



**PARLIMEN MALAYSIA  
BANGUNAN PARLIMEN  
JALAN PARLIMEN  
50680 KUALA LUMPUR**

**DOKUMEN SEBUT HARGA**

**SEBUTHARGA NO : PAR.2/367 SH.11/2023**

**TAJUK KERJA**

**KERJA-KERJA OPERASI DAN PENYELENGGARAAN SISTEM PENYAMAN UDARA & PENGUDARAAN MEKANIKAL, SISTEM PENCEGAH KEBAKARAN DAN SISTEM BEKALAN AIR DALAMAN & PAM PENGGALAK DI BLOK MEKANIKAL, BLOK UTAMA, DEWAN PERSIDANGAN DAN BLOK PEJABAT SEMENTARA, BANGUNAN PARLIMEN MALAYSIA**

**TARIKH TUTUP : 17 MAC 2023**

<p>Nama Kontraktor : .....</p> <p>Alamat:..... ..... .....</p> <p>Kelas :.....Tempoh Daftar :.....</p>
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**SENARAI SEMAKAN  
(BEKALAN/PERKHIDMATAN/KERJA)**

Sila tanda  bagi dokumen-dokumen yang disertakan

<b>Bil.</b>	<b>Perkara/Dokumen</b>	<b>Untuk Ditanda Oleh Syarikat</b>	<b>Untuk Ditanda Oleh Jawatankuasa Pembuka Sebut harga</b>
1.	Dokumen No. 1: Arahan Kepada Penyebutharga	<input type="checkbox"/>	<input type="checkbox"/>
2.	Dokumen No. 2: Syarat-Syarat Sebut Harga Untuk Kerja	<input type="checkbox"/>	<input type="checkbox"/>
3.	Dokumen No. 3 : Borang Sebut Harga Kerja & Surat Akuan Pembida	<input type="checkbox"/>	<input type="checkbox"/>
4.	Dokumen No. 4 : Technical Specifications	<input type="checkbox"/>	<input type="checkbox"/>
5.	Dokumen No. 5: Mechanical System Operation And Maintenance Schedule	<input type="checkbox"/>	<input type="checkbox"/>
6.	Dokumen No. 6: Schedule Of Prices, Total Schedule Of Prices And Summary Of Prices	<input type="checkbox"/>	<input type="checkbox"/>
7.	Dokumen No. 7: Maintenance checklist	<input type="checkbox"/>	<input type="checkbox"/>
8.	Dokumen No. 8: Mechanical System Operation And Maintenance Schedule Offered	<input type="checkbox"/>	<input type="checkbox"/>
9.	Dokumen No. 9: Senarai Peralatan Penyelenggaraan Wajib Dibekalkan	<input type="checkbox"/>	<input type="checkbox"/>
10.	Dokumen No. 10 : Schedule Of Unit Rate	<input type="checkbox"/>	<input type="checkbox"/>
11.	Dokumen No. 11 : Keterangan Mengenai Penyebutharga	<input type="checkbox"/>	<input type="checkbox"/>

Bil.	Perkara/Dokumen	Untuk Ditanda Oleh Syarikat	Untuk Ditanda Oleh Jawatankuasa Pembuka Sebut harga
12.	Dokumen No. 12 : Draf Perjanjian Kontrak & Format Surat Setuju Terima	<input type="checkbox"/>	<input type="checkbox"/>
13.	Dokumen sokongan		
	(i) Profil Syarikat beserta rekod pengalaman bekerja yang lepas dan semasa	<input type="checkbox"/>	<input type="checkbox"/>
	(ii) Salinan Penyata Bank tiga (3) bulan terkini ( <b>Disember 2022, Januari 2023 dan Februari 2023</b> )	<input type="checkbox"/>	<input type="checkbox"/>
	(iii) Salinan Sijil Perakuan Pendaftaran Kontraktor (PPK)	<input type="checkbox"/>	<input type="checkbox"/>
	(iv) Salinan Sijil Perolehan Kerja Kerajaan (SPKK)	<input type="checkbox"/>	<input type="checkbox"/>
	(v) Salinan Salinan Sijil Taraf Bumiputera (STB) dari Pusat Khidmat Kontraktor (Kerja) – jika ada	<input type="checkbox"/>	<input type="checkbox"/>
	(vi) Salinan Sijil SSM	<input type="checkbox"/>	<input type="checkbox"/>
	(vii) Salinan Surat Pendaftaran dengan Jabatan Kastam Diraja Malaysia (JKDM) di bawah Cukai Perkhidmatan / SST (jika ada)	<input type="checkbox"/>	<input type="checkbox"/>

**PENGESAHAN OLEH SYARIKAT**

Dengan ini saya mengesahkan bahawa saya telah membaca dan memahami semua syarat-syarat dan terma yang dinyatakan di dalam dokumen sebut harga. Semua maklumat yang dikemukakan adalah benar.

Tandatangan :

Nama :

Jawatan :

Tarikh :

**UNTUK KEGUNAAN JABATAN**

Jawatankuasa Pembuka Sebut Harga mengesahkan penerimaan dokumen bertanda kecuali bagi perkara bil.  
..... (jika ada)

Tandatangan :

Nama :

Jawatan :

Tarikh :

Tandatangan :

Nama :

Jawatan :

Tarikh :

**KERAJAAN MALAYSIA**

**PARLIMEN MALAYSIA****DOKUMEN SEBUT HARGA**

**KERJA-KERJA OPERASI DAN PENYELENGGARAAN SISTEM PENYAMAN UDARA & PENGUDARAAN MEKANIKAL, SISTEM PENCEGAH KEBAKARAN DAN SISTEM BEKALAN AIR DALAMAN & PAM PENGGALAK DI BLOK MEKANIKAL, BLOK UTAMA, DEWAN PERSIDANGAN DAN BLOK PEJABAT SEMENTARA, BANGUNAN PARLIMEN MALAYSIA  
- PAR.2/367 SH.11/2023**

**JADUAL KANDUNGAN**

<b>PERKARA</b>	<b>MUKA SURAT</b>
Dokumen No. 1: Arahan Kepada Penyebutharga	6-11
Dokumen No. 2: Syarat-Syarat Sebut Harga Untuk Kerja	12-17
Dokumen No. 3 : Borang Sebut Harga Kerja & Surat Akuan Pembida	18-21
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Dokumen No. 5: Mechanical System Operation And Maintenance Schedule	34-84
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Dokumen No. 7: Maintenance checklist	123-126
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Dokumen No. 9: Senarai Peralatan Penyelenggaraan Wajib Dibekalkan	182-184
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# **DOKUMEN NO. 1**

## **ARAHAN KEPADA PENYEBUTHARGA**

## DOKUMEN NO. 1

**ARAHAN KEPADA PENYEBUTHARGA**

NO. SEBUTHARGA: PAR.2/367 SH.11/2023

**KERJA-KERJA OPERASI DAN PENYELENGGARAAN SISTEM PENYAMAN UDARA & PENGUDARAAN MEKANIKAL, SISTEM PENCEGAH KEBAKARAN DAN SISTEM BEKALAN AIR DALAMAN & PAM PENGGALAK DI BLOK MEKANIKAL, BLOK UTAMA, DEWAN PERSIDANGAN DAN BLOK PEJABAT SEMENTARA, BANGUNAN PARLIMEN MALAYSIA**

1. Tawaran adalah dipelawa kepada Kontraktor Tempatan berdaftar dengan Lembaga Pembangunan Industri Pembinaan Malaysia (LPIMPM/ CIDB) mempunyai Sijil Perakuan Pendaftaran Kontraktor (PPK) serta Sijil Perolehan Kerja Kerajaan (SPKK) dalam Gred, Kategori, dan Pengkhususan seperti berikut :-

<b>Gred</b>	<b>G3</b>
<b>Kategori</b>	<b>ME</b>
<b>Pengkhususan</b>	<b>M01, M02, M04 dan M15</b>

Yang mana pendaftarannya masih lagi berkuatkuasa, mempunyai alamat pendaftaran di **Wilayah Persekutuan Kuala Lumpur** dan **Selangor** adalah layak membuat tawaran bagi sebutharga berikut :-

**KERJA-KERJA OPERASI DAN PENYELENGGARAAN SISTEM PENYAMAN UDARA & PENGUDARAAN MEKANIKAL, SISTEM PENCEGAH KEBAKARAN DAN SISTEM BEKALAN AIR DALAMAN & PAM PENGGALAK DI BLOK MEKANIKAL, BLOK UTAMA, DEWAN PERSIDANGAN DAN BLOK PEJABAT SEMENTARA, BANGUNAN PARLIMEN MALAYSIA**

2. Penyebutharga adalah dikehendaki mengisi dengan dakwat segala maklumat berikut dengan sepenuhnya :-
- a) Harga, tempoh, tandatangan kontraktor dalam Borang Sebut Harga Kerja & Surat Akuan Pembida.
  - b) *Schedule of prices.*
  - c) *Total schedule of prices.*
  - d) *Summary of prices*
  - e) *Schedule of unit rate*
  - f) *Schedule of maintenance offered*
  - g) Cadangan borang checklist syarikat untuk kerja-kerja penyelenggaraan

- h) Senarai peralatan penyelenggaraan yang akan dibekalkan dalam kontrak
  - i) Keterangan mengenai kontraktor.
3. Semua borang hendaklah diisi dengan lengkap seperti yang ditentukan dan ditaip dengan kemas dan terang. Jika ruangan yang disediakan tidak mencukupi, petender dibenarkan menaip maklumat-maklumat di mukasurat tambahan.
  4. Penyebut harga hendaklah memastikan tawaran sebut harga mengambilkira operasi kerja lebih masa di Parlimen Malaysia terutamanya semasa sesi persidangan Dewan Rakyat dan Dewan Negara berjalan. **(Anggaran tempoh persidangan 120 hari setahun dimana pekerja perlu tunggu sedia sehingga tamat persidangan yang biasa tamat pada pukul 10 mlm).**
  5. Lawatan tapak adalah sebagaimana yang dinyatakan di dalam iklan sebut harga. Penyebutharga adalah **DI WAJIBKAN** untuk menghadiri lawatan tapak tersebut pada masa dan tempat yang telah ditetapkan.
  4. Penyebutharga hendaklah menyerahkan sampul tawaran sebut harga **secara manual** ke dalam peti sebut harga pada atau sebelum **17 Mac 2023, jam 12.00 tengah hari**. Dokumen tawaran yang diterima selepas dari tarikh dan masa akan **ditolak**. Sampul hendaklah dilabelkan nombor tawaran sebut harga dan hendaklah dimasukkan ke dalam **Peti Sebut Harga No. 1, di Seksyen Kewangan dan Akaun, Aras 4, Blok Ahli Parlimen Dan Pentadbiran, Parlimen Malaysia, Jalan Parlimen, 50680 Kuala Lumpur**.
  5. Kerajaan tidak bertanggungjawab di atas apa-apa kehilangan dokumen semasa perjalanan pos/perkhidmatan hantar cepat (*courier service*) dan sebagainya. “Jika sebut harga dihantar dengan menggunakan perkhidmatan pos berdaftar/ kurier, Penyebutharga hendaklah memastikan dokumen tersebut selamat tiba pada alamat yang telah ditetapkan sebelum atau pada Tarikh Tutup sebut harga selewat-lewatnya pada pukul 12.00 tengah hari. Sebarang kelewatan yang timbul dalam urusan tersebut tidak akan dilayan”.
  6. Tawaran sebutharga ini sah selama **sembilan puluh (90)** hari dari tarikh tutup bidaan.
  7. Kontraktor yang tawarannya disetujuterima dikehendaki memberi perkhidmatan pada tarikh yang ditetapkan oleh Kerajaan atau mana-mana tarikh lain seperti ditentukan oleh Kerajaan. Sekiranya Kontraktor gagal berbuat demikian, tawaran yang disetujuterima akan dibatalkan dan nama Kontraktor serta nama pengarah-pengarah termasuk pemegang-pemegang saham terbesar akan disenaraihitamkan.



8. Kerajaan tidak terikat untuk menerima Sebutharga yang terendah atau mana-mana tawaran. Tiada sebarang alasan perlu diberikan oleh Kerajaan untuk sebarang penolakan tawaran. Keputusan mengenai Sebutharga yang diterima adalah muktamad. Sebarang surat menyurat mengenai keputusan Sebutharga tidak akan dilayan.
9. **PERINGATAN MENGENAI KESALAHAN RASUAH DALAM DOKUMEN PEROLEHAN KERAJAAN**
- 9.1 Sebarang perubahan atau percubaan rasuah untuk menawar atau memberi, meminta atau menerima apa-apa suapan secara rasuah kepada dan daripada mana-mana orang berkaitan perolehan ini merupakan suatu kesalahan jenayah di bawah Akta Suruhanjaya Pencegahan Rasuah Malaysia 2009 (Akta 694).
- 9.2 Sekiranya mana-mana pihak ada menawarkan atau memberi apa-apa suapan kepada mana-mana anggota pentadbiran awam, maka pihak yang ditawarkan atau diberi suapan dikehendaki membuat aduan dengan segera ke pejabat Suruhanjaya Pencegahan Rasuah Malaysia atau balai polis yang berhampiran. Kegagalan berbuat demikian adalah merupakan suatu kesalahan di bawah Akta Suruhanjaya Pencegahan Rasuah Malaysia 2009 (Akta 694).
- 9.3 Tanpa prejudis kepada tindakan-tindakan lain, tindakan tatatertib terhadap anggota perkhidmatan awam dan menyenarai hitamkan kontraktor atau pembekal boleh diambil sekiranya pihak-pihak terlibat dengan kesalahan rasmi di bawah Akta Suruhanjaya Pencegahan Rasuah Malaysia 2009 (Akta 694).
- 9.4 Mana-mana kontraktor atau pembekal yang membuat tuntutan bayaran berkaitan perolehan ini walaupun tiada kerja-kerja dibuat atau tiada barangan dibekal mengikut spesifikasi yang ditetapkan atau tiada perkhidmatan diberi dan mana-mana anggota perkhidmatan awam yang mengesahkan tuntutan berkenaan adalah melakukan kesalahan di bawah Akta Suruhanjaya Pencegahan Rasuah Malaysia 2009 (Akta 694).
10. **PELAKSANAAN CUKAI JUALAN DAN CUKAI PERKHIDMATAN (CJCP) YANG BERKUATKUASA 1 SEPTEMBER 2018**
- 10.1 Semua tawaran harga oleh Pembekal hendaklah dikemukakan dengan dinyatakan harga tawaran tanpa Cukai Jualan dan Cukai Perkhidmatan (CJCP).
- 10.2 Senarai yang dikenakan Cukai Perkhidmatan seperti yang terdapat dalam Akta Cukai Perkhidmatan 2018. Sekiranya pembekal yang

berjaya berdaftar CJCP dan perkhidmatan tersebut adalah termasuk dalam senarai yang dikenakan Cukai Perkhidmatan, Kerajaan akan menawarkan nilai perolehan termasuk kenaan Cukai Perkhidmatan.

- 10.3 Pembekal hendaklah memaklumkan pada bila-bila masa setelah berdaftar dengan JKDM kepada Kerajaan supaya Cukai Perkhidmatan boleh dibayar. Kegagalan atau kelewatan syarikat untuk memaklumkan kepada Kerajaan mengenai status pendaftaran dengan JKDM akan menyebabkan syarikat perlu menanggung CJCP dan tidak layak menuntut apa-apa bayaran daripada Kerajaan.

**11. PELAKSANAAN PROGRAM PROFESSIONAL TRAINING AND EDUCATION FOR GROWING ENTREPRENEURS (PROTEGE) DALAM PEROLEHAN KERAJAAN (1PP/PK1.2)**

- 11.1 Penyebut harga adalah dikehendaki melaksanakan program PROTEGE dalam perolehan kerajaan mengikut had nilai ambang (threshold value) dan sektor seperti berikut :

Bil	Sektor	Nilai Ambang (RM)
1	Pembinaan	10 juta
2	Perkhidmatan / Penyelenggaraan Bangunan / Infrastruktur / Jalan	5 juta
3	Teknologi Informasi dan Komunikasi	10 juta
4	Perkhidmatan Perunding	5 juta
5	Perubatan dan Farmasi	10 juta
6	Perkhidmatan Sokongan Kesihatan	10 juta
7	Perkhidmatan Penyelenggaraan, Pembaikan dan Baik Pulih	10 juta
8	Pengangkutan dan Logistik	10 juta
9	Pertahanan Strategik	10 Juta
10	Perkhidmatan Kawalan Keselamatan	4 juta
11	Sektor Lain	10 uta

- 11.2 Syarikat hendaklah memperuntukkan sekurang-kurangnya 1% daripada keseluruhan kos projek bagi melaksanakan program PROTEGE.

- 11.3 Syarikat yang mendapat kontrak Kerajaan di bawah nilai ambang digalakkan untuk melaksanakan program PROTEGE, namun tidak tertakluk kepada penetapan 1% daripada nilai kontrak keseluruhan.
- 11.4 Penetapan bilangan minimum peserta SL1M bagi sesuatu kontrak dikira berdasarkan formula berikut :

$$\frac{1\% \times \text{Kos Keseluruhan Projek} / \text{Prolehan}}{\text{RM24,000}^*}$$

\* Elaun PROTEGE (RM2,000 seorang X 12 bulan)

12. Selain perkara 1 hingga 11 yang dinyatakan di atas, kontraktor juga tertakluk kepada syarat-syarat tambahan sepertimana di Lampiran A : Syarat-Syarat Sebutharga Untuk Kerja.

13. Sebarang penjelasan yang diperlukan mengenai sebut harga ini hendaklah dialamatkan kepada:

Ketua Jurutera  
Bahagian Senggara Fasiliti Bangunan & Landskap  
Tingkat 4, Blok Ahli Parlimen Dan Pentadbiran  
Parlimen Malaysia  
Jalan Parlimen  
50680 Kuala Lumpur.

**DOKUMEN NO. 2**

**SYARAT-SYARAT  
SEBUTHARGA UNTUK KERJA**

**DOKUMEN NO. 2****SYARAT-SYARAT SEBUTHARGA UNTUK KERJA****1. PEMERIKSAAN TAPAK BINA**

Kontraktor disifatkan telah memeriksa dan meneliti tapak bina dan sekitarnya, bentuk dan jenis tapak bina, takat dan jenis kerja, bahan dan barang yang perlu bagi menyiapkan kerja, cara-cara perhubungan dan laluan masuk ke tapak bina dan hendaklah mendapatkan sendiri segala maklumat yang perlu tentang risiko, luar jangkaan dan segala hal keadaan yang mempengaruhi dan menjejaskan sebut harganya. Sebarang tuntutan yang timbul akibat daripada kegagalan Kontraktor mematuhi kehendak ini tidak akan dipertimbangkan.

**2. INSURANS**

- 2.1 Kontraktor hendaklah atas nama Kerajaan dan Kontraktor mengambil Insurans Liabiliti Awam dan Insurans Kerja\* (sekiranya dinyatakan di dalam Butir-butir Ringkasan Sebutharga) bagi tempoh pelaksanaan Kerja ini. Kontraktor hendaklah juga mengemukakan Nombor Kod Pendaftaran dengan PERKESO.
- 2.2 Kontraktor hendaklah mengemukakan kepada Pegawai Kerja semua polisi insurans dan Nombor Kod Pendaftaran dengan PERKESO yang tersebut di atas sebelum memulakan Kerja. Bagaimana pun untuk tujuan memulakan Kerja sahaja Nota-nota Perlindungan dan resit-resit bayaran premium adalah mencukupi. Sekiranya Kontraktor gagal mengemukakan semua polisi insurans selepas tempoh sah nota-nota perlindungan, tanpa sebarang sebab yang munasabah, Pegawai Kerja berhak mengambil tindakan seperti di bawah fasal 9(d).

**3. PERATURAN PELAKSANAAN KERJA**

- 3.1 Kerja-karya yang dilaksanakan hendaklah mematuhi Spesifikasi, pelan-pelan, butir-butir kerja dalam Ringkasan Sebut Harga dan Syarat-syarat yang dinyatakan dalam Dokumen Sebut Harga ini dan arahan Pegawai Kerja atau Wakilnya.
- \*3.2 Kerja-karya elektrik yang dilaksanakan di samping mematuhi kehendak diperenggan 3.1 di atas, hendaklah juga mematuhi semua peraturan dan pekeliling, undang-undang dan undang-undang kecil yang diluluskan oleh:
- (i) Suruhanjaya Tenaga
  - (ii) Jabatan Keselamatan Pekerjaan dan Kesihatan
  - (iii) Pemegang Lesen dan Pihak Berkuasa Bekalan Elektrik
  - (iv) Jabatan Bomba dan Penyelamat
  - (v) Pihak Berkuasa Tempatan

#### **4. KEGAGALAN KONTRAKTOR MEMULAKAN KERJA**

Sekiranya Kontraktor gagal memulakan kerja selepas tujuh (7) hari dari tarikh tempoh mula kerja yang dinyatakan dalam Surat Setujuterima Tawaran, tanpa sebab-sebab yang munasabah, Surat Setujuterima Tawaran akan dibatalkan oleh Pegawai Kerja dan tindakan tatatertib akan diambil terhadap Kontraktor.

#### **5. SUB-SEWA DAN MENYERAHHAK KERJA**

Kontraktor tidak dibenarkan mengsub-sewakan Kerja kepada Kontraktor-kontraktor lain. Kontraktor tidak boleh menyerahhak apa-apa faedah dibawah kontrak ini tanpa terlebih dahulu mendapat persetujuan bertulis daripada Pegawai Kerja.

#### **6. PENOLAKAN BAHAN, BARANG DAN MUTU HASIL KERJA OLEH PEGAWAI KERJA**

- 6.1 Pegawai Kerja atau Wakilnya berhak menolak bahan, barang dan mutu hasil kerja dari jenis piawaian yang tidak menepati seperti diperihalkan dalam spesifikasi. Kontraktor hendaklah, apabila diminta oleh Pegawai Kerja, memberi kepadanya baucar-baucar dan/ atau perakuan ujian pengilang untuk membuktikan bahawa bahan-bahan dan barang-barang itu mematuhi Spesifikasi. Bahan, barang dan kerja-kerja yang ditolak hendaklah diganti dan sebarang kos tambahan yang terlibat hendaklah ditanggung oleh Kontraktor sendiri.
- 6.2 Kontraktor hendaklah dengan sepenuhnya atas perbelanjaan sendiri menyediakan sampel bahan dan barang-barang untuk ujian.
- 6.3 Tiada penggantian untuk peralatan, bahan dan cara kerja yang telah ditentukan di dalam spesifikasi atau ditawarkan dan telah diterima, dibenarkan kecuali mendapat persetujuan daripada Pegawai Kerja secara bertulis.

#### **7. RINGKASAN SEBUT HARGA**

- 7.1 Ringkasan Sebut Harga hendaklah menjadi sebahagian daripada Borang Sebut Harga ini dan hendaklah menjadi asas Jumlah Harga Sebut Harga.
- 7.2 Harga-harga dalam Ringkasan Sebut Harga hendaklah mengambil kira semua kos termasuk kos pengangkutan, cukai, duti, bayaran dan caj-caj lain yang perlu dan berkaitan bagi penyiapan Kerja dengan sempurnanya.
- 7.3 Tiada sebarang tuntutan akan dilayan bagi pelarasan harga akibat daripada perubahan kos buruh, bahan-bahan dan semua duti dan cukai Kerajaan, sama ada dalam tempoh sah sebut harga atau dalam tempoh Kerja.
- 7.4 Harga-harga dalam Ringkasan Sebut Harga yang dikemukakan oleh Kontraktor hendaklah tertakluk kepada persetujuan sebelumnya daripada Pegawai Kerja tentang kemunasabahnannya. Persetujuan sebelumnya itu dan apa-apa pelarasan kemudiannya kepada harga-harga dalam Ringkasan Sebut Harga hendaklah dibuat sebelum Dokumen Kontrak ditandatangani.

- 7.5 Apa-apa pelarasan harga dalam Ringkasan Sebut Harga menurut perenggan 7.4 tersebut di atas dan apa-apa kesilapan hisab dalam Ringkasan Sebut Harga hendaklah dilaras dan diperbetulkan sebelum Dokumen Kontrak ditandatangani. Jumlah amaun yang dilaraskan hendaklah sama dengan amaun jumlah harga pukal dalam Borang Sebut Harga. Amaun jumlah harga pukal dalam Borang Sebut Harga hendaklah tetap tidak berubah.
- 7.6 Sekiranya sebut harga berasaskan senarai kuantiti sementara, pengukuran semula hendaklah dibuat dan harga sebut harga diselaraskan.

## **8. PERCANGGAHAN DAN KECUKUPAN DOKUMEN SEBUT HARGA**

- 8.1 Dokumen Sebut Harga adalah dikira sebagai saling jelas-menjelas antara satu sama lain. Kontraktor hendaklah mengadakan segala yang perlu untuk melaksanakan kerja dengan sewajarnya sehinggalah siap mengikut tujuan dan maksud sebenar. Dokumen Sebut Harga pada keseluruhannya sama ada atau tidak tujuan dan maksud itu ada ditunjuk atau diperihalkan secara khusus, dengan syarat bahawa tujuan, maksud itu hendaklah difahamkan dengan munasabahnyanya dari Dokumen Sebut Harga itu.
- 8.2 Jika Kontraktor mendapati apa-apa percanggahan dalam Dokumen Sebut Harga dia hendaklah merujuk kepada Pegawai Kerja untuk mendapatkan keputusan.

## **9. KEGAGALAN KONTRAKTOR MENYIAPKAN KERJA DAN PENAMATAN PERLANTIKAN KONTRAKTOR**

Pegawai Kerja berhak membatalkan kontrak sekiranya Kontraktor berada dalam keadaan berikut dan setelah menerima surat amaran daripada Pegawai Kerja:

- (a) Sekiranya Kontraktor masih gagal menyiapkan Kerja dalam tempoh masa yang telah ditetapkan;
- (b) Kemajuan Kerja terlalu lembab tanpa apa-apa sebab munasabah;
- (c) Penggantungan pelaksanaan seluruh atau sebahagian Kerja, tanpa apa-apa sebab yang munasabah;
- (d) Tidak mematuhi arahan Pegawai Kerja tanpa apa-apa alasan yang munasabah; dan
- (e) Apabila Kontraktor diisytiharkan bankrap oleh pihak yang sah.

## **10. BAYARAN KEMAJUAN**

Pegawai Kerja dibenarkan membuat bayaran interim sehingga kerja-kerja siap dilaksanakan.

## 11. KERJA PERUBAHAN

- 11.1 Pegawai Kerja boleh menurut budi bicaranya mengeluarkan arahan-arahan yang berkehendakkan sesuatu perubahan kerja dengan secara bertulis. Tiada apa-apa perubahan yang dikeluarkan oleh Pegawai Kerja atau yang disahkan kemudian oleh Pegawai Kerja boleh membatalkan sebut harga ini.
- 11.2 Semua kerja perubahan dan/atau tambahan yang diluluskan oleh Pegawai Kerja akan diukur atau dinilai dengan menggunakan kadar harga yang ada dalam Senarai Kuantiti/ Ringkasan Sebut Harga. Jika tidak terdapat sebarang kadar harga yang bersesuaian, kadar harga yang dipersetujui oleh Pegawai Kerja dan Kontraktor hendaklah digunakan.

## 12. TEMPOH TANGGUNGAN KECACATAN (DLP)

- 12.1 Tempoh Tanggungan Kecacatan bagi sebut harga hendaklah sekurang-kurangnya enam (6) bulan dari tarikh kerja diperakukan siap. Bagi kerja-kerja mekanikal dan elektrik dimana tempoh waranti ke atas alat-alat dan loji-loji adalah dua belas (12) bulan dan dalam kes-kes tertentu oleh kerana jenis dan kerumitan kerja, tempoh tanggungan kecacatan yang lebih lama daripada enam (6) bulan boleh dikenakan.
- 12.2 Kontraktor dipertanggungjawabkan untuk membaiki kecacatan, ketidaksempurnaan, kekecutan atau apa-apa jua kerosakan lain yang mungkin kelihatan dan yang disebabkan oleh bahan atau barang atau mutu hasil kerja yang tidak menepati sebut harga ini apabila diarahkan oleh Pegawai Kerja dan dalam masa yang berpatutan. Kontraktor hendaklah membaiki kecacatan, ketidaksempurnaan, kekecutan atau apa-apa jua kerosakan lain atas kos Kontraktor sendiri.
- 12.3 Sekiranya Kontraktor gagal membaiki kecacatan, ketidaksempurnaan, kekecutan atau apa-apa jua kerosakan lain seperti yang diarahkan, Pegawai Kerja berhak memotong kos membaiki dari baki wang yang akan dibayar kepada Kontraktor atau, jika baki itu tiada tidak mencukupi, mengeluarkan surat pengesyoran kepada Pusat Khidmat Kontraktor untuk menggantungkan pendaftaran Kontraktor, dan menghantar salinan-salinan surat tersebut kepada Ketua Pengarah Kerja Raya, Bahagian Pembangunan Bumiputera, Kementerian Kerja Raya dan Lembaga Pembangunan Industri Pembinaan. Bagi kerja-kerja elektrik/mekanikal, salinan surat hendaklah dihantar kepada Pengarah Cawangan Kerja Elektrik/Pengarah Cawangan Kerja Mekanikal Jabatan Kerja Raya.

## 13. PERATURAN MEMBAYAR SELEPAS SIAP

Bayaran sepenuhnya hanya akan dibayar setelah Kontraktor menyiapkan kerja dengan sempurna dan Perakuan Siap Kerja dikeluarkan.

## 14. PERAKUAN SIAP KERJA

Pegawai Kerja hendaklah mengeluarkan Perakuan Siap Kerja sebaik sahaja kerja disiapkan dengan sempurna dan memuaskan. Tarikh siap kerja ini adalah bermulanya Tempoh Tanggungan Kecacatan.



## **15. PERAKUAN SIAP MEMPERBAIKI KECACATAN**

Pegawai Kerja hendaklah mengeluarkan Perakuan Siap Membaiki Kecacatan sebaik sahaja Kontraktor telah membaiki kecacatan, ketidaksempurnaan, kekecutan atau apa-apa jua kerosakan lain.

## **16. PEMATUHAN KEPADA UNDANG-UNDANG OLEH KONTRAKTOR**

Kontraktor hendaklah mematuhi segala kehendak Undang-undang Kecil dan Undang-undang Berkanun dalam Malaysia semasa pelaksanaan kerja. Kontraktor tidak berhak menuntut sebarang kos dan bayaran tambahan kerana pematuhannya dengan syarat-syarat ini.

## **DOKUMEN NO. 3**

# **BORANG SEBUT HARGA KERJA & SURAT AKUAN PEMBIDA**

## DOKUMEN NO. 3

**BORANG SEBUT HARGA KERJA**

Ketua Pentadbir  
Parlimen Malaysia  
Bangunan Parlimen  
Jalan Parlimen  
50680 Kuala Lumpur.

Tuan,

**NO. SEBUTHARGA: PAR.2/367 SH.11/2023**

**KERJA-KERJA OPERASI DAN PENYELENGGARAAN SISTEM PENYAMAN UDARA & PENGUDARAAN MEKANIKAL, SISTEM PENCEGAH KEBAKARAN DAN SISTEM BEKALAN AIR DALAMAN & PAM PENGGALAK DI BLOK MEKANIKAL, BLOK UTAMA, DEWAN PERSIDANGAN DAN BLOK PEJABAT SEMENTARA, BANGUNAN PARLIMEN MALAYSIA**

Di bawah dan tertakluk kepada Arahan Kepada Penyebut Harga, Syarat-syarat Sebut Harga, Spesifikasi Kerja dan pelan-pelan, saya yang bertandatangan di bawah ini adalah dengan ini menawarkan untuk melaksanakan dan menyiapkan kerja-kerja tersebut bagi jumlah harga pukal sebanyak Ringgit Malaysia:-

.....  
..... (RM: .....)

2. Saya bersetuju menyiapkan kerja-kerja ini dalam masa ..... tahun dari tarikh akhir tempoh mula kerja seperti yang diarahkan oleh Pegawai Inden. Bertarikh pada ..... Haribulan ..... 2023.

.....  
Tandatangan Kontraktor  
Nama Penuh: .....  
No. K/P: .....  
Alamat: .....  
.....  
Atas sifat: .....

.....  
Tandatangan Saksi  
Nama Penuh: .....  
No. K/P: .....  
Alamat: .....  
.....  
.....

.....  
Meterai atau Cap Kontraktor

**LAMPIRAN 6**  
Pekeliling Perbendaharaan Malaysia  
PK 1.6

**SURAT AKUAN PEMBIDA**

**KERJA-KERJA OPERASI DAN PENYELENGGARAAN SISTEM PENYAMAN UDARA & PENGUDARAAN MEKANIKAL, SISTEM PENCEGAH KEBAKARAN DAN SISTEM BEKALAN AIR DALAMAN & PAM PENGGALAK DI BLOK MEKANIKAL, BLOK UTAMA, DEWAN PERSIDANGAN DAN BLOK PEJABAT SEMENTARA, BANGUNAN PARLIMEN MALAYSIA – PAR.2/367 SH.11/2023**

Saya, ..... No. Kad Pengenalan ..... yang mewakili ..... nombor Pendaftaran ..... dengan ini mengisytiharkan bahawa saya atau mana-mana orang yang mewakili syarikat ini:

- i. tidak akan menawarkan, menjanjikan atau memberikan apa - apa suapan kepada mana-mana orang dalam mana-mana Kementerian/Agensi atau mana-mana orang lain, sebagai suapan untuk dipilih dalam mana-mana perolehan; dan
- ii. tidak akan melakukan atau terlibat dengan tipuan bida dalam mana-mana perolehan.

Bersama ini dilampirkan Surat Perwakilan Kuasa bagi saya mewakili syarikat seperti tercatat di atas untuk membuat pengisytiharan ini.

2. Sekiranya saya, atau mana-mana individu yang mewakili syarikat ini didapati terlibat dalam pakatan tipuan bida dengan syarikat lain berkenaan perolehan di atas atau menawarkan, menjanjikan atau memberikan apa-apa suapan kepada mana-mana orang dalam **PARLIMEN MALAYSIA** atau mana-mana orang lain sebagai dorongan untuk dipilih dalam perolehan seperti di atas, maka saya sebagai wakil syarikat bersetuju tindakan-tindakan berikut boleh diambil:

- 2.1 Hilang kelayakan untuk dinilai dan dilantik bagi perolehan di atas; dan
- 2.2 Lain-lain tindakan undang-undang/tatatertib mengikut undang-undang/peraturan perolehan Kerajaan yang berkuat-kuasa.

3. Saya sesungguhnya faham bahawa—

- 3.1 saya atau mana-mana orang yang berkaitan dengan syarikat boleh didakwa bagi kesalahan\* di bawah Akta Suruhanjaya Pencegahan Rasuah Malaysia 2009 [Akta 694] dan Kanun Keseksaan [Akta 574] serta boleh dihukum di bawah undang-undang masing-masing atas kegagalan saya atau mana-mana orang yang mewakili syarikat ini untuk mematuhi perkara (i) dalam surat akuan ini; atau
- 3.2 tindakan boleh dikenakan ke atas syarikat di bawah Akta Persaingan 2010 [Akta 712] atas kegagalan saya atau mana-mana orang yang mewakili syarikat ini untuk mematuhi perkara (ii) dalam surat akuan ini. Sekiranya syarikat didapati melanggar peruntukan seksyen 4(2)(d) Akta 712, syarikat boleh didenda tidak melebihi sepuluh peratus (10%) daripada pusing ganti (*turn over*) seluruh dunia sepanjang tempoh suatu pelanggaran itu berlaku.

4. Sekiranya terdapat mana-mana orang cuba memperolehi atau meminta apa-apa suapan daripada saya atau mana-mana orang yang berkaitan dengan syarikat ini sebagai dorongan untuk dipilih dalam perolehan seperti di atas, maka saya berjanji akan dengan segera melaporkan perbuatan tersebut kepada pejabat Suruhanjaya Pencegahan Rasuah Malaysia (SPRM) atau balai polis yang berhampiran. Saya sedar bahawa kegagalan saya berbuat demikian adalah merupakan suatu kesalahan di bawah seksyen 25 (1) Akta Suruhanjaya Pencegahan Rasuah Malaysia 2009 [*Akta 694*] dan boleh dihukum di bawah seksyen 25 (2) akta yang sama, apabila disabitkan boleh didenda tidak melebihi RM100,000 atau penjara selama tempoh tidak melebihi sepuluh tahun atau kedua-duanya.
5. Saya sesungguhnya faham bahawa syarikat melakukan kesalahan jika seseorang yang bersekutu dengan syarikat\*\* memberikan, menjanjikan atau menawarkan suapan untuk memperolehi atau mengekalkan perniagaan atau faedah dalam menjalankan perniagaan di bawah Seksyen 17A, Akta Suruhanjaya Pencegahan Rasuah Malaysia 2009 [*Akta 694*], apabila disabitkan kesalahan boleh didenda tidak kurang daripada sepuluh kali ganda jumlah atau nilai suapan, atau RM1 juta, atau dipenjarakan selama tempoh tidak melebihi dua puluh tahun atau kedua-duanya.

Yang benar,

Tandatangan :  
 Nama :  
 No. KP :  
 Tarikh :  
 Cop Syarikat :

Catatan:

(i) \*\*termasuk kesalahan ditetapkan dalam Jadual (Perenggan 3 (a), takrif "kesalahan ditetapkan") Akta Suruhanjaya Pencegahan Rasuah Malaysia 2009 [*Akta 694*] yang boleh dihukum di bawah Kanun Keseksaan.

(ii) \*\*\*seseorang yang bersekutu dengan syarikat merujuk kepada seksyen 17A (6) Akta Suruhanjaya Pencegahan Rasuah Malaysia 2009 [*Akta 694*], iaitu seseorang itu bersekutu dengan organisasi komersial jika dia seorang pengarah, pekongsi atau pekerja organisasi komersial itu atau dia ialah orang yang melaksanakan perkhidmatan untuk atau bagi pihak organisasi komersial itu.

(iii) Surat Akuan ini hendaklah dikemukakan bersama surat perwakilan kuasa.

(iv) Takrifan perusahaan di bawah Akta 712 merangkumi syarikat yang terlibat dengan perolehan Kerajaan.

Pihak Syarikat : Penama pada sijil pendaftaran untuk menandatangani Surat ini.

Pihak Kerajaan : Pegawai yang diberi kuasa oleh Menteri di bawah seksyen 2 Akta Kontrak Kerajaan 1949 untuk menandatangani kontrak.

**DOKUMEN NO. 4**  
**TECHNICAL SPECIFICATIONS**

## A. SPECIFICATIONS FOR SERVICE AND MAINTENANCE

### 1.0 GENERAL

- 1.1 This portion of the specification shall cover all service and maintenance work to be carried out during the contract period of **Eight (8) months for Blok Mekanikal, Blok Utama, Dewan Persidangan, Blok Pejabat Sementara, Pejabat Nursery, Terowong Utiliti, Stor Perpustakaan, Pondok Pengawal and Dataran Kawad** from the effective date of the contract.
- 1.2 Equipment to be serviced and maintained under this contract is as per listed in item C (**Schedule of prices**). In case where the numbers of equipment to be serviced and maintained are reduced or increased during the contract period, the amount for monthly service and maintenance will be revised by the S.O. and shall be based on the rate and numbers of equipment serviced and maintained by the Maintenance Contractor. Any service and maintenance of additional equipment which is not listed in **item C** shall be charged separately and the rate to be agreed.
- 1.3 This maintenance work shall include the supply of all materials, appliances, labor and necessary incidentals. All works shall be performed in accordance with the best engineering practice and must be in strict accordance to this specification.
- 1.4 The Maintenance Contractor shall have **one (1) supervisor / technician** in charge of the service, maintenance and repair work to be carried out. The technician must be thoroughly **competent** in supervising such work involving central air conditioning plant and split unit of all types and shall be in direct employment of the Air-Conditioning Contractor and acceptable to the S.O. (Minimum 10yrs experience in maintenance and service especially in Water Cooled Chiller System and VRF/VRV Air Conditioning System).
- 1.5 The Maintenance Contractor shall have in his direct employment, **three (3) skilled workmen** to carry out the servicing and repair work. Such workman must be **competent** and shall be expected to perform quality work in accordance to good engineering practice and to the satisfaction of the S.O. (Minimum 4yrs experience in maintenance and service especially in Water Cooled Chiller System and VRF/VRV Air Conditioning System).
- 1.6 All materials to be supplied in connection with the work shall be new and unused and shall in general be of the best quality as regards to manufacture and performance.
- 1.7 In the event the tenderer cannot supply the specified equipment or material, the contractor shall submit catalogue/brochure for alternative equipment or material of equivalent quality and specification for approval of S.O. before procurement of such equipment or material.
- 1.8 The Maintenance Contractor shall provide detailed record of each maintenance and service performed and to be submitted to the S.O for clarification and approval for monthly payment process.
- 1.8 The government shall reserve the right to engage other contractors to carry out works which is not found within the scope of this contract.

## 2.0 **DEFINITIONS**

### 2.1 **Superintending Officer (S.O)**

The "Superintending Officer (or the initials "S.O"), shall be responsible for the overall supervision and direction of the Services. The S.O. may, at his sole discretion authorize any person to act on his behalf in the supervision of the Services and administration of the Contract.

### 2.2 **Government Office**

Government office means spaces consisting of the government building.

### 2.3 **First Line of Maintenance**

First line of maintenance means immediate action to be taken by the Maintenance Contractor after receiving complaints or breakdown of any system in the buildings to ensure safety and comfort to the tenant.

### 2.4 **Preventive Maintenance**

Is plan and scheduled work done/repair/servicing/testing carried out at predetermined interval period to prescribed criterion, intended to reduce failure, environmental damage or the performance degradation of an item to prolong the life expectancy of the equipment's.

### 2.5 **Predictive Maintenance**

Is subset to Preventive Maintenance in which work carried out to prevent major repairs, stoppage of the equipment's before breakdown.

### 2.6 **Corrective Maintenance**

Work/repair/servicing/testing carried out after a failure has occurred and is intended to restore an item to a state in which it can perform to its required function as per designed.

### 2.7 **Fair Wear and Tear**

Damage caused by normal use and ageing.

## 3.0 **SCOPE OF WORK**

- 3.1 The Maintenance Contractor shall ensure all the **air-conditioning and ventilation system, fire fighting system, SPKA, automatic door, hand dryer, water heater, cold-water supply and booster pump system** must be in good working condition at all times to meet the design requirement performance to suit the comfort level of people, equipment's and machinery and plants. The examples parameters to be monitored such as Office Room Temperature, Office Relative Humidity, Chiller Operating Condition, Supply Chilled Water Temperature, Return Chilled Water Temperature and Supply Chilled Water Temperature Flow Rate.



- 3.2 The Maintenance Contractor shall perform **preliminary assessment/auditing** to determine the **availability/functionality of all the air conditioning and ventilation services, fire fighting services, SPKA, automatic door, hand dryer, water heater, cold-water supply and booster pump services**. An agreed inventory and defect list of the overall assessment/auditing of all the services shall be submitted to the S.O **one (1) month** after the contract being awarded.
- 3.3 The Maintenance Contractor shall operate all machinery and equipment for all system as mentioned above at the above premises on a daily basis during office hours, except where otherwise directed by the S.O. For the air conditioning, the system must be run at least half an hour before office hour and shut down half an hour after normal working hour on normal working days. For extra hours operation, it will be on request basis by the S.O.
- 3.4 The Maintenance Contractor shall also be required to attend to any emergency service and repair during normal working hours and/or overtime hours when directed by the S.O.
- 3.5 The Maintenance Contractor shall service and maintain all machinery and equipment comprising the complete **air conditioning and ventilation system, fire fighting system, SPKA, automatic door, hand dryer, water heater, cold-water supply and booster pump system**.
- 3.6 The work to be performed shall include regular and systematic checking, cleaning and wherever necessary adjustment and balancing of the system. All paint finishes shall be inspected, cleaned and repainted as and when necessary.
- 3.7 The Maintenance Contractor shall provide a water treatment program in each of the cooling tower re-circulation water system. The control and treatment programs must be carried out to effectively treating the circulating water, and the Air Conditioning Contractor shall program and continuously monitor the operating condition of the water quality. The Maintenance Contractor shall appoint third party water treatment chemical supplier to provide monthly water analysis report. **(if applicable)**
- 3.8 For the air conditioning system, **chemical cleaning of all Air Handling Unit (AHU), condensing unit and cooling unit shall be done once per contract. Annual Oil Change of the chiller(s)** which include changing the compressor oil, oil filter, leak test, topping up refrigerant, drain and flush purge unit, clean condenser tubes and cooler tubes also must be performed once per contract. The cost of such works mentioned above shall be separated and shall not be included in the costs for monthly service and maintenance. **(If applicable)**
- 3.9 The Air Conditioning Contractor shall appoint Chiller's Manufacturer/Maker to perform yearly inspection and assessment of the chiller involving chiller oil analysis and parameters check on each chiller in order to maintain the operating condition of the chillers serviced and to prolong the life expectancy of the chillers. **(if applicable)**
- 3.10 It shall be the responsibility of the Maintenance Contractor to report and advice in writing to the S.O., within five (5) working days on any defect in the **air conditioning and ventilation system, fire fighting system, SPKA, automatic door, hand dryer, water heater, cold-water supply and booster pump system including all ancillary equipment** before preventive maintenance is carried out.

- 3.11 The report shall state the observed defects and its cause, parts to be replaced or renewed and shall also include an estimation of the cost of repairs required. The Maintenance Contractor is also responsible to report and advise the S.O. immediately on any defects which required immediate repair before performing the repairs.
- 3.12 The Maintenance Contractor shall repair all defects in the **air conditioning and ventilation system, fire fighting system, SPKA, automatic door, hand dryer, water heater, cold-water supply and booster pump system including all ancillary equipment** on the instruction of the S.O. The cost of such repairs shall be separated and shall not be included in the costs for monthly service and maintenance. However, if there are defects on the repaired or/and replaced item or equipment during the maintenance and guarantee period, the Contractor shall rectify all defects at his own expenses.
- 3.13 It shall be the responsibility of the Maintenance Contractor to report to the S.O. or S.O. representative on any major breakdown of the **air conditioning and ventilation equipment, fire fighting equipment, SPKA, automatic door, hand dryer, water heater, cold-water supply and booster pump equipment** detailing nature of breakdown and expected time duration to complete repairs. The Maintenance Contractor shall engage Specialist Contractor to carry out repair work in related services upon the inspection and approval of the S.O. The costs of such repairs shall be separate and shall not be included in the costs for monthly service and maintenance. However, the Maintenance Contractor shall rectify all defects of repairs parts at his own expenses during the maintenance and warranty period, which follows from the date of completion of the repairs.
- 3.14 All repairs on the complete **air conditioning and ventilation equipment, fire fighting equipment, SPKA, automatic door, hand dryer, water heater, cold-water supply and booster pump equipment including ancillary equipment** shall be guaranteed by the Maintenance Contractor against defects in workmanship and materials for a period of twelve (12) months to take effect from the date of completion of the repairs.

