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THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA  
MINISTRY OF PORTS & AVIATION  
AIR PORT & AVIATION SERVICES [SRI LANKA] LTD

**HAMBANTOTA INTERNATIONAL AIRPORT**  
**- MATTALA, SRI LANKA**

**CONTRACT DOCUMENTS**

**VOLUME I**

**CONTRACT BETWEEN**  
**AIRPORT & AVIATION SERVICES (SRI LANKA)**  
**AND**  
**CHINA HARBOUR ENGINEERING COMPANY**

DECEMBER 2009

**THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA**  
**MINISTRY OF PORTS & AVIATION**  
**AIRPORT & AVIATION SERVICES (SRI LANKA) LTD**

**HAMBANTOTA INTERNATIONAL AIRPORT – MATTALA**  
**SRI LANKA**

**CONTRACT DOCUMENTS**

**Volume I**

- Part 1            The Signed Contract Agreement**
- Part 2            Performance Bond**
- Part 3            Form of Advance Payment Guarantee**
- Part 4            Letter of Clarification of Issues**

**CONTRACT BETWEEN**  
**AIRPORT & AVIATION SERVICES (SRI LANKA) LTD**  
**AND**  
**CHINA HARBOUR ENGINEERING COMPANY LIMITED**

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**Hambantota International Airport – Mattala  
Sri Lanka**

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Hambantota International Airport – Mattala  
Sri Lanka

## **Part 1      The Signed Contract Agreement**



THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA

MINISTRY OF PORTS & AVIATION

AIRPORT & AVIATION SERVICES (SRI LANKA) LTD

# CONTRACT AGREEMENT

HAMBANTOTA INTERNATIONAL AIRPORT  
SRI LANKA

NOVEMBER 2009

EMPLOYER



AIRPORT & AVIATION SERVICES (SRI LANKA) LTD

CONTRACTOR



CHINA HARBOUR ENGINEERING  
COMPANY LIMITED

*True copy.*

*R. Gunas*

M C G Mahipala (Mrs)  
Head - Human Resources & Legal / Company Secretary  
Airport & Aviation Services (Sri Lanka) Limited  
Bandaranayake International Airport  
Katunayake.

# CONTRACT AGREEMENT

FOR

## HAMBANTOTA INTERNATIONAL AIRPORT DEVELOPMENT PROJECT IN SRI LANKA

(Contract No. HIA-2009.11)

This Agreement made on the 27th day of November, 2009

### By and Between

Airport and Aviation Services (Sri Lanka) Ltd, of Bandaranaike International Airport, Katunayake, Sri Lanka (hereinafter called the "Employer") of the one part,

and

China Harbour Engineering Company Limited, of Level 32, East Tower, World Trade Centre, Echelon Square, Colombo 01 a corporation duly organized and existing under the laws of the People's Republic of China and having its' head office at No. 9, Chunxiu Road, Dong Zhi Men Wai, Beijing 100027, People's Republic of China hereinafter called the "Contractor" of the other part.

Whereas the Employer desirous that the Works known as **Hambantota International Airport Development Project**, Sri Lanka should be executed by the Contractor, and has accepted a proposal by the Contractor for the execution, completion and maintenance of such Works and remedying of any defects therein;

Now, therefore both parties hereto agree as follows:

1. This Contract will come into effect only upon a date to be notified by the Employer to the Contractor subsequent to the Government of the People's Republic of China providing credit funding acceptable to the Government of Sri Lanka for the said Works.
2. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract hereinafter referred to.

*True Copy*

*E. Gaurin*

M C G Mahipala (Mrs)  
Human Resources & Legal / Company Secretary  
Airport & Aviation Services (Sri Lanka) Limited  
Bandaranayake International Airport

3. The following documents (hereinafter called the "Contract Documents") shall be deemed to form and be read and construed as part of this Agreement, namely:

- (a) The Contract Agreement
- (b) The Letter of Acceptance
- (c) The Letter of Tender( if any)
- (d) Memorandum of Understanding(if any after contract Negotiations)
- (e) The Particular Conditions
- (f) The General Conditions
- (g) The Employer's Requirements
- (h) The Specification
- (i) The Contractor's Proposal dated 29th September 2009
- (j) any other documents except the Bill of Quantities forming part of the Contract
- (k) The Bill of Quantities
- (l) The document dated 23<sup>rd</sup> September 2009 initialed by the Employer and the Contractor relating to clarifications of the proposal. (Refer to Appendix C of Part 1- Technical Proposal)

Therein, in conformity with the provisions of the Contract.

4. The Employer hereby covenants to pay the Contractor, in consideration of the execution and completion and maintenance of the Works and remedying of any defects therein, the Contract Price at the times and in the manner prescribed by the Contract.

*True Copy*  
*e. Coombes*

M C G Mahipala (Mrs)  
Head - Human Resources & Legal / Company Secretary  
Airport & Aviation Services (Sri Lanka) Limited  
Bandaranayake International Airport  
Katunayake.

*[Handwritten initials and marks]*



In Witness hereof, the parties have set their hands hereunto and to two others of the same tenor and date as these presents.

**Employer:**

**1. Name:** Airport & Aviation Services (SL)Ltd  
**Address** Bandaranaike International Airport  
Katunayake, Sri Lanka

**Signature of Representative:**.....  
**Name of Representative:**


**Mr. Prasanna J Wickramasuriya** WWV RWP RSP  
**Capacity of Representative : Chairman**

**2. Name:** Airport & Aviation Services (SL)Ltd  
**Address** Bandaranaike International Airport  
Katunayake, Sri Lanka

**Signature of Representative:**.....  
**Name of Representative: Mr. Kamal S. Ratwatte**

**Capacity of representative : Vice Chairman**

**Witness :**

**Signature e:**   
**Name :** (Mrs) . M . C . G . MAHIPALA  
**Position :** HEAD - HR & LEGAL / COMP. SEC.  
**Address:** Bandaranaike International Airport,  
Katunayake,  
Sri Lanka.

(Company Seal)

True Copy



**M C G Mahipala (Mrs)**  
Head - Human Resources & Legal / Company Secretary  
Airport & Aviation Services (Sri Lanka) Limited  
Bandaranaike International Airport  
Katunayake

**Contractor:**

**1. Name:** China Harbour Engineering Company Limited  
**Address:** No. 9, Chunxiu Road,  
Dong Zhi Men Wai,  
Beijing 100027,  
People's Republic of China

**Signature of Representative:**.....  
**Name of Representative:**


**Mr. Sun Ziyu**  
**Capacity of Representative : President/ CEO**

**2. Name:** China Harbour Engineering Company Limited  
**Address** No. 9, Chunxiu Road,  
Dong Zhi Men Wai,  
Beijing 100027,  
People's Republic of China

**Signature of Representative:**.....  
**Name of Representative: Mr. Tang Qiaoliang**

**Capacity of representative : Managing Director**

**Witness:**

**Signature:**   
**Name :** ANDREW GRANT MCCORMACK  
**Position :** CONTRACTS DIRECTOR  
**Address :** China Harbour Engineering Company Limited, No. 9, Chunxiu Road, Dong Zhi Men Wai, Beijing 100027  
People's Republic of China.

(Company Seal)



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*True Copy*

*E. Gunawardena*

**M C G Mahipala (Mrs)**  
Head - Human Resources & Legal / Company Secretary  
Airport & Aviation Services (Sri Lanka) Limited  
Bandaranayake International Airport  
Katunayake

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Hambantota International Airport – Mattala  
Sri Lanka

## **Part 2      Performance Bond**

## **Sample Form of Performance Bond**

Project Director,  
Ministry of Ports and Aviation,  
19 Chaitya Road,  
Colombo 01

(Hereinafter called as the Employer)

Dear Sirs,

### **PERFORMANCE GUARANTEE (UNCONDITIONAL) NO.145/GTDY81151**

We have been informed that China Harbour Engineering Company Ltd (hereinafter called "the Contractor") has entered into Contract No.RDA/TIIP/AFD/ICB/01 dated May 26, 2008 with you, for the construction of Hambantota International Airport (hereinafter called "the Contract").

Furthermore, we understand that, according to the conditions of the Contract, a Performance Guarantee is required.

At the request of the Contractor, we Standard Chartered Bank, a Banking Corporation duly incorporated in the United Kingdom and having its Head Office at No.1, Aldermanbury Square, London EC2V 7SB, United Kingdom and carrying on business at No. 37 York Street, Colombo 01,) hereby irrevocably undertake to pay you any sum or sums not exceeding in total an amount of -----), such sum being payable in the types and proportions of currencies in which the contract price is payable, upon receipt by us of your first demand in writing accompanied by a written statement stating that the Contractor is in breach of its obligation(s) under the contract, without your needing to prove or to show grounds for your demand or the sum specified therein.

This guarantee shall expire, no later than the ----- and any demand for payment under it must be received by us at this office on or before that date.

Notwithstanding anything written above in this Bank Guarantee, we the Standard Chartered Bank, Colombo 01 hereby confirm that in case of delayed completion of the project, the guarantor agrees to extend this guarantee for period(s) as requested by the employer from time to time, in response to the employer's written request for such extension(s), such request to be presented to the guarantor before the expiry of the guarantee.

Further we, hereby, confirm that all claims under the said guarantee should be submitted to us in writing not later than the expiry date December 31<sup>st</sup>, 2011. Written in this Bank Guarantee or any other and further date / dates given as per extensions issued by us after which date/dates the said bank guarantee shall become automatically null and void and our liability extinguishes completely whether the original of our guarantee is returned or not. Unless expressly consented by us in writing, this Letter of Guarantee is not transferable or assignable.

This guarantee is subject to the Uniform Rules for Demand Guarantees, ICC Publication No.458, except that subparagraph.

(ii) of Sub-Article 20(A) is hereby excluded and the guarantee shall be governed by the laws of Sri Lanka.

NOTWITHSTANDIDNG anything contained herein before, our liability under this guarantee is restricted to ----- This guarantee unless otherwise extended will expire on ----- . All claims must be submitted in writing to **Manager Trade Operations, Standard Chartered Bank, 37 York Street, Colombo 01** by ----- before 2.30 p.m. This guarantee should be returned to us after its expiry. Irrespective of its return we consider ourselves fully discharged from any obligation hereunder after the said expiry date or any extension granted thereto.

Yours faithfully,

Hambantota International Airport – Mattala  
Sri Lanka

**Part 3      Form of Advance Payment Guarantee**

## Sample Form of Advanced Payment Guarantee

Project Director,  
Ministry of Ports and Aviation,  
19 Chaitya Road,  
Colombo 01

(Hereinafter called as the Employer)

Dear Sirs,

### ADVANCE PAYMENT GUARANTEE

We have been informed that China Harbour Engineering Company Ltd., Beijing, China (hereinafter called "the Contractor") has entered into Contract No.----- dated -----2009 with you, for the construction of Hambantota International Airport (hereinafter called "the Contract").

Furthermore, we understand that, according to the conditions of the contract, an Advance Payment for ----  
----- in the sum of -----is to be made by you against an Advance Payment Guarantee.

At the request of the Contractor, we Standard Chartered Bank, a Banking Corporation duly incorporated in the United Kingdom and having its Head Office at No.1, Aldermanbury Square, London EC2V 7SB, United Kingdom and carrying on business at No. 37 York Street, Colombo 01, in the Democratic Socialist Republic of Sri Lanka hereby irrevocably undertake to pay you any sum or sums not exceeding in total an amount of ----- upon receipt by us of your first demand in writing accompanied by a written statement stating that the Contractor is in breach of its obligation under the contract because the Contractor used the advance payment for purposes other than the ----- in respect of the works in accordance with the Contract.

It is a condition for any claim and payment under this guarantee to be made that the advance payment referred to above must have been received by the Contractor under the Contract.

The maximum amount of this guarantee shall be progressively reduced by the amount of the advance payment repaid by the contractor as indicated in copies of Interim Payment Certificates which shall be presented to Standard Chartered Bank, Colombo 01, Sri Lanka and confirmed to us by Bank of China, Beijing via authenticated swift stating that the Contractor, China Harbour Engineering Company Ltd., has presented to Standard Chartered Bank, Colombo 01, Sri Lanka copies of the Interim Payment Certificates requesting the reduction of ...(Insert the reduced amount) under the guarantee.

This guarantee shall expire, upon our receipt of a copy of the interim payment certificate indicating that Ninety (90) percent of the contract price has been certified for payment, or -----, whichever is earlier (the expiry date). Consequently, any demand for payment under this guarantee must be received by **The Manager Trade Operations, Standard Chartered Bank, 37, York Street, Colombo 1(us)** at this office on or before the expiry date.

NOTWITHSTANDING anything written in this Bank Guarantee, we Standard Chartered Bank, Colombo 01 hereby confirm that in case of delayed recovery of the advance payment, we agree to extend this guarantee, for period(s) as requested by the Employer from time to time, in response to the Employer's written request for such extension(s), such request to be presented to us before the expiry of the guarantee.

This guarantee shall be governed by the laws of Sri Lanka.

Further we, hereby, confirm that all claims under the said guarantee should reach **The Manager Trade Operations, Standard Chartered Bank, 37, York Street, Colombo 1** in writing not later than the expiry date mentioned in the guarantee or any other and further date/dates given as per extension issued by us after which date/dates this guarantee shall become automatically null and void and our liability extinguishes completely whether the original of our guarantee is returned or not.

This guarantee is subject to the uniform rules for Demand Guarantees, ICC Publication no.458

Yours faithfully,



Hambantota International Airport – Mattala  
Sri Lanka

**Part 4 Letter of Clarification Issues**



中国港湾工程有限责任公司斯里兰卡办事处

China Harbour Engineering Company Ltd.  
Representative Office in Sri Lanka

Level 32, East Tower  
World Trade Centre  
Echelon Square  
Colombo 01  
Sri Lanka  
Tel: 0094 - 112 - 470998-9  
0094 - 112 - 470800  
Fax: 0094 - 112 - 470997  
E-mail : sililanka@chec.bj.cn

6 October 2009

The Chairman,  
Cabinet Appointed Procurement Committee  
Ministry of Ports and Aviation,  
Bandaranaike International Airport,  
Colombo,  
Katunayake.  
Sri Lanka.

Dear Sir,

Agreed changes to Proposal for Engineering Procurement and Construction of Hambantota International Airport

Further to our meeting with the Cabinet Appointed Procurement Committee, we herewith attach the changes that we agreed to make to our "Proposal for Engineering Procurement and Construction of Hambantota International Airport" submitted on 29<sup>th</sup> September 2009.

- (1) Revised Bill of Quantities showing the agreed reduction of 4.3247% from the proposed amount of US\$ 218,447,321.74 to the agreed amount of US\$ 209,000,000.00.
- (2) Amended Particular Conditions of Contract incorporation the following agreed change :
  - a. Inclusion of page numbers.
  - b. Correction of the first item "1.3 Compliance with Laws" to "1.13 Compliance with Laws" and then removing the corrected 1.13 Compliance with Laws and text thereto and completely replacing the existing "1.13 Compliance with Laws and text thereto" which is after 1.12 Confidential Details and before 2.2 Permits, Licenses & Approvals.
  - c. Inclusion into Clause 6.9 Contractor's Personnel to include : "The Contractor shall be obliged to employ local unskilled labour for the Works."
  - d. Deletion of the revision to Clause 13.4.
  - e. Deletion of the revision to Clause 13.8.
  - f. Revision of Clause 14.2 Advanced Payment to provide the Second Installment - 10% of the Contract Sum within 28 days after establishment of the Contractor's quarry operation and calibration of the metal crusher.
  - g. Revision of Clause 18.1 General Requirement for Insurance by inserting, "and from an insurance company which is approved by the Employer."

