

MAJLIS BANDARAYA PETALING JAYA
JALAN YONG SHOOK LIN
46675 PETALING JAYA

Tel : 03-79563544

PEMBERITAHUAN TENDER

NO.TENDER : MBPJ/TD/K/023/2026

KERJA TEBATAN BANJIR SERTA LAIN-LAIN KERJA BERKAITAN DI
SEBAHAGIAN JALAN 19/6, SEKSYEN 19 DAN KAWASAN SEKITARNYA,
PETALING JAYA, SELANGOR DARUL EHSAN.

Tawaran adalah dipelawa kepada kontraktor-kontraktor yang berdaftar :-

- i. LEMBAGA PEMBANGUNAN INDUSTRI PEMBINAAN MALAYSIA (LPIPM / CIDB)
 - a. PERAKUAN PENDAFTARAN KONTRAKTOR (PPK)
 - b. SIJIL PEROLEHAN KERJA KERAJAAN (SPKK)
- ii. BERDAFTAR DENGAN UNIT PERANCANG EKONOMI NEGERI SELANGOR (UPEN)

KELAS : G5
KATEGORI : CE
PENGKHUSUSAN : CE21
HARGA DOKUMEN : RM250.00
TARIKH LAWATAN TAPAK /
JUAL : 27 OGOS 2026 (KHAMIS)
TARIKH TUTUP : 17 SEPTEMBER 2026
(KHAMIS)



KOORDINAT : 3.118278° N,
101.627306° E

<https://maps.app.goo.gl/yJmWyqNsaNGRWEMR6>

Naskah meja tawaran boleh disemak di Bahagian Perolehan, Jabatan Khidmat Pengurusan, Majlis Bandaraya Petaling Jaya, Tingkat 3, Menara MBPJ pada waktu pejabat dan boleh dimuat turun melalui laman sesawang <https://tender.selangor.my>. Pihak kontraktor dikehendaki mendaftar secara atas talian di Unit Perancang Ekonomi Negeri (UPEN) untuk melancarkan proses pembelian dokumen. Bayaran dokumen tender tidak akan dikembalikan. Dokumen yang dibeli hendaklah di bukukan/di dokumentasikan. Pihak kontraktor juga diminta sentiasa mengemaskini maklumat syarikat (no. telefon/email) di dalam laman web <https://tender.selangor.my>.

Dokumen Tender hendaklah dilakri dan dimasukkan ke dalam peti tender / sebutharga yang disediakan di Bahagian Perolehan, Jabatan Khidmat Pengurusan, Majlis Bandaraya Petaling Jaya, Tingkat 3, Menara MBPJ pada tarikh tutup yang telah ditetapkan dan tidak lewat daripada Jam 12.00 tengahari. Majlis Bandaraya ini tidak terikat bagi menerima tawaran sebutharga yang paling rendah atau sebarang tawaran.

Semakan Sijil / Kehadiran Lawatan Tapak akan dibuat di JALAN 19/6, SEKSYEN 19, pada Jam 10.00 pagi – 11.00 pagi sahaja. (Sebarang kelewatan kehadiran tidak akan dipertimbangkan). Hanya penama di Sijil Akuan Pendaftaran CIDB sahaja yang layak menghadiri lawatan tapak.

(Sr. HAJAH SALIZA BINTI MOHD MASRI) CQS, P.P.T
Ketua Penolong Pengarah (Perolehan)
Bahagian Perolehan
b.p Datuk Bandar Petaling Jaya

DOKUMEN TELAH
DISEMAK SEMPURNA
Tarikh : 19/8/2026

Tarikh : 21 Ogos 2026
Fail No : Bhg. Saliran, Jabatan Kejuruteraan



MAJLIS BANDARAYA PETALING JAYA

JALAN YONG SHOOK LIN

46675 PETALING JAYA

DOKUMEN TENDER

**KERJA TEBATAN BANJIR SERTA LAIN-LAIN KERJA BERKAITAN
DI SEBAHAGIAN JALAN 19/6, SEKSYEN 19 DAN KAWASAN
SEKITARNYA, PETALING JAYA, SELANGOR DARUL EHSAN.**

PENGARAH JABATAN KEJURUTERAAN
MAJLIS BANDARAYA PETALING JAYA
TINGKAT 13, MENARA MBPJ
JALAN TENGAH
46200 PETALING JAYA
SELANGOR DARUL EHSAN

PERINGATAN PENTING - PERKARA BARU DALAM URUSAN PEROLEHAN

1. PEMBIDA WAJIB MENGEMUKAKAN SIJIL PEMATUHAN CUKAI (TAX COMPLIANCE CERTIFICATE - TCC) SEMASA MENGEMUKAKAN TAWARAN (STATUS 'PATUH' DAN MASIH DALAM TEMPOH SAH LAKU)

*Sila kepilkan sijil selepas muka surat pemberitahuan tender / sebut harga.

2. PEMBIDA ADALAH DIWAJIBKAN MENGISI MAKLUMAT BARU BERKAITAN PK 1.6 – INTEGRITI DALAM PEROLEHAN KERAJAAN SEMASA MENGEMUKAKAN TAWARAN.

i) BORANG PEMBERITAHUAN PEMUNYA BENEFISIAL (*BENEFICIAL OWNERS* – *BO*) - LAMPIRAN 12

ii) SURAT AKUAN SYARIKAT DALAM MENANGANI JENAYAH PEMERDAGANGAN ORANG DAN BURUH PAKSA (SA) – LAMPIRAN 13

**CONTOH SENARAI SEMAKAN
(BEKALAN/PERKHIDMATAN/KERJA)**

Sila tandakan ☐ / Bagi Dokumen-dokumen Yang Disertakan.

Bil.	Perkara/Dokumen	Untuk Di tanda Oleh Syarikat	Untuk Di tanda Oleh Jawatankuasa Pembuka Tender/Sebut Harga
1.	Salinan Sijil Akuan Pendaftaran Dari Kementerian Kewangan (Bekalan/Perkhidmatan)	☐	☐
2.	Salinan Sijil Akuan Bumiputera Dari Kementerian Kewangan (Bekalan/Perkhidmatan)	☐	☐
3.	Salinan Sijil Akuan Pembuat Dari Kementerian Kewangan (Bekalan/Perkhidmatan)	☐	☐
4.	Salinan Sijil Pendaftaran Dari Pusat Khidmat Kontraktor (Kerja)	☐	☐
5.	Salinan Sijil Taraf Bumiputera Dari Pusat Khidmat Kontraktor (Kerja)	☐	☐
6.	Salinan Sijil Pendaftaran Dari CIDB	☐	☐
7.	Borang Tender/Sebut Harga Telah Diisi Dengan Lengkap (termasuk nilai tawaran dan tempoh siap) dan Ditandatangani	☐	☐
8.	Borang Maklumat Petender	☐	☐
9.	Pematuhan Kepada Spesifikasi	☐	☐
10.	Borang Penyerahan Contoh Dan Katalog (jika berkaitan)	☐	☐
11.	Cadangan Penyelenggaraan/Penyenggaraan (jika perlu)	☐	☐
12.	Senarai Kakitangan Teknikal (jika berkaitan)	☐	☐

Bil.	Perkara/Dokumen	Untuk Di tanda Oleh Syarikat	Untuk Di tanda Oleh Jawatankuasa Pembuka Tender/Sebut Harga
13.	Salinan Penyata Bulanan Akaun Bank bagi Tiga (3) Bulan Terakhir	☐	☐
14.	Lain-lain Sekiranya Ada	☐	☐

PENGESAHAN OLEH SYARIKAT Dengan ini saya mengesahkan bahawa saya telah membaca dan memahami semua syarat-syarat dan terma yang dinyatakan di dalam Dokumen Tender/Sebut Harga. Semua maklumat yang dikemukakan adalah benar. Tandatangan: Nama: Jawatan: Tarikh:	UNTUK KEGUNAAN JABATAN Jawatankuasa Pembuka Tender/Sebut Harga mengesahkan penerimaan dokumen bertanda kecuali bagi perkara bil. (jika ada). Tandatangan: Nama: Jawatan: Tarikh: Tandatangan: Nama: Jawatan: Tarikh:
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DOKUMEN A

**ARAHAN KEPADA
PETENDER**

**ARAHAN KEPADA PEMBIDA
TENDER/SEBUT HARGA
(KERJA/BEKALAN/PERKHIDMATAN)**

A. TATACARA PELAWAAN

1.0 AM

- 1.1. Arahkan Kepada Pembida ini, hendaklah menjadi sebahagian daripada Kontrak.
- 1.2. Pembida hendaklah membaca **Syarat-Syarat Membuat Tender/Sebut Harga** sebagaimana lampiran kepada Borang Tender/Sebut Harga/Lampiran Q.

2.0 PENJUALAN DOKUMEN TENDER/SEBUT HARGA SECARA ATAS TALIAN

- 2.1. Pembida hendaklah mengambil perhatian bahawa Dokumen Tender/Sebut Harga untuk projek ini akan dijual secara salinan lembut (*softcopy*) di atas talian.
- 2.2. Pembelian perlu dibuat melalui laman sesawang <https://tender.selangor.my>. Dokumen tanpa pembelian dari laman sesawang ini akan ditolak dan tidak dinilai.

3.0 TEMPOH SAH LAKU TENDER/SEBUT HARGA

TENDER	SEBUT HARGA
120 HARI	90 HARI

- 3.1. Tender/Sebut Harga hendaklah terus sah selama tempoh yang dinyatakan di atas dari tarikh akhir penyerahan Tender/Sebut Harga dan pembida tidak dibenarkan sama sekali menarik diri dalam tempoh tersebut. Pembida adalah diingatkan bahawa deposit Tender/Sebut harga tidak diperlukan. Seandainya pembida menarik diri di dalam tempoh sah laku Tender/Sebut Harga atau sebarang tempoh yang dilanjutkan atau enggan menerima Tender/Sebut harga setelah ditawarkan kepadanya, tindakan disiplin akan diambil terhadapnya di dalam pendaftaran pembida sebagai kontraktor dengan pihak kerajaan:
 - (a) akan digantung selama dua (2) tahun bagi kesalahan pertama;
 - (b) akan digantung selama lima (5) tahun bagi kesalahan kedua dan;
 - (c) akan dibatalkan bagi kesalahan berikutnya.

4.0 DOKUMEN TENDER/SEBUT HARGA

- 4.1. Pembida adalah bertanggungjawab sepenuhnya bagi memastikan setiap Dokumen Tender/Sebut Harga yang dimuat turun adalah lengkap. Sekiranya terdapat apa-apa ketidaksempurnaan pada dokumen atau muka surat di dalam Dokumen Tender/Sebut Harga berkenaan berdasarkan semakan oleh pembida dengan Dokumen Meja Tender/Sebut Harga, adalah menjadi tanggungjawab

pembida untuk merujuk kepada **Bahagian Perolehan, Jabatan Khidmat Pengurusan, Majlis Bandaraya Petaling Jaya, Tingkat 3, Menara MBPJ, Jalan Tengah, 46200 Petaling Jaya.**

- 4.2 Pembida adalah dikehendaki mengisi sepenuhnya perkara-perkara berikut yang menjadi sebahagian daripada Tender/Sebut Harga iaitu:
 - 4.2.1 Borang Tender/Sebut Harga/Lampiran Q.
 - 4.2.2 Senarai Kuantiti dengan setiap item dihargaikan dan jumlah amaunnya yang membentuk harga Tender/Sebut Harga dipindahkan ke Ringkasan Tender/Sebut Harga dan Borang Tender/Sebut Harga/Lampiran Q.
 - 4.2.3 Borang A (Maklumat Kewangan)
 - Sekiranya pembida membuat pindaan terhadap maklumat yang dinyatakan, pembida wajib 'initial' pada pindaan tersebut.
 - 4.2.4 Pembida adalah diwajibkan mengisi maklumat baru berkaitan **PK1.6 – Integriti Dalam Perolehan Kerajaan Semasa Mengemukakan Tawaran.**
 - i) Borang Pemberitahuan Pemunya Benefisial (*Beneficial Owners – Bo*) - Lampiran 12
 - ii) Surat Akuan Syarikat Dalam Menangani Jenayah Perdagangan Orang Dan Buruh Paksa (*Sa*) – Lampiran 13
 - 4.2.5 Surat Akuan Pembida
- 4.3 Kegagalan pihak pembida untuk menyerahkan sebarang dokumen seperti yang dinyatakan di atas boleh menyebabkan Tender/Sebut Harganya ditolak.
- 4.4 Dokumen yang dibeli hendaklah dibukukan / didokumentasikan. Sekiranya gagal, pembida boleh ditolak.
- 4.5 Sekiranya pembida mengemukakan dua tawaran harga, pihak Majlis berhak untuk menolak dan tidak menilai tawaran tersebut.

5.0 SENARAI KUANTITI/RINGKASAN HARGA/LAMPIRAN Q

- 5.1 Senarai Kuantiti/Ringkasan Harga/Lampiran Q hendaklah dihargaikan dengan menggunakan **dakwat** yang kekal dan tidak luntur dan mudah dibaca dengan jelas. Jumlah amaun yang dihargaikan di dalam Senarai Kuantiti/Ringkasan Harga/Lampiran Q hendaklah sama dengan amaun yang dinyatakan di dalam Borang Tender/Sebut Harga. Sekiranya maklumat ditaip dan dicetak, maklumat hendaklah jelas dan tiada sebarang kesilapan. Sekiranya terdapat kesilapan, pembida boleh ditolak dan tidak dinilai.
- 5.2 Sekiranya Pembida tidak menghargakan atau meletakkan tanda (-) pada mana-mana item di dalam Kerja Awalan/Senarai Kuantiti/Ringkasan Harga/Lampiran Q, nilai/kadar item tersebut adalah dianggap telah termasuk di dalam nilai/kadar bagi item-item lain di dalam dokumen tersebut.
- 5.3 Pembida yang berjaya hendaklah, dalam masa 14 hari apabila diminta oleh Pegawai Penguasa atau wakil Pegawai Penguasa bagi pihaknya mengemukakan

pecahan terperinci unit harga untuk sebarang item, kumpulan item atau semua item yang terkandung di dalam Senarai Kuantiti/Ringkasan Harga/Lampiran Q. Pecahan harga tersebut hendaklah mengandungi harga untuk buruh, bahan loji, peralatan dan sebagainya.

- 5.4 Tiada sebarang perubahan, tambahan atau nota yang tidak dibenarkan, boleh dibuat kepada Dokumen Tender/Sebut harga ini yang mengubah teks yang tercetak.
- 5.5 Pembida adalah bertanggungjawab sepenuhnya dalam memastikan dokumen yang dimuat turun adalah keseluruhan dokumen yang akan menjadi sebahagian dari Dokumen Tender/Sebut harga.
- 5.6 Pihak Majlis tidak akan bertanggungjawab sekiranya pembida cuai dalam memastikan kesempurnaan dokumen yang perlu dimuat turun dan sebarang aduan berkaitan perkara ini tidak akan dilayan.

6.0 PERCANGGAHAN DOKUMEN TENDER/SEBUT HARGA

- 6.1 Sekiranya pembida mendapati ada percanggahan di antara Lukisan Tender/Sebut Harga, Senarai Kuantiti dan/atau Spesifikasi, pembida hendaklah dengan serta merta merujuk kepada **Bahagian Perolehan, Jabatan Khidmat Pengurusan, Majlis Bandaraya Petaling Jaya, Tingkat 3, Menara MBPJ, Jalan Tengah, 46200 Petaling Jaya**.
- 6.2 Penyelesaian atau arahan tersebut hanya sah jika dibuat dalam bentuk Addenda secara rasmi seperti yang dinyatakan di dalam para 7 di bawah.

7.0 ADDENDA

- 7.1 Sebelum tarikh akhir bagi penyerahan Dokumen Tender/Sebut Harga, **Bahagian Perolehan, Jabatan Khidmat Pengurusan, Majlis Bandaraya Petaling Jaya, Tingkat 3, Menara MBPJ, Jalan Tengah, 46200 Petaling Jaya** boleh mengeluarkan Addenda untuk menerangkan atau membetulkan sebahagian atau keseluruhan Dokumen Tender/Sebut Harga. Setiap Addenda yang dikeluarkan akan diedarkan kepada pembida dan menjadi sebahagian daripada Dokumen Tender/Sebut Harga.
- 7.2 Penerimaan setiap Addenda mestilah dimaklumkan melalui Borang Pengesahan Penerimaan Addenda yang disertakan bersama-sama Addenda. Pembida hendaklah mengembalikan Salinan Borang Pengesahan Penerimaan Addenda sebaik sahaja addenda diterima.
- 7.3 Addenda hendaklah dikemukakan bersama-sama Dokumen Tender/Sebut Harga. Kegagalan pembida berbuat demikian akan menyebabkan Dokumen Tender/Sebut Harga berkenaan **DITOLAK**.

- 9.4 Sebarang tuntutan akibat kesilapan dalam menentukan kaedah pembinaan atau menghargakan Tender/Sebut Harga disebabkan kekurangan pengetahuan mengenai keadaan tapak bina tidak akan dilayan.
- 9.5 Pembida hendaklah melawat tapak, memeriksa spesifikasi dan pelan- pelan dengan teliti sebelum mengemukakan harga tawaran. Sekiranya timbul sebarang keraguan atau kekeliruan, pembida adalah dinasihatkan supaya berhubung terus dengan Majlis Bandaraya Petaling Jaya.
- 9.6 Pembida adalah dinasihatkan supaya melawat tapak projek sebelum mengemukakan Tender/Sebut Harganya bagi mengetahui lebih lanjut mengenai keadaan tapak bina yang akan dihadapi. Sebarang tuntutan lebihan akibat kekurangan pengetahuan mengenai keadaan tapak bina tidak akan dilayan.

10.0 PENYERAHAN TENDER/SEBUT HARGA

- 10.1 Dokumen Tender/Sebut Harga hendaklah dilengkapi dan dimasukkan di dalam sampul serta dilakrikan tanpa meletakkan tanda pengenalan pembida pada bahagian luar sampul surat tersebut. Sampul surat yang berlakri tersebut hendaklah dicatatkan dengan nama projek dan dihantar sendiri dengan tangan atau melalui perkhidmatan kurier kepada peti Tender/Sebut Harga di **Bahagian Perolehan, Jabatan Khidmat Pengurusan, Majlis Bandaraya Petaling Jaya, Tingkat 3, Menara MBPJ, Jalan Tengah, 46200 Petaling Jaya.**
- 10.2 Pembida adalah **diwajibkan** memuat turun, mengisi, melengkap, mencetak dan **Mengembalikan Secara Salinan Keras (Hardcopy)** Dokumen Tender/Sebut Harga.
- 10.3 Dokumen Tender/Sebut Harga hendaklah dicap dengan cap rasmi syarikat dan ditandatangani oleh Penama Sijil Perolehan Kerja Kerajaan (SPKK Responsible Person – Penama SPKK)/Kementerian Kewangan Malaysia (MOF) yang diberi kuasa untuk menandatangani kontrak bagi pihak pembida.
- 10.4 Pembida diminta untuk mengemukakan resit pembayaran dan diserahkan bersama Dokumen Tender/Sebut Harga sebelum atau pada tarikh tutup Tender/Sebut Harga yang telah ditetapkan.

11.0 PENGEMUKAAN DOKUMEN TENDER/SEBUT HARGA SECARA SERAHAN TANGAN.

- 11.1 Dokumen Tender/Sebut Harga perlu dijilid dalam bentuk salinan keras (*hardcopy*) sebelum dikemukakan secara serahan tangan di tempat yang telah ditetapkan sebelum atau pada tarikh tutup Tender/Sebut Harga **selewat-lewatnya pada jam 12.00 tengahari.**
- 11.2 Pembida tidak dibenarkan untuk meminda mana-mana kandungan Dokumen Tender/Sebut Harga yang dikemukakan. Mana-mana pembida yang didapati meminda kandungan Dokumen Tender/Sebut Harga boleh menyebabkan dokumennya akan ditolak.