#### **4.0 RULES, REGULATIONS AND STANDARDS**

- 4.1 All works performed including personnel performing the work, materials and equipment shall comply with the requirements, rules and regulations of the following:
- a. Suruhanjaya Tenaga,
  - b. Tenaga Nasional Berhad (TNB)/Supply Licensee,
  - c. Jabatan Keselamatan Pekerjaan dan Kesihatan (DOSH),
  - d. Jabatan Bomba dan Penyelamat (Bomba),
  - e. Jabatan Alam Sekitar (DOE),
  - f. Jabatan Kerja Raya (JKR),
  - g. Other Government Departments, utility authorities / local authorities, Licensees and Companies having jurisdiction over the Services and facilities.
- 4.2 In addition, the following regulations/standards shall be complied with:
- a. The Electricity Supply Act 1990 or latest standards
  - b. The Electricity Regulations 1994 or latest standards
  - c. MS.IEC 364:1996 or BS 7671:1992 (IEE Wiring Regulations),
  - d. Uniform Building By-Laws 1984 or latest standards
  - e. Factories and Machinery Act 1967 or latest standards
  - f. Occupational Safety and Health Act 514:1994 or latest standards

- g. The latest Malaysian Standards and/or IEC Standards
  - h. JKR Standard Specifications or latest standards
  - i. Be in accordance with and be subject to the approval for the Government Representative (G.R).
- 4.3 The Maintenance Contractor shall be responsible for the submission of all the necessary applications to the relevant utility authorities / local authorities, other relevant authorities and licensees in connection with the execution of the works in this Specification, Agreement and Summary of Tender and Schedule of Prices.
- 4.4 Any penalty or surcharge imposed by the utility authorities/licensees/companies and/or local authorities due to: -
- a) Failure to comply with utility authorities/companies and/or local authorities' requirements and/or
  - b) Low power factor and/or non-compliance with power quality requirements shall be borne by the Maintenance Contractor.
- 4.5 All spare or replacement parts shall be new, unused and of the same make as the part to be replaced. In the event an alternative replacement part has to be used, it shall have similar or better characteristics/features than the original part and be subject to the approval of the S.O.
- 4.6 The whole of the Buildings and the Services shall at all times be in a safe and functional condition, free from danger to life and property. All work on the Services shall be performed by competent personnel in compliance with the relevant laws and regulations.
- 4.7 Possible danger due to fire must at all times be monitored and immediate corrective action taken. In this regard, special attention shall be given to switch boards, distribution boards, control boards, switchgear and cable / wiring terminations and fittings.

## **5.0 CONSUMABLE MATERIALS**

- 5.1 The Maintenance Contractor shall supply the following consumable materials as and when required:
- i) All oils and grease required for lubrication of compressors, pump bearings, fan bearings, motor bearings, pivots and other moving parts.
  - ii) All refrigerant required to replace refrigerant losses in the refrigerant system.
  - iii) All carbon brushes required to replace worn-out brushes in electric motors.
  - iv) All electric contact points required to replace worn electric contact points in switch gears, electric control gears and electric relays.
  - v) Gland packing for valves and pumps.

- vi) All belts for pulleys.
- vii) All consumable filter elements. Filter elements for all AHU have to be replaced annually. All the cost for annual replacement above shall be deemed to be included in the specified price of **Section D, No. 7, in the Air Handling Unit Media Filter Replacement.**
- viii) All cotton waste, soap detergent and other cleaning materials required for cleaning purposes.

The costs of these consumable materials shall not be charged separately by the Maintenance Contractor, but shall be included in the fixed monthly rates quoted by the Maintenance Contractor for the service and maintenance of the **air conditioning and ventilation system, fire fighting system, SPKA, automatic door, hand dryer, water heater, cold water supply and booster pump system including ancillary equipment.**

- 5.3 Any additional materials and labor required must be with the approval from the S.O. The prices of material and labor supplied by the Maintenance Contractor must be in accordance to the “**Schedule of Unit Rate**” attached in this tender document.
- 5.4 The Maintenance Contractor shall complete the Schedule of Rates. This Schedule of Rates shall form part of this contract and shall be read in conjunction with this Specification. The price quoted shall include cost of materials, cutting, fixing in position, labour, supervision, profit and everything else necessary for the completion of the installation.

## **6.0 OPERATION AND MAINTENANCE STAFF**

- 6.1 The Maintenance Contractor shall be required to employ adequate numbers of the following categories of **qualified and competent** staff for the day-to day operation and maintenance of all the Services to ensure that the Services shall constantly be in a safe and proper working condition and the building and compounds in a clean, hygienic and proper condition:
  - i. One (1) Supervisor/Technician – Min. 10 years experiences in Air-Conditioning Maintenance involving central air conditioning plant of all types.
  - ii. Three (3) Skilled Workmen – Min. four (4) years experiences in Air-Conditioning Maintenance involving central air conditioning plant of all types.
  - iii. The Maintenance Contractor’s staff shall be equipped with all necessary tools, equipment, test gear and accessories to enable them to carry out their tasks safety and professionally.
  - iv. The Maintenance Contractor shall fill up the necessary details in the table below:

Post	Name	I/C No	Qualification and Experience
a. Supervisor / Technician			
b. Skilled Worker (1) On Site			
c. Skilled Worker (2) On Site			
d. Skilled Worker (3) On Site			

v. **Full CV for the staff above has to be submitted WITH the tender document for tender evaluation. Failure to do so will affect the evaluation of the tender.**

vi. The maintenance contractor is responsible to make sure all operation staffs have necessary qualification and certificate during contract period by sending them to necessary training and course.

6.2 The Maintenance Contractor shall provide the following personnel as stated above for the execution of this contract. At least **One (1) Supervisor / Technician** and **three (3) skilled workers shall be stationed at site during government office working hours**, inclusive of half an hour before commencement of office working time. ***(There will be an overtime works to be performed by contractor staff during Parliament Meeting. Estimated 4 hours overtime per day meeting and 120 days of parliament meeting every year.)***

6.3 The Contractor shall be responsible to provide sufficient number of staff to meet the current need at the site and to comply with the specification. The S.O at his absolute discretion may instruct the Contractor to provide additional staff as to comply with the scope of works specified or to standby after office hours at the request of the client at no additional costs to the Government.

6.4 The Contractor shall give written notice at least 1 (ONE) month to S.O. if any maintenance staff tender their resignation to the company. Failing which the S.O have the right to deduct from the monthly payment accordingly.

## 7.0 **SERVICE AND MAINTENANCE RECORDS**

7.1 The Maintenance Contractor shall furnish all the required monthly reports to the S.O and all such reports/records shall bear the signature of the Skilled Worker, the Technician and the Building Manager. Such reports/records shall also include test certificates/records and shall also bear the dates and times of the activities.

7.2 The Maintenance Contractor should provide the service and maintenance record in four (4) forms: -

### i. **LOG BOOK**

The Maintenance Contractor shall provide a **LOG BOOK** in the plant room. Date and details of each service, maintenance and repairs performed must be written in this book for checking purposes. The address and telephone number of the Maintenance Contractor's service station shall also be mentioned in this log book to facilitate emergency service calls.

### ii. **MONTHLY SERVICE SHEET/REPORT**

The Maintenance Contractor shall provide **monthly service sheet/report** to record date and details of each service, maintenance and repairs carried out. This monthly service sheet/report is to be countersigned by a Government Officer to verify attendance, and should be submitted to the S.O. in the first week of the following month. **Failure to submit the required monthly service report will result in delay of the monthly service payment. The performance of the Maintenance Contractor will be evaluated from the monthly service report submitted to the S.O.**

### iii. **FORMAT OF MONTHLY SERVICE REPORT**

The Maintenance Contractor shall provide compilation of every **one (1) month records** of all detailed service, maintenance and repair work in the form of **soft copy** and **hard copy** to be submitted to S.O. for checking purposes. The format of the record should follow the S.O. requirements (**Appendix A**).

### iv. **VERIFICATION OF COMPLETED WORKS**

All completed repair works for government office shall be verified as follows:

- Dated color photos taken before, during and after repair works as instructed by the S.O.,
- Daily list of completed works shall be submitted to the S.O.'s office in soft and hard copies for clarification and monthly payment process.

7.3 The Maintenance Contractor shall produce **a full report on evaluation of the current status and condition of each equipment service, one month after the possession of site.**

7.4 The Maintenance Contractor shall carry out the service and maintenance of equipment according to the schedule in item B (Mechanical System Operation and Maintenance Schedule) which consist of periodical inspection, service, equipment replacement and adjustment to reduce the failure of equipment's and to prolong the life expectancy of the equipment's. Tentative date for periodical inspection and service of the equipment's must be submitted to S.O. for approval.

## **8.0 WORKMANSHIP**

The Maintenance Contractor shall furnish all labour skilled and competent in their respective trades to carry out the work under this Contract in accordance with good engineering practice. All work shall be carried out and supervised by qualified, competent and skilled personnel in accordance with the requirements of the relevant authorities.

## **9.0 EQUIPMENT AND MATERIALS**

9.1 The Maintenance Contractor shall be responsible for the safety of all assets located at the site throughout the duration of the contract.

9.2 All replacement parts and consumables, materials and equipment supplied and installed shall be new and unused and shall be of high quality as regards to design, manufacture and performance. No reconditioned equipment or parts shall be permitted.

## **10.0 OPERATION AND MAINTENANCE MANUALS AND SPARE PARTS BOOKS**

In the event the Maintenance Contractor installs any new equipment or replaces any equipment, the Maintenance Contractor shall supply One (1) sets of "Operation and Maintenance Manuals, and Spare Parts Books" for all such equipment to the S.O, together with one sets of detailed and itemized list of spare parts which the manufacturers of the supplied equipment consider as essential to be kept in ready stock for the purposes of yearly services and maintenance.

## **11.0 ACCESS OF S.O. OR PERSON DULY AUTHORIZED BY THE S.O TO THE SERVICES**

11.1 The S.O or any person duly authorized by him shall have access to the Services at all times. The S.O. also reserves the right to test, monitor, take readings or do any such data collection on the Services in the presence of the Maintenance Contractor's staff. The S.O. may also be present to observe / understudy the operation and maintenance works of the Maintenance Contractor. All necessary assistance and co-operation shall be extended to the S.O by the Maintenance Contractor.

11.2 The S.O. also reserves the right to access the Services to carry out such work as is deemed necessary in the event the Maintenance Contractor fails to satisfy its contractual obligations with respect to the Operation and Maintenance of the Services.

## 12.0 **DETERMINATION OF CONTRACTOR'S EMPLOYMENT**

(a) Without prejudice to any other rights or remedies which the Government may possess, if the Contractor shall make default in any one or more of the following respects, that is to say: -

- i. If he, without reasonable cause, suspends the carrying out of the whole or any part of the Services before completion, or
- ii. If he fails to proceed regularly and diligently with the works, or
- iii. If he fails to execute the Services in accordance with this Contract or persistently neglect to carry out his obligations under this Contract, or
- iv. If he refuses or persistently neglects to comply with a written notice from the S.O. to remove and replace any defective work or improper materials or goods,

then the S.O. may give to him a notice by registered post or by recorded delivery specifying the default, and if the Contractor shall either continue such default for fourteen (14) days after receipt of such notice or shall at any time thereafter repeat such default (whether previously repeated or not), the Government may thereupon by a notice sent by registered post or by recorded delivery determine the employment of the Contractor under this Contract.

### ***(b) If the Contractor:***

- i. fails to commence the Works within two (2) weeks after the date of possession of site, OR
- ii. commits an act of bankruptcy, OR
- iii. becomes insolvent or compounds with or makes arrangement with his creditors, OR
- iv. being a company, is having a winding up order made against him, OR
- v. is having a provisional liquidator, receiver or manager of his business or undertaking duly appointed, or possession taken by or on behalf of creditor or debenture holders secured by a floating charge of any property comprised in or subject of the said floating charge;

then and in any such event, without prejudice to any other rights he may possess, the Government may by a notice sent by registered post determine the employment of the Contractor under this Contract.

(c) In the event of the Contractor's employment under this Contract being determined under sub-clause (a) or (b) hereof irrespective of the validity of such determination:

- i. the Contractor shall immediately cease all operation in the Services and remove his personnel and workmen from the Site.



### 13.0 **PROVISIONAL SUM**

The term ‘Provisional Sum’ provided in the Summary of Total Cost of Maintenance Contract (item F.8.0) shall mean a sum for work or for the supply of goods or materials which cannot be entirely foreseen, defined or detailed at the time the tender documents are issued and such sum may be paid and expended at such times and in such amounts in favor of such persons as the S.O. may direct. Such sum if not used either wholly or in part shall be deducted from the Contract Sum. The value of works which are executed by the Maintenance Contractor in respect of Provisional Sums shall be ascertained by the S.O. At the settlement of accounts, the said value of such works executed shall be set off against the Provisional Sum and the balance shall be added to or deducted from the Contract Sum as the case may be.

### 14.0 **S.O. FACILITIES**

The Maintenance Contractor shall be required to supply to the S.O the following equipment during the contract and will become the property of the government: -

- a. 2 nos of portable CO2 detector
  - ❖ Above equipment shall be send to SIRIM for calibration certification.
- b. 5 nos of safety boot (red wing or equivalent)
- c. 5 nos of safety jacket

**DOKUMEN NO. 5**

**MECHANICAL SYSTEM  
OPERATION AND MAINTENANCE  
SCHEDULE**

## **B. MECHANICAL SYSTEM OPERATION AND MAINTENANCE SCHEDULE**

### **AIR-CONDITION AND MECHANICAL VENTILATION SYSTEM OPERATION AND MAINTENANCE SCHEDULE**

#### **1.0 OPERATION**

#### **2.0 MAINTENANCE**

##### **2.1 CHILLER SYSTEM**

- 2.1.1 Plant Room
- 2.1.2 Cooling Towers
- 2.1.3 Chilled water storage and expansion tanks
- 2.1.4 Piping and fittings
- 2.1.5 Air-handling units and fan-coils
- 2.1.6 Ducting, grilles and dampers
- 2.1.7 The performance of the complete ventilation, pressurization, exhaust and smoke spill system

##### **2.2 CENTRAL DIRECT EXPANSION SYSTEM (DX) (AIR COOLED SYSTEM) - AIR COOLED SPLIT DUCTED UNIT**

- 2.2.1 Plant Room
- 2.2.2 Air Handling Unit
- 2.2.3 Condenser
- 2.2.4 Electric motors
- 2.2.5 Electrical Switchboard / Control Panel
- 2.2.6 Ducting, grilles and dampers

##### **2.3 AIR COOLED SPLIT UNIT / ACSU INVERTER**

- 2.3.1 Evaporator Unit (Cooling Unit)
- 2.3.2 Condenser
- 2.3.3 Electrical Switchboard / Control Panel

##### **2.4 MAINTENANCE CHECKLIST FOR AIR CONDITIONING VARIABLE REFRIGERANT FLOW (VRF) & AIR COOLED SPLIT UNIT**

#### **3.0 PAINTING**

#### **4.0 OTHER COMPONENTS OR EQUIPMENTS OF THE AIR-CONDITIONING SYSTEM**

## **FIRE FIGHTING SYSTEM OPERATION AND MAINTENANCE SCHEDULE**

### **1.0 OPERATION**

### **2.0 MAINTENANCE**

#### **2.1 WET RISER, HOSE REEL AND SPRINKLER SYSTEM**

- 2.1.1 Pump Room
- 2.1.2 Tank
- 2.1.3 Pumps
- 2.1.4 Piping and Fittings
- 2.1.5 Landing valves, hose reel drums, cradles, hoses, nozzles, etc.
- 2.1.6 Sprinkler System
- 2.1.7 Breeching Inlet

#### **2.2 FIRE ALARM AND DETECTION SYSTEM**

#### **2.3 FIREMAN INTERCOM SYSTEM**

- 2.3.1 Panel
- 2.3.2 Battery
- 2.3.3 Automatic Control
- 2.3.4 Electrical
- 2.3.5 Handset
- 2.3.6 General

#### **2.4 FIRE SUPPRESSION SYSTEM**

- 2.4.1 Cylinders, Hoses, etc.
- 2.4.1 Pilot Cylinder
- 2.4.2 Panel
- 2.4.3 Devices

#### **2.5 PORTABLE FIRE EXTINGUISHERS**

#### **2.6 PAINTING**

## **COLD WATER SUPPLY AND BOOSTER PUMP OPERATION AND MAINTENANCE SCHEDULE**

### **1.0 OPERATION**

### **2.0 MAINTENANCE**

- 2.1 Pump Room
- 2.2 Tanks (Suction & Storage)
- 2.3 Pumps
- 2.4 Piping and Fittings
- 2.5 Pressure Vessel
- 2.6 Submersible Pumps

### **3.0 PAINTING**

## **BOMBA LINK (SPKA), AUTOMATIC DOOR, HAND DRYER AND HOT WATER SYSTEM OPERATION AND MAINTENANCE**

### **1.0 OPERATION**

### **2.0 MAINTENANCE**

- 2.1 Bomba Link (SPKA)
- 2.2 Automatic Door
- 2.3 Hand Dryer
- 2.4 Hot Water / Water Heater

**A. Air-Condition and Mechanical Ventilation System Operation and Maintenance Schedule**

Bil.	Detail	Maintenance Frequency						
		D	W	M	3M	6M	Y	2Y
1.0	<p><b><i>Operation:</i></b></p> <p>Operation of ACMV will be done and monitored through Building Management System. The Contractors' Operators will man the BMS room and response to any complaint with regards to day to day operation. The Contractor shall ensure proper operation of Air-Condition and Mechanical Ventilation System. The Equipment shall be monitored and inspected, including works such as visual inspection, checking, monitoring and cleaning etc.</p>	✓						
2.0	<p><b><i>Maintenance:</i></b></p> <p>The maintenance of ACMV will be carried out in accordance with the manufacturer's schedule. The Contractor shall maintain Air-Condition and Mechanical Ventilation equipment and system and shall generally carry out the following but not limited to: -</p>							

Bil.	Description	Maintenance Frequency						
		D	W	M	3M	6M	Y	2Y
2.1	<b>Chiller System</b>							
2.1.1	<b>Plant Room</b>							
	<b>i. General</b>							
	a. Inspect plant room cleanliness.		✓					
	b. Inspect for correct labeling.					✓		
	c. Inspect emergency light.		✓					
	d. Inspect ventilation system.		✓					
	e. Inspect condition of door.	✓						
	f. Inspect light intensity.		✓					
	g. Inspect floor trap/drain to ensure good water flow.			✓				
	h. Inspect pump circuit diagram (laminated & framed up) are up to date.			✓				
	i. Inspect pump layout diagram (laminated & framed up) are up to date.			✓				
	j. Inspect portable fire extinguisher CO <sub>2</sub> .			✓				

Bil.	Description	Maintenance Frequency						
		D	W	M	3M	6M	Y	2Y
	k. Inspect chemical dosing pumps.			✓				
	<b>ii. Chillers (as per manufactures recommendations)</b>							
	a. Inspect chillers general condition.	✓						
	b. Take reading of current, voltage, pressure, temperature etc. Compare with design readings.	✓						
	c. Inspect all seals, gaskets and pipes for leaks.			✓				
	d. Inspect oil pressure.	✓						
	e. Inspect crankcase heater.			✓				
	f. Inspect chilled water pressure drop across chillers and condenser.			✓				
	g. Inspect the operation of all safety devices. Clean, adjust, lubricate, repair / replace as necessary.			✓				
	h. Inspect purge unit operation.			✓				
	i. Inspect the suction and discharge pressures of all refrigerant compressors. If abnormal, trace the faults and rectify as necessary.			✓				
	j. Drain and flush purge unit and replace oil.						✓	



Bil.	Description	Maintenance Frequency						
		D	W	M	3M	6M	Y	2Y
	k. Inspect all refrigerant and oils levels. Charge refrigerant and oil into the refrigerant system as necessary.			✓				
	l. Clean condenser tubes.						✓	
	m. Service chillers including changing of compressor oil filter, leak test and topping up refrigerant, drain and flush purge unit and clean condenser tubes.						✓	
	<b>iii. Pumps</b>							
	a. Inspect condition of pumps (cleanliness / appearance).			✓				
	b. Inspect all pump bearings for excessive noise, vibration and wear. Lubricate with oil or grease and replace as necessary.			✓				
	c. Inspect all motor bearings, lubricate with grease and replace as necessary.			✓				
	d. Inspect carbon brushes and slip rings of all motors. Clean, repair / replace as necessary.			✓				
	e. Inspect safety devices fitted to all motors. Clean, adjust, lubricate, repair / replace as necessary.			✓				
	f. Inspect all seals for leakages. Repair / replace as necessary.			✓				

Bil.	Description	Maintenance Frequency						
		D	W	M	3M	6M	Y	2Y
	g. Adjust; re-pack and replace pump glands as necessary.			✓				
	h. Inspect each pump/motor alignment, mountings and correct rotation. Adjust or replace as necessary.					✓		
	i. Inspect all rubber couplings between pumps and drive motor. Replace as necessary.					✓		
	j. Inspect and test the tension of all belt drives. Replace as necessary.					✓		
	k. Inspect and tighten all bolts and nuts. Replace as necessary.			✓				
	l. Inspect and test pressure switches and gauges. Repair / replace as necessary.			✓				
	<b>iv. Electric motors</b>							
	a. Inspect and clean all electric motors. Repair / replace as necessary.			✓				
	b. Inspect all motor bearings; lubricate with grease. Replace as necessary.			✓				
	c. Inspect safety devices fitted to motors. Clean, adjust, lubricate, repair/replace as necessary.			✓				

Bil.	Description	Maintenance Frequency						
		D	W	M	3M	6M	Y	2Y
	<b>v. Electrical Switchboard/Control Panel</b>							
	a. Inspect the condition of the panel and its housing. Repair / replace as necessary.			✓				
	b. Inspect and test the control wiring and circuitry.			✓				
	c. Inspect the operation of selector switches. Repair/replace as necessary.			✓				
	d. Inspect the operation of auto-manual selector switches. Repair/replace as necessary.			✓				
	e. Inspect the operation of stop-start buttons. Repair / replace as necessary.			✓				
	f. Inspect / replace indicating bulbs and covers.			✓				
	g. Inspect the routine operation of all electrical starters, electrical control gears and ancillary electrical apparatus. Repair / replace as necessary.			✓				
	h. Inspect all electrical contactors. Clean and retighten all loose connections.			✓				
	i. Clean or replace electrical contactors as necessary.			✓				

Bil.	Description	Maintenance Frequency						
		D	W	M	3M	6M	Y	2Y
	j. Inspect electric fuses. Replace as necessary.			✓				
	k. Inspect the condition of the conduits, supports and wires. Replace as necessary.			✓				
	<b>vi. Piping and fittings</b>							
	a. Inspect the condition of every pipe. Repair / replace as necessary.			✓				
	b. Inspect the condition of the pipe supports, brackets, pipe sleeves and piping joints. Repair / replace as necessary.			✓				
	c. Inspect the condition of every valve and fitting. Repair / replace as necessary.			✓				
	d. Inspect and clean strainers. Repair / replace as necessary.					✓		
	e. Inspect for correct labeling. Clean, repair / replace as necessary.					✓		
	f. Inspect chilled water pipe insulation. Replace as necessary.			✓				
	g. Inspect pipe painting. Ensure pipes coatings of anti-rust and standard color paint are clean and in good condition. Replace as necessary.					✓		

Bil.	Description	Maintenance Frequency						
		D	W	M	3M	6M	Y	2Y
2.1.2	<b>Cooling towers</b>							
	a. Inspect all water cooling towers.			✓				
	b. Inspect all fan and fan bearings. Lubricate with grease. Replace as necessary.				✓			
	c. Inspect all belt drives. Adjust and retention. Replace as necessary.				✓			
	d. Inspect and clean all water screens.				✓			
	e. Inspect the operation of all spray nozzles and clean as necessary.			✓				
	f. Drain, clean and flush cooling tower basin and honey-comb in-fills.					✓		
	g. Inspect and clean float valve. Adjust water level. Replace as necessary.			✓				
	h. Inspect and service motors and controllers. Replace as necessary.			✓				
2.1.3	<b>Chilled water storage and expansion tanks</b>							
	a. Inspect all chilled water storage and expansion tanks, chilled water pipes, valves etc. Clean, service and flush as necessary.			✓				

Bil.	Description	Maintenance Frequency						
		D	W	M	3M	6M	Y	2Y
2.1.4	<b>Piping and fittings</b>							
	b. Actuate all motorized valves to ensure smooth operation over its full operating range. Replace as necessary.				✓			
	c. Inspect pipe insulation and pipe supports. Replace as necessary.						✓	
	d. Inspect all measuring devices for correct operation. Repair / replace as necessary.			✓				
	a. Inspect the condition of every pipes, repair / replace as necessary;			✓				
	b. Inspect the condition of the pipe supports, brackets, pipe sleeves and piping joints. Repair / replace as necessary;			✓				
	c. Inspect the condition of every valves and fittings, repair / replace as necessary;			✓				
	d. Inspect, clean, repair / replace pipe strainer;					✓		
e. Inspect for correct labeling, clean, repair / replace as necessary;					✓			
f. Inspect chilled water pipe insulation, replace as necessary			✓					

Bil.	Description	Maintenance Frequency						
		D	W	M	3M	6M	Y	2Y
2.1.5	g. Inspect painting, ensure piping is painted with anti-rust and coat with standard color paint.					✓		
	<b>Air-handling units and fan-coils</b>							
	a. <i>Inspect all air-handling units and fan-coils</i>			✓				
	b. Inspect all air filters, clean or replace as necessary.			✓				
	c. Replace all:							
	i. Primary filters					✓		
	ii. Secondary filters					✓		
	d. Inspect all water coils, seals and pipe lines for leaks and rectify as necessary.			✓				
	e. Purge air from all water coils.			✓				
	f. Inspect all fan bearings, lubricate with grease, replace as necessary;				✓			
g. Inspect and check the routine operation of all automatic temperature control gears and relay			✓					
h. Clean all bearings, pivots and other moving parts, adjust, lubricate and replace as necessary;			✓					

Bil.	Description	Maintenance Frequency						
		D	W	M	3M	6M	Y	2Y
	i. Inspect the tension of all belt drives, adjust and replace as necessary.				✓			
	j. Inspect the operation of all automatic water regulating valves, clean, adjust and lubricate, replace as necessary;			✓				
	k. Inspect the operation of all automatic multi-blade face and by-pass damper, clean, adjust and lubricate as necessary.			✓				
	l. Inspect operation of thermostat			✓				
	m. Inspect and clean, repair / replace strainer as necessary;					✓		
	n. Clean cooling coil with high pressure water jet and detergent					✓		
	o. Inspect insulation, repair / replace as necessary;					✓		
	p. Inspect and clean all electric motors, repair / replace as necessary;			✓				
	q. Inspect all motor bearings and lubricate with grease as necessary			✓				
	r. Inspect safety devices fitted to, clean, adjust, lubricate, repair/replace as necessary;			✓				
	s. Inspect and repair refrigerant leaks at joints, fittings and piping, top up refrigerant as necessary;			✓				



Bil.	Description	Maintenance Frequency						
		D	W	M	3M	6M	Y	2Y
2.1.6	t. Inspect leakage or clogging at drain pan and drain line, clean, flush, repair / replace as necessary;			✓				
	u. Chemical cleaning for all coils;						✓	
	<b>Ducting, grilles and dampers</b>							
	a. Inspect all grilles dampers and shutters are working correctly, clean, adjust, repair / replace as necessary;				✓			
	b. Measure air flow. Adjust and balance air flow as necessary;				✓			
	c. Inspect ductwork for leaks, damage or corrosion, repair / replace as necessary;				✓			
	d. Inspect for moisture and condensation, repair/replace insulation as necessary;				✓			
2.1.7	e. Inspect duct insulation for tears and air leaks. Patch or replace if necessary;					✓		
	f. Inspect the Internals' of ducting to determine dust built up.							✓
	<b>The performance of the complete ventilation, pressurization, exhaust and smoke spill system</b>							
	a. Inspect the function of the complete ventilation, pressurization, exhaust and smoke spill system;		✓					

Bil.	Description	Maintenance Frequency						
		D	W	M	3M	6M	Y	2Y
	b. Adjust air volume control dampers as necessary			✓				
	c. Inspect the operation of all fans and motors		✓					
	d. Test operation of system under simulated fire condition			✓				
<b>2.2</b>	<b>Central Direct Expansion System (DX) (Air Cooled System) - Air Cooled Split Ducted Unit</b>							
<b>2.2.1</b>	<b>Plant Room</b>							
	a. Inspect plant room cleanliness.		✓					
	b. Inspect for correct labeling					✓		
	c. Inspect emergency light		✓					
	d. Inspect ventilation system/natural (louvered door) or mechanical means		✓					
	e. Inspect condition of door	✓						
	f. Inspect lighting intensity		✓					
	g. Inspect floor trap/drain with fall on floor (water flow)			✓				
	h. Inspect electrical circuit diagram (Laminated & framed up) up to date;			✓				

Bil.	Description	Maintenance Frequency						
		D	W	M	3M	6M	Y	2Y
	i. Inspect portable fire extinguisher CO <sub>2</sub>			✓				
	j. Inspect chemical dosing pumps			✓				
<b>2.2.2</b>	<b>Air Handling Unit's (AHU's)</b>							
	a. Inspect unit for any abnormalities;	✓						
	b. Take reading for current, voltage, pressure, temperature etc.	✓						
	c. Inspect the operation of all safety devices and clean, adjust and lubricate, repair / replace as necessary;			✓				
	d. Inspect all air filters, clean or replace as necessary.			✓				
	e. Clean all bearings, pivots and other moving parts, adjust, lubricate and replace as necessary;			✓				
	f. Inspect the tension of all belt drives, adjust and replace as necessary.			✓				
	g. Inspect operation of thermostat			✓				
	h. Clean cooling coil with high pressure water jet and detergent						✓	
	i. Inspect insulation, repair / replace as necessary;			✓				

Bil.	Description	Maintenance Frequency						
		D	W	M	3M	6M	Y	2Y
2.2.3	j. Inspect and clean condenser as necessary;			✓				
	k. Inspect all motor bearings, lubricate with grease, replace as necessary;			✓				
	l. Inspect and repair refrigerant leaks at joints, fittings and piping, top up refrigerant as necessary;			✓				
	m. Inspect leakage or clogging at drain pan and drain line, clean, flush, repair / replace as necessary;			✓				
	n. Chemical cleaning for all coils;						✓	
	<b>Condenser</b>							
	a. Inspect crankcase heater;			✓				
	b. Inspect the suction and discharge pressures of all refrigerant compressors, and if abnormal trace the faults and rectify as necessary;			✓				
	c. Inspect all refrigerant and oils levels and charge refrigerant and oil into the refrigerant system as necessary;			✓				
	d. Inspect and repair refrigerant leaks at joints, fittings, piping and compressors;			✓				
e. Replace filter dryer;						✓		

Bil.	Description	Maintenance Frequency						
		D	W	M	3M	6M	Y	2Y
	f. Inspect, repair / replace all fans and motors as necessary			✓				
	g. Inspect, repair / replace condensing coil. Properly comb the fins and clean coil if necessary;					✓		
	h. Inspect all motor bearings and lubricate with grease as necessary;			✓				
	i. Inspect and replace compressor units as necessary;			✓				
	j. Inspect and replace isolating spring / rubber padding as necessary						✓	
	k. Chemical cleaning for all coils						✓	
<b>2.2.4</b>	<b>Electric motors</b>							
	a. Inspect and clean all electric motors, repair / replace as necessary;			✓				
	b. Inspect all motor bearings, lubricate with grease, replace as necessary;			✓				
	c. Inspect safety devices fitted to motors, clean, adjust, lubricate, repair/replace as necessary;			✓				

Bil.	Description	Maintenance Frequency						
		D	W	M	3M	6M	Y	2Y
2.2.5	<b>Electrical Switchboard/Control Panel</b>							
	a. Inspect the condition of the panel and its housing, repair / replace as necessary;			✓				
	b. Inspect and test the control wiring and circuitry;			✓				
	c. Inspect the operation of selector switches, repair/replace as necessary;			✓				
	d. Inspect the operation of auto-manual selector switches, repair/replace as necessary;			✓				
	e. Inspect the operation of stop-start buttons, repair/replace as necessary;			✓				
	f. Inspect / replace indicating bulbs and covers;			✓				
	g. Inspect and check the routine operation of all electrical starters, electrical control gears and ancillary electrical apparatus. Repair / replace as necessary;			✓				
	h. Inspect and retightened all loose connection of all electrical contactors;			✓				
	i. Clean and renew electrical contactors as necessary;			✓				
	j. Renew electric fuses as necessary;			✓				

Bil.	Description	Maintenance Frequency						
		D	W	M	3M	6M	Y	2Y
2.2.6	k. Inspect the condition of the conduits and supports and wires.			✓				
	<b>Ducting, grilles and dampers</b>							
	a. Inspect all grilles, dampers and shutters are working correctly, clean, adjust, repair/replace as necessary;				✓			
	b. Adjust and balance air flow				✓			
	c. Inspect ductwork for leaks, damage or corrosion, repair / replace as necessary;				✓			
	d. Inspect for moisture and condensation, repair/replace insulation as necessary;				✓			
2.3	<b>Air Cooled Split Unit / ACSU Inverter</b>							
2.3.1	<b>Evaporator unit (Cooling Unit)</b>							
	a. Inspect unit for any abnormalities;	✓						
	b. Inspect and clean all air filters,			✓				
	c. Inspect leakage or clogging at drain pan and drain line, clean, flush, repair / replace as necessary;			✓				
	e. Internal duct cleaning;					✓		

Bil.	Description	Maintenance Frequency						
		D	W	M	3M	6M	Y	2Y
2.3.2	d. Chemical cleaning for all coils						✓	
	e. Inspect and repair refrigerant leaks at joints, fittings and piping, top up refrigerant as necessary;			✓				
	f. Inspect and replace remote control as necessary			✓				
	<b>Condenser</b>							
	a. Inspect the suction and discharge pressures of all refrigerant compressors, and if abnormal trace the faults and rectify as necessary.				✓			
	b. Inspect and repair refrigerant leaks at joints, fittings, piping and compressors;			✓				
	c. Inspect, repair / replace all fans and motors as necessary;			✓				
	d. Inspect, repair / replace condensing coil. Properly comb the fins and clean coil if necessary			✓				
	e. Inspect and replace compressor units as necessary;			✓				
	f. Inspect and replace rubber padding as necessary						✓	
g. Chemical cleaning for all coils						✓		
h. Inspect, repair / replace bracket / hanger			✓					



Bil.	Description	Maintenance Frequency						
		D	W	M	3M	6M	Y	2Y
2.3.3	<b>Electrical Switchboard/Control Panel</b>							
	a. Inspect the condition of the panel and its housing, repair / replace as necessary;			✓				
	b. Inspect and test the control wiring and circuitry;			✓				
	c. Inspect the operation of selector switches, repair/replace as necessary;			✓				
	d. Inspect the operation of auto-manual selector switches, repair / replace as necessary;			✓				
	e. Inspect the operation of stop-start buttons, repair / replace as necessary;			✓				
	f. Inspect/replace indicating bulbs and covers;			✓				
	g. Inspect and check the routine operation of all electrical starters, electrical control gears and ancillary electrical apparatus. Repair / replace as necessary;			✓				
	h. Inspect and retightened all loose connection of all electrical contactors;			✓				
	i. Clean and renew electrical contactors as necessary;			✓				
	j. Renew electric fuses as necessary;			✓				
	k. Inspect the condition of the conduits and supports and wires.			✓				

## **2.4 MAINTENANCE CHECKLIST FOR AIR CONDITIONING VARIABLE REFRIGERENT FLOW (VRF) AND AIR COOLED SPLIT SYSTEM**

- a) Inspect all refrigerant compressors and refrigeration system and
  - i. Check all seal and pipelines for leaks and rectify as necessary.
  - ii. Check all refrigerant and oil levels and charge the refrigerant and oil into the refrigerant systems as necessary.
  - iii. Check the tension of all belt drives and adjust as necessary.
  - iv. Check the operation of all refrigerant controls, and clean, adjusting lubricate as necessary.
  - v. Check the operation of all safety devices and clean adjust and lubricate as necessary.
  - vi. Check all bolts and nuts for tightness and tighten as necessary.
  
- b) Inspect all evaporator sections and
  - i. Check all air filters, and clean as necessary.
  - ii. Clean all condensate pans, tray and drains.
  
- c) Inspect all check the routine operation of all electrical starters, electrical Control and gear and ancillary electrical apparatus
  - i. Clean, adjust and lubricate all bearings, pivots and moving Parts as necessary.
  - ii. Clean or renew electric contactors as necessary.
  - iii. Renew electrical fuse as necessary.
  
- d) Inspect all electric motors for indoor unit.
  - i. Check all motor bearings and lubricate with grease as necessary.
  - ii. Check carbon brushes and slip rings of all motors, and clean as necessary. Renew carbon brushes as necessary.
  - iii. Check safety devices fitted to all motors and clean, adjust and lubricate as necessary.
  
- e) Inspect and check the routine operation for all automatic temperature control, gears, relays and
  - i. Clean, adjust and lubricate all bearing, pivots and others moving parts as necessary.
  - ii. Renew electrical fuses as necessary.

**CONSUMABLE MATERIAL**

The Contractor shall supply the following consumable materials as and when required: -

- a) All oils and grease required for lubrication of compressors, fan bearings, motor bearings, pivots and other moving parts.
- b) All refrigerant required to require to replace refrigerant losses in the refrigerant system.
- c) All carbon brushes required to replace worn brushes in electric motors.
- d) All consumable filter elements.
- e) All electric contact points to replace worn electric contact points in switch gears, motor starter gears, electric control gears and electric relays.
- f) All electric fuses required to replace blow fuses.
- g) All cotton waste, soap detergent and other cleaning materials required for cleaning purposes.

The costs of consumable materials shall not be charged for separately by the Contractor, but shall in the fixed monthly rate quoted by the Contractor for the Service and maintenance

<p><b>3.0 Painting</b></p> <p>Clean rust and paint with appropriate one layer of anti-rust paint and finished with existing colored paint.</p>						✓	
<p><b>4.0 Other components or equipment of the air-conditioning system</b></p>	As per manufacturers schedule						

**B. Fire Fighting System Operation and Maintenance Schedule**

Bil.	Description	Maintenance Frequency						
		D	W	M	3M	6M	Y	2Y
1.0	<b>Operation</b>							
1.1	<b><i>The Contractor shall ensure proper operation of the Fire Fighting System and shall monitor the operation using the Building Management System. The Contractor personnel will man the BMS control room and response to any complaint with regards to day to day operation.</i></b>	✓						
1.2	<b>The Contractor shall manage and supervise the Fire Alarm, Fire Monitoring and Fire Fighting System operation, this shall include:-</b>							
	<b>a. Control and Monitoring of all fire systems</b>	✓						
	b. To man the fire control room during and after office hours	✓						
	c. Inspect, repair / replace and test the operation of the complete fire fighting system, including the interface and operation of other systems such as lift, ventilation, smoke spill, pressurization, etc.				✓			
	d. To test run fire fighting system and simulate fire alarm to ensure all systems are in good working order				✓			
	e. <b>Attend to any complain, urgent request or complaints raised by the S.O. with regards to day to day operation</b>	✓						

Bil.	Description	Maintenance Frequency						
		D	W	M	3M	6M	Y	2Y
	f. The contractor shall conduct fire drill for each block/complex						✓	
<b>2.0</b>	Maintenance  <b>The maintenance of Fire Detection and Alarm, Fire Monitoring and Fire Fighting System, will be carved out in accordance with the manufacturers schedule and the schedule below:</b>							
<b>2.1</b>	<b>Dry riser, Hose reel and Sprinkler System</b>							
<b>2.1.1</b>	<b>Pump room</b>							
	a. Inspect pump room cleanliness.		✓					
	b. Inspect for correct labelling					✓		
	c. Inspect emergency light		✓					
	d. Inspect ventilation system/natural (louvred door) or mechanical means		✓					
	e. Inspect condition of door	✓						
	f. Inspect lighting intensity		✓					

Bil.	Description	Maintenance Frequency						
		D	W	M	3M	6M	Y	2Y
2.1.2	g. Inspect floor trap/drain with fall on floor (water flow)			✓				
	h. Inspect pump circuit diagram (Laminated & framed up) up to date;			✓				
	i. Inspect pump layout diagram (Laminated & framed up) up to date;			✓				
	j. Inspect portable fire extinguisher CO <sub>2</sub>			✓				
	<b>Tanks</b>							
	a. Inspect for integrity of structure;					✓		
	b. Inspect for leaks, repair / replace as necessary;			✓				
	c. Inspect for rust, repair / replace as necessary;			✓				
	d. Inspect operation of ball valve, repair / replace as necessary;			✓				
	e. Inspect water tank level indicator; repair / replace as necessary;			✓				
f. Inspect electrode and clean, repair / replace as necessary (if equipped);				✓				
g. Inspect for sediment/sludge, flush and clean;					✓			

Bil.	Description	Maintenance Frequency						
		D	W	M	3M	6M	Y	2Y
2.1.3	h. Inspect, cat ladder internal and external, repair / replace as necessary;					✓		
	<b>Pumps</b>							
	<b>i. General</b>							
	a. Inspect condition of pumps (cleanliness / appearance)			✓				
	b. Test run each pump on automatic and manual mode;			✓				
	c. Inspect the correct cut in/cut out auto mode operation of the pressure switch and check pressure;			✓				
	d. Inspect all motor bearings, lubricate with grease, replace as necessary;			✓				
	e. Inspect all pump bearings for excessive noise, vibration & wear. Lubricate with oil or grease, replace as necessary;			✓				
	f. Inspect, repair / replace carbon brushes and slip rings of all motors and clean as necessary.			✓				
g. Inspect safety devices fitted to all motors, clean, adjust, lubricate, repair / replace as necessary;			✓					
h. Inspect all seals for leakage, repair / replace as necessary;			✓					

Bil.	Description	Maintenance Frequency						
		D	W	M	3M	6M	Y	2Y
	i. Adjust, re-pack and replace pump glands as necessary;			✓				
	j. Inspect each pump / motor alignment, couplings, mountings and correct rotation. Adjust, replace as necessary;					✓		
	k. Inspect all rubber couplings between pumps and drive motor, replace as necessary;					✓		
	l. Inspect and test the tension of all belt drives. Replace as necessary;					✓		
	m. Inspect and tighten all bolts and nuts. Replace as necessary;			✓				
	n. Inspect and test pressure switches and gauges, repair / replace as necessary;			✓				
	<b>ii. Control Panel</b>							
	a. Inspect the condition of panel and its housing							
	b. Inspect and test the control wiring and circuitry			✓				
	c. Inspect electric pump starter operation, ensure that the starting sequence is correct. Repair / replace as necessary;			✓				
	d. Inspect the operation of selector switches, repair / replace as necessary;			✓				



Bil.	Description	Maintenance Frequency						
		D	W	M	3M	6M	Y	2Y
	e. Inspect the operation of auto-manual selector switches, repair/replace as necessary;			✓				
	f. Inspect the operation of stop-start buttons, repair/replace as necessary;			✓				
	g. Inspect indicating light for trip and run;			✓				
	h. Inspect indicating light for pump on auto and pump manual;			✓				
	i. Inspect ammeter and voltmeter;			✓				
	j. Inspect and retightened all loose connection of all electrical contactors;			✓				
	k. Clean and renew electrical contactors as necessary;			✓				
	l. Renew electric fuses as necessary;			✓				
	m. Inspect the condition of the conduits and supports and wires;			✓				
	n. Inspect/replace indicating bulbs and covers;			✓				
<b>2.1.4</b>	<b>Piping and fittings</b>							
	a. Inspect the condition of every pipes, repair / replace as necessary;			✓				

Bil.	Description	Maintenance Frequency						
		D	W	M	3M	6M	Y	2Y
	b. Inspect the condition of the pipe supports, brackets, pipe sleeves and piping joints. Repair / replace as necessary;			✓				
	c. Inspect the condition of every valves and fittings, repair / replace as necessary;			✓				
	d. Inspect, clean, repair / replace strainer as necessary;					✓		
	e. Inspect for correct labeling, clean, repair / replace as necessary;					✓		
	f. Inspect plumbing, pipe-works & fittings and pipe supports, repair / replace as necessary;			✓				
<b>2.1.5</b>	<b>Landing valves, hose reel drums, cradles, hoses, nozzles, etc.</b>							
	a. Inspect that the landing valve, canvas hose and hose reel are obstruction free;			✓				
	b. Inspect any missing, damaged or deteriorated parts on the landing valve, canvas hose, diffuser nozzle, cradle, hose reel drum & hose reel, repair / replace as necessary;			✓				
	c. Inspect the ease of operation and swing of each cradle and hose reel drum. Adjust, repair / replace as necessary;			✓				
	d. Inspect for any leaks/drips at the landing valves, drum goose neck and gate valve, repair / replace as necessary;			✓				

Bil.	Description	Maintenance Frequency						
		D	W	M	3M	6M	Y	2Y
2.1.6	e. Ensure that each of the landing valves is complete with the blank cap, chain and the hand wheel, repair / replace as necessary;			✓				
	f. Ensure that the diffuser nozzle & landing valve hand wheel can be operated freely, repair / replace as necessary;			✓				
	g. Ensure hose is not twisted or curl;			✓				
	h. Test hose reel and canvas hose for leakage, replace as necessary;			✓				
	i. Inspect and test system for leaks.			✓				
	<b>Sprinkler System</b>							
	a. Inspect that the sprinkler heads are obstruction free;			✓				
	b. Inspect that the sprinkler heads are free of foreign matter and suspended object;			✓				
	c. Inspect any missing, damaged or deteriorated parts on the sprinkler head, repair / replace as necessary;				✓			
	d. Inspect for any leaks/drips at the sprinkler heads, repair / replace as necessary;				✓			

Bil.	Description	Maintenance Frequency						
		D	W	M	3M	6M	Y	2Y
2.1.7	e. Inspect for leaks within the system by reading on the pressure gauges;				✓			
	f. Inspect and ensure the proper operation of water alarm gongs;				✓			
	g. Inspect the flow switches and its signal indication;				✓			
	h. Inspect the Jabatan BOMBA breaching inlet and its access.			✓				
	<b>Breaching inlet</b>							
	a. Inspect the condition of breaching box, door and lock;			✓				
	b. Inspect the condition of male coupling, a back pressure valve, a blank cap secured with chain, repair / replace as necessary;			✓				
	c. Inspect the condition of the wired glass and letters 'Fire Brigade Wet Main Inlet', repair / replace as necessary;			✓				
2.2	<b>Fire alarm and detection system</b>							
	a. Inspect fire alarm and detection system	✓						
	b. Inspect and test all main power supply and earthing	✓						
	c. Inspect and test all battery charger unit, repair / replace as necessary;	✓						

Bil.	Description	Maintenance Frequency						
		D	W	M	3M	6M	Y	2Y
	d. Inspect all battery electrolyte level and top-up			✓				
	e. Inspect and test illuminate lamps and LED, repair / replace as necessary;			✓				
	f. Inspect and test the functionality of break-glass unit or manual call point, repair / replace as necessary;			✓				
	g. Test zone rotary switch;			✓				
	h. Inspect and test the functionality of detectors, repair / replace as necessary;			✓				
	i. Inspect and test system wiring, repair / replace as necessary;			✓				
	j. Test bell/buzzer isolate button, repair / replace as necessary;			✓				
	k. Test alarm & evacuate switch, repair / replace as necessary;			✓				
	o. Test Lift tripping mechanism, repair / replace as necessary;			✓				
	p. Test Fire Brigade connection			✓				

Bil.	Description	Maintenance Frequency						
		D	W	M	3M	6M	Y	2Y
<b>2.3</b>	<b>Firemen intercom system.</b>							
<b>2.3.1.</b>	<b>Panel</b>							
	a. Inspect the condition of the panel and its housing.			✓				
	b. Ensure that the panel is in a normal-ready condition.			✓				
	c. Visually inspect condition of components, resistors wires, zone cards, bulbs etc. Repair / replace as necessary;					✓		
	d. Inspect condition of battery charger, repair / replace as necessary;			✓				
<b>2.3.2</b>	<b>Battery</b>							
	a. Inspect the condition of the battery and its terminal, repair / replace as necessary;			✓				
	b. Inspect voltage and ammeter reading			✓				
<b>2.3.3</b>	<b>Automatic Control</b>							
	a. Inspect and test the control wiring and circuitry. Random test of the call, talk and fault mode.			✓				
	b. Inspect the correct operation of the master and remote handset. Establish conference calls on auto and manual mode. Test disconnect call on auto and manual mode.			✓				