Recd on 6/10/09  
[Signature]  
Base Security

- (3) Amended Appendix to Tender incorporation the following agreed change :  
a. Clause 14.15 Currency/ Currencies of payment now reads "US\$."

Please note that we did not discuss nor agree any other change to our proposal dated 29<sup>th</sup> September 2009.

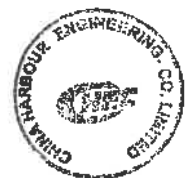
Yours faithfully,

  
Tang Qiaoliang  
Authorized Representative  
China Harbour Engineering Company Limited



Recd on 6/10/09  
  
A-256

# **BILL OF QUANTITIES**



Hambantota International Airport, Sri Lanka  
EPC Proposal

Grand Summary

Bill No	Description	Amount as submitted 29th morning (US\$)	Amount agreed during negotiation with CANC in 29th evening (US\$) by giving a discount of 4.3247%
1	GENERAL ITEMS	41,241,423.07	39,457,830.62
2	ENGINEERING DESIGN	7,478,916.34	7,155,471.18
3	RUNWAY DEVELOPMENT	48,549,762.38	46,450,101.82
4	TAXIWAY DEVELOPMENT	2,646,959.41	2,532,484.77
5	APRON	16,637,810.37	15,918,265.05
6	<del>DRAINAGE WORKS</del>	<del>1,500,000.00</del>	<del>1,435,128.60</del>
7	PASSENGER TERMINAL BUILDING & CONTROL TOWER	26,101,238.03	24,972,422.21
8	CARGO BUILDING	5,205,688.00	4,980,554.50
9	AIRFIELD GRADING	5,150,000.00	4,927,274.88
10	SECURITY	-	-
11	FIRE & RESCUE FACILITIES	7,470,374.50	7,147,298.75
12	NAVIGATIONAL & LANDING AIDS	6,716,050.00	6,425,596.98
13	VISUAL AIDS AND AIRFIELD LIGHTINGS	10,638,200.00	10,178,123.41
14	METEOROLOGICAL EQUIPMENT	486,675.00	465,627.48
15	WATER SUPPLY AND FIRE FIGHTING SYSTEM	2,436,074.63	2,330,720.26
16	POWER SUPPLY	5,264,222.95	5,036,557.96
17	FUEL FARM	2,472,000.00	2,365,091.94
18	WASTE DISPOSAL	5,300,000.00	5,070,787.74
19	CAR PARKS AND ROADS	8,076,927.07	7,727,619.38
20	TELECOMMUNICATIONS	1,030,000.00	985,454.98
21	LANDSCAPING	1,545,000.00	1,478,182.46
22	CONTINGENCY	12,500,000.00	11,959,405.04
<b>Grand Total</b>		<b>218,447,321.74</b>	<b>209,000,000.00</b>

Signed by

Tang Qiaoliang  
Authorized Representative  
For and on behalf of  
China Harbour Engineering Company Ltd



**Hambantota International Airport, Sri Lanka  
EPC Proposal**

Item	Description	Quantity	Unit	Rate(US\$)	Amount(US\$)
1	<b>GENERAL ITEMS</b>				
1.1	Performance Bond and Advanced Payment Bond	1	sum	2,152,692.91	2,152,692.91
1.2	Contractor's All Risk Insurance & Third party Liability Insurance	1	sum	2,439,326.14	2,439,326.14
1.3	Workmen's Compensation Insurance	1	sum	749,321.43	749,321.43
1.4	Stamp Duty (provisional)	1	sum	43,230.09	43,230.09
1.5	Temporary Office for the Employer	Not used	sum		
1.6	Project Sign Board	2	nos	5,509.59	11,019.18
1.7	Surveying Equipment for the Employer	Not used	sum		
1.8	Maintain the transportation route between the quarry and the site (Asphalt Concrete)	1	sum	347,569.87	347,569.87
1.9	Mobilization of Land Plant	1	sum	986,359.18	986,359.18
1.10	Demobilization of Land plant	1	sum	576,491.16	576,491.16
1.11	Mobilization of Contractor's Management and Supervisory Staff	1	sum	515,878.99	515,878.99
1.12	Demobilization of Contractor's Management and Supervisory Staff	1	sum	515,878.99	515,878.99
1.13	Temporary Facilities for the Contractor	1	sum	5,509,589.18	5,509,589.18
1.14	Contractor's Management and Supervision Staff	1	sum	10,209,908.69	10,209,908.69
1.15	Contractor's Head Office Overhead Charge	1	sum	13,807,796.41	13,807,796.41
1.16	Site Safety Management Including Quarry Site	1	sum	726,725.77	726,725.77
1.17	Measures to Comply with Environment Protection	1	sum	363,132.69	363,132.69
1.18	Operation and Maintenance of Quality Assurance System	1	sum	121,044.23	121,044.23
1.19	Initial and Final Survey	1	sum	230,560.44	230,560.44
1.20	As-built Drawings and Operation & Maintenance Manuals	1	sum	151,305.30	151,305.30
	<b>Sub-total</b>				<b>39,457,830.62</b>



**Hambantota International Airport, Sri Lanka  
EPC Proposal**

Item	Description	Quantity	Unit	Rate(US\$)	Amount(US\$)
2	<b>ENGINEERING DESIGN</b>				
2.1	Land Boreholes	40	No.	1,913.50	76,540.19
2.2	Laboratory tests	1	PS	118,162.23	118,162.23
2.3	Insitu tests	1	PS	93,665.18	93,665.18
2.4	Design works	1	sum	5,289,205.61	5,289,205.61
2.5	Construction stage service and on-site co-ordination	30	mth	52,596.60	1,577,897.97
	<b>Sub-total</b>				<b>7,155,471.18</b>

**Hambantota International Airport, Sri Lanka  
EPC Proposal**

Item	Description	Quantity	Unit	Rate(US\$)	Amount(US\$)
3	<b><u>RUNWAY DEVELOPMENT</u></b> (3,500 m long)				
3.1	Earth Work				
3.1.1	Excavation in soft material(SPT<50)	832,781	m3	2.94	2,445,590.59
3.1.2	Excavation in hard material(SPT>50)	92,531	m3	9.12	843,464.32
3.1.3	Earth filling	1,100,000	m3	14.78	16,260,007.09
3.1.4	Clearing, grabbing and trimming	2,000,000	m2	0.24	473,018.39
3.2	Structural Pavement (area 217,200 m2, 60 m wide) (Option A - asphalt based)				
3.2.1	Well compacted earth for Excavated area (CBR>10%)	217,200	m2	1.15	250,427.76
3.2.2	Crushed aggregate base course, 580mm thick	217,200	m2	20.46	4,441,547.03
3.2.3	Prime coat	217,200	m2	1.43	310,359.19
3.2.4	Heavy Duty Macadam base course, AC-20, 100mm thick	217,200	m2	34.49	7,491,428.72
3.2.5	Tack Coat	217,200	m2	1.43	310,359.19
3.2.6	Wearing course, SMA-10, 75mm thick	217,200	m2	48.78	10,595,020.62
3.3	Non-structural Pavement (area 54,300 m2, 2 x 7.5 m wide)				
3.3.1	Well compacted earth for Excavated area (CBR>10%)	54,300	m2	1.15	62,606.94
3.3.2	Crushed aggregate base course, 500mm thick	54,300	m2	17.63	957,297.57
3.3.3	Prime coat	54,300	m2	1.43	77,589.80
3.3.4	Surface course, SMA-10, 50mm thick	54,300	m2	32.52	1,765,836.77
3.4	Runway Marking (assume 5 % of total area of Runway)	13,575	m2	12.21	165,747.86
	<b>Sub-total</b>				<b>46,450,101.82</b>



**Hambantota International Airport, Sri Lanka  
EPC Proposal**

Item	Description	Quantity	Unit	Rate(US\$)	Amount(US\$)
4	<b>TAXIWAY DEVELOPMENT</b> 370m				
4.1	Earth Work				
4.1.1	Excavation in soft material(SPT<50)	5,040	m3	2.94	14,800.75
4.1.2	Excavation in hard material(SPT>50)	560	m3	9.12	5,104.66
4.1.3	Earth filling	27,000	m3	14.78	399,109.26
4.2	Structural Pavement (area 16650 m2, 45m wide) (Option A - asphalt based)				
4.2.1	Well compacted earth for Excavated area (CBR>10%)	16,650	m2	1.15	19,197.16
4.2.2	Crushed aggregate base course, 580mm thick	16,650	m2	20.45	340,462.38
4.2.3	Prime coat	16,650	m2	1.43	23,791.35
4.2.4	Heavy Duty Macadam base course, AC-20, 100mm thick	16,650	m2	34.49	574,273.89
4.2.5	Tack Coat	16,650	m2	1.43	23,791.35
4.2.6	Wearing course, SMA-10, 75mm thick	16,650	m2	48.78	812,187.35
4.3	Non-structural Pavement (area 5550 m2, 2 x 7.5 m wide)				
4.3.1	Well compacted earth for Excavated area (CBR>10%)	5,550	m2	1.15	6,399.05
4.3.2	Crushed aggregate base course, 500mm thick	5,550	m2	17.63	97,845.33
4.3.3	Prime coat	5,550	m2	1.43	7,930.45
4.3.4	Surface course, SMA-10, 50mm thick	5,550	m2	32.52	180,486.08
4.4	Taxiway Marking (assume 10 % of total area of Taxiway)	2,220	m2	12.21	27,105.73
	<b>Sub-total</b>				<b>2,532,484.77</b>

**Hambantota International Airport, Sri Lanka  
EPC Proposal**

Item	Description	Quantity	Unit	Rate(US\$)	Amount(US\$)
5	<b>APRON</b> (including :- - parking for 10 no. flights : 76000 m2 - aircraft maintenance/Remote parking apron : 9000m2)				
5.1	Site Preparation	1	item	2,991,559.75	2,991,559.75
5.2	Earth Work	1	item	1,682,812.19	1,682,812.19
5.3	Pavement Work				
5.3.1	Well compacted earth for Excavated area (CBR>10%)	85,000	m2	1.15	98,003.50
5.3.2	Lean concrete base course, C10, 150mm thick	85,000	m2	16.53	1,404,716.79
5.3.3	In situ Concrete, C45, 400mm thick	85,000	m2	87.60	7,446,255.46
5.3.4	Steel bar reinforcement	1,360	t	1,093.72	1,487,233.75
5.4	Apron Marking (5% of total area of Aprons)	4250	m2	12.21	51,891.60
5.5	Culvert and Drainage	1	item	377,896.01	377,896.01
5.6	Apron Flood Lights	1	item	377,896.01	377,896.01
	<b>Sub-total</b>				<b>15,918,265.05</b>

**Hambantota International Airport, Sri Lanka  
EPC Proposal**

Item	Description	Quantity	Unit	Rate(US\$)	Amount(US\$)
6	<b>STORM WATER DRAINAGE SYSTEM</b>				
6.1	Storm water Drainage system (Provisional Sum)	1	PS	1,435,128.60	1,435,128.60
	<b>Sub-total</b>				<b>1,435,128.60</b>

**Hambantota International Airport, Sri Lanka  
EPC Proposal**

Item	Description	Quantity	Unit	Rate(US\$)	Amount(US\$)
7	<b>PASSENGER TERMINAL BUILDING &amp; CONTROL TOWER</b>				
7.1	Passenger Terminal Building, 2 storey high, G/F 13,750 m2 area & 4.5m high; 1/F 6,250 m2 area & 7.6m high, total floor area 10,000 m2 (Ref. Drawings : AASL/SIA/2008/G-006 to 008)				
7.1.1	Passenger Terminal Building, 10,000 m2 floor area	1	item	20,110,531.79	20,110,531.79
	<p><b>1 Building and Civil Works</b>            - Includes all the main architecture - high end design, steel and concrete, millwork and fixtures and furnishing.            - Includes grading, footings and foundations, substation building and water and treatment facility etc.            - Includes four security stations/equipment, two fixed bridges and two jetbridges</p> <p><b>2 Roads and Parking Works</b>            - Includes all ancillary roads in front of terminal, adjacent parking and general parking (300 spaces)            - Includes apron tie-in only. Minimal fencing at terminal, landscaping and exterior lighting</p> <p><b>3 Electrical Works</b>            - Includes generators, main substation, low voltage systems, airport systems, PA systems            - Includes transformers</p> <p><b>4 Fire Fighting Works</b>            - Includes all fire alarm and sprinkler system, monitoring and annunciation systems</p> <p><b>5 HVAC works</b>            - Includes main chiller plant, add AC to all movement area</p> <p><b>6 BMS Low Voltage and PA works</b></p>				



**Hambantota International Airport, Sri Lanka  
EPC Proposal**

Item	Description	Quantity	Unit	Rate(US\$)	Amount(US\$)
	<b>PASSENGER TERMINAL BUILDING &amp; CONTROL TOWER</b> <b>(Continued)</b>				
	7 Elevators and Conveyors System - Includes 7 elevators and 4 escalators but no moving walkways 8 Signages Notes : -Baggage Handling System (BHS) and Security Equipment for BHS excluded. -Requirement for jet bridges subject to further study				
7.1.2	Passenger Screening facilities	4	no.	2,870.26	11,481.03
7.1.3	Terminal Baggage Handling Systems (BHS), including:- -Check-in with weighing and labeling/dispatch conveyors; -Collector conveyor; -Transportation conveyor from check-in to a flight make-up carousel; -Weighing scale for oversize baggage and straight belt-conveyor to a central screening area with a standalone oversize AT class Level 1 X-ray machine and Level 2 Workstation; -Off-loading conveyor for transfer bags (merging into the transportation conveyor from check-in); -Fully integrated inline security screening, consisting of a AT class Level 1 X-ray machine together and a number of Level 2 workstations (workstations in a separate screening room); -Discharge of un-cleared Level 2 bags to the central screening area for Explosive Trace Detection (ETD),any un-cleared Level 3 bags to be reconciled with the passenger for baggage hand search; -Flight make-up carousel; and -Motor control panel together with a basic off-the-shelf SCADA computer system. Proposed Arrivals BHS includes: -Two baggage reclaim devices; and -Two standalone Customs X-ray machines for screening of arriving passenger's hold baggage. -detailed design/working drawings, manufacture, shipping, installation, testing, training,	1	item	2,759,273.93	2,759,273.93

**Hambantota International Airport, Sri Lanka  
EPC Proposal**

Item	Description	Quantity	Unit	Rate(US\$)	Amount(US\$)
	<b>PASSENGER TERMINAL BUILDING &amp; CONTROL TOWER</b> (Continued)				
	handover documentation (including O&M Manual and As-Build Drawings) and spare parts. Excluding :- -a CT class EDS Certified X-ray machine for Level 3 has not been included.				
7.2	Air traffic Control Tower				
7.2.1	40m high tower with top gondola, stairs and single elevator. Limited ground floor office support and equipment spaces, toilet, fixtures and furniture and minimal site development Exclusion :- All air traffic control systems, air to ground radios, ground to ground radios, radar systems, weather systems and Doppler radar, airfield lighting control, and any other systems specific to air traffic control.	1	item	1,830,975.34	1,830,975.34
7.3	Entrance & Exit Porch				
7.3.1	Entrance & Exit Porch approximate area (12 x 50) m = 600 m <sup>2</sup>	1	No.	260,160.11	260,160.11
	<b>Sub-total</b>				<b>24,972,422.21</b>