- 11.3 Pembida yang mengemukakan Dokumen Tender/Sebut Harga secara serahan tangan perlu mematuhi Prosedur Operasi Piawai (Standard Operating Procedure – SOP) Perintah Kawalan Pergerakan (PKP) pada sepanjang masa.

12.0 HARGA INDIKATIF JABATAN (HIJ)

- 12.1 Harga Indikatif Jabatan (HIJ) bagi Tender/Sebut Harga ini adalah seperti yang dinyatakan di dalam Senarai Kuantiti/Ringkasan Harga/Lampiran Q.
- 12.2 Harga Indikatif Jabatan ini merupakan suatu anggaran sahaja dan amaun tersebut tidak mengikat Majlis atau mana-mana pihak lain juga bagi maksud mengelakkan kekeliruan yang mungkin berbangkit.
- 12.3 Pihak Majlis tidak menjamin bahawa syarikat akan dipilih atau boleh menyiapkan kerja dengan bersandarkan Harga Indikatif Jabatan.

13.0 INTERPRETASI SECARA LISAN

- 13.1 Interpretasi secara lisan kepada mana-mana bahagian Dokumen Tender/Sebut Harga atas permintaan dan/atau diterima Pembida hendaklah tidak diambil kira sebagai membetulkan sebarang peruntukan dan syarat-syarat yang terkandung di dalam Dokumen Tender/Sebut Harga. Sebarang pemberitahuan atau pembedulan kepada mana-mana bahagian di dalam Dokumen Tender/Sebut Harga akan dibuat secara bertulis oleh **Bahagian Perolehan, Jabatan Khidmat Pengurusan, Majlis Bandaraya Petaling Jaya, Tingkat 3, Menara MBPJ, Jalan Tengah, 46200 Petaling Jaya** di dalam bentuk Addenda seperti yang dinyatakan di dalam para 6 dan 7.

14.0 NOTIS KEPADA PEMBIDA

- 14.1 Setiap notis yang hendak diberi kepada pembida akan dihantar ke alamat yang dinyatakan dalam Perakuan Pendaftaran Kontraktor (PPK)/Kementerian Kewangan Malaysia (MOF)/Unit Perancang Ekonomi Negeri (UPEN) sama ada melalui pos atau pos berdaftar atau pos laju atau serahan tangan atau e-mel. Kaedah pemberitahuan ini hendaklah disifatkan sebagai penyampaian notis yang sempurna.

15.0 BANTAHAN OLEH PEMBIDA

- 15.1 Bantahan rasmi secara bertulis yang disertai dengan butir-butir lengkap berkaitan dengan Dokumen Tender/Sebut Harga, Spesifikasi, Lukisan dan/atau Senarai Kuantiti yang menjurus kepada sesuatu jenama (jenis) tertentu boleh dibuat oleh pembida dalam tempoh empat belas (14) hari dari tarikh dokumen Tender/Sebut Harga dijual. Bantahan yang diterima selepas tempoh tersebut tidak akan dipertimbangkan. Bantahan hendaklah dialamatkan kepada **Bahagian Perolehan, Jabatan Khidmat Pengurusan, Majlis Bandaraya Petaling Jaya, Tingkat 3, Menara MBPJ, Jalan Tengah, 46200 Petaling Jaya**.

16.0 PERUBAHAN DAN PELANJUTAN TEMPOH KONTRAK

- 16.1 Pelawaan Tender/Sebut Harga ini boleh dipertimbangkan perubahan dan pelanjutan tempoh kontrak tidak melebihi 50% daripada nilai kontrak asal dan/atau maksimum dua (2) tahun tertakluk kepada peraturan semasa yang berkuat kuasa.

17.0 PEMERIKSAAN

- 17.1 Majlis berhak melantik seorang pegawai untuk memeriksa dan menguji semua barang bekalan yang dibekalkan pada bila-bila masa. Majlis adalah bertanggungjawab memastikan bekalan yang diterima adalah sama/lebih baik seperti spesifikasi pada kontrak/pesanan. Jika terdapat kerosakan/kekurangan, Pembida hendaklah menggantikan jumlah yang rosak/kurang itu dalam tempoh yang ditetapkan dalam kontrak yang dimeterai tanpa sebarang tambahan kos.
- 17.2 Pembida hendaklah memberi kemudahan pemeriksaan atau pengujian apabila dikehendaki oleh Majlis. Semua perbelanjaan untuk memeriksa dan menguji ini hendaklah ditanggung oleh pembida.

18.0 PERBELANJAAN PENYEDIAAN CADANGAN TAWARAN

- 18.1 Semua perbelanjaan bagi penyediaan cadangan tawaran ini hendaklah ditanggung oleh pembida sendiri.

19.0 PINDAAN

- 19.1 Majlis berhak meminda atau membatalkan mana-mana dokumen yang membentuk sebahagian daripada pelawaan Tender/Sebut Harga ini, pada bila-bila masa tanpa memberi notis terlebih dahulu. Sekiranya pelawaan Tender/Sebut Harga ini dikeluarkan semula, maka semua Pembida akan dimaklumkan sewajarnya.

20.0 PEMBATALAN PELAWAAN

- 20.1 Majlis berhak untuk membatalkan mana-mana pelawaan yang telah diiklankan pada bila-bila masa. Sebarang kos yang terpaksa ditanggung oleh pembida kerana pembatalan ini adalah menjadi tanggungjawab pembida.

21.0 KOS TENDER/SEBUT HARGA

- 21.1 Majlis tidak akan dipertanggungjawabkan untuk atau membayar apa-apa kos atau perbelanjaan atau kerugian yang dialami oleh pembida di dalam penyediaan atau penghantaran Tender/Sebut Harga beliau.

22.0 PERINGATAN MENGENAI KESALAHAN RASUAH

- 22.1 Semua pembida adalah diingatkan supaya tidak terlibat dalam aktiviti jenayah rasuah berkaitan dengan perolehan ini. Sehubungan dengan itu, para pembida diberi peringatan seperti berikut :

- 22.1.1 Sebarang perbuatan 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).

- 22.1.2 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 (SPRM) atau balai polis yang berhampiran. Kegagalan berbuat demikian adalah merupakan suatu kesalahan di bawah Akta Suruhanjaya Pencegahan Rasuah Malaysia 2009 (Akta 694).
- 22.1.3 Tanpa prejudis kepada tindakan-tindakan lain, tindakan tatatertib terhadap anggota perkhidmatan awam dan menyenaraihitamkan kontraktor atau pembekal boleh diambil sekiranya pihak-pihak terlibat dengan kesalahan rasuah di bawah Akta Suruhanjaya Pencegahan Rasuah Malaysia 2009 (Akta 694).
- 22.1.4 Mana-mana kontraktor atau pembekal yang membuat tuntutan bayaran berkaitan perolehan ini walaupun tiada 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).

23.0 IKLAN

- 23.1 Pembida tidak dibenarkan menyiarkan sebarang maklumat mengenai Tender/Sebut Harga di dalam sebarang akhbar, majalah atau alat pengiklanan yang terkini melainkan jika pengiklanan itu telahpun dihantar kepada dan diluluskan oleh Majlis terlebih dahulu.

24.0 PENERIMAAN ATAU PENOLAKAN TENDER/SEBUT HARGA

- 24.1 Majlis berhak untuk menolak mana-mana atau keseluruhan Tender/Sebut Harga. Mana-mana Tender/Sebut Harga yang tidak lengkap, tidak jelas atau tidak mematuhi arahan, tidak akan dipertimbangkan.
- 24.2 Pihak Majlis adalah tidak terikat untuk menyetujui terima Tender/Sebut Harga terendah atau sebarang Tender/Sebut Harga, dan juga tidak perlu memberikan sebarang alasan terhadap mana-mana Tender/Sebut Harga yang ditolak.

25.0 TARIKH MEMULAKAN KERJA

25.1 Pembida hendaklah mengambil perhatian bahawa kerja-kerja hendaklah dimulakan dalam tempoh dua (2) minggu dari tarikh milik tapak yang ditetapkan dalam Surat Setujuterima Tender/Sebut Harga. Maksud memulakan kerja ialah memulakan kerja-kerja awalan tapak seperti membekal peralatan dan bahan-bahan binaan, meratakan tanah, membina pejabat tapak serta mendapat kemudahan asas seperti bekalan elektrik dan air dan kerja-kerja awalan lain yang dijelaskan dalam Dokumen Tender/Sebut Harga. Sekiranya pembida gagal berbuat demikian, kontrak akan ditamatkan sejajar dengan Fasal 51.1(a)(i) Syarat-syarat Kontrak.

26.0 BON PELAKSANAAN

26.1 Bon Pelaksanaan adalah suatu akujanji tidak bersyarat oleh sesuatu institusi kewangan yang diluluskan oleh Kerajaan untuk membayar kepada Kerajaan suatu amaun tertentu atas tuntutan Kerajaan sekiranya syarikat tidak atau gagal mematuhi dan melaksanakan obligasinya di bawah kontrak.

26.2 Pembida yang berjaya hendaklah mengemukakan Bon Pelaksanaan sebanyak lima peratus (5%) daripada Jumlah Harga Kontrak sebelum memulakan kerja. Pembida dikehendaki menggunakan format Bon Pelaksanaan seperti yang dilampirkan tanpa sebarang pindaan.

26.3 Sekiranya kaedah Wang Jaminan Pelaksanaan dipilih/dikenakan, potongan sebanyak sepuluh peratus (10%) daripada bayaran kemajuan pertama dan seterusnya akan dikenakan sehingga ia mencapai jumlah lima peratus (5%) daripada Jumlah Harga Kontrak.

26.4 Pembida yang berjaya hendaklah memastikan Bon Pelaksanaan sentiasa sah dan berkuatkuasa dalam tempoh yang ditetapkan. Tempoh sah laku Bon Pelaksanaan adalah berdasarkan nilai projek seperti berikut:

Nilai Projek	Tempoh Sah Laku Bon Pelaksanaan
Kos Projek sehingga RM10 Juta	- Dari tarikh kuat kuasa kontrak sehingga 12 bulan selepas tamat Tempoh Tanggungan Kecacatan (DLP) - Format Majlis

26.5 Pembida diingatkan untuk mengambil kira tempoh sah laku Bon Pelaksanaan mengikut nilai projek semasa menghargakan Tender/Sebut harga. Sebarang rayuan akibat kegagalan kontraktor untuk mengambil kira tempoh sah laku Bon Pelaksanaan semasa menghargakan Tender/Sebut Harga tidak akan dilayan.

27.0 SIJIL SCORE LEMBAGA PEMBANGUNAN INDUSTRI PEMBINAAN MALAYSIA (LIPIM)

27.1 Pembida dikehendaki mengemukakan Salinan Sijil SCORE dari LIPIM yang masih sah pada tarikh tutup Tender/Sebut Harga (tidak lebih satu (1) tahun dari tarikh sijil dikeluarkan) dengan minimum dua (2) bintang terutama kepada pembida yang menawarkan harga Tender/Sebut Harga di bawah paras Harga *Cut-Off*.

28.0 MEMATUHI AKTA LEMBAGA PEMBANGUNAN INDUSTRI PEMBINAAN MALAYSIA (LIPIM) 1994 (Akta 520)

28.1 Pembida yang berjaya bagi semua Tender/Sebut Harga yang bernilai melebihi RM 500,000.00 akan dikenakan levi sebanyak perpuluhan satu dua lima peratus (0.125%) daripada nilai harga kontrak seperti yang ditetapkan di bawah seksyen 34(2) Akta Lembaga Pembangunan Industri Pembinaan Malaysia (LIPIM) 1994 (Akta 520). Sehubungan dengan itu, adalah menjadi tanggungjawab pembida yang berjaya untuk membuat bayaran levi kepada pihak LIPIM.

29.0 PEMATUHAN AKTA 342 DAN NORMA BAHARU DALAM SEKTOR PEMBINAAN DAN DALAM MENANGANI EPIDEMIK DAN PANDEMIK COVID 19

29.1 Pembida yang berjaya dikehendaki mematuhi Akta Pencegahan dan Pengawalan Penyakit Berjangkit 1988 (Akta 342) dan semua Garis Panduan dan Prosedur Operasi Piawai yang berkaitan dalam menangani Epidemik dan Pandemik seperti wabak Covid 19 yang dikeluarkan oleh Kementerian Kesihatan Malaysia, CIDB dan MBPJ.

29.2 Pembida dikehendaki mengambilkira dalam harga Tender/Sebut Harga untuk pematuhan perkara 28.1.

29.3 Kegagalan mematuhi Akta, Garis Panduan dan Prosedur Operasi Piawai yang telah ditetapkan menyebabkan tindakan boleh diambil oleh agensi-agensi yang berkenaan dan sebarang tuntutan akibat tindakan ini tidak akan dipertimbangkan.

30.0 PELARASAN HARGA DAN KADAR HARGA

30.1 Ringkasan Tender/Sebut Harga dan/atau Jadual Kadar Harga akan diteliti dan diselaraskan oleh Majlis untuk memastikan kemunasabahannya, sebelum Tender/Sebut Harga disetujuterima sebagaimana yang diperuntukkan di bawah Fasal 26 Syarat-syarat Kontrak JKR 203A. Harga dan kadar harga yang diselaraskan hendaklah tidak mengubah jumlah keseluruhan harga di Borang Tender/Sebut Harga.

31.0 KEPUTUSAN TENDER/SEBUT HARGA ADALAH MUKTAMAD

31.1 Majlis tidak terikat untuk menerima mana-mana tawaran dari pembida - pembida. Keputusan mengenai Tender/Sebut Harga yang dikeluarkan adalah muktamad. Sebarang surat menyurat mengenai keputusan Tender/Sebut Harga tidak akan dilayan.

32.0 PENGEMUKAAN SIJIL PEMATUHAN CUKAI (TAX COMPLIANCE CERTIFICATE – TCC)

- 32.1 **Sijil Pematuhan Cukai (Tax Compliance Certificate – TCC)** adalah merupakan sijil akuan status pematuhan pembayar cukai yang dikeluarkan oleh Lembaga Hasil Dalam Negeri Malaysia (LHDN) sebagai dokumen prasyarat bagi tujuan perolehan Kerajaan.
- 32.2 Pembida **WAJIB** mengemukakan TCC bersama-sama Dokumen Tender/Sebut Harga semasa mengemukakan tawaran sepertimana kaedah penyerahan tawaran Tender/Sebut Harga yang ditetapkan.
- 32.3 TCC adalah **DOKUMEN WAJIB** kelayakan asas Tender/Sebut Harga. Pembida yang tidak mengemukakan TCC atau mengemukakan TCC berstatus '**Tidak Patuh**' / TCC yang tidak sah, akan dinilai sebagai '**Gagal**' mengemukakan dokumen wajib dan tidak layak dinilai untuk peringkat seterusnya.
- 32.4 Bagi Tender/Sebut Harga yang disertai oleh beberapa syarikat tempatan secara usahasama, kesemua syarikat hendaklah mengemukakan TCC dengan status '**Patuh**' dan masih dalam tempoh sah laku semasa mengemukakan tawaran.
- 32.5 Tiada sebarang pengecualian ke atas pengemukaan TCC termasuklah pembida yang berada di zon perdagangan bebas atau zon perindustrian bebas seperti ditakrifkan di bawah Seksyen 2 Akta Zon Bebas 1990.
- 32.6 Pengemukaan TCC juga diwajibkan kepada pembida dari negara ahli Perjanjian Perdagangan Bebas (*Free Trade Agreement – FTA*) yang menyertai perolehan kerja Kerajaan. Sebarang pengecualian melibatkan perkara ini hendaklah dirujuk kepada pihak LHDN.
- 32.7 Pembida boleh membuat semakan dan cetakan TCC secara sendiri melalui menu Status *MyTax* di Portal *MyTax* iaitu <https://mytax.hasil.gov.my>. Portal *MyTax* boleh diakses menggunakan nombor kad pengenalan / passport dan kata laluan sepertimana pembayar cukai mendaftar masuk bagi tujuan pengemukaan Borang Nyata Cukai Pendapatan (BNCP) melalui aplikasi e-Filing.
- 32.8 Sekiranya pembida belum mempunyai Nombor Pengenalan Cukai atau *Tax Identification Number* (TIN), pendaftaran boleh dibuat secara dalam talian melalui aplikasi e-Daftar di Portal *MyTax*.
- 32.9 Pembida boleh mendapatkan maklumat lanjut atau terus ke LHDN bagi tujuan dan maksud TCC ini. Ketidak patuhan pembida untuk mengemukakan TCC akan menyebabkan tawaran pembida tidak dinilai.

33.0 PENGEMUKAAN PENGISYTIHARAN PEMUNYA BENEFISIAL (BENEFICIAL OWNERS – BO) DAN SURAT AKAUN SYARIKAT DALAM MENANGANI JENAYAH PEMERDAGANGAN ORANG DAN BURUH PAKSA (SA)

33.1 Pekeliling Perbendaharaan / Perolehan Kerajaan 1.6 telah dikemaskini selaras dengan peruntukan perundangan di bawah Akta Syarikat (pindaan) 2024 (Akta A1701) dan Akta Antipemerdagangan Orang dan Antipenyeludupan Migran 2007 (Akta 670).

33.1.1 Akta Syarikat (pindaan) 2024 (Akta A1701)

33.1.1.1 Akta A1701 yang diwartakan pada 2 Februari 2024 telah mewajibkan setiap syarikat yang berdaftar dengan Suruhanjaya Syarikat Malaysia (SSM) untuk mengisytiharkan Pemunya Benefisial (*Beneficial Owners – BO*) bagi memerangi aktiviti-aktiviti pengubahan wang haram, pembiayaan keganasan, rasuah dan pengelakan cukai perniagaan di Malaysia.

33.1.1.2 Tafsiran dan kriteria BO boleh dirujuk kepada *Guideline For The Reporting Framework For Beneficial Ownership Of Legal Persons* yang boleh dimuat turun dari laman sesawang SSM iaitu www.ssm.com.my.

33.1.1.3 Pembida hendaklah melaksanakan pengisytiharan BO dengan mengemukakan Borang Pengisytiharan BO seperti di **Lampiran 12** untuk menyertai perolehan Kerajaan yang dinilai melebihi RM50 ribu.

33.1.1.4 Pembida hendaklah memastikan BO diisi dengan lengkap, ditandatangani dan dikemukakan bersama dokumen tawaran Tender/Sebut Harga secara manual sepertimana yang telah ditetapkan.

33.1.1.5 Kegagalan pembida untuk mengemukakan BO akan menyebabkan Tender/Sebut Harga yang disertai ditolak.

33.1.2 Akta Antipemerdagangan Orang dan Antipenyeludupan Migran 2007 (Akta 670)

33.1.2.1 Selaras dengan Akta 670, satu akuan atau pengisytiharan oleh pembida perlu dilaksanakan bagi meningkatkan

kesedaran tentang hak pekerja, perlindungan dan akses kepada remedi.

33.1.2.2 Pembida yang menyertai perolehan Kerajaan adalah diwajibkan untuk menandatangani Surat Akuan Syarikat Dalam Menangani Jenayah Permedagangan Orang Dan Buruh Paksa (SA) seperti di **Lampiran 13**.

33.1.2.3 Pembida hendaklah memastikan SA diisi dengan lengkap, ditandatangani dan dikemukakan bersama dokumen tawaran Tender/Sebut Harga secara manual sepertimana yang telah ditetapkan.

33.1.2.4 Kegagalan pembida untuk mengemukakan SA akan menyebabkan Tender/Sebut Harga yang disertai ditolak.

33.2 Bagi Tender/Sebut Harga yang disertai oleh beberapa syarikat yang berdaftar dengan SSM secara usahasama, kesemua syarikat hendaklah mengemukakan BO dan SA semasa mengemukakan tawaran.