Bil.	Description	Maintenance Frequency						
		D	W	M	3M	6M	Y	2Y
2.3.4	<p>c. Inspect and test the correct operation of remote status panel.</p> <p><b>Electrical</b></p> <p>a. Check the operation of the emergency change over in case of power failure.</p> <p>b. Check the wiring connection terminals</p>			✓		✓		
	<p>c. Check the condition of the conduits and supports and wires.</p>			✓				
	<p><b>2.3.5 Handsets</b></p> <p>a. Check the condition of the master handset, repair / replace as necessary;</p> <p>b. Check the condition of the remote handset box, repair / replace as necessary;</p> <p>c. Inspect any missing, damaged or deteriorated parts on the remote handset and accessories, repair / replace as necessary;</p>			✓				
2.3.6	<p><b>General</b></p> <p>a. Keep remote handsets clean and tidy.</p> <p>b. Keep access to panel free from obstructions.</p>			✓				
				✓				

Bil.	Description	Maintenance Frequency						
		D	W	M	3M	6M	Y	2Y
<b>2.4</b>	<b>Fire suppression systems</b>							
<b>2.4.1</b>	<b>Cylinders, Hoses, etc.</b>							
	a. Inspect gas cylinder			✓				
	b. Inspect the pressure gauge reading of each cylinder.			✓				
	c. Inspect any missing, damaged or deteriorated parts on the cylinders, hoses, etc. Repair / replace as necessary;			✓				
	d. Inspect the condition of the discharge valve and the tamper seal, repair / replace as necessary;			✓				
<b>2.4.2</b>	<b>Pilot cylinder</b>							
	a. Inspect and test gas discharge abort switch, repair / replace as necessary;			✓				
<b>2.4.3</b>	<b>Panel</b>							
	a. Inspect and test control panel, repair / replace as necessary;				✓			
	b. Visually inspect condition of components, resistors wires, zone cards, etc. Repair / replace as necessary;				✓			
	c. Inspect and test AC & DC supply, conduct current voltage continuity and earthing test			✓				



Bil.	Description	Maintenance Frequency						
		D	W	M	3M	6M	Y	2Y
2.4.4	d. Inspect and test of change over switch, repair / replace as necessary;			✓				
	e. Inspect and test indicator bulb, repair / replace as necessary;			✓				
	f. Inspect condition of battery charger, repair / replace as necessary;			✓				
	g. Inspect the condition of the battery and its terminal, repair / replace as necessary;			✓				
	h. Inspect and log voltage and ammeter reading;			✓				
	<b>Devices</b>							
	a. Inspect and test the control wiring and circuitry.				✓			
	b. Ensure that the detectors are free from obstructions, dust, dirt and cobwebs; clean as necessary;			✓				
	c. Inspect the condition of the manual key switch/pull handle, repair / replace as necessary;				✓			
	d. Conduct simulation test (minus gas discharge)						✓	
	e. Inspect to ensure that the time delay for the CO <sub>2</sub> discharge is within 25 – 30 seconds, adjust, repair / replace as necessary;						✓	

Bil.	Description	Maintenance Frequency						
		D	W	M	3M	6M	Y	2Y
	f. Inspect and test the correct operation of interface trip and fire curtain, repair / replace as necessary;						✓	
	g. Inspect and test the correct operation of the bell and warning light, repair / replace as necessary;						✓	
<b>2.5</b>	<b>Portable Fire Extinguishers</b>							
	a. Obtain Bomba certification upon expiry date						✓	
	b. Inspect any missing, damaged or deteriorated parts on the cylinder, pressure gauge, hose connector, discharge valve, handle, cylinder safety pin, seal and cylinder holder, repair / replace as necessary;			✓				
	c. Inspect fire extinguisher cabinet, repair / replace as necessary;			✓				
	d. Inspect the condition of the content, replace as necessary.			✓				
<b>2.6</b>	<b>Painting</b>							
	a. Inspect Check painting, ensure the system (equipment, control panel and piping) are painted with anti-rust and coat with red gloss paint.					✓		

**C. Cold Water Supply And Booster Pump System Operation and Maintenance Schedule**

Bil.	Description	Maintenance Frequency						
		D	W	M	3M	6M	Y	2Y
1.0	<p><b>Operation</b></p> <p><i>The Contractor shall ensure proper operation of cold-water booster pumping system and shall monitor and check the system. This shall include works such as monitoring of water tank level, pump status, etc and response to any complaint with regards to day to day operation.</i></p>	✓						
2.0	<p><b>Maintenance</b></p> <p>The maintenance of cold water and its related system, will be carved out in accordance with the manufacturers schedule and the schedule below:</p>							
2.1	<p><b>Pump room</b></p> <p>a. Inspect pump room cleanliness.</p> <p>b. Inspect for correct labeling</p> <p>c. Inspect emergency light</p> <p>d. Inspect condition of door</p> <p>e. Inspect lighting intensity</p>	✓	✓	✓				

Bil.	Description	Maintenance Frequency						
		D	W	M	3M	6M	Y	2Y
2.2	f. Inspect floor trap/drain with fall on floor (water flow)			✓				
	g. To put up pump circuit diagram (Laminated & framed up)			✓				
	h. To put up pump layout diagram (Laminated & framed up)			✓				
	i. Inspect portable fire extinguisher CO <sub>2</sub>			✓				
	<b>Tanks (Suction &amp; Storage)</b>							
	a. Inspect for integrity of structure;					✓		
	b. Inspect for leaks, repair / replace as necessary;			✓				
	c. Inspect for rust, repair / replace as necessary;			✓				
	d. Inspect and test operation of ball valve, repair / replace as necessary;			✓				
	e. Inspect and test water tank level indicator; repair / replace as necessary;			✓				
f. Inspect and test electrode and clean, repair / replace as necessary (if equipped);				✓				
g. Inspect for sediment, clean and flush. Do water sampling;					✓			

Bil.	Description	Maintenance Frequency						
		D	W	M	3M	6M	Y	2Y
2.3	h. Inspect, cat ladder internal and external, repair / replace as necessary;					✓		
	<b>Pumps</b>							
	<b>i. General</b>							
	a. Inspect condition of pumps (cleanliness / appearance)			✓				
	b. Test run each pump on automatic and manual mode;			✓				
	c. Inspect the correct cut in/cut out auto mode operation of the pressure switch and check pressure;			✓				
	d. Inspect all pump bearings for excessive noise, vibration & wear. Lubricate with oil or grease, repair / replace as necessary;			✓				
	e. Inspect all motor bearings, lubricate with grease, replace as necessary;			✓				
	f. Inspect carbon brushes and slip rings of all motors, clean, repair / replace as necessary;			✓				
g. Inspect safety devices fitted to all motors, clean, adjust, lubricate, repair / replace as necessary;			✓					
h. Inspect all seals for leakage, repair / replace as necessary;			✓					

Bil.	Description	Maintenance Frequency						
		D	W	M	3M	6M	Y	2Y
	i. Adjust, re-pack and replace pump glands as necessary;			✓				
	j. Inspect each pump/motor alignment, mountings and correct rotation. Adjust, replace as necessary;					✓		
	k. Inspect all rubber couplings between pumps and drive motor, replace as necessary;					✓		
	l. Inspect and test the tension of all belt drives. Replace as necessary;					✓		
	m. Inspect and tighten all bolts and nuts. Replace as necessary;			✓				
	n. Inspect and test pressure switches and gauges, repair / replace as necessary;			✓				
	<b>ii. Control Panel</b>							
	a. Inspect the condition of the panel and its housing, repair / replace as necessary;			✓				
	b. Inspect and test the control wiring and circuitry			✓				
	c. Inspect electric pump starter operation, ensure that the starting sequence is correct. Repair / replace as necessary;			✓				
	d. Inspect the operation of selector switches, repair / replace as necessary;			✓				

Bil.	Description	Maintenance Frequency						
		D	W	M	3M	6M	Y	2Y
	e. Inspect the operation of auto-manual selector switches, repair/replace as necessary;			✓				
	f. Inspect the operation of stop-start buttons, repair/replace as necessary;			✓				
	g. Inspect indicating light for trip and run;			✓				
	h. Inspect indicating light for pump on auto and pump manual;			✓				
	i. Inspect ammeter and voltmeter;			✓				
	j. Inspect and retightened all loose connection of all electrical contactors;			✓				
	k. Clean and renew electrical contactors as necessary;			✓				
	l. Renew electric fuses as necessary;			✓				
	m. Inspect the condition of the conduits and supports and wires.			✓				
	n. Inspect/replace indicating bulbs and covers;			✓				
<b>2.4</b>	<b>Piping and fittings</b>							
	a. Inspect the condition of every pipes, repair / replace as necessary;			✓				

Bil.	Description	Maintenance Frequency						
		D	W	M	3M	6M	Y	2Y
	<ul style="list-style-type: none"> <li>b. Inspect the condition of the pipe supports, brackets, pipe sleeves and piping joints. Repair / replace as necessary;</li> <li>c. Inspect the condition of every valves and fittings, repair / replace as necessary;</li> <li>d. Inspect, clean, repair / replace strainer as necessary;</li> <li>e. Inspect for correct labelling, clean, repair / replace as necessary;</li> <li>f. Inspect plumbing, pipe-works &amp; fittings and pipe supports, repair / replace as necessary;</li> </ul>			✓				
<b>2.5</b>	<b>Pressure vessel</b>							
	<ul style="list-style-type: none"> <li>a. Inspect and test pressure vessel/ hydro-pneumatic vessel for leaks, replace diaphragm as necessary;</li> <li>b. Inspect and test system pressure;</li> </ul>			✓				
<b>2.6</b>	<b>Submersible Pumps</b>							
	<ul style="list-style-type: none"> <li>a. Inspect electrical termination for tightness;</li> <li>b. Inspect all seals for leakage;</li> <li>c. Inspect pump and motor bearings for excessive noise, vibration &amp; wear, replace as necessary;</li> </ul>			✓				



Bil.	Description	Maintenance Frequency						
		D	W	M	3M	6M	Y	2Y
3.0	d. Inspect for correct rotation;			✓				
	e. Inspect condition of one way valve, replace as necessary;			✓				
	f. Inspect float sensors for correct indication, adjust, repair / replace as necessary;		✓					
	g. Inspect impeller for blockage, clean, repair / replace as necessary;		✓					
	h. Inspect and test run each pump on auto and manual mode under load condition;		✓					
	i. Inspect the pump suction.		✓					
<b>3.0 Painting</b>	Inspect painting, ensure the system (equipment and piping's) are painted with anti-rust and coat with correct color paint.				✓			

**D. Bomba Link (SPKA), Automatic Door, Hand Dryer, Hot Water System Operation and Maintenance Schedule**

Bil.	Description	Maintenance Frequency						
		D	W	M	3M	6M	Y	2Y
1.0	<p><b>Operation</b></p> <p><i>The Contractor shall ensure proper operation of bomba link (SPKA), automatic door, hand dryer, hot water system and shall monitor and check the system.</i></p>	✓						
2.0	<p><b>Maintenance</b></p> <p>The maintenance of bomba link (SPKA), automatic door, hand dryer, hot water system and its related system, will be carved out in accordance with the manufacturers schedule and the schedule below:</p>							
2.1	<p><b>Bomba Link (SPKA)</b></p> <p>a. Inspect equipment functionality and others part related.</p> <p>b. Replace any missing/ damaged component of parts.</p> <p>c. Check control panel, telephone line/ mobile service provider, ability to receive SMS, network and other related are in good condition. Repair/replace to ensure functionality.</p> <p>d. Test the equipment and record.</p>			✓				

Bil.	Description	Maintenance Frequency						
		D	W	M	3M	6M	Y	2Y
<b>2.2</b>	<b>Automatic Door</b>							
	a. Inspect general condition of equipment.	✓						
	b. Test system or equipment for operation.			✓				
	c. Inspect, detect and rectify leakages.			✓				
	d. Inspect for abnormal noise or vibration and rectify as necessary.			✓				
	e. Inspect valves operation. Lubricate, repair / replace as necessary.			✓				
	f. Inspect all moving parts (such as motor, etc.). Lubricate with oil or grease and rectify/change as necessary.			✓				
	g. Inspect all electric motors, fan, pump, etc. Repair/replace as necessary.			✓				
<b>2.3</b>	<b>Hand Dryer</b>							
	a. Inspect condition of hand dryer. Repair / replace as necessary.		✓					
	b. Test run each hand dryer. Repair / replace as necessary.			✓				

Bil.	Description	Maintenance Frequency						
		D	W	M	3M	6M	Y	2Y
2.4	<b>Hot Water / Water Heater</b>							
	a. Ensure that no water leakage to the connecting pipe and tank. Repair / replace if faulty.		✓					
	b. Verify and records load reading					✓		
	c. Inspect and retighten connections, earthing terminations, etc.		✓					
	d. Ensure all electrical connections working properly		✓					
	e. Ensure temperature range as stated in manufacturer's specifications.		✓					
	f. Ensure safety valve function perfectly.		✓					
	g. Ensure indicator light working properly.		✓					
	h. Verify and retighten connection and to the double pole switch.		✓					
	i. Ensure pressure control function properly.		✓					

## **DOKUMEN NO. 6**

# **SCHEDULE OF PRICES, TOTAL SCHEDULE OF PRICES AND SUMMARY OF PRICES**

**SECTION C SCHEDULE OF PRICES****1 AIR CONDITIONING SERVICES**

ITEM NO.	DESCRIPTION	UNIT	QTY	PRICES/MONTH (RM)
<b>1a.</b>	<b>Blok Mekanikal dan Elektrik, Pejabat Nurseri &amp; Pondok Pengawal</b>			
	<b>a) Blok Mekanikal</b>			
	i) Screw Chiller (375 TR) each	nos.	4	
	ii) Cooling Tower (500 HRT) each	nos.	4	
	iii) Chilled Water Pumpset	nos.	4	
	iv) Condensor Water Pumpset	nos.	4	
	v) Make-up Water Tank	lot	1	
	vi) Control For Chiller Optimization	lot	1	
	vii) Switchboard Water Cooled Chiller System (Floor Standing)	lot	1	
	<b>b) Pejabat Nurseri</b>			
	i) FCU's; Ceiling Cassette Inverter (24,000 Btu/hr) each	nos.	4	
	ii) FCU's; Ceiling Cassette Inverter (18,000 Btu/hr) each	nos.	4	
	iii) FCU's; Wall Mounted Inverter (18,000 Btu/hr) each	nos.	3	
	<b>c) Pondok Pengawal</b>			
	i) FCU's; Ceiling Cassette Inverter (12,000 Btu/hr) each	no.	1	
<b>Total 1a to be carried to</b>				
<b>D. Total of Schedule Price</b>				

ITEM NO.	DESCRIPTION	UNIT	QTY	PRICES/MONTH (RM)
<b>1b.</b>	<b>Blok Utama - AHU</b>			
	<u>AHU</u> <u>Load</u> <u>Airflow rate</u>			
	AHU-1      320,687 btu/hr      7,700 cfm	no.	1	
	AHU-2      636,942 btu/hr      13,700 cfm	no.	1	
	AHU-3      695,5060 btu/hr      16,000 cfm	no.	1	
	AHU-4      617,761 btu/hr      13,000 cfm	no.	1	
	AHU-5-1      1,597,709 btu/hr      34,000 cfm	no.	1	
	AHU-5-2      689,044 btu/hr      16,200 cfm	no.	1	
	AHU-7      252,615 btu/hr      6,400 cfm	no.	1	
	AHU-10      338,818 btu/hr      8,200 cfm	no.	1	
	AHU-11      519,970 btu/hr      13,700 cfm	no.	1	
	AHU-12      266,477 btu/hr      6,400 cfm	no.	1	
	AHU-13      794,127 btu/hr      18,500 cfm	no.	1	
	AHU-14-1      383,957 btu/hr      12,000 cfm	no.	1	
	AHU-14-2      365,115 btu/hr      9,600 cfm	no.	1	
	AHU-15-1      667,516 btu/hr      29,900 cfm	no.	1	
	AHU-15-2      446,400 btu/hr      13,000 cfm	no.	1	
	AHU-16-1      667,516 btu/hr      29,900 cfm	no.	1	
	AHU-16-2      383,999 btu/hr      12,000 cfm	no.	1	
	AHU-17-1      1,278,000 btu/hr      21,200 cfm	no.	1	
	AHU-17-2      1,448,729 btu/hr      27,360 cfm	no.	1	
	AHU-18      798,635 btu/hr      19,200 cfm	no.	1	
	AHU-19      1,517,000 btu/hr      24,200 cfm	no.	1	
	AHU-20      1,278,000 btu/hr      27,400 cfm	no.	1	
<b>Total 1b to be carried to</b>				
<b>86 D. Total of Schedule Price</b>				

ITEM NO.	DESCRIPTION			UNIT	QTY	PRICES/MONTH (RM)
1c.	<b>Blok Utama - Variable Refrigerant Flow (VRF) Units</b>					
	<b>a) Condenser (Outdoor Unit)</b>					
	<u>Condensing Unit</u>	<u>Capacity</u>				
	CU-1	352,700 btu/hr		no.	1	
	CU-2	214,700 btu/hr		no.	1	
	CU-3	279,300 btu/hr		no.	1	
	CU-4	314,300 btu/hr		no.	1	
	CU-5	237,400 btu/hr		no.	1	
	CU-6	314,300 btu/hr		no.	1	
	CU-7-1	176,000 btu/hr		no.	1	
	CU-7-2	339,400 btu/hr		no.	1	
	CU-8-1	237,400 btu/hr		no.	1	
	CU-8-2	279,300 btu/hr		no.	1	
	CU-9	256,600 btu/hr		no.	1	
	CU-10	445,560 btu/hr		no.	1	
	CU-11	335,200 btu/hr		no.	1	
	CU-12	296,800 btu/hr		no.	1	
	CU-13	335,200 btu/hr		no.	1	
	CU-14	371,900 btu/hr		no.	1	
	CU-15	512,000 btu/hr		no.	1	
	CU-16	352,700 btu/hr		no.	1	
	CU-17	195,500 btu/hr		no.	1	
	CU-18	237,400 btu/hr		no.	1	
	CU-19	237,400 btu/hr		no.	1	
	CU-20	314,300 btu/hr		no.	1	
	CU-11(BM)	371,900 btu/hr		no.	1	
	CU-21	195,500 btu/hr		no.	1	
	<b>b) Evaporators (Indoor Units)</b>					
	<u>Tingkat Bawah/Tingkat 1 Zon 1</u>					
	<u>Cooling Unit</u>	<u>Capacity</u>	<u>Type</u>			
	FCU 1-1/1-2/1-3	25,000 btu/hr	Wall Mounted	nos.	3	
	FCU 1-4	19,900 btu/hr	Wall Mounted	no.	1	
	FCU 1-6	39,700 btu/hr	C Suspended	no.	1	
	FCU 1-7	39,700 btu/hr	C Suspended	no.	1	
	FCU 1-8	25,000 btu/hr	Wall Mounted	no.	1	
	FCU 1-14	19,900 btu/hr	Wall Mounted	no.	1	
	FCU 1-10 /1-11	39,700 btu/hr	C Suspended	nos.	2	
	FCU 1-12	19,900 btu/hr	Wall Mounted	no.	1	
	FCU 1-13	9,900 btu/hr	Wall Mounted	no.	1	
	FCU 1-9	12,600 btu/hr	Wall Mounted	no.	1	
	<u>Tingkat Bawah Zon 2</u>					
	<u>Cooling Unit</u>	<u>Capacity</u>	<u>Type</u>			
	FCU 2-1/2-2/2-6	25,000 btu/hr	C Suspended	nos.	3	
	FCU 2-3/2-4/2-5	19,900 btu/hr	Wall Mounted	nos.	3	
	FCU 2-7	19,900 btu/hr	Wall Mounted	no.	1	
	FCU 2-8/2-9	19,900 btu/hr	Wall Mounted	nos.	2	
	FCU 2-10	19,900 btu/hr	Wall Mounted	no.	1	
	FCU 2-11	9,900 btu/hr	Wall Mounted	no.	1	
	FCU 2-12	19,900 btu/hr	Wall Mounted	no.	1	
	<u>Tingkat Bawah Zon 3</u>					
	<u>Cooling Unit</u>	<u>Capacity</u>	<u>Type</u>			
	FCU 3-1	9,900 btu/hr	Wall Mounted	no.	1	
	FCU 3-2	19,900 btu/hr	C Cassette	no.	1	

	FCU 3-3	25,000 btu/hr	C Cassette	no.	1
	FCU 3-4	19,900 btu/hr	Wall Mounted	no.	1
	FCU 3-5	19,900 btu/hr	Wall Mounted	no.	1
	FCU 3-6	25,000 btu/hr	C Cassette	no.	1
	FCU 3-7	39,700 btu/hr	C Suspended	no.	1
	FCU 3-8	39,700 btu/hr	C Suspended	no.	1
	FCU 3-9	49,600 btu/hr	C Ducted OA	no.	1
	FCU 3-10	19,900 btu/hr	Wall Mounted	no.	1
	<u>Tingkat Bawah Zon 4</u>				
	<u>Cooling Unit</u>	<u>Capacity</u>	<u>Type</u>		
	FCU 4-1/4-2	25,000 btu/hr	C Cassette	nos.	2
	FCU 4-3/4-4	25,000 btu/hr	C Cassette	nos.	2
	FCU 4-5	19,900 btu/hr	Wall Mounted	no.	1
	FCU 4-6a/4-6b/4-7a	25,000 btu/hr	Floor Standing with casing	nos.	3
	FCU 4-7b/4-8a/4-8b/	25,000 btu/hr	Floor Standing with casing	nos.	3
	FCU 4-9a/4-9b	25,000 btu/hr	Floor Standing with casing	nos.	2
	<u>Tingkat Bawah Zon 5</u>				
	<u>Cooling Unit</u>	<u>Capacity</u>	<u>Type</u>		
	FCU 5-1/5-2/5-3	25,000 btu/hr	C Cassette	nos.	3
	FCU 5-4 to 5-18	9,900 btu/hr	C Cassette	nos.	2
	FCU 5-19	19,900 btu/hr	Wall Mounted	no.	1
	<u>Tingkat Satu Zon 6</u>				
	<u>Cooling Unit</u>	<u>Capacity</u>	<u>Type</u>		
	FCU 6-1	19,900 btu/hr	Wall Mounted	no.	1
	FCU 6-2	99,900 btu/hr	C Ducted	no.	1
	FCU 6-3	12,600 btu/hr	C Cassette	no.	1
	FCU 6-4	25,000 btu/hr	C Cassette	no.	1
	FCU 6-5	25,000 btu/hr	C Cassette	no.	1
	FCU 6-6	9,900 btu/hr	Wall Mounted	no.	1
	FCU 6-7	79,900 btu/hr	C Ducted OA	no.	1
	FCU 6-8	31,900 btu/hr	C Cassette	no.	1
	FCU 6-9	12,600 btu/hr	Wall Mounted	no.	1
	<u>Tingkat Satu Zon 7-1</u>				
	<u>Cooling Unit</u>	<u>Capacity</u>	<u>Type</u>		
	FCU 7-1	12,600 btu/hr	C Cassette	no.	1
	FCU 7-2	12,600 btu/hr	C Cassette	no.	1
	FCU 7-3	12,600 btu/hr	C Cassette	no.	1
	FCU 7-4	12,600 btu/hr	C Cassette	no.	1
	FCU 7-5	12,600 btu/hr	C Cassette	no.	1
	FCU 7-6	16,000 btu/hr	C Cassette	no.	1
	FCU 7-7	9,900 btu/hr	Wall Mounted	no.	1
	FCU 7-8	19,900 btu/hr	C Cassette	no.	1
	FCU 7-9	25,000 btu/hr	C Cassette	no.	1
	FCU 7-16	49,600 btu/hr	C Ducted Outdoor Air	no.	1
	<u>Tingkat Satu Zon 7-2</u>				
	<u>Cooling Unit</u>	<u>Capacity</u>	<u>Type</u>		
	FCU 7-10	31,900 btu/hr	C Ducted	no.	1
	FCU 7-11	31,900 btu/hr	C Ducted	no.	1
	FCU 7-12	31,900 btu/hr	C Ducted	no.	1
	FCU 7-13	31,900 btu/hr	C Ducted	no.	1
	FCU 7-14	31,900 btu/hr	C Ducted	no.	1
	FCU 7-15	25,000 btu/hr	C Ducted	no.	1
	FCU 7-17	25,000 btu/hr	C Ducted	no.	1
	FCU 7-18	79,000 btu/hr	C Ducted OA	no.	1
	FCU 7-19	19,000 btu/hr	C Cassette	no.	1
	FCU 7-20	31,900 btu/hr	C Cassette	no.	1



<u>Tingkat Satu Zon 8-1</u>					
<u>Cooling Unit</u>	<u>Capacity</u>	<u>Type</u>			
FCU 8-1	9,900 btu/hr	C Cassette	no.	1	
FCU 8-2	12,600 btu/hr	C Cassette	no.	1	
FCU 8-3	19,900 btu/hr	C Cassette	no.	1	
FCU 8-4	49,600 btu/hr	C Ducted	no.	1	
FCU 8-5	79,000 btu/hr	C Ducted	no.	1	
FCU 8-6 to 8-9	12,600 btu/hr	C Cassette	nos.	4	
FCU 8-18	79,000 btu/hr	C Ducted OA	no.	1	
<u>Tingkat Satu Zon 8-2</u>					
<u>Cooling Unit</u>	<u>Capacity</u>	<u>Type</u>			
FCU 8-10	31,900 btu/hr	C Ducted	no.	1	
FCU 8-11/8-12	31,900 btu/hr	C Ducted	nos.	2	
FCU 8-13 to 8-16	25,000 btu/hr	C Ducted	nos.	4	
FCU 8-17	79,000 btu/hr	C Ducted OA	no.	1	
<u>Tingkat Satu Zon 9</u>					
<u>Cooling Unit</u>	<u>Capacity</u>	<u>Type</u>			
FCU 9-1	49,600 btu/hr	C Cassette	no.	1	
FCU 9-2	16,000 btu/hr	C Cassette	no.	1	
FCU 9-3	19,900 btu/hr	Wall Mounted	no.	1	
FCU 9-4	25,000 btu/hr	C Cassette	no.	1	
FCU 9-5	12,600 btu/hr	C Cassette	no.	1	
FCU 9-6	9,900 btu/hr	Wall Mounted	no.	1	
FCU 9-7	9,900 btu/hr	Wall Mounted	no.	1	
FCU 9-8	12,600 btu/hr	C Cassette	no.	1	
FCU 9-9	25,000 btu/hr	C Cassette	no.	1	
FCU 9-10	16,000 btu/hr	C Cassette	no.	1	
FCU 9-11	49,600 btu/hr	C Cassette	no.	1	
<u>Tingkat Satu Zon 10</u>					
<u>Cooling Unit</u>	<u>Capacity</u>	<u>Type</u>			
FCU 10-1	99,000 btu/hr	C Ducted	no.	1	
FCU 10-2/10-3	99,000 btu/hr	C Ducted	nos.	2	
FCU 10-4	25,000 btu/hr	Wall Mounted	no.	1	
FCU 10-5 to10-8	25,000 btu/hr	C Suspended	nos.	4	
FCU 10-9	79,000 btu/hr	C Ducted	no.	1	
<u>Tingkat Satu Zon 11</u>					
<u>Cooling Unit</u>	<u>Capacity</u>	<u>Type</u>			
FCU 11-1	19,900 btu/hr	Wall Mounted	nos.	4	
FCU 11-2	31,900 btu/hr	C Ducted	no.	1	
FCU 11-3	31,900 btu/hr	C Ducted	no.	1	
FCU 11-4	31,900 btu/hr	C Ducted	no.	1	
FCU 11-5	39,700 btu/hr	C Ducted	no.	1	
FCU 11-6	39,700 btu/hr	C Ducted	no.	1	
FCU 11-7	31,900 btu/hr	C Ducted	no.	1	
FCU 11-8	31,900 btu/hr	C Ducted	no.	1	
FCU 11-10/11-11	12,600 btu/hr	C Cassette	nos.	2	
FCU 11-12/11-13	16,000 btu/hr	C Cassette	nos.	2	
FCU 11-9	9,900 btu/hr	Wall Mounted	no.	1	
<u>Tingkat Satu Zon 12</u>					
<u>Cooling Unit</u>	<u>Capacity</u>	<u>Type</u>			
FCU 12-1/12-2/12-3	79,000 btu/hr	C Ducted	nos.	4	
FCU 12-4	31,900 btu/hr	C Cassette	no.	1	
FCU 12-5	16,000 btu/hr	Wall Mounted	no.	1	
FCU 12-6	12,600 btu/hr	Wall Mounted	no.	1	

<u>Tingkat Satu Zon 13</u>					
FCU 13-1	9,900 btu/hr	C Cassette	nos.	1	
FCU 13-2	9,900 btu/hr	C Cassette	no.	1	
FCU 13-3	19,900 btu/hr	C Cassette	no.	1	
FCU 13-4	39,700 btu/hr	C Cassette	no.	1	
FCU 13-5	16,000 btu/hr	C Cassette	no.	1	
FCU 13-6	19,900 btu/hr	Wall Mounted	no.	1	
FCU 13-7	16,000 btu/hr	C Cassette	no.	1	
FCU 13-8	16,000 btu/hr	C Cassette	no.	1	
FCU 13-9 to 13-11	19,900 btu/hr	C Cassette	nos.	3	
FCU 13-12	16,000 btu/hr	C Cassette	no.	1	
FCU 13-13	25,000 btu/hr	C Cassette	no.	1	
FCU 13-14	25,000 btu/hr	C Cassette	nos.	1	
FCU 13-15	39,700 btu/hr	C Cassette	no.	1	
<u>Tingkat Dua Zon 14</u>					
<u>Cooling Unit</u>	<u>Capacity</u>	<u>Type</u>			
FCU 14-1 to 14-8	49,600 btu/hr	C Cassette	nos.	8	
FCU 14-9	9,900 btu/hr	C Cassette	no.	1	
<u>Tingkat Dua Zon 15</u>					
<u>Cooling Unit</u>	<u>Capacity</u>	<u>Type</u>			
FCU 15-1	19,900 btu/hr	Wall Mounted	no.	1	
FCU 15-2	79,000 btu/hr	C Ducted	no.	1	
FCU 15-3	79,000 btu/hr	C Ducted	no.	1	
FCU 15-4 to 15-7	79,000 btu/hr	C Ducted	nos.	4	
<u>Tingkat Dua Zon 16</u>					
<u>Cooling Unit</u>	<u>Capacity</u>	<u>Type</u>			
FCU 16-1 to 16-4	39,700 btu/hr	C Ducted	nos.	4	
FCU 16-5	19,900 btu/hr	C Cassette	no.	1	
FCU 16-6 to 16-9	39,700 btu/hr	C Ducted	nos.	4	
<u>Tingkat Bwh Zon 17</u>					
<u>Cooling Unit</u>	<u>Capacity</u>	<u>Type</u>			
AHU VRF 17	200,000 btu/hr	Floor Standing AHU	no.	1	
<u>Tingkat Bwh Zon 18</u>					
<u>Cooling Unit</u>	<u>Capacity</u>	<u>Type</u>			
AHU VRF 18	250,000 btu/hr	Floor Standing AHU	no.	1	
<u>Tingkat Bwh Zon 19</u>					
<u>Cooling Unit</u>	<u>Capacity</u>	<u>Type</u>			
AHU VRF 19	250,000 btu/hr	Floor Standing AHU	no.	1	
<u>Tingkat Dua Zon 20</u>					
<u>Cooling Unit</u>	<u>Capacity</u>	<u>Type</u>			
FCU 20-1 to 20-11	25,000 btu/hr	C Cassette	nos.	11	
FCU 20-12 & 20-14	25,000 btu/hr	C Cassette	nos.	2	
FCU 20-13	16,000 btu/hr	Wall Mounted	no.	1	
<u>Tingkat Dua Zon 21</u>					
<u>Cooling Unit</u>	<u>Capacity</u>	<u>Type</u>			
FCU 21-1	56,400 btu/hr	C Ducted	no.	1	
FCU 21-2	56,400 btu/hr	C Ducted	no.	1	
FCU 21-3	31,900 btu/hr	C Cassette	no.	1	
FCU 21-4	31,900 btu/hr	C Cassette	no.	1	
FCU 21-5	19,900 btu/hr	Wall Mounted	no.	1	
FCU 21-6	9,900 btu/hr	C Cassette	no.	1	
FCU 21-7	9,900 btu/hr	Wall Mounted	no.	1	
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	<u>Tingkat Sebelas (Bangunan Menara)</u>					
	FCU 11-1	9,900 btu/hr	C Cassette	no.	1	
	FCU 11-2/11-3	16,000 btu/hr	Wall Mounted	nos.	2	
	FCU 11-4	9,900 btu/hr	C Cassette	no.	1	
	FCU 11-5/11-6	31,900 btu/hr	C Ducted	nos.	2	
	FCU 11-7	12,600 btu/hr	C Cassette	no.	1	
	FCU 11-8	12,600 btu/hr	C Cassette	no.	1	
	FCU 11-9	31,900 btu/hr	C Ducted	no.	1	
	FCU 11-10	12,600 btu/hr	C Cassette	no.	1	
	FCU 11-11	12,600 btu/hr	C Cassette	no.	1	
	FCU 11-12/11-13	31,900 btu/hr	C Ducted	nos.	2	
	FCU 11-14	25,000 btu/hr	C Ducted	no.	1	
	FCU 11-15	25,000 btu/hr	C Ducted	nos.	1	
	FCU 11-16	79,000 btu/hr	C Ducted OA	no.	1	
<b>Total 1c to be carried to</b>						
<b>D. Total of Schedule Price</b>						
ITEM NO.	DESCRIPTION			UNIT	QTY	PRICES/MONTH (RM)
<b>1d.</b>	<b><u>Blok Utama - ACSU Inverter</u></b>					
	<b>a) <u>Evaporators (Indoor Units)</u></b>					
	<u>Tingkat Besmen</u>					
	<u>Cooling Unit</u>	<u>Capacity</u>	<u>Type</u>			
	BB1	24,225 btu/hr	Wall Mounted	no.	1	
	BB2/BB3	17,060 btu/hr	Wall Mounted	nos.	2	
	BELV1-1/BELV1-2	17,060 btu/hr	Wall Mounted	nos.	2	
	BKICT	17,060 btu/hr	Wall Mounted	no.	1	
	BME-1/BME-2	34,100 btu/hr	Ceiling Exposed	nos.	2	
	<u>Tingkat Bawah</u>					
	B MDF1/B MDF2	20,472 btu/hr	Wall Mounted	nos.	2	
	BKB1/BKB2	11,942 btu/hr	Wall Mounted	nos.	2	
	BSJ1/BSJ2	11,942 btu/hr	Wall Mounted	no.	2	
	BTCR1-1	17,060 btu/hr	Wall Mounted	nos.	1	
	BELV2-1/BELV2-2	17,060 btu/hr	Wall Mounted	no.	2	
	BTCR -PW	17,060 btu/hr	Wall Mounted	no.	1	
	BATM-1/BATM-2	17,060 btu/hr	Wall Mounted	no.	2	
	<u>Tingkat Satu</u>					
	BTCR2-1	17,060 btu/hr	Wall Mounted	no.	1	
	BPABX 1/BPABX 2	17,060 btu/hr	Wall Mounted	nos.	2	
	BSU	11,942 btu/hr	Wall Mounted	no.	1	
	Pejabat Menteri	9,000 btu/hr	Wall Mounted	no.	1	
	<u>Tingkat Dua</u>					
	<u>Cooling Unit</u>	<u>Capacity</u>	<u>Type</u>			
	BTCR JK2	17,060 btu/hr	Wall Mounted	no.	1	
	BTCR JK4	17,060 btu/hr	Wall Mounted	no.	1	
	BM 1	17,060 btu/hr	Wall Mounted	no.	1	
	BELV 3-1	17,060 btu/hr	Wall Mounted	no.	1	
	Galeri	27,000 btu/hr	C Cassette	no.	2	
	<u>Dataran Parlimen</u>					
	<u>Cooling Unit</u>	<u>Capacity</u>	<u>Type</u>			
	GF-1	17,060 btu/hr	C Cassette	no.	1	
	<u>Bangunan Menara (Tingkat 11)</u>					
	<u>Cooling Unit</u>	<u>Capacity</u>	<u>Type</u>			
	BTCR1/BTCR2	17,060 btu/hr	Wall Mounted	nos.	2	
<b>91</b>						
<b>Total 1d to be carried to</b>						
<b>D. Total of Schedule Price</b>						

ITEM NO.	DESCRIPTION			UNIT	QTY	PRICES/MONTH (RM)
1e.	<b>Blok Pejabat Sementara - VRF</b>					
	<b>a) Condenser (Outdoor Unit)</b>					
	<u>Condensing Unit</u>	<u>Capacity</u>				
	CU-1	334,000 btu/hr		no.	1	
	CU-2	174,000 btu/hr		no.	1	
	CU-3	130,000 btu/hr		no.	1	
	CU-4	240,000 btu/hr		no.	1	
	CU-5	313,000 btu/hr		no.	1	
	CU-6	275,000 btu/hr		no.	1	
	CU-7	256,000 btu/hr		no.	1	
	CU-8	195,000 btu/hr		no.	1	
	CU-9	256,000 btu/hr		no.	1	
	CU-10	270,000 btu/hr		no.	1	
	CU-11	165,000 btu/hr		no.	1	
	CU-12	260,000 btu/hr		no.	1	
	<b>b) Evaporators (Indoor Units)</b>					
	<u>Tingkat Bawah</u>					
	<u>Location FCU</u>	<u>Capacity</u>	<u>Type</u>			
	Bilik Persediaan	15,500 btu/hr	Ceiling Cassette	no.	1	
	Bilik Jamuan	31,300 btu/hr	Ceiling Cassette	nos.	6	
	Bilik Media	33,100 btu/hr	Ceiling Cassette	nos.	3	
	Bilik Alatan	15,500 btu/hr	W. Mounted	no.	1	
	Studio Umum	15,500 btu/hr	W. Mounted	no.	1	
	Pusat Sumber	15,500 btu/hr	Ceiling Cassette	nos.	2	
	Pusat Sumber	19,000 btu/hr	Ceiling Cassette	nos.	2	
	Bilik Peg.Bertugas	33,100 btu/hr	Ceiling Cassette	nos.	2	
	Surau (L & P)	15,500 btu/hr	Ceiling Cassette	nos.	2	
	Surau (L)	18,500 btu/hr	Ceiling Cassette	no.	1	
	Peg.Pusat Sumber	9,000 btu/hr	W. Mounted	no.	1	
	Kafeteria	21,600 btu/hr	Ceiling Cassette	nos.	6	
	Bilik Taklimat	30,000 btu/hr	Ceiling Cassette	nos.	8	
	Bilik Taklimat	18,000 btu/hr	W. Mounted	no.	1	
	Caw Kewangan	25,000 btu/hr	Ceiling Cassette	nos.	5	
	Caw Kewangan	9,000 btu/hr	W. Mounted	nos.	2	
	Lobi	31,300 btu/hr	Ceiling Cassette	no.	1	
	B.K	15,500 btu/hr	W. Mounted	no.	1	
	B.K 28	15,500 btu/hr	W. Mounted	no.	1	
	B.K 29	15,500 btu/hr	W. Mounted	no.	1	
	B.K 30	15,500 btu/hr	W. Mounted	no.	1	
	B.Khidmat Pelanggan	15,500 btu/hr	W. Mounted	no.	1	
	B.K 25	15,500 btu/hr	W. Mounted	no.	1	
	B.K 27	15,500 btu/hr	W. Mounted	no.	1	
	Pos Keselamatan	15,500 btu/hr	W. Mounted	no.	1	
	Pantri 1	15,500 btu/hr	Ceiling Cassette	no.	1	
	Pantri 2	15,500 btu/hr	Ceiling Cassette	no.	1	
	Stor Inventori	30,000 btu/hr	Ceiling Cassette	nos.	2	
	Bilik Mesy JK 1	37,000 btu/hr	Ceiling Cassette	nos.	2	
	Bilik Perbincangan	25,000 btu/hr	Ceiling Cassette	nos.	2	
	Lobi	19,900 btu/hr	Ceiling Cassette	no.	1	
	Bilik CCTV	13,652 btu/hr	W. Mounted	no.	1	
	Bilik Server	11,942 btu/hr	W. Mounted	nos.	2	
	Unit Cetak	34,100 btu/hr	Ceiling Cassette	nos.	3	
	Bilik Operasi	13,652 btu/hr	Ceiling Cassette	no.	1	
	Bilik ELV/ICT	8,530 btu/hr	W. Mounted	nos.	2	
	Bilik ELV/ICT	8,530 btu/hr	W. Mounted	nos.	2	
	<u>Tingkat Satu</u>					
	<u>Location FCU</u>	<u>Capacity</u>	<u>Type</u>			
	B.K 23	15,500 btu/hr	W. Mounted	no.	1	
	Bilik K22	15,500 btu/hr	W. Mounted	no.	1	



ITEM NO.	DESCRIPTION	UNIT	QTY	PRICES/MONTH (RM)
1f.	<b>Blok Pejabat Sementara - (ACSU)</b>			
	a. <u>Tingkat Satu</u> <u>Capacity</u> <u>Type</u>			
	i. SUDR & SUDN      9,000 btu/hr      Ceiling Cassette	nos.	2	
<b>Total 1f to be carried to SUMMARY OF PRICES</b>				
1g.	<b>Blok Dewan Persidangan (VRF, ACPU, ACSU, EF &amp; FA)</b>			
	<b>i. Variable Refrigerant Flow (VRF) Units (Daikin)</b>			
	<b>a) Condenser (Outdoor Unit)</b>			
	<u>Condensing Unit</u> <u>Capacity</u>			
	VRFO-DP-10A      110,000 btu/hr	no.	1	
	VRFO-DP-1A      95,369 btu/hr	no.	1	
	VRFO-DP-1B      218,997 btu/hr	no.	1	
	VRFO-DP-1C      130,787 btu/hr	no.	1	
	VRFO-DP-1D      195,500 btu/hr	no.	1	
	VRFO-DP-20A      76,296 btu/hr	no.	1	
	VRFO-DP-2A      121,950 btu/hr	no.	1	
	VRFO-DP-2B      116,115 btu/hr	no.	1	
	VRFO-DP-2C      135,530 btu/hr	no.	1	
	VRFO-DP-3A      128,024 btu/hr	no.	1	
	VRFO-DP-3B      137,562 btu/hr	no.	1	
	VRFO-DP-3C1      209,517 btu/hr	no.	1	
	VRFO-DP-3C2      110,000 btu/hr	no.	1	
	<b>b) Evaporators (Indoor Units)</b>			
	<u>Tingkat Satu</u>			
	<u>Cooling Unit</u> <u>Capacity</u> <u>Type</u>			
	VRFO-DP-10A/1      47,500 btu/hr      OA Processing Unit	no.	1	
	VRFO-DP-10A/2      47,500 btu/hr      OA Processing Unit	no.	1	
	VRF-DP-1A      95,369 btu/hr      Ducted FCU	no.	1	
	VRF-DP-1B/1      47,500 btu/hr      Ducted FCU	no.	1	
	VRF-DP-1B/2      47,500 btu/hr      Ducted FCU	no.	1	
	VRF-DP-1C/1      54,492 btu/hr      Ducted FCU	no.	1	
	VRF-DP-1C/2      76,296 btu/hr      Ducted FCU	no.	1	
	VRF-DP-1D/1      30,641 btu/hr      Ceiling Cassette	no.	1	
	VRF-DP-1D/2      24,192 btu/hr      Ceiling Cassette	no.	1	
	VRF-DP-1D/3      76,296 btu/hr      Ducted FCU	no.	1	
	VRF-DP-1D/4      30,641 btu/hr      Ceiling Cassette	no.	1	
	VRF-DP-1D/5      24,192 btu/hr      Wall Mounted	no.	1	
	VRF-DP-1D/6      9,538 btu/hr      Ceiling Cassette	no.	1	

<u>Tingkat Dua</u>						
<u>Cooling Unit</u>	<u>Capacity</u>	<u>Type</u>				
VRF-DP-2B/4	76,296 btu/hr	OA Processing Unit	no.	1		
VRF-DP-2A/1	54,492 btu/hr	Ceiling Cassette	no.	1		
VRF-DP-2A/2	19,074 btu/hr	Ceiling Cassette	no.	1		
VRF-DP-2A/3	24,192 btu/hr	Ducted FCU	no.	1		
VRF-DP-2A/4	24,192 btu/hr	Ceiling Cassette	no.	1		
VRF-DP-2B/1	12,250 btu/hr	Wall Mounted	no.	1		
VRF-DP-2B/2	12,250 btu/hr	Wall Mounted	no.	1		
VRF-DP-2B/3	15,321 btu/hr	Ceiling Cassette	no.	1		
VRF-DP-2B/4	12,250 btu/hr	Ceiling Cassette	no.	1		
VRF-DP-2B/5	15,321 btu/hr	Ceiling Cassette	no.	1		
VRF-DP-2B/6	12,263 btu/hr	Wall Mounted	no.	1		
VRF-DP-2B/7	9,538 btu/hr	Wall Mounted	no.	1		
VRF-DP-2C/1	30,641 btu/hr	Ceiling Cassette	no.	1		
VRF-DP-2C/2	30,641 btu/hr	Ceiling Cassette	no.	1		
VRF-DP-2C/3	12,250 btu/hr	Ceiling Cassette	no.	1		
VRF-DP-2C/4	54,492 btu/hr	Ducted FCU	no.	1		
VRF-DP-2C/5	7,507 btu/hr	Wall Mounted	no.	1		
<u>Tingkat Tiga</u>						
<u>Cooling Unit</u>	<u>Capacity</u>	<u>Type</u>				
VRF-DP-3A/1	30,641 btu/hr	Ceiling Cassette	no.	1		
VRF-DP-3A/2	12,250 btu/hr	Ceiling Cassette	no.	1		
VRF-DP-3A/3	30,641 btu/hr	Ceiling Cassette	no.	1		
VRF-DP-3A/4	54,492 btu/hr	Ducted FCU	no.	1		
VRF-DP-3B/1	30,641 btu/hr	Ceiling Cassette	no.	1		
VRF-DP-3B/2	30,641 btu/hr	Ceiling Cassette	no.	1		
VRF-DP-3B/3	12,250 btu/hr	Ceiling Cassette	no.	1		
VRF-DP-3B/4	54,492 btu/hr	Ducted FCU	no.	1		
VRF-DP-3B/5	9,538 btu/hr	Wall Mounted	no.	1		
VRF-DP-3C/1	12,250 btu/hr	Ceiling Cassette	no.	1		
VRF-DP-3C/2	12,250 btu/hr	Ceiling Cassette	no.	1		
VRF-DP-3C/3	76,000 btu/hr	OA Processing Unit	no.	1		
VRF-DP-3C/4	12,250 btu/hr	Ceiling Cassette	no.	1		
VRF-DP-3C/5	24,192 btu/hr	Ceiling Cassette	no.	1		
VRF-DP-3C/6	24,192 btu/hr	Ceiling Cassette	no.	1		
VRF-DP-3C/7	24,192 btu/hr	Ceiling Cassette	no.	1		
VRF-DP-3C/8	24,192 btu/hr	Ceiling Cassette	no.	1		
	<u>Capacity</u>	<u>Type</u>				
ii Bilik AHU	75.0 HP	ACPU	nos.	2		
	(20HP X 3 NOS + 25HP X 1 NOS)					

	iii. <u>Tingkat Satu (Back of House)</u>				
	a. FCU (VRF)			nos.	13
	b. CU (VRF)	214,700 btu/hr		no.	1
	c. ACSU (Inverter)	2.0 HP	W. Mounted	nos.	6
	d. SU-DP-1/1 / SUO-DP-1/1 (ACSU)		Ceiling Cassette	no.	1
	e. SU-DP-1/3 / SUO-DP-1/3 (ACSU)		Wall Mounted	no.	1
	iv. <u>Tingkat Dua (Back of House)</u>				
	a. FCU (VRF)			nos.	6
	b. CU (VRF)	79,000 btu/hr		no.	1
	c. ACSU (Inverter)	1.5 HP	W. Mounted	nos.	8
	d. ACSU (Inverter)	2.0 HP	W. Mounted	nos.	6
	e. SUI-DP-1/4 / SUO-DP-1/4 (ACSU)		Wall Mounted	no.	1
	v. <u>Klinik</u>				
	i. ACSU	18,000 btu/hr	Ceiling Cassette	nos.	2
	vi. <u>Bilik Menyusu</u>				
	i. ACSU	9,000 btu/hr	W. Mounted	nos.	2
	vii. <u>Bilik Elektrik</u>				
	i. ACSU	12,000 btu/hr	W. Mounted	no.	1
	viii <u>Pintu Masuk/Laluan/ Kaunter Keselamatan</u>				
	i. Air Curtain		W. Mounted	nos.	6
	<b>Total 1g to be carried to</b>				
	<b>D. Total of Schedule Price</b>				