**Hambantota International Airport, Sri Lanka  
EPC Proposal**

Item	Description	Quantity	Unit	Rate(US\$)	Amount(US\$)
8	<b>CARGO BUILDING</b>				
8.1	<p>Prefabricated hangar type building for bulk storage with limited racks. Floor storage for up to 50,000 MT annual capacity. 5,000sm large building with limited office support including toilets. Including one walking 100sm cooler and 30sm vault.</p> <p>Including :-            - 1500sm air conditioned offices and toilet            - 1 x 100sm large cooler for perishable goods            - 1 x 30sm security vault            - Rack system            - bay loading dock for step up ramps with overhead doors or grilles</p> <p>Excluding :            - Forklifts and other equipment            - Loading docks</p> <p>Notes :            Price includes earth work and limited roadway, truck maneuvering space and parking.            Airfield limited to tie-in to apron 5m from building edge.</p>	1	no.	4,731,798.88	4,731,798.88
8.2	Cargo X-ray screening system	2	no.	124,377.81	248,755.62
<b>Sub-total</b>					<b>4,980,554.50</b>



**Hambantota International Airport, Sri Lanka  
EPC Proposal**

Item	Description	Quantity	Unit	Rate(US\$)	Amount(US\$)
9	<b>AIRFIELD GRADING</b>				
9.1	Grading of Airfield as per ICAO regulation to Aerodrome area	1	PS	1,970,909.95	1,970,909.95
9.2	OH&P for above (25%)	1	PS	492,727.49	492,727.49
9.3	Grading of Airfield as per ICAO regulation to Approaches (provisional)	1	PS	1,970,909.95	1,970,909.95
9.4	OH&P for above (25%)	1	PS	492,727.49	492,727.49
	<b>Sub-total</b>				<b>4,927,274.88</b>





**Hambantota International Airport, Sri Lanka  
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Item	Description	Quantity	Unit	Rate(US\$)	Amount(US\$)
10	<b>SECURITY</b>				
10.1	Perimeter fencing (Ref. Drawings : AASL/SIA/2008/G-014, 14a, 14b & 14c)				
10.1.1	Galvanised chain link fencing (P.V.C. coated),3m high, with intermediate posts and footings	Not used	km		
10.1.2	Steel gate for fencing,2 leaves,side hung,4.8m long x 2.5m high,including reinforced concrete posts and foundations	Not used	no.		
10.1.3	Perimeter fence lighting approximately 20Km Perimeter fence lighting comprising lamp pole 9 metres high including 1 no 400W Halogen lamp and power supply cable.	Not used	set		
	<b>Sub-total</b>				



**Hambantota International Airport, Sri Lanka  
EPC Proposal**

Item	Description	Quantity	Unit	Rate(US\$)	Amount(US\$)
11	<b>FIRE &amp; RESCUE FACILITIES</b>				
11.1	Fire Building, single storey high, area 60 m x 36 m, comprising 2 nos. 36m x 12m x 4.5m high reinforced concrete structure at 2 sides, a vehicle and parking bays 36m x 36m x 9m high with pitch roof at centre, and a fire watch room on top of reinforced concrete structure, total floor area approximately 1,500 m2 (Ref. Drawings : AASL/SIA/2008/G-010 & 015b)				
11.1*1	Five Bay Fire Truck Garage with office block and ramp control  Including : - Garage with four sided overhead doors - Office block with toilets and ramp control room airfield observation - Mechanical and Electrical and Plumbing needs - Site work adjoining apron and parking areas - All necessary low voltage and alarm systems	1	no.	2,698,175.72	2,698,175.72
11.1.2	Fire Main Ring Line ✓	12,723	m	49.27	626,897.18
11.1.3	Major Fire Vehicle, capacity 12,000 litres	3	no.	1,195,940.50	3,587,821.51
11.1.4	Crew Cab	1	no.	62,188.91	62,188.91
11.1.5	Pickups	2	no.	52,621.38	105,242.76
11.1.6	Rapid Intervention Vehicle	1	no.	66,972.67	66,972.67
	<b>Sub-total</b>				<b>7,147,298.75</b>



**Hambantota International Airport, Sri Lanka  
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Item	Description	Quantity	Unit	Rate(US\$)	Amount(US\$)
12	<b>NAVIGATIONAL &amp; LANDING AIDS</b>				
12.1	Navigation Aids System (ICAO Annex 10 Vol. I, ICAO Doc 8168-OPS/611, FAA Order No. 8260.19A, FAA Order No. 6750) Including :-supply, deliver, install -Instrument Landing System (ILS) complete with Localizer and GP -Glide Path (GP) and Distance Measuring Equipment (DME) -DVOR/DME -Testing and commissioning -Flight calibration test Excluding :-Local duty or import tax Notes:-Preliminary design and assessment carried out based on FSR	1	item	2,089,164.55	2,089,164.55
<del>12.1a</del>	<del>Middle Marker</del>	<del>1</del>	<del>item</del>	<del>478,376.20</del>	<del>478,376.20</del>
2.2	Communication Aids (ICAO Annex 10 Vol. III & V, ICAO Annex 14 Section 9, ICAO Doc 8126-AN/872) Including :-supply, deliver, install -VHF and UHF communication system -Microwave communication link -AMHS -VFR console -Aldis Lamp -DVCSS -AWOS -Time Display (not in specs or BoQ) -Voice Recording -Testing and commissioning -UPS by others -Fire station communication console Excluding :- -Fencing and gates enclosing the DVOR/DME -Electrical services such as external cabling -local duty or import tax Note:-Preliminary design and assessment carried out based on FSR	1	item	3,858,056.23	3,858,056.23
12.3	Four legged, 60m, self supporting Antenna mast including obstruction lights as per ICAO Annex 14 and lightning protection system	1	no.	191,350.48	191,350.48
12.4	Additional cost of Optical Fibre Network under item 12.2 above	1	item	485,210.28	485,210.28
<b>Sub-total</b>					<b>6,425,596.98</b>



**Hambantota International Airport, Sri Lanka  
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Item	Description	Quantity	Unit	Rate(US\$)	Amount(US\$)
13	<u>VISUAL AIDS AND AIRFIELD LIGHTINGS</u>				
13.1	<p>Airfield Ground Lighting (Reference ICAO Annex 14 Clause 5.3) Provision for CAT1 Code 4F operations</p> <p>Including :-supply, deliver and install                      -Provision of Simple approach lights @rwy end 07 (elevated light fittings)                      -provision of CAT 1 High Intensity Approach lights@rwy end 25 (elevated light fittings)                      -Precision Approach Path Indicator (PAPI) for rwy 07 &amp; 25                      -Runway Edge (elevated &amp; inset lights)                      -Runway Threshold(inset lights)                      -Runway End Lights (BoQ)                      -Taxiway Edge lights(elevated)                      -Apron Edge lights(elevated)                      -Apron Flood lighting (not in the specification/BoQ) but required. Nos. need to determined during design stage.                      -AGL Control &amp; Monitoring System (not allowed for in the specs and BoQ)                      -AGL Control Console (not allowed for in the specs and BoQ)                      -Control Cables between equipment rooms, substations and various equipment                      -Constant Current Regulator's (no's to be determined. not allowed for in the BoQ )                      -Illuminated wind cone at both runway ends                      -Landing TFFs (in the specs and BoQ but is seldom used in international airports)                      -Obstacle lights                      -Testing &amp; commissioning and flight calibration tests                      -Pits and ducts                      Excluding :-                      -APL substations                      -Airfield markings                      -Stop bars not included (also, not specified in the Specs and BoQ)                      -Electrical systems (HV/LV)                      -Spares</p>	1	item	9,657,458.76	9,657,458.76



**Hambantota International Airport, Sri Lanka**  
**EPC Proposal**

Item	Description	Quantity	Unit	Rate(US\$)	Amount(US\$)
	<b>VISUAL AIDS AND AIRFIELD LIGHTINGS (Continued)</b> <b>Notes:-</b> -Preliminary design done based on FSR -ICAO recommends runway centerline lights for runway width greater than 50m.  However, as both specs and BoQ specifically excludes this item, therefore, it is excluded in the price. The runway width is 75m in this case.				
13.1a	Runway Centerline lights	1	item	382,700.96	382,700.96
13.2	Guidance Signs ( Reference ICAO Annex 14 Clause 5.4) <del>Permission for CAT II Code 4F operations</del>	1	item	137,963.70	137,963.70
	Including :- -supply, deliver and install  -Illuminated mandatory and information guidance signs @ runway exit signs -taxiway guidance information sign -VOR Check point signs -aircraft stand identification signs  Excluding :- -Airfield markings -local import or duty tax  Notes:- Preliminary design done based on FSR				
	<b>Sub-total</b>				<b>10,178,123.41</b>

**Hambantota International Airport, Sri Lanka  
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Item	Description	Quantity	Unit	Rate(US\$)	Amount(US\$)
14	<b>METEOROLOGICAL EQUIPMENT</b>				
14.1	Meteorological Building, area 150 m2 x 4.5 m high, including structures, fitting outs, finishing, plumbing and sanitary facilities, Electrical Installation, MVAC and Fire Services Installation, etc.	1	no.	51,736.39	51,736.39
14.2	All necessary equipments for Meteorological Building	1	item	413,891.09	413,891.09
	<b>Sub-total</b>				<b>465,627.48</b>

**Hambantota International Airport, Sri Lanka  
EPC Proposal**

Item	Description	Quantity	Unit	Rate(US\$)	Amount(US\$)
15	<b>WATER SUPPLY AND FIRE FIGHTING SYSTEM</b>				
15.1	Pumping station, purification plant	1	item	493,755.64	493,755.64
15.2	10 km long water mains for the internal distribution	1	item	1,224,643.08	1,224,643.08
15.3	5 km long water mains for collection water from the reservoir	1	item	612,321.54	612,321.54
	<p>The estimated construction cost covers the following items :-</p> <ul style="list-style-type: none"> <li>-Water supply system and fire fighting service system (see page 122 of the FS Report)</li> <li>-Pumping station (300 m3/d), ground reservoir, water towers, purification plant and distribution system (see page 24 of the EIA report)</li> <li><del>15 km long water mains separately for water supply</del></li> <li>distribution system and fire fighting service distribution system in which 10 km is for internal distribution within the airport; while the remaining 5 km is for collection of water from Lunggamwehara Reservoir (assumed)</li> <li>-One pumping station with 1 duty pump (average capacity of 150 m3/d) and 1 one standby pump for pumping purified water to water towers (assumed)</li> <li>-Purification plant mainly adopts chlorination system for water disinfection (assumed)</li> </ul> <p>Notes :-</p> <ul style="list-style-type: none"> <li>-Based on the Feasibility Study (FS) Report, the consumption of treated water will be about 300 m3 per day (see page 71). This number includes the portable water supply and water for firefighting facility (see page 122). There is no other information in the FS Report &amp; EIA Report to indicate the assumptions being adopted in this water consumption estimation.</li> <li>-The water will be obtained from the Lunugamwehara Reservoir (page 24 of the EIA Report)</li> <li>-The cost of US\$1.5M stated in page 97 of the FS Report covers the construction cost for pump stations, overhead head tanks, sump and purification plant, but detailed breakdown is not available.</li> <li>-Due to limited information, safety margin is allowed in the cost estimate</li> </ul>				
	<b>Sub-total</b>				<b>2,330,720.26</b>

**Hambantota International Airport, Sri Lanka  
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Item	Description	Quantity	Unit	Rate(US\$)	Amount(US\$)
16	<b>POWER SUPPLY</b>				
16.1	Electrical Substation 1, area approximately 340 m2 (builder's work only)	1	item	134,021.88	134,021.88
16.2	Electrical Substation 2, area approximately 340 m2 (builder's work only)	1	item	134,021.88	134,021.88
16.3	Primary substation(33KV/11KV 2@1000KVA) Excluding : Power supply cable from CEB up to CEB Metering point	1	item	309,942.95	309,942.95
16.4	Secondary substation(11KV/0.4KV 6@Nos.)	1	item	1,202,531.31	1,202,531.31
<del>16.4</del>	<del>11KV power supply cable for Secondary substation</del>	<del>1</del>	<del>item</del>	<del>608,946.97</del>	<del>608,946.97</del>
16.5	Power house and stand by power 750KVA 2@Nos.  Description and Scope :- -2 nos. 400V, 750KVA Generator with stepup Transformer 400v to 11kv -Bus duct trunking from generator to electrical cubicle 2 x 20 Meter in length -6 nos.400V low voltage electrical cubicle for generator. -8 nos outgoing power supply cables with 400A current capacity and average 300 Meter in length each. Total length 2400Meter -Include diesel engine, electric dynamo, electrical cubicle and battery set  Excluding : diesel daily use oil tank , exhaust air treatment and noise treatment	1	item	1,526,041.09	1,526,041.09
16.6	Power supply to Mechanical Equipments	1	item	1,129,051.88	1,129,051.88
	<b>Sub-total</b>				<b>5,036,557.96</b>



**Hambantota International Airport, Sri Lanka  
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Item	Description	Quantity	Unit	Rate(US\$)	Amount(US\$)
17	<b>FUEL FARM</b>				
17.1	<p>Installation of above ground fuel tank farm to support the new airfield operations. (Assumption of restocking of 1 million liter capacity through pipelines. Into plane fueling with fuel trucks. Installation as per international standards for monitoring, containment and spill control.)</p> <p>Inclusion :-  <ul style="list-style-type: none"> <li>- Site preparation and grading</li> <li>- Three 2500 barrel (approximately 105,000-gallon) vertical API 650 above ground tanks</li> <li>- Paved dike areas for the tanks with 6' dike walls</li> <li>- Two truck loading bay under canopy</li> <li>- One truck unloading bay under canopy</li> <li>- Secondary containment system including O/W separator and treatment train</li> <li>- A small prefabricated office</li> <li>- Site paving to provide for vehicle entrance/exit (asphalt pavement excluding the truck bays).</li> <li>- Facility fencing and motorized gates</li> <li>- Miscellaneous utility support installations for the facility</li> <li>- Monitoring equipment</li> </ul> </p> <p>Exclusion :-  <ul style="list-style-type: none"> <li>- Valve arrangement for multi-tenant use of fuel dispensing</li> </ul> </p>	1	item	2,365,091.94	2,365,091.94
	<b>Sub-total</b>				2,365,091.94