34.0 AKTIVITI KARTEL

34.1 Pembida dilarang keras daripada terlibat dalam sebarang aktiviti yang boleh dianggap sebagai amalan kartel, termasuk tetapi tidak terhad kepada;

- Penetapan harga secara bersama antara pembida.
- Pembahagian pasaran atau pelanggan secara kolektif.
- Pemboikotan bersama terhadap mana-mana pembida lain.
- Pertukaran maklumat sensitif yang boleh menjejaskan persaingan.

34.2 Jika didapati mana-mana pembida melanggar arahan ini, tindakan berikut boleh diambil:

- Pembatalan penyertaan dalam Tender/Sebut Harga serta-merta.
- Penyenaraian hitam daripada menyertai sebarang Tender/Sebut Harga MBPJ untuk tempoh yang ditetapkan.
- Pelaporan kepada pihak berkuasa berkaitan, seperti Suruhanjaya Persaingan Malaysia (MyCC), untuk tindakan lanjut.

34.3 Pembida atau mana-mana pihak yang mempunyai maklumat mengenai aktiviti kartel digalakkan untuk melaporkan melalui saluran berikut:

- Emel : aduan@mbpj.gov.my
- Hotline : (03-7954 2020) Tel: (03-7954 2020)

35.0 PELAKSANAAN *INTEGRITY PACT* DALAM PEROLEHAN KERAJAAN

- 35.1 Pembida wajib mengemukakan **Surat Akuan Pembida (Lampiran 6)** bersama-sama dengan Dokumen Tender/Sebut Harga di mana pembida membuat perjanjian untuk tidak akan menawarkan atau memberi rasuah kepada mana-mana individu lain sebagai sogokan untuk dipilih dalam Tender/Sebut Harga tersebut. Surat Akuan Pembida ini hendaklah dilengkapkan dan ditandatangani oleh Pegawai Syarikat yang ditauliahkan.
- 35.2 Surat Akuan Pembida tersebut adalah menjadi salah satu dokumen **wajib** dalam penilaian Tender/Sebut Harga peringkat pertama. Sekiranya pembida gagal mengemukakan Surat Akuan Pembida yang telah dilengkapkan dan ditandatangani dengan sempurna, pembida tersebut akan dinilai sebagai gagal dalam penilaian peringkat pertama dan penilaian seterusnya tidak akan dilaksanakan.
- 35.3 Pembida yang berjaya wajib mengemukakan dan menandatangani **Surat Akuan Pembida Berjaya** beserta dengan Surat Setuju Terima yang telah ditandatangani di mana ia berjanji tidak akan memberi rasuah sebagai ganjaran kerana mendapatkan kontrak. Surat Akuan ini akan menjadi sebahagian daripada Dokumen Kontrak.

36.0 LARANGAN PEMINDAHAN EKUITI SYARIKAT SEPANJANG TEMPOH KONTRAK

- 36.1 Pembida yang berjaya dipilih bagi perolehan ini tidak boleh memindahkan milik ekuiti syarikat sepanjang tempoh kontrak berkuat kuasa kecuali mendapat kelulusan bertulis dari Majlis terlebih dahulu.

37.0 DOKUMEN PERJANJIAN

37.1 Pembida perlu menandatangani perjanjian penyewaan dengan Majlis, syarat – syarat seperti di atas akan menjadi sebahagian daripada syarat perjanjian.

37.2 Pembida yang berjaya hendaklah menjelaskan bayaran duit setem dan caj Perjanjian yang ditetapkan oleh Majlis Bandaraya Petaling Jaya ke atas harga kontrak keseluruhan tidak termasuk cukai jualan dan perkhidmatan mengikut formula Kadar Caj Perjanjian yang disediakan oleh Majlis Bandaraya Petaling Jaya seperti jadual berikut:

Bil	Nilai Kontrak (RM)	Caj	
		Perjanjian Utama	Perjanjian Lanjutan
1.	< RM50,000	RM500	RM250
2.	RM50,001 - RM100,000	RM1,000	RM500
3.	RM100,001 - RM300,000	RM2,000	RM1,000
4.	RM300,001 - RM500,000	RM3,000	RM1,500
5.	RM500,001 - RM1,000,000	RM5,000	RM2,500
6.	RM1,000,001 dan keatas	RM8,000.00 atau 0.5% (mana-mana yang lebih tinggi tetapi tidak melebihi RM10,000)	RM4,000.00 atau 0.5% (mana-mana yang lebih tinggi tetapi tidak melebihi RM5,000.00)
Panel peguam boleh dilantik bagi kontrak yang mempunyai nilai sangat tinggi dan berisiko			

(A) CONTOH DENDA BAGI KONTRAK BEKALAN DAN PERKHIDMATAN

Bil	Kontrak	Jenis Denda
1.	Bekalan (cth: peralatan akademik, peralatan sukan, alat ganti ICT, <i>toner</i> pencetak, kertas A4, dll)	Lewat Pembekalan Jika syarikat lewat menyerahkan peralatan dalam tempoh masa yang ditetapkan, Majlis boleh menerima peralatan tersebut dan mengenakan bayaran berdenda kepada syarikat mengikut formula berikut : $\frac{V(T + D)}{T} \times 5\%$ V: Nilai harga peralatan yang lewat dibekalkan; T: Tempoh bekalan mengikut kontrak dalam hari; dan D: Bilangan hari yang lewat.
2.	Bekalan (cth: peralatan akademik, peralatan sukan, alat ganti ICT, <i>toner</i> pencetak, kertas A4, dll)	Rendah kualiti/tidak memenuhi spesifikasi - Setelah penerimaan peralatan sempurna dan didapati peralatan rendah kualiti daripada spesifikasi, Majlis boleh meminta syarikat menggantikan peralatan tersebut dalam tempoh yang ditetapkan oleh Majlis. - Majlis akan mengenakan denda sebanyak 1% daripada harga peralatan itu pada setiap 7 hari bekerja kelewatan tetapi tidak melebihi 5% daripada harga peralatan tersebut.

Bil	Kontrak	Jenis Denda
3.	Bekalan (bahan mentah, basah dan kering)	Gagal Membuat Pembekalan Bagi barang-barang makanan yang tidak diserahkan setelah dipesan, Majlis berhak membeli daripada punca lain dan syarikat hendaklah membayar kos perbelanjaan memperolehi barang-barang makanan yang lebih daripada harga di dalam Perjanjian ini dan Majlis juga boleh mengenakan denda sebanyak 10% dari nilai barang-barang makanan yang dipesan itu atau RM500 mengikut mana yang kurang.
4.	Perkhidmatan (cth: sewaan peralatan ICT)	Lewat Menyediakan Perkhidmatan Jika syarikat lewat menyerahkan peralatan dalam tempoh masa yang ditetapkan, Majlis boleh menerima peralatan tersebut dan mengenakan bayaran berdenda kepada syarikat sehingga peralatan tersebut sedia untuk digunakan di premis yang ditentukan oleh Majlis seperti formula denda berikut: $A \times B \times C \times 1\%$ A : Nilai sewaan peralatan sebulan. B : Bilangan hari yang lewat. C : Bilangan peralatan.
5.	Perkhidmatan (cth: sewaan peralatan ICT)	Lewat Sewaan Setelah penerimaan peralatan sempurna dalam tempoh sewaan, Majlis berhak mengenakan denda sebanyak 1% daripada nilai Sewa Peralatan bagi setiap satu hari Majlis tidak dapat menggunakan peralatan untuk tujuan disewa.

(B) CONTOH LAD BAGI KONTRAK KERJA, BEKALAN DAN PERKHIDMATAN

Bil	Kontrak	Jenis Denda
1.	Bekalan dan Perkhidmatan ICT	Gagal Menyempurnakan Bekalan/ Perkhidmatan Sekiranya syarikat gagal menyempurnakan bekalan/ perkhidmatan yang telah ditetapkan dalam tempoh kontrak yang dipersetujui, maka syarikat dikehendaki membayar denda dalam tempoh 30 hari setelah menerima notis denda daripada Kerajaan dengan menggunakan formula berikut: $(BLR + 1\%) \times (\text{Nilai Kontrak} / 365) \times (\text{bilangan hari lewat})$
2.	Kerja	- Peratusan LAD = BLR setahun / 365 hari - Di mana: BLR setahun = 'Base Landing Rate' yang dikeluarkan oleh mana-mana bank perdagangan. - Contoh Perkiraan: - BLR = katakan 10.0% setahun - Peratusan denda ganti rugi : $10\% / 365 \text{ hari} = 0.0273\% \text{ sehari}$ - kadar LAD sehari = $(0.0273\% \times \text{nilai kontrak})$

(C) CONTOH TOLAKAN BAGI KONTRAK PERKHIDMATAN KAWALAN KESELAMATAN

Bil	Kontrak	Jenis Denda
1.	Perkhidmatan Kawalan Keselamatan	Gagal Menyediakan Perkhidmatan - Syarikat gagal menempatkan Pengawal Keselamatan di premis pada satu-satu masa - Kadar Hari Sejam x Bil. Pengawal Tidak Hadir x Bil. Hari / Jam Ketiadaan Pengawal Keselamatan
2.	Perkhidmatan Kawalan Keselamatan	- Pengawal Keselamatan tidak menjalankan rondaan dan clocking (termasuk kelewatan melaksanakan rondaan dan clocking) di tempat-tempat yang telah ditetapkan di bawah Perjanjian - Bil. Kegagalan * x (20% x Kadar Hari Sejam) *Bil. Kegagalan = Bil. Clocking Rondaan x Kekerapan Rondaan

**BORANG A - SURAT PENGAKUAN KEBENARAN MAKLUMAT DAN KESAHIHAN DOKUMEN
YANG DIKEMUKAKAN OLEH PEMBIDA**

Nama Pembida :

Alamat :
.....
.....

Kepada,

**DATUK BANDAR PETALING JAYA,
MAJLIS BANDARAYA PETALING JAYA,
JALAN YONG SHOOK LIN ,
46675 PETALING JAYA
SELANGOR DARUL EHSAN.**

Tuan,

Maklumat Latar Belakang, Kewangan Dan Teknikal Pembida

1. Kami akan membaca dengan teliti semua arahan-arahan yang terkandung dalam Arahan Kepada Pembida termasuk arahan yang menghendakkan kami mengemukakan maklumat-maklumat dan dokumen-dokumen mengenai perkara di atas bersama-sama Dokumen Tender/Sebut Harga kami semasa mengemukakan Dokumen Tender/Sebut Harga ini untuk membolehkan MBPJ menilai keupayaan kami untuk melaksanakan Kerja/Bekalan/Perkhidmatan yang di Tender/Sebut Harga semasa penilaian Tender/Sebut Harga.
2. Kami faham dan mengambil maklum bahawa penilaian Tender/Sebut Harga ini akan mengambil kira dan mementingkan keupayaan kami melaksanakan Kerja/Bekalan/Perkhidmatan yang di Tender/Sebut Harga. Justeru itu Tender/Sebut Harga kami akan hanya dipertimbangkan untuk diperakukan kepada Lembaga Tender/Sebut Harga untuk disetuju terima sekiranya kami didapati berkeupayaan untuk melaksanakan projek yang disebut harga mengikut penilaian MBPJ berasaskan maklumat-maklumat dan dokumen-dokumen yang kami kemukakan.
3. Kami juga mengambil maklum bahawa kami dikehendaki mengemukakan semula maklumat- maklumat dan dokumen-dokumen yang diminta bersama-sama Tender/Sebut Harga kami sebelum Tender/Sebut Harga ditutup dan maklumat-maklumat atau dokumen-dokumen yang dikemukakan kemudian daripada itu tidak akan diterima untuk diambil kira dalam penilaian keupayaan kami.
4. Kami mengaku bahawa maklumat-maklumat dan data-data yang kami berikan bersama-sama ini di dan dokumen-dokumen yang kami sertakan bersamanya setahu kami adalah semuanya benar dan sah pada semua segi dan kami telah mengambil maklum dan sedar akan tindakan yang boleh diambil oleh MBPJ terhadap kami dan/atau Tender/Sebut Harga kami sekiranya mana-mana maklumat, data-data dan dokumen yang kami berikan itu didapati tidak benar atau palsu.
5. Kami juga mengambil maklum dan sedar bahawa Tender/Sebut Harga kami akan ditolak (disqualified) dan tidak akan dipertimbangkan sekiranya maklumat-maklumat yang kami berikan tidak mencukupi atau sekiranya kami gagal untuk memberikan bersama-sama ini mana-mana maklumat dan/atau menyertakan mana-mana dokumen penting yang sangat diperlukan untuk membolehkan MBPJ menilai keupayaan kami terutamanya dokumen-dokumen berhubung dengan kedudukan kewangan dan prestasi kerja semasa kami seperti berikut : -

- (1) Salinan Akaun Syarikat yang telah disahkan dan diaudit oleh Juru Audit yang bertaualiah bagi Dua (2) tahun kewangan terakhir.
 - (2) Salinan sah Penyata Bulanan Bank Akaun Wang Dalam Tangan Pembida bagi Tiga (3) bulan terakhir sebelum Tarikh Tutup Tender/Sebut Harga.
 - (3) Laporan Jurutera Projek atas prestasi Kerja/Bekalan/Perkhidmatan semasa yang bukan projek MBPJ atas Borang H dalam satu sampul berlakri bagi setiap Kerja/Bekalan/Perkhidmatan semasa yang sedang dilaksanakan.
6. Kami dengan ini memberi kuasa kepada mana-mana Pegawai Kerajaan, Jurutera-jurutera Projek, Bank dan Institusi Kewangan lain dan lain-lain atau mana-mana orang atau Firma yang berkenaan untuk memberikan maklumat-maklumat yang dianggap perlu dan diminta oleh MBPJ untuk menyemak maklumat-maklumat yang kami berikan atau untuk mendapatkan maklumat tambahan. Walau bagaimanapun, kami tetap bertanggungjawab di atas maklumat-maklumat dan dokumen- dokumen yang kami berikan bersama-sama ini.

Yang benar,

.....
Tandatangan Pembida

Tarikh :

Nama Penuh:

No. Kad Pengenalan:

Atas Jawatan:

Yang diberi kuasa dengan sepenuhnya
untuk menandatangani Tender/Sebut Harga ini
untuk dan bagi pihak:

.....
Meterai atau Cop Pembida

Tandatangan Saksi :

Tarikh :

Nama Penuh:

No.Kad Pengenalan:

Pekerjaan :

Alamat :

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

BUTIR-BUTIR KENYATAAN SYARIKAT

PERKARA-PERKARA PENTING YANG PERLU DIMASUKKAN / DI DALAM BUTIR-BUTIR KENYATAAN SYARIKAT

Pembida hendaklah mengambil maklum bahawa penilaian Tender/Sebut Harga ini akan mengambil kira keupayaan pembida untuk melaksanakan projek yang dipelawa. Keupayaan pembida akan dinilai berasaskan kedudukan kewangan, pengalaman, kakitangan, keempunyaan loji dan peralatan serta prestasi keseluruhan.

Untuk membolehkan penilaian ini dibuat, pembida dikehendaki mengemukakan salinan dokumen-dokumen berikut bersama-sama dokumen tawarannya.

1. Surat Pendaftaran Perniagaan
2. Sijil Pendaftaran dengan Agensi-Agensi seperti berikut (yang berkaitan):
 - i. Pusat Khidmat Kontraktor (PKK)
 - ii. Lembaga Pembangunan Industri Pembinaan Malaysia (LPIPM)
 - iii. Kementerian Kewangan Malaysia
3. Borang KWSP 'A' bagi caruman terakhir kakitangan , pengurusan dan professional
4. Surat pelantikan bagi kakitangan pengurusan dan professional
5. Sijil kelulusan / sijil keahlian badan-badan professional kakitangan
6. Sebarang dokumen / surat pengesahan sebagai bukti kepada kemudahan pinjaman dari bank, overdraft, kemudahan kredit dan yang seumpamanya.
7. Bagi syarikat sendirian berhad dan syarikat berhad kemukakan salinan penyata kewangan terkini yang telah disahkan oleh juruaudit bertauliah.
8. Penyata bank bagi 3 bulan terakhir.
9. Surat setujuterima / pesanan tempatan dan sijil siap kerja bagi projek lepas
10. Surat setujuterima / pesanan tempatan dan sijil bayaran bagi projek semasa

Di samping mengemukakan dokumen-dokumen di atas, pembida dikehendaki melengkapkan 'BUTIR-BUTIR KENYATAAN SYARIKAT' dengan sempurna dan mengembalikan bersama-sama dokumen tawaran .

Perlu diberi perhatian bahawa sebarang kenyataan yang tidak disertakan dengan dokumen-dokumen sokongan seperti yang diminta tidak akan diambil kira di dalam penilaian Tender/Sebut Harga.

BUTIR-BUTIR KENYATAAN SYARIKAT

SILA ISIKAN 'BUTIR-BUTIR KENYATAAN SYARIKAT' INI DENGAN LENGKAP KERANA SEGALA BUTIR-BUTIR YANG DIBERIKAN AKAN DINILAI SEMASA PROSES ANALISA DIJALANKAN.

A. KETERANGAN MENGENAI SYARIKAT

1. Nama Syarikat :
2. No. Pendaftaran :
3. Alamat Berdaftar :
.....
4. Alamat Surat Menyurat :
.....
5. Tarikh Ditubuhkan :
6. Jenis Perniagaan :
7. Nombor Pendaftaran :
 - i. Perniagaan :
 - ii. Pusat Khidmat Kontraktor :
 - iii. Lembaga Pembangunan Industri Pembinaan Malaysia:
 - iv. Kementerian Kewangan Malaysia :
8. Nombor Telefon :
9. Nombor Fax :
10. Taraf syarikat : Bumiputera / Bukan Bumiputera
 Jika Bumiputera, tempoh sah taraf taraf
 dari.....hingga.....

11. Lembaga Pengarah dan Pegangan Saham

NAMA	NO.KAD PENGENALAN	JUMLAH NILAI SAHAM (RM)	%	KEDUDUKAN DALAM SYARIKAT

12. Peratus pegangan saham Bumiputera dalam syarikat :

B. ORGANISASI SYARIKAT**1. Maklumat Kakitangan**

PERKARA/NAMA	JAWATAN	KELAYAKAN	BILANGAN	PENGALAMAN
Lembaga Pengarah				
a).....				
b).....				
c).....				
d).....				
Pengurusan				
a).....				
b).....				
c).....				
Profesional/Eksekutif				
a).....				
b).....				
c).....				
Kakitangan Teknikal				
a).....				
b).....				
c).....				
Kakitangan Sokongan				
a).....				
b).....				
c).....				

SILA KEMUKAKAN SALINAN PERKARA-PERKARA BERIKUT BAGI KAKITANGAN PENGURUSAN DAN PROFESIONAL YANG BERKHIDMAT DENGAN SYARIKAT.

- i. Surat Pelantikan
- ii. Borang KWSP 'A' bagi bulan caruman terakhir
- iii. Sijil kelulusan / sijil keahlian badan-badan profesional

2. Maklumat projek

PERKARA	KUANTITI / BILANGAN	JUMLAH NILAI (RM)
Jumlah projek yang diperolehi setakat ini semenjak syarikat ditubuhkan.		
Jumlah projek yang diperolehi dalam setahun (purata)		

C. KETERANGAN MENGENAI KEWANGAN SYARIKAT

1. Data-data kewangan

ASSET (RM)	LIABILITI	MODAL
Semasa :.....	Semasa :.....	Dibenar :
Tetap :	Jangkapanjang:	Berbayar :
Jumlah :.....	Jumlah :.....	

2. Akaun Wang Dalam Tangan (Cash In Hand)

- a) Nama dan alamat akaun dibuka

.....

.....

- b) Nombor Akaun :

PENTING : Sila kemukakan salinan penyata bank bagi 3 bulan terakhir

3. Kemudahan Kredit (jika ada)

- a) Nama dan alamat bank / institusi kewangan yang memberi kemudahan

i.

ii.

iii.