ITEM NO.	DESCRIPTION		UNIT	QTY	PRICES/MONTH (RM)
<b>1h.</b>	<b><u>Stor Utama (ACSU)</u></b>				
		<u>Capacity</u>	<u>Type</u>		
	a. <u>Tingkat Bawah</u>				
	i. ACSU	30,000 btu/hr	Ceiling Cassette	nos.	4
	ii. ACSU	18,000 btu/hr	Ceiling Cassette	nos.	1
	<b>Total 1h to be carried to</b>				
	<b>SUMMARY OF PRICES</b>				



2	<b>CHEMICAL CLEANING FOR AIR CONDITIONING AND VENTILATION SYSTEM.</b>			
	<b>(ONCE PER CONTRACT)</b>			
ITEM NO.	DESCRIPTION	UNIT	QTY	PRICES/MONTH (RM)
2a.	<b>Pejabat Nurseri &amp; Pondok Pengawal</b>			
	a) <b>Pejabat Nurseri</b>			
	i) FCU's; Ceiling Cassette Inverter (24,000 Btu/hr) each	nos	4	
	ii) FCU's; Ceiling Cassette Inverter (18,000 Btu/hr) each	nos	4	
	iii) FCU's; Wall Mounted Inverter (18,000 Btu/hr) each	nos	3	
	b) <b>Pondok Pengawal</b>			
	i) FCU's; Ceiling Cassette Inverter (12,000 Btu/hr) each	no	1	
<b>Total 2a to be carried to</b>				
<b>D. Total of Schedule Price</b>				

2b.	<b>Blok Utama - AHU</b>			
	<u>AHU</u>	<u>Load</u>	<u>Airflow rate</u>	
	AHU-1	320,687 btu/hr	7,700 cfm	no. 1
	AHU-2	636,942 btu/hr	13,700 cfm	no. 1
	AHU-3	695,5060 btu/hr	16,000 cfm	no. 1
	AHU-4	617,761 btu/hr	13,000 cfm	no. 1
	AHU-5-1	1,597,709 btu/hr	34,000 cfm	no. 1
	AHU-5-2	689,044 btu/hr	16,200 cfm	no. 1
	AHU-7	252,615 btu/hr	6,400 cfm	no. 1
	AHU-10	338,818 btu/hr	8,200 cfm	no. 1
	AHU-11	519,970 btu/hr	13,700 cfm	no. 1
	AHU-12	266,477 btu/hr	6,400 cfm	no. 1
	AHU-13	794,127 btu/hr	18,500 cfm	no. 1
	AHU-14-1	383,957 btu/hr	12,000 cfm	no. 1
	AHU-14-2	365,115 btu/hr	9,600 cfm	no. 1
	AHU-15-1	667,516 btu/hr	29,900 cfm	no. 1
	AHU-15-2	446,400 btu/hr	13,000 cfm	no. 1
	AHU-16-1	667,516 btu/hr	29,900 cfm	no. 1
	AHU-16-2	383,999 btu/hr	12,000 cfm	no. 1
	AHU-17-1	1,278,000 btu/hr	21,200 cfm	no. 1
	AHU-17-2	1,448,729 btu/hr	27,360 cfm	no. 1
	AHU-18	798,635 btu/hr	19,200 cfm	no. 1
	AHU-19	1,517,000 btu/hr	24,200 cfm	no. 1
	AHU-20	1,278,000 btu/hr	27,400 cfm	no. 1
<b>Total 2b to be carried to</b>				
<b>D. Total of Schedule Price</b>				

ITEM NO.	DESCRIPTION	UNIT	QTY	PRICES/MONTH (RM)
2c.	<b>Blok Utama - Variable Refrigerant Flow (VRF) Units</b>			
	a) <b>Condenser (Outdoor Unit)</b>			
	<u>Condensing Unit</u> <u>Capacity</u>			
	CU-1	no.	1	
	CU-2	no.	1	
	CU-3	no.	1	
	CU-4	no.	1	
	CU-5	no.	1	
	CU-6	no.	1	
	CU-7-1	no.	1	
	CU-7-2	no.	1	
	CU-8-1	no.	1	
	CU-8-2	no.	1	
	CU-9	no.	1	
	CU-10	no.	1	
	CU-11	no.	1	
	CU-12	no.	1	
	CU-13	no.	1	
	CU-14	no.	1	
	CU-15	no.	1	
	CU-16	no.	1	
	CU-17	no.	1	
	CU-18	no.	1	
	CU-19	no.	1	
	CU-20	no.	1	
	CU-11(BM)	no.	1	
	CU-21	no.	1	
	b) <b>Evaporators (Indoor Units)</b>			
	<u>Tingkat Bawah/Tingkat 1 Zon 1</u>			
	<u>Cooling Unit</u> <u>Capacity</u> <u>Type</u>			
	FCU 1-1/1-2/1-3	nos.	3	
	FCU 1-4	no.	1	
	FCU 1-6	no.	1	
	FCU 1-7	no.	1	
	FCU 1-8	no.	1	
	FCU 1-14	no.	1	
	FCU 1-10 /1-11	nos.	2	
	FCU 1-12	no.	1	
	FCU 1-13	no.	1	
	FCU 1-9	no.	1	

<u>Tingkat Bawah Zon 2</u>					
<u>Cooling Unit</u>	<u>Capacity</u>	<u>Type</u>			
FCU 2-1/2-2/2-6	25,000 btu/hr	C Suspended	nos.	3	
FCU 2-3/2-4/2-5	19,900 btu/hr	Wall Mounted	nos.	3	
FCU 2-7	19,900 btu/hr	Wall Mounted	no.	1	
FCU 2-8/2-9	19,900 btu/hr	Wall Mounted	nos.	2	
FCU 2-10	19,900 btu/hr	Wall Mounted	no.	1	
FCU 2-11	9,900 btu/hr	Wall Mounted	no.	1	
FCU 2-12	19,900 btu/hr	Wall Mounted	no.	1	
<u>Tingkat Bawah Zon 3</u>					
<u>Cooling Unit</u>	<u>Capacity</u>	<u>Type</u>			
FCU 3-1	9,900 btu/hr	Wall Mounted	no.	1	
FCU 3-2	19,900 btu/hr	C Cassette	no.	1	
FCU 3-3	25,000 btu/hr	C Cassette	no.	1	
FCU 3-4	19,900 btu/hr	Wall Mounted	no.	1	
FCU 3-5	19,900 btu/hr	Wall Mounted	no.	1	
FCU 3-6	25,000 btu/hr	C Cassette	no.	1	
FCU 3-7	39,700 btu/hr	C Suspended	no.	1	
FCU 3-8	39,700 btu/hr	C Suspended	no.	1	
FCU 3-9	49,600 btu/hr	C Ducted OA	no.	1	
FCU 3-10	19,900 btu/hr	Wall Mounted	no.	1	
<u>Tingkat Bawah Zon 4</u>					
<u>Cooling Unit</u>	<u>Capacity</u>	<u>Type</u>			
FCU 4-1/4-2	25,000 btu/hr	C Cassette	nos.	2	
FCU 4-3/4-4	25,000 btu/hr	C Cassette	nos.	2	
FCU 4-5	19,900 btu/hr	Wall Mounted	no.	1	
FCU 4-6a/4-6b/4-7a	25,000 btu/hr	Floor Standing with casing	nos.	3	
FCU 4-7b/4-8a/4-8b/	25,000 btu/hr	Floor Standing with casing	nos.	3	
FCU 4-9a/4-9b	25,000 btu/hr	Floor Standing with casing	nos.	2	
<u>Tingkat Bawah Zon 5</u>					
<u>Cooling Unit</u>	<u>Capacity</u>	<u>Type</u>			
FCU 5-1/5-2/5-3	25,000 btu/hr	C Cassette	nos.	3	
FCU 5-4 to 5-18	9,900 btu/hr	C Cassette	nos.	2	
FCU 5-19	19,900 btu/hr	Wall Mounted	no.	1	
<u>Tingkat Satu Zon 6</u>					
<u>Cooling Unit</u>	<u>Capacity</u>	<u>Type</u>			
FCU 6-1	19,900 btu/hr	Wall Mounted	no.	1	
FCU 6-2	99,900 btu/hr	C Ducted	no.	1	
FCU 6-3	12,600 btu/hr	C Cassette	no.	1	
FCU 6-4	25,000 btu/hr	C Cassette	no.	1	
FCU 6-5	25,000 btu/hr	C Cassette	no.	1	
FCU 6-6	9,900 btu/hr	Wall Mounted	no.	1	
FCU 6-7	79,900 btu/hr	C Ducted OA	no.	1	
FCU 6-8	31,900 btu/hr	C Cassette	no.	1	
FCU 6-9	12,600 btu/hr	Wall Mounted	no.	1	

<u>Tingkat Satu Zon 7-1</u>					
<u>Cooling Unit</u>	<u>Capacity</u>	<u>Type</u>			
FCU 7-1	12,600 btu/hr	C Cassette	no.	1	
FCU 7-2	12,600 btu/hr	C Cassette	no.	1	
FCU 7-3	12,600 btu/hr	C Cassette	no.	1	
FCU 7-4	12,600 btu/hr	C Cassette	no.	1	
FCU 7-5	12,600 btu/hr	C Cassette	no.	1	
FCU 7-6	16,000 btu/hr	C Cassette	no.	1	
FCU 7-7	9,900 btu/hr	Wall Mounted	no.	1	
FCU 7-8	19,900 btu/hr	C Cassette	no.	1	
FCU 7-9	25,000 btu/hr	C Cassette	no.	1	
FCU 7-16	49,600 btu/hr	C Ducted Outdoor Air	no.	1	
<u>Tingkat Satu Zon 7-2</u>					
<u>Cooling Unit</u>	<u>Capacity</u>	<u>Type</u>			
FCU 7-10	31,900 btu/hr	C Ducted	no.	1	
FCU 7-11	31,900 btu/hr	C Ducted	no.	1	
FCU 7-12	31,900 btu/hr	C Ducted	no.	1	
FCU 7-13	31,900 btu/hr	C Ducted	no.	1	
FCU 7-14	31,900 btu/hr	C Ducted	no.	1	
FCU 7-15	25,000 btu/hr	C Ducted	no.	1	
FCU 7-17	25,000 btu/hr	C Ducted	no.	1	
FCU 7-18	79,000 btu/hr	C Ducted OA	no.	1	
FCU 7-19	19,000 btu/hr	C Cassette	no.	1	
FCU 7-20	31,900 btu/hr	C Cassette	no.	1	
<u>Tingkat Satu Zon 8-1</u>					
<u>Cooling Unit</u>	<u>Capacity</u>	<u>Type</u>			
FCU 8-1	9,900 btu/hr	C Cassette	no.	1	
FCU 8-2	12,600 btu/hr	C Cassette	no.	1	
FCU 8-3	19,900 btu/hr	C Cassette	no.	1	
FCU 8-4	49,600 btu/hr	C Ducted	no.	1	
FCU 8-5	79,000 btu/hr	C Ducted	no.	1	
FCU 8-6 to 8-9	12,600 btu/hr	C Cassette	nos.	4	
FCU 8-18	79,000 btu/hr	C Ducted OA	no.	1	
<u>Tingkat Satu Zon 8-2</u>					
<u>Cooling Unit</u>	<u>Capacity</u>	<u>Type</u>			
FCU 8-10	31,900 btu/hr	C Ducted	no.	1	
FCU 8-11/8-12	31,900 btu/hr	C Ducted	nos.	2	
FCU 8-13 to 8-16	25,000 btu/hr	C Ducted	nos.	4	
FCU 8-17	79,000 btu/hr	C Ducted OA	no.	1	
<u>Tingkat Satu Zon 9</u>					
<u>Cooling Unit</u>	<u>Capacity</u>	<u>Type</u>			
FCU 9-1	49,600 btu/hr	C Cassette	no.	1	
FCU 9-2	16,000 btu/hr	C Cassette	no.	1	
FCU 9-3	19,900 btu/hr	Wall Mounted	no.	1	
FCU 9-4	25,000 btu/hr	C Cassette	no.	1	
FCU 9-5	12,600 btu/hr	C Cassette	no.	1	
FCU 9-6	9,900 btu/hr	Wall Mounted	no.	1	
FCU 9-7	9,900 btu/hr	Wall Mounted	no.	1	
FCU 9-8	12,600 btu/hr	C Cassette	no.	1	
FCU 9-9	25,000 btu/hr	C Cassette	no.	1	
FCU 9-10	16,000 btu/hr	C Cassette	no.	1	
FCU 9-11	49,600 btu/hr	C Cassette	no.	1	

<u>Tingkat Satu Zon 10</u>					
<u>Cooling Unit</u>	<u>Capacity</u>	<u>Type</u>			
FCU 10-1	99,000 btu/hr	C Ducted	no.	1	
FCU 10-2/10-3	99,000 btu/hr	C Ducted	nos.	2	
FCU 10-4	25,000 btu/hr	Wall Mounted	no.	1	
FCU 10-5 to10-8	25,000 btu/hr	C Suspended	nos.	4	
FCU 10-9	79,000 btu/hr	C Ducted	no.	1	
<u>Tingkat Satu Zon 11</u>					
<u>Cooling Unit</u>	<u>Capacity</u>	<u>Type</u>			
FCU 11-1	19,900 btu/hr	Wall Mounted	nos.	4	
FCU 11-2	31,900 btu/hr	C Ducted	no.	1	
FCU 11-3	31,900 btu/hr	C Ducted	no.	1	
FCU 11-4	31,900 btu/hr	C Ducted	no.	1	
FCU 11-5	39,700 btu/hr	C Ducted	no.	1	
FCU 11-6	39,700 btu/hr	C Ducted	no.	1	
FCU 11-7	31,900 btu/hr	C Ducted	no.	1	
FCU 11-8	31,900 btu/hr	C Ducted	no.	1	
FCU 11-10/11-11	12,600 btu/hr	C Cassette	nos.	2	
FCU 11-12/11-13	16,000 btu/hr	C Cassette	nos.	2	
FCU 11-9	9,900 btu/hr	Wall Mounted	no.	1	
<u>Tingkat Satu Zon 12</u>					
<u>Cooling Unit</u>	<u>Capacity</u>	<u>Type</u>			
FCU 12-1/12-2/12-3	79,000 btu/hr	C Ducted	nos.	4	
FCU 12-4	31,900 btu/hr	C Cassette	no.	1	
FCU 12-5	16,000 btu/hr	Wall Mounted	no.	1	
FCU 12-6	12,600 btu/hr	Wall Mounted	no.	1	
<u>Tingkat Satu Zon 13</u>					
<u>Cooling Unit</u>	<u>Capacity</u>	<u>Type</u>			
FCU 13-1	9,900 btu/hr	C Cassette	nos.	1	
FCU 13-2	9,900 btu/hr	C Cassette	no.	1	
FCU 13-3	19,900 btu/hr	C Cassette	no.	1	
FCU 13-4	39,700 btu/hr	C Cassette	no.	1	
FCU 13-5	16,000 btu/hr	C Cassette	no.	1	
FCU 13-6	19,900 btu/hr	Wall Mounted	no.	1	
FCU 13-7	16,000 btu/hr	C Cassette	no.	1	
FCU 13-8	16,000 btu/hr	C Cassette	no.	1	
FCU 13-9 to 13-11	19,900 btu/hr	C Cassette	nos.	3	
FCU 13-12	16,000 btu/hr	C Cassette	no.	1	
FCU 13-13	25,000 btu/hr	C Cassette	no.	1	
FCU 13-14	25,000 btu/hr	C Cassette	nos.	1	
FCU 13-15	39,700 btu/hr	C Cassette	no.	1	
<u>Tingkat Dua Zon 14</u>					
<u>Cooling Unit</u>	<u>Capacity</u>	<u>Type</u>			
FCU 14-1 to 14-8	49,600 btu/hr	C Cassette	nos.	8	
FCU 14-9	9,900 btu/hr	C Cassette	no.	1	
<u>Tingkat Dua Zon 15</u>					
<u>Cooling Unit</u>	<u>Capacity</u>	<u>Type</u>			
FCU 15-1	19,900 btu/hr	Wall Mounted	no.	1	
FCU 15-2	79,000 btu/hr	C Ducted	no.	1	
FCU 15-3	79,000 btu/hr	C Ducted	no.	1	
FCU 15-4 to 15-7	79,000 btu/hr	C Ducted	nos.	4	

<u>Tingkat Dua Zon 16</u>					
<u>Cooling Unit</u>	<u>Capacity</u>	<u>Type</u>			
FCU 16-1 to 16-4	39,700 btu/hr	C Ducted	nos.	4	
FCU 16-5	19,900 btu/hr	C Cassette	no.	1	
FCU 16-6 to 16-9	39,700 btu/hr	C Ducted	nos.	4	
<u>Tingkat Bwh Zon 17</u>					
<u>Cooling Unit</u>	<u>Capacity</u>	<u>Type</u>			
AHU VRF 17	200,000 btu/hr	Floor Standing AHU	no.	1	
<u>Tingkat Bwh Zon 18</u>					
<u>Cooling Unit</u>	<u>Capacity</u>	<u>Type</u>			
AHU VRF 18	250,000 btu/hr	Floor Standing AHU	no.	1	
<u>Tingkat Bwh Zon 19</u>					
<u>Cooling Unit</u>	<u>Capacity</u>	<u>Type</u>			
AHU VRF 19	250,000 btu/hr	Floor Standing AHU	no.	1	
<u>Tingkat Dua Zon 20</u>					
<u>Cooling Unit</u>	<u>Capacity</u>	<u>Type</u>			
FCU 20-1 to 20-11	25,000 btu/hr	C Cassette	nos.	11	
FCU 20-12 & 20-14	25,000 btu/hr	C Cassette	nos.	2	
FCU 20-13	16,000 btu/hr	Wall Mounted	no.	1	
<u>Tingkat Dua Zon 21</u>					
<u>Cooling Unit</u>	<u>Capacity</u>	<u>Type</u>			
FCU 21-1	56,400 btu/hr	C Ducted	no.	1	
FCU 21-2	56,400 btu/hr	C Ducted	no.	1	
FCU 21-3	31,900 btu/hr	C Cassette	no.	1	
FCU 21-4	31,900 btu/hr	C Cassette	no.	1	
FCU 21-5	19,900 btu/hr	Wall Mounted	no.	1	
FCU 21-6	9,900 btu/hr	C Cassette	no.	1	
FCU 21-7	9,900 btu/hr	Wall Mounted	no.	1	
<u>Tingkat Sebelas (Bangunan Menara)</u>					
<u>Cooling Unit</u>	<u>Capacity</u>	<u>Type</u>			
FCU 11-1	9,900 btu/hr	C Cassette	no.	1	
FCU 11-2/11-3	16,000 btu/hr	Wall Mounted	nos.	2	
FCU 11-4	9,900 btu/hr	C Cassette	no.	1	
FCU 11-5/11-6	31,900 btu/hr	C Ducted	nos.	2	
FCU 11-7	12,600 btu/hr	C Cassette	no.	1	
FCU 11-8	12,600 btu/hr	C Cassette	no.	1	
FCU 11-9	31,900 btu/hr	C Ducted	no.	1	
FCU 11-10	12,600 btu/hr	C Cassette	no.	1	
FCU 11-11	12,600 btu/hr	C Cassette	no.	1	
FCU 11-12/11-13	31,900 btu/hr	C Ducted	nos.	2	
FCU 11-14	25,000 btu/hr	C Ducted	no.	1	
FCU 11-15	25,000 btu/hr	C Ducted	nos.	1	
FCU 11-16	79,000 btu/hr	C Ducted OA	no.	1	
<b>Total 2c to be carried to</b>					
<b>D. Total of Schedule Price</b>					

<b>2d.</b>	<b><u>Blok Utama - ACSU Inverter</u></b>				
	<b>a) <u>Evaporators (Indoor Units)</u></b>				
	<u>Tingkat Besmen</u>				
	<u>Cooling Unit</u>	<u>Capacity</u>	<u>Type</u>		
	BB1	24,225 btu/hr	Wall Mounted	no.	1
	BB2/BB3	17,060 btu/hr	Wall Mounted	nos.	2
	BELV1-1/BELV1-2	17,060 btu/hr	Wall Mounted	nos.	2
	BKICT	17,060 btu/hr	Wall Mounted	no.	1
	BME-1/BME-2	34,100 btu/hr	Ceiling Exposed	nos.	2
	<u>Tingkat Bawah</u>				
	<u>Cooling Unit</u>	<u>Capacity</u>	<u>Type</u>		
	BMDf1/BMDf2	20,472 btu/hr	Wall Mounted	nos.	2
	BKB1/BKB2	11,942 btu/hr	Wall Mounted	nos.	2
	BsJ1/BsJ2	11,942 btu/hr	Wall Mounted	no.	2
	BTCR1-1	17,060 btu/hr	Wall Mounted	nos.	1
	BELV2-1/BELV2-2	17,060 btu/hr	Wall Mounted	no.	2
	BTCR -PW	17,060 btu/hr	Wall Mounted	no.	1
	BATM-1/BATM-2	17,060 btu/hr	Wall Mounted	no.	2
	<u>Tingkat Satu</u>				
	<u>Cooling Unit</u>	<u>Capacity</u>	<u>Type</u>		
	BTCR2-1	17,060 btu/hr	Wall Mounted	no.	1
	BPABX 1/BPABX 2	17,060 btu/hr	Wall Mounted	nos.	2
	BSU	11,942 btu/hr	Wall Mounted	no.	1
	Pejabat Menteri	9,000 btu/hr	Wall Mounted	no.	1
	<u>Tingkat Dua</u>				
	<u>Cooling Unit</u>	<u>Capacity</u>	<u>Type</u>		
	BTCR JK2	17,060 btu/hr	Wall Mounted	no.	1
	BTCR JK4	17,060 btu/hr	Wall Mounted	no.	1
	BM 1	17,060 btu/hr	Wall Mounted	no.	1
	BELV 3-1	17,060 btu/hr	Wall Mounted	no.	1
	Galeri	27,000 btu/hr	C Cassette	no.	2
	<u>Dataran Parlimen</u>				
	<u>Cooling Unit</u>	<u>Capacity</u>	<u>Type</u>		
	GF-1	17,060 btu/hr	C Cassette	no.	1
	<u>Bangunan Menara (Tingkat 11)</u>				
	<u>Cooling Unit</u>	<u>Capacity</u>	<u>Type</u>		
	BTCR1/BTCR2	17,060 btu/hr	Wall Mounted	nos.	2
				<b>Total 2d to be carried to</b>	
				<b>D. Total of Schedule Price</b>	

<b>2e. Blok Pejabat Sementara - VRF</b>				
<b>a) Condenser (Outdoor Unit)</b>				
<u>Condensing Unit</u>	<u>Capacity</u>			
CU-1	334,000 btu/hr	no.	1	
CU-2	174,000 btu/hr	no.	1	
CU-3	130,000 btu/hr	no.	1	
CU-4	240,000 btu/hr	no.	1	
CU-5	313,000 btu/hr	no.	1	
CU-6	270,000 btu/hr	no.	1	
CU-7	256,000 btu/hr	no.	1	
CU-8	195,000 btu/hr	no.	1	
CU-9	256,000 btu/hr	no.	1	
CU-10	270,000 btu/hr	no.	1	
CU-11	165,000 btu/hr	no.	1	
CU-12	260,000 btu/hr	no.	1	
<b>b) Evaporators (Indoor Units)</b>				
<u>Tingkat Bawah</u>				
<u>Location FCU</u>	<u>Capacity</u>	<u>Type</u>		
Bilik Persediaan	15,500 btu/hr	Ceiling Cassette	no.	1
Bilik Jamuan	31,300 btu/hr	Ceiling Cassette	nos.	6
Bilik Media	33,100 btu/hr	Ceiling Cassette	nos.	3
Bilik Alatan	15,500 btu/hr	W. Mounted	no.	1
Studio Umum	15,500 btu/hr	W. Mounted	no.	1
Pusat Sumber	15,500 btu/hr	Ceiling Cassette	nos.	2
Pusat Sumber	19,000 btu/hr	Ceiling Cassette	nos.	2
Bilik Peg.Bertugas	33,100 btu/hr	Ceiling Cassette	nos.	2
Surau (L & P)	15,500 btu/hr	Ceiling Cassette	nos.	2
Surau (L)	18,500 btu/hr	Ceiling Cassette	no.	1
Peg.Pusat Sumber	9,000 btu/hr	W. Mounted	no.	1
Kafeteria	21,600 btu/hr	Ceiling Cassette	nos.	6
Bilik Taklimat	30,000 btu/hr	Ceiling Cassette	nos.	8
Bilik Taklimat	18,000 btu/hr	W. Mounted	no.	1
Caw Kewangan	25,000 btu/hr	Ceiling Cassette	nos.	5
Caw Kewangan	9,000 btu/hr	W. Mounted	nos.	2
Lobi	31,300 btu/hr	Ceiling Cassette	no.	1
B.K	15,500 btu/hr	W. Mounted	no.	1
B.K 28	15,500 btu/hr	W. Mounted	no.	1
B.K 29	15,500 btu/hr	W. Mounted	no.	1
B.K 30	15,500 btu/hr	W. Mounted	no.	1
B.Khidmat Pelanggan	15,500 btu/hr	W. Mounted	no.	1
B.K 25	15,500 btu/hr	W. Mounted	no.	1
B.K 27	15,500 btu/hr	W. Mounted	no.	1
Pos Keselamatan	15,500 btu/hr	W. Mounted	no.	1
Pantri 1	15,500 btu/hr	Ceiling Cassette	no.	1
Pantri 2	15,500 btu/hr	Ceiling Cassette	no.	1
Stor Iventori	30,000 btu/hr	Ceiling Cassette	nos.	2
Bilik Mesy JK 1	37,000 btu/hr	Ceiling Cassette	nos.	2
Bilik Perbincangan	25,000 btu/hr	Ceiling Cassette	nos.	2
Lobi	19,900 btu/hr	Ceiling Cassette	no.	1
Bilik CCTV	13,652 btu/hr	W. Mounted	no.	1
Bilik Server	11,942 btu/hr	W. Mounted	nos.	2
Unit Cetak	34,100 btu/hr	Ceiling Cassette	nos.	3
Bilik Operasi	13,652 btu/hr	Ceiling Cassette	no.	1
Bilik ELV/ICT	8,530 btu/hr	W. Mounted	nos.	2
Bilik ELV/ICT	8,530 btu/hr	W. Mounted	nos.	2



Tingkat Satu						
B.K 23	15,500 btu/hr	W. Mounted	no.	1		
Bilik K22	15,500 btu/hr	W. Mounted	no.	1		
Bilik K21	15,500 btu/hr	W. Mounted	no.	1		
Bilik K20	15,500 btu/hr	W. Mounted	no.	1		
B.K 17	15,500 btu/hr	W. Mounted	no.	1		
B.K 16	15,500 btu/hr	W. Mounted	no.	1		
B.K 15	15,500 btu/hr	W. Mounted	no.	1		
B.K 14	15,500 btu/hr	W. Mounted	no.	1		
B.K 13	19,000 btu/hr	W. Mounted	no.	1		
Lobi	30,800 btu/hr	Ceiling Cassette	no.	1		
B.K 18	19,000 btu/hr	W. Mounted	no.	1		
B.K 19	19,000 btu/hr	W. Mounted	no.	1		
Lobi	30,800 btu/hr	Ceiling Cassette	no.	1		
B.K 24	19,000 btu/hr	W. Mounted	no.	1		
SUB (PP)	9,000 btu/hr	W. Mounted	no.	1		
Pej Peg Penyelidik	31,900 btu/hr	Ceiling Cassette	nos.	2		
Pej Peg Penyelidik	9,000 btu/hr	W. Mounted	no.	1		
Caw Tek Maklumat	31,000 btu/hr	Ceiling Cassette	nos.	3		
Bilik 1	9,000 btu/hr	W. Mounted	no.	1		
Bilik 2	9,000 btu/hr	W. Mounted	no.	1		
BSFL	31,300 btu/hr	Ceiling Cassette	nos.	3		
Bilik JMK	9,000 btu/hr	W. Mounted	no.	1		
Bilik JAK	9,000 btu/hr	W. Mounted	no.	1		
Bilik JEK	9,000 btu/hr	W. Mounted	no.	1		
Bilik J K 2	31,800 btu/hr	Ceiling Cassette	no.	1		
Bilik J K 2	39,700 btu/hr	Ceiling Cassette	no.	1		
B.K 11	15,500 btu/hr	W. Mounted	no.	1		
B.K 10	15,500 btu/hr	W. Mounted	no.	1		
B.K 9	15,500 btu/hr	W. Mounted	no.	1		
B.K 8	15,500 btu/hr	W. Mounted	no.	1		
B.K 5	15,500 btu/hr	W. Mounted	no.	1		
B.K 4	15,500 btu/hr	W. Mounted	no.	1		
B.K 3	15,500 btu/hr	W. Mounted	no.	1		
B.K 2	15,500 btu/hr	W. Mounted	no.	1		
B.K 1	19,000 btu/hr	W. Mounted	no.	1		
Lobi	30,800 btu/hr	Ceiling Cassette	no.	1		
B.K 6	19,000 btu/hr	W. Mounted	no.	1		
B.K 7	19,000 btu/hr	W. Mounted	no.	1		
Lobi	30,800 btu/hr	Ceiling Cassette	no.	1		
B.K 12	19,000 btu/hr	W. Mounted	no.	1		
B.K 31	15,500 btu/hr	Ceiling Cassette	no.	1		
Pej Keselamatan	30,000 btu/hr	Ceiling Cassette	nos.	2		
Bilik 7	9,000 btu/hr	W. Mounted	no.	1		
Bilik 8	15,500 btu/hr	W. Mounted	no.	1		
Bilik 9	15,500 btu/hr	W. Mounted	no.	1		
PAC	15,500 btu/hr	W. Mounted	no.	1		
BNBBC	15,500 btu/hr	W. Mounted	no.	1		
B.K 32	15,500 btu/hr	Ceiling Cassette	no.	1		
Bilik Mesy JK 2	37,500 btu/hr	Ceiling Cassette	nos.	2		
TYPDR 1	21,000 btu/hr	Ceiling Cassette	nos.	2		
TYPDR 1 - Bilik	19,000 btu/hr	Ceiling Cassette	no.	1		
TYPDR 2	21,000 btu/hr	Ceiling Cassette	nos.	2		
TYPDR 2 - Bilik	19,000 btu/hr	Ceiling Cassette	no.	1		
TYPDN	21,000 btu/hr	Ceiling Cassette	nos.	2		
TYPDN - Bilik	19,000 btu/hr	Ceiling Cassette	no.	1		
Bilik ELV/ICT (1)	8,530 btu/hr	W. Mounted	nos.	2		
Bilik ELV/ICT (2)	8,530 btu/hr	W. Mounted	nos.	2		
Bilik ELV/ICT (3)	8,530 btu/hr	W. Mounted	nos.	2		
			105	Total 2e to be carried to		
			D. Total of Schedule Price			

ITEM NO.	DESCRIPTION	UNIT	QTY	PRICES/MONTH (RM)
<b>2f.</b>	<b><u>Blok Pejabat Sementara - (ACSU)</u></b>			
	<u>Capacity</u> <u>Type</u>			
a.	<u>Tingkat Satu</u>			
i.	SUDR & SUDN      9,000 btu/hr      Ceiling Cassette	nos.	2	
<b>Total 2f to be carried to SUMMARY OF PRICES</b>				
ITEM NO.	DESCRIPTION	UNIT	QTY	PRICES/MONTH (RM)
<b>2g.</b>	<b><u>Blok Dewan Persidangan (ACPU, VRF, ACSU, EF &amp; FA)</u></b>			
	<u>Capacity</u> <u>Type</u>			
a.	Bilik AHU                      75.0 HP                      ACPU	nos.	2	
	(20HP X 3 NOS + 25HP X 1 NOS)			
b.	<u>Tingkat Bawah (Back of House)</u>			
i.	FCU (VRF)	nos.	13	
ii.	CU (VRF)                      214,700 btu/hr	no.	1	
iii.	ACSU                      2.0 HP                      W. Mounted	nos.	6	
	(Inverter)			
c.	<u>Tingkat Satu (Back of House)</u>			
i.	FCU (VRF)	nos.	6	
ii.	CU (VRF)                      79,000 btu/hr	no.	1	
iii.	ACSU                      1.5 HP                      W. Mounted	nos.	8	
	(Inverter)			
iv.	ACSU                      2.0 HP                      W. Mounted	nos.	6	
	(Inverter)			
d.	<u>Klinik</u>			
i.	ACSU                      18,000 btu/hr                      Ceiling Cassette	nos.	2	
e.	<u>Bilik Menyusu</u>			
i.	ACSU                      9,000 btu/hr                      W. Mounted	nos.	2	
f.	<u>Bilik Elektrik</u>			
i.	ACSU                      12,000 btu/hr                      W. Mounted	no.	1	
<b>Total 2g to be carried to D. Total of Schedule Price</b>				

ITEM NO.	DESCRIPTION			UNIT	QTY	PRICES/MONTH (RM)
2h.	<b>Stor Utama (ACSU)</b>					
		<u>Capacity</u>	<u>Type</u>			
a.	<u>Tingkat Bawah</u>					
i.	ACSU	30,000 btu/hr	Ceiling Cassette	nos.	4	
ii.	ACSU	18,000 btu/hr	Ceiling Cassette	nos.	1	
<b>Total 2h to be carried to</b>						
<b>SUMMARY OF PRICES</b>						

<b>SECTION C SCHEDULE OF PRICES</b>						
<b>3 MECHANICAL VENTILATION SYSTEM</b>						
<b>ITEM NO.</b>	<b>DESCRIPTION</b>			<b>UNIT</b>	<b>QTY</b>	<b>PRICES/MONTH (RM)</b>
<b>3a.</b>	<b><u>Blok Mekanikal dan Elektrik, Pejabat Nurseri &amp; Terowong Utiliti</u></b>					
	<u>Location</u>	<u>Capacity</u>	<u>Type</u>			
	Terowong Utiliti	3,700 cfm	Axial Ducted	no.	1	
	Terowong Utiliti	3,700 cfm	Aerodynamical Impellers	nos.	3	
	Pejabat Nurseri	367 cfm	Ceiling Mounted	no.	1	
	Pondok Pengawal	367 cfm	Ceiling Mounted	no.	1	
	Pondok Pengawal	318 cfm	Wall Mounted	no.	1	
	Blok Mekanikal	3,500 cfm	Axial Ducted	nos.	4	
	Blok Mekanikal	727 cfm	Wall Mounted	nos.	4	
	Blok Elektrik	727 cfm	Wall Mounted	nos.	8	
	Control Panel's Exhaust Fan			lot	1	
				<b>Total 3a to be carried to</b>		
				<b>D. Total of Schedule Price</b>		
<b>ITEM NO.</b>	<b>DESCRIPTION</b>			<b>UNIT</b>	<b>QTY</b>	<b>PRICES/MONTH (RM)</b>
<b>3b.</b>	<b><u>Blok Utama</u></b>					
	<u>Location</u>	<u>Tag No &amp; Ducted Type</u>				
	Tandas (P)	TEF2-1		lot	1	
	Tandas (L)	TEF2-2		lot	1	
	Tandas Pejabat -	TEF2-3		lot	1	
	Tandas Pejabat	TEF2-4		lot	1	
	Tandas Timbalan YPDN	TEF2-5		lot	1	
	Tandas Special Chambers	TEF2-6		lot	1	
	Bilik DB/Sistem Mekanikal	EF2-1		lot	1	
	Tandas (L)	TEF1-1		lot	1	
	Tandas (P)	TEF1-2		lot	1	
	Tandas (L)	TEF1-3		lot	1	
	Tandas (P)	TEF1-4		lot	1	
	Tandas (L)	TEF1-5		lot	1	
	Tandas (P)	TEF1-6		lot	1	
	Tandas (L)	TEF1-7		lot	1	
	Tandas (P)	TEF1-8		lot	1	
	Tandas (Pejabat Timbalan YDP DR)	TEF1-9		lot	1	
	Tandas (Pejabat Timbalan YDP DN)	TEF1-10		lot	1	
	Tandas (Pejabat Timbalan YDP DR)	TEF1-11		lot	1	
	Tandas (Pejabat YDP DN)	TEF1-12		lot	1	
	Tandas (Pejabat YDP DN)	TEF1-13		lot	1	
	Tandas (Pejabat YDP DR)	TEF1-14		lot	1	

	Tandas (Pejabat YDP DR)	TEF1-15	lot	1	
	Tandas (Ante Chamber)	TEF1-16	lot	1	
	Tandas (Ante Chamber YPDN)	TEF1-17	lot	1	
	Tandas Klinik	TEF1-18	lot	1	
	Bilik TYP DR1 (smoking)	TEF1-19	lot	1	
	Bilik TYP DR 2 (Smoking)	TEF1-20	lot	1	
	Ruang Utiliti (Store)	EF1-1	lot	1	
	Setor Dewan	EF1-3	lot	1	
	Tempat Rokok	EF1-4	lot	1	
	Tandas (L) Pjbt Peg Perk Pelanggan	TEFG-1	lot	1	
	Tandas (P) Pjbt Peg Perk Pelanggan	TEFG-2	lot	1	
	Tandas (OKU) Pjbt Peg Perk Pelanggan	TEFG-3	lot	1	
	Tandas (L) Dewan Banquet	TEFG-4	lot	1	
	Tandas (P) Dewan Banquet	TEFG-5	lot	1	
	Tandas (L) SUSK TYPDR 3	TEFG-6	lot	1	
	Tandas (P) SUSK TYPDR 3	TEFG-7	lot	1	
	Tandas Persalinan DiRaja	TEFG-8	lot	1	
	Tandas (L) Surau	TEFG-9	lot	1	
	Tandas (P) Surau	TEFG-10	lot	1	
	Setor 1	EFG-10	lot	1	
	Bilik Cetak	EFG-11	lot	1	
	Utiliti Sivil	EFG-12	lot	1	
	Pantri	EFG-13	lot	1	
	Utiliti Mekanikal	EFG-14	lot	1	
	Bilik MSB	EFG-15	lot	1	
	Bilik TNB	EFG-16	lot	1	
	Setor IT	EFG-17	lot	1	
	Setor 2	EFG-18	lot	1	
	Setor 3	EFG-19	lot	1	
	Setor Elektrikal	EFG-20	lot	1	
	Tandas (P)	TEFB-1	lot	1	
	Tandas (P)	TEFB-2	lot	1	
	Ruang Perkhidmatan	EF-B1 TO B4	lot	1	
	Setor Sebelah Bilik Band	EF-B5	lot	1	
	Bilik Tangki	EF-BILIK TANGKI BOMBA	lot	1	
	Aras 2 - Roof	SSF-2-1 TO 12	lot	1	
	Aras 2 - Roof	SSF-2-13 & 14	lot	1	
	Aras 2 - Roof	SSF-2-15 TO 18	lot	1	
	Aras 2 - Roof	SSF-2-19 TO 24	lot	1	
	Aras 2 - Roof	SSF-2-25 TO 27	lot	1	
	Aras 2 - Roof	SSF-2-28 & 29	lot	1	
	Tkt 11 (Bilik VRF) Bgn Menara	Booster Fan 11-1 & 11-2	lot	1	
	Control Panel's Exhaust Fan		lot	1	
				<b>Total 3b to be carried to</b>	
				<b>D. Total of Schedule Price</b>	

<b>3c.</b>	<b>Blok Pejabat Sementara</b>			
	<u>Location</u>			
	Tandas 4 (P)	no.	1	
	Tandas 4 (L)	no.	1	
	Bilik Media	no.	1	
	Pusat Sumber	nos.	2	
	B. Pegawai Bertugas	nos.	2	
	Tandas 2 (L)	no.	1	
	Tandas 2 (P)	no.	1	
	Tandas 3 (L)	no.	1	
	Tandas 3 (P)	no.	1	
	Dapur	nos.	2	
	Kafeteria	nos.	2	
	Bilik Masyuarat 1	no.	1	
	Setor Inventori	no.	1	
	Setor Kertas	no.	1	
	Pantri 1	no.	1	
	Cawangan Kewangan	nos.	2	
	Pejabat Penyelidik	nos.	2	
	Teknologi Maklumat	nos.	2	
	Tandas 5 (L)	nos.	2	
	Tandas 5 (P)	nos.	2	
	Pejabat Keselamatan	nos.	2	
	Bhg. Urus Bangunan	nos.	2	
	Bilik J/Kuasa/Latihan	nos.	2	
	Tandas VIP 1	no.	1	
	Tandas VIP 2	no.	1	
	Tandas VIP 3	no.	1	
	Pantri 3	no.	1	
	Pantri 4	no.	1	
	Bilik Jamuan	no.	1	
	Bilik Taklimat	no.	1	
	Bilik J/Kuasa 2	no.	1	
	Control Panel's Exhaust Fan	lot	1	
		<b>Total 3c to be carried to</b>		
		<b>D. Total of Schedule Price</b>		

<b>3d.</b>	<b>Dataran Parlimen</b>								
	<u>Location</u>		<u>Tag No.</u>						
	Tandas L1		TEFD-1		no.		1		
	Tandas P1		TEFD-2		no.		1		
	Tandas L2		TEFG-3		no.		1		
	Tandas P2		TEFG-4		no.		1		
							<b>Total 3d to be carried to</b>		
							<b>D. Total of Schedule Price</b>		
<b>ITEM</b>	<b>DESCRIPTION</b>				<b>UNIT</b>	<b>QTY</b>	<b>PRICES/MONTH</b>		
<b>NO.</b>							<b>(RM)</b>		
<b>3e.</b>	<b>Blok Dewan Persidangan</b>								
	<u>Location</u>								
	Tingkat Satu				nos.		4		
	Tingkat Dua				nos.		5		
	Tingkat Tiga				nos.		5		
							<b>Total 3e to be carried to</b>		
							<b>D. Total of Schedule Price</b>		

<b>SECTION C SCHEDULE OF PRICES</b>				
<b>4 FIRE FIGHTING SYSTEM</b>				
<b>ITEM NO.</b>	<b>DESCRIPTION</b>	<b>UNIT</b>	<b>QTY</b>	<b>PRICES (RM)</b>
<b>4a.</b>	<b><u>Blok Mekanikal dan Elektrik, Pejabat Nurseri, Dewan Persidangan &amp; Terowong Utiliti</u></b>			
	<u>Location</u>	<u>Eq. Description</u>		
	Consumer HT	FM200 Control Panel	no.	1
	Consumer HT	Heat Detector	no.	1
	Consumer HT	Heat Detector	no.	1
	Consumer HT	Heat Detector	no.	1
	Consumer HT	Smoke Detector	no.	1
	Consumer HT	Smoke Detector	no.	1
	Consumer HT	Smoke Detector	no.	1
	Consumer HT	Alarm Bell	no.	1
	Consumer HT	FM200	lot	1
	Consumer HT	FM200	lot	1
	Bilik SSU TNB 11KV	FM200 Control Panel	lot	1
	Bilik SSU TNB 11KV	Heat Detector	no.	1
	Bilik SSU TNB 11KV	Smoke Detector	no.	1
	Bilik SSU TNB 11KV	Alarm Bell	no.	1
	Bilik SSU TNB 11KV	FM200	lot	1
	BILIK SSU TNB 11KV/Bilik SSU TNB 11KV	FM200	lot	1
	Rumah Pam	Hydrant Pump (Duty)	lot	1
	Rumah Pam	Hydrant Pump (Standby)	lot	1
	Rumah Pam	Hydrant Pump (Jockey)	lot	1
	Rumah Pam	Hydrant Pump Control Panel	lot	1
	Rumah Pam	Sprinkler Pump (Duty)	lot	1
	Rumah Pam	Sprinkler Pump (Standby)	lot	1
	Rumah Pam	Sprinkler Pump (Jockey)	lot	1
	Rumah Pam	Sprinkler Pump Control Panel	lot	1
	Rumah Pam	Fire Alarm System	no.	1
	Rumah Pam	Fire Alarm System	no.	1
	Rumah Pam	Fire Alarm System	no.	1
	Rumah Pam	Fireman Intercom	no.	1
	Ruang Switchboard	Fire Alarm System	no.	1
	Ruang Chiller 1	Fire Alarm System	no.	1
	Ruang Chiller 1	Fire Alarm System	no.	1
	Ruang Chiller 2	Fire Alarm System	no.	1
	Ruang Chiller 2	Fire Alarm System	no.	1
	Ruang Chiller 2	Fire Alarm System	no.	1
	Terowong Utiliti	Fireman Intercom	no.	1
	Terowong Utiliti	Fire Alarm System	no.	1
	Terowong Utiliti	Fire Alarm System	no.	1
	Terowong Utiliti	Fire Alarm System	no.	1
	Terowong Utiliti	Fire Alarm System	no.	1



	Terowong Utiliti	Fire Alarm System	no.	1	
	Terowong Utiliti	Fire Alarm System	no.	1	
	Terowong Utiliti	Fire Alarm System	no.	1	
	Terowong Utiliti	Fire Alarm System	no.	1	
	Terowong Utiliti	Fire Alarm System	no.	1	
	Terowong Utiliti	Fire Alarm System	no.	1	
	Terowong Utiliti	Fire Alarm System	no.	1	
	Ruang Tangki Pencegah Kebakaran	Hose Reel Tank	lot	1	
	Ruang Tangki Pencegah Kebakaran	Sprinkler Tank	lot	1	
	Ruang Tangki Pencegah Kebakaran	Hydrant Tank	lot	1	
<b>Total 4a to be carried to</b>					
<b>D. Total of Schedule Price</b>					
ITEM NO.	DESCRIPTION		UNIT	QTY	PRICES (RM)
<b>4b.</b>	<b><u>Blok Utama</u></b>				
	<u>System</u>				
	Hose Reel System		lot	1	
	Sprinkler System		lot	1	
	Wet Riser System		lot	1	
	Fire Alarm System/Main Fire Alarm Panel/Fire Alarm Panel		lot	1	
	Break Glass and Alarm Bell		lot	1	
	Heat/Smoke/Beam Detector System		lot	1	
	Total Flooding Fire Extinguishing System		lot	1	
	Fireman Intercom System		lot	1	
	Wet Chemical System		lot	1	
<b>Total 4b to be carried to</b>					
<b>D. Total of Schedule Price</b>					
ITEM NO.	DESCRIPTION		UNIT	QTY	PRICES (RM)
<b>4c.</b>	<b><u>Blok Pejabat Sementara</u></b>				
	<u>System</u>				
	Hose Reel System		lot	1	
	Fire Alarm System/Fire Alarm Panel		lot	1	
	Break Glass and Alarm Bell		lot	1	
	Heat/Smoke Detector System		lot	1	
	Total Flooding Fire Extinguishing System		lot	1	
	Fireman Intercom System		lot	1	
	Wet Chemical System		lot	1	
<b>Total 4c to be carried to</b>					
<b>D. Total of Schedule Price</b>					

<b>4d.</b>	<b>Blok Dewan Persidangan</b>																				
	System																				
	Sprinkler System									lot	1										
	Hose Reel System									lot	1										
	Fire Alarm System/Fire Alarm Panel									lot	1										
	Break Glass and Alarm Bell									lot	1										
	Heat/Smoke/Beam Detector System									lot	1										
	Total Flooding Fire Extinguishing System									lot	1										
	Fireman Intercom System									lot	1										
										<b>Total 4d to be carried to</b>											
										<b>D. Total of Schedule Price</b>											