**Hambantota International Airport, Sri Lanka  
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Item	Description	Quantity	Unit	Rate(US\$)	Amount(US\$)
18	<b>WASTE DISPOSAL</b> (Ref. Drawings : AASL/SIA/2008/G-015d)				
18.1	Solid Waste Treatment Plant				
18.1.1	<p>The estimated construction cost covers the following items :</p> <ul style="list-style-type: none"> <li>-Package incineration plant with reception, combustion, waste heat recovery and generation, cooling and flue gas treatment</li> <li>-No pretreatment (heat drying or sorting) of the solid waste</li> <li>-Auto-combustion, no auxiliary fuel addition under normal operation</li> <li>-All facilities is enclosed in a building</li> <li>-Not included waste collection system</li> </ul> <p><b>Notes :-</b></p> <ul style="list-style-type: none"> <li>-Incineration is adopted for solid waste treatment (EIA Report, page 25)</li> <li>-Waste is from aircrafts and the terminal area.</li> <li>-The design capacity of the incineration plant is 5 tons/day (FS Report, page 71).</li> <li>The projected waste quantity seems on the low side when compared to the traffic forecast shown in Table 14 of the FS Report. However, there is no any information in the FS Report to indicate the assumptions adopted in the waste quantity estimate.</li> <li>-5 tons/day incineration plant is limited. It is not sure why incineration is adopted. Alternative option may need to be reviewed.</li> <li>-Due to limited information, safety margin is allowed in the cost estimate.</li> </ul>	1	item	2,391,881.01	2,391,881.01
18.2	Sewerage System and Sewage Treatment Plant				
18.2.1	<p>The estimated construction cost covers the following items:</p> <ul style="list-style-type: none"> <li>-4km sewage collection pipeline (EIA Report, page 26)</li> <li>-Two sewage pumping stations with design average capacity of 100m<sup>3</sup>/day (assumed)</li> <li>-4km treated effluent distribution pipeline and one pumping station with design capacity of 200m<sup>3</sup>/day (assumed)</li> <li>-Sewage treatment plant with design average capacity of 200m<sup>3</sup>/day to meet USEPA effluent reuse standard for landscape irrigation (The design capacity is based on page 26 of the EIA Report while the reuse standard is assumed)</li> <li>-Membrane bioreactor (MBR) process is adopted for the sewage treatment plant, instead of oxidation ditch process as stated in page 26 of the EIA Report.</li> <li>-All facilities of the sewage treatment plant are enclosed in a building.</li> </ul> <p><b>Notes :-</b></p> <ul style="list-style-type: none"> <li>-Based on the Feasibility Study (FS) Report, the design capacity of the sewerage system is 200m<sup>3</sup>/day (see page 71). The projected sewage flow seems on the low side when compared to the traffic forecast shown in Table 14 of the FS Report. However, there is no any information in the FS Report to indicate the assumptions adopted in the sewage flow estimate.</li> <li>-Not sure if the cost of US\$1.3M stated in page 97 of the FS Report covers the cost for effluent reuse and sewage pumping stations.</li> <li>-Due to limited information, safety margin is allowed in the cost estimate.</li> </ul>	1	item	2,678,906.73	2,678,906.73
	<b>Sub-total</b>				<b>5,070,787.74</b>

**Hambantota International Airport, Sri Lanka  
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Item	Description	Quantity	Unit	Rate(US\$)	Amount(US\$)
19	<b>CAR PARKS AND ROADS</b>				
19.1	Carparks				
19.1.1	Provision of carparks	Not used	m2		
19.1.2	Illumination for carparks	Not used	item		
19.2	Provision of Main Roads (10,000m long x 10 m wide)				
19.2.1	Well compacted earth	100,000	m2	1.15	115,298.23
19.2.2	Sub base course (Gravel CBR-15), 200mm thick	100,000	m2	7.05	705,110.03
19.2.3	Crushed aggregate base course, 200mm thick	100,000	m2	8.46	846,132.03
19.2.4	Prime coat	100,000	m2	1.43	142,890.97
19.2.5	Base Course, AC-20, 80mm thick	100,000	m2	27.59	2,759,273.93
19.2.6	Tack Coat	100,000	m2	1.43	142,890.97
19.2.7	Surface course, AC-14, 10mm thick	100,000	m2	17.25	1,724,546.21
19.2.8	Illumination for Main Roads	1	item	788,363.98	788,363.98
1.3	Access road	15,000	m2	21.58	323,721.96
19.4.2	Central line illumination for access road	1	item	179,391.08	179,391.08
	<b>Sub-total</b>				<b>7,727,619.38</b>



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Item	Description	Quantity	Unit	Rate(US\$)	Amount(US\$)
20	<b>TELECOMMUNICATIONS</b>				
20.1	Fibre optic cable and cable accessories	1	item	443,454.74	443,454.74
20.2	LAN Switches, routers	1	item	542,000.24	542,000.24
	<b>Sub-total</b>				<b>985,454.98</b>



**Hambantota International Airport, Sri Lanka  
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Item	Description	Quantity	Unit	Rate(US\$)	Amount(US\$)
21	<u>LANDSCAPING</u>				
21.1	Landscaping & Recreational area	500,000	m2	2.96	1,478,182.46
	<b>Sub-total</b>				<b>1,478,182.46</b>

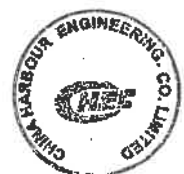


**Hambantota International Airport, Sri Lanka  
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Item	Description	Quantity	Unit	Rate(US\$)	Amount(US\$)
22	<u>CONTINGENCY</u>				
22.1	Contingency for Additonal Works and Flucuation	1	sum	11,959,405.04	11,959,405.04
	<b>Sub-total</b>				<b>11,959,405.04</b>



## Particular Conditions



### **Particular Conditions of Contract**

The Particular Conditions are set out below and consist of amendments and additions to certain Clauses of the General Conditions as indicated:

#### **Clause**

#### **1.4 Law and Language**

Delete the text of the Sub-Clause and substitute by:

The Contract shall be governed by the laws of Sri Lanka. The language in which the Contract documents shall be drawn up is English. The ruling language is English.

#### **1.5 Priority of Documents**

Delete Sub Clause 1.5 and Insert as follows:

- (a) the Contract Agreement
- (b) the Letter of Acceptance
- (c) the Letter of Tender
- (d) Memorandum of Understanding (if any after contract Negotiations)
- (e) the Particular Conditions
- (f) the General Conditions
- (g) the Employer's Requirements
- (h) the Specification
- (i) the Contractor's Proposal
- (j) any other documents except the Bill of Quantities forming part of the Contract
- (k) the Bill of Quantities

#### **1.8 Care and Supply of Documents**

Delete "six" from the first paragraph and Insert "four"



**1.9 Errors in the Employer's Requirements**

Delete the text of Sub-Clause 1.9 (b) and substitute by:

- (b) payment of any such Cost plus reasonable profit at 5 % of this Cost, which shall be included in the Contract Price.

**1.12 Confidential Details**

At the end of Sub-Clause 1.12 and Insert new Sub paragraph as follows:

“The Contractor shall not publish, permit to be published, or disclose any particulars of the Works including drawings or photographs in any trade or technical paper or elsewhere without the prior approval of the Employer.”

**1.13 Compliance with Laws**

Delete Sub-paragraph (a) and (b) and replace as follows:

- (a) The Employer shall have acquired the land necessary to perform the works as per the schedule of work on or before the date specified in Clause 2.1, and have obtained (or shall obtain) the planning, zoning, Central Environmental Authority, International Civil Aviation Authority and any other permission(s) or approval(s) that are required for the Permanent Works, and shall indemnify and hold the Contractor harmless against the consequences of any failure to do so; and
- (b) The Employer shall indemnify and hold the Contractor harmless against Value Added Tax, Economic Service Charge, Withholding Tax, National Building Tax, Company Income Tax, Remittance Tax, Construction Industry Guarantee Fund Levy.

Insert Sub-paragraph (c) as follows:



- (c) The Contractor shall give all notices and obtain all permits, licenses and approvals, as required by the Laws in relation to the execution and completion of the Works and shall indemnify and hold the Employer harmless against the consequences of and failure to do so.

## 2.2 Permits, Licenses & Approvals

Insert the following new Sub-paragraph (c) and (d):

- (c) The Employer shall assist the Contractor to obtain all such permits, licenses and approvals, as required by the Laws in relation to the opening and operation of quarries, borrow areas, and for blasting and disposal operations to ensure the Contractor's Programme can be achieved.
- (d) If the Contractor suffers delay in the opening and operation of quarries or borrow areas due to obtaining such permits, licenses and approvals which is not due to the default on the part of the Contractor, the Contractor shall give notice to the Engineer and shall be entitled only to an extension of time for any such delay, if completion is or will be delayed, under Clause 8.4 [Extension of Time for Completion]

## 4.2 Performance Security

Delete the 2nd paragraph and Insert

"The Contractor shall deliver the Performance Security in the amount of 5% of the Contract Price, to the Employer within 28 days after receiving the Letter of Acceptance, and shall send a copy to the Engineer. The Performance Security shall be either issued by a bank acceptable to the Employer and located in the Country or if issued by a Foreign Entity acceptable to the Employer located in the Country and shall be in a form approved by the Engineer."

## 4.4 Subcontractors



Delete from Sub paragraph (c) "28" and Insert "14" days.

#### 4.18 Protection of the Environment

Insert the following paragraph before the first paragraph,

"The contractor shall comply with all the requirements prescribed by the National Environmental Act No. 47 of 1980 as amended by Act No. 56 of 1988 and with the EIA Report approved by the Central Environmental Authority."

#### 4.19 Electricity, Water & Gas

Insert the following paragraph at the end of last paragraph.

"In the event of any default by the Contractor to pay such amounts within the agreed period, the Employer will be entitled to set-off such amounts against the payments due to the contractor"

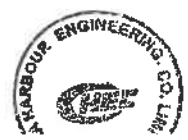
#### 5.2 Contractor's Documents

Insert at the end of sub clause 5.2 "Contractor shall attend to Design reviews whenever necessary with no additional payment"

#### 6.5 Working Hours

Delete Sub Clause 6.5 and Insert the following new Sub-Clause 6.5:

"The normal working hours are 07.00 hours to 22.00 hours from Monday to Saturday. Sundays and Mercantile Holidays are non-working days. The Contractor may choose to work 24 hours per day and work on Sundays and Mercantile Holidays. Work outside the normal working hours will be allowed upon prior notification to the Engineer and no additional charge shall be made to the Contractor for supervision by the Employer or the Engineer."



**6.6 Facilities for Staff**

Insert the following at the end of Sub-Clause 6.6

“Further, the Contractor shall provide appropriate facilities for women.”

**6.7 Health and Safety**

~~Insert the following additional paragraph at the end of the Sub-Clause 6.7 as additional~~

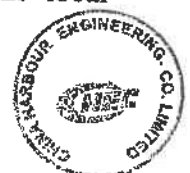
“The Contractor shall throughout the Contract (including the Defects Notification Period) conduct “Conduct Information, Education and Consultation Communication” (IEC) campaigns, at least every third month, addressed to all the Site staff and labours (including all the Contractor’s Employees all Subcontractors and Consultant’s Employees, and all truck drivers and crew making deliveries to Site for construction activities) and to the immediate local communities, concerning the risks, dangers and impact, and appropriate avoidance behavior with respect to of Sexually Transmitted Diseases (STD) or Sexually Transmitted Infections (STI) in general and HIV/AIDS in particular.”

**6.9 Contractor’s Personnel**

At the end of Sub-Clause 6.9, Insert the following additional paragraphs.

“The Contractor may recruit foreign staff, and skilled workers as are required to execute the Works subjected to limitations under the labour laws of the Democratic Socialist Republic of Sri Lanka. The Contractor shall ensure that all such staff and workers are provided with the required visas and work permits. However, the Employer will assist by writing to the relevant authorities and endorse the Contractor’s application for all such work permits and visas. The Contractor shall be responsible for all such imported persons during their stay in Sri Lanka and for their repatriation.

The Contractor shall also be responsible, to the extent required by the local regulations, for making any funeral arrangements for any of his local employees who may die while engaged upon the Works.”



The Contractor shall be obliged to employ local unskilled labour for the Works.

**6.12 Measures against Insect and Pest Nuisance**

Insert the following paragraph as Sub-Clause 6.12

~~“The Contractor shall at all times take the necessary precautions to protect~~  
all staff and labour employed on the Site from insect and pest nuisance, and to reduce the damages to health and the general nuisance occasioned by the same. The Contractor shall provide its staff and labour with suitable prophylactics for the prevention of malaria of dangue and take steps to prevent the formation of stagnant pools of water. The Contractor shall comply with all the regulations of the local health authorities and shall arrange to spray thoroughly with approved insecticide all buildings erected on the Site and its environs. Such treatment shall be carried out at least once a month or as instructed by such authorities.”

**6.13 Alcoholic Liquor or Drugs**

Insert the following paragraph as Sub-Clause 6.13

“The Contractor shall not, otherwise than in accordance with the statues, ordinances and government regulations or orders for the time being in force, import, sell, give barter or otherwise dispose of any alcoholic liquor or drugs, or permit or suffer any such importation, sale, gift barter or disposal by his Subcontractors, agents, staff or labours.”

**6.14 Arms and Ammunition**

Insert the following paragraph as Sub-Clause 6.14

“The Contractor shall not give, barter, or otherwise dispose of to any person, any arms or ammunition of any kind, or allow Contractor’s Personnel to do so.”

**6.15 Festivals and Religious Customs**

Insert the following paragraph as Sub-Clause 6.15

The Contractor shall in all dealings with his staff and labours pay due regard to recognized festivals and religious or other customs.

**7.8 Royalties**

Insert the following after "Site, and" in Sub Paragraph (a)

"materials obtained from inside the Site shall not be subject to any charge from the Employer.

**8.1 Commencement of Works**

Delete the first paragraph and insert the following new paragraph.

"Subsequent to the Government of the People's Republic of China providing concessionary credit funding acceptable to the Government of Sri Lanka for the Works, the Employer shall issue a Letter of Acceptance. Thereafter, the Engineer shall give the Contractor not less than 28 days notice of the Commencement Date which shall be within 2 months after the Contractor receives the Letter of Acceptance."

**8.5 Delays Caused by Authorities**

Delete Sub -paragraph (c)

**13.3 Variation Procedure**

Delete the comma from the 3<sup>rd</sup> paragraph between "the Contractor" and "who shall" and Insert "in writing and in a Standard Form which shall include; the Variation Number; Date of Issue; and the Clause under which the Variation is instructed,



Whenever an adjustment is agreed, approved or determined the amount payable shall be in US\$.

#### 14.1 The Contract Price

Delete sub paragraphs (a) and Insert new sub paragraph (a) as follows

(a) "The contract price shall be determined according to the quantity supplied or work done as per the Bill of Quantities"

Insert the following at the end of paragraph (b) of Sub-Clause 14.1:

Notwithstanding Sub-Clause 14 (b), it is understood that the Government of Sri Lanka shall waive payment of the taxes in sub clause (i) below. In the event that the Contractor is ever required to pay such taxes shall be entitled to reimbursement from the Employer in local currency the following taxes, on production of evidence of payment thereof within thirty days days.

- (i) Value Added Tax, Economic Service Charge, Withholding Tax, National Building Tax, Company Income Tax, Remittance Tax, Construction Industry Guarantee Fund Levy and port (dues) levied for materials for the Permanent or Temporary works, Plant, spare parts, consumables, Contractor's Equipment (imported on re-export basis) or other things imported by the Contractor solely for the purpose of the Contract.

If the Contractor removes Materials from the Site for any reason other than re-exportation, the Contractor shall refund to the Employer, within 28 days of such removal, duties, fees and dues paid by the Employer.

Should any Material or Plant imported for incorporation in the Permanent Works be rejected by the Engineer after the Employer has paid the Customs duties and port dues, such payments may be deducted from any monies due to the Contractor or shall be refunded to the Employer after 28 days from the Materials being removed from the Site.



#### 14.2 Advance Payment

Delete from sub Paragraph (a)

“ten per cent (10%)” and Insert “twenty five per cent (25%) in two installments as follows-

First Installment - 15% of the contract sum within 28 days after ~~submitting the performance bond and Advance~~ payment bond.

Second Installment - 10% of the contract sum within 28 days after establishment of the Contractor's quarry operation and calibration of the metal crusher.