- b) Bentuk dan baki amaun yang boleh digunakan untuk projek ini.

i. Overdraft atau talian kredit RM

ii. Overdraft bercagar RM

iii. Kemudahan Pinjaman RM

iv. RM

v. RM

DOKUMEN PENTING

- i. Sila sertakan salinan Penyata Kewangan Terkini yang disahkan dan diaudit oleh Juru Audit Bertauliah bagi syarikat sendirian Berhad dan Syarikat Berhad atau
- ii. Salinan Penyata Kewangan Terkini bagi Syarikat Milikan Tunggal dan Syarikat Perkongsian.

D. KETERANGAN MENGENAI PEMILIKAN PERALATAN / MESIN / KENDERAAN SYARIKAT

- i. Jenis peralatan , kenderaan atau mesin yang dipunyai sekarang

JENIS PERALATAN /KENDERAAN/MESIN	KEUPAYAAN	BILANGAN	USIA/LAMA

E. KETERANGAN MENGENAI PENGALAMAN SYARIKAT

1. Pengalaman di dalam menjalankan projek-projek dengan Majlis Bandaraya Petaling Jaya
- i. Isikan butir-butir projek tersebut di dalam Jadual **E1**. Sila gunakan kertas tambahan jika ruang tidak mencukupi.
- ii. Sila sertakan salinan surat setujuterima atau Pesanan tempatan (Local Order).

2. Pengalaman Projek-projek lepas
 - i. Projek yang telah disiapkan dilaksanakan dalam tempoh 5 tahun lepas
 - ii. Isikan butir-butir projek tersebut di dalam Jadual **E3**. Sila gunakan kertas tambahan jika ruang tidak mencukupi
 - iii. Sila sertakan salinan surat setujuterima atau Pesanan tempatan (Local Order) .
3. Projek-projek Semasa
 - i. Isikan butir-butir berkaitan Kerja/Bekalan/Perkhidmatan di dalam tangan / sedang berjalan dan belum siap termasuk kontrak yang baru ditawarkan di dalam Jadual **E2**. Sila gunakan kertas tambahan jika ruang tidak mencukupi
 - ii. Sila sertakan salinan surat setujuterima atau Pesanan tempatan (Local Order) .

PERINGATAN PENTING

Butiran pengalaman Kerja/Bekalan/Perkhidmatan yang tidak disertakan dengan salinan Surat Setujuterima atau Pesanan Tempatan tidak akan diambilkira di dalam penilaian Tender/Sebut Harga.

DOKUMEN INI HAK MILIK MAJLIS BANDARAYA PETALING JAYA
BAHAGIAN PEROLEHAN
MAJLIS BANDARAYA PETALING JAYA

LAMPIRAN E1

BUTIR-BUTIR PENGALAMAN SYARIKAT DENGAN MAJLIS BANDARAYA PETALING JAYA

BIL	NAMA KONTRAK/PROJEK	NO. KONTRAK NO. PESANAN	NAMA DAN JABATAN/ INSTITUSI	NILAI KONTRAK / TEMPOH KONTRAK	TARIKH MULA	TARIKH SIAP	
						ASAL	SEBENAR

Dokumen Meja Terkawal

PERHATIAN : Sila gunakan lampiran lain jika ruang tidak mencukupi.
: Sila sertakan salinan surat setujuterima atau salinan pesanan tempatan

Saya akui segala butir - butir di atas adalah benar

TANDATANGAN PEMBIDA :

NAMA PEMBIDA DAN COP SYARIKAT :

DOKUMEN INI HAK MILIK MAJLIS BANDARAYA PETALING JAYA
BAHAGIAN PEROLEHAN
MAJLIS BANDARAYA PETALING JAYA

LAMPIRAN E2

BUTIR-BUTIR BEKALAN /PERKHIDMATAN /KERJA DI DALAM TANGAN /SEDANG BERJALAN DAN BELUM SIAP TERMASUK
KONTRAK YANG BARU DITAWARKAN

BIL	NAMA KONTRAK/PROJEK	NO. KONTRAK NO. PESANAN	NAMA DAN JABATAN/ INSTITUSI	NILAI KONTRAK / TEMPOH KONTRAK	TARIKH MULA	TARIKH SIAP	
						ASAL	SEBENAR

Dokumen Meja Terkawal

PERHATIAN : Sila gunakan lampiran lain jika ruang tidak mencukupi.
: Sila sertakan salinan surat setujuterima atau salinan pesanan tempatan

Saya akui segala butir - butir di atas adalah benar

TANDATANGAN PEMBIDA :

NAMA PEMBIDA DAN COP SYARIKAT :

DOKUMEN INI HAK MILIK MAJLIS BANDARAYA PETALING JAYA
BAHAGIAN PEROLEHAN
MAJLIS BANDARAYA PETALING JAYA

LAMPIRAN E3

BUTIR-BUTIR PENGALAMAN SYARIKAT YANG TELAH DIJALANKAN DALAM TEMPOH 5 TAHUN LEPAS

BIL	NAMA KONTRAK/PROJEK	NO. KONTRAK NO. PESANAN	NAMA DAN JABATAN/ INSTITUSI	NILAI KONTRAK / TEMPOH KONTRAK	TARIKH MULA	TARIKH SIAP	
						ASAL	SEBENAR

Dokumen Meja Terkawal

PERHATIAN : Sila gunakan lampiran lain jika ruang tidak mencukupi.
: Sila sertakan salinan surat setujuterima atau salinan pesanan tempatan

Saya akui segala butir - butir di atas adalah benar

TANDATANGAN PEMBIDA :

NAMA PEMBIDA DAN COP SYARIKAT :

F. PENGAKUAN PEMBIDA

1. Kami telah membaca dengan teliti dan memahami semua arahan yang terkandung di dalam '**BUTIR-BUTIR KENYATAAN SYARIKAT**'.
2. Kami juga mengambil maklum bahawa kami dikehendaki mengemukakan semua maklumat dan dokumen yang berkaitan bagi menyokong maklumat tertentu, sebelum Tender/Sebut Harga ditutup. Maklumat dan dokumen yang dikemukakan kemudian daripada itu tidak akan diambilkira di dalam penilaian keupayaan kami.
3. Kami juga mengambil maklum bahawa penilaian ke atas Tender/Sebut Harga kami akan terjejas atau mungkin tidak dipertimbangkan sekiranya maklumat-maklumat yang diberikan tidak diisi atau tidak mencukupi atau tiada dokumen sokongan yang lengkap.
4. Kami dengan ini mengaku bahawa segala maklumat yang dinyatakan adalah betul dan benar belaka. Saya bersetuju Majlis Bandaraya Petaling Jaya akan bertindak mengikut budibicaranya untuk mengetahui kedudukan sebenar. Sekiranya mana-mana maklumat didapati tidak benar, Majlis Bandaraya Petaling Jaya berhak membatalkan tawaran ini ataupun menarik balik kontrak berkenaan kemudian.

Nama Pembida :.....

No. Kad Pengenalan :.....

Tandatangan :.....

Cop syarikat :.....

Tarikh :.....

BORANG G - LAPORAN BANK/INSTITUSI KEWANGAN MENGENAI KEDUDUKAN KEWANGAN PEMBIDA

(Borang ini hendaklah dilengkapkan oleh pihak Bank atau Institusi Kewangan lain dan diserahkan kepada pembida untuk disertakan bersama-sama Tender/Sebut Harganya sekiranya pembida mempunyai Kemudahan Kredit dengan Bank/Institusi Kewangan yang berkenaan)

Kepada :

**DATUK BANDAR PETALING JAYA,
MAJLIS BANDARAYA PETALING JAYA,
JALAN YONG SHOOK LIN ,
46675 PETALING JAYA
SELANGOR DARUL EHSAN.
(U/P : Bahagian Perolehan)**

Nama Pembida :

Projek : Tender/Sebut Harga Untuk Membina dan Menyiapkan.....
.....
.....

- (A) Kemudahan Kredit yang boleh digunakan untuk perlaksanaan Projek :
Kemudahan Kredit yang telah diluluskan dan kemudahan kredit tambahan minimum yang layak diperolehi oleh pembida adalah seperti berikut :-

Bentuk Kemudahan Kredit	Baki drpd. yg. diluluskan	Tambahan minimum yang akan diluluskan	Jumlah
(i) Overdraf	RM	RM	RM
(ii) Overdraf Bercagar	RM	RM	RM
(iii) Talian Kredit	RM	RM	RM
(iv) Pinjaman Tetap yang akan/layak diperolehi untuk projek	RM	RM	RM
(v)	RM	RM	RM
Jumlah :	RM	RM	RM

(*jika projek diawardkan kepada pembida)

- (B) Ulasan-ulasan mengenai kedudukan kewangan dan akaun pembida :

.....
Tandatangan Untuk Dan Bagi Pihak Bank

Nama Bank :

Nama Pegawai :

Meterai Bank :

Jawatan :

Tarikh :

SULIT

BORANG H - LAPORAN JURUTERA PROJEK ATAS PRESTASI KERJA SEMASA PEMBIDA (BUKAN PROJEK MBPJ)

(Borang ini hendaklah dilengkapkan oleh Penyelia Projek atau Pembantu Kanannya yang mengawasi projek dan diserahkan kepada Kontraktor dalam satu sampul berlakri untuk disertakan bersama-sama Tender/Sebut Harganya).

Kepada:

**DATUK BANDAR PETALING JAYA,
MAJLIS BANDARAYA PETALING JAYA,
JALAN YONG SHOOK LIN ,
46675 PETALING JAYA
SELANGOR DARUL EHSAN.
(U/P : Bahagian Perolehan)**

Nama Pembida :

Nama Projek Yang Di Laksanakan :
.....

No. Kontrak :

Harga Kontrak (termasuk Anggaran Nilai Kerja Perubahan) : RM
Wang Kos Prima dan Peruntukkan Sementara : RM
Nilai Kerja Pembina : RM

Tarikh Milik Tapak : Tempoh Kontrak : minggu
Tarikh Penyiapan Asal :

Lanjutan Masa Yang Telah Diluluskan : hari

Lanjutan Masa Seterusnya;
yang difikirkan/dijangka layak diperakukan : hari
Atas sebab-sebab : (i)
(ii)

Kemajuan Kerja (berdasarkan penilaian kerja yang telah dilaksanakan) :
Pencapaian Sebenar : % Mengikut Jadual : %
Tarikh Kerja dijangka akan dapat disiapkan :

Nilai Bahagian Kerja Yang Telah Siap : RM
Nilai Baki Kerja Yang Belum Siap : RM

Ulasan-ulasan mengenai Prestasi Kontraktor;
(Nyatakan apa-apa kepujian dan/atau kelemahan Kontraktor dan juga apa-apa tindakan/perakuan yang diambil/dipertimbangkan berhubung dengan prestasi Kontraktor melaksanakan Kontrak)

.....
Tandatangan Penyelia Projek

Nama :

Jawatan :

Tarikh :

BORANG H1 - LAPORAN JURUTERA PROJEK ATAS PRESTASI KERJA SEMASA PEMBIDA

(Borang ini hendaklah dilengkapkan oleh Penyelia Projek atau Pembantu Kanannya yang mengawasi projek apabila diminta berbuat demikian oleh Pegawai Penilaian dan hendaklah dihantar dengan segera.

Kepada:

**DATUK BANDAR PETALING JAYA,
MAJLIS BANDARAYA PETALING JAYA,
JALAN YONG SHOOK LIN ,
46675 PETALING JAYA
SELANGOR DARUL EHSAN.
(U/P : Bahagian Perolehan)**

Nama Pembida :

Nama Projek Yang Di Laksanakan :

No. Kontrak :

Harga Kontrak (termasuk Anggaran Nilai Kerja Perubahan) : RM
Wang Kos Prima dan Peruntukkan Sementara : RM
Nilai Kerja Pembina : RM

Tarikh Milik Tapak : Tempoh Kontrak : minggu
Tarikh Penyiapan Asal :

Lanjutan Masa Yang Telah Diluluskan : hari

Lanjutan Masa Seterusnya;
yang difikirkan/dijangka layak diperakukan : hari
Atas sebab-sebab : (i)
(ii)

Kemajuan Kerja (berdasarkan penilaian kerja yang telah dilaksanakan) :
Pencapaian Sebenar : % Mengikut Jadual : %
Tarikh Kerja dijangka akan dapat disiapkan :

Nilai Bahagian Kerja Yang Telah Siap : RM
Nilai Baki Kerja Yang Belum Siap : RM

Ulasan-ulasan mengenai Prestasi Kontraktor;
(Nyatakan apa-apa kepujian dan/atau kelemahan Kontraktor dan juga apa-apa tindakan/perakuan yang diambil/dipertimbangkan berhubung dengan prestasi Kontraktor melaksanakan Kontrak)

.....
Tandatangan Pegawai Penguasa/Jurutera Projek/Wakilnya

Nama :

Jawatan :

Tarikh :

B) TATACARA PENILAIAN TENDER/SEBUT HARGA KECIL BAGI PROJEK SECARA KONVENSIONAL BERNILAI RM10 JUTA DAN KE BAWAH**1.0 MAKLUMAT-MAKLUMAT YANG DIPERLUKAN UNTUK PENILAIAN KEUPAYAAN PEMBIDA**

- 1.1 Pembida hendaklah mengambil maklum bahawa Penilaian Tender/Sebut Harga ini akan mengambilkira dan mementingkan keupayaan pembida untuk melaksanakan projek yang ditender atau disebut harga, di samping kemunasabahan harga Tender/Sebut Harga.
- 1.2 Penilaian akan dibuat berasaskan kelayakan asas Tender/Sebut Harga, keupayaan kewangan, dan keupayaan teknikal (prestasi, dan beban kerja semasa serta pengalaman kerja) pembida dan penilaian teknikal (kerja Mekanikal & Elektrik) bagi komponen/peralatan. Bagi membolehkan penilaian dibuat, pembida dikehendaki melengkapkan borang-borang berikut yang disertakan bersama Dokumen Tender/Sebut Harga ini dengan sempurna dan mengembalikannya bersama-sama dengan Tender/Sebut Harga masing-masing:

1.2.1	Borang A	Surat Pengakuan Kebenaran Maklumat dan Kesahihan Dokumen Yang Dikemukakan Oleh Pembida .
1.2.2	Borang B.O. (Lampiran 12)	Borang Pemberitahuan Pemunya Benefisial
1.2.3	Borang S.A. (Lampiran 13)	Surat Akuan Syarikat Dalam Menangani Jenayah Pemerdagangan Orang Dan Buruh Paksa
1.2.4	Jadual B	Maklumat Am Latar Belakang Pembida
1.2.5	Jadual C	Data Kewangan Pembida
1.2.6	Borang G	Laporan Bank/Institusi Kewangan Mengenai Kemudahan Kredit Pembida
1.2.7	Lampiran E2	Senarai Kerja/Kontrak Semasa Pembida
1.2.8	Borang H	Laporan Prestasi Kerja Semasa Pembida
1.2.9	Lampiran E 3	Rekod Pengalaman Kerja Pembida (Senarai Kerja Dalam Tempoh 5 Tahun Lepas)
1.2.10	Borang Tender / Sebut Harga	Borang Tender / Borang Sebut Harga / Lampiran Q / Senarai Kuantiti
1.2.11	Lampiran 6	Surat Akuan Pembida (Integrity Pact)
1.2.12	TCC	Sijil Pematuhan Cukai (Tax Compliance Certificate – TCC)

1.3 Borang-borang ini hendaklah diisi dengan maklumat-maklumat yang benar dan data-data yang tepat. Setiap helaian tambahan yang dilampirkan kepada borang-borang lain hendaklah ditandatangani oleh pembida.

1.4 Bagi memastikan kesahihan maklumat dan data yang diterima daripada pembida seperti di perenggan 1.2, maklumat tersebut hendaklah disokong dengan dokumen-dokumen berikut untuk tujuan penilaian.

1.4.1 Perakuan/Sijil Pendaftaran / Sijil Pendaftaran

- i. Perakuan Pendaftaran Kontraktor (PPK) CIDB;
- ii. Sijil Perolehan Kerja Kerajaan (SPKK) CIDB/ Sijil Pusat Pendaftaran (PUKONSA)/ Sijil Unit Pendaftaran Kontraktor Dan Juru Perunding Sarawak (UPKJ).
- iii. Kontraktor Kerja, Bekalan dan Perkhidmatan Negeri Sabah.
- iv. Sijil Taraf Bumiputera (STB) dari PUSAT KHIDMAT KONTRAKTOR (PKK)(jika berkaitan);
- v. Sijil Pendaftaran Kementerian Kewangan (jika berkaitan)
- vi. Berdaftar dengan Unit Perancang Ekonomi Negeri Selangor (UPEN)

1.4.2 Surat Pengakuan Kebenaran Maklumat dan Kesahihan Dokumen

- 1.4.2.1 Pembida WAJIB mengisi dan menandatangani Borang A. Kegagalan mengemukakan Borang A yang lengkap akan menyebabkan pembida tidak layak dinilai.

1.4.3 Maklumat Kewangan

- 1.4.3.1 Pembida hendaklah mengisi Borang C (Data Kewangan Pembida).

- 1.4.3.2 Pembida **wajib** mengemukakan sekurang-kurangnya salah satu dokumen kewangan berikut:-

- a. Salinan Penyata Kewangan Syarikat bagi tiga (3) tahun kewangan terakhir secara berturut-turut sebelum tahun tutup Tender/Sebut Harga atau sekiranya tiada, bagi tiga (3) tahun kewangan terakhir secara berturut-turut setahun sebelum tahun tutup Tender/Sebut Harga yang diaudit dan disahkan dengan salinan diakui sah (certified true copy) oleh Juruaudit Bertauliah.

b. Salinan Penyata Bulanan Bank bagi tiga (3) bulan terakhir sebelum bulan tutup Tender/Sebut Harga yang disahkan oleh pegawai yang diberi kuasa oleh bank berkenaan.

c. Laporan asal bank/institusi kewangan mengenai kemudahan kredit pembida, atas format seperti di Borang G yang ditandatangani oleh pegawai yang diberi kuasa oleh bank/institusi kewangan berkenaan.

1.4.3.3 Deposit tetap (sekiranya ada) yang disahkan oleh pegawai yang diberi kuasa oleh bank berkenaan boleh dikemukakan sebagai tambahan kepada pengiraan keupayaan kewangan.

1.4.3.4 Pihak Majlis akan membuat semakan dengan pihak syarikat audit/ bank/ institusi kewangan bagi mendapatkan pengesahan ke atas maklumat kewangan yang dikemukakan oleh pembida. Pembida hendaklah memastikan bahawa pihak syarikat audit/ bank/ institusi kewangan mengemukakan maklum balas dalam tempoh empat belas hari (14) hari dari tarikh surat dihantar kepada mereka. Kegagalan pihak syarikat audit/ bank/ institusi kewangan untuk mengemukakan maklum balas dalam tempoh tersebut akan menyebabkan maklumat kewangan pembida yang berkenaan tidak diambil kira dalam penilaian.

1.4.4 Maklumat Teknikal

1.4.4.1 Pembida dikehendaki menyenaraikan kerja semasa di Borang D (Lampiran E2). Pembida **wajib** mengisi Borang H dengan lengkap dan dikemukakan bersama-sama dokumen-dokumen sokongan yang ditetapkan. Kegagalan pembida untuk mengisytiharkan kerja semasa akan menyebabkan Tender/Sebut Harganya ditolak. Bagi pembida yang tidak mempunyai kerja semasa, sila catatkan "Tiada Kerja Semasa" di Lampiran E2.

1.4.4.2 Pembida dikehendaki menyenaraikan kerja-kerja yang telah dilaksanakan di Lampiran E3 berserta dokumen-dokumen sokongan sekiranya mempunyai pengalaman kerja. Bagi pembida yang tidak mempunyai pengalaman kerja, sila catatkan "Tiada pengalaman" di Lampiran E3. Kegagalan pembida untuk mengemukakan salah satu atau sebahagian daripada dokumen-dokumen sokongan

di Lampiran E3 akan mengakibatkan maklumat tersebut tidak dapat disemak kerana ketidakcukupan dokumen. Hal ini boleh menyebabkan maklumat tersebut tidak diambil kira.