SECTION C		SCHEDULE OF PRICES			
5		<b>COLD WATER AND BOOSTER PUMP SYSTEM</b>			
ITEM NO.	DESCRIPTION	UNIT	QTY	PRICES (RM)	
<b>5a.</b>	<b>Pumpset &amp; Water Tank</b>				
	<u>Blok Mekanikal</u>	<u>Type</u>			
i.	Bilik Pam	VSD	sets	2	
ii.	Water Tank	FRP	lot	1	
	<u>Blok Utama (Besmen)</u>	<u>Type</u>			
i.	Bilik Pam	VSD	set	1	
ii.	Water Tank	FRP	lot	1	
	<u>Blok Pejabat Sementara (Aras Bawah)</u>	<u>Type</u>			
i.	Bilik Pam	VSD	set	1	
ii.	Water Tank	Polytank	lot	1	
	<u>Blok Dewan Persidangan</u>	<u>Type</u>			
i.	Tank (Aras Bumbung Depan)	Polytank	lot	1	
ii.	Tank (Aras Bumbung Belakang)	Polytank	lot	1	
	<u>Pejabat Nurseri</u>	<u>Type</u>			
i.	Tank (Aras Bumbung)	Polytank	lot	1	
	<u>Pondok Pengawal</u>	<u>Type</u>			
i.	Tank (Aras Bumbung)	Polytank	lot	1	
	<u>Dataran Kawad</u>	<u>Type</u>			
i.	Rumah Pam	VSD	sets	2	
ii.	Water Tank	SS	lot	1	
				<b>Total 5a to be carried to</b>	
				<b>D. Total of Schedule Price</b>	

<b>SECTION D TOTAL SCHEDULE OF PRICES</b>				
<b>1 AIR CONDITIONING SERVICES</b>				
<b>ITEM NO.</b>	<b>LOCATION</b>	<b>PRICES/ MONTH (RM)</b>	<b>TOTAL MONTH</b>	<b>PRICES (RM)</b>
a.	Blok Mekanikal, Pejabat Nurseri & Pondok Pengawal (SUB TOTAL 1a )		8	
b.	Blok Utama - AHU (SUB TOTAL 1b )		8	
c.	Blok Utama - Variable Refrigerant Flow (VRF) Units (SUB TOTAL 1c )		8	
d.	Blok Utama - ACSU Inverter (SUB TOTAL 1d )		8	
e.	Blok Pejabat Sementara - VRF (SUB TOTAL 1e )		8	
f.	Blok Pejabat Sementara - (ACSU) (SUB TOTAL 1f )		8	
g.	Blok Dewan Persidangan (VRF, ACPU, ACSU, EF & FA) (SUB TOTAL 1g )		8	
h.	Stor Utama (ACSU) (SUB TOTAL 1h )		8	
<b>Total 1 to be carried to</b>				
<b>SUMMARY OF PRICES</b>				

<b>2 CHEMICAL CLEANING FOR AIR CONDITIONING AND VENTILATION SYSTEM. (ONCE PER CONTRACT)</b>				
<b>ITEM NO.</b>	<b>LOCATION</b>	<b>UNIT</b>	<b>QTY</b>	<b>PRICES (RM)</b>
a.	Blok Mekanikal, Pejabat Nurseri & Pondok Pengawal (SUB TOTAL 2a )	lot	1	
b.	Blok Utama - AHU (SUB TOTAL 2b )	lot	1	
c.	Blok Utama - Variable Refrigerant Flow (VRF) Units (SUB TOTAL 2c )	lot	1	
d.	Blok Utama - ACSU Inverter (SUB TOTAL 2d )	lot	1	
e.	Blok Pejabat Sementara - VRF (SUB TOTAL 2e )	lot	1	
f.	Blok Pejabat Sementara - (ACSU) (SUB TOTAL 2f )	lot	1	
g.	Blok Dewan Persidangan (ACPU, VRF, ACSU, EF & FA) (SUB TOTAL 2g )	lot	1	
h.	Stor Utama (ACSU) (SUB TOTAL 2h )	lot	1	
<b>Total 2 to be carried to</b>				
<b>SUMMARY OF PRICES</b>				
<b>3 MECHANICAL VENTILATION SYSTEM</b>				
<b>ITEM NO.</b>	<b>LOCATION</b>	<b>PRICES/ MONTH (RM)</b>	<b>TOTAL MONTH</b>	<b>PRICES (RM)</b>
a.	Blok Mekanikal dan Elektrik, Pejabat Nurseri & Terowong Utiliti (SUB TOTAL 3a )		8	
b.	Blok Utama (SUB TOTAL 3b )		8	
c.	Blok Pejabat Sementara (SUB TOTAL 3c )		8	
d.	Dataran Parlimen (SUB TOTAL 3d )		8	
e.	Blok Dewan Persidangan (SUB TOTAL 3e )		8	
<b>Total 3 to be carried to</b>				
<b>SUMMARY OF PRICES</b>				

<b>4 FIRE FIGHTING SYSTEM</b>				
<b>ITEM NO.</b>	<b>LOCATION</b>	<b>PRICES/ MONTH (RM)</b>	<b>TOTAL MONTH</b>	<b>PRICES (RM)</b>
a.	Blok Mekanikal dan Elektrik, Pejabat Nurseri & Terowong Utiliti (SUB TOTAL 4a )		8	
b.	Blok Utama (SUB TOTAL 4b )		8	
c.	Blok Pejabat Sementara (SUB TOTAL 4c )		8	
d.	Blok Dewan Persidangan (SUB TOTAL 4d )		8	
<b>Total 4 to be carried to SUMMARY OF PRICES</b>				
<b>5 COLD WATER AND BOOSTER PUMP SYSTEM</b>				
<b>ITEM NO.</b>	<b>LOCATION</b>	<b>PRICES/ MONTH (RM)</b>	<b>TOTAL MONTH</b>	<b>PRICES (RM)</b>
a.	Pumpset & Water Tank (SUB TOTAL 5a )		8	
<b>Total 5 to be carried to SUMMARY OF PRICES</b>				
<b>6 AIR HANDLING UNITS MEDIA FILTER REPLACEMENT. (ONCE PER CONTRACT)</b>				
<b>ITEM NO.</b>	<b>LOCATION</b>	<b>UNIT</b>	<b>QTY</b>	<b>PRICES (RM)</b>
a.	Blok Utama (SUB TOTAL 6a )	lot	1	
b.	Blok Dewan Persidangan (SUB TOTAL 6b )	lot	1	
<b>Total 6 to be carried to SUMMARY OF PRICES</b>				

<b>7 COMPRESSOR OIL REPLACEMENT FOR CHILLER SYSTEM. (ONCE PER CONTRACT)</b>				
<b>ITEM NO.</b>	<b>LOCATION</b>	<b>UNIT</b>	<b>QTY</b>	<b>PRICES (RM)</b>
a.	Making good for all oil change chiller system c/w condenser tube cleaning, accessories & etc as per site. (Genuine spart part from principal distributor for oil filter, filter core and chiller oil)			
	(SUB TOTAL 7a)	nos.	4	
b.	Testing & Commissioning of the Chiller after oil changes			
	(SUB TOTAL 7b)	nos.	4	
<b>Total 7 to be carried to SUMMARY OF PRICES</b>				
<b>8 SISTEM PENGAWASAN KEBAKARAN AUTOMATIK (SPKA)</b>				
<b>ITEM NO.</b>	<b>LOCATION</b>	<b>PRICES/ MONTH (RM)</b>	<b>TOTAL MONTH</b>	<b>PRICES (RM)</b>
a.	Sistem Pengawasan Kebakaran Automatik (SPKA) - Blok Utama (Monthly Maintenance shall be done by The Principal Manufacturer)			
	(SUB TOTAL 8a)		8	
<b>Total 8 to be carried to SUMMARY OF PRICES</b>				
<b>9 RENEW PRIVATE GAS LICENCE (PGL) BY COMPETENT. (ONCE PER CONTRACT)</b>				
<b>ITEM NO.</b>	<b>LOCATION</b>	<b>UNIT</b>	<b>QTY (2 Years)</b>	<b>PRICES (RM)</b>
a.	Blok Utama			
	(SUB TOTAL 9a)	lot	1	
b.	Blok Pejabat Sementara			
	(SUB TOTAL 9b)	lot	1	
<b>Total 9 to be carried to SUMMARY OF PRICES</b>				

<b>10 AUTOMATIC DOOR, HAND DRYER AND WATER HEATER</b>				
<b>ITEM NO.</b>	<b>LOCATION</b>	<b>PRICES/ MONTH (RM)</b>	<b>TOTAL MONTH</b>	<b>PRICES (RM)</b>
a.	Automatic Door			
	(SUB TOTAL 10a)		8	
b.	Hand Dryer			
	(SUB TOTAL 10b)		8	
c.	Water Heater			
	(SUB TOTAL 10c)		8	
<b>Total 10 to be carried to</b>				
<b>SUMMARY OF PRICES</b>				
<b>11 RATE OF MAINTENANCE PERSONNEL</b>				
The Contractor shall provide the following personnel for the execution of this contract. At least <b>One (1) Technician/ Supervisor and Three (3) skilled workers</b> shall be stationed at the site during government office working hours, inclusive of half an hour before commencement of office working time and <b>others time as requested.</b>				
<b>ITEM NO.</b>	<b>LOCATION</b>	<b>RATE/ MONTH</b>	<b>TOTAL MONTH</b>	<b>PRICES (RM)</b>
a.	Technician / Supervisor (1 person)		8	
b.	Skilled Workers (3 persons)		8	
<b>Total 11 to be carried to</b>				
<b>SUMMARY OF PRICES</b>				



<b>12 PRELIMINARIES</b>				
<b>ITEM NO.</b>	<b>DESCRIPTION</b>	<b>UNIT</b>	<b>QTY</b>	<b>PRICES (RM)</b>
a.	Preliminaries in connection with the contract such as insurance premium and all overhead charges, etc.			
	a) Public Liability Policy	LS	LS	
	b) Insurance of works on full sub-contract sum	LS	LS	
	c) Performance Bond	LS	LS	
b.	Preparation of hard cover document for this project inclusive four (4) nos. contract document and other related document	LS	LS	
c.	To supply to S.O the maintenance facilities equipment as per below:			
	a) 2 nos of portable CO2 detector • All above equipment shall be send to SIRIM for calibration certification.	LS	LS	
	d) 5 nos of safety jacket	LS	LS	
	e) 5 sets of safety boot (red wing or equivalent)	LS	LS	
d.	To provide training for all staff BSFL	LS	LS	
e.	To provide complete official dressed uniform for all four (4) maintenance staff.	LS	LS	
f.	To provide maintenance mechanical equipments and tools as stated in Appendix B	LS	LS	
g.	<b>Other Works</b> Other works not included in this section and/or Bills but necessary for the satisfactory completion of works (please specify):-			
	a)			
<b>Total 12 to be carried to</b>				
<b>SUMMARY OF PRICES</b>				
<b>13 PROVISIONAL SUM</b>				
<b>ITEM NO.</b>	<b>DESCRIPTION</b>	<b>UNIT</b>	<b>QTY</b>	<b>PRICES (RM)</b>
a.	For major breakdown and repair works in connection with air conditioning and ventilation system, fire fighting system, cold water supply and booster pump, SPKA, automatic door, hand dryer and water heater system to be expended as directed by the S.O.	lot	1	100,000.00
<b>Total 13 to be carried to</b>				
<b>SUMMARY OF PRICES</b>				100,000.00

**SECTION E SUMMARY OF PRICES****1.0 TOTAL COST OF MAINTENANCE CONTRACT**

NO.	DESCRIPTION	PRICE (RM)
1	AIR CONDITIONING SERVICES	
2	CHEMICAL CLEANING FOR AIR CONDITIONING AND VENTILATION SYSTEM. (ONCE PER CONTRACT)	
3	MECHANICAL VENTILATION SYSTEM	
4	FIRE FIGHTING SYSTEM	
5	COLD WATER AND BOOSTER PUMP SYSTEM	
6	AIR HANDLING UNITS MEDIA FILTER REPLACEMENT. (ONCE PER CONTRACT)	
7	COMPRESSOR OIL REPLACEMENT FOR CHILLER SYSTEM. (ONCE PER CONTRACT)	
8	SISTEM PENGAWASAN KEBAKARAN AUTOMATIK (SPKA)	
9	RENEW PRIVATE GAS LICENCE (PGL) BY COMPETENT. (ONCE PER CONTRACT)	
10	AUTOMATIC DOOR, HAND DRYER AND WATER HEATER	
11	RATE OF MAINTENANCE PERSONNEL	
12	PRELIMINARIES	
13	PROVISIONAL SUM	<b>100,000.00</b>
<b>TOTAL (TO BE CARRIED OUT TO FORM OF TENDER)</b>		

Ringgit Malaysia (RM) :

Tandatangan Pemborong :

Nama dan Alamat :

(Dengan Cop)

Tarikh :


Tandatangan Saksi :


Nama dan Alamat :

(Dengan Cop)

Tarikh :

**DOKUMEN NO. 7**  
**MAINTENANCE CHECKLIST**

	PARLIMEN MALAYSIA, BANGUNAN PARLIMEN, 50680, KUALA LUMPUR	<b>AIR COND INSPECTION CHECK LIST ( WATER COOLED )</b>						
Costumer: ..... Location: ..... System: DX / PACKAGE Brand: ..... Model: .....	LOGO SYARIKAT							
<b>AIR SIDE</b>								
AHU / FCU No. : <input style="width: 100px;" type="text"/>								
Air filter (Please State Condition) : .....								
Cooling coil (Please State Condition) : .....								
Blower Fan (Please State Condition) : .....								
Fan Motor (Please State Condition) : .....								
Room Condition :								
	Dry Bulb	<input style="width: 40px;" type="text"/>	F/ °C	Wet Bulb	<input style="width: 40px;" type="text"/>	F/ °C		
	RH	<input style="width: 40px;" type="text"/>	%	Room Temp	<input style="width: 40px;" type="text"/>	F/ °C		
<b>COMPRESSOR SIDE</b>								
		<b>SET</b>	<b>ACTUAL</b>		<b>SET</b>	<b>ACTUAL</b>		
Compressor 1	High Pressure	<input style="width: 40px;" type="text"/>	<input style="width: 40px;" type="text"/>	Psi/Bar	Low Pressure	<input style="width: 40px;" type="text"/>	<input style="width: 40px;" type="text"/>	Psi/Bar
	Oil Pressure	<input style="width: 40px;" type="text"/>	<input style="width: 40px;" type="text"/>	Psi/Bar				
		<b>SET</b>	<b>ACTUAL</b>		<b>SET</b>	<b>ACTUAL</b>		
Compressor 2	High Pressure	<input style="width: 40px;" type="text"/>	<input style="width: 40px;" type="text"/>	Psi/Bar	Low Pressure	<input style="width: 40px;" type="text"/>	<input style="width: 40px;" type="text"/>	Psi/Bar
	Oil Pressure	<input style="width: 40px;" type="text"/>	<input style="width: 40px;" type="text"/>	Psi/Bar				
		<b>SET</b>	<b>ACTUAL</b>		<b>SET</b>	<b>ACTUAL</b>		
Compressor 3	High Pressure	<input style="width: 40px;" type="text"/>	<input style="width: 40px;" type="text"/>	Psi/Bar	Low Pressure	<input style="width: 40px;" type="text"/>	<input style="width: 40px;" type="text"/>	Psi/Bar
	Oil Pressure	<input style="width: 40px;" type="text"/>	<input style="width: 40px;" type="text"/>	Psi/Bar				
<b>WATER SIDE</b>								
		<b>SET</b>	<b>ACTUAL</b>		<b>SET</b>	<b>ACTUAL</b>		
Condensor	Temp Water In	<input style="width: 40px;" type="text"/>	<input style="width: 40px;" type="text"/>	F/ °C	Temp Water Out	<input style="width: 40px;" type="text"/>	<input style="width: 40px;" type="text"/>	F/ °C
Cooler	Temp Water In	<input style="width: 40px;" type="text"/>	<input style="width: 40px;" type="text"/>	F/ °C	Temp Water Out	<input style="width: 40px;" type="text"/>	<input style="width: 40px;" type="text"/>	F/ °C
ChWP	Press Water out	<input style="width: 40px;" type="text"/>	<input style="width: 40px;" type="text"/>	Psi/Bar				
Condition (Noise Level, Mechanical Seal) : .....								
CdWP	Press Water out	<input style="width: 40px;" type="text"/>	<input style="width: 40px;" type="text"/>	Psi/Bar				
Condition (Noise Level, Mechanical Seal) : .....								
Cooling Tower	Water Temp	<input style="width: 40px;" type="text"/>	<input style="width: 40px;" type="text"/>	F/ °C				
Chilled Water Make								
Up Tank	Water Level	<input style="width: 40px;" type="text"/>	Ft/m					
(Please State Condition) : .....								
<b>INSPECTION REPORT / REMARKS</b>								
<input type="checkbox"/> GOOD <input type="checkbox"/> NEED RECTIFICATION <input type="checkbox"/> NEED REPLACEMENT								
<b>Observation and comment by Contractor's Maintenance Team</b>								
.....								
.....								
.....								
<b>CHECKED BY</b>								
<b>CERTIFIED BY</b>								
_____								
NAME : .....								
DATE : .....								

	<b>PARLIMEN MALAYSIA, BANGUNAN PARLIMEN, 50680, KUALA LUMPUR</b>	<b>AIR COND INSPECTION CHECK LIST ( AIR COOLED )</b>						
Costumer: .....	Location: .....	LOGO SYARIKAT						
System: SPLIT / PACKAGE	Brand: .....							
Model: .....								
AIR SIDE								
AHU / FCU No. :								
Air filter ( Please State Condition ) :	.....							
Cooling coil ( Please State Condition ) :	.....							
Cond Fan Motor ( Please State Condition ) :	.....							
Air On Condensor		F/ °C	Air off Condensor		F/ °C			
Room Condition	Dry Bulb			F/ °C	Wet Bulb			F/ °C
	RH		%	Room Temp		F/ °C		
COMPRESSOR SIDE								
		<b>SET</b>	<b>ACTUAL</b>		<b>SET</b>	<b>ACTUAL</b>		
Compressor 1	High Pressure			Psi/Bar	Low Pressure			Psi/Bar
	Oil Pressure			Psi/Bar				
		<b>SET</b>	<b>ACTUAL</b>		<b>SET</b>	<b>ACTUAL</b>		
Compressor 2	High Pressure			Psi/Bar	Low Pressure			Psi/Bar
	Oil Pressure			Psi/Bar				
		<b>SET</b>	<b>ACTUAL</b>		<b>SET</b>	<b>ACTUAL</b>		
Compressor 3	High Pressure			Psi/Bar	Low Pressure			Psi/Bar
	Oil Pressure			Psi/Bar				
COOLER SIDE								
		<b>SET</b>	<b>ACTUAL</b>		<b>SET</b>	<b>ACTUAL</b>		
Chilled Water	Temp Water In			F/ °C	Temp Water Out			F/ °C
ChWP	Press Water out			Psi/Bar				
Condition ( Noise Level, Mechanical Seal ) :		.....						
INSPECTION REPORT / REMARKS								
<input type="checkbox"/>	GOOD	<input type="checkbox"/>	NEED RECTIFICATION	<input type="checkbox"/>	NEED REPLACEMENT			
<b>Observation and comment by Contractor's Maintenance Team</b>								
.....								
.....								
.....								
.....								
CHECKED BY				CERTIFIED BY				
_____				_____				
NAME : .....				NAME : .....				
DATE : .....				DATE : .....				

 <p>PARLIMEN MALAYSIA, BANGUNAN PARLIMEN, 50680, KUALA LUMPUR.</p>		<b>CHILLER LOG SHEET</b>								
		Customer:								
<b>LOGO SYARIKAT</b>		Brand/Model No:								
		Serial No:								
		Technician:								
		Date:								
		Unit of Measure	<b>SYSTEM DATA</b>							
<b>C O O L E R</b>	Chilled Water Temperate In	°F	Design							
	Chilled Water Temperate Out	°F								
	Chilled Water ΔT	°F								
	Cooler Saturated Refrigerant Temperature	°F								
	Suction Pressure	PSIG								
	Cooler LTD	°F								
	Suction Line Temperature	°F								
	Superheat	°F								
	Chilled Water Entering Pressure	PSIG								
	Chilled Water Leaving Pressure	PSIG								
	Chilled Water ΔP	PSIG								
	Chilled Water Flow	GPM								
<b>C O N D E N S E R</b>	Condenser Water Temperature In	°F								
	Condenser Water Temperature Out	°F								
	Condenser Water ΔT	°F								
	Condenser Pressure	PSIG								
	Condenser Saturated Refrigerant Temperature	°F								
	Condenser LTD	°F								
	Condenser Liquid Temperature	°F								
	Subcooling	°F								
	Condenser Water Entering Pressure	PSIG								
	Condenser Water Leaving Pressure	PSIG								
	Condenser Water ΔP	PSIG								
	Condenser Water Flow	GPM								
	Air Temperature Entering Condenser	°F								
Air Temperature Leaving Condenser	°F									
Condenser Air ΔT	°F									
<b>E L E C T R I C A L</b>	VOLTAGE	L <sub>1</sub> L <sub>2</sub>								
		L <sub>1</sub> L <sub>3</sub>								
		L <sub>2</sub> L <sub>3</sub>								
	AMPERAGE	L <sub>1</sub>								
		L <sub>2</sub>								
		L <sub>3</sub>								
Compressor Oil Level / Oil Added										
Refrigerant Added		lb.								
<b>REMARKS:</b>										

**DOKUMEN NO. 8**

**MECHANICAL SYSTEM  
OPERATION AND  
MAINTENANCE SCHEDULE  
OFFERED**

**MECHANICAL SYSTEM OPERATION AND MAINTENANCE SCHEDULE OFFERED**

Tenderer **MUST COMPLETE BY PUT A ONE TICK (√) ONLY** at each maintenance schedule offered at each box as set out below. All information asked for must be given correctly and supported by the relevant documents.

The Tenderer is required to supply all the information as stipulated below and must be specific with regards to the make or manufacturer of the equipment offered. **THE MORE THAN ONE (1) TICK or NOT TICK of each schedule wherever stated by the tenderer in the schedule shall be deem void.**



**A. Air-Condition and Mechanical Ventilation System Operation and Maintenance Schedul**

Bil.	Detail	Maintenance Frequency						
		D	W	M	3M	6M	Y	2Y
1.0	<p><b><i>Operation:</i></b></p> <p>Operation of ACMV will be done and monitored through Building Management System. The Contractors' Operators will man the BMS room and response to any complaint with regards to day to day operation. The Contractor shall ensure proper operation of Air-Condition and Mechanical Ventilation System. The Equipment shall be monitored and inspected, including works such as visual inspection, checking, monitoring and cleaning etc.</p>							
2.0	<p><b><i>Maintenance:</i></b></p> <p>The maintenance of ACMV will be carried out in accordance with the manufacturer's schedule. The Contractor shall maintain Air-Condition and Mechanical Ventilation equipment and system and shall generally carry out the following but not limited to: -</p>							

Bil.	Description		Maintenance Frequency						
			D	W	M	3M	6M	Y	2Y
2.1	Chiller System								
2.1.1	Plant Room								
	i.	<b>General</b>							
	a.	Inspect plant room cleanliness.							
	b.	Inspect for correct labeling.							
	c.	Inspect emergency light.							
	d.	Inspect ventilation system.							
	e.	Inspect condition of door.							
	f.	Inspect light intensity.							
	g.	Inspect floor trap/drain to ensure good water flow.							
	h.	Inspect pump circuit diagram (laminated & framed up) are up to date.							
	i.	Inspect pump layout diagram (laminated & framed up) are up to date.							
	j.	Inspect portable fire extinguisher CO <sub>2</sub> .							

Bil.	Description		Maintenance Frequency							
			D	W	M	3M	6M	Y	2Y	
	k.	Inspect chemical dosing pumps.								
	<b>ii. Chillers (relevant manufactures maintenance schedule MUST be attached)</b>									
	a.	Inspect chillers general condition.								
	b.	Take reading of current, voltage, pressure, temperature etc. Compare with design readings.								
	c.	Inspect all seals, gaskets and pipes for leaks.								
	d.	Inspect oil pressure.								
	e.	Inspect crankcase heater.								
	f.	Inspect chilled water pressure drop across chillers and condenser.								
	g.	Inspect the operation of all safety devices. Clean, adjust, lubricate, repair / replace as necessary.								
	h.	Inspect purge unit operation.								
	i.	Inspect the suction and discharge pressures of all refrigerant compressors. If abnormal, trace the faults and rectify as necessary.								
	j.	Drain and flush purge unit and replace oil.								

Bil.	Description		Maintenance Frequency						
			D	W	M	3M	6M	Y	2Y
	k.	Inspect all refrigerant and oils levels. Charge refrigerant and oil into the refrigerant system as necessary.							
	l.	Clean condenser tubes.							
	m.	Service chillers including changing of compressor oil filter, leak test and topping up refrigerant, drain and flush purge unit and clean condenser tubes.							
	<b>iii. Pumps</b>								
	a.	Inspect condition of pumps (cleanliness / appearance).							
	b.	Inspect all pump bearings for excessive noise, vibration and wear. Lubricate with oil or grease and replace as necessary.							
	c.	Inspect all motor bearings, lubricate with grease and replace as necessary.							
	d.	Inspect carbon brushes and slip rings of all motors. Clean, repair / replace as necessary.							
	e.	Inspect safety devices fitted to all motors. Clean, adjust, lubricate, repair / replace as necessary.							
	f.	Inspect all seals for leakages. Repair / replace as necessary.							

Bil.	Description	Maintenance Frequency						
		D	W	M	3M	6M	Y	2Y
	g. Adjust; re-pack and replace pump glands as necessary.							
	h. Inspect each pump/motor alignment, mountings and correct rotation. Adjust or replace as necessary.							
	i. Inspect all rubber couplings between pumps and drive motor. Replace as necessary.							
	j. Inspect and test the tension of all belt drives. Replace as necessary.							
	k. Inspect and tighten all bolts and nuts. Replace as necessary.							
	l. Inspect and test pressure switches and gauges. Repair / replace as necessary.							
	<b>iv. Electric motors</b>							
	a. Inspect and clean all electric motors. Repair / replace as necessary.							
	b. Inspect all motor bearings; lubricate with grease. Replace as necessary.							
	c. Inspect safety devices fitted to motors. Clean, adjust, lubricate, repair/replace as necessary.							
	<b>v. Electrical Switchboard/Control Panel</b>							

Bil.	Description	Maintenance Frequency						
		D	W	M	3M	6M	Y	2Y
	a. Inspect the condition of the panel and its housing. Repair / replace as necessary.							
	b. Inspect and test the control wiring and circuitry.							
	c. Inspect the operation of selector switches. Repair/replace as necessary.							
	d. Inspect the operation of auto-manual selector switches. Repair/replace as necessary.							
	e. Inspect the operation of stop-start buttons. Repair / replace as necessary.							
	f. Inspect / replace indicating bulbs and covers.							
	g. Inspect the routine operation of all electrical starters, electrical control gears and ancillary electrical apparatus. Repair / replace as necessary.							
	h. Inspect all electrical contactors. Clean and retighten all loose connections.							
	i. Clean or replace electrical contactors as necessary.							
	j. Inspect electric fuses. Replace as necessary.							
	k. Inspect the condition of the conduits, supports and wires. Replace as necessary.							

Bil.	Description	Maintenance Frequency						
		D	W	M	3M	6M	Y	2Y
	<b>vi. Piping and fittings</b>							
	a. Inspect the condition of every pipe. Repair / replace as necessary.							
	b. Inspect the condition of the pipe supports, brackets, pipe sleeves and piping joints. Repair / replace as necessary.							
	c. Inspect the condition of every valve and fitting. Repair / replace as necessary.							
	d. Inspect and clean strainers. Repair / replace as necessary.							
	e. Inspect for correct labeling. Clean, repair / replace as necessary.							
	f. Inspect chilled water pipe insulation. Replace as necessary.							
	g. Inspect pipe painting. Ensure pipes coatings of anti-rust and standard color paint are clean and in good condition. Replace as necessary.							
<b>2.1.2</b>	<b>Cooling towers</b>							
	a. Inspect all water cooling towers.							

Bil.	Description		Maintenance Frequency						
			D	W	M	3M	6M	Y	2Y
	b.	Inspect all fan and fan bearings. Lubricate with grease. Replace as necessary.							
	c.	Inspect all belt drives. Adjust and retention. Replace as necessary.							
	d.	Inspect and clean all water screens.							
	e.	Inspect the operation of all spray nozzles and clean as necessary.							
	f.	Drain, clean and flush cooling tower basin and honey-comb in-fills.							
	g.	Inspect and clean float valve. Adjust water level. Replace as necessary.							
	h.	Inspect and service motors and controllers. Replace as necessary.							
<b>2.1.3</b>	<b>Chilled water storage and expansion tanks</b>								
	a.	Inspect all chilled water storage and expansion tanks, chilled water pipes, valves etc. Clean, service and flush as necessary.							
	b.	Actuate all motorized valves to ensure smooth operation over its full operating range. Replace as necessary.							
	c.	Inspect pipe insulation and pipe supports. Replace as necessary.							



Bil.	Description		Maintenance Frequency							
			D	W	M	3M	6M	Y	2Y	
	d.	Inspect all measuring devices for correct operation. Repair / replace as necessary.								
<b>2.1.4</b>	<b>Piping and fittings</b>									
	a.	Inspect the condition of every pipes, repair / replace as necessary;								
	b.	Inspect the condition of the pipe supports, brackets, pipe sleeves and piping joints. Repair / replace as necessary;								
	c.	Inspect the condition of every valves and fittings, repair / replace as necessary;								
	d.	Inspect, clean, repair / replace pipe strainer;								
	e.	Inspect for correct labeling, clean, repair / replace as necessary;								
	f.	Inspect chilled water pipe insulation, replace as necessary								
	g.	Inspect painting, ensure piping is painted with anti-rust and coat with standard color paint.								
<b>2.1.5</b>	<b>Air-handling units and fan-coils</b>									
	a.	<i>Inspect all air-handling units and fan-coils</i>								

Bil.	Description		Maintenance Frequency						
			D	W	M	3M	6M	Y	2Y
	b.	Inspect all air filters, clean or replace as necessary.							
	c.	Replace all:							
		iii. Primary filters							
		iv. Secondary filters							
	d.	Inspect all water coils, seals and pipe lines for leaks and rectify as necessary.							
	e.	Purge air from all water coils.							
	f.	Inspect all fan bearings, lubricate with grease, replace as necessary;							
	g.	Inspect and check the routine operation of all automatic temperature control gears and relay							
	h.	Clean all bearings, pivots and other moving parts, adjust, lubricate and replace as necessary;							
	i.	Inspect the tension of all belt drives, adjust and replace as necessary.							
	j.	Inspect the operation of all automatic water regulating valves, clean, adjust and lubricate, replace as necessary;							
	k.	Inspect the operation of all automatic multi-blade face and by-pass damper, clean, adjust and lubricate as necessary.							

Bil.	Description		Maintenance Frequency						
			D	W	M	3M	6M	Y	2Y
	l.	Inspect operation of thermostat							
	m.	Inspect and clean, repair / replace strainer as necessary;							
	n.	Clean cooling coil with high pressure water jet and detergent							
	o.	Inspect insulation, repair / replace as necessary;							
	p.	Inspect and clean all electric motors, repair / replace as necessary;							
	q.	Inspect all motor bearings and lubricate with grease as necessary							
	r.	Inspect safety devices fitted to, clean, adjust, lubricate, repair/replace as necessary;							
	s.	Inspect and repair refrigerant leaks at joints, fittings and piping, top up refrigerant as necessary;							
	t.	Inspect leakage or clogging at drain pan and drain line, clean, flush, repair / replace as necessary;							
	u.	Chemical cleaning for all coils;							
<b>2.1.6</b>	<b>Ducting, grilles and dampers</b>								
	a.	Inspect all grilles dampers and shutters are working correctly, clean, adjust, repair / replace as necessary;							

Bil.	Description	Maintenance Frequency						
		D	W	M	3M	6M	Y	2Y
	b. Measure air flow. Adjust and balance air flow as necessary;							
	c. Inspect ductwork for leaks, damage or corrosion, repair / replace as necessary;							
	d. Inspect for moisture and condensation, repair/replace insulation as necessary;							
	e. Inspect duct insulation for tears and air leaks. Patch or replace if necessary;							
	f. Inspect the Internals' of ducting to determine dust built up.							
<b>2.1.7</b>	<b>The performance of the complete ventilation, pressurization, exhaust and smoke spill system</b>							
	a. Inspect the function of the complete ventilation, pressurization, exhaust and smoke spill system;							
	b. Adjust air volume control dampers as necessary							
	c. Inspect the operation of all fans and motors							
	d. Test operation of system under simulated fire condition							
<b>2.2</b>	<b>Central Direct Expansion System (DX) (Air Cooled System) - Air Cooled Split Ducted Unit</b>							

Bil.	Description		Maintenance Frequency						
			D	W	M	3M	6M	Y	2Y
<b>2.2.1</b>	<b>Plant Room</b>								
	a.	Inspect plant room cleanliness.							
	b.	Inspect for correct labeling							
	c.	Inspect emergency light							
	d.	Inspect ventilation system/natural (louvered door) or mechanical means							
	e.	Inspect condition of door							
	f.	Inspect lighting intensity							
	g.	Inspect floor trap/drain with fall on floor (water flow)							
	h.	Inspect electrical circuit diagram (Laminated & framed up) up to date;							
	i.	Inspect portable fire extinguisher CO <sub>2</sub>							
	j.	Inspect chemical dosing pumps							
<b>2.2.2</b>	<b>Air Handling Unit's (AHU's)</b>								
	a.	Inspect unit for any abnormalities;							
	b.	Take reading for current, voltage, pressure, temperature etc.							

Bil.	Description	Maintenance Frequency						
		D	W	M	3M	6M	Y	2Y
c.	Inspect the operation of all safety devices and clean, adjust and lubricate, repair / replace as necessary;							
d.	Inspect all air filters, clean or replace as necessary.							
e.	Clean all bearings, pivots and other moving parts, adjust, lubricate and replace as necessary;							
f.	Inspect the tension of all belt drives, adjust and replace as necessary.							
g.	Inspect operation of thermostat							
h.	Clean cooling coil with high pressure water jet and detergent							
i.	Inspect insulation, repair / replace as necessary;							
j.	Inspect and clean condenser as necessary;							
k.	Inspect all motor bearings, lubricate with grease, replace as necessary;							
l.	Inspect and repair refrigerant leaks at joints, fittings and piping, top up refrigerant as necessary;							
m.	Inspect leakage or clogging at drain pan and drain line, clean, flush, repair / replace as necessary;							
n.	Chemical cleaning for all coils;							

Bil.	Description		Maintenance Frequency						
			D	W	M	3M	6M	Y	2Y
2.2.3	<b>Condenser</b>								
	a.	Inspect crankcase heater;							
	b.	Inspect the suction and discharge pressures of all refrigerant compressors, and if abnormal trace the faults and rectify as necessary;							
	c.	Inspect all refrigerant and oils levels and charge refrigerant and oil into the refrigerant system as necessary;							
	d.	Inspect and repair refrigerant leaks at joints, fittings, piping and compressors;							
	e.	Replace filter dryer;							
	f.	Inspect, repair / replace all fans and motors as necessary							
	g.	Inspect, repair / replace condensing coil. Properly comb the fins and clean coil if necessary;							
	h.	Inspect all motor bearings and lubricate with grease as necessary;							
	i.	Inspect and replace compressor units as necessary;							
	j.-	Inspect and replace isolating spring / rubber padding as necessary							

Bil.	Description		Maintenance Frequency						
			D	W	M	3M	6M	Y	2Y
	k.	Chemical cleaning for all coils							
<b>2.2.4</b>	<b>Electric motors</b>								
	a.	Inspect and clean all electric motors, repair / replace as necessary;							
	b.	Inspect all motor bearings, lubricate with grease, replace as necessary;							
	c.	Inspect safety devices fitted to motors, clean, adjust, lubricate, repair/replace as necessary;							
<b>2.2.5</b>	<b>Electrical Switchboard/Control Panel</b>								
	a.	Inspect the condition of the panel and its housing, repair / replace as necessary;							
	b.	Inspect and test the control wiring and circuitry;							
	c.	Inspect the operation of selector switches, repair/replace as necessary;							
	d.	Inspect the operation of auto-manual selector switches, repair/replace as necessary;							
	e.	Inspect the operation of stop-start buttons, repair/replace as necessary;							



Bil.	Description		Maintenance Frequency						
			D	W	M	3M	6M	Y	2Y
	f.	Inspect / replace indicating bulbs and covers;							
	g.	Inspect and check the routine operation of all electrical starters, electrical control gears and ancillary electrical apparatus. Repair / replace as necessary;							
	h.	Inspect and retightened all loose connection of all electrical contactors;							
	i.	Clean and renew electrical contactors as necessary;							
	j.	Renew electric fuses as necessary;							
	k.	Inspect the condition of the conduits and supports and wires.							
<b>2.2.6</b>	<b>Ducting, grilles and dampers</b>								
	a.	Inspect all grilles, dampers and shutters are working correctly, clean, adjust, repair/replace as necessary;							
	b.	Adjust and balance air flow							
	c.	Inspect ductwork for leaks, damage or corrosion, repair / replace as necessary;							
	d.	Inspect for moisture and condensation, repair/replace insulation as necessary;							
	e.	Internal duct cleaning;							

Bil.	Description	Maintenance Frequency						
		D	W	M	3M	6M	Y	2Y
<b>2.3</b>	<b>Air Cooled Split Unit / ACSU Inverter</b>							
<b>2.3.1</b>	<b>Evaporator unit (Cooling Unit)</b>							
	a. Inspect unit for any abnormalities;							
	b. Inspect and clean all air filters,							
	c. Inspect leakage or clogging at drain pan and drain line, clean, flush, repair / replace as necessary;							
	d. Chemical cleaning for all coils							
	e. Inspect and repair refrigerant leaks at joints, fittings and piping, top up refrigerant as necessary;							
	f. Inspect and replace remote control as necessary							
<b>2.3.2</b>	<b>Condenser</b>							
	a. Inspect the suction and discharge pressures of all refrigerant compressors, and if abnormal trace the faults and rectify as necessary.							
	b. Inspect and repair refrigerant leaks at joints, fittings, piping and compressors;							
	c. Inspect, repair / replace all fans and motors as necessary;							

Bil.	Description		Maintenance Frequency						
			D	W	M	3M	6M	Y	2Y
	d.	Inspect, repair / replace condensing coil. Properly comb the fins and clean coil if necessary							
	e.	Inspect and replace compressor units as necessary;							
	f.	Inspect and replace rubber padding as necessary							
	g.	Chemical cleaning for all coils							
	h.	Inspect, repair / replace bracket / hanger							
<b>2.3.3</b>	<b>Electrical Switchboard/Control Panel</b>								
	a.	Inspect the condition of the panel and its housing, repair / replace as necessary;							
	b.	Inspect and test the control wiring and circuitry;							
	c.	Inspect the operation of selector switches, repair/replace as necessary;							
	d.	Inspect the operation of auto-manual selector switches, repair / replace as necessary;							
	e.	Inspect the operation of stop-start buttons, repair / replace as necessary;							
	f.	Inspect/replace indicating bulbs and covers;							

Bil.	Description	Maintenance Frequency						
		D	W	M	3M	6M	Y	2Y
	g. Inspect and check the routine operation of all electrical starters, electrical control gears and ancillary electrical apparatus. Repair / replace as necessary;							
	h. Inspect and retightened all loose connection of all electrical contactors;							
	i. Clean and renew electrical contactors as necessary;							
	j. Renew electric fuses as necessary;							
	k. Inspect the condition of the conduits and supports and wires.							

#### 2.4 Maintenance Checklist For Air Conditioning Variable Refrigerant Flow (VRF) And Air Cooled Split System

Bil.	Description	Maintenance Frequency						
		D	W	M	3M	6M	Y	2Y
2.4.1	Floor Standing AHU's							
2.4.2	AHU Room							
	a. Inspect plant room cleanliness.							
	b. Inspect for correct labeling							
	c. Inspect emergency light							

Bil.	Description		Maintenance Frequency						
			D	W	M	3M	6M	Y	2Y
	d.	Inspect ventilation system/natural (louvered door) or mechanical means							
	e.	Inspect condition of door							
	f.	Inspect lighting intensity							
	g.	Inspect floor trap/drain with fall on floor (water flow)							
	h.	Inspect electrical circuit diagram (Laminated & framed up) up to date;							
	i.	Inspect portable fire extinguisher CO <sub>2</sub>							
	j.	Inspect chemical dosing pumps							
<b>2.4.3</b>	<b>Air Handling Unit's (AHU's)</b>								
	a.	Inspect unit for any abnormalities;							
	b.	Take reading for current, voltage, pressure, temperature etc.							
	c.	Inspect the operation of all safety devices and clean, adjust and lubricate, repair / replace as necessary;							
	d.	Inspect all air filters, clean or replace as necessary.							
	e.	Clean all bearings, pivots and other moving parts, adjust, lubricate and replace as necessary;							

Bil.	Description		Maintenance Frequency						
			D	W	M	3M	6M	Y	2Y
	f.	Inspect the tension of all belt drives, adjust and replace as necessary.							
	g.	Inspect operation of thermostat							
	h.	Clean cooling coil with high pressure water jet and detergent							
	i.	Inspect insulation, repair / replace as necessary;							
	j.	Inspect and clean condenser as necessary;							
	k.	Inspect all motor bearings, lubricate with grease, replace as necessary;							
	l.	Inspect and repair refrigerant leaks at joints, fittings and piping, top up refrigerant as necessary;							
	m.	Inspect leakage or clogging at drain pan and drain line, clean, flush, repair / replace as necessary;							
	n.	Chemical cleaning for all coils;							
<b>2.4.4</b>	<b>Condenser</b>								
	a.	Inspect crankcase heater;							
	b.	Inspect the suction and discharge pressures of all refrigerant compressors, and if abnormal trace the faults and rectify as necessary;							

Bil.	Description	Maintenance Frequency						
		D	W	M	3M	6M	Y	2Y
	c. Inspect all refrigerant and oils levels and charge refrigerant and oil into the refrigerant system as necessary;							
	d. Inspect and repair refrigerant leaks at joints, fittings, piping and compressors;							
	e. Replace filter dryer;							
	f. Inspect, repair / replace all fans and motors as necessary							
	g. Inspect, repair / replace condensing coil. Properly comb the fins and clean coil if necessary;							
	h. Inspect all motor bearings and lubricate with grease as necessary;							
	i. Inspect and replace compressor units as necessary;							
	j-. Inspect and replace isolating spring / rubber padding as necessary							
	k. Chemical cleaning for all coils							
<b>2.4.5</b>	<b>Electric motors</b>							
	a. Inspect and clean all electric motors, repair / replace as necessary;							
	b. Inspect all motor bearings, lubricate with grease, replace as necessary;							

Bil.	Description	Maintenance Frequency						
		D	W	M	3M	6M	Y	2Y
	c. Inspect safety devices fitted to motors, clean, adjust, lubricate, repair/replace as necessary;							
<b>2.4.6</b>	<b>Electrical Switchboard/Control Panel</b>							
	a. Inspect the condition of the panel and its housing, repair / replace as necessary;							
	b. Inspect and test the control wiring and circuitry;							
	c. Inspect the operation of selector switches, repair/replace as necessary;							
	d. Inspect the operation of auto-manual selector switches, repair/replace as necessary;							
	e. Inspect the operation of stop-start buttons, repair/replace as necessary;							
	f. Inspect / replace indicating bulbs and covers;							
	g. Inspect and check the routine operation of all electrical starters, electrical control gears and ancillary electrical apparatus. Repair / replace as necessary;							
	h. Inspect and retightened all loose connection of all electrical contactors;							
	i. Clean and renew electrical contactors as necessary;							



Bil.	Description		Maintenance Frequency						
			D	W	M	3M	6M	Y	2Y
	j.	Renew electric fuses as necessary;							
	k.	Inspect the condition of the conduits and supports and wires.							
<b>2.4.7</b>	<b>Ducting, grilles and dampers</b>								
	a.	Inspect all grilles, dampers and shutters are working correctly, clean, adjust, repair/replace as necessary;							
	b.	Adjust and balance air flow							
	c.	Inspect ductwork for leaks, damage or corrosion, repair / replace as necessary;							
	d.	Inspect for moisture and condensation, repair/replace insulation as necessary;							
	e.	Internal duct cleaning;							
<b>2.5</b>	<b>FCU's (Wall Mounted/Ceiling Suspended/Ceiling Cassette/Ceiling Exposed &amp; etc)</b>								
<b>2.5.1</b>	<b>Evaporator unit (Cooling Unit)</b>								
	a.	Inspect unit for any abnormalities;							
	b.	Inspect and clean all air filters,							
	c.	Inspect leakage or clogging at drain pan and drain line, clean, flush, repair / replace as necessary;							

Bil.	Description		Maintenance Frequency						
			D	W	M	3M	6M	Y	2Y
	d.	Chemical cleaning for all coils							
	e.	Inspect and repair refrigerant leaks at joints, fittings and piping, top up refrigerant as necessary;							
	f.	Inspect and replace remote control as necessary							
<b>2.5.2</b>	<b>Condenser</b>								
	a.	Inspect the suction and discharge pressures of all refrigerant compressors, and if abnormal trace the faults and rectify as necessary.							
	b.	Inspect and repair refrigerant leaks at joints, fittings, piping and compressors.							
	c.	Inspect, repair / replace all fans and motors as necessary;							
	d.	Inspect, repair / replace condensing coil. Properly comb the fins and clean coil if necessary.							
	e.	Inspect and replace compressor units as necessary.							
	f.	Inspect and replace rubber padding as necessary.							
	g.	Chemical cleaning for all coils.							
	h.	Inspect, repair / replace bracket / hanger.							

Bil.	Description		Maintenance Frequency						
			D	W	M	3M	6M	Y	2Y
<b>2.5.3</b>	<b>Electrical Switchboard/Control Panel</b>								
	a.	Inspect the condition of the panel and its housing, repair / replace as necessary;							
	b.	Inspect and test the control wiring and circuitry;							
	c.	Inspect the operation of selector switches, repair/replace as necessary;							
	d.	Inspect the operation of auto-manual selector switches, repair / replace as necessary;							
	e.	Inspect the operation of stop-start buttons, repair / replace as necessary;							
	f.	Inspect/replace indicating bulbs and covers;							
	g.	Inspect and check the routine operation of all electrical starters, electrical control gears and ancillary electrical apparatus. Repair / replace as necessary;							
	h.	Inspect and retightened all loose connection of all electrical contactors;							
	i.	Clean and renew electrical contactors as necessary;							
	j.	Renew electric fuses as necessary;							
	k.	Inspect the condition of the conduits and supports and wires.							

**Consumable Material**

The Contractor shall supply the following consumable materials as and when required: -

- h) All oils and grease required for lubrication of compressors, fan bearings, motor bearings, pivots and other moving parts.
- i) All refrigerant required to require to replace refrigerant losses in the refrigerant system.
- j) All carbon brushes required to replace worn brushes in electric motors.
- k) All consumable filter elements.
- l) All electric contact points to replace worn electric contact points in switch gears, motor starter gears, electric control gears and electric relays.
- m) All electric fuses required to replace blow fuses.
- n) All cotton waste, soap detergent and other cleaning materials required for cleaning purposes.

The costs of consumable materials shall not be charged for separately by the Contractor, but shall in the fixed monthly rate quoted by the Contractor for the Service and maintenance

3.0	Painting							
	Description/Maintenance Frequency	D	W	M	3M	6M	Y	2Y
	Clean rust and paint with appropriate one layer of anti-rust paint and finished with existing colored paint.							
4.0	Other components or equipment of the air-conditioning system	As per manufacturers schedule						

## B. Fire Fighting System Operation and Maintenance Schedule

Bil.	Description	Maintenance Frequency						
		D	W	M	3M	6M	Y	2Y
1.0	<b>Operation</b>							
1.1	<b><i>The Contractor shall ensure proper operation of the Fire Fighting System and shall monitor the operation using the Building Management System. The Contractor personnel will man the BMS control room and response to any complaint with regards to day to day operation.</i></b>							
1.2	<b>The Contractor shall manage and supervise the Fire Alarm, Fire Monitoring and Fire Fighting System operation, this shall include:-</b>							
	a. Control and Monitoring of all fire systems							
	b. <b><u>To man the fire control room during and after office hours</u></b>							
	c. Inspect, repair / replace and test the operation of the complete fire fighting system, including the interface and operation of other systems such as lift, ventilation, smoke spill, pressurization, etc.							

