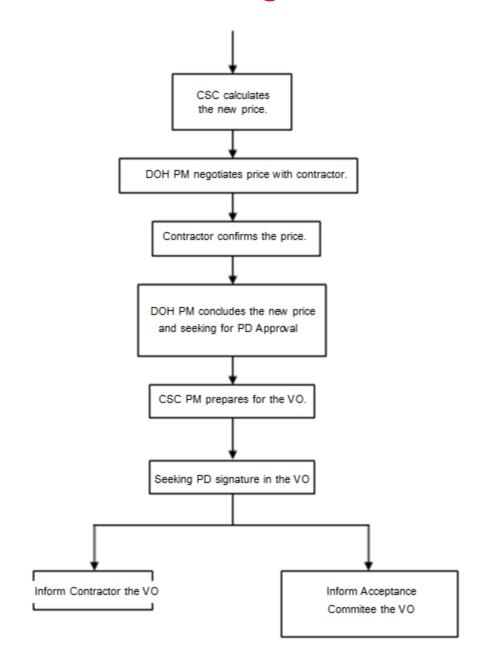
## (Variation Order)



## **Contract Drawing Modification**



## **Contract Drawing Modification**



- Budget Preparation
- Project Procurement
- Project Management
  - Contract Drawing Modification
  - \* Overrun Problem
  - \* Payment
- Example of Construction Project under ADB-2608 THA

- Beginning of the project, Resident Engineer has to do FIELD ESTIMATE.
- Before Submitting the Payment, RE has to do FIELD ESTIMATE and submits with the payment.
- The reasons for overrun or underrun are considered by CSC, Bureau of Survey and Design.
- Field Estimate with overrun and underrun have to approved by CSC, Acceptance Committee and PD.

- Budget Preparation
- Project Procurement
- Project Management
  - Contract Drawing Modification
  - \* Overrun Problem
  - \* Payment
- Example of Construction Project under ADB-2608 THA

FORM NO.: 02

ESTIMATED OF COMPLETED WORK

PROJECT: Highway 12 Phitsanulok - Lomsak Section 2A

CONTRACT : ADB 2608-THA/HEP/ICB Package B

#### MINISTRY OF TRANSPORT DEPARTMENT OF HIGHWAYS

ESTIMATE NO.3

Page 20 of 20 ENGINEER: Asian Engineering Consultants Corp., Ltd.

CONTRACTOR: KRC - SKY JV INTERIM PAYMENT CERTIFICATE

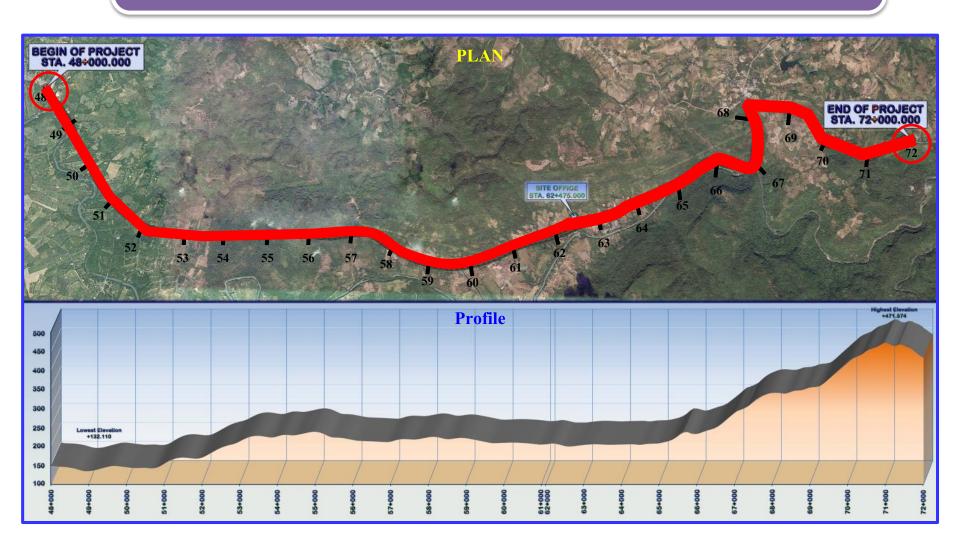
ESTIMATE PERIOD FROM December 1, 2013 TO February 28, 2014