1.4.4.3 Dokumen-dokumen sokongan yang diperlukan adalah seperti berikut:

- a. Salinan Surat Setuju Terima dan Perakuan Bayaran Interim terkini bagi setiap kerja semasa yang disenaraikan di Lampiran E2;
- b. Laporan Asal Projek mengenai prestasi semasa pembida, bagi setiap kerja semasa yang disenaraikan di Lampiran E2, atas format seperti Borang H. Laporan tersebut hendaklah ditandatangani oleh Pegawai Penguasa/Wakil Pegawai Penguasa/Pegawai Profesional yang menyelia projek tersebut; dan
- c. Salinan Surat Setuju Terima dan Salinan Perakuan Siap Kerja/Pengesahan Siap Kerja/Perakuan Muktamad setiap kerja yang telah disiapkan dan disenaraikan di Lampiran E3.

1.4.5 Surat Akuan Pembida (Integrity Pact)

- 1.4.5.1 Pembida **wajib** mengisi dan menandatangani Lampiran 6. Kegagalan mengisi borang ini akan menyebabkan Tender/Sebut Harganya ditolak.

1.5 Dokumen tambahan pembida yang mempunyai dan mengemukakan salinan sijil-sijil berikut boleh diberi keutamaan dalam perakuan Tender/Sebut Harga :

1.5.1 Sijil SCORE

- 1.5.1.1 Sijil SCORE dari CIDB yang masih sah semasa Tender/Sebut Harga ditutup (tidak lebih satu tahun dari tarikh sijil dikeluarkan) dengan minimum dua (2) bintang terutama bagi pembida yang menawarkan harga Tender/Sebut Harga di bawah paras Harga Cut-Off.

1.5.2 Sijil/Perakuan Anugerah

1.5.2.1 Anugerah yang diperolehi oleh pembida yang berkaitan dengan industri pembinaan dalam tempoh lima (5) tahun ke belakang, contohnya Anugerah Kontraktor Cemerlang, Anugerah Pengurusan Pmbinaan Terbaik.

1.6 Dokumen-dokumen wajib dan sokongan seperti di perenggan 1.4 dan 1.5 adalah penting untuk membolehkan penilaian keupayaan dibuat ke atas pembida. Pembida hendaklah mengemukakan dokumen-dokumen ini dalam satu (1) sampul berasingan yang dilabelkan sebagai 'Dokumen Wajib Dan Sokongan'. Pembida juga dikehendaki mengisi dan menyertakan Senarai Semakan Dokumen (SSD) bersama-sama sampul tersebut. Senarai Semakan ini akan menjadi panduan semakan semula dan bukti penerimaan dokumen-dokumen wajib dan sokongan.

1.7 Semua maklumat dan dokumen yang tersebut di atas hendaklah dikemukakan bersama-sama dokumen Tender/Sebut Harga sebelum tarikh dan waktu tutup Tender/Sebut Harga. Bagi memastikan Majlis bersikap adil dan saksama kepada pembida-pembida lain yang berjaya mematuhi arahan tersebut, sebarang maklumat atau dokumen yang dikemukakan selepas daripada tarikh dan waktu tutup Tender/Sebut Harga, **tidak akan diterima**.

1.8 Sekiranya pembida mengemukakan maklumat palsu, tidak memberikan maklumat yang dikehendaki dengan lengkap, dan/atau menyembunyikan atau sengaja tidak mengemukakan mana-mana maklumat yang memberi kesan negatif terhadap keupayaannya, Tender/Sebut Harganya akan ditolak dan tindakan sewajarnya akan diambil oleh Majlis ke atas pembida.

2.0 KRITERIA PENILAIAN TENDER/SEBUT HARGA BAGI TENDER/SEBUT HARGA KERJA KECIL

- Penilaian Tender/Sebut Harga akan dijalankan dalam dua peringkat berdasarkan kepada kriteria-kriteria penilaian yang ditetapkan.

2.1 Kaedah Penilaian

a) Penilaian Tender/Sebut Harga dibuat bagi PEMBIDA lebih dari 10 adalah menggunakan sistem cut off diubah (adjusted mean) dimana penilaian akan dibuat kepada 10 – 15 pembida yang mengemukakan tawaran seperti berikut :-

- i. BWAM mesti berada dalam julat -20.00% hingga 0.00%.

- b) Bagi bilangan pembida kurang daripada 10, maka penilaian menggunakan dasar harga terendah dan peratus (%) nilai perbandingan adalah tidak melebihi anggaran Jabatan (+ %BWAJ).
- c) Penilaian Tender/Sebut Harga bagi perolehan secara jadual kadar harga atau harga siling, penilaian akan dibuat kepada 10 - 15 berdasarkan harga terendah.

Rujukan:

- i. Menggunapakai Pekeliling Perbendaharaan Negeri Selangor Bil. 7 Tahun 2014
- ii. Surat Pekeliling Perbendaharaan Negeri Selangor Bil. 1 Tahun 2015
- iii. Mesyuarat Jawatankuasa Sebut Harga Bil. 3/2024 bertarikh 26 Februari 2024

2.2 Penilaian Peringkat Pertama (Kelayakan Asas Tender/Sebut Harga)

2.2.1 Hanya Tender/Sebut Harga yang mematuhi kriteria penilaian peringkat pertama sahaja yang LAYAK dinilai ke peringkat kedua.

2.2.2 Tender/Sebut Harga yang diterima mestilah mematuhi kriteria kelayakan asas berikut:

- i) Borang Tender / Borang Sebut Harga / Borang Q / Senarai Kuantiti ditandatangani, disaksikan dan diturunkan cap syarikat.
- ii) Penandatanganan Borang Tender / Borang Sebut Harga / Borang Q / Senarai Kuantiti adalah pihak yang diberi kuasa berdasarkan Sijil CIDB /Kementerian Kewangan
- iii) Harga Tender / Borang Sebut Harga / Borang Q / Senarai Kuantiti dan Tempoh Siap Kerja (kecuali jika tempoh siap kerja telah ditetapkan) tercatat di Borang Tender / Borang Sebut Harga / Borang Q / Senarai Kuantiti.
- iv) Pendaftaran pembida masih sah semasa tarikh tutup Tender/Sebut Harga.

v) Kesemua dokumen asas Tender/Sebut Harga seperti berikut dikembalikan:

- a. Borang Tender/ Borang Sebut Harga / Borang Q / Senarai Kuantiti
- b. Senarai Kuantiti/ Ringkasan Tender/Sebut Harga
- c. Adendum yang dikemukakan kepada pembida selepas dokumen Tender/Sebut Harga dijual kepada mereka
- d. Perjanjian Usahasama/Gabungan (jika berkenaan)
- e. Maklumat/ Dokumen lain yang dinyatakan di dalam Arahan Kepada Pembida:

.....Senaraikan dokumen/maklumat yang berkenaan....

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

vi) Borang A ditandatangani, disaksikan dan diturunkan cap syarikat.

vii) Surat Akuan Pembida ditandatangani (Integrity Pact)

viii) Sekurang-kurangnya salah satu dokumen berikut dikemukakan:

- a. Salinan Penyata Kewangan Syarikat dikemukakan, diaudit dan disahkan oleh juruaudit bertauliah;
- b. Penyata Bulanan Bank yang disahkan oleh pegawai bank yang diberi kuasa;
- c. Laporan Asal Bank/Institusi Kewangan mengenai kemudahan kredit pembida atas format seperti di Borang C yang ditandatangani oleh pegawai bank/institusi kewangan yang diberi kuasa.

2.3 Penilaian Peringkat Kedua

2.3.1 Penilaian di peringkat kedua adalah berasaskan kriteria berikut:

- i) Kecukupan modal minimum pembida dalam bentuk aset mudah cair dan Kemudahan Kredit tidak kurang daripada lima peratus (5%) daripada nilai **Kerja Pembina** Anggaran Jabatan (Tender) dan satu persepuluh lima (1.5%) daripada nilai **Kerja Pembina** Anggaran Jabatan (Sebut Harga).

- ii) Bagi penilaian aspek ini nilai modal minima yang diambil kira adalah berdasarkan nilai perolehan yang dibuat. (Rujuk jadual di bawah)

Perolehan	Sebut Harga		Tender	
Nilai Perolehan	Kerja / Bekalan / Perkhidmatan		Bekalan / Perkhidmatan	Kerja
	Sehingga RM200 Ribu	Melebihi RM200 Ribu	Melebihi RM500 Ribu	Melebihi RM3 Juta
Nilai modal minima	Tidak diambilkira modal minima.	1.5% daripada Harga Indikatif Jabatan (HIJ).	5% daripada Harga Indikatif Jabatan (HIJ).	5% daripada Harga Indikatif Jabatan (HIJ).

- iii) Modal dalam bentuk aset mudah cair ialah jumlah Modal Pusingan iaitu perbezaan antara Aset Semasa dan Liabiliti Semasa pembida seperti yang ditunjukkan dalam Lembaran Imbangan atau nilai positif purata baki akhir bulan dalam Penyata Bulanan Bank bagi tiga (3) bulan terakhir termasuk Deposit Tetap, yang mana lebih tinggi. Jumlah ini dicampur dengan jumlah Baki Nilai Kemudahan Kredit yang diperolehi oleh pembida daripada Bank.
- iv) Deposit Tetap yang tidak dicagarkan hendaklah mempunyai tarikh matang yang sekurang-kurangnya sehingga tiga (3) bulan selepas tarikh tutup tender.
- v) Kemudahan kredit bagi modal mudah cair yang boleh diambilkira hanyalah kemudahan kredit sedia ada seperti berikut:
- *Factoring*
 - *OD (PC)*
 - *Bank Guarantee*
 - *Bankers Acceptance*
 - *Term Loan*
 - Kredit berputar / *revolving*
 - Pinjaman berjangka
- vi) Selain daripada kemudahan kredit seperti senarai di atas, semua bentuk kemudahan kredit lain tidak boleh diambilkira termasuklah pinjaman tetap yang akan atau layak diperolehi untuk projek.

2.3.2 Keupayaan Teknikal

Keupayaan teknikal adalah berasaskan kepada kriteria berikut:

i) Prestasi Kerja Semasa

- Kerja Semasa diertikan sebagai kerja kontrak yang masih dalam pelaksanaan dan belum disiapkan pada Tarikh Tutup Tender/Sebut Harga. Pembida mestilah **Tidak** mempunyai projek yang mana kemajuan pelaksanaan semasa mengalami kelewatan melebihi dua puluh peratus (20%) dari jadual atau kelewatan melebihi enam puluh (60) hari dari tarikh siap dibenarkan atau sedang menghadapi tindakan penamatan pengambilan kerja.

ii) Beban Kerja Semasa

- Penilaian beban kerja semasa adalah berdasarkan nilai baki kerja dalam tangan yang belum siap untuk semua projek ketika pembida memasuki Tender/Sebut Harga.

iii) Pengalaman Kerja

- a. Pengalaman kerja pembida adalah pengalaman kerja serupa atau pengalaman kerja sebanding yang diperakukan siap dalam tempoh lima (5) tahun dari tarikh tutup Tender/Sebut Harga.
- b. Kerja serupa ertinya: Kerja yang diliputi oleh kategori yang sama seperti kerja yang di Tender/Sebut Harga.
- c. Kerja sebanding ertinya: Kerja yang diliputi oleh kategori yang berlainan daripada kerja yang di Tender/Sebut Harga.
- d. Sekiranya kategori kerja yang ditender ialah B, maka kerja sebanding adalah kerja dalam kategori CE dan ME. Sekiranya kategori kerja yang dipelawa ialah CE, maka kerja sebanding adalah kerja dalam kategori B dan ME. Kerja kategori F tidak boleh diambil sebagai pengalaman Kerja Bangunan, Kejuruteraan Awam, Mekanikal dan Elektrik. Sekiranya kerja yang ditender ialah F, maka kerja sebanding adalah kerja dalam kategori ME.
- e. Kerja yang diambil kira adalah terhad kepada kerja yang dilaksanakan oleh pembida sebagai kontraktor utama dan

sub-kontraktor yang dinamakan sahaja. Kerja yang dilaksanakan sebagai sub-kontraktor biasa tidak boleh diambil kira melainkan ada pengesahan dari pihak Pegawai Penguasa dan Kontraktor Utama serta jenis dan skop kerja hendaklah bersesuaian dengan kerja yang di Tender/Sebut Harga.

- f. Pembida perlu mengemukakan maklumat pengalaman dalam bentuk salinan surat setuju terima projek yang mengandungi maklumat penting seperti berikut:
- Tajuk Projek
 - Harga Kontrak
 - Tarikh Siap
 - Pemilik Projek
- g. Pembida layak disyorkan jika ada pengalaman yang serupa atau sebanding.

BORANG PEMBERITAHUAN PEMUNYA BENEFISIAL

Tandakan ☐

- ☐ Berdaftar dengan Suruhanjaya Syarikat Malaysia (SSM) dan telah menyerahkan simpan maklumat pemunyaan benefisial di SSM.
- ☐ Berdaftar dengan SSM dan tidak perlu menyerahkan simpan maklumat pemunya benefisial di SSM (syarikat enterprise) (Perlu menghantar borang tanpa diisi)
- ☐ Tidak berdaftar dengan Suruhanjaya Syarikat Malaysia (SSM) (Perlu menghantar borang tanpa isi)

Nama syarikat : (WAJIB DIISI)

Butiran Pemunya Benefisial :

Nama Individu	No. Kad Pengenalan / No. Pasport	Jawatan dalam syarikat (sekiranya ada)	Kewarganegaraan

Saya, nombor kad pengenalan / nombor pasport
 (Nama Pemilik / Pengarah Syarikat)
 yang mewakili syarikat / perniagaan nombor
 pendaftaran dengan sesungguhnya dan sebenarnya mengesahkan bahawa senarai
 (MOF/CIDB/SSM)
 pemunya benefisial syarikat seperti mana pemberitahuan dalam borang ini adalah sama dengan maklumat yang
 diserahkan simpan kepada Suruhanjaya Syarikat Malaysia (SSM) berdasarkan Akta Syarikat 2016 (Akta 777) dan
 garis panduan yang dikeluarkan oleh Suruhanjaya Syarikat Malaysia (SSM).

Yang benar,

Tandatangan : _____

Nama : _____

No.KP : _____

Tarikh : _____

Cop Syarikat : _____

Catatan:

* Potong mana yang tidak berkenaan

NO. TENDER : MBPJ/TD/K/023/2026

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

DOKUMEN B

BORANG TENDER

BORANG INI HENDAKLAH DIGUNAKAN JIKA KUANTITI
MENJADI SEBAHAGIAN DARIPADA KONTRAK

(THIS FORM IS TO BE USED WHERE QUANTITIES FORM
PART OF THE CONTRACT)

Kontrak No tahun 20
Contract No *Of*

bagi Kerja-Kerja tersebut di bawah ini yang dibuat pada haribulan
tahun oleh pihak-pihak yang bertandatangan di bawah ini, adalah berhubungan dengan
Borang Tender ini yang menjadi sebahagian daripada Kontrak tersebut dan yang hendaklah dibaca
dan diertikan sedemikian.

for the under-mentioned Works entered into on the day of *by the*
undersigned parties, refers to this Form of Tender which is and shall be read and construed as
part of the said Contract.

.....
Tandatangan Kontraktor
Signature of Contractor

.....
Tandatangan Pegawai
Signature of Officer

(Nama Penuh.....)
Name in Full

(Nama Penuh)
Name in Full

No. Kad Pengenalan
Identity Card No.

No. Kad Pengenalan
Identity Card No.

Atas sifat.....
In the capacity of
yang diberikuasa dengan sepenuhnya
untuk menandatangani untuk dan bagi
pihak
duly authorised to sign for and on
behalf of

Jawatan.....
Designation
Untuk dan bagi pihak KERAJAAN
For and on behalf of GOVERNMENT

.....
Meteri atau Cop Kontraktor
Contractor's seal or chop

Saksi
Witness

Saksi
Witness

(Nama Penuh.....)
Name in Full

(Nama Penuh)
Name in Full

No. Kad Pengenalan
Identity Card No.

No. Kad Pengenalan
Identity Card No

Pekerjaan
Occupation

Jawatan
Designation

Alamat
Address

MAJLIS BANDARAYA PETALING JAYA

BORANG TENDER (FORM OF TENDER)

TENDER BAGI
TENDER FOR

mengikut Pelan-Pelan No
in accordance with Drawings No.

dan lain-lain pelan terperinci yang diberi untuk menerangkannya.
and any other detail drawings supplied in amplification thereof.

Salinan-salinan Dokumen Meja Tender yang merangkumi Perjanjian Kontrak, Pelan-Pelan tersebut di atas, Senarai Kuantiti dan/atau Spesifikasi dan Dokumen Tender yang lain boleh dilihat di tempat yang dinyatakan dalam Notis Tender dalam masa waktu pejabat pada mana-mana hari bekerja hingga tarikh akhir yang ditetapkan bagi penyerahan tender.

Copies of the Tender Table Documents comprising the Contract Agreement, the above-mentioned Drawings, Specification and other Tender Documents may be seen at the place specified in the Tender Notice during office hours on any working day until the final date fixed for the submission of tenders.

Kepada:
To

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

(Pihak menerima tender)

TUAN,

Di bawah dan tertakluk kepada Syarat-Syarat Membuat Tender yang dilampirkan bersama ini, yang bertandatangan di bawah ini adalah dengan ini membuat tender dan menawar untuk melaksana dan menjalankan Kerja dan peruntukan-peruntukan dan membekalkan semua buruh, bahan dan loji dan segala benda dari tiap-tiap jenis yang masing-masing disebut, ditunjuk, diperihal dan dimaksudkan dalam, atau yang hendaklah ditakrifkan daripada Dokumen Tender, yang hendaklah dilaksanakan dan dibekalkan oleh pihak Kontraktor, bagi Kerja yang diperihalkan di atas, dengan menepati Dokumen Tender tersebut bagi jumlah wang pukal yang disebutkan di bawah ini.

Under and subject to the Conditions of Tendering annexed hereto, the undersigned does hereby tender and offer to execute and perform the Works and provisions and supply all labour, materials and plants and everything of every kind respectively named, shown, described and alluded to in, or to be inferred from the Tender Documents, to be executed and supplied on the part of the Contractor, for the Works above described, in conformity with the said Tender Documents for the lump sum named herein below.

+ Borang ini hendaklah digunakan jika kuantiti menjadi sebahagian daripada kontrak
This form is to be used where quantities form part of the contract

2. Yang bertandatangan di bawah ini bersetuju menjadi terikat oleh dan tunduk kepada Syarat-Syarat Kontrak dan Senarai Kuantiti yang terletak harganya dan/atau Spesifikasi tersebut dan bersetuju bahawa sebelum Surat Setujuterima Tender dikeluarkan, harga atau kadar harga dalam Senarai Kuantiti hendaklah diteliti dan diselaraskan oleh Pegawai Penguasa dengan memastikan kemunasabahannya tanpa mengubah amaun yang dinyatakan di dalam Borang Tender.

The undersigned agrees to be bound by and submit to the Conditions of Contract and priced Bills of Quantities and Specification and agrees that before the issuance of the Letter of Acceptance, the prices or rates in the Bills of Quantities shall be scrutinized and adjusted by the Superintending Officer as to its reasonableness without altering the amount as stated in the Form of Tender.

Senarai Kuantiti yang terletak harganya tersebut, selepas diperbetulkan atau diselaraskan sebagaimana yang diperuntukkan dalam Syarat-Syarat Kontrak, hendaklah menjadi asas bagi menilaikan bayaran interim dan apa-apa perubahan yang mungkin diarahkan oleh Pegawai Penguasa dari semasa ke semasa.

The said priced Bills of Quantities after rectification or adjustment as provided in the Conditions of Contract, shall form the basis of valuation for interim payment and any variation which may from time to time be ordered by the Superintending Officer.