Insert the following at the end of Sub-Clause 14.2

The Advanced Payment shall be repaid by percentage deductions from the Interim Payments and shall commence from the Interim Payment Certificate following that which the gross payment exceeds 30% of the Contract Price and shall be made at an amortization rate calculated in accordance with formula stated in the Appendix to Tender.

#### 14.7 Payment

Delete sub Paragraphs (b) and (c).

Insert the following before the last paragraph of this Sub-Clause

The progress payment shall be made monthly. The Contractor shall submit the Interim Payment Application to the Engineer on the first working day of each month. The Engineer shall then issue a Payment Certificate for 50 percent of the Contractor's Interim Application immediately and pass to the Employer. The Engineer shall then issue a Payment Certificate within sufficient time for the balance due in accordance with the Contract to allow the Employer to arrange payment to the Contractor within 56 days of the





Engineer receives the statement and supporting documents.

All payment shall be paid with the currency and portion specified in Appendix to Tender.

**14.7 Statement at Completion**

Delete from the 1<sup>st</sup> paragraph “six copies” and Insert “three copies”

**14.11 Application for Final Payment Certificate**

Delete from the 1<sup>st</sup> paragraph “six copies” and Insert “three copies”

**17.3 Employer’s Risk**

Insert the following sub-paragraph to the end of this Sub-Clause 17.3

(i) Tsunami

**18.1 General Requirements for Insurance**

Insert the following at the end of Sub-Clause 18.1

It shall be the total responsibility of the Contractor to take all the insurance coverage for the Contract as stated therein. No insurance whatsoever will be taken by the Employer. Accordingly, the insuring Party shall be the Contractor.

The Contractor shall be responsible to provide the insurance for Works and third party with the joint names of the Contractor and the Employer and from an insurance company which is approved by the Employer

The Contractor shall be responsible to provide the insurance for Employee Compensation for all his staffs and labours.

**18.3 Insurance against Injury to Persons and Damage to the Property**



Insert at the end of Sub-Clause 18.3

“The insuring Party shall be the Contractor. Each insurance policy shall be consistent with the general terms agreed in writing prior to the Commencement Date and such agreement shall take precedence over the provisions of this Clause.

The Contractor shall within the period stated in the Appendix to Tender, ~~submit to the Employer appropriate evidence that the insurances for which~~ the Contractor is responsible have been effected. When each premium has been paid, the Contractor shall submit evidence to the employer. The Contractor shall effect all insurances for which the Contractor is responsible with insurers and in terms approved by the Employer. Payments received from insurers shall be used for the rectification of the loss or damage.

#### **19.1 Definition of Force Majeure**

Insert the following sub-paragraph to the end of Sub-Clause

(vi) Tsunami

#### **20.3 Failure to Agree Dispute Adjudication Board**

Insert the following text to the end of Sub-Clause

“Failing agreement on the Dispute Adjudication Board, the appointing entity or official shall be the President, Institution of Engineers Sri Lanka.”

### **ADDITIONAL CLAUSES**

#### **21.0 Explosives & Blasting**

Where the use of explosives is required the Contractor shall comply with the following:



- a. The Contractor shall at all times take every possible precaution and shall comply with the appropriate laws and regulations relating to the importation, handling, transportation, storage and use of explosives and shall at all times, when engaged in blasting operations, post sufficient warning flagmen to the full satisfaction for the Engineer.
- b. The Contractor shall at all times make full liaison with and inform in advance and obtain such permission as is required from all Government Authorities and Public Bodies whatsoever concerned or affected or likely to be concerned with or affected by blasting operations.
- c. The Contractor shall pay all license fees and charges which may be required for storage or in respect of any other matter whatsoever.
- d. Employer will engage suitably qualified persons to liaise with all Authorities or Public bodies or private persons living in proximity to or conducting any form of business, commerce or agriculture (including fishing) that may be affected by the Works.
- e. Considering the large of explosive will be used for blasting operation, the transportation and storage need to be secured strictly, the Employer will coordinate with related Government Authorities to make special arrangement for the security of the explosive materials for the national safety reasons. Such arrangement may include setup army/navy/ camp and police station at the adjoining area of Site, the site storage box of explosive shall be set up within the station or camp. The Contractor has to obtain security for the transportation of explosive materials.
- f. If the Contractor suffers delay and/or incurs Cost in the blasting operation, the transportation and storage of the explosive, not due to the default on the part of the Contractor, the Contractor shall give notice to the Engineer and shall be entitled to an extension of time for any such delay, if completion is or will be delayed, under Clause 8.4[ Extension of Time for Completion]



All materials and things of any kind obtained from excavations or found on or under the Site which the Contractor may be allowed to occupy shall remain the property of the Employer and shall not be used in the Works or sold or otherwise disposed of without the written authority of the Engineer unless otherwise expressly provided for in the Specifications.

No excavations are to be made upon the Site or any additional sites beyond ~~those shown on the drawings or described in the specification~~ without the written authority of the Employer's Representative.

#### **23.0 Exchange & Remittance**

Repatriation of any balance of monies after the completion of the Contract is subject to the Exchange Control Regulations in Sri Lanka.

#### **24.0 Disposal Area**

The Employer will provide sufficient and suitable disposal areas for all unnecessary materials arising from the Works. The disposal area shall not exceed 15km from Site and no charge will be made to the Contractor for using of such disposal area.



# **APPENDIX TO TENDER**



**Hambantota International Airport, Sri Lanka  
EPC Proposal**

**APPENDIX TO TENDER**

The following Appendix to Tender shall supplement the General Conditions of Contract. Whenever there is a conflict, the provisions herein shall prevail over those in the General Conditions of Contract

<b>Conditions</b>	<b>Sub Clause</b>	<b>Entry</b>
Employer's name and address	1.1.2.2	The Chairman, Airport and Aviation Services (SL) Ltd Bandaranaike International Airport, Katunayake, Sri Lanka
Contractor's name and address	1.1.2.3	China Harbour Engineering Company Limited Level 32, East Tower, World Trade Centre, Echloin Square, Colombo 1
Engineer's name and address	1.1.2.4	Employer to inform.
Defects Notification Period	1.1.3.7	365 days
Electronic transmission systems	1.3	Fax with confirmatory hard copy
Governing Law	1.4	Sri Lanka
Ruling language	1.4	English
Language for communications	1.4	English
Time for access to the Site	2.1	The Engineer shall give the Contractor not less than 28 days notice of the Commencement Date which shall be within 2 months after the Contractor receives the Letter of Acceptance.
Amount of Performance Security	4.2	5 % of the Contract Price.
Period for notifying unforeseeable errors, faults and defects in the Employer's Requirements	5.1	90 days



**Hambantota International Airport, Sri Lanka  
EPC Proposal**

Normal working hours	6.5	07:00 hours to 22:00 hours from Monday to Saturday. Sundays and Mercantile Holidays are non-working days. Work on Sundays and Mercantile Holidays and outside the normal working hours shall be allowed.
Delay damages for the Works	8.7	US\$ 10,000 per day.
Maximum amount of Delay damages	8.7	5 % of the Contract Price
If there are Provisional Sums: Percentage for adjustment of Provisional Sums	13.5(b)	35% there are Provisional
Adjustments for Changes in Cost; Table of adjustment data	13.8	Applies to all payments and for all Currencies.
<b>Table of Adjustment Data</b>		
<b>Source of Index : ICTAD Bulletin of Construction Statistics</b>		
<b>Index Description</b>	<b>Source of Index</b>	<b>Weighting</b>
No Adjustable	-	0.10
Cement	M3	0.12
Rubble	M6	0.02
Aggregate (Metal)	M7	0.05
Sand	M8	0.01
Reinforcing Steel	M13	0.12
Bitumen	M30	0.12
Skilled Labour	L1	0.04
Semi -skilled Labour	L2	0.02
Unskilled Labour	L3	0.04
Small Equipment	P1	0.05
Heavy Equipment	P2	0.15
Fuel	P3	0.16
	<b>Total</b>	<b>100</b>
The Base Date of these indices shall be 23 <sup>rd</sup> July 2009.		
Total advance payment	14.2	25% of the Contract Price
Number and timing of instalments.	14.2	Two payments as provided in Particular Conditions Clause 14.2
Currencies and proportions.	14.2	100% US\$. However, in the case that the Loan Agreement includes a condition requiring an advance payment to be



Hambantota International Airport, Sri Lanka  
EPC Proposal

		made by the Borrower in Sri Lanka Rupees; the Employer may make the Advance Payments in the same proportion of Foreign and Local Currency.
Start repayment of advance payment.	14.2(a)	When the total gross value of work done is 30% of the Contract Price.
Repayment amortization of advance payment	14.2(b)	<p>The advanced payment shall be repaid from percentage deductions from the Interim Payment Certificates. Deductions shall commence when the total value of gross work done reaches 30 % of the contract sum and complete when the total value of gross work done reaches 80% of the contract sum.</p> <p>Made at an amortization rate calculated in accordance with the following formula.</p> $Y = \frac{(X-0.3) \times Z}{(0.8 - 0.3)}$ <p>Y= Cumulative Repayment Z= Total amount of Advance X= Percentage value of cumulative work done.</p>
Percentage of retention	14.3	5%
Limit of Retention Money	14.3	5% of the Contract Price
Plant and Materials for payment when delivered to the Site	14.5(c)	Steel, cement, reinforcement, geotextile, structural steel and all Materials and Plant as defined by Sub Clause 1.1.5.
Minimum amount of	14.6	US\$ 2 million





**Hambantota International Airport, Sri Lanka  
EPC Proposal**

Interim Payment Certificates		
Currency/currencies of payment	14.15	US \$
Periods for submission of insurance		
(a) evidence of insurance	18.1	30 days
(b) relevant policies	18.1	90 days
Maximum amount of deductibles for insurance of the Employer's risks	18.2	US\$ 2,500
Minimum amount of third party insurance.	18.3	US\$ 5 million
The DAB shall be	20.2	Three Members
Appointment if not agreed by	20.3	The Institution of Engineers Sri Lanka
Number of Arbitrators	20.6	Three
Language of Arbitration	20.6	English
Place of Arbitration	20.6	Colombo
Arbitration Rules	20.6	International Chamber of Commerce.





中国港湾工程有限责任公司斯里兰卡办事处

China Harbour Engineering Company Ltd.  
Representative Office in Sri Lanka

Level 02, East Tower  
World Trade Centre  
Echelon Square  
Colombo 01  
Sri Lanka  
Tel: 0094 - 112 - 47099  
0094 - 112 - 47080  
Fax: 0094 - 112 - 47099  
E-mail : sililanka@che

29<sup>th</sup> September 2009

The Chairman,  
Cabinet Appointed Procurement Committee,  
Ministry of Ports and Aviation,  
Bandaranaike International Airport,  
Katunayke,  
Sri Lanka

Dear Sir,

**Proposal for the Engineering Procurement and Construction of Hambantota International Airport**

Further to our agreement in the Memorandum of Understanding dated 17<sup>th</sup> August 2009 and the recent negotiations with the project committee based on our proposal dated 14<sup>th</sup> September 2009 we herewith submit one original and two copies of our revised Technical and Commercial Proposal for the Engineering Procurement and Construction of Hambantota International Airport.

Normally the Employer would have consolidated his requirements in the form of Employer's Requirements. However, due to time constraints this has not been possible and we have based this proposal on the various discussions with Airport and Aviation Services (SI) Ltd and in accordance with the Preliminary Design Drawings which are included in the Part 1 - Technical Proposal.

We trust that this Proposal is to your satisfaction.

Yours faithfully,

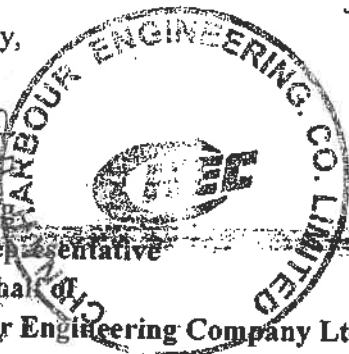
唐巧良

Tang Qiaoliang

Authorized Representative

For and on behalf of

China Harbour Engineering Company Ltd



Recd. on 29/9/09  
[Signature]

No.	Item	Project Requirements as per FSD/Overl Master Plan	Class Harbor Proposal	Standards	Remark	Please indicate Yes/No for the content of items 2 Specification and 3 representation against your proposal	CRCC Reply	Confirmation at Meeting held on 18 September 2009
1	Runway Runway Code Letter and Classification	4F	4F	ICAO/PAA	ok	Yes		
	Length of Runway	3500m	3500m		ok	Yes		
	Width of Runway	60m with 7.5 m shoulders	60m with 7.5 m shoulders	ICAO/PAA	Letter dated 31st August says 4.5m and 7.5 m shoulders. If so not acceptable Clarification Required	Yes		
	Type of Runway and Pavement	As design aircraft is A380 Triple Tandem gear wheel configurations, design as per the FAA Advisory Circular 150/5320 Elastic Layered theory. Flexible runway pavement classifications No. is 85	Triple tandem gear wheel configuration of the A380 a design aircraft designed as per the FAA advisory circular 150/5320 elastic layered theory. Flexible pavements, Asphalt wearing course.	ICAO/PAA	Clarification Required regarding Friction Improvements for the runway Others ok	Yes	1. Grooving of the runway will be required, irrespective of the type of pavement surfacing. 2. The proposed surfacing course was SMA-10	The classification of flexible pavement is depended on the design and CBR value of Pavement Subgrade.
	Runway lights	Threshold lights, centerline lights, runway edge lights	Threshold lights, runway edge lights	ICAO/PAA	Centerline lights to be included Spacers for TWO YEARS REQUIRED	No	1. Centerline Lights are not included in the BPC budget 2. The Additional cost of centerline lights is USD\$300,000.	Confirm to add centerline lights cost implication
	Storm water drainage runway area	Runway drainage			Not specify	No	Price not included in BPC Budget, to be determined	Runway Drainage to be included cost implication
2	Taxiway Length of Taxiway	330m	330m	ICAO/PAA	ok	Yes		
	Width of Taxiway	45 m	45m	ICAO/PAA	ok	Yes	Code P Taxiways need to be 4.5m wide with two 7.5m shoulders for a total width of 60m, unless a lower standard is being considered for the taxiways	Delete Taxiway to General Aviation Apron and Miscellaneous Apron. Add a minimum of 400m Taxiway to include Aircraft Parking Position (Cost Implication)