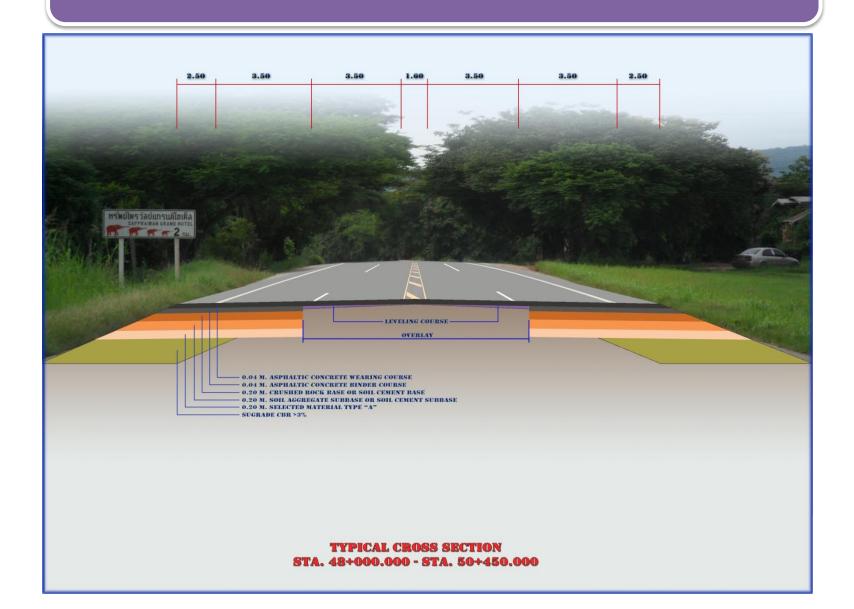
Item No.	Group	Description	Quantity Estimated	Quantity Estimated	Quantity Estimated	Unit	Unit Rate	Amount to Date				
item No.	(Po)	Description	This Period	Previously	to Date	Onic	(Baht)	(Baht)				
8		PLANT AND MATERIALS										
		INTENDED FOR THE WORKS										
8.1		1 Rock Aggregate for Asphaltic Concrete	- 2,065.00	2,065.00	-	ton	428.00	-				
8.2		3/4 Rock Aggregate for Asphaltic Concrete	-	29,446.00	29,446.00	ton	428.00	12,602,888.00				
8.3		3/8 Rock Aggregate for Asphaltic Concrete	- 730.00	8,382.00	7,652.00	ton	428.00	3,275,056.00				
8.4		1/8 Rock Aggregate for Asphaltic Concrete	- 2,043.00	30,381.00	28,338.00	ton	360.00	10,201,680.00				
		Total Value of Work						26,079,624.00				
		(Mr. Montri Kitrungroengkul)		Mr. Pa-nom Kritsuwan)				/ipasuramonton)				
		Date /	Dat	e/			Date	I				
	Contractor Resident Engineer Area Engineer						ngineer					