3. Dan selanjutnya, yang bertandatangan di bawah ini bersetuju menyiapkan Kerja itu dalam masa**40**..... ~~hari~~/minggu/~~bulan~~* dari tarikh pemilikan tapakbina atau dalam apa-apa tempoh lanjutan yang diperuntukkan dalam Syarat-Syarat Kontrak.

And further, the undersigned agrees to complete the Works within days/weeks/months from the date of possession of site or within such extended time as by the Conditions of Contract provided.*

4. Jumlah amaun Tender ini ialah jumlah wang pukal sebanyak Ringgit Malaysia.....

The total amount of the Tender is the lump sum of Ringgit Malaysia

.....
.....

iaitu, RM.....

i.e.

5. Yang bertandatangan di bawah ini berharap dibenarkan membuat tender, dalam sedikit masa lagi bagi kerja berikut yang mana dijalankan secara langsung oleh yang bertandatangan di bawah ini dalam perjalanan biasa perniagaannya dan yang baginya Wang Kos Prima atau Wang Peruntukan Sementara telah dimasukkan dalam amaun Tender ini:

The undersigned desires to be permitted to tender in due course, for the following work which the undersigned in the ordinary course of business directly carries out and for which Prime Cost or Provisional Sums have been included in the amount of this Tender:

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

* Petender dikehendaki memotong yang tidak berkenaan.
The tenderer to delete whichever is not applicable

6. Bahawasanya adalah diketahui bahawa Kerajaan sentiasa berhak menyetujui atau menolak Tender ini, sama ada ianya lebih rendah atau lebih tinggi daripada tender-tender yang lain, atau sama amaunnya. Yang bertandatangan di bawah ini bersetuju yang Tender ini akan berterusan sah dan tidak akan ditarik balik dalam tempoh satu ratus dua puluh (120) hari dari tarikh akhir yang ditetapkan bagi penyerahan tender dan bersetuju bahawa tiada apa-apa had, syarat atau janji lain akan dikenakan oleh kami selepas tarikh tersebut.

Whereas it is understood that the Government reserves the right to accept or to refuse this Tender, whether it be lower or higher than any other tender, or of the same amount. The undersigned agrees that this Tender shall remain valid and shall not be withdrawn within ninety (90) days from the final date fixed for the submission of tenders and agrees that no other term, condition or stipulation shall be imposed by us after the said date.

7. Yang bertandatangan di bawah ini berniat, jika Tender ini disetujui, memilih salah satu daripada bentuk Bon Pelaksanaan seperti berikut:

The undersigned intends, in the event of acceptance of this Tender, to choose one of the following form of Performance Bond:

*(i) Jaminan Bank / Bank Islam / Bank Pembangunan Malaysia Berhad (BPMB) / Bank Perusahaan Kecil dan Sederhana Malaysia (Bank SME) atau
Bank / Islamic Bank / Bank Pembangunan Malaysia Berhad (BPMB) / Bank Perusahaan Kecil dan Sederhana Malaysia (SME Bank) Guarantee or

*(ii) Jaminan Syarikat Kewangan atau
Finance Company Guarantee or

*(iii) Jaminan Insurans/Takaful atau
Insurance/Takaful Guarantee or

*(iv) Wang Jaminan Pelaksanaan yang dikenakan potongan sebanyak sepuluh peratus (10%) daripada setiap bayaran interim sehingga mencapai jumlah lima peratus (5%) daripada Jumlah Harga Kontrak.
Performance Guarantee Sum whereby ten percent (10%) of each interim payment shall be deducted until the total amount deducted aggregate to a sum equivalent to five percent (5%) of the Contract Sum.

8. Yang bertandatangan di bawah ini bersetuju, jika Tender ini disetujui, mendeposit, dengan seberapa segera yang praktik selepas penerimaan Surat Setujui Tender tetapi sebelum bermulanya Kerja, perkara-perkara berikut:

The undersigned agrees, in the event of acceptance of this Tender, to deposit as soon as is practicable after the receipt of the Letter of Acceptance of Tender but before the commencement of the Works, the following:

(a) Bon Pelaksanaan (jika petender memilih kaedah Jaminan Bank / Bank Islam / BPMB / Bank SME / Insurans / Takaful atau Syarikat Kewangan sahaja) dan jikalau gagal dikemukakan pada tarikh milik tapak, Kerajaan berhak untuk melaksanakan kaedah Wang Jaminan Pelaksanaan;
Performance Bond (if the tenderer opts for Bank / Islamic Bank / BPMB / SME Bank / Insurance / Takaful or Finance Company Guarantee) and failure to submit the said bond by the date of possession of site shall entitle the Government to implement the Performance Guarantee Sum option;

* Petender dikehendaki memotong yang tidak berkenaan.
The tenderer to delete whichever is not applicable.

- (b) Polisi Insurans Tanggungan Awam (iaitu insurans terhadap bencana kepada orang-orang dan kerosakan kepada harta) atau Nota Liputan berserta dengan resit bagi premium yang telah dibayar;
Insurance Policy for Public Liability (ie. insurance against injury to persons and damage to property) or the Cover Note together with receipt of premium paid in respect thereof;
- (c) Polisi Insurans Kerja atau Nota Liputan berserta dengan resit bagi premium yang telah dibayar;
Insurance Policy for Works or the Cover Note together with receipt of premium paid in respect thereof;
- (d) Nombor pendaftaran di bawah Skim Keselamatan Sosial Pekerja (PERKESO);
Registration number under Employee's Social Security (SOCSO) Scheme;

Yang bertandatangan di bawah ini selanjutnya bersetuju mendeposit Polisi-polisi Insurans yang berkenaan dalam tempoh tidak lewat daripada tiga puluh (30) hari selepas Nota Liputan diserahkan.

The undersigned further agrees to deposit the relevant Insurance Policies within a period of not later than thirty (30) days after the Cover Notes has been submitted.

9. Yang bertandatangan di bawah ini bersetuju jika kerja-kerja gagal dimulakan dalam tempoh dua (2) minggu dari tarikh milik tapak, pengambilan kerja di bawah kontrak akan ditamatkan sejajar dengan Fasal 51.1(a)(i) Syarat-Syarat Kontrak.

The undersigned agrees that if the undersigned fails to commence works within two (2) weeks from the date of possession, his employment under the Contract shall be terminated in accordance with Clause 51.1(a)(i) of the Conditions of Contract.

10. Yang bertandatangan di bawah ini dengan ini juga bersetuju bahawa Borang Tender ini berserta Surat Setujuterima Tender (jika ada) hendaklah menjadi kontrak yang mengikat antara kita.

The undersigned hereby also agrees that this Form of Tender together with the Letter of Acceptance of Tender (if any) shall constitute a binding contract between us.

11. Yang bertandatangan di bawah ini mengesahkan, selepas menyemak sendiri, bahawa dokumen-dokumen dan pelan-pelan yang digunakan oleh yang bertandatangan di bawah ini untuk menyusun Tender ini adalah salinan-salinan yang sebenarnya bagi dokumen-dokumen dan pelan-pelan yang dimasukkan dalam Dokumen Meja Tender.

The undersigned confirms, after a personal scrutiny, that the documents and drawings used by the undersigned in compiling this Tender are true copies of the documents and drawings included in the Tender Table Documents.

12. Yang bertandatangan di bawah ini bersetuju bahawa:

The undersigned agrees that:

- (a) jika Tender ini ditarik balik sebelum tamatnya Tempoh Sah Tender atau apa-apa tempoh lanjutan, atau
if this Tender is withdrawn before the expiry of the Tender Validity Period or any extended period thereof, or
- (b) jika yang bertandatangan di bawah ini mengenakan apa-apa had, syarat atau janji tambahan kepada Tender ini selepas tarikh akhir yang ditetapkan bagi penyerahan tender atau,
if the undersigned imposes any additional term, condition or stipulation to the Tender after the final date fixed for the submission of tenders or,

- (c) jika sekiranya Tender telah disetujuterima, yang bertandatangan di bawah ini enggan dan tidak melaksanakan Perjanjian Kontrak yang formal atau mendeposit Bon Pelaksanaan (jika petender memilih kaedah Jaminan Bank / Bank Islam / Bank Pembangunan Malaysia Berhad (BPMB) / Bank Perusahaan Kecil dan Sederhana Malaysia (Bank SME) / Insurans/ Takaful atau Syarikat Kewangan sahaja) sebagaimana dikehendaki oleh Syarat-Syarat Kontrak atau tidak meneruskan Kerja, maka, dalam mana-mana hal itu, tanpa menyentuh apa-apa hak lain yang ada padanya, Kerajaan sentiasa berhak mengambil tindakan tatatertib terhadap yang bertandatangan di bawah ini atau membatalkan pendaftaran yang bertandatangan di bawah ini sebagai kontraktor Kerajaan, sebagaimana difikirkan perlu oleh Kerajaan.
- in the event that the Tender having been accepted, the undersigned refuses and fails to execute the formal Contract Agreement or to deposit the Performance Bond (if the tenderer opts for Bank / Islamic Bank / Bank Pembangunan Malaysia Berhad (BPMB) / Bank Perusahaan Kecil dan Sederhana Malaysia (SME Bank) /Insurance/Takaful or Finance Company Guarantee) as required by the Conditions of Contract or fails to proceed with the Works, then, in any of such event, without prejudice to any other rights it may possess, the Government reserves the right to take disciplinary action against the undersigned or to cancel the registration of the undersigned as a Government contractor, as the Government deems fit.*

Bertarikh pada..... hari bulan..... 20.....
Dated this day of 20

.....
Tandatangan Petender
Signature of Tenderer

Nama Penuh :
Name in full

Atas Jawatan :
In the capacity of

yang diberikuasa dengan sempumanya
untuk menandatangani Tender ini untuk
dan bagi pihak:
*duly authorised to sign this Tender for and
on behalf of:*

.....
Meterai atau cap Petender
Tenderer's seal or chop

Saksi :
Witness

Nama Penuh :
Name in full

Pekerjaan :
Occupation

Alamat :
Address

SYARAT-SYARAT MEMBUAT TENDER (CONDITIONS OF TENDERING)

1. Keseluruhan Kerja yang dinyatakan dalam Dokumen Tender yang ditunjukkan di atas Meja Tender (kemudian dari ini disebut "Dokumen Meja Tender") akan diberi secara Kontrak.
The whole of the Works set forth in the Tender Documents exhibited on the Tender Table (hereinafter referred to as the "Tender Table Documents") will be let on Contract.
2. (a) Tiap-tiap petender mestilah menyerahkan, dalam suatu sampul surat bertutup dan bermeterai yang dialamatkan sebagaimana ditetapkan dalam Notis Tender, suatu tender yang sah dalam Borang Tender yang diperuntukkan, bersama dengan salinan Senarai Kuantiti yang diisi dan ditandatangani dengan sempurna. Borang Tender yang tak lengkap atau tak bertandatangan akan ditolak.
Each tenderer must submit, enclose and seal in an envelope addressed as stipulated in the Tender Notice, a genuine tender on the Form of Tender provided, together with the copy of the Bills of Quantities duly filled in and signed. Form of Tender which is incomplete or unsigned shall be disqualified.
- (b) Tiap-tiap petender mestilah mencatatkan, dalam ruang yang diperuntukkan dalam Borang Tender, masa yang akan dikehendakinya bagi menyiapkan Kerja itu.
Each tenderer must enter, in the space provided on the Form of Tender, the time he will require to complete the Works.
- (c) Petender hendaklah meletakkan harga dalam Senarai Kuantiti yang hendaklah diisi dengan dakwat dan ditandatangani dengan sempurna oleh petender. Sebelum Surat Setujuterima dikeluarkan, harga atau kadar harga dalam Senarai Kuantiti hendaklah diteliti dan diselaraskan oleh Pegawai Penguasa dengan memastikan kemunasabahannya tanpa mengubah amaun yang dinyatakan di dalam Borang Tender.
The tenderer shall price the Bills of Quantities which shall be duly filled in ink and signed by the tenderer. Before the issuance of the Letter of Acceptance, prices or rates in the Bills of Quantities shall be scrutinized and adjusted by the Superintending Officer as to its reasonableness without altering the amount as stated in the Form of Tender.
3. Jika mana-mana petender:
Should any tenderer:
 - (a) menarik balik tendernya sebelum tamat Tempoh Sah Tender atau apa-apa tempoh lanjutan, atau
withdraw his tender before the expiry of the Tender Validity Period or any extended period thereof, or
 - (b) mengenakan had, syarat atau janji tambahan selepas tarikh akhir yang ditetapkan bagi penyerahantender (dan dalam hal yang sedemikian ianya hendaklah disifatkan sebagai penarikan balik tender ini), atau
impose additional terms, conditions or stipulations after the final date fixed for the submission of tenders (in which case it shall be deemed to be a withdrawal of this tender), or

- (c) jika sekiranya tender telah disetujuterima, enggan dan tidak melaksanakan Perjanjian Kontrak yang formal atau mendeposit Bon Pelaksanaan (jika petender memilih kaedah Jaminan Bank / Bank Islam / Bank Pembangunan Malaysia Berhad (BPMB) / Bank Perusahaan Kecil dan Sederhana Malaysia (Bank SME) / Insurans/ Takaful atau Syarikat Kewangan sahaja) atau tidak meneruskan Kerja;
whose tender has been accepted, refuse and fail to execute the formal Contract Agreement or to deposit the Performance Bond (if the tenderer opts for Bank / Islamic Bank / Bank Pembangunan Malaysia Berhad (BPMB) / Bank Perusahaan Kecil dan Sederhana Malaysia (SME Bank) /Insurance/Takaful or Finance Company Guarantee) or fails to proceed with the Works;

maka, dalam mana-mana hal itu, Kerajaan hendaklah, tanpa menyentuh apa-apa hak lain yang ada padanya, sentiasa berhak mengambil tindakan tatatertib terhadap yang bertandatangan di bawah ini atau membatalkan pendaftaran petender sebagai kontraktor Kerajaan, sebagaimana difikirkan perlu oleh Kerajaan.

then, in any of such events, the Government, without prejudice to any other rights it may possess, reserves the right to take disciplinary action against the undersigned or to cancel the registration of the tenderer as a Government contractor, as the Government deems fit.

4. Tiada apa-apa perubahan atau tambahan yang tidak dibenarkan boleh dibuat kepada Borang Tender atau mana-mana Dokumen Tender yang lain.

No unauthorised alteration or addition shall be made to the Form of Tender or any other Tender Documents.

5. (a) Tender-tender dan dokumen-dokumen berhubung dengannya yang dinyatakan dalam Klausa 2 di atas, mestilah diserahkan di tempat dan pada atau sebelum masa yang ditetapkan dalam Notis Tender bagi penyerahan tender.
Tenders and documents in connection therewith as specified in Clause 2 above, must be delivered to the place and at or before the time stipulated in the Tender Notice for the submission of Tenders.
- (b) Jika sesuatu tender tidak diserahkan dengan tangan, petender mestilah menguruskan bagi tendernya dan dokumen-dokumennya yang lain dihantar dengan pos supaya sempat sampai di tempat yang ditetapkan tidak lewat dari masa yang ditetapkan.
In the case of a tender not being delivered by hand, the tenderer must arrange for his tender and other documents to be posted in time to reach the stipulated place not later than the stipulated time.
- (c) Mana-mana tender yang diserahkan selepas masa yang ditetapkan, berbangkit dari apa jua sebab, tidak akan dipertimbangkan.
Any tender delivered after the stipulated time, from whatever cause arising, will not be considered.
- (d) Tiada apa-apa jua perbelanjaan yang ditanggung oleh petender bagi menyediakan tendernya boleh dibayar kepadanya.
In no case will any expenses incurred by a tenderer in the preparation of his tender be allowed.

6. Jika sekiranya atas permintaannya, seseorang petender diberikan salinan-salinan sesuatu Dokumen Tender, maka adalah menjadi tanggungjawabnya seorang diri untuk meneliti salinan-salinan itu dan memuaskan hatinya bahawa salinan-salinan itu adalah sebenarnya salinan-salinan dokumen yang termasuk dalam Dokumen Meja Tender. Jika sekiranya terdapat apa-apa perbezaan atau percanggahan antara mana-mana salinan yang diberi kepada petender dengan salinan dalam Dokumen Meja Tender atau antara mana-mana dokumen yang termasuk di dalamnya, maka adalah menjadi tanggungjawabnya seorang diri untuk memohon secara bertulis kepada Pegawai Penguasa supaya dibetulkan perbezaan atau percanggahan itu tidak lewat dari tujuh (7) hari sebelum tarikh akhir yang ditetapkan dalam Notis Tender bagi penyerahan tender. Apa-apa jawapan yang hendak dibuat oleh Pegawai Penguasa atas permohonan itu hendaklah dibuat dengan cara Memorandum Tender yang hendaklah dihantar kepada semua petender. Memorandum Tender itu hendaklah menjadi sebahagian daripada Dokumen Tender dan Tender yang diterima akan disifatkan sebagai berdasarkan pada huraian, ubahsuaian atau perluasan kepada dokumen asal yang mengandunginya.

In the event of any tenderer being supplied at his request, with copies of any of the Tender Documents, it shall be the sole responsibility of the tenderer to scrutinize such copies and satisfy himself that they are exact copies of those included in the Tender Table Documents. In the event of any difference or discrepancy being found between any such copies supplied to the tenderer and those in the Tender Table Documents or between any documents included therein, it shall be the sole responsibility of the tenderer to apply in writing to the Superintending Officer, to have the difference or discrepancy rectified, not later than seven (7) days before the final date fixed in the Tender Notice for the submission of tenders. Any reply the Superintending Officer may make to such application shall be by way of a Tender Memorandum which will be sent to all tenderers. Such Tender Memorandum shall become part of the Tender Documents and Tenders received will be deemed to have been based on the explanations, modification or extension to the original document that they contain.

7. Petender hendaklah disifatkan telah memeriksa dan meneliti Tapakbina dan sekitarnya dan telah berpuas hati sebelum menyerahkan tendernya tentang jenis bumi dan lapisan tanah, bentuk dan jenis Tapakbina, takat dan jenis kerja, bahan dan barang yang perlu bagi menyiapkan Kerja, cara-cara perhubungan dengan dan akses ke Tapakbina, tempat tinggal yang mungkin dikehendaki dan pada amnya hendaklah mendapatkan sendiri segala maklumat yang perlu tentang risiko, luarjangka dan segala hal keadaan yang mempengaruhi dan menjejaskan tendernya.

The tenderer shall be deemed to have inspected and examined the Site and its surroundings and to have satisfied himself before submitting his tender as to the nature of the ground and sub-soil, the form and nature of the Site, the extent and nature of the work, materials and goods necessary for the completion of the Works, the means of communication with and access to the Site, the accommodation he may require and in general to have obtained for himself all necessary information as to risks, contingencies and all circumstances influencing and affecting his tender.

8. Tender-tender hendaklah terus sah selama tempoh sembilan puluh (90) hari dari tarikh akhir bagi penyerahan tender sebagaimana yang ditetapkan dalam Notis Tender (dalam Syarat-Syarat Membuat Tender ini disebut "Tempoh Sah Tender") dan tempoh ini boleh dengan persetujuan bersama dilanjutkan jika dan apabila perlu.

Tenders shall remain valid for a period of ninety (90) days from the final date for submission of tenders stipulated in the Tender Notice (herein referred to as the "Tender Validity Period") and such period may by mutual agreement be extended as and when necessary.

9. Kerajaan tidak boleh terikat menyetujui tender yang rendah sekali atau sesuatu tender dan juga tidak terikat untuk memberi apa-apa sebab atas penolakan sesuatu tender.

The Government shall not be bound to accept the lowest or any tender, nor to assign any reason for the rejection of any tender.