*[Handwritten signature]*  
1-10

No.	Item	Project Requirements as per PSR/DRM Master Plan	China Bidder Proposal	Standards	Remark	Please indicate 'Yes/No' for the content of column 2, 3, 4, 5 and 6 requirements against your proposal	CRDC's Reply	Confirmation of Meeting held on 18 September 2009	Status after 18 Sept. 2009
	Apron								
3	Size of Apron	Two Wide body and eight narrow body Apron area of 98,000 Sqm	Parking for 10 bays with Apron area of 71,439 Sqm	ICAO/PAA	Please describe the configuration of the apron and also included fuel hydrant system	No	The Apron area was measured from the drawing of PS	Add Included Aircraft Parking Apron (Class Code C) with cost implication	Yes
	General Aviation Apron	Not for Stage 1	Apron area of 30,384 Sqm	ICAO/PAA		No	Need for this apron in Phase I subject to Planning Review	Confirmed deleted	Yes
	Maintenance Apron	Not for Stage 1	Apron area of 9,006 Sqm	ICAO/PAA	Please describe	No	Need for this apron in Phase I subject to Planning Review	Confirmed deleted	Yes
	Apron Ground lights (flood Lights)	Included		ICAO/PAA	Please describe	Yes	The Apron flood lights were included in the submitted BoQ		Yes
4	Terminal and Related Buildings								
4	Terminal								
	Area of Terminal Building	15,000 sqm	12,000 sqm	ICAO/IATA/MS	details Required	No		Revised to 10,000 sqm with cost implication	
4.1	Departure Hall								
4.1	i		provided no.7		details Required				
	ii	12	provided no.7		details Required				
	iii	10	provided no.7		details Required				
	iv		provided no.7		details Required				
	v		provided no.7		details Required				
	vi		provided no.7		details Required				
	vii		provided no.7		details Required				
4.1	Arrival Hall								
4.1	i		provided no.7						
	ii		provided no.7		details Required				
	iii		provided no.7		details Required				
	iv	12	provided no.7		details Required				
	v	8	provided no.7		details Required				
	vi		provided no.7		details Required				
	vii		provided no.7		details Required				
	viii		provided no.7		details Required				
	Health Screening								
	Quarantine facilities for plants and animals								
	Immigration Area								
	Passport Control Counters								
	Baggage Reclaim area								
	Custom counters /Checking area								
	VIP/VIP rooms								
	Public Arrival area								
							Subject to Conceptual Design and Master plan		

23/9/09

No.	Name	Project Requirements as per PS&SD Master Plan	Client Request Proposal	Standards	Remark	Please indicate Yes/No for the content of column 2, Specification and 3 requirements against your proposal	CHCC Reply	Confirmation of Meeting held on 18 Sept. 2009
4.1.3	Air Conditioning	VIP & gate waiting rooms	HVAC works, Main chiller Plant for whole Terminal Building	ASHRA Standards or equivalent english language version	Detail description required	Yes	HVAC to be provided to VIP & gate buildings rooms	Passenger movement Area and sensitive electronics and electrical area, cost review
	Lifts and Escalators	Lifts 03, Ex 02	Lifts 07, A Escalators	BS Standards or equivalent provided english language version	Detail description required	Yes	Subject to Conceptual Design and Master plan	
	Fire Protection and Detection systems	Terminal and other buildings	Sprinkler system, monitoring & notification system	BS Standards /NFPA Standards or equivalent provided english language version	Detail description required	Yes	Subject to Concept and Preliminary Design	
	Plumbing and sanitary system	Terminal and other buildings	Included	BS Standards or equivalent provided english language version	Detail description required	Yes	Subject to Concept and Preliminary Design	
	Baggage handling system departure	1	Describe in CHEC proposal	IATA Standards or equivalent provided english language version	Line diagram is required	Yes	Subject to Concept and Preliminary Design	
	Baggage handling systems Arrivals	2	Describe in CHEC proposal	IATA Standards or equivalent provided english language version	Line diagram is required	Yes	Subject to Concept and Preliminary Design	
	Terminal Illuminations	Energy efficiency system	includes Generators, main substations, low voltage systems, airport systems, PA Systems	IEE/BS Standards or equivalent provided english language version	Required details regarding HT distribution system, Ring Main,	Yes	Subject to Concept and Preliminary Design	
	Flight Information systems	Basic systems	Included	IEE/BS Standards or equivalent provided english language version	Detail description required	Yes	Subject to Concept and Preliminary Design	
	Telephones	PABX and	Included	IEE/BS Standards or equivalent provided english language version	Required details regarding Telephone exchange system	Yes	Subject to Concept and Preliminary Design	
	Public Address systems etc	Basic systems	Included	IEE/BS Standards or equivalent provided english language version	Required details regarding Public Address system	Yes	Subject to Concept and Preliminary Design	

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No.	Item	Project Requirements as per RSM/IRRI Master Plan	Claim Labour Proposal	Standards	Remark	Please indicate Verifies for the content of column 2 (specification and J requirements against your proposal)	CHC's Reply	Continuation of Meeting held on 18 September 2009
4	Air Traffic Control Tower	40m	Included	ICAO/PAA	Detail systems required	yes	Structure and Building early	
	Cargo Building	5,000sqm	10,000sqm	BS Standards or equivalent provided english language version	Above the requirements and please describe	No	5,000 sq.m. Area requirement is insufficient for handling 50,000 tons cargo volume. Demand is otherwise not known at this	Yes
	Fire and Rescue Facility To meet category 10 Airport	category 10 ICAO	category 10 ICAO			yes		
	Fire Building -To achieve ICAO requirements	1000sqm	Fire Hydrant, 5 pantry rooms, water Tower, control panel to monitor fire indications from other buildings Office Block	BS Standards or equivalent provided english language version		No	1,500 sq.m. to be determined in conceptual design	Yes
	Fire & Rescue Vehicles	Major Fire Vehicles to meet total capacity of 36,000 lt	Five Bay Fire Garage	BS Standards ANPA Standards or equivalent provided english language version	Fire Vehicles and air stair to be included	No	Fire Vehicles and other equipment have not been quoted	Yes
	Crew cab Pickups	1	Fire main ring line		Description required			
	Rapid Intervention Vehicle	2			Description required			
	Water Supply and Solid Waste Disposal System	unit	unit	BS Standards or equivalent provided english language version	Description required		Subject to Concept and Preliminary Design	
	Water Supply	300 cubic meters/day include pumping station, ground reservoir, purifying plant, water tower and distribution system	Civil Works, Electrical, Mechanical and plumbing works, piping works including necessary equipment, pumps, valves, fittings	BS Standards or equivalent provided english language version	ok	Yes	Subject to Concept and Preliminary Design	
	Solid waste	5MT/day	SMT/day		ok	Yes		
	Waste Water	200 cubic meters/day	200 cubic meters/day		ok	Yes		

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No.	Item	Project Requirements as per PS&D/air Master Plan	Chlor Halon Proposal	Standards	Remark	More details for the content of column 2 Specifications and 3 requirements against your proposal	CH2C's Reply	Confirmation of Meeting held on 18 September 2009	Status after 18 Sept. 2009
	<b>Electrical system</b>								
	Estimated to be approximately 2000 KVA. This system will consist of two numbers of primary sub-stations of 33KV/11KV and eight numbers of secondary sub-stations of 11KV/400V. In addition two standby generators of 750 KVA shall include followings			IEEE/BS Standards or equivalent provided english language version					
	Primary Substations(33KVA/11KVA)	2	1		Inadequate More Details Required	Yes	Price was for structures and building only		
	Secondary Sub Station(11KVA/400V)	8	1		Inadequate More details required	Yes	Price was for structures and building only		
	Power house and Standby Power	2/50 Generators	1*2000KVA		Above the requirements	No	Will be needed to 2@750KVA. Comparison at conceptual design.		Decentralized system is preferred by the Employer, pending its decision. Check highest cost (difference) when change from centralized to decentralized system
	Power Supply to Mechanical equipments		Other equipment		List of equipment required	No	1. The equipment includes transformers, MV and LV cables etc; 2. The equipment installed is allowed for "centralize system"; 3. Centralized system replace decentralize system i.e. \$@400V		
	Aviation Fuel								
	Fuel Farm capacity and requirements	1 million l capacity-03 tanks, Hydrant system catodic protection system,hydrants pumps jockey pumps, recovery pumps , recirculation pumps, engine driven pump	Five Number 0.5 million litres capacity	API 650 Epitomized Tank and Pumps API 610 Filtration System- API 1581	Fire pumps , Fire Water Tanks Filtration systems Tank farm and pump Controlling Systems and QC Test rig to be included	Yes	The total storage should be 1,192,275 Litres @ 3 number tanks		

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No.	Item	Project Requirements as per PM/DR/IT Master Plan	Class Number Proposed	Standards	Remarks	Present bid/offer Yes/No for the content of column 2 Specification and 3 requirements against your proposal	CHC's Reply	Confirmation of Meeting held on 18 September 2009	Status after 18 Sept. 2009
	<b>Communication Systems</b>								
	<b>VHF Communication</b>								
	These VHF channels will be provided in the VHF band 118.9 - 136.0 MHz. Two channels will be allocated exclusively for pilot-controller communication with the other will remain as the aeronautical communication frequency. In addition, VHF channel 121.5 MHz will be provided to handle aircraft in distress. The two VHF channels will be operated in main / stand-by configuration.								
	To meet above system shall include:								
	a. VHF Transmitters	8 Nos.						Confirmed	Yes
	b. VHF Receivers	8 Nos.						Confirmed	Yes
	c. Each Transmitter & Receiver pair shall be connected to an antenna system, which shall include Antenna, coaxial cable, T-1/Rx, coaxial switch, Coaxial cable, Lightning protection	8 Nos.						Confirmed	Yes
	d. Stand-by VHF AM Aviation band transceiver to be used at Control Tower Console, including Antenna, power supply, battery	1 No.						Confirmed	Yes
	e. VHF AM Aviation band Scan Receiver to be used at Control Tower Console, including Antenna	1 No.						Confirmed	Yes
	f. Recommended set of maintenance & operation manuals and set of spares for minimum period operation and maintenance of the above VHF communication system for minimum of two years	1 Set						Confirmed	Yes
	<b>UHF Ground-Ground Communications</b>								
	To meet above system shall include:								
	a. Digital Trunk comm. System including:								
	Repeaters	3 Nos.							
	Repeater control system & telephone interface	1 No.							
							1. Will comply with relevant codes; 2. Details are subject to concept design		
								Confirmed	Yes
								Confirmed	Yes

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Item	Description	Project Requirements as per EMB/IBR Master Plan	Colson Suborder Proposal	Standards	Remarks	Please indicate Yes/No for the contents of columns 2, 3, 4, 5 and 6 of your proposal	CHICO's Reply	Confirmation of Meeting held on 18 September 2009	Status after 18 Sept. 2009
	Antenna and combining system including lightning protection	1 No.							Yes
	Stand-by power supply	1 No.							Yes
	b. Transceivers								
	Vehicle mounted including antenna & accessories	10 Nos.							Yes
	Handheld including chargers	30 Nos.							Yes
	Base Stations including Power supply & antenna	5 Nos.							Yes
	Transceiver programming software for each type of transceivers including programming terminal	3 Nos.							Yes
	d. Recommended set of maintenance & operation manuals and set of spares for uninterrupted operation and maintenance of the above UHF communication system for minimum of two years	1 Set							Yes
	Microwave Communication Links								
	Communication links between the Aerodrome Control Tower at the New International Airport (SIA) and the Aerodrome Control Tower & the Approach Radar Control Centre at the BIA Colombo and the Aerodrome Control Tower and the Area Control Centre at Ramatna Airport will be established for coordination between ATC units. SIA is also required to be linked with ATS Message Handling System (AMHS) at Ramatna Airport for the exchange of air traffic and meteorological information between new airport (SIA) and relevant local and overseas ATC centers.								

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No.	Item	Project Requirements as per PS&D with Master Plan	China Harbour Proposal	Standards	Remarks	Please indicate Yes/No for the contents of subitems 2, Specifications and 3 requirements against your proposal	CHCC's Reply	Confirmation of meeting held on 18 September 2009	
	To meet above, system shall include:								
	a. Four tagged, 60m, self supporting Antenna mast including obstruction lights as per ICAO Annex 14 and lightning protection system	1 No.		ICAO			Intermediate transmission is not included beyond the airport area	Confirmed with cost implication	Yes
	b. Long-haul, space diversity 34 MHz/2 Microwave radio link, each end including antennas, protectors and battery supply.	2 Nos.						Unconfirmed	Yes
	c. Short-haul, space diversity 34 MHz/2 Microwave radio link, each end including antennas, protectors and battery supply or fiber optic link (between 80 m mast & Control tower).	1 No.						Unconfirmed	Yes
	d. PCM multiplexers for Voice, serial data & LAN extension.	2 Nos.						Unconfirmed	Yes
	e. Recommended set of maintenance & operation manuals and set of spares for uninterrupted operation and maintenance of the above Microwave communication system and Optical fiber link for minimum of two years	1 Set						Unconfirmed	Yes
	Navigation and Landing Aids								Yes
	a. Instrument Landing System (ILS), Category 1, which shall include			ICAO Doc 8168- OPS/611/FAA Order No. 8260.19A				Confirmed as per Appendix B to the Technical Proposal	
	Guide Path & DME equipment including accurate system, battery supply and charger and equipment shelter	1 Set		ICAO Doc 8168- OPS/611/FAA Order No. 8260.19A				Confirmed	
	Localizer equipment including antenna system and equipment shelter	1 Set		ICAO Doc 8168- OPS/611/FAA Order No. 8260.19A				Confirmed	
	Middle Marker beacon including antenna, mast, battery back-up supply, charger and equipment shelter.	1 Set						Unconfirmed	

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No.	Item	Project Requirements as per PDS/Draft Master Plan	China Nabeer Proposal	Standards	Remark	Please indicate Verifs for the content of clause 2 Specifications and 3 requirements against your proposal	CRCC's Reply	Confirmation of Meeting held on 18 September 2009
	Outer Miter beams including antennas, mast, battery back-up supply, charger and equipment shelter.	1 Set						Confirmed
	Remote maintenance & monitoring system for ILS, including equipment to be installed at Technical Room and VFR console at Control Tower	1 Set						Confirmed
	Configuration software & terminals	1 Set						Confirmed
	Recommended set of maintenance & operation manuals and set of spares for uninterrupted operation and maintenance of the ILS for minimum of two years	1 Set						Confirmed
	Testing commissioning and Flight calibration	1 Set						Confirmed
	b. DVOR/DME							Confirmed
	DVOR & DME equipment including antenna system battery supply and charger and equipment shelter	1 Set						Confirmed
	Remote maintenance & monitoring system for DVOR & DME, including equipment to be installed at Technical Room and VFR console at Control Tower	1 Set						Confirmed
	Configuration software & terminals	1 Set						Confirmed
	Recommended set of maintenance & operation manuals and set of spares for uninterrupted operation and maintenance of the DVOR / DME for minimum of two years	1 Set						Confirmed
	Testing commissioning and Flight calibration	1 Set						Confirmed
	AWOS		Provided details are not given	ICAO/FAO				Confirmed

Status after 18 Sept 2009

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A. S. N. K.