Bil.	Description		Maintenance Frequency						
			D	W	M	3M	6M	Y	2Y
	d.	To test run fire fighting system and simulate fire alarm to ensure all systems are in good working order							
	e.	Attend to any complain, urgent request or complaints raised by the S.O. with regards to day to day operation							
	f.	The contractor shall conduct fire drill for each block/complex							
<b>2.0</b>	Maintenance								
	<b>The maintenance of Fire Detection and Alarm, Fire Monitoring and Fire Fighting System, will be carved out in accordance with the manufacturers schedule and the schedule below:</b>								
<b>2.1</b>	<b>Wet riser, Hose reel and Sprinkler System</b>								
<b>2.1.1</b>	<b>Pump room</b>								
	a.	Inspect pump room cleanliness.							
	b.	Inspect for correct labelling							
	c.	Inspect emergency light							
	d.	Inspect ventilation system/natural (louvred door) or mechanical means							

Bil.	Description		Maintenance Frequency						
			D	W	M	3M	6M	Y	2Y
	e.	Inspect condition of door							
	f.	Inspect lighting intensity							
	g.	Inspect floor trap/drain with fall on floor (water flow)							
	h.	Inspect pump circuit diagram (Laminated & framed up) up to date;							
	i	Inspect pump layout diagram (Laminated & framed up) up to date;							
	j.	Inspect portable fire extinguisher CO <sub>2</sub>							
<b>2.1.2</b>	<b>Tanks</b>								
	a.	Inspect for integrity of structure;							
	b.	Inspect for leaks, repair / replace as necessary;							
	c.	Inspect for rust, repair / replace as necessary;							
	d.	Inspect operation of ball valve, repair / replace as necessary;							
	e.	Inspect water tank level indicator; repair / replace as necessary;							
	f.	Inspect electrode and clean, repair / replace as necessary (if equipped);							

Bil.	Description		Maintenance Frequency						
			D	W	M	3M	6M	Y	2Y
	g.	Inspect for sediment/sludge, flush and clean;							
	h.	Inspect, cat ladder internal and external, repair / replace as necessary;							
<b>2.1.3</b>	<b>Pumps</b>								
	<b>i. General</b>								
	a.	Inspect condition of pumps (cleanliness / appearance)							
	b.	Test run each pump on automatic and manual mode;							
	c.	Inspect the correct cut in/cut out auto mode operation of the pressure switch and check pressure;							
	d.	Inspect all motor bearings, lubricate with grease, replace as necessary;							
	e.	Inspect all pump bearings for excessive noise, vibration & wear. Lubricate with oil or grease, replace as necessary;							
	f.	Inspect, repair / replace carbon brushes and slip rings of all motors and clean as necessary.							
	g.	Inspect safety devices fitted to all motors, clean, adjust, lubricate, repair / replace as necessary;							



Bil.	Description	Maintenance Frequency						
		D	W	M	3M	6M	Y	2Y
	h. Inspect all seals for leakage, repair / replace as necessary;							
	i. Adjust, re-pack and replace pump glands as necessary;							
	j. Inspect each pump / motor alignment, couplings, mountings and correct rotation. Adjust, replace as necessary;							
	k. Inspect all rubber couplings between pumps and drive motor, replace as necessary;							
	l. Inspect and test the tension of all belt drives. Replace as necessary;							
	m. Inspect and tighten all bolts and nuts. Replace as necessary;							
	n. Inspect and test pressure switches and gauges, repair / replace as necessary;							
	<b>ii. Control Panel</b>							
	a. Inspect the condition of panel and its housing							
	b. Inspect and test the control wiring and circuitry							
	c. Inspect electric pump starter operation, ensure that the starting sequence is correct. Repair / replace as necessary;							
	d. Inspect the operation of selector switches, repair / replace as necessary;							

Bil.	Description	Maintenance Frequency						
		D	W	M	3M	6M	Y	2Y
e.	Inspect the operation of auto-manual selector switches, repair/replace as necessary;							
f.	Inspect the operation of stop-start buttons, repair/replace as necessary;							
g.	Inspect indicating light for trip and run;							
h.	Inspect indicating light for pump on auto and pump manual;							
i.	Inspect ammeter and voltmeter;							
j.	Inspect and retightened all loose connection of all electrical contactors;							
k.	Clean and renew electrical contactors as necessary;							
l.	Renew electric fuses as necessary;							
m.	Inspect the condition of the conduits and supports and wires;							
n.	Inspect/replace indicating bulbs and covers;							
<b>2.1.4</b>	<b>Piping and fittings</b>							
a.	Inspect the condition of every pipes, repair / replace as necessary;							
b.	Inspect the condition of the pipe supports, brackets, pipe sleeves and piping joints. Repair / replace as necessary;							

Bil.	Description		Maintenance Frequency						
			D	W	M	3M	6M	Y	2Y
	c.	Inspect the condition of every valves and fittings, repair / replace as necessary;							
	d.	Inspect, clean, repair / replace strainer as necessary;							
	e.	Inspect for correct labeling, clean, repair / replace as necessary;							
	f.	Inspect plumbing, pipe-works & fittings and pipe supports, repair / replace as necessary;							
<b>2.1.5</b>	<b>Landing valves, hose reel drums, cradles, hoses, nozzles, etc.</b>								
	a.	Inspect that the landing valve, canvas hose and hose reel are obstruction free;							
	b.	Inspect any missing, damaged or deteriorated parts on the landing valve, canvas hose, diffuser nozzle, cradle, hose reel drum & hose reel, repair / replace as necessary;							
	c.	Inspect the ease of operation and swing of each cradle and hose reel drum. Adjust, repair / replace as necessary;							
	d.	Inspect for any leaks/drips at the landing valves, drum goose neck and gate valve, repair / replace as necessary;							
	e.	Ensure that each of the landing valves is complete with the blank cap, chain and the hand wheel, repair / replace as necessary;							

Bil.	Description		Maintenance Frequency						
			D	W	M	3M	6M	Y	2Y
	f.	Ensure that the diffuser nozzle & landing valve hand wheel can be operated freely, repair / replace as necessary;							
	g.	Ensure hose is not twisted or curl;							
	h.	Test hose reel and canvas hose for leakage, replace as necessary;							
	i.	Inspect and test system for leaks.							
<b>2.1.6</b>	<b>Sprinkler System</b>								
	a.	Inspect that the sprinkler heads are obstruction free;							
	b.	Inspect that the sprinkler heads are free of foreign matter and suspended object;							
	c.	Inspect any missing, damaged or deteriorated parts on the sprinkler head, repair / replace as necessary;							
	d.	Inspect for any leaks/drips at the sprinkler heads, repair / replace as necessary;							
	e.	Inspect for leaks within the system by reading on the pressure gauges;							
	f.	Inspect and ensure the proper operation of water alarm gongs;							

Bil.	Description		Maintenance Frequency						
			D	W	M	3M	6M	Y	2Y
	g.	Inspect the flow switches and its signal indication;							
	h.	Inspect the Jabatan BOMBA breaching inlet and its access.							
<b>2.1.7</b>	<b>Breaching inlet</b>								
	a.	Inspect the condition of breaching box, door and lock;							
	b.	Inspect the condition of male coupling, a back pressure valve, a blank cap secured with chain, repair / replace as necessary;							
	c.	Inspect the condition of the wired glass and letters 'Fire Brigade Wet Main Inlet', repair / replace as necessary;							
<b>2.2</b>	<b>Fire alarm and detection system</b>								
	a.	Inspect fire alarm and detection system;							
	b.	Inspect and test all main power supply and earthing;							
	c.	Inspect and test all battery charger unit, repair / replace as necessary;							
	d.	Inspect all battery electrolyte level and top-up							
	e.	Inspect and test illuminate lamps and LED, repair / replace as necessary;							
	f.	Inspect and test the functionality of break-glass unit or manual call point, repair / replace as necessary;							

Bil.	Description		Maintenance Frequency						
			D	W	M	3M	6M	Y	2Y
	g.	Test zone rotary switch;							
	h.	Inspect and test the functionality of detectors, repair / replace as necessary;							
	i.	Inspect and test system wiring, repair / replace as necessary;							
	j.	Test bell/buzzer isolate button, repair / replace as necessary;							
	k.	Test alarm & evacuate switch, repair / replace as necessary;							
	o.	Test Lift tripping mechanism, repair / replace as necessary;							
	p.	Test Fire Brigade connection							
<b>2.3</b>	<b>Firemen intercom system.</b>								
<b>2.3.1.</b>	<b>Panel</b>								
	a.	Inspect the condition of the panel and its housing.							
	b.	Ensure that the panel is in a normal-ready condition.							
	c.	Visually inspect condition of components, resistors wires, zone cards, bulbs etc. Repair / replace as necessary;							
	d.	Inspect condition of battery charger, repair / replace as necessary;							

Bil.	Description	Maintenance Frequency						
		D	W	M	3M	6M	Y	2Y
<b>2.3.2</b>	<b>Battery</b>							
	a. Inspect the condition of the battery and its terminal, repair / replace as necessary;							
	b. Inspect voltage and ammeter reading.							
<b>2.3.3</b>	<b>Automatic Control</b>							
	a. Inspect and test the control wiring and circuitry. Random test of the call, talk and fault mode.							
	b. Inspect the correct operation of the master and remote handset. Establish conference calls on auto and manual mode. Test disconnect call on auto and manual mode.							
	c. Inspect and test the correct operation of remote status panel.							
<b>2.3.4</b>	<b>Electrical</b>							
	a. Check the operation of the emergency change over in case of power failure.							
	b. Check the wiring connection terminals							
	c. Check the condition of the conduits and supports and wires.							
<b>2.3.5</b>	<b>Handsets</b>							

Bil.	Description		Maintenance Frequency						
			D	W	M	3M	6M	Y	2Y
	a.	Check the condition of the master hand set, repair / replace as necessary;							
	b.	Check the condition of the remote handset box, repair / replace as necessary;							
	c.	Inspect any missing, damaged or deteriorated parts on the remote handset and accessories, repair / replace as necessary;							
<b>2.3.6</b>	<b>General</b>								
	a.	Keep remote handsets clean and tidy.							
	b.	Keep access to panel free from obstructions.							
<b>2.4</b>	<b>Fire suppression systems</b>								
<b>2.4.1</b>	<b>Cylinders, Hoses, etc.</b>								
	a.	Inspect gas cylinder							
	b.	Inspect the pressure gauge reading of each cylinder.							
	c.	Inspect any missing, damaged or deteriorated parts on the cylinders, hoses, etc. Repair / replace as necessary;							
	d.	Inspect the condition of the discharge valve and the tamper seal, repair / replace as necessary;							



Bil.	Description	Maintenance Frequency						
		D	W	M	3M	6M	Y	2Y
<b>2.4.2</b>	<b>Pilot cylinder</b>							
	a. Inspect and test gas discharge abort switch, repair / replace as necessary;							
<b>2.4.3</b>	<b>Panel</b>							
	a. Inspect and test control panel, repair / replace as necessary;							
	b. Visually inspect condition of components, resistors wires, zone cards, etc. Repair / replace as necessary;							
	c. Inspect and test AC & DC supply, conduct current voltage continuity and earthing test							
	d. Inspect and test of change over switch, repair / replace as necessary;							
	e. Inspect and test indicator bulb, repair / replace as necessary;							
	f. Inspect condition of battery charger, repair / replace as necessary;							
	g. Inspect the condition of the battery and its terminal, repair / replace as necessary;							
	h. Inspect and log voltage and ammeter reading;							
<b>2.4.4</b>	<b>Devices</b>							
	a. Inspect and test the control wiring and circuitry.							

Bil.	Description	Maintenance Frequency						
		D	W	M	3M	6M	Y	2Y
	b. Ensure that the detectors are free from obstructions, dust, dirt and cobwebs; clean as necessary;							
	c. Inspect the condition of the manual key switch/pull handle, repair / replace as necessary;							
	d. Conduct simulation test (minus gas discharge)							
	e. Inspect to ensure that the time delay for the CO <sub>2</sub> discharge is within 25 – 30 seconds, adjust, repair / replace as necessary;							
	f. Inspect and test the correct operation of interface trip and fire curtain, repair / replace as necessary;							
	g. Inspect and test the correct operation of the bell and warning light, repair / replace as necessary;							
<b>2.5</b>	<b>Portable Fire Extinguishers</b>							
	a. Obtain Bomba certification upon expiry date							
	b. Inspect any missing, damaged or deteriorated parts on the cylinder, pressure gauge, hose connector, discharge valve, handle, cylinder safety pin, seal and cylinder holder, repair / replace as necessary;							
	c. Inspect fire extinguisher cabinet, repair / replace as necessary;							
	d. Inspect the condition of the content, replace as necessary.							

Bil.	Description	Maintenance Frequency						
		D	W	M	3M	6M	Y	2Y
2.6	Painting							
	a. Inspect Check painting, ensure the system (equipment, control panel and piping) are painted with anti-rust and coat with red gloss paint.							

**C. Cold Water Supply and Booster Pump System Operation and Maintenance Schedule**

Bil.	Description	Maintenance Frequency						
		D	W	M	3M	6M	Y	2Y
1.0	<b>Operation</b>  <i>The Contractor shall ensure proper operation of cold-water booster pumping system and shall monitor and check the system. This shall include works such as monitoring of water tank level, pump status, etc and response to any complaint with regards to day to day operation.</i>							
2.0	<b>Maintenance</b>							
	The maintenance of cold water and its related system, will be carved out in accordance with the manufacturers schedule and the schedule below:							

Bil.	Description		Maintenance Frequency						
			D	W	M	3M	6M	Y	2Y
<b>2.1</b>	<b>Pump room</b>								
	a.	Inspect pump room cleanliness.							
	b.	Inspect for correct labeling							
	c.	Inspect emergency light							
	d.	Inspect condition of door							
	e.	Inspect lighting intensity							
	f.	Inspect floor trap/drain with fall on floor (water flow)							
	g.	To put up pump circuit diagram (Laminated & framed up)							
	h.	To put up pump layout diagram (Laminated & framed up)							
	i.	Inspect portable fire extinguisher CO <sub>2</sub>							
<b>2.2</b>	<b>Tanks (Suction &amp; Storage)</b>								
	a.	Inspect for integrity of structure;							
	b.	Inspect for leaks, repair / replace as necessary;							
	c.	Inspect for rust, repair / replace as necessary;							
	d.	Inspect and test operation of ball valve, repair / replace as							

Bil.	Description	Maintenance Frequency						
		D	W	M	3M	6M	Y	2Y
	necessary;							
	e. Inspect and test water tank level indicator; repair / replace as necessary;							
	f. Inspect and test electrode and clean, repair / replace as necessary (if equipped);							
	g. Inspect for sediment, clean and flush. Do water sampling;							
	h. Inspect, cat ladder internal and external, repair / replace as necessary;							
<b>2.3</b>	<b>Pumps</b>							
	<b>i. General</b>							
	a. Inspect condition of pumps (cleanliness / appearance)							
	b. Test run each pump on automatic and manual mode;							
	c. Inspect the correct cut in/cut out auto mode operation of the pressure switch and check pressure;							
	d. Inspect all pump bearings for excessive noise, vibration & wear. Lubricate with oil or grease, repair / replace as necessary;							
	e. Inspect all motor bearings, lubricate with grease, replace as necessary;							

Bil.	Description	Maintenance Frequency						
		D	W	M	3M	6M	Y	2Y
f.	Inspect carbon brushes and slip rings of all motors, clean, repair / replace as necessary;							
g.	Inspect safety devices fitted to all motors, clean, adjust, lubricate, repair / replace as necessary;							
h.	Inspect all seals for leakage, repair / replace as necessary;							
i.	Adjust, re-pack and replace pump glands as necessary;							
j.	Inspect each pump/motor alignment, mountings and correct rotation. Adjust, replace as necessary;							
k.	Inspect all rubber couplings between pumps and drive motor, replace as necessary;							
l.	Inspect and test the tension of all belt drives. Replace as necessary;							
m.	Inspect and tighten all bolts and nuts. Replace as necessary;							
n.	Inspect and test pressure switches and gauges, repair / replace as necessary;							
<b>ii.</b>	<b>Control Panel</b>							
a.	Inspect the condition of the panel and its housing, repair / replace as necessary;							
b.	Inspect and test the control wiring and circuitry							

Bil.	Description	Maintenance Frequency						
		D	W	M	3M	6M	Y	2Y
	c. Inspect electric pump starter operation, ensure that the starting sequence is correct. Repair / replace as necessary;							
	d. Inspect the operation of selector switches, repair / replace as necessary;							
	e. Inspect the operation of auto-manual selector switches, repair/replace as necessary;							
	f. Inspect the operation of stop-start buttons, repair/replace as necessary;							
	g. Inspect indicating light for trip and run;							
	h. Inspect indicating light for pump on auto and pump manual;							
	i. Inspect ammeter and voltmeter;							
	j. Inspect and retightened all loose connection of all electrical contactors;							
	k. Clean and renew electrical contactors as necessary;							
	l. Renew electric fuses as necessary;							
	m. Inspect the condition of the conduits and supports and wires.							
	n. Inspect/replace indicating bulbs and covers;							
<b>2.4</b>	<b>Piping and fittings</b>							

Bil.	Description		Maintenance Frequency						
			D	W	M	3M	6M	Y	2Y
	a.	Inspect the condition of every pipes, repair / replace as necessary;							
	b.	Inspect the condition of the pipe supports, brackets, pipe sleeves and piping joints. Repair / replace as necessary;							
	c.	Inspect the condition of every valves and fittings, repair / replace as necessary;							
	d.	Inspect, clean, repair / replace strainer as necessary;							
	e.	Inspect for correct labelling, clean, repair / replace as necessary;							
	f.	Inspect plumbing, pipe-works & fittings and pipe supports, repair / replace as necessary;							
<b>2.5</b>	<b>Pressure vessel</b>								
	a.	Inspect and test pressure vessel/ hydro-pneumatic vessel for leaks, replace diaphragm as necessary;							
	b.	Inspect and test system pressure;							
<b>2.6</b>	<b>Submersible Pumps</b>								
	a.	Inspect electrical termination for tightness;							
	b.	Inspect all seals for leakage;							



Bil.	Description		Maintenance Frequency						
			D	W	M	3M	6M	Y	2Y
	c.	Inspect pump and motor bearings for excessive noise, vibration & wear, replace as necessary;							
	d.	Inspect for correct rotation;							
	e.	Inspect condition of one way valve, replace as necessary;							
	f.	Inspect float sensors for correct indication, adjust, repair / replace as necessary;							
	g.	Inspect impeller for blockage, clean, repair / replace as necessary;							
	h.	Inspect and test run each pump on auto and manual mode under load condition;							
	i.	Inspect the pump suction.							
<b>3.0</b>	<b>Painting</b>								
	Inspect painting, ensure the system (equipment and piping's) are painted with anti-rust and coat with correct color paint.								

**B. Bomba Link (SPKA), Automatic Door, Hand Dryer, Hot Water System Operation and Maintenance Schedule**

Bil.	Description	Maintenance Frequency						
		D	W	M	3M	6M	Y	2Y
1.0	<p><b>Operation</b></p> <p><i>The Contractor shall ensure proper operation of bomba link (SPKA), automatic door, hand dryer, hot water system and shall monitor and check the system.</i></p>							
2.0	<p><b>Maintenance</b></p> <p>The maintenance of bomba link (SPKA), automatic door, hand dryer, hot water system and its related system, will be carved out in accordance with the manufacturers schedule and the schedule below:</p>							
2.1	Bomba Link (SPKA)							
	a. Inspect equipment functionality and others part related.							
	b. Replace any missing/ damaged component of parts.							
	c. Check control panel, telephone line/ mobile service provider, ability to receive SMS, network and other related are in good							

Bil.	Description	Maintenance Frequency						
		D	W	M	3M	6M	Y	2Y
	condition. Repair/replace to ensure functionality.							
	d. Test the equipment and record.							
<b>2.2</b>	<b>Automatic Door</b>							
	a. Inspect general condition of equipment.							
	b. Test system or equipment for operation.							
	c. Inspect, detect and rectify leakages.							
	d. Inspect for abnormal noise or vibration and rectify as necessary.							
	e. Inspect valves operation. Lubricate, repair / replace as necessary.							
	f. Inspect all moving parts (such as motor, etc.). Lubricate with oil or grease and rectify/change as necessary.							
	g. Inspect all electric motors, fan, pump, etc. Repair/replace as necessary.							
<b>2.3</b>	<b>Hand Dryer</b>							
	a. Inspect condition of hand dryer. Repair / replace as necessary.							

Bil.	Description		Maintenance Frequency							
			D	W	M	3M	6M	Y	2Y	
	b.	Test run each hand dryer. Repair / replace as necessary.								
<b>2.4</b>	<b>Hot Water / Water Heater</b>									
	a.	Ensure that no water leakage to the connecting pipe and tank. Repair / replace if faulty.								
	b.	Verify and records load reading								
	c.	Inspect and retighten connections, earthing terminations, etc.								
	d.	Ensure all electrical connections working properly								
	e.	Ensure temperature range as stated in manufacturer's specifications.								
	f.	Ensure safety valve function perfectly.								
	g.	Ensure indicator light working properly.								
	h.	Verify and retighten connection and to the double pole switch.								
	i.	Ensure pressure control function properly.								
	j.	Ensure R.C.D. function properly.								

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Kontraktor : .....

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**DOKUMEN NO. 9**

**SENARAI PERALATAN  
PENYELENGGARAAN WAJIB  
DIBEKALKAN**

**PERALATAN KERJA PENYELENGGARAAN MEKANIKAL YANG WAJIB  
DIBEKALKAN OLEH KONTRAKTOR UNTUK PENYELENGGARAAN**

<b>BIL</b>	<b>JENIS ALATAN KERJA</b>	<b>BIL YANG DI PERLUKAN</b>	<b>BIL YANG DITAWARKAN</b>
<b>A</b>	<b>MAINTENANCE &amp; REPAIRING TOOLS</b>		
1	TANGGA (8 STEP)	3	
2	TANGGA (12 STEP)	2	
3	TANGGA (6 STEP)	2	
4	TOOLS BAGS C/W COMPULSORY TOOLS AS BELOW	2	
	SPANAR SET COMMEN / RING	2	
	SKRU DRIVER BUNGA	2	
	SKRU DRIVER LEPER	2	
	FASTENING TOOLS - PLIERS	2	
	FASTENING TOOLS - LONG-NOSE PLIERS	2	
	CUTTER	2	
	ADJUSTBLE SIZE 12	2	
	ADJUSTBLE SIZE 10	2	
	ADJUSTBLE SIZE 8	2	
5	REFRIGERANT VACUUM PUMP	2	
6	VACUUM CLEANER (WET/DRY)	2	
7	GAS R22	3	
8	GAS R410A	2	
9	TROLEY	1	
10	TORCH LIGHT (heavy duty)	2	
11	ALLEN KEY SET	2	
12	RUBBER HOSE PIPE (100 feet)	2	
13	BOX SPANAR	1	
14	FLARING TOOLS	2	
15	FINBRUSH	2	
16	SET WELDING COPPER PIPE	1	
17	ROD WELDING	1	
18	PORTABLE WELDING TORCH C/W GAS	2	
19	PORTABLE WATER JET	1	
20	PORTABLE VACUUM & BLOWER	1	
21	HAMMER	1	
22	WD40 SPRAY LUBRICANT	1	
<b>B</b>	<b>STANDBY SPAREPART</b>		
1	CAPACITOR COMPRESSOR		
	50UF	3	
	40UF	3	
	30UF	3	
	25UF	3	
2	CAPACITOR FAN		
	6UF	3	
	4.5UF	3	

BIL	JENIS ALATAN KERJA	BIL YANG DI PERLUKAN	BIL YANG DITAWARKAN
	3.5UF	3	
	2.5UF	3	
	2UF	3	
	1.8UF	3	
	WIRE COMPRESSOR	3	
<b>C</b>	<b>TESTING TOOLS</b>		
	MULTI TESTER	2	
	DIGITAL THEMOMETER	2	
	HAND LASER THEMOMETER	2	
	MESSUERMEN TAPE	3	
	PRESSURE GAUGE R22	1	
	PRESSURE GAUGE R134A	1	
	PRESSURE GAUGE R410A	1	
	CLAMP METTER	2	
	SLING THERMOMETER	2	
	SOUND PRESSURE METER	1	
	TEST PEN	6	
	AIR CAPTURE HOOD	1	
<b>D</b>	<b>OFFICE / COMMUNICATION TOOLS</b>		
	WALKIE TALKIE	3	
	COMPLETE UNIFORM C/W SAFETY BOOT	4	
	CAMERA	1	
	SAFETY HELMET C/W ATTACHBLE TORCHLIGHT	2	
	SAFETY HARNESS	2	
	COMPUTER C/W PRINTER & INTERNET FACILITIES	1	

**Syarikat adalah dikehendaki untuk mengemukakan katalog jenama peralatan yang ditawarkan untuk senarai peralatan di atas sekiranya berkaitan. Kegagalan untuk mengemukakannya akan menyebabkan tawaran tender akan ditolak.**



**DOKUMEN NO. 10**

**SCHEDULE OF UNIT RATE**

**F. SCHEDULE OF UNIT RATE**

1. The tenderer must complete this schedule of unit rate at the time of tender.
2. The prices entered in this schedule should be inclusive labour, recharge refrigerant, refill of oil, supply, install, dismantling, transport, testing and commissioning and make good aforesaid equipment in accordance with the requirements and specifications.
3. The guarantee should be **six (6) months** for the new item/equipment replaced after the works completion.
4. The rate quoted shall be valid for the period of the contract. These rates shall be used in the event of servicing and replacement of part required for the repair of aforesaid plants.
- 5.

ITEM	DESCRIPTION	UNIT PRICE (RM)
1.	<b><u>ELECTRICAL APPRATUS</u></b>	
a.	AC Magnetic Contactor c/w auxiliary contacts.  (1) 3.7 kW (10 Amp) and below (2) 5.5 kW (15 Amp) (3) 7.5 kW (20 Amp) (4) 11 kW (25 Amp) (5) 15 kW (30 Amp) (6) 22 kW (45 Amp) (7) 30 kW (55 Amp) (8) 37 kW (100 Amp) (9) 55 kW (120 Amp) (10) 75 kW (150 Amp)	
b.	Thermal Overload Relay, 415V/240V. (1) 1 to 10 Amp (2) 11 to 20 Amp (3) 21 to 30 Amp (4) 31 to 45 Amp (5) 46 to 60 Amp (6) 61 to 100 Amp (7) 101 to 150 Amp	

ITEM	DESCRIPTION	UNIT PRICE (RM)
c.	Auto Transformer 415V, with appropriate tapping: (1) 5 kW to 10 kW (2) 11 kW to 20 kW (3) 21 kW to 35 kW (4) 36 kW to 50 kW (5) 51 kW to 75 kW	
d.	Transformer 240-12V	
e.	Rotor Resistance 415V, c/w tap and star point, any size and voltage. (1) 11 kW to 20 kW (2) 21 kW to 35 kW (3) 36 kW to 55 kW (4) 56 kW to 95 kW	
f.	Control Relay: (1) 8 Pin Relay c/w base (2) 11 Pin Relay c/w base (3) Time Delay Relay 0-60 sec (4) Time Delay Relay 0-36 sec (5) Under Voltage Relay/Phase Protection Relay	
g.	24 hours Control Timer, all types.	
h.	Fuse Holder c/w Fuse Base: (1) 30 A and below (2) 31 A to 60 A (3) 61 A to 100 A (4) 101 A to 150 A (5) 151 A to 200 A	

ITEM	DESCRIPTION	UNIT PRICE (RM)
i.	HRC Fuses: (1) 20 A and below (2) 21 A to 30 A (3) 31 A to 60 A (4) 61 A to 100 A (5) 101 A to 150 A (6) 151 A to 200 A	
j.	Isolators, three phases: (1) 20 Amp (2) 30 Amp (3) 60 Amp (4) 100 Amp (5) 150 Amp (6) 200 Amp	
k.	Selector Switches: (1) 2 positions (2) 3 positions	
l.	To dismantle, supply and install (1) Push Button switches (N/O or N/C) red or green all type. (2) Indicating Pilot Light, all type (3) Ammeter Switch, 4 positions with OFF (4) Ammeter (5) Voltmeter Switch, 4 positions with OFF (6) Voltmeter	
m.	To dismantle, supply and install Main Circuit Breaker (MCB) (1) <i>Kutub Tunggal berkadaran sehingga 32A, dengan Beban Pemutus 6kA</i> (2) <i>Tiga Kutub berkadaran sehingga 45A/63A dengan Beban Pemutus 6kA</i> To dismantle, supply and install ELCB	

ITEM	DESCRIPTION	UNIT PRICE (RM)
n.	(1) 40A/0.3A (2) 63A/0.3A (3) 63A/1.0A	
o.	To dismantle, supply and install MCCB <i>(1) Kutub Tunggal berkadaran sehingga 40A dan neutral dengan Beban Pemutus 30kA</i> <i>(2) Tiga Kutub berkadaran dari 41A sehingga 60A dan neutral dengan Beban Pemutus 30kA</i> <i>(3) Tiga Kutub berkadaran dari 30A sehingga 100A dan neutral dengan Beban Pemutus 30kA</i> <i>(4) Tiga kutub berkadaran dari 30A sehingga 100A dan neutral dengan Beban Pemutus 50kA</i>	
p.	To dismantle, supply and install: (1) Auto Manual Switchboard (2) Anti-Freezing Switch (3) Float Switch, all types (4) Level Control Relay, all types (5) Electrodes and sensors per set (6) Pressure Switch, all types (7) Flow Switch, all types (8) Latching Relay (9) Terminal Head c/set (10) High & Low-Pressure Switch	
q.	Polyvinyl chloride cable (PVK/PVK) per meter run: (1) 1 x 1.5 mm <sup>2</sup> (2) 1 x 2.5 mm <sup>2</sup> (3) 1 x 4 mm <sup>2</sup> (4) 1 x 6 mm <sup>2</sup> (5) 1 x 10 mm <sup>2</sup> (6) 1 x 16 mm <sup>2</sup>	

ITEM	DESCRIPTION	UNIT PRICE (RM)
	<p>(7) 1 x 25 mm<sup>2</sup></p> <p>(8) 1 x 35 mm<sup>2</sup></p> <p>(9) 1 x 50 mm<sup>2</sup></p> <p>(10) 1 x 70 mm<sup>2</sup></p> <p>(11) 1 x 95 mm<sup>2</sup></p> <p>(12) 1 x 120 mm<sup>2</sup></p> <p>r. Conduit G.I type of all size including all bends, saddle, brackets, joints, bolts, &amp; nuts, etc. per meter run. The rate shall inclusive termination using flexible conduit c/w all adaptors per meter run.</p> <p>s. Conduit PVC type of all size including all bends, saddle, brackets, joints, bolts &amp; nuts, etc. per meter run. The rate shall inclusive termination using flexible conduit c/w all adaptors per meter run.</p> <p>t. Galvanised Steel Trunking of all size c/s cover, bolt &amp; nut etc. per meter run</p>	
	<p>u. Copper Tape c/w saddle per meter run</p> <p>v. PVC Insulated Flexible Cable per meter run:</p> <p>(1) 3 Core 24/0.20mm</p> <p>(2) 3 Core 24/0.40mm</p> <p>(3) 3 Core 24/0.70mm</p> <p>(4) 3 Core 24/0.90mm</p> <p>(5) 3 Core 24/1.20mm</p> <p>w. To dismantle, supply and install:</p> <p>(1) 13A 3 Pin Plug Top</p> <p>(2) 15A 3 Pin Plug Top</p> <p>x. To dismantle, supply and install DOL Starter</p> <p>(1) 16 Amp</p> <p>(2) 18 Amp</p> <p>y. To dismantle, supply and install Capacitor</p> <p>(1) 1 to 5 µf</p> <p>(2) 6 to 10 µf</p> <p>(3) 11 to 20 µf</p>	

ITEM	DESCRIPTION	UNIT PRICE (RM)
z.	(4) 21 to 30 $\mu$ f (5) 31 to 45 $\mu$ f (6) 46 to 50 $\mu$ f  40 Amp DP RCCB's (Sensitivity 30 mA)	
2.	<p><b><u>ELECTRIC MOTOR</u></b></p> <p>To supply labour, material and tools to rewind motor c/w replacing ball bearing, O-Ring, Oil Seal, Mechanical seal, cable, bushings, balancing of rotor and shaft and ready to operate, per unit:</p> <p>a. Rewinding Squirrel Cage Motor:            (1) 1 HP to 3 HP            (2) 3 1/2 HP to 5 HP            (3) 5 1/2 HP to 10 HP            (4) 10 1/2 HP to 15 HP            (5) 15 1/2 HP to 20 HP</p> <p>b. Rewinding Stator Coils:            (1) 10 HP to 20 HP</p> <p>c. Rewinding Rotor Coils:            (1) 10 HP to 20 HP</p> <p>d. To machine bearing sleeves, all sizes.</p> <p>e. To rebuild and machining of Rotor Shaft, all sizes.</p> <p>f. To machine Slip Rings, all sizes per set</p> <p>g. To replace carbon Brushes Springs, all sizes, per piece.</p> <p>h. To replace Slip rings, per set:            (1) 10 HP to 30 HP</p> <p>i. To replace Carbon Brushes per piece:            (1) 10 HP to 30 HP</p> <p>j. To dismantle, supply and install Induction Motor            (1) 1/2 HP to 1 HP            (2) 5 HP            (3) 7.5 HP</p>	

ITEM	DESCRIPTION	UNIT PRICE (RM)
	(4) 10 HP (5) 20 HP	
3.	<p><b><u>CABLING</u></b></p> <p>a. Air conditioning electrical point up to 2.5 HP using 3x2.5mm<sup>2</sup> cable c/w switch outlet socket and DOL starter 16/18A. (Price not includes conduit and galvanized steel trunking)</p> <p>(1) For distance less than 15m from distribution board.</p> <p>(2) For distance between 15m to 30m from distribution board.</p> <p>(3) For distance between 31m to 40m from distribution board.</p> <p>b. Change Over Control Box/Auto Manual Box for Air Conditioning below 3.0 HP</p> <p>c. Panel Box for Water Pump below 5.0 HP</p>	
4.	<p><b><u>AIR CONDITIONING WORKS</u></b></p> <p>a. To dismantle, supply and install Compressor all type</p> <p>(1) 1 HP to 2.0 HP</p> <p>(2) 2.5 HP</p> <p>(3) 3.0 HP</p> <p>(4) 3.5 HP to 4 HP</p> <p>(5) 4.5 HP to 5 HP</p> <p>(6) 5.5 HP to 6 HP</p> <p>(7) 6.5 HP to 7.5 HP</p> <p>(8) 8.0 HP</p> <p>b. To dismantle, supply and install Condenser Fan Motor</p> <p>(1) 1 HP to 3 HP</p> <p>(2) 3.5 HP to 8.0 HP</p> <p>c. To dismantle, supply and install Fan Blade Type Glass Reinforced Acryl Styrene Resin</p> <p>(1) 12" (304mm)</p> <p>(2) 14.0" (355mm)</p>	



ITEM	DESCRIPTION	UNIT PRICE (RM)
	(3) 16.5" (420mm)	
d.	To dismantle, supply and install Fan Blade Type Aluminium (1) 14.0" (355mm) (2) 16.5" (420mm) (3) 29" (1245mm)	
e.	To dismantle, supply and install High Low-Pressure Switch	
f.	To dismantle, supply and install P.C Board/IC Card: (1) 1.0 HP to 2.0 HP (2) 2.5 HP to 3.5 HP (3) 4.0 HP to 5.5 HP (4) 6.0 HP to 8.0 HP (5) 8.0 HP	
g.	To dismantle, supply and install Condenser Coil: (1) ½ HP to 2.0 HP (2) 2.5 HP to 3.0 HP (3) 3.5 HP to 5 HP (4) 5.5 HP to 8.0 HP (5) 10 HP to 15 HP (6) 35 HP	
h.	To dismantle, supply and install Cooling (Evaporator) Coil: (1) ½ HP to 2.0 HP (2) 2.5 HP to 3.0 HP (3) 3.5 HP to 5 HP (4) 5.5 HP to 8.0 HP	
i.	To dismantle, supply and install Blower Wheel per set: (1) ½ HP to 2.5HP (2) 3.0 HP to 5 HP (3) 5.5 HP to 10 HP (4) 10 ½ HP to 20 HP	

ITEM	DESCRIPTION	UNIT PRICE (RM)
j.	To dismantle, supply and install Shaft: (1) 1 HP to 6 HP	
k.	To dismantle, supply and install Pillow Block	
l.	To dismantle, supply and install Blower Motor (not include ceiling type)  (1) ½ HP to 2.0 HP (2) 2.5 HP to 3.0 HP (3) 3.5 HP to 4 HP (4) 4.5 HP to 5 HP (5) 5.5 HP to 6 HP (6) 6.5 HP to 7.5 HP (7) 8.0 HP	
m.	To dismantle, supply and install Blower Motor for Ceiling Type (1) 1 HP to 2.0 HP (2) 2.5 HP to 3.0 HP (3) 3.5 HP to 4 HP (4) 4.5 HP to 5 HP (5) 5.5 HP to 6.5 HP	
n.	To dismantle, supply and install AHU Motor (1) 1 HP to 5.0 HP (2) 6 HP to 10 HP (3) 11 HP to 15 HP (4) 16 HP to 20 HP (5) 21 HP to 35 HP	
o.	To dismantle, supply and install V-Belt AHU (1) 1 HP to 5.0 HP (2) 6 HP to 10 HP (3) 11 HP to 15 HP (4) 16 HP to 20 HP (5) 21 HP to 35 HP	

ITEM	DESCRIPTION	UNIT PRICE (RM)
p.	To dismantle, supply and install Bearing Motor (1) 1 HP to 5.0 HP (2) 6 HP to 10 HP (3) 11 HP to 15 HP (4) 16 HP to 20 HP (5) 21 HP to 35 HP	
q.	To dismantle, supply and install Bearing Blower (1) 1 HP to 5.0 HP (2) 15 HP to 20 HP (3) 20 HP to 25 HP (4) 25 HP to 30 HP (5) 30 HP to 40 HP	
r.	To dismantle, supply and install Blower Wheel Scroll Type (1) ½ HP to 2 HP	
s.	To dismantle, supply and install: (1) Remote Control for Split Unit (2) Honeywell Thermostat Control (3) Solenoid Valve (4) Capillary Tube all type (5) Access Valve (6) Filter Core (7) Terminal wire compressor	
t.	To supply and install air conditioning unit as per below specification: (standard length of piping and wiring ~ 10ft, wiring shall be installed in GI conduit / trunking, A/C switch by others)  <u><b>Wall Mounted</b></u> (1) 1 HP (2) 1.5 HP (3) 2.0 HP (4) 2.5 HP	

ITEM	DESCRIPTION	UNIT PRICE (RM)
	<p><b><u>Ceiling Exposed</u></b></p> <p>(1) 1 HP  (2) 1.5 HP  (3) 2.0 HP  (4) 2.5 HP  (5) 3.0 HP  (6) 3.5 HP  (7) 4.0 HP  (8) 5.0 HP</p> <p><b><u>Ceiling Cassette</u></b></p> <p>(1) 1 HP  (2) 1.5 HP  (3) 2.0 HP  (4) 2.5 HP  (5) 3.0 HP  (6) 3.5 HP  (7) 4.0 HP  (8) 5.0 HP</p>	
u.	<p>Air Cooled Package Unit (Blok Dewan)  YORK 75HP (20HP X 3 NOS + 25HP X 1 NOS)</p> <p>i) Compressor motor protector  ii) Crankcase heater for compressor</p>	
v.	Air Cond Drain Pump	
w.	<p>Chemical Cleaning for Air Cond Unit including refrigerant gas  re-fill :</p> <p>(i) <b><u>Wall Mounted</u></b>  (1) 1 HP</p>	

ITEM	DESCRIPTION	UNIT PRICE (RM)
	(2) 1.5 HP (3) 2.0 HP (4) 2.5 HP  <b>(ii) <u>Ceiling Exposed</u></b> (1) 2.0 HP (2) 2.5 HP (3) 3.0 HP (4) 3.5 HP (5) 4.0 HP (6) 5.0 HP  <b>(iii) <u>Ceiling Cassette</u></b> (1) 1.5 HP (2) 2.0 HP (3) 2.5 HP (4) 3.0 HP (5) 3.5 HP (6) 4.0 HP  <b>(iv) <u>Wall Mounted (VRF)</u></b> (1) 1 HP (2) 1.5 HP (3) 2.0 HP (4) 2.5 HP  <b>(v) <u>Ceiling Exposed/Ceiling Hung (VRF)</u></b> (1) 2.0 HP (2) 2.5 HP (3) 3.0 HP (4) 3.5 HP (5) 4.0 HP (6) 5.0 HP	



	<p>(5) 7/8" dia.  (6) 1 1/8" dia.</p> <p>f. Oil Separator</p> <p>(1) 7/8" dia.  (2) 1 1/8" dia.  (3) 1 3/8" dia.  (4) 1 5/8" dia.  (5) 2 1/8" dia.</p> <p>g. Refrigerant Shut Off Valve</p> <p>(1) 5/8" and below  (2) 3/4" to 1 1/4"  (3) 1 3/8" to 2"  (4) 2 1/8" to 3"</p> <p>h. Pipe Insulation 3/4" thick per meter run</p> <p>(1) 1/2" dia.  (2) 3/4" dia.  (3) 7/8" dia.  (4) 1 1/8" dia.  (5) 1 3/8" dia.  (6) 1 5/8" dia.  (7) 2 1/8" dia.</p> <p>i. Copper Tube Soft Drawn per meter run</p> <p>(1) 3/16" dia.  (2) 1/4" dia.  (3) 5/16" dia.  (4) 3/8" dia.  (5) 1/2" dia.</p> <p>j. Copper Tube Hard Drawn per meter run</p> <p>(1) 1/2" dia.  (2) 5/8" dia.</p>	
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k.	<p>(3) 7/8" dia.  (4) 1 1/8" dia.  (5) 1 3/8" dia.  (6) 1 5/8" dia.  (7) 2 1/8" dia.</p> <p>Aero flex 1" Thick per square feet</p>	
6.	<p><b><u>PUMP EQUIPMENT</u></b></p> <p>a. To dismantle, supply and install all type Water Pump.  (1) ½ HP (0.3 kW) to 1 HP (0.75 kW)  (2) 1 ½ HP (1.12 kW) to 2 HP (1.5 kW)  (3) 2 ½ HP (2.86 kW) to 3 HP (2.2 kW)  (4) 3 ½ HP (2.61 kW) to 5 HP (3.7 kW)  (5) 5 ½ HP (4.10 kW) to 7 HP (5.5 kW)  (6) 7 ½ HP (5.59 kW)</p> <p>b. To dismantle, supply and install Gasket Suction and Discharge Line.</p> <p>c. To dismantle, supply and install Nipple  (1) 1/8" to 3/8"</p> <p>d. To dismantle, supply and install Rubber Coupling  (1) ½ HP to 2.5 HP  (2) 3 HP to 4 HP  (3) 4 ½ HP to 6 HP  (4) 6 ½ HP to 7.5 HP</p>	
7.	<p><b><u>MECHANICAL PARTS</u></b></p> <p>a. Bearing Non-Shielded per piece:  (1) ½" to 1" dia.  (2) 1 1/8" to 1 ½" dia.</p>	



	<p>(3) 1 5/8" to 2" dia.</p> <p>(4) 2 1/8" to 3" dia.</p>	
b.	<p>Bearing Single Shielded per piece:</p> <p>(1) 1/2" to 1" dia.</p> <p>(2) 1 1/8" dia. to 1 1/2" dia.</p> <p>(3) 1 5/8" dia. to 2" dia.</p> <p>(4) 2 1/8" dia. to 3" dia.</p>	
c.	<p>Bearing Double Shielded per piece:</p> <p>(1) 1/4" dia. to 1" dia.</p> <p>(2) 1 1/6" dia. to 1 1/2" dia.</p> <p>(3) 1 5/8" dia. to 2" dia.</p> <p>(4) 2 1/8" dia. to 3" dia.</p>	
d.	<p>Packing Gland for Water Pump per set:</p> <p>(1) 1/2 HP to 3 HP</p> <p>(2) 3 1/2 HP to 5 HP</p> <p>(3) 5 1/2 HP to 10 HP</p> <p>(4) 11 HP to 15 HP</p> <p>(5) 16 HP to 25 HP</p>	
e.	<p>Mechanical Seal per set:</p> <p>(1) 1/2 HP to 3 HP</p> <p>(2) 3 1/2 HP to 5 HP</p>	
f.	<p>Rubber Coupling including machining of shafts to suit the size and to align the units per set:</p> <p>(1) 1/2 HP to 3 HP</p> <p>(2) 3 1/2 HP to 5 HP</p>	
g.	<p>To dismantle, supply and install Rubber (Tyre) Coupling per/set</p> <p>(1) 1/2 HP to 3 HP</p> <p>(2) 3 1/2 HP to 5 HP</p>	
h.	<p>Polyethylene (PE) Piping run on surface includes all joints. Elbows, T-joints, coupling, brackets etc and ready to operate per meter run:</p> <p>(1) 1/8" to 3/4"</p>	

	<p>(2) 1" to 1 3/4"</p> <p>(3) 2"</p>	
i.	<p>PVC Piping run on surface includes all joints, elbows, T-joints, coupling, brackets etc. and ready to operate per meter run:</p> <p>(1) 1/8" to 3/4"</p> <p>(2) 1" to 3/4"</p> <p>(3) 2" to 2 3/4"</p> <p>(4) 3" to 4 1/2"</p> <p>(5) 5" to 6"</p> <p>(6) 6" to 8"</p>	
j.	<p>ABS Piping run in ground or floor include trenching in ground or floor and reinstatement of trench, all joints, elbows, T-joints, couplings, brackets etc and ready to operate per meter run:</p> <p>(1) 1/8" to 3/4"</p> <p>(2) 1" to 1 3/4"</p> <p>(3) 2" to 2 3/4"</p> <p>(4) 3" to 4 1/2"</p> <p>(5) 5" to 6"</p> <p>(6) 6" to 8"</p>	
k.	<p>To supply and install PVC Schedule 80 c/w PU insulation and GI Jacketing per meter run:</p> <p>(1) 1/8" to 3" dia.</p>	
l.	<p>G.I pipe of Class B or Class C at BS 1387 run on surface include all points, elbows, T-joints, coupling, brackets etc and ready to operate per meter run:</p> <p>(1) 1/8" to 3/4"</p> <p>(2) 1" to 1 3/4"</p> <p>(3) 2" to 3"</p> <p>(4) 3 1/2" to 4 1/2"</p> <p>(5) 5" to 6"</p>	
m.	<p>As per item (l), but using G.I pipe of Class B or Class C run in ground or floor, including trenching in ground or floor and reinstatement of trench per meter run:</p> <p>(1) 1/8" to 3/4"</p>	

	<p>(2) 1" to 1 3/4"</p> <p>(3) 2" to 3"</p> <p>(4) 3 1/2" to 4 1/2"</p> <p>(5) 5" to 6"</p>	
n.	<p>To dismantle, supply and install Gate Valve per piece:</p> <p>(1) 1/8" to 3/4"</p> <p>(2) 1" to 2"</p> <p>(3) 2 1/2" to 3"</p> <p>(4) 3 1/2" to 4 1/2"</p> <p>(5) 5" to 6"</p> <p>(6) 6 1/2" to 8"</p>	
o.	<p>To dismantle, supply and install High Pressure Float Valve per set:</p> <p>(1) 1/2"</p> <p>(2) 3/4"</p> <p>(3) 1"</p> <p>(4) 1 1/2"</p> <p>(5) 2"</p> <p>(6) 3"</p>	
p.	<p>To dismantle, supply and install Check Valve:</p> <p>(1) 1/4" to 1"</p> <p>(2) 1 1/4" to 2"</p> <p>(3) 2 1/4" to 3"</p> <p>(4) 3 1/4" to 4"</p>	
q.	<p>To dismantle, supply and install Spring Check Valve:</p> <p>(1) 1/4" to 2"</p>	
r.	<p>To dismantle, supply and install Non-Return Valve:</p> <p>(1) 1/4" to 1"</p> <p>(2) 1 1/4" to 2"</p> <p>(3) 2 1/4" to 3"</p> <p>(4) 3 1/4" to 4"</p> <p>(5) 4 1/4" to 6"</p>	

s.	To dismantle, supply and install Automatic Valve: (1) 40mm	
t.	To dismantle, supply and install Butterfly Valve: (1) ½" to 2" (2) 2 ½" to 3" (3) 3 ½" to 4" (4) 4 ½" to 5" (5) 5 ½" to 6"	
u.	To dismantle, supply and install Flange: (1) 1/8" to 4" (2) 4 ¼" to 6" (3) 6 ¼" to 8"	
v.	To dismantle, supply and install Gasket: (1) ¼" to 4" (2) 4 ¼" to 6" (3) 6 ¼" to 8"	
w.	Stainless steel pipe run on surface include all points, elbows, T-joints, coupling, brackets etc and ready to operate per meter run: (1) 1/8" to ¾" (2) 1" to 1 ¾" (3) 2" to 3" (4) 3 ½" to 4 ½" (5) 5" to 6"	
x.	As per item (w), but using Stainless steel pipe of Class B or Class C run in ground or floor, including trenching in ground or floor and reinstatement of trench per meter run: (1) 1/8" to ¾" (2) 1" to 1 ¾" (3) 2" to 3" (4) 3 ½" to 4 ½" (5) 5" to 6"	
8.	<b><u>CHILLER PARTS</u></b> To dismantle, supply and install: (1) Pressure Switch, Bind Pressure & Restart Processor	

	<p>Program</p> <p>(2) BMS Sensor</p> <p>(3) Paddle Flow Switch</p>	
9.	<p><b><u>SUBMERSIBLE PUMP EQUIPMENT</u></b></p> <p>To dismantle, supply and install:</p> <p>(1) Submersible pump</p> <p>(2) Mechanical Seal</p>	
10.	<p><b><u>MHI VRF &amp; VRV DAIKIN SYSTEM</u></b></p> <p>To dismantle, supply and install:</p> <p>(1) MHI Bacnet Gateway</p> <p>(2) Daikin PCB Inverter</p>	

**11. MHI VRF KXE System Parts Unit Rate**

No. 1	FCU Wall Mounted Type - <u>MHI VRF KXE</u>	Unit Price (RM)
a.	PCB (Power Supply)	
b.	EEV Solenoid Coil	
c.	Fan Motor	
d.	Fan Propeller	
e.	Blower Motor	
f.	Drain Pump	
g.	Coil Sensor	
h.	Transformer	
i.	Thermistor sensor 3 way	
No. 2	FCU Ceiling Cassette Type - <u>MHI VRF KXE</u>	Unit Price (RM)
a.	PCB (Power Supply)	
b.	PCB (Communication)	
b.	EEV Solenoid Coil	
c.	Fan Motor	
d.	Fan Propeller	
e.	Blower Motor	
f.	Drain Pump	
g.	Coil Sensor	
h.	Transformer	
i.	Thermistor sensor 3 way	
No. 3	FCU Ceiling Ducted Type - <u>MHI VRF KXE</u>	Unit Price (RM)

a.	PCB (Power Supply)	
b.	EEV Solenoid Coil	
c.	Fan Motor	
d.	Fan Propeller	
e.	Blower Motor	
f.	Drain Pump	
g.	Coil Sensor	
h.	Transformer	
i.	Thermistor sensor 3 way	
<b>No. 4</b>	<b>FCU Ceiling Suspended Type - <u>MHI VRF KXE</u></b>	<b>Unit Price (RM)</b>
a.	PCB (Power Supply)	
b.	EEV Solenoid Coil	
c.	Fan Motor	
d.	Fan Propeller	
e.	Blower Motor	
f.	Drain Pump	
g.	Coil Sensor	
h.	Transformer	
i.	Thermistor sensor 3 way	
<b>No. 5</b>	<b>Floor Standing With Casing - <u>MHI VRF KXE</u></b>	<b>Unit Price (RM)</b>
a.	PCB (Power Supply)	
b.	EEV Solenoid Coil	
c.	Fan Motor	
d.	Fan Propeller	
e.	Blower Motor	
f.	Drain Pump	
g.	Coil Sensor	
h.	Transformer	
i.	Thermistor sensor 3 way	
<b>No. 6</b>	<b>Floor Standing AHU Type - <u>MHI VRF KXE</u></b>	<b>Unit Price (RM)</b>
a.	PCB (Power Supply)	
b.	EEV Solenoid Coil	
c.	Fan Motor	
d.	Fan Propeller	
e.	Blower Motor	
f.	Drain Pump	
g.	Coil Sensor	
h.	Transformer	

<b>No. 7</b>	<b>Outdoor Units - <u>MHI VRF KXZ</u></b>	<b>Unit Price (RM)</b>
a.	Inverter Compressor	
b.	Main PCB	
c.	Inverter PCB	
d.	Noise Filter	
e.	Diode	
f.	Power Transistor	
g.	Fan Motor	
h.	Fan Propeller	
i.	Contactor	
i.	High Pressure Switch	
j.	Low Pressure Switch	
k.	Varistor	
l.	Outdoor Relay	
m.	Inverter PCB Relay	
n.	Outdoor Sensor	
o.	Fuse Connection Fan - FM 1 & FM2	

## 12. FIRE FIGHTING SYSTEM

No.	Sparepart	Unit Price (RM)
a.	PCB Control	
b.	Battery 10 AH	
c.	Battery 12 AH	
d.	Battery 20 AH	
e.	Bell 24V DC	
f.	Surge Protection Device	
g.	Charger and Cracking Card Set	
h.	Ignitor Assembly 60 cm (Aerohub)	
i.	Sprinkler Head	
j.	Automatic Air Release Valve 1"	
j.	Ball Valve 1"	
k.	Break Glass	
l.	Heat Detector (Conventional)	
m.	Heat Detector (Adressable)	
n.	Smoke Detector (Conventional)	
o.	Smoke Detector (Adressable)	
p.	Warning Light	

Tandatangan : .....