10. Petender yang berjaya (jika ada) hendaklah diberitahu tentang tendernya dengan surat (disebut "Surat Setujuterima Tender") dalam Tempoh Sah Tender atau apa-apa tempoh lanjutan. Petender tersebut hendaklah dengan seberapa segera yang praktik tetapi sebelum bermulanya Kerja mendeposit dengan Pegawai Penguasa, perkara-perkara berikut:

The successful tenderer (if any) shall be notified of his tender by a letter (referred to as "Letter of Acceptance of Tender") within the Tender Validity Period or any extended period thereof. The said tenderer shall as soon as is practicable but before the commencement of the Works deposit with the Superintending Officer the following:

(a) Bon Pelaksanaan (jika petender memilih kaedah Jaminan Bank / Bank Islam / Bank Pembangunan Malaysia Berhad (BPMB) / Bank Perusahaan Kecil dan Sederhana Malaysia (Bank SME) / Insurans/ Takaful atau Syarikat Kewangan sahaja) berjumlah sebanyak 5% daripada Jumlah Harga Kontrak dan jikalau gagal dikemukakan pada tarikh milik tapak, Kerajaan berhak untuk melaksanakan kaedah Wang Jaminan Pelaksanaan;

Performance Bond (if the tenderer opts for Bank / Islamic Bank / Bank Pembangunan Malaysia Berhad (BPMB) / Bank Perusahaan Kecil dan Sederhana Malaysia (SME Bank) / Insurance/Takaful or Finance Company Guarantee) amounting to 5% of Contract Sum and failure to submit the said bond by the date of possession of site, shall entitle the Government to implement the Performance Guarantee Sum option;

(b) Polisi Insurans Tanggungan Awam (iaitu insurans terhadap bencana kepada orang-orang atau kerosakan kepada harta) atau Nota Liputan berserta dengan resit bagi premium yang telah dibayar;

Insurance Policy for Public Liability (i.e. insurance against injury to persons or damage to property) or Cover Note together with receipt of premium paid in respect thereof;

(c) Polisi Insurans Kerja atau Nota Liputan berserta dengan resit bagi premium yang telah dibayar;

Insurance Policy for Works or Cover Note together with receipt of premium paid in respect thereof;

(d) Nombor pendaftaran di bawah Skim Keselamatan Sosial Pekerja (PERKESO);

Registration numbers under the Employee's Social Security (SOCSO) Scheme.

Petender tersebut hendaklah selanjutnya mendeposit Polisi-polisi Insurans yang berkenaan dalam tempoh tidak lewat daripada tiga puluh (30) hari selepas Nota Liputan diserahkan.

The said tenderer shall further deposit the relevant Insurance Policies within a period of not later than thirty (30) days after the Cover Notes has been submitted.

11. Semua jadual butir-butir yang dilampirkan kepada Dokumen Tender hendaklah diisi dan diserahkan oleh petender berserta dengan tendernya.

All schedules of particulars attached to the Tender Documents shall be completed and submitted by the tenderer together with his tender.

12. Tiap-tiap notis yang hendak diberi kepada petender bolehlah diposkan ke alamatnya yang dinyatakan dalam tender itu dan pengeposan itu hendaklah disifatkan sebagai penyampaian yang sempurna akan notis itu.

Every notice to be given to a tenderer may be posted to the tenderer's address given in the tender and such posting shall be deemed good service of such notice.

13. Perkataan "petender yang berjaya" hendaklah bererti bahawa petender yang mana tendernya telah diluluskan dan disetujuterima oleh Kerajaan.

The word "successful tenderer" shall mean that the tenderer whose tender has been approved and accepted by the Government.

14. Perkataan "petender" dalam Syarat-Syarat ini hendaklah disifatkan sebagai termasuk dua orang atau lebih.

The word "tenderer" in these conditions shall be deemed to include two or more persons.

15. Jika petender tidak mematuhi Syarat-Syarat tersebut di atas mengenai apa-apa jua hal maka tendernya boleh ditolak.

Non-compliance with the above conditions in any respect shall render the tender liable to rejection.

16. Syarat-Syarat Membuat Tender ini, setakat mana Syarat-Syarat itu mungkin menyentuh pelaksanaan Kontrak ini, hendaklah disifatkan menjadi sebahagian daripada Kontrak ini.

These Conditions of Tendering, in so far as they affect the execution of the Contract, shall be deemed to form part of the Contract.

DOKUMEN C

**SURAT SETUJU TERIMA
TENDER**

No. *Sebut Harga / Tender / Kontrak : – (Mesy. Bil)

SURAT SETUJU TERIMA
(Bagi Sebut Harga / Tender Kerja)

Rujukan Kami :

Tarikh :

Nama dan Alamat Kontraktor

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

(U.P :)

Tuan,

****Sebut Harga / Tender Untuk :**

CADANGAN TAWARAN
.....
.....

No. ****Sebut Harga / Tender / Kontrak : SH / T**

Dengan ini dimaklumkan bahawa Kerajaan telah bersetuju menerima tawaran *Sebut Harga / Tender syarikat tuan dengan harga sebanyak **Ringgit Malaysia** :
iaitu (RM) yang merupakan harga kontrak bagi tempoh kontrak selama tertakluk kepada dokumen *Sebut Harga / Tender yang 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, suatu kontrak yang mengikat terbentuk antara Kerajaan dengan syarikat tuan. Satu dokumen kontrak hendaklah ditandatangani dengan kadar segera dengan memasukkan semua terma sebagaimana dokumen *Sebut Harga / Tender serta semua terma dalam **Lampiran A**. Sehingga dokumen kontrak tersebut ditandatangani, Surat ini hendaklah terus mengikat kedua-dua pihak.

3. Harga kontrak adalah termasuk peruntukan Kerajaan sebanyak 0% cukai jualan memandangkan kerja ini dikenakan cukai dan syarikat tuan telah berdaftar dengan Jabatan Kastam ^{Jualan 2018} Diraja Malaysia (JKDM). Pembayaran cukai jualan ini adalah dikira berdasarkan tuntutan sebenar dan tarikh kuat kuasa pendaftaran syarikat tuan dengan JKDM.

Tandatangan & Cap (Kerajaan) :

Tandatangan & Cap (Syarikat) :

1 daripada 14

No. *Sebut Harga/ Tender / Kontrak : – (Mesy. Bil)

(Perenggan 3 di atas adalah terpakai untuk perolehan Bekalan yang diberi pengecualian cukai di bawah Perintah Cukai Jualan (Orang Yang Dikecualikan Daripada Pembayaran Cukai) 2018)

*3. Harga kontrak adalah termasuk peruntukan Kerajaan sebanyak 0% cukai jualan ^{Akta Cukai Jualan>} memandangkan barangan ini dikenakan cukai dan syarikat tuan telah berdaftar dengan Jabatan Kastam Diraja Malaysia (JKDM). Pembayaran cukai jualan ini adalah dikira berdasarkan tuntutan sebenar dan tarikh kuat kuasa pendaftaran syarikat tuan dengan JKDM.

(Perenggan 3 di atas adalah terpakai untuk syarikat yang berdaftar dengan JKDM dan Barangan Dikenakan Cukai di bawah Akta Cukai Jualan 2018)

*3. Harga kontrak adalah tidak termasuk peruntukan Kerajaan sebanyak 0% cukai ^{Akta Cukai Jualan>} jualan 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 dari tarikh surat kelulusan JKDM. Pembayaran cukai jualan ini adalah dikira berdasarkan tuntutan sebenar dan tarikh kuat kuasa pendaftaran syarikat tuan dengan JKDM.

(Perenggan 3 di atas adalah terpakai untuk syarikat yang tidak berdaftar dengan JKDM dan Barangan Dikenakan Cukai di bawah Akta Cukai Jualan 2018)

4. Pelarasan harga dan kadar harga dalam *Jadual Kadar Harga dan/atau Ringkasan Tender 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 dibatalkan yang berjumlah **Ringgit Malaysia** : (RM) dan jikalau Bon Pelaksanaan gagal dikemukakan pada tarikh milik tapak, Kerajaan berhak untuk melaksanakan kaedah Wang Jaminan Pelaksanaan.

Bon pelaksanaan hanya dikenakan kepada perolehan yang bernilai RM200,000 dan ke atas sahaja.

(b) Suatu polisi risiko semua kontraktor (Contractor's All Risk Policy) nilai insurans yang tidak boleh dibatalkan yang berjumlah **Ringgit Malaysia** : (RM) dan resit premium;

(c) Suatu polisi insurans pampasan pekerja (Workmens Competition) nilai insurans yang tidak boleh dibatalkan yang berjumlah **Ringgit Malaysia** : (RM) (Merupakan anggaran jumlah pendapatan daripada pekerja-pekerja kontraktor yang tidak termasuk dalam Skim Perkeso)

(d) Nombor Kod Majikan di bawah Skim PERKESO dan/atau Polisi Pampasan Pekerja;

(e) Nombor Pendaftaran Kumpulan Wang Simpanan Pekerja (KWSP),

Tandatangan & Cap (Kerajaan) :

Tandatangan & Cap (Syarikat) :

No. *Sebut Harga/ Tender / Kontrak : – (Mesy. Bil)

Pihak tuan adalah **DIWAJIBKAN** mengambil dan mengemukakan semua jenis perlindungan Insuran melalui syarikat **PNSB INSURANCE BROKERS SDN. BHD.** sahaja.

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 Polisipolisi 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 kerja dalam tempoh yang ditetapkan, Kerajaan berhak membatalkan arahan yang dikeluarkan dan/atau mengenakan Liquidated & Ascertained Damages (LAD) seperti yang ditetapkan dalam Lampiran A.

~~*7. Syarikat tuan juga adalah dikehendaki melaksanakan program *Professional Training And Education For Growing Entrepreneurs Ready To Work* (PROTÉGÉ RTW) seperti yang ditetapkan oleh Kerajaan berdasarkan harga kontrak dengan bilangan minimum peserta PROTÉGÉ RTW sebanyak orang tanpa sebarang kos^{Bil. minimum peserta} kepada Kerajaan. Bilangan minimum peserta yang diperlukan hendaklah ^{di} dikira berdasarkan formula di bawah:~~

$$\frac{1\% \times \text{Harga Kontrak}^*}{\text{RM24,000}^{**}}$$

~~*Bagi tujuan pengiraan PROTÉGÉ RTW, Harga Kontrak adalah nilai tawaran yang dipersetujui tanpa cukai~~

~~**Eluan PROTÉGÉ RTW (RM2,000 seorang x 12 bulan)~~

~~Perenggan ini terpakai sekiranya Harga Kontrak melebihi nilai ambang dan syarikat dikehendaki untuk melaksanakan Program PROTÉGÉ berdasarkan 1PP/PK~~

~~*7. Syarikat tuan juga adalah digalakkan melaksanakan program *Professional Training And Education For Growing Entrepreneurs Ready To Work* (PROTÉGÉ RTW) seperti yang ditetapkan oleh Kerajaan.~~

~~Perenggan ini terpakai sekiranya Harga Kontrak di bawah nilai ambang dan syarikat digalakkan untuk melaksanakan Program PROTÉGÉ berdasarkan 1PP/PK 1.2.~~

8. ~~Bagi tujuan program PROTÉGÉ RTW ini, syarikat tuan adalah dikehendaki untuk:~~

- ~~mengemukakan Jadual Pelaksanaan Program PROTÉGÉ RTW berdasarkan tempoh kontrak kepada Sekretariat PROTÉGÉ RTW untuk kelulusan dalam tempoh dua (2) minggu selepas tarikh pengakuan penerimaan Surat ini oleh syarikat tuan;~~
- ~~melaksanakan program ini mengikut Jadual Pelaksanaan Program PROTÉGÉ RTW yang diluluskan oleh Sekretariat PROTÉGÉ;~~
- ~~mengemaskini maklumat berkaitan pengalaman syarikat melaksanakan program PROTÉGÉ RTW dalam sistem ePerolehan di Kementerian Kewangan atau sistem di Lembaga Pembangunan Industri Pembinaan Malaysia (CIDB), mengikut mana yang berkaitan;~~
- ~~mengemukakan sijil atau surat pengesahan oleh Sekretariat PROTÉGÉ kepada Agensi sebaik sahaja pelaksanaan program PROTÉGÉ RTW selesai; dan~~

Tandatangan & Cap (Kerajaan) :

Tandatangan & Cap (Syarikat) :

No. *Sebut Harga/ Tender / Kontrak : – (Mesy. Bil)

- (e) ~~mengemukakan laporan berkaitan pelaksanaan program PROTÉGÉ RTW kepada Sekretariat PROTÉGÉ.~~

~~*9. Sekiranya syarikat tuan gagal mematuhi mana-mana terma di perenggan 6 dan 7 atau arahan oleh Kerajaan, Kerajaan berhak untuk tidak mempertimbangkan sebarang tawaran kontrak baharu atau penganjutan kontrak pada masa hadapan kepada syarikat tuan.~~

~~Perenggan ini terpakai sekiranya Harga Kontrak melebihi nilai ambang dan syarikat dikehendaki untuk melaksanakan Program PROTÉGÉ berdasarkan IPP/PK 1.2. Bagi Harga Kontrak di bawah nilai ambang, perenggan ini hendaklah dipotong.~~

10. Syarikat Tuan hendaklah merujuk dan mengadakan perbincangan lebih lanjut dengan pihak Technology Depository Agency (TDA)* sebagai agensi pelaksana bagi menentu dan memuktamadkan butiran projek-projek ICP untuk dimasukkan di dalam Perjanjian Utama ICP yang akan ditandatangani antara pihak Kerajaan dengan Syarikat Tuan secara bersama dengan Kontrak Perolehan Utama.

*Bahagian Industri Pertahanan untuk perolehan di Kementerian Pertahanan

11. Syarikat Tuan hendaklah melaksanakan dan menyempurnakan projek ICP dengan jumlah Nilai Kredit ICP Mandatori untuk projek ICP hendaklah bersamaan dengan sekurang-kurangnya seratus peratus (100%) daripada Nilai Kontrak Perolehan Utama.

12. Syarikat Tuan hendaklah mengemukakan kepada Kerajaan, suatu Bon Pelaksanaan yang tidak boleh dibatalkan dalam bentuk Jaminan Bank bagi pelaksanaan ICP yang bersamaan dengan lima peratus (5%) daripada Nilai Kontrak Perolehan Utama dalam tempoh empat belas (14) hari dari tarikh Perjanjian ICP Utama ditandatangani. Tempoh sah laku Bon Pelaksanaan tersebut hendaklah bermula dari tarikh ianya dikeluarkan sehingga dua belas (12) bulan selepas pelaksanaan penuh Program ICP dan penyempurnaan sepenuhnya jumlah Nilai Kredit ICP Mandatori

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

- syarikat tuan gagal mematuhi mana-mana terma di perenggan 5 dalam tempoh masa yang ditetapkan;
- syarikat tuan gagal mematuhi mana-mana terma yang dinyatakan dalam Surat Akuan Pembida Berjaya;
- syarikat tuan gagal memulakan kerja dalam tempoh dua (2) minggu dari tarikh milik tapak;
- 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;
- syarikat tuan membenarkan Sijil Akuan Pendaftaran Syarikat disalahgunakan oleh individu/syarikat lain;
- syarikat tuan terlibat dalam membuat pakatan harga dengan syarikat-syarikat lain atau apa-apa pakatan sepanjang proses tender sehingga dokumen kontrak ditandatangani;
- 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 mengikat perjanjian hak (*Deed Of Assignment*) dengan Subkontraktor terlebih dahulu;
- syarikat gagal menyempurnakan kerja dalam tempoh yang ditetapkan seperti di **Lampiran A**;

Tandatangan & Cap (Kerajaan) :

Tandatangan & Cap (Syarikat) :

No. *Sebut Harga/ Tender / Kontrak : – (Mesy. Bil)

- i. syarikat tuan gagal mematuhi mana-mana terma/arahan di dalam dokumen tender;
 - 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; kontraktor gagal/mungkir dalam melaksanakan tanggung jawabnya sepertimana ditetapkan dalam Syarat-syarat Kontrak;
 - m. syarikat tuan tidak mendapat kelulusan daripada Kerajaan terlebih dahulu bagi apa-apa penjualan atau pemindahan ekuiti sepanjang tempoh kontrak ini berkuat kuasa; atau
 - n. terdapat perkara yang melibatkan kepentingan awam atau keselamatan dan kepentingan negara.
14. Sekiranya Surat ini dibatalkan atas alasan seperti yang ditetapkan di perenggan 10, Kerajaan tidak akan bertanggungjawab terhadap apa-apa kerugian syarikat tuan termasuk kerugian masa hadapan.
15. Bersama-sama Surat ini disertakan Surat Akuan Pembida Berjaya dan Surat Akuan Sumpah Syarikat seperti di **Lampiran B** dan **Lampiran C** untuk ditandatangani oleh syarikat tuan dan dikembalikan bersamasama dengan Surat ini.
16. Syarikat tuan juga adalah dikehendaki untuk mengemukakan dokumen berikut bersama-sama dengan Surat ini yang telah ditandatangani balas oleh tuan, untuk kelulusan Pegawai Penguasa sebelum memulakan kerja di tapak bina:
- a) Senarai nama subkontraktor berserta pengalamannya dengan menyatakan bahagian kerja yang terlibat; dan
 - b) Program Kerja bagi pelaksanaan projek ini.
17. Kegagalan pihak kontraktor dan subkontraktor yang menjalankan kerja-kerja di bawah seliaan Majlis mengikut spesifikasi di dalam prosedur dan syarat-syarat Keselamatan, Kesihatan Pekerjaan dan Alam Sekitar (OSHE) yang telah ditetapkan oleh Majlis akan menyebabkan tindakan penalti.
18. Pihak kontraktor dan subkontraktor juga dikehendaki berdaftar dengan Sistem OSHE MBPJ di pautan <http://www.pjsmartcity.gov.my/OSHE> sebelum menghadiri Mesyuarat Serah Tapak.
19. Berdasarkan kepada Tempoh Siap Kerja yang disebut-hargakan selama(.....) hari / minggu / bulan / tahun *,Tarikh Siap untuk seluruh kerja-kerja di bawah kontrak ini ialah.....
20. Surat ini dihantar kepada syarikat 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 *3/7/14 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 bertanggungjawab terhadap syarikat tuan.
- 21.
22. Caj Perkhidmatan bagi penyediaan perjanjian dokumen kontrak *Sebut Harga / Tender akan dikenakan kepada syarikat tuan seperti kadar harga yang telah ditetapkan. Pembayaran caj tersebut boleh dibuat melalui kaedah *Tunai / Bank Draft (atas nama Majlis Bandaraya Petaling Jaya). **Sebarang pertanyaan**, syarikat boleh merujuk ke **Unit Perundangan di Tingkat 5 Menara MBPJ**, Majlis Bandaraya Petaling Jaya.

Tandatangan & Cap (Kerajaan) :

Tandatangan & Cap (Syarikat) :

No. *Sebut Harga/ Tender / Kontrak : – (Mesy. Bil)

Kadar Caj Perkhidmatan bagi Penyediaan Dokumen Kontrak.

Bil	Nilai Kontrak (RM)	Caj			
		Perjanjian Utama		Perjanjian Lanjutan	
1.	< 50,000.00	RM 500.00		RM 250.00	
2.	50,001.00 > 100,000.00	RM 1,000.00		RM 500.00	
3.	100,001.00 > 300,000.00	RM 2,000.00	√	RM 1,000.00	
4.	300,001.00 > 500,000.00	RM 3,000.00		RM 1,500.00	
5.	500,001.00 > 1,000,000.00	RM 5,000.00		RM 2,500.00	
6.	1,000,001.00 dan keatas	RM 8,000.00 atau 0.5% (mana-mana yang lebih tinggi tetapi tidak melebihi RM 10,000.00)		RM 4,000.00 atau 0.5% (mana-mana yang lebih tinggi tetapi tidak melebihi RM 5,000.00)	

Panel peguam boleh dilantik bagi kontrak yang mempunyai nilai sangat tinggi dan berisiko

(a) Caj Perkhidmatan yang dikenakan bagi penyediaan dokumen kontrak *Sebut Harga / Tender berjumlah **Ringgit Malaysia** : iaitu (RM) dan hendaklah dijelaskan dan mengembalikan salinan resit pembayaran sebagai bukit pembayaran sebelum dokumen perjanjian ditandatangani.