No.	Item	Project Requirements as per R3300rmt Master Plan	China Harbour Proposal	Standards	Remark	Please indicate Yes/No for the extent of column 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 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794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000	Confirmation at Meeting held on 18 Sept 2009	CHCC's Reply	
	Standby VHP Transceiver								
	VHF scan receiver								
	Meteorological Information Display Systems								
	Radar Display								
	Clock								
	Runway in-use indicator								
	b. Stand alone Radar Display, which could receive and display radar data from three radar systems operated by AASL. The data formats of the Radar system are AIRCAT 500 and ASTERIX cat. 1 & 2.	1 No.							Unconfirmed
	c. DVCS terminal, which shall include Touch Panel, Head set, Head set, desktop Microphone, Speakers, PTT foot switch	2 Nos.							Unconfirmed
	d. ILS Status monitor	1 No.							Unconfirmed
	e. DVOR / DME Status monitor	1 No.							Unconfirmed
	d. Clock display / GMT	2 Nos.							Unconfirmed
	e. Runway in-use display	2 Nos.							Unconfirmed
	f. Recommended set of maintenance & operation manuals and set of spares for uninterrupted operation and maintenance of the Radar display and other equipment installed in VFR console for minimum of two years	1 set							Unconfirmed
	AMHS Terminals								
	AMHS Terminals including printers	2 nos.							Confirmed
	DSU / CSU	2 nos.							Confirmed
	IP Router	1 no.							Unconfirmed
	AMHS User Agent software	2 licenses							Unconfirmed
	Optical Filter network	1 set							Unconfirmed
	The network shall cover the following nodes and number of cores shall be 100% more than number required for interconnection of equipment located at each node to Control Tower Terminal. There shall be a duct network connecting the nodes, which shall be used for other low voltage cables as well.			ICAO					

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No.	Item	Project Requirements as per R3000/revt Master Plan	China Harbour Proposal	Standards	Remark	Does submit TCR for the content of column 2 specifications and 3 requirements against your proposal	CHECK Reply	Confirmation of Meeting held on 18 Sept 2019	Status after 18 Sept 2019
	DVOR / DME site								
	ILS GP site								
	ILS Localizer site								
	Middle Marker site								
	80 meter coast site								
	Power House / Generator Installation								
	Air Field Lighting Control site								
	Voice Recording and play back systems			ICAO					Unfirmed
	a. Dual 32 channel Recorder, expandable up to 64 channels, working in hot stand-by configuration with redundant storage media. Long term archiving capability to DVD or Flash Drives	1 set							Unfirmed
	b. Standalone Playback system	1 set							Unfirmed
	c. Software for configuration and remote monitoring	1 set							Unfirmed
	e. Recommended set of maintenance & operation manuals and set of spares for uninterrupted operation and maintenance of the Voice recording and play back system for minimum of two years	1 set							Unfirmed
	Air Traffic light Gun	1 No.							Confirmed to add 1 nr. Air Traffic light Gun
	Visual Aid and Airfield Lighting								Unfirmed
	Precision Approach Path Indicator System (PAPI)	1	Provided details are not given	Ch I ICAO Annex 14 and DESIGN Manual Part 4 DOC 9137	Details and specifications required Spares to maintain minimum Two Years				Unfirmed
		Ch I	Ch I ICAO	Ch I ICAO Annex 14 and DESIGN Manual Part 4 DOC 9137	Details and specifications required Spares to maintain minimum Two Years				Confirmed to be installed at both end and both side of runway with Cost Implication

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No.	Name	Project Requirements per PSMD/RAI Master Plan	Chas Harbour Proposal	Standards	Remark	Please indicate Yes/No for the content of items 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 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995, 996, 997, 998, 999, 1000	Comments at Meeting held on 18 September 2009
	Approach lights		Provided details are not given	ICAO Annex 14 and DESIGN Manual Part 4 DOC 9157	Details and specifications required Spares to maintain minimum Two Years	Confirmed	
	Meteorological Services	Code 4F	Provided	ICAO	ok	Confirmed	
	Security and Screening Systems:						
	Perimeter Roads					Confirmed deleted	
	Perimeter fencing	06 X ray machines	Provided details are not given	ICAO Annex 14 and DESIGN Manual Part 4 DOC 9157	Details and specifications required Spares to maintain minimum Two Years	Confirmed deleted	
	Passenger Baggage Screening:						
	Passenger Screening:					Not included in the commercial submission, subject to review.	
	Cargo Screening:					Not included in the commercial submission, subject to review.	
	Perimeter Lightings					Confirmed deleted	
	Access System						
	Carpals						
	Main accessroads						
	Service Roads						
	Illumination of Access Roads					Confirmed Central line illumination. Out implementation	
	Illumination of Carpals and Roads						
	Landscaping						
	Telecommunications	simple system	Provided details are not given		Details and specifications required Spares to maintain minimum Two Years	Confirmed deleted	

Status after 18 Sept 2009

Yes



**中国港湾工程有限责任公司斯里兰卡办事处**

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Representative Office in Sri Lanka

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21<sup>st</sup> September 2009

The Chairman,  
Cabinet Appointed Procurement Committee  
Ministry of Ports and Aviation,  
Bandaranaike International Airport,  
Colombo,  
Katunayake.  
Sri Lanka.

Dear Sir,

**Proposal for Engineering Procurement and Construction of Hambantota International Airport**  
**Notes of Coordination Meeting**

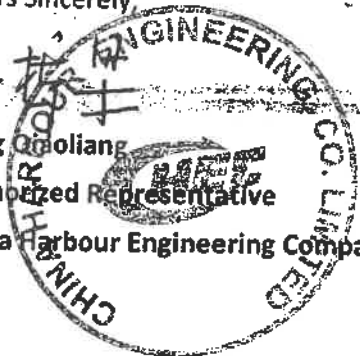
Enclose please find the Notes of Coordination Meeting held at office in Bandaranaike International Airport, Katunayake, dated 18<sup>th</sup> September 2009 for your reference.

Yours Sincerely

Tang Qoliang

Authorized Representative

China Harbour Engineering Company Limited



Recd on 21/9/09



Hambantota International Airport

Notes of Coordination Meeting:

Date: 18 September 2009

Venue: Bandaranaike International Airport, Katunayake, Sri Lanka

Time: 16:30

Attendance: Tang Q L, Lau W F Chris, Ling Lok Sing (CHEC)

Gnanasiri Withanage, Thusitha N Weerasinghe, Biynwilage (AASL)

The following items are clarified during the meeting:

Item	Requirement	Remarks
Runway Lights	Centerline Light shall be added	Confirmed, with cost implication to commercial proposal
Storm water drainage	Required at Airdrome area	Confirmed, with cost implication to commercial proposal
Taxiway	Delete Taxiway to General Aviation Apron and Maintenance Apron. Add Taxiway to Isolated Aircraft Parking Apron.	Confirmed with cost implication to the commercial proposal
Taxiway	Code F, 45m wide with 7.5m Shoulders at both side	Confirmed
Apron	Delete General Aviation Apron, Maintenance Apron. Add Isolated Aircraft Parking Apron (Class Code C) with Bar Screen	Confirmed with cost implication to commercial proposal
Cargo Building	10,000 sq.m. Floor area ✓	Confirmed with cost implication to commercial proposal
Cargo Building	2nr. Cargo Screening Station ✓	Confirmed with cost implication to commercial proposal
Fire and Resue	Require 3 major fire vehicles minimum capacity 12,000 lit, 1 Crew Cab, 2 Pick up and 1 Rapid Intervention Vehicle	Confirmed with cost implication to commercial Proposal

Total 36000 L

6.2.5.2.2.2

Electricity Supply System	Decentralized System is preferred (pending to confirm) ✓	Much higher cost difference when change from centralized to decentralized system, to be reviewed.
Microwave Communication Links	A four legged, 60m self supporting Antenna Mast including obstruction lights as per ICAO Annex 14 and lightning protection system	Confirmed with cost implication to commercial proposal
Air Traffic Light Gun	Required 1 nr.	Confirmed with cost implication to commercial proposal
Precision Approach Path Indicator System (PAPI)	Required to be installed at both end and both side of runway	Confirmed with cost implication to commercial proposal.
Terminal Building	4 nr. Passenger Screening Station with archways ✓	Confirmed with cost implication to commercial Proposal
Perimeter Fencing with CCTV, Screening System	Deleted	Confirmed with cost implication to commercial Proposal
Perimeter Road	Deleted	Confirmed with cost implication to commercial Proposal
Perimeter lighting	Deleted	Confirmed with cost implication to commercial Proposal
Access Road	Central line Illumination	Confirmed with cost implication to commercial Proposal
Landscape	Deleted	Confirmed with cost implication to commercial Proposal
Labour sources	Preference to use local labour	CHEC commit to use local labour not less than 70%

1.

The following items required more information from CHEC

Item	Requirement	
Terminal Building,	Details of Floor finishes, wall finishes, Lighting, Ceilings	CHEC to provide details of finishing.
Terminal Building	Baggage Handling System flow Diagram	CHEC to provide flow diagram
Miscellaneous	Suppliers and country of origin of Major equipments	CHEC to provide
Electricity Supply System	Schematic Diagram	CHEC to provide Schematic Diagram of Centralized System



中国港湾工程有限责任公司斯里兰卡办事处

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17th September 2009

The Chairman,  
Cabinet Appointed Procurement Committee  
Ministry of Ports and Aviation,  
Bandaranaike International Airport,  
Colombo,  
Katunayake.  
Sri Lanka.

Dear Sir,

**Proposal for Engineering Procurement and Construction of Hambantota International Airport**  
**Reply for Comparison of Proposal**

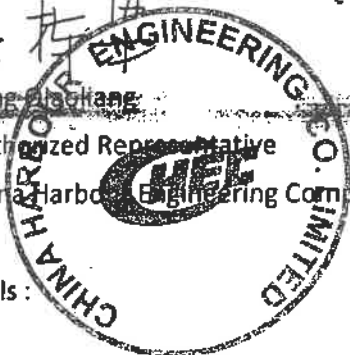
This refers to your letter No.CE (P&D)/829/2/37/CANC dated 10<sup>th</sup> September 2009 and we are pleased to submit here with our clarification of the schedule items in our Technical Proposal to the Project Committee.

Yours Sincerely,

唐哲强  
Tang Zheqiang

Authorized Representative  
China Harbour Engineering Company Limited

Encls:



Recd 17/9/09  
[Signature]

No.	Item	Project Requirements as per PSR/Draft Master Plan	China Harbour Proposal	Standards	Remark	Please indicate Yes/No for the content of column 2 Specification and 3 requirements against your proposal	CHEC's Reply
1	Runway						
	Runway Code Letter and Classification	4F	4F	ICAO/FAA	ok	Yes	
	Length of Runway	3500m	3500m		ok	Yes	
	Width of Runway	60m with 7.5 m shoulders	60m with 7.5 m shoulders	ICAO/FAA	Letter dated 31st August says 45m and 7.5 m shoulders. If so not acceptable Clarification Required	Yes	
<b>Type of Runway and Pavement</b>		As design aircraft is A380 Triple Tandem gear wheel configurations design as per the FAA Advisory Circular 150/5320 Elastic Layered theory.Flexible runway pavement classification No. is 85	Triple tandem gear wheel configuration of the A380 a design aircraft designed as per the FAA advisory circular 150/5320 elastic layered theory.Flexible pavements, Ashpalls Wearing course.	ICAO/FAA	Clarification Required regarding Friction Improvements for the runway Others ok	No	1. Grooving of the runway will be required, irrespective of the type of pavement surfacing. 2. The proposed surfacing course was SMA-10
<b>Strength of pavement</b>		PCN 85			ok	No	SMA-10 is adopted
<b>Runway lights</b>		Threshold lights , centerline lights , runway edge lights	Threshold lights , runway edge lights	ICAO/FAA	Centerline lights to be included Spares for TWO YEARS REQUIRED	No	1. Centerline Lights are not included in the EPC budget 2. The Additional cost of centerline lights is USD\$300,000.
<b>Storm water drainage runway area</b>		Runway drainage			Not specify	No	Price not included in EPC Budget, to be determined
2	<b>Taxiways</b>						
	Length of Taxiway	330m	330m	ICAO/FAA	ok	Yes	
	Width of Taxiway	45 m	45m	ICAO/FAA	ok	Yes	Code F Taxiways need to be 25m wide with two 17.m shoulders for a total width of 60m, unless a lower standard is being considered for the taxiways
<b>Strength of pavement</b>		PCN85					

No.	Item	Project Requirements as per FSR/Draft Master Plan	China Harbour Proposal	Standards	Remark	Please indicate Yes/No for the content of column 2 Specification and 3 requirements against your proposal	CHEC's Reply
3	Apron	Two Wide body and eight narrow body Apron area of 98,000 Sqm	Parking for 10 bays with Apron area of 71,439 Sqm	ICAO/FAA	Please describe the configuration of the apron and also included fuel hydrant system	No	The Apron area was measured from the drawing of FS
	General Aviation Apron	Not for Stage 1	Apron area of 30,384 Sqm	ICAO/FAA		No	Need for this apron in Phase 1 subject to Planning Review
	Maintenance Apron	Not for Stage 1	Apron area of 9,006 Sqm	ICAO/FAA	Please describe	No	Need for this apron in Phase 1 subject to Planning Review
	Apron Ground lights (flood Lights)	Included		ICAO/FAA	Please describe	Yes	The Apron flood lights were included in the submitted BoQ
4	Terminal and Related Buildings						
	Terminal						
	Area of Terminal Building	15,000 sqm	12,000 sqm	ICAO/IATA/BS	details Required	No	
	Departure Hall						
	i Check-in Counters	12	provided no.?		details Required		
	ii Outward Customs		provided no.?		details Required		
	iii Emigration Counters	10	provided no.?		details Required		
	iv Quarantine Counters		provided no.?		details Required		
	v boarding gates and circulation space		provided no.?		details Required		
	vi Outward Security Screening System		provided no.?		details Required		
	vii Shops and waiting areas		provided no.?		details Required		
	4.1 Arrival Hall						
	i Health Screening		provided no.?				
	ii Quarantine facilities for plants and animals		provided no.?		details Required		
	iii Immigration Area		provided no.?		details Required		
	iv Passport Control Counters	12	provided no.?		details Required		
	v Baggage Reclaim area		provided no.?		details Required		
	vi Custom counters /Checking area	8	provided no.?		details Required		
	vii VVIP/VP rooms		provided no.?		details Required		
	viii Public Arrival area		provided no.?		details Required		Subject to Conceptual Design and Master plan

No.	Item	Project Requirements as per PSR/Draft Master Plan	China Harbour Proposal	Standards	Remark	Please indicate Yes/No for the content of column 2 Specification and 3 requirements against your proposal	CHEC's Reply
	Electrical system						
	Estimated to be approximately 2000 KVA. This system will consist of two numbers of primary sub-stations of 33KV/11KV and eight numbers of secondary sub-stations of 11KV/400V. In addition two standby generators of 750 KVA shall include followings			IEE/BS Standards or equivalent provided english language version			
	Primary Substations(33KVA/11kVA)	2	1			Yes	Price was for structure and building only
	Secondary Sub Station(11kVA/400V)	8	1		Insufficient More details required	Yes	Price was for structure and building only
	Power house and Standby Power	2/750 Generators	1*2200KVA		Above the requirements	No	Will be revised to 2@750kVA Generators at conceptual design
	Power Supply to Mechanical equipments		Other equipment		List of equipment required	No	1. The equipment includes transformers, HV and LV cables etc; 2. The equipment installed is allowed for "centralize system". 3. Centralised system replace decentralize system i.e. 8@400V #
	Aviation Fuel						
	Fuel Farm capacity and requirements	1 million l capacity -03 tanks, Hydrant system, cathodic protection system, hydrants pumps jockey pumps, recovery pumps, recirculation pumps, engine driven pump	Five Number 0.5 million litres capacity	API 650 Epoctated Tank and Pumps API 610 Filtration System API 1581	Fire pumps, Fire Water Tanks Filtration systems Tank farm and pump Controlling Systems and QC Test rig to be included	Yes	The total storage should be 1,192,275 Litres @ 3 number tanks