Nama : .....

Tarikh : .....

Cop Syarikat : .....



**DOKUMEN NO. 11**

**KETERANGAN MENGENAI  
KONTRAKTOR**

KERAJAAN MALAYSIA

PARLIMEN MALAYSIA

**KETERANGAN MENGENAI KONTRAKTOR**

- 1. Nama Kontraktor** : .....
- 1.1 Alamat Pejabat : .....
- .....
- .....
- 1.2 No.Telefon : .....
- 1.3 No. Pendaftaran : .....
- Syarikat
- 1.4 No. Pendaftaran : CIDB :Gred ..... Kategori.....
- :Pengkhususan.....
- JKKP : .....
- Kem. Kewangan : Kod Bidang.....
- e-Perolehan : .....
- (Perlu disertakan dengan salinan sijil sebagai bukti)*
- 2. Modal Di benar** : .....
- Modal Berbayar** : .....
3. Ahli-ahli syarikat :
- (i) Ahli-ahli Lembaga Pengarah

NAMA	JAWATAN	SAHAM MODAL YANG DIPEGANG

(ii) Ahli-ahli Pengurusan

<b>NAMA</b>	<b>JAWATAN</b>

4. Butiran pengalaman firma/syarikat kontraktor dalam kerja yang serupa dengan apa yang ditawarkan di dalam pelawaan Sebutharga kepada Kerajaan dalam tempoh lima (5) tahun yang terakhir.

<b>TAHUN</b>	<b>PENGALAMAN</b>

5. Jika kontraktor pernah mengikat kontrak dengan mana-mana Jabatan Kerajaan atau Badan-badan Berkanun, nyatakan sama ada Firma/Syarikat kontraktor pernah atau sedang mengalami penggantungan atau penamatan kontrak dengan Kerajaan oleh kerana pelanggaran syarat-syarat Kontrak.

.....  
.....  
.....

6. Lain-lain Keterangan Mengenai Kontraktor :-

.....  
.....  
.....  
.....  
.....

Saya perakui bahawa segala keterangan di atas adalah benar.

Tandatangan : .....

Kontraktor

Nama : .....

No. K/P : .....

Jawatan : .....

Tarikh : .....

Cop Firma/

Syarikat : .....

Tandatangan : .....

Saksi

Nama : .....

Saksi

No. K/P : .....

Jawatan : .....

Tarikh : .....

Cop Firma/

Syarikat : .....

**DOKUMEN NO. 12**

**DRAF PERJANJIAN KONTRAK /  
FORMAT SURAT SETUJU  
TERIMA**

**KERJA-KERJA OPERASI DAN PENYELENGGARAAN SISTEM PENYAMAN UDARA & PENGUDARAAN MEKANIKAL, SISTEM PENCEGAH KEBAKARAN DAN SISTEM BEKALAN AIR DALAMAN & PAM PENGGALAK DI BLOK MEKANIKAL, BLOK UTAMA, DEWAN PERSIDANGAN DAN BLOK PEJABAT SEMENTARA, BANGUNAN PARLIMEN MALAYSIA, KUALA LUMPUR**

No. Perjanjian : **PAR.2/367 SH.11/2023**

**PERJANJIAN** ini dibuat pada .....haribulan.....2023

**ANTARA**

**KERAJAAN MALAYSIA** Yang Bagi Maksud Perjanjian Ini Diwakili Oleh Parlimen Malaysia Yang Beralamat Di Parlimen Malaysia, Bangunan Parlimen, Jalan Parlimen 50680 Kuala Lumpur (Selepas Daripada Ini Dirujuk Sebagai "KERAJAAN") Bagi Satu Pihak;

**DENGAN**

..... suatu syarikat yang diperbadankan di bawah Akta Syarikat 2016 [Akta 777] dan mempunyai pejabat berdaftar di ..... (selepas daripada ini dirujuk sebagai "**KONTRAKTOR**") bagi pihak yang satu lagi,

Kedua-dua pihak **KERAJAAN** dan **KONTRAKTOR** akan dirujuk secara berasingan sebagai "**Pihak**" atau secara bersesama sebagai "**Pihak-Pihak**".

**BAHAWASANYA** —

- (a) **KERAJAAN** berhasrat untuk melantik **KONTRAKTOR** untuk memberi perkhidmatan Kerja-Kerja Operasi Dan Penyelenggaraan Sistem Penyaman Udara & Pengudaraan Mekanikal, Sistem Pencegah Kebakaran Dan Sistem Bekalan Air Dalaman & Pam Penggalak Di Blok Mekanikal, Blok Utama, Dewan Persidangan dan Blok Pejabat Sementara, Bangunan Parlimen Malaysia, Kuala Lumpur (selepas daripada ini dirujuk sebagai "Perkhidmatan"); dan

(b) Melalui Surat Setuju Terima (SST) bertarikh ....., **KONTRAKTOR** telah bersetuju untuk menerima lantikan untuk memberikan Perkhidmatan kepada **KERAJAAN** tertakluk kepada terma dan syarat yang dinyatakan dalam Perjanjian ini. Salinan Surat Setuju Terima (SST) adalah sebagaimana yang dilampirkan sebagai **Lampiran B**.

MAKA OLEH YANG DEMIKIAN adalah dengan ini dipersetujui seperti yang berikut:

## 1. DEFINISI DAN TAFSIRAN

1.1 Bagi maksud Perjanjian ini, melainkan jika konteksnya menghendaki maksud yang lain, perkataan di bawah hendaklah mempunyai maksud yang berikut:

“KERAJAAN” ertinya Kerajaan Malaysia yang diwakili oleh Parlimen Malaysia atau mana-mana pegawai yang diberi kuasa olehnya secara bertulis untuk mentadbirkan pelaksanaan Perjanjian ini;

“KONTRAKTOR” ertinya ..... termasuklah wasi, pentadbir, pemegang serahhak, pengganti dan wakil yang diberi kuasa oleh Kerajaan untuk melaksanakan Perjanjian ini;

“Sistem Penyaman Udara & Pengudaraan, Sistem Pencegah Kebakaran Dan Sistem Bekalan Air Dalam & Pam Penggalak” ertinya Sistem Penyaman Udara & Pengudaraan Mekanikal, Sistem Pencegah Kebakaran Dan Sistem Bekalan Air Dalam & Pam Penggalak, Bangunan Parlimen Malaysia bagi kerja-kerja servis dan senggara oleh Kontraktor mengikut spesifikasi teknikal seperti yang diperincikan dalam **Lampiran A dan Lampiran B** kepada Perjanjian ini;

“Lokasi Perkhidmatan” ertinya Blok Mekanikal, Blok Utama, Dewan Persidangan dan Blok Pejabat Sementara, Bangunan Parlimen Malaysia;

“Perkhidmatan”

ertinya perkhidmatan Kerja-Kerja Operasi Dan Penyelenggaraan Sistem Penyaman Udara & Pengudaraan Mekanikal, Sistem Pencegah Kebakaran Dan Sistem Bekalan Air Dalaman & Pam Penggalak Di Blok Mekanikal, Blok Utama, Dewan Persidangan dan Blok Pejabat Sementara, Bangunan Parlimen Malaysia, Kuala Lumpur mengikut spesifikasi teknikal yang diperincikan dalam **Lampiran A dan Lampiran B** kepada Perjanjian ini.

1.2 Melainkan jika dinyatakan sebaliknya, tafsiran dalam Perjanjian ini adalah seperti berikut:

- (a) resital, mukadimah, klausa dan lampiran dan apa-apa dokumen yang dirujuk dalam Perjanjian ini hendaklah diambil kira, dibaca dan ditafsirkan sebagai sebahagian yang penting dalam Perjanjian ini;
- (b) sebarang rujukan kepada resital, mukadimah, klausa dan lampiran dalam Perjanjian ini adalah ditafsirkan sebagai rujukan kepada resital, mukadimah, klausa dan lampiran dalam Perjanjian ini melainkan jika dinyatakan sebaliknya;
- (c) perkataan yang membawa maksud satu adalah juga merujuk kepada jumlah majmuk dan juga sebaliknya;
- (d) rujukan kepada undang-undang adalah termasuk undang-undang yang telah dipinda, disemak atau dicetak semula;
- (e) perkataan yang terpakai bagi individu juga hendaklah terpakai kepada orang perseorangan, syarikat, perbadanan, firma atau rakan kongsi sama ada diperbadankan atau tidak diperbadankan;



- (f) tajuk dan juga tajuk kecil kepada klausa dalam Perjanjian ini adalah hanya untuk mempermudah rujukan sahaja dan tidak menjejaskan pentafsiran dan maksud ayat dalam Perjanjian ini;
- (g) sekiranya rujukan berkaitan dengan tempoh masa bagi sesuatu perbuatan yang hendak dilakukan atau sesuatu persetujuan dicapai atau kebenaran diberikan, rujukan tersebut hendaklah dianggap dibaca bersama ungkapan tersebut atau mana-mana tempoh yang dipersetujui secara bertulis antara Pihak-Pihak dalam Perjanjian ini dari semasa ke semasa;
- (h) apa-apa terma teknikal yang tidak ditakrifkan secara khusus dalam Perjanjian ini hendaklah ditafsirkan menurut penggunaan atau definisi yang biasa diterima oleh mereka yang terlibat dalam profesion ini di Malaysia; dan
- (i) apa-apa rujukan kepada “kelulusan” atau “kebenaran” adalah bermaksud kelulusan atau kebenaran secara bertulis.

## 2. SKOP PERKHIDMATAN

- 2.1 **KONTRAKTOR** bersetuju untuk melaksanakan Perkhidmatan dan **KERAJAAN** bersetuju menerima Perkhidmatan tersebut mengikut terma dan syarat yang terkandung dalam Perjanjian ini.
- 2.2 **KONTRAKTOR** hendaklah menjalankan Perkhidmatan mengikut skop yang dinyatakan dalam **Lampiran A** kepada Perjanjian ini.
- 2.3 Walau apa pun jua dalam Klausa 2.2, **KERAJAAN** berhak mengarahkan **KONTRAKTOR** bekerja pada masa lain selain waktu bekerja yang ditetapkan jika berlaku apa-apa kerosakan dan ketidakfungsian Penyelenggaraan Sistem Penyaman Udara & Pengudaraan Mekanikal, Sistem Pencegah Kebakaran dan Sistem

Bekalan Air Dalamam & Pam Penggalak tanpa sebarang caj tambahan kepada **KERAJAAN**.

- 2.4 **KONTRAKTOR** hendaklah memperbaiki apa-apa kerosakan atau ketidakfungsian pada Sistem Penyaman Udara & Pengudaraan Mekanikal, Sistem Pencegah Kebakaran dan Sistem Bekalan Air Dalamam & Pam Penggalak yang dilaporkan oleh **KERAJAAN** selain menyediakan perkhidmatan kecemasan dua puluh empat (24) jam sehari sepanjang tempoh Perjanjian ini.

### 3. **TARIKH KUAT KUASA DAN TEMPOH PERJANJIAN**

- 3.1 Perjanjian ini hendaklah disifatkan telah mula berkuat kuasa pada ..... sehingga ..... (selepas daripada ini dirujuk sebagai "**Tempoh Perjanjian**").
- 3.2 **KONTRAKTOR** boleh memohon kepada **KERAJAAN** untuk melanjutkan Perjanjian ini secara bertulis tidak kurang daripada dua (2) bulan sebelum Tempoh Perjanjian tamat jika **KONTRAKTOR** berniat untuk melanjutkan tempoh Perjanjian. **KERAJAAN** mempunyai budi bicara mutlak sama ada untuk mempertimbangkan permohonan itu atau sebaliknya.
- 3.3 Sekiranya **KERAJAAN** bersetuju untuk melanjutkan Tempoh Perjanjian, Pihak-Pihak hendaklah berunding dan memuktamadkan terma dan syarat pelanjutan tersebut tidak kurang dari satu (1) bulan sebelum Tempoh Perjanjian tamat.
- 3.4 Sekiranya Pihak-Pihak gagal mencapai persetujuan mengenai terma dan syarat pelanjutan tersebut, Perjanjian ini akan dengan sendirinya tamat selepas tamat Tempoh Perjanjian.

#### 4. NILAI PERJANJIAN

- 4.1 Nilai Perjanjian ini tidak termasuk Cukai Jualan dan Cukai Perkhidmatan (CJCP) adalah sebanyak **Ringgit Malaysia** ..... **(RM.....)** (selepas daripada ini dirujuk sebagai “Nilai Perjanjian”) sebagai balasan kepada **KONTRAKTOR** kerana menjalankan Perkhidmatan dan tertakluk kepada Pematuhan terma dan syarat perjanjian ini.
- 4.2 Nilai Perjanjian yang dinyatakan dalam Klausula 4.1 adalah tetap dan apa-apa permohonan bagi tujuan kenaikan harga atau lain-lain tuntutan oleh **KONTRAKTOR** tidak akan dibenarkan melainkan dipersetujui sebaliknya oleh **KERAJAAN** melalui pindaan kepada Perjanjian ini.
- 4.3 Nilai Perjanjian hendaklah termasuk segala kos penghantaran bagi maksud melaksanakan Perkhidmatan, sekiranya berkaitan.
- 4.4 **KERAJAAN** tidak akan bertanggungjawab memenuhi apa-apa tuntutan berhubung dengan pelaksanaan Perkhidmatan oleh **KONTRAKTOR** yang melebihi Nilai Perjanjian walaupun ia berlaku atas arahan Pegawai yang diberi kuasa melainkan jika pindaan telah dibuat terlebih dahulu mengikut cara yang dinyatakan dalam Perjanjian ini.
- 4.5 Tertakluk kepada Klausula 4.1, **KERAJAAN** hendaklah membayar Nilai Perjanjian kepada **KONTRAKTOR** berdasarkan Perkhidmatan tersebut yang diterima sempurna dan disahkan oleh Pegawai yang diberi kuasa oleh **KERAJAAN** di bawah Perjanjian ini.

#### 5. PEMBAYARAN

- 5.1 Tertakluk kepada pematuhan **KONTRAKTOR** terhadap terma dan syarat Perjanjian ini, **KERAJAAN** hendaklah membuat pembayaran kepada **KONTRAKTOR** mengikut Perkhidmatan yang diterima pada

setiap kali Perkhidmatan dilaksanakan dan berdasarkan harga seperti yang diperincikan dalam **Lampiran C** kepada Perjanjian ini.

- 5.2 Pembayaran menurut Klausula 5.1 hendaklah dibuat oleh **KERAJAAN** kepada **KONTRAKTOR** dalam tempoh empat belas (14) hari dari tarikh penerimaan invoice serta dokumen lengkap daripada **KONTRAKTOR** tertakluk kepada **KERAJAAN** telah berpuas hati dengan pelaksanaan **PERKHIDMATAN** oleh **KONTRAKTOR**.
- 5.3 Pembayaran kepada **KONTRAKTOR** hendaklah tidak dianggap sebagai perakuan bahawa Perkhidmatan tersebut adalah mengikut kualiti yang dikehendaki oleh **KERAJAAN**. Apa-apa bayaran yang dibuat **KERAJAAN** tidak melepaskan **KONTRAKTOR** daripada melaksanakan obligasi yang diperuntukkan dalam Perjanjian ini.
- 5.4 Bagi maksud pembayaran, hendaklah mengemukakan invoice lengkap bersama dokumen yang berkaitan **KONTRAKTOR** kepada:

**Ketua Pentadbir Parlimen Malaysia**  
**Seksyen Kewangan dan Akaun**  
**Parlimen Malaysia**  
**Bangunan Parlimen**  
**Jalan Parlimen**  
**50680 KUALA LUMPUR**

- 5.5 Invoice hendaklah disahkan oleh Pegawai di Bahagian/Seksyen/Unit yang berkaitan setelah berpuas hati dengan perkhidmatan yang dibekalkan adalah memenuhi kehendak Kerajaan di bawah Perjanjian ini.
- 5.6 Pembayaran akan dibuat oleh **KERAJAAN** kepada **KONTRAKTOR** secara elektronik dan fi perkhidmatan yang dikenakan kepada **KONTRAKTOR** adalah sebanyak kosong persepuluhan empat peratus (0.4%) dengan had maksimum RM4,800 (Ringgit Malaysia Empat Ribu

dan Lapan Ratus) bagi setiap nilai invoice yang dikemukakan kepada **KERAJAAN**.

5.7 Bagi maksud pengenaan fi perkhidmatan di bawah klausa 5.6, **KERAJAAN** berhak memotong terus daripada jumlah pembayaran yang akan dibuat kepada **KONTRAKTOR**.

5.8 Tanpa menafikan hak **KERAJAAN** yang lain dalam Perjanjian ini, sekiranya pihak **KONTRAKTOR** melanggar apa-apa terma atau syarat dalam Perjanjian ini, pihak **KERAJAAN** berhak memotong NILAI PERJANJIAN yang ditetapkan kepada **KONTRAKTOR**.

## 6. REPRESENTASI DAN WARANTI

6.1 **KONTRAKTOR** dengan ini membuat representasi dan waranti kepada **KERAJAAN** bahawa—

- (a) ia adalah sebuah Syarikat yang sah berdaftar di bawah undang-undang Malaysia;
- (b) ia mempunyai kuasa untuk memasuki dan melaksanakan tanggungjawab serta urusan di bawah Perjanjian ini;
- (c) ia telah mengambil langkah-langkah yang perlu bagi memasuki dan melaksanakan tanggungjawab serta urusan di bawah Perjanjian ini;
- (d) pada masa pelaksanaan Perjanjian ini, pelaksanaan Perjanjian ini tidak menyalahi sebarang peruntukan sama ada—
  - (i) Memorandum dan Artikel Persatuannya; atau
  - (ii) mana-mana dokumen atau perjanjian yang mengikatnya atau asetnya;

- (e) ia adalah sebuah Syarikat yang berdaftar pada setiap masa dengan Kementerian Kewangan melainkan diberikan pengecualian secara bertulis oleh **KERAJAAN**;
- (f) tiada sebarang litigasi, tuntutan cukai, timbang tara, pertikaian atau prosiding sedang atau berlangsung yang pada pengetahuannya akan memberi kesan negatif terhadap keupayaan kewangan atau tanggungjawab di bawah Perjanjian ini;
- (g) tiada sebarang perbuatan rasuah, aktiviti haram atau menyalahi undang-undang telah digunakan untuk mendapatkan hak untuk melaksanakan Perjanjian ini; dan
- (h) bahawa ia tidak mempunyai apa-apa pengetahuan, pada tarikh Perjanjian ini, tentang apa-apa perkara dalam kawalan semunasabah yang mungkin atau akan sebaliknya menjejaskan keupayaannya untuk menjalankan obligasinya di bawah Perjanjian ini,

dan **KONTRAKTOR** mengambil maklum bahawa **KERAJAAN** telah memasuki Perjanjian berdasarkan representasi dan waranti di atas.

6.2 **KONTRAKTOR** selanjutnya membuat representasi dan waranti kepada **KERAJAAN** bahawa representasi dan waranti yang dinyatakan di Klausa 6.1 di atas hendaklah kekal benar dan tepat dalam semua aspek material sepanjang Tempoh Perjanjian.

## 7. OBLIGASI KONTRAKTOR

**KONTRAKTOR** hendaklah—

- (a) melaksanakan Perkhidmatan tersebut dan obligasinya di bawah Perjanjian;

- (b) melaksanakan tanggungjawabnya dengan baik berdasarkan amalan pengurusan yang baik, mengutamakan kepentingan **KERAJAAN** dan hendaklah mematuhi undang-undang yang berkuat kuasa;
- (c) melaksanakan Perkhidmatan dengan mengambil semua langkah yang diperlukan oleh seseorang **KONTRAKTOR** yang memberikan perkhidmatan yang sama bagi memastikan Perkhidmatan tersebut mematuhi semua kehendak di bawah Perjanjian ini;
- (d) melaksanakan Perkhidmatan dan menjalankan obligasi sebagaimana yang terkandung dalam Perjanjian dengan menggunakan kemahiran, kepakaran serta teliti dalam menyempurnakan obligasinya. Dalam melaksanakan Perkhidmatan tersebut, **KONTRAKTOR** hendaklah menyenaraikan semua perkhidmatan yang diperlukan, kemudahan dan kakitangan sebagaimana yang dinyatakan dalam Perjanjian ini. **KONTRAKTOR** juga hendaklah menyediakan prosedur dalam bentuk yang dipersetujui oleh **KERAJAAN** bagi maksud melapor dan menyelaras;
- (e) pada setiap masa melaksanakan Perkhidmatan tersebut dalam apa-apa cara yang akan sentiasa menjaga dan melindungi kepentingan **KERAJAAN** dan mengambil langkah yang perlu dan yang bersesuaian untuk tidak menyalahgunakan atau membazir kemudahan yang diberikan, sekiranya ada, yang diberikan oleh **KERAJAAN** kepada **KONTRAKTOR**;
- (f) memaklumkan kepada **KERAJAAN** secepat mungkin secara bertulis jika terdapat apa-apa faktor atau keadaan, yang boleh mempengaruhi Perkhidmatan tersebut. Makluman tersebut tidak akan dianggap sebagai suatu pelepasan terhadap apa-apa obligasi **KONTRAKTOR** di bawah Perjanjian ini;

- (g) menyediakan dan memastikan bilangan dan kategori kakitangan yang berkelayakan dan mahir secukupnya serta dilindungi oleh insurans sepanjang tempoh Perjanjian;
- (h) hendaklah menyediakan dengan kos sendiri dan memberikan segala kelengkapan dan bahan yang diperlukan bagi melaksanakan Perkhidmatan tersebut secara efektif dan baik;
- (i) hendaklah menyelenggara inventori yang baik bagi kemudahan, kelengkapan dan apa-apa aset yang disediakan oleh **KERAJAAN** dan **KERAJAAN** hendaklah mempunyai hak untuk menjalankan audit kepada inventori tersebut dari semasa ke semasa;
- (j) hendaklah dengan kos sendiri menyediakan kakitangan pakar, perunding atau ejen yang diberi kuasa bagi maksud menjalankan dan melaksanakan Perkhidmatan tersebut;
- (k) memberi arahan dan menyelia semua pekerja yang melaksanakan Perkhidmatan tersebut itu dan memantau penyediaan spesifikasi Perkhidmatan tersebut ketika Perkhidmatan tersebut dilaksanakan dan juga selepas Perkhidmatan tersebut dilaksanakan;
- (l) apabila diminta oleh **KERAJAAN**, memeriksa dan mengemukakan data yang berkaitan bagi maksud perubahan atau penambahan dalam Perjanjian ini; dan
- (m) memastikan rekod yang berkaitan dengan Perkhidmatan tersebut diselenggara dengan baik pada setiap masa dan rekod tersebut hendaklah pada bila-bila masa yang munasabah tersedia bagi maksud pemeriksaan oleh pegawai yang diberi kuasa atau juruaudit yang diberi kuasa oleh **KERAJAAN**.



## 8. OBLIGASI KERAJAAN

Kerajaan dengan ini bersetuju dengan Kontraktor seperti yang berikut:

- (a) tertakluk kepada pematuhan Kontraktor terhadap terma dan syarat Perjanjian ini, membuat bayaran bagi Perkhidmatan yang dilaksanakan sepertimana yang diperuntukkan dalam klausa 5 Perjanjian ini; dan
- (b) membenarkan Kontraktor atau mana-mana orang yang diberi kuasa oleh Kontraktor, pada setiap masa yang sesuai memasuki premis yang ditetapkan oleh Kerajaan bagi melaksanakan obligasinya di bawah Perjanjian ini **DENGAN SYARAT SENTIASA** Kontraktor dan/atau mana-mana orang yang diberi kuasa oleh Kontraktor hendaklah mematuhi apa-apa syarat keselamatan yang dikenakan oleh Kerajaan.

## 9. PENGURUSAN KESELAMATAN

- 9.1 **KONTRAKTOR** hendaklah memastikan keselamatan pekerja, kakitangan, ejen, subkontraktor dan keselamatan pengguna Perkhidmatan semasa menjalankan Perkhidmatan tersebut dan hendaklah mematuhi segala undang-undang, kaedah dan peraturan yang terpakai berkaitan dengan Perjanjian ini.
- 9.2 **KONTRAKTOR** hendaklah sentiasa memastikan tiada gangguan terhadap Sistem Penyaman Udara & Pengudaraan Mekanikal, Sistem Pencegah Kebakaran dan Sistem Bekalan Air Dalaman & Pam Penggalak dan harta benda Parlimen semasa menjalankan Perkhidmatan tersebut.
- 9.3 **KONTRAKTOR** hendaklah mengganti rugi kepada **KERAJAAN** dan bertanggungjawab sepenuhnya terhadap apa-apa tindakan, ketinggalan, kemungkiran dan kecuaiian subkontraktor yang dilantik olehnya, ejen, kakitangan atau pekerjanya sepenuhnya seolah-olah

mereka merupakan apa tindakan, ketinggalan, kemungkiran dan kecuiaan **KONTRAKTOR**.

#### **10. PEMBERITAHUAN TENTANG KESALAHAN ATAU KECACATAN**

Sekiranya **KONTRAKTOR** mengesan apa-apa kesalahan atau kerosakan semasa menjalankan Perkhidmatan tersebut pada apa-apa kemudahan, utiliti dan/atau kelengkapan kepada mana-mana sistem di Parlimen atau apa-apa yang mungkin mendatangkan ancaman atau bahaya kepada **KERAJAAN** atau pengguna utiliti dan/atau kelengkapan kepada mana-mana sistem di Parlimen semasa menjalankan Perkhidmatan tersebut, **KONTRAKTOR** hendaklah dengan seberapa segera yang mungkin (tetapi tidak lebih daripada dua puluh empat (24) jam) melaporkan perkara tersebut kepada **KERAJAAN**.

#### **11. BON PELAKSANAAN**

11.1 **KONTRAKTOR** hendaklah menyerahkan kepada **KERAJAAN** suatu Bon Pelaksanaan bersama-sama dengan akuan penerimaan Surat Setuju Terima sebelum **KONTRAKTOR** memasuki Premis berjumlah **Ringgit Malaysia** ..... (RM.....) yang diluluskan oleh **KERAJAAN** dan yang tidak boleh batal dalam tempoh tidak melebihi tiga puluh (30) hari dari tarikh pengakuan penerimaan Surat Setuju Terima yang dinyatakan dalam **Lampiran A** atau dalam apa-apa tempoh yang dipersetujui secara bertulis oleh Kerajaan dalam bentuk Jaminan Insurans yang dikeluarkan oleh syarikat insurans yang berlesen di bawah Akta Perkhidmatan Kewangan 2013 [Akta 758] yang beroperasi di Malaysia.

11.2 **KONTRAKTOR** hendaklah menyerahkan kepada **KERAJAAN** Bon Pelaksanaan tersebut sebagai jaminan bahawa **KONTRAKTOR** tidak akan melanggar dan akan mematuhi keseluruhan terma-terma dan syarat-syarat Perjanjian ini dan, selain remedi yang diberikan kepada **KERAJAAN** dalam Perjanjian ini, **KERAJAAN** berhak mengambil atau merampas keseluruhan atau sebahagian jumlah wang dalam Bon

Pelaksanaan tersebut bagi apa-apa pelanggaran terma-terma dan syarat-syarat dalam Perjanjian ini dan/ atau jika Perjanjian ini ditamatkan sebelum Tarikh Tamat tanpa menyentuh apa-apa hak **KERAJAAN** yang lain dalam Perjanjian ini.

11.3 Nilai Bon Pelaksanaan tersebut hendaklah sentiasa tetap seperti yang dinyatakan dalam Klausu 11.1 dan hendaklah berkuat kuasa selama dua belas (12) bulan selepas Tarikh Tamat atau selepas obligasi terakhir mengikut mana yang kemudian.

11.4 Jika jumlah wang dalam Bon Pelaksanaan—

(a) diambil atau dirampas secara keseluruhan daripadanya, **KONTRAKTOR** hendaklah menggantikan Bon Pelaksanaan itu dengan Bon Pelaksanaan baru sebagai gantian kepada keseluruhan jumlah wang dalam Bon Pelaksanaan yang diambil atau dirampas mengikut Klausu 11.1 dan 11.2; atau

(b) diambil atau dirampas sebahagian daripadanya, **KONTRAKTOR** hendaklah mengemukakan Bon Pelaksanaan baru sebagai gantian kepada bahagian jumlah wang dalam Bon Pelaksanaan yang diambil atau dirampas mengikut Klausu 11.1 dan 11.2.

10.5 Bon Pelaksanaan hendaklah dilampirkan bersama-sama dengan Perjanjian ini dan akan dikembalikan kepada **KONTRAKTOR** selepas tempoh yang dinyatakan dalam Klausu 11.3 dan tertakluk kepada apa-apa pindaan atau potongan yang boleh dibuat oleh **KERAJAAN** mengikut terma dan syarat dalam Perjanjian ini berhubung dengan apa-apa pelanggaran terma-terma atau syarat-syarat yang dilakukan oleh **KONTRAKTOR**.

## 12. PENAMATAN PERJANJIAN

12.1 Penamatan oleh **KERAJAAN**

- 12.1.1 Jika **KONTRAKTOR** tanpa apa-apa sebab yang munasabah—
- (a) menangguhkan pelaksanaan Perkhidmatan;
  - (b) gagal memberikan Perkhidmatan secara tekun dan berterusan;
  - (c) gagal memberikan Perkhidmatan atau gagal menjalankan obligasi sebagaimana yang dipersetujui di bawah Perjanjian ini; dan
  - (d) menggantung pelaksanaan mana-mana bahagian atau keseluruhan Perkhidmatan tanpa alasan munasabah;

maka **KERAJAAN** berhak untuk memberikan notis secara bertulis kepada **KONTRAKTOR** (kemudian daripada ini disebut sebagai “Notis Kemungkiran”) dengan menyatakan kemungkiran yang berlaku dan menghendaki **KONTRAKTOR** untuk meremedikan kemungkiran tersebut dalam tempoh masa yang ditetapkan dalam Notis Kemungkiran tersebut (kemudian daripada ini disebut sebagai “Tempoh Remedi”).

12.1.2 Jika **KONTRAKTOR** gagal untuk mengambil tindakan untuk meremedikan kemungkiran tersebut dalam Tempoh Remedi atau mana-mana tempoh lain yang dipersetujui oleh **KERAJAAN**, maka **KERAJAAN** boleh menamatkan Perjanjian ini dengan serta-merta dengan memberikan notis bertulis kepada **KONTRAKTOR** (kemudian daripada ini disebut sebagai “Notis Penamatan”).

12.1.3 Kerajaan berhak menamatkan Perjanjian secara serta-merta dengan memberikan notis bertulis bagi maksud tersebut kepada **KONTRAKTOR** sekiranya—

- (a) sesuatu perintah penerimaan atau pentadbiran dibuat terhadap **KONTRAKTOR** atau **KONTRAKTOR** membuat suatu penyelesaian atau perkiraan dengan atau bagi faedah pemiutang;
- (b) **KONTRAKTOR** meluluskan suatu ketetapan atau Mahkamah membuat suatu perintah bahawa **KONTRAKTOR** digulung (bukan penggulungan ahli bagi maksud penyusunan atau penyatuan) atau jika seseorang penerima atau pengurus bagi pihak pemiutang dilantik atau jika timbul keadaan yang memberi hak kepada Mahkamah membuat suatu perintah penggulungan; atau
- (c) tindakan diambil ke atas sebahagian besar daripada aset **KONTRAKTOR**, kecuali suatu prosiding telah dimulakan untuk mengenenpikan tindakan tersebut.

12.1.4 Jika **KERAJAAN** menamatkan Perjanjian ini menurut Klausula 12.1.2 atau Klausula 12.1.3 maka—

- (a) semua kuasa dan hak yang diberikan kepada **KONTRAKTOR** dan obligasi di bawah Perjanjian ini hendaklah tamat serta-merta; dan
- (b) **KERAJAAN** berhak menuntut daripada **KONTRAKTOR** ganti rugi, kerugian kos dan perbelanjaan (termasuk apa-apa kos dan perbelanjaan sampingan) yang ditanggung oleh **KERAJAAN** akibat penamatan Perjanjian ini.

12.1.5 Penamatan Perjanjian oleh **KERAJAAN** tidak akan menyentuh hak lain **KERAJAAN** yang sedia terakru di bawah Perjanjian ini.

12.1.6 Walau apa pun peruntukan di bawah Klausula 12.1.1 Perjanjian ini, **KERAJAAN** boleh menamatkan Perjanjian ini lebih awal daripada tempoh Perjanjian dengan memberi notis empat belas (14) hari atas sebarang sebab sekalipun.

12.1.7 Jika Perjanjian ini ditamatkan mengikut Klausula 12.1.6 maka kesan penamatan mengikut Klausula 12.1.4 adalah terpakai.

## 12.2 Penamatan oleh **KONTRAKTOR**

12.2.1 Jika **KERAJAAN** melakukan pelanggaran terhadap mana-mana terma dan syarat dalam Perjanjian ini, **KONTRAKTOR** boleh memberikan notis secara bertulis yang memaklumkan keingkaran tersebut kepada **KERAJAAN** dan meminta **KERAJAAN** meremedikan kemungkiran yang berlaku dalam tempoh tiga puluh (30) hari selepas tarikh penerimaan notis.

12.2.2 Jika **KERAJAAN** gagal meremedikan kemungkiran berkaitan dalam tempoh tiga puluh (30) hari selepas tarikh penerimaan notis yang dihantar oleh **KONTRAKTOR** di bawah klausula 12.2.1, **KONTRAKTOR** boleh memberikan notis secara bertulis yang memaklumkan keingkaran tersebut kepada **KERAJAAN** dan meminta **KERAJAAN** meremedikan kemungkiran yang berlaku dalam tempoh tiga puluh (30) hari selepas tarikh penerimaan notis atau mana-mana tempoh yang dipersetujui oleh Pihak-Pihak. Jika **KERAJAAN** gagal untuk meremedikan kemungkiran dalam tempoh yang ditetapkan atau tempoh lain yang dipersetujui oleh Pihak-Pihak, maka **KONTRAKTOR** boleh menamatkan Perjanjian ini dengan memberikan notis bertulis kepada **KERAJAAN**.

12.2.3 Sekiranya Perjanjian ini ditamatkan mengikut Klausula 12.2.2, maka—

- (a) Kontraktor hendaklah mengemukakan kepada **KERAJAAN** laporan terperinci berhubung dengan bayaran Perkhidmatan yang tertunggak daripada **KERAJAAN** (sekiranya ada); dan
- (b) tertakluk kepada apa-apa tolakan yang dibenarkan di bawah Klausula 18 Perjanjian ini, **KERAJAAN** hendaklah membayar kepada **KONTRAKTOR** apa-apa bayaran Perkhidmatan yang tertunggak (sekiranya ada).

### **13. PENAMATAN ATAS KEPENTINGAN NEGARA, KESELAMATAN NEGARA, DASAR KERAJAAN ATAU DASAR AWAM**

- 13.1 Tanpa menyentuh mana-mana peruntukan di bawah Perjanjian ini, Kerajaan boleh menamatkan Perjanjian ini dengan memberikan tiga puluh (30) hari notis tanpa memberikan sebab-sebab sekiranya berpendapat bahawa penamatan perlu dibuat demi kepentingan negara, keselamatan negara atau untuk tujuan dasar Kerajaan atau dasar awam.
- 13.2 Bagi maksud Fasal ini, penentuan “kepentingan negara”, “keselamatan negara”, “dasar Kerajaan” atau “dasar awam” hendaklah ditentukan oleh **KERAJAAN**. Penentuan tersebut hendaklah bagi apa-apa tujuan dan niat adalah muktamad dan tidak boleh dipertikaikan.
- 13.3 Dengan penamatan di bawah Klausula 13.1, kesan-kesan penamatan Perjanjian mengikut Klausula 12.1.4 adalah terpakai.
- 13.4 Bagi mengelakkan keraguan, Pihak-Pihak dengan ini bersetuju bahawa **KONTAKTOR** tidak berhak ke atas apa-apa bentuk kerugian lain termasuklah kehilangan keuntungan, ganti rugi, tuntutan atau apa-apun berikutan daripada penamatan Perjanjian ini.

#### 14. PENAMATAN AKIBAT RASUAH, AKTIVITI HARAM ATAU YANG MENYALAHI UNDANG-UNDANG

14.1 Tanpa prejudis kepada apa-apa hak lain **KERAJAAN**, jika **KONTRAKTOR**, personel, kakitangan, pengkhidmat atau pekerjanya disabitkan oleh mahkamah atas perbuatan rasuah atau aktiviti haram atau menyalahi undang-undang yang berkaitan dengan Perjanjian ini atau mana-mana perjanjian lain antara **KONTRAKTOR** dengan **KERAJAAN**, maka **KERAJAAN** berhak untuk menamatkan Perjanjian ini pada bila-bila masa, dengan memberi notis bertulis mengenai penamatan tersebut yang berkuat kuasa secara serta-merta.

14.2 Apabila Perjanjian ini ditamatkan menurut Klausula 14.1, **KERAJAAN** berhak mendapat semula kerugian, kos, ganti rugi dan perbelanjaan (termasuk apa-apa kos dan perbelanjaan sampingan) yang ditanggung oleh **KERAJAAN** berikutan daripada penamatan Perjanjian ini dan kesan-kesan penamatan Perjanjian mengikut Klausula 12.1.4 adalah terpakai.

14.3 Bagi mengelakkan keraguan, Pihak-Pihak dengan ini bersetuju bahawa **KONTRAKTOR** tidak berhak ke atas apa-apa bentuk kerugian lain termasuklah kehilangan keuntungan, ganti rugi, tuntutan atau apa-apun berikutan daripada penamatan Perjanjian ini.

#### 15. HAK KERAJAAN MENDAPATKAN KHIDMAT PIHAK KETIGA

15.1 **KERAJAAN** berhak untuk melantik mana-mana pihak ketiga untuk memberikan Perkhidmatan tersebut di bawah Perjanjian ini sekiranya **KONTRAKTOR** gagal atau enggan untuk memberikan Perkhidmatan tersebut atau sebahagian daripadanya menurut Perjanjian ini dan semua kos yang telah dibayar oleh **KERAJAAN** kepada pihak ketiga itu hendaklah ditolak dari kos yang sepatutnya dibayar kepada **KONTRAKTOR**.



15.2 Sekiranya kos yang perlu dibayar oleh **KERAJAAN** bagi Perkhidmatan tersebut atau sebahagian daripadanya kepada pihak ketiga tersebut melebihi jumlah bayaran yang diperuntukkan dalam Perjanjian ini, maka **KERAJAAN** mempunyai hak untuk menuntut jumlah tersebut daripada **KONTRAKTOR**.

## 16. **FORCE MAJEURE**

16.1 **KONTRAKTOR** dan **KERAJAAN** adalah tidak bertanggungjawab bagi sebarang ketinggalan atau kegagalan dalam menjalankan Perjanjian ini, jika ketinggalan atau kegagalan itu timbul daripada keadaan-keadaan *Force Majeure*. Dalam keadaan ini, yang menyebabkan mana-mana Pihak tidak dapat menyempurnakan Perjanjian ini, Perjanjian ini boleh ditamatkan dengan persetujuan Pihak-Pihak tanpa apa-apa pampasan. Kejadian *Force Majeure* hendaklah bermaksud—

- (a) peperangan (sama ada ia diisytiharkan atau tidak), pertempuran, penaklukan atau tindakan oleh musuh-musuh asing;
- (b) pemberontakan, revolusi, rampasan kuasa, perang saudara atau tindakan penganas;
- (c) bencana alam termasuk, tetapi tidak terhad kepada gempa bumi, banjir, kebakaran spontan bawah tanah, ombak besar atau apa-apa bencana alam yang secara munasabah nya seseorang yang berpengalaman tidak dijangka dapat mengambil langkah berjaga-jaga;
- (d) letupan nuklear, pencemaran radioaktif atau bahan kimia atau radiasi;
- (e) tekanan gelombang yang disebabkan oleh kapal terbang atau apa-apa peranti aerial yang bergerak dalam kelajuan sonik atau supersonik;

(f) rusuhan, kekecohan atau kekacauan awam; atau

(g) sebab-sebab atau bahaya-bahaya yang lain yang di luar kawalan mana-mana Pihak,

tertakluk bahawa kejadian *Force Majeure* tidak termasuk kegawatan ekonomi atau ketidakupayaan **KONTRAKTOR** mendapatkan pembiayaan bagi maksud melaksanakan obligasi-obligasi **KONTRAKTOR** di bawah Perjanjian ini.

16.2 Jika berlaku sesuatu kejadian *Force Majeure* yang menyebabkan mana-mana Pihak tidak dapat melaksanakan apa-apa obligasinya di bawah Perjanjian ini (atau mana-mana bahagian daripadanya) yang terjejas akibat daripada kejadian *Force Majeure* tersebut, Pihak tersebut hendaklah dengan serta-merta memaklumkan akan kejadian *Force Majeure* tersebut kepada Pihak yang satu lagi dan diikuti dengan butir-butir terperinci mengenai kejadian *Force Majeure* dan kesannya terhadap pelaksanaan Perjanjian ini.

16.3 Mana-mana Pihak tidak boleh menggunakan mana-mana peruntukan dalam klausa ini jika Pihak-Pihak telah memutuskan secara munasabah bahawa satu kejadian *Force Majeure* tidak berlaku.

16.4 **KONTRAKTOR** hendaklah membuktikan bahawa kejadian *Force Majeure* betul-betul berlaku sebelum **KONTRAKTOR** dapat melepaskan obligasinya mengikut klausa 16.1.