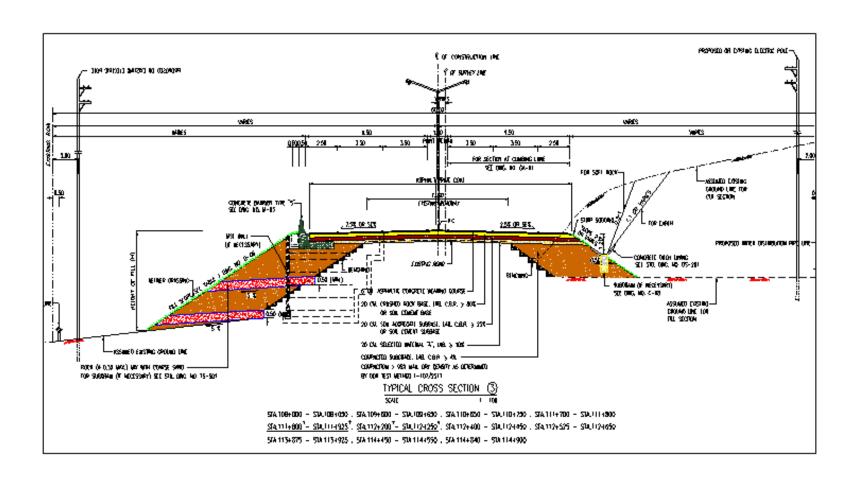
- Resident Engineer and contractor prepare payment document.
- CSC area engineer and CSC PM check and verify the payment.
- DOH Acceptance Committee check and verify the payment.
- The payment is sent to PD for his signature.

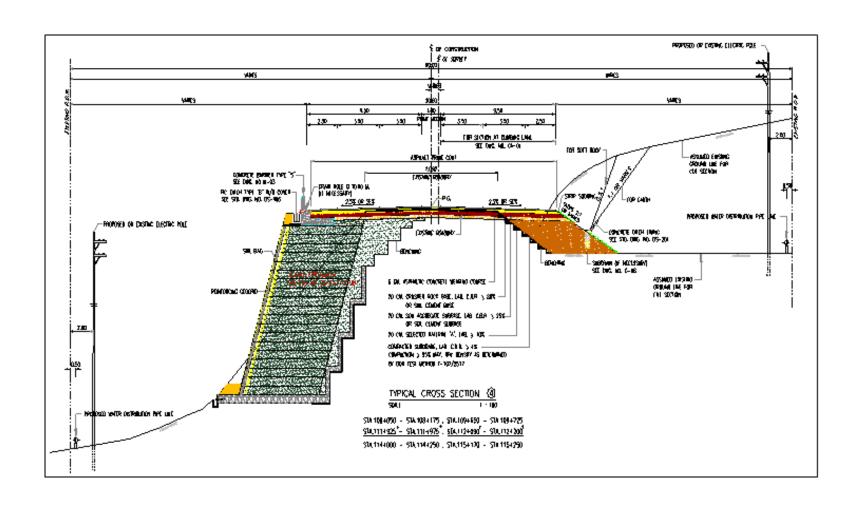
- Budget Preparation
- Project Procurement
- Project Management
  - Contract Drawing Modification
  - \* Overrun Problem
  - \* Payment
- Example of Construction Project under ADB-2608 THA

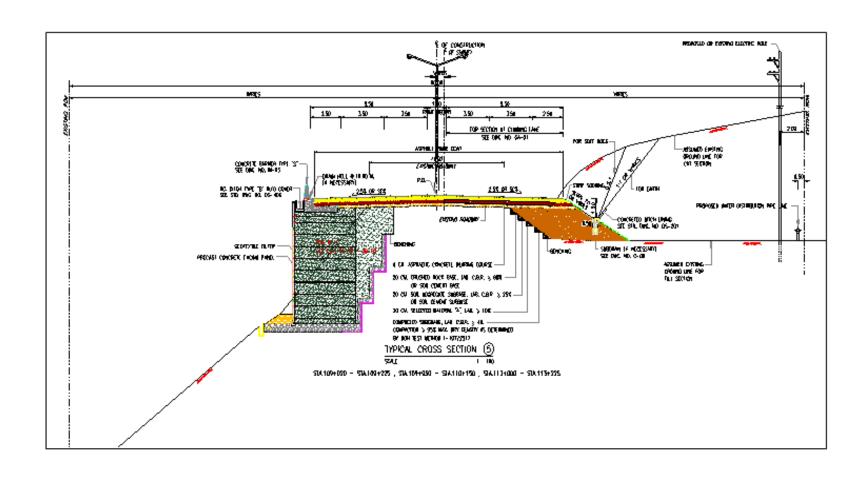
# แผนที่แนวทาง











# Thank You