*RFI mid.mpt*

No.	Item	Project Requirements as per FSR/Draft Master Plan	China Harbour Proposal	Standards	Remark	Please indicate Yes/No for the content of column 2 Specification and 3 requirements against your proposal	CHEC's Reply
4	Air Traffic Control Tower	40m	Included	ICAO/FAA	Detail system required	Yes	Structure and Building only
	Cargo Building	5,000sqm	10,000sqm	BS Standards or equivalent provided english language version	Above the requirement and please describe	No	5,000 sq.m. Area requirement is insufficient for handling 50,000 ton cargo volume Demand is otherwise not known at this stage
	Fire and Rescue Facility						
	To meet category 10 Airport	category 10 ICAO	category 10 ICAO			Yes	
	Fire Building -To achieve ICAO requirements	1000sqm	Fire Hydrant, 5 pantry rooms, water Tower, control panel to monitor fire indicators from other buildings Office Block	BS Standards or equivalent provided english language version		No	1,500 sq.m. to be determined in conceptual design
	Fire & Rescue Vehicles	3 Major Fire Vehicles minimum Capacity 12,000 lt	Five Bay Fire Garage	BS Standards or NFPA Standards or equivalent provided english language version	Fire Vehicles and air stair to be included	No	Fire Vehicles and other equipment have not been quoted
	Crew cab Pickups	1	Fire main ring line		Description required		
	Rapid Intervention Vehicle	2			Description required		
	Water Supply and Solid Waste Disposal System	1	unit	BS Standards or equivalent provided english language version	Description required	X	Subject to Concept and Preliminary Design
	Water Supply	300 cubic meters/day include pumping station, ground reservoir, purifying plant, water tower and distribution system	Civil Works, Electrical, Mechanical and plumbing works, piping works including necessary equipment, pumps, valves, fittings	BS Standards or equivalent provided english language version	ok	Yes	Subject to Concept and Preliminary Design
	Solid waste	5MT/day	5MT/day		ok	Yes	
	Waste Water	200 cubic meters/day	200 cubic meters/day		ok	Yes	



No.	Item	Project Requirements as per PSR/Draft Master Plan	China Harbour Proposal	Standards	Remark	Please indicate Yes/No for the content of column 2 Specification and 3 requirements against your proposal	CHEC's Reply
4.1	Air Conditioning	VIP & gate waiting rooms	HVAC works, Main chiller Plant for whole Terminal Building	ASHRA Standards or equivalent provided english language version	Detail description required	Yes	HVAC to be provided to VVIP & gate holdings rooms
3	Lifts and Escalators	Lifts 03, Ex 02	Lifts 07, 4 Escalators	BS Standards or equivalent provided english language version	Detail description required	No	Subject to Conceptual Design and Master plan
	Fire Protection and Detection systems	Terminal and other buildings	Sprinkler system, monitoring & annunciation system	BS Standards /NFPA Standards or equivalent provided english language version	Detail description required	Yes	Subject to Concept and Preliminary Design
	Plumbing and sanitary system	Terminal and other buildings	Included	BS Standards or equivalent provided english language version	Detail description required	Yes	Subject to Concept and Preliminary Design
	Baggage handling systems departure	1	Describe in CHEC proposal	IATA Standards or equivalent provided english language version	Line diagram is required	Yes	Subject to Concept and Preliminary Design
	Baggage handling systems Arrivals	2	Describe in CHEC proposal	IATA Standards or equivalent provided english language version	Line diagram is required	Yes	Subject to Concept and Preliminary Design
	Terminal Illuminations	Energy efficiency system	includes Generators, main substations, low voltage systems, airport systems, PA Systems	IEE/BS Standards or equivalent provided english language version	Required details regarding HT distribution system, Ring Main,	Yes	Subject to Concept and Preliminary Design
	Flights Information systems	Basic systems	included	IEE/BS Standards or equivalent provided english language version	Detail description required	Yes	Subject to Concept and Preliminary Design
	Telephones	PABX and	included	IEE/BS Standards or equivalent provided english language version	Required details regarding Telephone exchange system	Yes	Subject to Concept and Preliminary Design
	Public Address systems etc	Basic systems.	Included	IEE/BS Standards or equivalent provided english language version	Required details regarding Public Address system	Yes	Subject to Concept and Preliminary Design

No.	Item	Project Requirements as per FSR/Draft Masterplan	China Harbour Proposal	Standards	Remark	Please Indicate Yes/No for the content of column 2 Specification and 3 requirements against your proposal	CHEC's Reply
	<b>Communication Systems</b>						
	<b>VHF Communication</b>						
	Three VHF channels will be provided in the VHF band 118.0 - 136.0 MHz. Two channels will be allocated exclusively for pilot-controller communication while the other will remain as the surface movement frequency. In addition, VHF distress channel 123.5 MHz will be provided to handle aircraft in distress. The four VHF channels will be operated in main / stand-by configuration.						
	To meet above, system shall include:						
	a. VHF Transmitters	8 Nos.					
	b. VHF Receivers	8 Nos.					
	c. Each Transmitter & Receiver pair shall be connected to an antenna system, which shall include Antenna, cavity filter, Tx / Rx coaxial switch, Coaxial cable, Lightning protection	8 Nos.					
	d. Stand-by VHF AM Aviation band transceiver to be used at Control Tower Console, including Antenna, power supply, battery	1 No.					
	e. VHF AM Aviation band Scan Receiver to be used at Control Tower Console, including Antenna	1 No.					
	d. Recommended set of maintenance & operation manuals and set of spares for uninterrupted operation and maintenance of the above VHF communication system for minimum of two years	1 Set					
	<b>UHF Ground-Ground Communications</b>						
	To meet above, system shall include:						
	a. Digital Trunk comm. System including:						
	Repeaters	3 Nos.					
	Repeater control system & telephone interface	1 No.					

1. Will comply with relevant codes.  
2. Details are subject to concept design

No.	Item	Project Requirements as per FSR/Draft Master Plan	China Harbour Proposal	Standards	Remark	Please indicate Yes/No for the content of column 2 Specifications and 3 requirements against your proposal	CHEC's Reply
	Antenna and combining system including lightning protection Stand-by power supply	1 No.					
	b. Transceivers	1 No.					
	Vehicle mounted including antenna & accessories	10 Nos.					
	Handheld including chargers	30 Nos.					
	Base Stations including Power supply & antenna	5 Nos.					
	Transceiver programming software for each type of transceivers including programming terminal	3 Nos.					
	d. Recommended set of maintenance & operation manuals and set of spares for uninterrupted operation and maintenance of the above UHF communication system for minimum of two years	1 Set					
	Microwave Communication Links	?					
	Communication links between the Aerodrome Control Tower at the New International Airport (SIA) and the Aerodrome Control Tower & the Approach Radar Control Centre at the BIA Colombo and the Aerodrome Control Tower and the Area Control Centre at Ratmalana Airport will be established for coordination between ATC units. SIA is also required to be linked with ATS Message Handling System (AMHS) at Ratmalana Airport for the exchange of air traffic and meteorological information between new airport (SIA) and relevant local and overseas ATC centers.						

No.	Item	Project Requirements as per FSR/Draft Master Plan	China Harbour Proposal	Standards	Remark	Please indicate Yes/No for the content of column 2 Specifications and 3 requirements against your proposal	CHEC's Reply
	To meet above, system shall include:						
	a. Four legged, 80m, self supporting Antenna mast including obstruction lights as per ICAO Annex 14 and lightning protection system	1 No.		ICAO			Intermediate transmission is not included beyond the airport area
	b. Long-haul, space diversity 34 Mbits/s Microwave radio link, each end including antennas, protectors and battery supply.	2 Nos.					
	c. Short-haul, space diversity 34 Mbits/s Microwave radio link, each end including antennas, protectors and battery supply or fiber optic link (between 80 m mast & Control tower).	1 No.					
	d. PCM multiplexers for Voice, serial data & LAN extension.	2 Nos.					
	e. Recommended set of maintenance & operation manuals and set of spares for uninterrupted operation and maintenance of the above Microwave communication system and Optical fiber link for minimum of two years	1 Set					
	<b>Navigational and Landing Aids</b>						
	a. Instrument Landing System (ILS), Category 1, which shall include			ICAO Doc 8168-OPS/611, FAA Order No. 8260.19A			
	Glide Path & DME equipment including antennae system, battery supply and charger and equipment shelter	1 Set		ICAO Doc 8168-OPS/611, FAA Order No. 8260.19A			
	Localizer equipment including antenna system and equipment shelter	1 Set		ICAO Doc 8168-OPS/611, FAA Order No. 8260.19A			
	Middle Marker beacon including antenna, mast, battery back-up supply, charger and equipment shelter.	1 Set					

No.	Item	Project Requirements as per FSR/Draft Master Plan	China Harbour Proposal	Standards	Remark	Please indicate Y or No for the content of column 2 Specification and 3 requirements against your proposal	CHEC's Reply
	Outer Marker beacon including antenna, mast, battery back-up supply, charger and equipment shelter.	1 Set					
	Remote maintenance & monitoring system for ILS, including equipment to be installed at Technical Room and VFR console at Control Tower	1 Set					
	Configuration software & terminals	1 Set					
	Recommended set of maintenance & operation manuals and set of spares for uninterrupted operation and maintenance of the ILS for minimum of two years	1 Set					
	Testing commissioning and Flight calibration	1 Set					
	b. DVOR/DME						
	DVOR & DME equipment including antennae system battery supply and charger and equipment shelter	1 Set					
	Remote maintenance & monitoring system for DVOR & DME, including equipment to be installed at Technical Room and VFR console at Control Tower	1 Set					
	Configuration software & terminals	1 Set					
	Recommended set of maintenance & operation manuals and set of spares for uninterrupted operation and maintenance of the DVOR / DME for minimum of two years	1 Set					
	Testing commissioning and Flight calibration	1 Set					
	AWOS		Provided details are not given	ICAO/WMO			
							Subject to Concept and Preliminary Design

No.	Item	Project Requirements as per FSR/Draft Master Plan	China Haboer Proposal	Standards	Remark	Please indicate Yes/No for the content of column 2 Specification and 3 requirements against your proposal	CHEC's Reply
	The system shall include; Sensors without having mechanical moving parts to measure Wind Speed & Direction, Temperature, Dew Point and Pressure preferably mounted on standard Frangible Mast	1 Set					
	Processing units [work stations /servers] comprising GUI of having standard parameter displays in standard ICAO requirements such as pressure in QNH & QFE values	1 Set					
	Master display at the Technical room	1 No.					
	Slave Displays at Control Tower	2 Nos.					
	Digital Voice Communication Switching system (DYCSS)			ICAO			
	The system shall include; Switch & Control unit	1 No.					
	Interfaces for Telephone, RT (to connect all VHF Aviation Band communication equipment described above) & minimum of 04 Operator Consoles	1 Set					
	Monitoring & Metering equipment	1 Set					
	Operator Console interfaces (for VFR Console)	2 Nos.					
	Remote maintenance & monitoring system to be installed at Technical Room.	1 Set					
	Configuration software & terminals	1 Set					
	Recommended set of maintenance & operation manuals and set of spares for uninterrupted operation and maintenance of the DVCSS for minimum of two years	1 Set					
	VFR console						
	The Console shall include; a. Operator working positions including matching illumination and provision for installation of DVCSS Operator Terminal	2 Nos.					
	ILS status monitor						
	DVOR & DME status monitor						
	Fixed station of UHF ground communication system						

1. AWOS was included in Communication Aids;  
2. Details are subjected to concept and preliminary design

No.	Item	Project Requirements as per FSR/Draft Masterplan	China Harbour Proposal	Standards	Remark	Please indicate Yes/No for the content of column 2 Specification and 3 requirements against your proposal	CHEC's Reply
	Standby VHF Transceiver						
	VHF scan receiver						
	Meteorological Information Display Systems						
	Radar Display						
	Clock						
	Runway in-use indicator						
	b. Stand alone Radar Display, which could receive and display radar data from three radar systems operated by AASL. The data formats of the Radar system are AIRCAT 500 and ASTERIX cat. 1 & 2.	1 No.					
	c. DVCSS terminal, which shall include Touch Panel, Head set, Hand set, desktop Microphone, Speakers, PTT foot switch	2 Nos.					
	d. ILS Status monitor	1 No.					
	e. DVOR / DME Status monitor	1 No.					
	d. Clock display (GMT)	2 Nos.					
	e. Runway in-use display	2 Nos.					
	f. Recommended set of maintenance & operation manuals and set of spares for uninterrupted operation and maintenance of the Radar display and other equipment installed in VFR console for minimum of two years	1 set					
	AMHS Terminals			ICAO			
	AMHS Terminals including printers	2 nos.					
	DSU / CSU	2 nos.					
	IP Router	1 no.					
	AMHS User Agent software	2 licences					
	Optical Fiber network	1 set					
	The network shall cover the following nodes and number of cores shall be 100 % more than number required for interconnection of equipment located at each node to Control Tower, Terminal. There shall be a duct network connecting the nodes, which shall be used for other low voltage cables as well.						

1. Equipments will comply with relevant codes;  
2. Details are subject to concept design

No.	Item	Project Requirements as per FSR/Draft Master Plan	China Harbour Proposal	Standards	Remark	Please indicate Year/No for the content of column 2 Specification and 3 requirements against your proposal	CHEC's Reply
	DVOR / DME site						
	ILS GP site						
	ILS Localizer site						
	Middle Marker site						
	80 meter mast site						
	Power House / Generator Installation						
	Air Field Lighting Control site						
	Voice Recording and play back systems			ICAO			
	a. Dual 32 channel Recorders, expandable up to 64 channels, working in hot stand-by configuration with redundant storage media. Long term archiving capability to DVD or Flash Drives	1 set					
	b. Standalone Playback system	1 set					
	c. Software for configuration and remote monitoring	1 set					
	e. Recommended set of maintenance & operation manuals and set of spares for uninterrupted operation and maintenance of the Voice recording and play back system for minimum of two years	1 set					
	Air Traffic light Gun	1 No.					
	Visual Aid and Airfield Lighting						No
	Precision Approach Path Indicator System (PAPI)	1	Provided details are not given	Cat 1 ICAO Annex 14 and DESIGN Manual Part 4 DOC. 9157	Details and specifications required Spares to maintain minimum Two Years		
		Cat 1	Cat 1 ICAO	Cat 1 ICAO Annex 14 and DESIGN Manual Part 4 DOC 9157	Details and specifications required Spares to maintain minimum Two Years		



No.	Item	Project Requirements as per FSR/Draft Master Plan	China Harbour Proposal	Standards	Remark	Please indicate Yes/No for the content of column 2 Specification and 3 requirements against your proposal	CHEC's Reply
	Approach lights		Provided details are not given	Cat 1 ICAO Annex 14 and DESIGN Manual Part 4 DOC 9157	Details and specifications required Spares to maintain minimum Two Years		
	Meteorological Services		Provided	ICAO	ok		
	Airfield Grading	Code 4F					
	Security and Screening Systems:						
	Perimeter Roads						
	Perimeter fencing	06 X ray machines	Provided details are not given	Cat 1 ICAO Annex 14 and DESIGN Manual Part 4 DOC 9157	Details and specifications required Spares to maintain minimum Two Years	Yes	Subject to Concept and Preliminary Design
	Passenger Baggage Screening:						
	Passenger Screening:					No	1. Subject to Concept and Preliminary Design. 2. 06@X ray was not included in the submission.
	Cargo Screening:					Yes	Not included in the commercial submission, subject to review.
	Perimeter lightings					No	Not included in the commercial submission, subject to review
	Access System					Yes	Included in the submission
	Carparks					Yes	
	Main accessroads					Yes	
	Service Roads					Yes	
	Illumination of Access Roads					No	Not taken into account in commercial proposal. Subject to review
	Illumination of Carparks and Roads					Yes	Subject to Concept and Preliminary Design
	Landscaping				not necessary	Yes	Subject to Concept and Preliminary Design
	Telecommunications	simple system	Provided details are not given		Details and specifications required Spares to maintain minimum Two Years	Yes	Subject to Concept and Preliminary Design