16.5 Jika Perjanjian ini ditamatkan di bawah klausa 16.1, semua hak dan obligasi Pihak-Pihak di bawah Perjanjian ini hendaklah terhenti dan mana-mana Pihak tidak boleh membuat apa-apa tuntutan terhadap Pihak yang satu lagi dan masing-masing tidak bertanggung terhadap satu sama lain melainkan berkaitan apa-apa hak dan liabiliti yang terakru sebelum berlakunya kejadian *Force Majeure* tersebut.

16.6 Bagi mengelakkan apa-apa keraguan, Pihak-Pihak kepada Perjanjian ini hendaklah terus melaksanakan obligasi masing-masing di bawah Perjanjian ini yang tidak terjejas, tertangguh atau terganggu oleh kejadian *Force Majeure* dan obligasi berkenaan hendaklah terus berkuat kuasa sementara menunggu pelaksanaan peruntukan Klausula ini.

## 17. PEMERIKSAAN OLEH KERAJAAN

**KONTRAKTOR** hendaklah membenarkan **KERAJAAN** atau mana-mana pihak yang diberi kuasa oleh **KERAJAAN** pada bila-bila masa menjalankan pemeriksaan bagi mengenal pasti tahap pencapaian **KONTRAKTOR** dalam melaksanakan Perkhidmatan tersebut dan apabila perlu, hendaklah mematuhi apa-apa arahan yang diberikan oleh **KERAJAAN** bagi maksud Perjanjian ini.

## 18. TOLAKAN (*SET-OFF*)

18.1 **KERAJAAN** berhak memotong apa-apa wang yang kena dibayar kepada **KONTRAKTOR** mengikut peruntukan dalam Perjanjian ini dan daripada mana-mana Perjanjian yang ditandatangani oleh **KONTRAKTOR** dengan **KERAJAAN**. Jika wang yang **KONTRAKTOR** terutang kepada **KERAJAAN** tidak mencukupi bagi menampung tuntutan **KERAJAAN**, **KERAJAAN** boleh menuntut secara bertulis baki wang tersebut daripada **KONTRAKTOR** dan **KONTRAKTOR** hendaklah membuat pembayaran selewat-lewatnya **tiga puluh (30) hari** selepas menerima tuntutan bertulis itu.

18.2 Sekiranya **KONTRAKTOR** gagal membuat pembayaran selepas tamat tempoh seperti yang dinyatakan dalam Klausula 18.1 di atas atau apa-apa tempoh lain yang diberikan oleh **KERAJAAN**, maka **KERAJAAN** boleh mengambil apa-apa tindakan undang-undang pada bila-bila masa tanpa memberi notis terlebih dahulu kepada **KONTRAKTOR**.

## 19. PENGENAAN PENALTI

- 19.1 Tertakluk kepada Klausula 18 di atas, **KERAJAAN** juga sentiasa berhak mengenakan penalti sejumlah sepuluh peratus (10%) daripada kos perbelanjaan dari pembekalan punca-punca lain terhadap **KONTRAKTOR** sebagai kos pentadbiran.
- 19.2 Sekiranya **KONTRAKTOR** gagal untuk memberikan Perkhidmatan tersebut sebagaimana yang dinyatakan dalam Perjanjian ini dan jika sekiranya kegagalan tersebut telah berterusan selama tujuh (7) hari, maka Kerajaan sentiasa berhak mengikut apa-apa peratusan atau nilai yang difikirkan patut oleh Kerajaan, memotong apa-apa wang yang kena dibayar oleh **KERAJAAN** kepada **KONTRAKTOR** bagi setiap kegagalan melaksanakan kerja dalam Perkhidmatan.
- 19.3 Hak **KERAJAAN** di dalam Klausula ini adalah sebagai tambahan kepada dan tanpa menyekat hak-hak Kerajaan yang lain ada secara nyata atau tersirat di dalam Perjanjian ini atau di sisi undang-undang untuk menuntut ganti rugi daripada **KONTRAKTOR** kerana gagal melaksanakan tanggungjawab di bawah Perjanjian ini.

## 20. PENYEDIAAN MAKLUMAT

**KONTRAKTOR** hendaklah secepat yang dapat dilaksanakan menjawab kepada apa-apa pertanyaan daripada **KERAJAAN**, dan hendaklah dengan segera memberi, jika dibenarkan oleh undang-undang, maklumat, rekod, penyata, laporan, data dan apa-apa bahan atau dokumen lain yang diminta oleh **KERAJAAN** berhubung dengan Perjanjian ini.

## 21. PEMAJAKAN DAN KONTRAK KECIL

- 21.1 **KONTRAKTOR** tidak boleh membuat atau memberikan kontrak kecil terhadap Perjanjian ini atau mana-mana bahagiannya kepada mana-mana pihak lain tanpa terlebih dahulu mendapatkan persetujuan bertulis daripada **KERAJAAN**.

21.2 Sebarang penyerahhakkan, pemindahan atau pemberian kontrak kecil mana-mana bahagian atau keseluruhan Perjanjian dengan kelulusan bertulis daripada **KERAJAAN** tidak akan melepaskan **KONTRAKTOR** daripada terus bertanggungjawab terhadap **KERAJAAN** berkenaan Perjanjian ini dan memastikan penerima serah hak, pindahan atau kontrak kecil tersebut mematuhi semua syarat dan terma Perjanjian ini.

## 22. TANGGUNG RUGI

**KONTRAKTOR** bersetuju bahawa—

- (a) **KONTRAKTOR** hendaklah menanggung rugi **KERAJAAN** berkaitan dengan apa-apa kerugian, ganti rugi, bayaran atau kos yang mungkin ditanggung atau dikenakan ke atas **KERAJAAN** berkenaan dengan apa-apa tuntutan, tanggungan, prosiding atau perbicaraan yang timbul secara langsung atau tidak langsung akibat kemungkiran atau ketinggalan **KONTRAKTOR**, ejen atau pekerjanya terhadap mana-mana terma atau syarat Perjanjian ini dengan syarat apa-apa kerugian, ganti rugi, bayaran atau kos berkenaan tidak berpunca daripada tindakan atau tinggalkan yang cuai yang disebabkan oleh **KERAJAAN** dalam melaksanakan mana-mana terma dan syarat Perjanjian ini.
- (b) **KONTRAKTOR** hendaklah menanggung rugi **KERAJAAN** berkaitan dengan apa-apa kerugian terhadap apa juga tindakan berkaitan dengan pelanggaran hak harta intelek oleh **KONTRAKTOR** kerana mengguna atau menjual mana-mana perkakasan yang dibekalkan oleh **KONTRAKTOR** dan terhadap segala belanja dan ganti rosak yang **KERAJAAN** mungkin lakukan dalam suatu tindakan kerana pelanggaran itu atau yang **KERAJAAN** mungkin bertanggungjawab dalam suatu tindakan itu.

- (c) **KERAJAAN** tidak akan menanggung apa-apa liabiliti untuk apa-apa ganti rugi atau pampasan kepada sesiapa yang berada dalam penggajian **KONTRAKTOR** atau sesiapa yang lain yang mengakibatkan kerosakan kepada harta benda seseorang atau kecederaan, maut atau tidak, atau keingkaran **KONTRAKTOR**, pekerjaanya atau ejennya yang mana **KERAJAAN** akan dijadikan bertanggung dari segi undang-undang.

### 23. PENYELESAIAN PERTIKAIAN

23.1 Apa-apa perkara, pertikaian atau tuntutan yang terbit akibat daripada pelaksanaan atau penggunaan peruntukan dalam Perjanjian ini atau hak, tanggungan Pihak-Pihak dalamnya atau apa-apa perkara yang terbit daripadanya atau yang berhubung dengannya kecuali selainnya dipersetujui dengan tertentu secara bertulis antara Pihak-Pihak hendaklah diselesaikan secara baik atau aman.

23.2 Jika perkara, pertikaian atau tuntutan yang dinyatakan dalam Klausula 23.1 tidak dapat diselesaikan secara baik atau aman, ia hendaklah dirujuk untuk pertimbangan Jawatankuasa Penyelesaian Pertikaian (kemudian daripada ini disebut sebagai "Jawatankuasa") yang dianggotai oleh—

- (a) Ketua Pentadbir Parlimen Malaysia sebagai Pengerusi atau wakil yang dilantik olehnya;
- (b) dua (2) orang wakil yang dilantik oleh **KERAJAAN** sebagai anggota; dan
- (c) dua (2) orang wakil **KONTRAKTOR** sebagai anggota.

- 23.3 Jawatankuasa boleh membuat prosedur dan peraturannya sendiri mengenai perjalanan prosiding penyelesaian perkara, pertikaian atau tuntutan antara Pihak-Pihak dan keputusan Jawatankuasa adalah muktamad dan mengikat Pihak-Pihak kepada Perjanjian ini.
- 23.4 Rujukan apa-apa perkara, pertikaian atau tuntutan kepada Jawatankuasa dan perjalanan apa-apa prosidingnya hendaklah tidak dianggap sebagai pengecualian terhadap tanggungjawab Pihak-Pihak untuk melaksanakan tanggungjawab di bawah Perjanjian ini.
- 23.5 Jawatankuasa boleh melantik seorang pakar bebas bagi memberi nasihat ke atas sebarang perkara yang dirujuk kepada Jawatankuasa dan segala kos, yuran dan perbelanjaan yang ditanggung oleh pakar bebas yang dilantik tersebut akan dikongsi sama rata oleh Pihak-Pihak dalam Perjanjian ini. Pakar bebas tersebut hendaklah mempunyai kelayakan, pengalaman dan pengetahuan terhadap bidang yang dirujuk.
- 23.6 Jika sebarang perkara, pertikaian atau tuntutan yang dirujuk kepada Jawatankuasa tidak dapat dipersetujui oleh pihak-pihak dalam masa tiga puluh (30) hari selepas tarikh kes dirujuk, Pihak-Pihak bolehlah merujuk perkara, pertikaian atau tuntutan tersebut ke Penimbang Tara menurut Klausula 23 Perjanjian ini.

## **24. TIMBANG TARA**

- 24.1 Jika perkara, pertikaian atau tuntutan yang dinyatakan dalam Klausula 23 masih tidak dapat diselesaikan oleh Pihak-Pihak yang terlibat, maka perkara, pertikaian atau tuntutan tersebut hendaklah dirujuk kepada penimbang tara yang hendaklah dipersetujui oleh Pihak-Pihak kepada Perjanjian ini dan sekiranya tidak ada persetujuan, penimbang tara hendaklah dicalonkan atas permohonan salah satu Pihak, kepada Pengarah Pusat Timbang Tara Antarabangsa Asia (Malaysia). Apa-apa rujukan hendaklah dianggap sebagai satu rujukan kepada timbang tara mengikut cara yang diperuntukkan oleh Akta Timbang Tara 2005 [*Akta*

646]. Keputusan yang dibuat oleh penimbang tara adalah muktamad dan mengikat Pihak-Pihak yang terlibat.

24.2 Setiap timbang tara hendaklah didengar di Pusat Timbang Tara Antarabangsa Asia (Malaysia) di Kuala Lumpur dengan menggunakan semua peraturan-peraturan, kemudahan dan sistem yang ada di Pusat Timbang Tara Antarabangsa Asia (Malaysia) di Kuala Lumpur atau mana-mana tempat yang akan ditentukan oleh penimbang tara dan dipersetujui oleh Pihak-Pihak yang terlibat.

24.3 Rujukan berkenaan apa-apa pertikaian, perbezaan, perkara atau tuntutan kepada timbang tara menurut Klausula 24 ini dan / atau penerusan apa-apa proses timbang tara yang berbangkit daripada rujukan itu tidak, dengan apa-apa cara, bertindak sebagai penepian tanggungjawab Pihak-Pihak untuk melaksanakan obligasi mereka masing-masing di bawah Perjanjian ini.

## 25. TAWARAN ATAU BALASAN

25.1 **KONTRAKTOR** tidak boleh menawar, memberi atau bersetuju untuk memberi kepada mana-mana kakitangan **KERAJAAN** sebarang hadiah atau pertimbangan apa juapun sebagai dorongan atau balasan kerana melakukan apa-apa tindakan berhubung dengan perolehan atau pelaksanaan Perjanjian ini atau mana-mana perjanjian lain dengan **KERAJAAN** atau kerana menunjukkan atau tidak menunjukkan sokongan terhadap mana-mana orang dalam perjanjian atau perjanjian **KERAJAAN** yang lain.

25.2 Mana-mana pelanggaran syarat yang dinyatakan dalam Klausula 25.1 oleh **KONTRAKTOR** atau oleh seseorang yang bekerja dengannya atau bertindak bagi pihaknya (sama ada dengan atau tanpa pengetahuan **KONTRAKTOR**) akan terjumlah kepada suatu kesalahan di bawah Akta Pencegahan Rasuah 1997 [*Akta 575*], berhubung dengan Perjanjian ini atau Perjanjian-Perjanjian atau perjanjian-perjanjian lain dengan



**KERAJAAN** dan dengan ini akan sentiasa memberikan hak kepada **KERAJAAN** untuk menamatkan Perjanjian ini dan mendapatkan kembali jumlah sebarang kerugian yang timbul akibat daripada penamatan itu daripada **KONTRAKTOR**.

25.3 Apabila Perjanjian ini ditamatkan berikutan pelanggaran oleh **KONTRAKTOR** di bawah subklausu 25.2. **KERAJAAN** berhak mendapat semua kerugian, kos, ganti rugi dan perbelanjaan (termasuk apa-apa kos dan perbelanjaan sampingan) yang ditanggung oleh **KERAJAAN** berikutan daripada penamatan Perjanjian mengikut Klausu 12.1.4 adalah terpakai.

## 26. PENEPIAN HAK

Kegagalan mana-mana Pihak untuk melaksanakan apa-apa hak atau remedinya tidak boleh dianggap sebagai suatu penepian terhadap hak atau remedi tersebut melainkan jika penepian tersebut dibuat secara bertulis dan ditandatangani oleh **KERAJAAN** atau **KONTRAKTOR** atau seseorang yang diberi kuasa secara nyata oleh **KERAJAAN** atau **KONTRAKTOR** untuk tujuan tersebut.

## 27. HAK MILIK DOKUMEN-DOKUMEN PERJANJIAN

Dokumen Perjanjian ini hendaklah sentiasa menjadi hak milik **KERAJAAN** dan hendaklah ditunjukkan apabila dan ketika diperlukan oleh **KERAJAAN**. **KERAJAAN** hendaklah membekalkan kepada **KONTRAKTOR** satu (1) salinan Perjanjian ini yang telah ditandatangani.

## 28. PERUBAHAN KADAR DUTI DAN CUKAI

28.1 Jika dalam tempoh Perjanjian ini, terjadi sebarang perubahan pada mana-mana kadar duti kastam, cukai jualan, cukai tokok dan eksais, Nilai Perjanjian akan disesuaikan oleh **KONTRAKTOR** dengan

persetujuan **KERAJAAN** mengikut setakat mana belanja **KONTRAKTOR** bertambah atau berkurang.

28.2 Sebarang tambahan atau kekurangan pada Nilai Perjanjian akan dibuat hanya ke atas peralatan yang terlibat dalam perubahan di bawah Klausa 28.1 di atas.

## 29. KERAHSIAAN

29.1 Bagi tujuan Perjanjian ini, maklumat rahsia di bawah Perjanjian ini bermaksud, semua maklumat (sama ada berkenaan komersial, kewangan, teknikal atau sebagainya) yang berkaitan dengan mana-mana Pihak kepada Perjanjian ini, subkontraktornya, pelanggan lain, pekerjaanya atau sebagainya, yang didapati atau diberikan oleh Pihak yang satu lagi.

29.2 Pihak-Pihak kepada Perjanjian ini mengaku janji—

- (a) untuk menganggap maklumat rahsia tersebut sebagai rahsia;
- (b) untuk tidak akan, tanpa kebenaran Pihak yang satu lagi, berkomunikasi atau memberitahu mengenai mana-mana bahagian daripada maklumat rahsia tersebut kepada mana-mana orang kecuali kepada mana-mana pekerjaanya, ejen dan subkontraktor yang terlibat secara langsung dengan Perjanjian ini dan yang perlu mengetahui maklumat rahsia itu bagi maksud memenuhi kewajipan **KONTRAKTOR** di bawah Perjanjian ini; dan
- (c) untuk tidak menggunakan atau menyebarkan maklumat rahsia dalam organisasi mana-mana Pihak kecuali jika ia adalah perlu di bawah Perjanjian ini.

- 29.3 Kewajipan yang dinyatakan dalam Klausa 29.2 tidak akan terpakai kepada maklumat rahsia yang—
- (a) maklumat itu telah pun diketahui oleh mana-mana Pihak itu (dengan mempunyai hak untuk mendedahkannya) sebelum menerima maklumat rahsia tersebut;
  - (b) maklumat itu menjadi pengetahuan umum yang bukan disebabkan oleh pelanggaran mana-mana peruntukan di bawah Perjanjian ini;
  - (c) maklumat itu adalah berasingan atau diketahui oleh pihak-pihak tertentu hasil daripada penyelidikan sendiri tanpa menggunakan mana-mana maklumat rahsia di bawah Perjanjian ini; dan
  - (d) maklumat itu diterima secara sah oleh pihak ketiga (dengan mempunyai hak untuk mendedahkannya).
- 29.4 Klausa 29 hendaklah berkuat kuasa dan terus wujud selepas peluputan atau penamatan Perjanjian ini atas apa-apa sebab pun.
- 29.5 Sekiranya **KONTRAKTOR** gagal mematuhi peruntukan di bawah Klausa 29, **KONTRAKTOR** boleh didakwa di bawah Akta Rahsia Rasmi 1972 [Akta 88] atau undang-undang lain yang berkaitan atau ditamatkan Kontraknya atau kedua-duanya sekali.

### **30. PEMAKAIAN DAN PEMATUHAN UNDANG-UNDANG**

- 30.1 Perjanjian ini hendaklah ditadbir dan ditafsirkan selaras dengan undang-undang Malaysia dan Pihak-Pihak bersetuju untuk tertakluk kepada bidang kuasa eksklusif Mahkamah di Malaysia.
- 30.2 Pihak-Pihak bersetuju untuk mematuhi segala peruntukan undang-undang yang berkuat kuasa, arahan, perintah, kehendak dan pekeliling

yang dikeluarkan oleh pihak berkuasa yang kompeten untuk berbuat demikian dari semasa ke semasa termasuk Kerajaan Persekutuan, Kerajaan Negeri atau mana-mana Pihak Berkuasa Tempatan / Pihak Berkuasa Negeri di bawah mana-mana peruntukan undang-undang yang berkuat kuasa di Malaysia.

### **31. KEBOLEHASINGAN**

Jika mana-mana klausa Perjanjian ini didapati menyalahi undang-undang, tidak sah atau tidak boleh dikuatkuasakan di bawah undang-undang sekarang atau undang-undang masa hadapan, klausa tersebut hendaklah diasingkan sepenuhnya dan Perjanjian ini hendaklah ditafsirkan dan dikuatkuasakan seolah-olah klausa yang menyalahi undang-undang, tidak sah atau tidak boleh dikuatkuasakan tersebut tidak pernah terkandung sebagai sebahagian daripada Perjanjian ini dan klausa lain hendaklah kekal berkuat kuasa sepenuhnya dan mempunyai kesan seolah-olah Perjanjian ini telah diikat tanpa klausa yang menyalahi undang-undang, tidak sah atau tidak boleh dikuatkuasakan tersebut.

### **32. PINDAAN**

Apa-apa pindaan, ubahsuaian kepada Perjanjian ini hendaklah dipersetujui oleh Pihak-Pihak dan dibuat secara bertulis dalam bentuk perjanjian tambahan dan ditandatangani dengan sempurna oleh Pihak-Pihak.

### **33. IKATAN PERJANJIAN**

Perjanjian ini hendaklah mengikat ejen-ejen, wasi-wasi, pentadbir-pentadbir, pengganti-pengganti dan penerima pindah milik Pihak-Pihak.

### **34. NOTIS**

34.1 Apa-apa notis, kelulusan, kebenaran, permohonan, pengesahan, persetujuan, permintaan atau lain-lain perhubungan yang perlu diberi atau dibuat menurut Perjanjian ini hendaklah dibuat secara bertulis

dalam Bahasa Malaysia atau Bahasa Inggeris. Notis, kelulusan, kebenaran, permohonan, pengesahan, persetujuan, permohonan itu hendaklah dibuat secara bertulis dan dihantar dengan pos berdaftar atau diserahkan secara sendiri ke alamat berikut:

(a) bagi pihak **KERAJAAN**—

**Ketua Pentadbir Parlimen Malaysia**

Bangunan Parlimen Malaysia

Jalan Parlimen

50680 KUALA LUMPUR

No. Telefon: .....

Faks: .....

(b) bagi pihak **KONTRAKTOR**—

.....

.....

.....

No. Telefon: .....

Faks: .....

34.2 Pihak-Pihak hendaklah memberi notis bertulis empat belas (14) hari kepada Pihak yang satu lagi, sekiranya berlaku pertukaran alamat atau entiti.

### 35. IKLAN

**KONTRAKTOR** adalah dilarang daripada menyiarkan apa-apa iklan berkaitan dengan Perjanjian ini dalam mana-mana akhbar, majalah atau alat-alat pengiklanan yang lain tanpa memperoleh kebenaran bertulis daripada **KERAJAAN** terlebih dahulu.

### **36. KOS DUTI SETEM**

Apa-apa kos penyediaan Perjanjian ini termasuk kos duti setem hendaklah ditanggung sepenuhnya oleh **KONTRAKTOR**.

### **37. MASA**

Masa, di mana-mana disebut dalam Perjanjian ini, hendaklah menjadi inti pati kepada Perjanjian ini.

### **38. LAMPIRAN-LAMPIRAN**

Lampiran-Lampiran dan Jadual-Jadual kepada Perjanjian ini hendaklah menjadi sebahagian daripada dan dibaca bersama dengan Perjanjian ini.

### **39. KESELURUHAN PERJANJIAN**

Perjanjian ini merujuk kepada persetujuan sepenuhnya Pihak-Pihak berhubung intipati Perjanjian dan membatalkan serta menggantikan apa-apa persetujuan sebelum ini, dorongan atau syarat nyata atau tersirat, sama ada secara lisan atau secara bertulis.

(Bahagian bawah muka surat ini sengaja dibiarkan kosong)

**PADA MENYAKSIKAN HAL DI ATAS**, Pihak-Pihak pada Perjanjian ini telah menurunkan tandatangan dan meteri mereka pada hari dan tahun mula-mula yang tertulis di atas.

Ditandatangani oleh —

\*Untuk dan bagi pihak )  
 )  
Kerajaan Malaysia )

.....  
(Nyatakan nama dan alamat)

Disaksikan oleh — )  
 )

.....  
(Nyatakan nama dan alamat)

Ditandatangani oleh —

Untuk dan bagi pihak )  
Syarikat )  
Nama Penuh )  
No. Kad Pengenalan )  
Urusan )

.....  
Pengurus/Pengarah/Pengarah  
.....  
(No. Pendaftaran: .....)

Disaksikan oleh )  
Nama Penuh )  
No. Kad Pengenalan )  
Urusan )

.....  
Pengurus/Pengarah/Pengarah  
.....  
(No. Pendaftaran: .....)

\*Untuk ditandatangani oleh Pegawai Kerajaan yang telah diberi kuasa di bawah seksyen 2 Akta Kontrak Kerajaan 1949 [Akta 120].

**FORMAT SURAT SETUJU TERIMA**

.....  
.....  
.....

(u.p. : )  
Tel :

Tuan,

**KERJA-KERJA OPERASI DAN PENYELENGGARAAN SISTEM PENYAMAN UDARA & PENGUDARAAN MEKANIKAL, SISTEM PENCEGAH KEBAKARAN DAN SISTEM BEKALAN AIR DALAMAN & PAM PENGALAK DI BLOK MEKANIKAL, BLOK UTAMA, DEWAN PERSIDANGAN DAN BLOK PEJABAT SEMENTARA, BANGUNAN PARLIMEN MALAYSIA - PAR.2/367 SH.11/2023**

Dengan ini dimaklumkan bahawa Parlimen Malaysia telah bersetuju menerima tawaran sebut harga syarikat tuan dengan harga sebanyak Ringgit Malaysia ..... Sahaja (RM.....) yang merupakan harga kontrak bagi tempoh kontrak selama lapan (8) bulan tertakluk kepada dokumen sebut harga menjadi sebahagian daripada perolehan ini dan Surat Setuju Terima ini berserta dengan **Lampiran A** kepada Surat Setuju Terima iaitu maklumat terperinci kontrak (selepas ini disebut sebagai "Surat ini").

2. Dengan pengakuan penerimaan Surat ini berserta lampiran berkaitan, suatu kontrak yang mengikat terbentuk di antara Kerajaan dengan syarikat tuan. Satu dokumen kontrak hendaklah ditandatangani dalam kadar segera dengan memasukkan semua terma dalam **Lampiran A**. Sehingga dokumen kontrak tersebut ditandatangani, Surat ini hendaklah terus mengikat kedua-dua pihak.

3. Harga kontrak ini adalah termasuk peruntukan Kerajaan sebanyak .....% Cukai perkhidmatan memandangkan kerja ini dikenakan cukai dan syarikat tuan berdaftar dengan Jabatan Kastam Diraja Malaysia (JKDM). Pembayaran cukai perkhidmatan ini adalah dikira berdasarkan tuntutan sebenar dan tarikh kuat kuasa pendaftaran syarikat tuan dengan JKDM.

3. Harga kontrak adalah tidak termasuk peruntukan Kerajaan sebanyak .....% cukai perkhidmatan memandangkan syarikat tuan tidak berdaftar dengan Jabatan Kastam Diraja Malaysia (JKDM). Sekiranya syarikat tuan telah berdaftar dengan JKDM, tuan adalah dikehendaki untuk memaklumkan nombor pendaftaran dan tarikh kuat kuasanya kepada Kerajaan untuk pelarasan harga kontrak dalam tempoh tujuh (7) hari daripada tarikh surat kelulusan JKDM. Pembayaran cukai perkhidmatan ini adalah dikira berdasarkan tuntutan sebenar dan tarikh kuat kuasa pendaftaran syarikat tuan dengan JKDM.

4. Pelarasan harga dan kadar harga dalam Jadual Harga atau Ringkasan Sebut Harga atau Senarai Kuantiti, mengikut yang mana berkenaan setelah diteliti dan diselaraskan oleh Kerajaan tentang kemunasabahannya, yang mana akan menjadi sebahagian daripada terma-terma kontrak. Walau bagaimanapun, Jumlah Harga Kontrak seperti di atas adalah kekal tidak berubah.



5. Tarikh milik tapak seperti yang disebutkan dalam Syarat-Syarat Kontrak ialah pada ..... Walau bagaimanapun, tuan adalah diingatkan bahawa tiada kerja boleh dibuat **melainkan** jika tuan telah mengemukakan kepada Kerajaan dokumen-dokumen berikut :

- (a) Suatu bon pelaksanaan yang tidak boleh batal yang berjumlah **Ringgit Malaysia** ..... **Sahaja (RM.....)** dan jikalau Bon Pelaksanaan gagal dikemukakan pada tarikh milik tapak, Kerajaan berhak untuk melaksanakan kaedah Wang Jaminan Pelaksanaan;
- (b) Suatu polisi Insurans Tanggungan Awam (iaitu insurans terhadap bencana kepada orang-orang dan kerosakan kepada harta) yang nilai insurans tidak kurang daripada **Ringgit Malaysia** ..... **Sahaja (RM.....)**;
- (c) Suatu polisi insurans Kerja yang berjumlah : **Ringgit Malaysia** ..... **Sahaja (RM.....)**; dan
- (d) nombor Kod Majikan di bawah Skim PERKESO atau Polisi Pampasan Pekerja.

mengikut ketetapan seperti di **Lampiran A**. Walau bagaimanapun, bagi memulakan kerja-kerja dan bukan maksud lain, tuan boleh menyerahkan Nota-nota Liputan bagi maksud polisi-polisi insurans tersebut dan resit-resit premium yang telah dibayar itu kepada Pegawai Penguasa. Tuan dikehendaki menyerahkan Polisi-polisi Insurans yang berkenaan (jika belum diserahkan) menurut perenggan ini, dalam tempoh tidak lewat 30 hari daripada tarikh penyerahan Nota-nota Liputan. Apa-apa kegagalan dalam mematuhi kehendak di perenggan ini dalam tempoh masa yang ditetapkan, boleh mengakibatkan Surat ini terbatal dan Kerajaan tidaklah dengan apa-apa cara jua bertanggung terhadap tuan **melainkan jika** penepian bertulis diberikan oleh orang yang diberi kuasa, bagi kerja yang perlu dibuat dengan segera atau serta-merta apabila kelewatan itu akan memudarat dan menjejaskan perkhidmatan dan kepentingan awam.

6. Setelah arahan dikeluarkan oleh Kerajaan, tuan dikehendaki melaksanakan kerja dalam tempoh yang ditetapkan dan kualiti kerja tersebut hendaklah memuaskan hati serta memenuhi kehendak Kerajaan. Sekiranya tuan gagal melaksanakan perkhidmatan dalam tempoh yang ditetapkan, Kerajaan berhak membatalkan arahan yang dikeluarkan atau mengenakan *Liquidated & Ascertained Damages (LAD)* seperti yang ditetapkan dalam **Lampiran A**.

7. Syarikat tuan juga digalakkan melaksanakan program *Professional Training And Education For growing Entrepreneurs (PROTEGE)* seperti yang ditetapkan oleh Kerajaan.

8. Bagi tujuan program PROTEGE ini, syarikat tuan adalah dikehendaki untuk :
- (a) mengemukakan Jadual Pelaksanaan Program PROTEGE berdasarkan tempoh kontrak kepada Sekretariat PROTEGE untuk kelulusan dalam tempoh dua (2) minggu selepas tarikh pengakuan penerimaan Surat ini oleh syarikat tuan;
  - (b) melaksanakan program ini mengikut Jadual Pelaksanaan Program PROTEGE yang diluluskan oleh Sekretariat PROTEGE;

- (c) mengemaskini maklumat berkaitan pengalaman syarikat melaksanakan program PROTEGE dalam sistem ePerolehan di Kementerian Kewangan atau sistem di Lembaga Pembangunan Industri Pembinaan Malaysia (CIDB), mengikut mana yang berkaitan;
- (d) mengemukakan sijil atau surat pengesahan oleh Sekretariat PROTEGE kepada Agensi sebaik sahaja pelaksanaan program PROTEGE selesai; dan
- (e) mengemukakan laporan berkaitan pelaksanaan program PROTEGE kepada Sekretariat PROTEGE.

9. Syarikat tuan juga adalah diingatkan bahawa Kerajaan berhak membatalkan Surat ini sekiranya :

- (a) syarikat tuan gagal mematuhi mana-mana terma di perenggan 5 dalam tempoh masa yang ditetapkan;
- (b) syarikat tuan gagal mematuhi mana-mana terma yang dinyatakan dalam Surat Akuan Pembida Berjaya;
- (c) syarikat tuan gagal memulakan kerja dalam tempoh dua (2) minggu dari tarikh milik tapak;
- (d) syarikat tuan telah membuat salah nyataan (misrepresentation) atau mengemukakan maklumat palsu semasa berurusan dengan Kerajaan bagi perolehan ini atau melakukan apa-apa perbuatan lain, seperti memalsukan maklumat dalam Sijil Akuan Pendaftaran Syarikat, mengemukakan bon pelaksanaan atau dokumen lain yang palsu atau yang telah diubah suai;
- (e) syarikat tuan membenarkan Sijil Akuan Pendaftaran Syarikat disalahgunakan oleh individu/syarikat lain;
- (f) syarikat tuan terlibat dalam membuat pakatan harga dengan syarikat-syarikat lain atau apa-apa pakatan sepanjang proses tender sehingga dokumen kontrak ditandatangani;
- (g) syarikat tuan telah memberikan subkontrak sama ada sepenuhnya atau sebahagiannya perkhidmatan tanpa kelulusan Kerajaan terlebih dahulu. Sekiranya Kerajaan meluluskan permohonan syarikat tuan untuk memberikan subkontrak sebahagian kerja atau keseluruhan kerja, kelulusan tersebut adalah tertakluk kepada syarikat tuan mengikut perjanjian hak (Deed Of Assignment) dengan Subkontraktor terlebih dahulu;
- (h) syarikat gagal menyempurnakan kerja dalam tempoh yang ditetapkan seperti di **Lampiran A**;
- (i) syarikat tuan gagal mematuhi mana-mana terma/arahan di dalam dokumen sebut harga;
- (j) syarikat tuan/pemilik/rakan kongsi/pengarah telah disabitkan atas kesalahan jenayah di dalam atau luar Malaysia;
- (k) syarikat tuan digulungkan;
- (l) syarikat tuan membekal barang-barang yang tidak tulen, bukan baharu atau yang terpakai;
- (m) kontraktor gagal/mungkir dalam melaksanakan tanggung jawabnya sepertimana ditetapkan dalam Syarat-Syarat Kontrak;
- (n) syarikat tuan tidak mendapat kelulusan daripada Kerajaan terlebih dahulu bagi apa-apa penjualan atau pemindahan ekuiti sepanjang tempoh kontrak ini berkuat kuasa; atau
- (o) terdapat perkara yang melibatkan kepentingan awam atau keselamatan dan kepentingan negara.

10. Sekiranya Surat ini dibatalkan atas alasan seperti yang ditetapkan di perenggan 9, Kerajaan tidak akan bertanggung terhadap apa-apa kerugian syarikat tuan termasuk kerugian masa hadapan.

11. Bersama-sama Surat ini disertakan Surat Akuan Petender Berjaya dan Surat Akuan Sumpah Syarikat seperti **Lampiran B** dan **Lampiran C** untuk ditandatangani oleh syarikat tuan dan dikembalikan bersama-sama Surat ini.

12. Berdasarkan kepada Tempoh Siap Kerja yang disebut-hargakan selama dua puluh empat (24) bulan, Tarikh Siap untuk seluruh kerja-kerja di bawah kontrak ini ialah pada .....

13. Surat ini dihantar kepada tuan dalam tiga (3) salinan. Sila kembalikan ke pejabat ini salinan asal dan kedua berserta lampiran yang berkaitan yang telah ditandatangani dengan sempurna oleh syarikat tuan dan saksi syarikat tuan tidak melebihi ..... ( ) hari dari tarikh Surat ini diterima untuk tindakan kami selanjutnya. Apa-apa kegagalan dalam mematuhi kehendak di perenggan ini dalam tempoh masa yang ditetapkan boleh mengakibatkan Surat ini terbatal dan Kerajaan tidaklah dengan apa-apa jua bertanggung terhadap syarikat tuan.

Sekian, terima kasih.

**"MALAYSIA MADANI"**  
**"BERKHIDMAT UNTUK NEGARA"**

Saya yang menjalankan amanah,

**(RIDUAN BIN RAHMAT)**

b.p. Ketua Pentadbir  
Parlimen Malaysia

**PENGAKUAN PENERIMAAN SURAT SETUJU TERIMA DAN LAMPIRAN YANG BERKAITAN OLEH SYARIKAT**

Dengan ini disahkan bahawa yang bertandatangan di bawah ini mengakui penerimaan Surat ini dan lampiran yang berkaitan yang rujukan ialah PAR.2/367 SH.9/2023 ( ) bertarikh ..... dan bersetuju dengan terma dan syarat yang terkandung dalam Surat ini tanpa syarat yang mana salinan kepada Surat ini telah pun disimpan, dan selanjutnya disahkan bahawa tiada apa-apa terma, syarat atau stipulasi tambahan kepada yang terkandung dalam dokumen sebut harga dan Surat ini telah dikenakan.

.....

.....

**Tandatangan Syarikat**

**Tandatangan Saksi Syarikat**

Nama Penuh : .....

Nama Penuh : .....

No. Kad Pengenalan : .....

No. Kad Pengenalan : .....

Alamat : .....

Alamat : .....

.....

.....

.....

.....

.....

.....

Tarikh : .....

Tarikh : .....

**Meteri atau Cop Syarikat**

*\*potong mana yang tidak berkenaan*

**BUTIRAN KONTRAK**

**KERJA-KERJA OPERASI DAN PENYELENGGARAAN SISTEM PENYAMAN UDARA & PENGUDARAAN MEKANIKAL, SISTEM PENCEGAH KEBAKARAN DAN SISTEM BEKALAN AIR DALAMAN & PAM PENGALAK DI BLOK MEKANIKAL, BLOK UTAMA, DEWAN PERSIDANGAN DAN BLOK PEJABAT SEMENTARA, BANGUNAN PARLIMEN MALAYSIA - PAR.2/367 SH.11/2023**

<b>1.</b>	<b>Pendaftaran Syarikat Dengan Suruhanjaya Syarikat Malaysia (SSM)</b>		
	1.1	No. Pendaftaran	:
<b>2.</b>	<b>Pendaftaran dengan Lembaga Pembangunan Industri Pembinaan Malaysia (CIDB) Di Bawah Perakuan Pendaftaran Kontraktor</b>		
	2.1	No. Pendaftaran	:
	2.2	Tempoh Sah Laku	:
	2.3	Gred	:
	2.4	Kategori	:
	2.5	Pengkhususan	:
<b>3.</b>	<b>Pendaftaran dengan Lembaga Pembangunan Industri Pembinaan Malaysia (CIDB) Di Bawah Sijil Perolehan Kerja Kerajaan</b>		
	3.1	No. Pendaftaran	:
	3.2	Tarikh Sah Laku	:
	3.3	Gred	:
	3.4	Kategori	:
	3.5	Pengkhususan	:
<b>4.</b>	<b>Pendaftaran Cukai Perkhidmatan Dengan Jabatan Kastam Diraja Malaysia</b>		
	4.1	No. Pendaftaran	:
	4.2	Tarikh Kuat Kuasa	:
<b>5.</b>	<b>Harga Dan Tempoh Kontrak</b>		
	5.1	Harga Tender (butiran harga seperti di <b>Lampiran A1</b> )	: RM

	5.2	Peruntukan CBP	: RM
	5.3	Harga Kontrak	: RM
	5.4	Tempoh Kontrak	:
	5.5	Tarikh Mula Tapak	:
	5.6	Tarikh Siap Kerja	:
<b>6</b>	<b>Bon Pelaksanaan</b>		
	6.1	Kadar Bon Pelaksanaan	: 5%
	6.2	Formula Bon Pelaksanaan	:
	6.3	Nilai Bon Pelaksanaan	: RM
	6.4	Bentuk Bon Pelaksanaan	: Jaminan Bank/ Bank Islam/ Bank Pembangunan Malaysia Berhad; atau Jaminan Syarikat Kewangan; atau Jaminan Insurans/ Takaful.  Jikalau Bon Pelaksanaan gagal dikemukakan pada tarikh milik tapak, Kerajaan berhak untuk melaksanakan kaedah Wang Jaminan Pelaksanaan
	6.5	Tempoh Sah Laku	:
<b>7</b>	<b>Polisi Insurans Kerja</b>		
	7.1	Nilai Polisi	: RM
	7.2	Tempoh Perlindungan	: (Meliputi tempoh kontrak)
<b>8</b>	<b>Polisi Insurans Tanggungan Awam</b>		
	8.1	Nilai Polisi	: RM
	8.2	Tempoh Perlindungan	: (Meliputi tempoh kontrak, tempoh tanggungan kecacatan dan 3 bulan 14 hari)
<b>9</b>	<b>Kenaan <i>Liquidated &amp; Ascertained Damages (LAD)</i></b>		
	9.1	Formula	: Peratusan LAD = PR setahun / 365 hari

	9.2	Kadar Sehari	: RM
<b>10</b>	<b><i>Profesional Training And Education For Growing Entrepreneurs - PROTEGE (jika berkaitan)</i></b>		
	10.1	Tertakluk Kepada Pelaksanaan Program PROTEGE	: Ya / Tidak
	10.2	Bilangan Minimum Peserta PROTEGE	: -

s.k.

1. SUB (PN)
2. KJ
3. JEK  
[Pihak tuan dipohon menyediakan dokumen kontrak dengan secepat mungkin seperti yang diperuntukkan dalam 1 Pekeliling Perbendaharaan PK 4.2]

**SURAT AKUAN PEMBIDA BERJAYA**

**KERJA-KERJA OPERASI DAN PENYELENGGARAAN SISTEM PENYAMAN UDARA & PENGUDARAAN MEKANIKAL, SISTEM PENCEGAH KEBAKARAN DAN SISTEM BEKALAN AIR DALAMAN & PAM PENGGALAK DI BLOK MEKANIKAL, BLOK UTAMA, DEWAN PERSIDANGAN DAN BLOK PEJABAT SEMENTARA, BANGUNAN PARLIMEN MALAYSIA - PAR.2/367 SH.11/2023**

Saya, ..... No. Kad Pengenalan ..... yang mewakili ..... nombor Pendaftaran ..... dengan ini mengisytiharkan bahawa saya atau mana-mana orang yang mewakili syarikat ini:

- i. tidak akan menawarkan, menjanjikan atau memberikan apa-apa suapan kepada mana-mana orang dalam mana-mana Kementerian/Agensi\* atau mana-mana orang lain, sebagai suapan untuk dipilih dalam mana-mana perolehan; dan
- ii. tidak akan melakukan atau terlibat dengan tipuan bida dalam mana-mana perolehan.

Bersama ini dilampirkan Surat Perwakilan Kuasa bagi saya mewakili syarikat seperti tercatat di atas untuk membuat pengisytiharan ini.

2. Sekiranya saya, atau mana-mana individu yang mewakili syarikat ini didapati terlibat dalam membuat pakatan harga dengan syarikat lain atau apa-apa pakatan sepanjang proses perolehan atau menawarkan, menjanjikan atau memberikan apa-apa suapan kepada mana-mana orang dalam PARLIMEN MALAYSIA atau mana-mana orang lain sebagai dorongan untuk dipilih dalam ~~tender~~/sebut harga\* seperti di atas, maka saya sebagai wakil syarikat bersetuju tindakan-tindakan boleh berikut diambil:

- 2.1 Penarikan balik tawaran kontrak bagi perolehan di atas; atau
- 2.2 Penamatan kontrak bagi perolehan di atas; dan
- 2.3 Lain-lain tindakan undang-undang/tatatertib mengikut undang-undang/peraturan perolehan Kerajaan yang berkuat-kuasa.

3. Saya sesungguhnya faham bahawa tindakan berikut akan diambil :

- 3.1 Didakwa bagi kesalahan\*\* di bawah Akta Suruhanjaya Pencegahan Rasuah Malaysia 2009 [Akta 694] dan Kanun Keseksaan [Akta 574] serta boleh dihukum di bawah undang-undang masing-masing untuk kegagalan saya atau mana-mana orang yang mewakili syarikat ini untuk mematuhi perkara (i); atau
- 3.2 tindakan boleh dikenakan ke atas syarikat di bawah Akta Persaingan 2010 [Akta 712] atas kegagalan saya atau mana-mana orang yang mewakili syarikat ini untuk mematuhi perkara (ii). Sekiranya syarikat didapati melanggar peruntukan seksyen 4(2)(d) Akta 712, syarikat boleh didenda tidak melebihi sepuluh peratus (10%) daripada pusing ganti (*turn over*) seluruh dunia sepanjang tempoh suatu pelanggaran itu berlaku.



4. Sekiranya terdapat mana-mana orang cuba memperolehi atau meminta apa-apa suapan daripada saya atau mana-mana orang yang berkaitan dengan syarikat ini sebagai dorongan untuk dipilih dalam perolehan seperti di atas, maka saya berjanji akan dengan segera melaporkan perbuatan tersebut kepada pejabat Suruhanjaya Pencegahan Rasuah Malaysia (SPRM) atau balai polis yang berhampiran. Saya sedar bahawa kegagalan saya berbuat demikian adalah merupakan suatu kesalahan di bawah seksyen 25 (1) Akta Suruhanjaya Pencegahan Rasuah Malaysia 2009 [Akta 694] dan boleh dihukum di bawah seksyen 25 (2) akta yang sama, apabila disabitkan boleh didenda tidak melebihi RM100,000 atau penjara selama tempoh tidak melebihi sepuluh tahun atau kedua-duanya.

5. Saya sesungguhnya faham bahawa syarikat melakukan kesalahan jika seseorang yang bersekutu dengan syarikat\*\*\* memberikan, menjanjikan atau menawarkan suapan untuk memperolehi atau mengekalkan perniagaan atau faedah dalam menjalankan perniagaan di bawah seksyen 17A Akta Suruhanjaya Pencegahan Rasuah Malaysia 2009 [Akta 694], apabila disabitkan kesalahan boleh didenda tidak kurang daripada sepuluh kali ganda jumlah atau nilai suapan, atau RM1 juta, atau dipenjarakan selama tempoh tidak melebihi dua puluh tahun atau kedua-duanya.

Yang benar,

Tandatangan :  
Nama :  
No.KP :  
Tarikh :  
Cop Syarikat :

Catatan:

- i (i) \*\*termasuk kesalahan ditetapkan dalam Jadual (Perenggan 3 (a), takrif "kesalahan ditetapkan") Akta Suruhanjaya Pencegahan Rasuah Malaysia 2009 [Akta 694] yang boleh dihukum di bawah Kanun Keseksaan.
- ii (ii) \*\*\*seseorang yang bersekutu dengan syarikat merujuk kepada seksyen 17A (6) Akta Suruhanjaya Pencegahan Rasuah Malaysia 2009 [Akta 694], iaitu seseorang itu bersekutu dengan organisasi komersial jika dia seorang pengarah, pekongsi atau pekerja organisasi komersial itu atau dia ialah orang yang melaksanakan perkhidmatan untuk atau bagi pihak organisasi komersial itu.
- iii (iii) Surat Akuan ini hendaklah dikemukakan bersama surat perwakilan kuasa.
- iv (iv) Takrifan perusahaan di bawah Akta 712 merangkumi syarikat yang terlibat dengan perolehan Kerajaan.

## LAMPIRAN C

### SURAT AKUAN SUMPAH

Saya ..... nombor kad pengenalan .....  
yang mewakili syarikat ..... nombor pendaftaran  
..... (MOF/CIDB/SSM) dengan sesungguhnya dan  
sebenarnya mengaku bahawa :

- (a) Syarikat **TIDAK** membuat salah nyataan (misrepresentataion) atau mengemukakan maklumat palsu semasa berurusan dengan Kerajaan bagi perolehan ini atau melakukan apa-apa perbuatan lain seperti memalsukan maklumat dalam Sijil Akuan Pendaftaran Syarikat, mengemukakan bon pelaksanaan atau dokumen lain yang palsu atau yang telah diubah suai;
- (b) syarikat **TIDAK** membenarkan Sijil Akuan Pendaftaran Syarikat disalahgunakan oleh individu/syarikat lain;
- (c) syarikat **TIDAK** terlibat dalam membuat pakatan harga dengan syarikat-syarikat lain atau apa-apa pakatan sepanjang proses sebut harga sehingga dokumen kontrak ditandatangani;
- (d) syarikat/ pemilik/ rakan kongsi/ pengarah **TIDAK** disabitkan atas kesalahan jenayah di dalam atau luar Malaysia; dan
- (e) syarikat **TIDAK** digulungkan.

Sekiranya pada bila-bila masa, dibuktikan bahawa pengisytiharaan perenggan di atas adalah tidak benar, Kerajaan berhak menarik balik tawaran kontrak atau menamatkan perkhidmatan syarikat bagi projek ini.

Dan saya membuat Surat Akuan Bersumpah ini dengan kepercayaan bahawa apa-apa yang tersebut di dalamnya adalah benar serta menurut Akta Akuan Berkanun 1960.

Diperbuat dan dengan )  
sebenar-benarnya diakui oleh )  
..... ) Tandatangan  
.....  
di ..... )  
pada ..... )

Di hadapan saya,

.....  
Pesuruhjaya Sumpah

Catatan :

- i) \*Potong mana yang tidak berkenaan
- ii) Surat akuan ini hendaklah ditandatangani oleh hanya penama di sijil pendaftaran MOF/CIDB