(b) Dokumen kontrak diperlukan bagi perolehan seperti berikut :-

- i) Tempoh bekalan, perkhidmatan dan kerja melebihi 16 minggu.
- ii) Apabila Nilai kontrak melebihi RM500,000.00.
- iii) Semua jenis perolehan yang di laksanakan secara tender.

*Sebarang kegagalan syarikat membuat pembayaran akan menyebabkan dokumen kontrak tidak dapat disiapkan mengikut tempoh yang ditetapkan.

Sekian, terima kasih.

“SELANGOR MAJU BERSAMA”

“BERKHIDMAT UNTUK NEGARA”

Saya yang menjalankan amanah,

(.....)
Pegawai Penguasa,
Pengarah,
.....,
Majlis Bandaraya Petaling Jaya

Tandatangan & Cap (Kerajaan) :

Tandatangan & Cap (Syarikat) :

No. *Sebut Harga/ Tender / Kontrak : – (Mesy. Bil)

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 rujukannya ialah MBPJ.JKP08.400 – 5/8/78 (9) 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 / Tender dan Surat ini telah dikenakan.

Tandatangan Syarikat :

Tandatangan Saksi Syarikat :

.....
Nama Penuh :
No. Kad Pengenalan :
Alamat :
Tarikh :

.....
Nama Penuh :
No. Kad Pengenalan :
Alamat :
Tarikh :

Meterai atau Cap Syarikat

**potong mana yang tidak berkenaan*

Tandatangan & Cap (Kerajaan) :

Tandatangan & Cap (Syarikat) :

No. *Sebut Harga/ Tender / Kontrak : – (Mesy. Bil)

Lampiran A

BUTIRAN KONTRAK

CADANGAN MENURAP

.....

.....

1. Pendaftaran Syarikat Dengan Suruhanjaya Syarikat Malaysia (SSM) Atau Pendaftaran Koperasi Dengan Suruhanjaya Koperasi Malaysia (SKM)(jika berkaitan)

1.1 No. Pendaftaran :

1.2 Tempoh Sah Laku : **Aktif**

2. Pendaftaran dengan Lembaga Pembangunan Industri Pembinaan Malaysia (CIDB) Di Bawah Perakuan Pendaftaran Kontraktor

2.1 No. Pendaftaran :

2.2 Tempoh Sah Laku :

2.3 Gred :

2.4 Kategori :

2.5 Pengkhususan :

3. Pendaftaran dengan Lembaga Pembangunan Industri Pembinaan Malaysia (CIDB) Di Bawah Sijil Perolehan Kerja Kerajaan (jika berdaftar)

3.1 No. Pendaftaran :

3.2 Tempoh Sah Laku :

3.3 Gred :

3.4 Kategori :

3.5 Pengkhususan :

4. Pendaftaran dengan Pusat Khidmat Kontraktor (PKK) (Sijil Bumiputera) (jika berdaftar)

4.1 No. Pendaftaran :

4.2 Tempoh Sah Laku :

4.3 Gred Kontraktor :

Tandatangan & Cap (Kerajaan) :

Tandatangan & Cap (Syarikat) :

No. *Sebut Harga/ Tender / Kontrak : – (Mesy. Bil)

5. Pendaftaran dengan Pusat Pendaftaran Kontraktor Kerja, Bekalan Perkhidmatan Negeri Sabah (PUKONSA) (jika berdaftar)

- | | | | | |
|-----|-----------------|---|---|-----------------|
| 5.1 | No. Pendaftaran | : | } | TIDAK BERKAITAN |
| 5.2 | Tempoh Sah Laku | : | | |
| 5.3 | Gred Kontraktor | : | | |
| 5.4 | Kepala | : | | |
| 5.5 | Sub Kepala | : | | |

6. Pendaftaran dengan Unit Pendaftaran Kontraktor dan Juruperunding, Pejabat Setiausaha Kewangan Negeri Sarawak (UPKJ) (jika berdaftar)

- | | | | | |
|-----|-----------------|---|---|-----------------|
| 6.1 | No. Pendaftaran | : | } | TIDAK BERKAITAN |
| 6.2 | Tempoh Sah Laku | : | | |
| 6.3 | Gred Kontraktor | : | | |
| 6.4 | Kod Bidang | : | | |

7. Pendaftaran Cukai Perkhidmatan dengan Jabatan Kastam Diraja Malaysia (jika berdaftar), sekiranya berkaitan

- | | | |
|-----|-----------------|---|
| 7.1 | No. Pendaftaran | : |
| 7.2 | Tempoh Sah Laku | : |

8. Harga dan Tempoh Kontrak

- | | | | |
|-----|--|---|----------------|
| 8.1 | Harga *Sebut Harga | : | |
| | /Tender | | |
| | (butiran harga seperti di Lampiran A1) | | |
| | Lampiran A1 adalah merupakan borang dalam dokumen tender dengan harga yang ditandatangani oleh syarikat. / sebut harga | | |
| 8.2 | Peruntukan Cukai Perkhidmatan | : | RM 0.00 |
| 8.3 | Harga Kontrak | : | |
| 8.4 | Tempoh Kontrak | : | |
| 8.5 | Tarikh Mula Kontrak | : | |
| 8.6 | Tarikh Tamat Kontrak | : | |

9. *Bon Pelaksanaan

- | | | | |
|-----|-----------------------|---|------------|
| 9.1 | Kadar Bon Pelaksanaan | : | 5% |
| 9.2 | Formula Bon | : | 5% x |
| 9.3 | Nilai Bon Pelaksanaan | : | |

Tandatangan & Cap (Kerajaan) :

Tandatangan & Cap (Syarikat) :

No. *Sebut Harga/ Tender / Kontrak : – (Mesy. Bil)

9.4 Bentuk Bon : Jaminan Bank/ Bank Islam/ Bank Pembangunan Malaysia Pelaksanaan 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.

9.5 Tempoh Sah Laku : *Dari tarikh kuat kuasa kontrak sehingga 12 bulan selepas tamat Tempoh Tanggungan Kecacatan (DLP) – bagi projek bernilai sehingga RM10 juta; atau

~~*Dari tarikh kuat kuasa kontrak sehingga 24 bulan selepas tamat Tempoh Tanggungan Kecacatan (DLP) – bagi projek bernilai melebihi RM10 juta.~~

10. **No. Kod Majikan PERKESO/No. Pendaftaran KWSP/*Polisi Risiko Semua Kontraktor**

10.1 No. Kod Majikan :
PERKESO

10.2 No. Pendaftaran :
KWSP

10.3 Nilai Polisi :

10.4 Tempoh Perlindungan : Meliputi tempoh kontrak + tempoh tanggungan kecacatan + 3 bulan + 14 hari

11. **Polisi Insurans Pampasan Pekerja**

11.1 Nilai Polisi :

11.2 Tempoh Perlindungan : Meliputi tempoh kontrak + tempoh tanggungan kecacatan + 3 bulan + 14 hari

12. **Kenaan Liquidated & Ascertained Damages (LAD)**

(Lewat menyiapkan kerja mengikut jadual yang ditetapkan)

(Kadar sehari RM30.00 sehari @ mengikut formula (yang mana tertinggi)

12.1 Formula : $6.85\% \times \dots\dots\dots$
365 Hari

12.2 Kadar sehari :

13. ***Professional Training And Education For Growing Entrepreneurs-Ready To Work (PROTÉGÉ-RTW) (jika berkaitan)**

(Bagi perolehan yang telah melebihi nilai ambang berdasarkan 1PP/PK1.2)

13.1 Tertakluk kepada : Ya / Tidak
pelaksanaan Program
PROTÉGÉ-RTW

13.2 Bilangan minimum : peserta
peserta PROTÉGÉ-RTW

*Potong mana yang tidak berkenaan

Tandatangan & Cap (Kerajaan) :

Tandatangan & Cap (Syarikat) :

No. *Sebut Harga/ Tender / Kontrak : – (Mesy. Bil)

Salinan Kepada :

Ketua Penolong Pengarah (Perolehan),
Bahagian Perolehan,
Jabatan Khidmat Pengurusan
Majlis Bandaraya Petaling Jaya
(u.p. : **Puan. Sr. Hajjah Saliza Binti Mohd Masri, CQS, P.P.T**)

Lembaga Pembangunan Industri Pembinaan Malaysia
CIDB Selangor,
Tingkat 5, Wisma PKPS,
Persiaran Perbandaran,
Seksyen 14,
40675 Shah Alam,
Selangor Darul Ehsan
(u.p. : **Encik Mohd Noor Bin Ab. Rahman**)

Tandatangan & Cap (Kerajaan) :

Tandatangan & Cap (Syarikat) :

No. *Sebut Harga/ Tender / Kontrak : – (Mesy. Bil)

Lampiran B

SURAT AKUAN PEMBIDA BERJAYA

CADANGAN

(No. Tender : MBPJ/TD/K/.....)

Saya, No. Kad Pengenalan
yang mewakili (nama syarikat) nombor Pendaftaran (*MOF/CIDB/SSM)
..... dengan ini mengisytiharkan bahawa saya atau mana-mana orang yang mewakili
syarikat ini:

- i. tidak akan menawarkan, menjanjikan atau memberikan apa-apa suapan kepada manamana 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 **MAJLIS BANDARAYA PETALING JAYA** 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.

Tandatangan & Cap (Kerajaan) :

Tandatangan & Cap (Syarikat) :

No. *Sebut Harga/ Tender / Kontrak : – (Mesy. Bil)

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.**

Tandatangan & Cap (Kerajaan) :

Tandatangan & Cap (Syarikat) :

No. *Sebut Harga/ Tender / Kontrak : – (Mesy. Bil)

Lampiran C

SURAT AKUAN SUMPAH SYARIKAT

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

- (a) syarikat **TIDAK** 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;
- (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 / Tender 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 pengisytiharan 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

Tandatangan & Cap (Kerajaan) :

Tandatangan & Cap (Syarikat) :

PK 1.6 - INTEGRITI DALAM PEROLEHAN KERAJAAN

KLAUSA PENCEGAHAN RASUAH DAN TIPUAN BIDA DALAM DOKUMEN PEROLEHAN KERAJAAN

Versi Bahasa Kebangsaan

"PENAMATAN DISEBABKAN OLEH RASUAH, TIPUAN BIDA, AKTIVITI HARAM ATAU AKTIVITI YANG MENYALAHUI UNDANG-UNDANG ATAU TIPUAN BIDA

- a) Tanpa prasangka kepada apa-apa hak lain Kerajaan, sekiranya [Syarikat/Kontraktor], kakitangan, pengkhidmat atau pekerjaanya disabitkan oleh Mahkamah atas kesalahan rasuah atau aktiviti haram atau aktiviti yang menyalahi undang-undang atau didapati melakukan pelanggaran larangan tipuan bida di bawah Akta Persaingan 2010 [Akta 712] yang berkaitan dengan Perjanjian ini atau apa-apa perjanjian lain yang dimasuki oleh [Syarikat/Kontraktor] dengan Kerajaan, Kerajaan hendaklah berhak untuk menamatkan Perjanjian ini pada bila-bila masa, dengan memberi notis bertulis dengan serta merta kepada [Syarikat/Kontraktor] untuk menyatakan sedemikian kepada [Syarikat/Kontraktor].
- b) Kerajaan berhak menuntut daripada [Syarikat/Kontraktor] apa-apa bentuk pampasan, kos, ganti rugi, kerosakan dan perbelanjaan termasuk apa-apa kos perbelanjaan sampingan yang ditanggung oleh Kerajaan akibat daripada penamatan itu.
- c) Pihak-Pihak bersetuju bahawa [Syarikat/Kontraktor] tidak berhak kepada apa-apa bentuk kerugian termasuk kerugian perolehan pendapatan, pampasan, ganti rugi, kos, perbelanjaan dan sebagainya akibat daripada penamatan itu".

Versi Bahasa Inggeris

"TERMINATION ON CORRUPTION, UNLAWFUL ACTIVITIES OR ILLEGAL ACTIVITIES OR BID RIGGING

- a) *Without prejudice to any other rights of the Government, if the [Company/Contractor], its personnel, servants or employees is or are convicted by a court of law for corruption or unlawful or illegal activities or was found to be liable for an infringement of a prohibition from performing an act of bid rigging under the Competition Act 2010 [Act 712], in relation to this Agreement or any other agreement that the [Company/Contractor] may have with the Government, the Government shall be entitled to terminate this Agreement at any time, by giving immediate written notice to that effect to the [Company/Contractor].*
- b) *Upon such termination, the Government shall be entitled to all losses, costs, damages and expenses including any incidental costs and expenses incurred by the Government arising from such termination.*
- c) *For the avoidance of doubt, the Parties hereby agree that the [Company/Contractor] shall not be entitled to any form of losses including loss of profit, damages, claims or whatsoever upon termination of this Agreement.*

**Klausa penamatan di atas telah dirujuk kepada Jabatan Peguam Negara

LAMPIRAN 16

PENGESAHAN JAMINAN BANK/JAMINAN SYARIKAT KEWANGAN/JAMINAN INSURAN (DARIPADA BANK/SYARIKAT KEWANGAN/SYARIKAT INSURAN)

Rujukan Tuan :

Rujukan Kami :

Tarikh :

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

(Nama/Alamat Kementerian/Jabatan Yang Berkenaan)

Tuan,

Pengesahan Jaminan Bank/Jaminan Syarikat Kewangan/Jaminan Insurans

No Jaminan :

Yang Dikeluarkan Oleh

Merujuk kepada surat tuan bil.
bertarikh berkenaan perkara yang tersebut di atas, sukacita
mengesahkan di sini bahawa Jaminan Bank/Jaminan Syarikat Kewangan/Jaminan
Insurans No. yang telah ditandatangani oleh
sebagai jaminan bagi yang
dikeluarkan untuk syarikat adalah sebenarnya
dikeluarkan oleh Bank/Syarikat Kewangan/Syarikat Insurans ini.

Sekian, terima kasih.

(.....)

Nama :

Jawatan :

Cap Rasmi Bank/Syarikat Kewangan/Syarikat Insurans.

DOKUMEN D

SYARAT-SYARAT KONTRAK

DOKUMEN D (i)

**BORANG JKR 203A
(REV.1/2010)**

GOVERNMENT OF MALAYSIA

**STANDARD FORM OF CONTRACT TO BE USED
WHERE BILLS OF QUANTITIES FORM PART OF
THE CONTRACT**

P.W.D. FORM 203A (Rev. 1/2010)

CONDITION OF CONTRACT
TO BE USED WHERE BILLS OF QUANTITIES
FORM PART OF THE CONTRACT

PWD FORM 203A (Rev. 1/2010)

This form has been approved by Attorney General's Chamber

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CONTRACT NO : _____ of 20 _____

EXPENDITURE to be met from: Head
Sub-head
Year of

A CONTRACT made on day of 20..... between the Government of Malaysia
(hereinafter referred to as the "Government") of the one part and
.....
(Company No.:) (hereinafter called the "Contractor") and having its registered address at
.....
..... of the other part.

(The Government and the Contractor shall hereinafter individually be referred to "Party" or collectively as the "Parties")

WHEREAS:

- A. The Government is desirous of
.....
at (hereinafter referred to as the "Works") and has caused Drawings, Bills of Quantities, Specification describing the work to be done to be prepared.
- B. The said Drawings numbered (hereinafter referred to as the "Contract Drawings"), and the Bills of Quantities, Specification, Form of Tender and Letter of Acceptance of Tender have been signed by or on behalf of the Parties hereto.

NOW IT IS HEREBY AGREED AS FOLLOWS:

1.0 DEFINITIONS AND INTERPRETATION

1.1 Definition

Unless the context otherwise requires, this Contract or an item or entry in the Appendices specifically otherwise provides, the following words and phrases in this Contract and the

Appendices shall have the meaning given below or ascribed in the clauses or Appendix item to which reference is made:

- (a) "Contract" means this contract and the appendices attached hereto;
- (b) "Contract Documents" means the documents forming the tender and acceptance thereof including:
 - Form of Tender;
 - Letter of Acceptance of Tender;
 - Contract Drawings;
 - Bills of Quantities;
 - Specifications;
 - Treasury's Instructions;
 -
 -
 -
 and all these documents shall be complementary to one another;
- (c) "Contractor" means the person or persons, sole proprietor, partnership, firm or company whose tender for the Works has been accepted and who has or have signed this Contract and includes the Contractor's personal representatives, heirs, successors, executors, administrators, servant and agent;
- (d) "Contract Period" means the time frame stipulated in clause 2;
- (e) "Contract Sum" means the sum stipulated in clause 7;
- (f) "Date for Completion" means the date fixed and stated in Appendix or any other date as provided for in clause 39;
- (g) "Defects Liability Period" means the period stated in Appendix or if none stated, the period is twelve (12) months from the date of practical completion certified by the S.O. as provided for under clause 39.3;
- (h) "Nominated Sub-Contractor" or "Nominated Supplier" means all specialist, merchants, tradesmen and others executing any work or services, or supplying any materials or goods for which Prime Cost Sum (or P.C. Sums) are included in the Bills of Quantities or which the S.O. has given written instructions in regard to the expenditure of Provisional Sum and who may be nominated by the S.O. and employed by the Contractor as Sub-contractors or Suppliers;
- (i) "On-Cost Charges" means any cost and expenses reasonably incurred by the Government;
- (j) "Officer Named" means officer empowered to take action on behalf of the Government pertaining to clauses
- (k) "Prime Cost" or means a sum for works or services to be executed by a Nominated Sub-Contractor or sums for materials or goods to be

- abbreviation "P.C. Sum" obtained from a Nominated Supplier;
- (l) "Provisional Sum" means a sum for work or for the supply of goods or materials which cannot be defined or detailed at the time the tender documents are issued;
- (m) "Site" means the land and other places on, above, under, in or through which the Works are to be executed and any other lands or places provided or approved by the Government for working space or any other purposes as may be specifically designated in this Contract and whether the same may be on the Site or not;
- (n) "S.O." means the Superintending Officer who shall beand/or his successors in office;
- (o) "S.O.'s Representatives" means any person or persons delegated or authorised in writing by the S.O. to perform any of the duties of the S.O. as may be from time to time notified in writing to the Contractor by the S.O. pursuant to clause 3.3(a) of this Contract;
- (p) "Works" means the works specified in the Contract Documents and shall include temporary works.

1.2 Interpretation

- (a) The terms "approved or approval" and "directed or direction" wherever used in this Contract shall be in writing.
- (b) Words importing the singular include the plural and vice versa where the context requires.
- (c) The headings are for convenience of reference only and shall not be deemed to be part of this Contract or be taken into consideration in the interpretation or construction of this Contract.
- (d) Unless otherwise specifically stated, a reference in this Contract and the Appendices to any clause means that clause in this Contract.
- (e) This Contract and the Appendices are to be read as a whole and the effect or operation of any clause in this Contract or item in or entry in the Appendices shall, unless otherwise specifically stated, be read subject to any relevant qualification or modification in any other clauses in this Contract or item in or entry in the Appendices.

2.0 CONTRACT PERIOD

The Contract Period shall be for a period of commencing from ending on

3.0 THE S.O. AND S.O.'S REPRESENTATIVE

3.1 Duties of S.O. and S.O.'s Representative

The S.O. shall be responsible for the overall supervision and direction of the Works. All matters regarding the Works shall be dealt with by the Contractor with the S.O.

3.2 S.O.'s Representative

- (a) The S.O. may from time to time appoint such number of S.O.'s Representative as he deems fit.
- (b) The S.O.'s Representative shall be responsible to the S.O. and his duties are to watch and supervise the Works and to test and examine any materials or goods to be used or workmanship employed in connection with the Works.

3.3 S.O.'s Authority to Delegate

- (a) The S.O. may from time to time in writing delegate to the S.O.'s Representative any of the powers and authorities vested in the S.O. as listed in the letter of delegation and shall furnish to the Contractor a copy of all such written delegation of powers and authorities.
- (b) Any instruction or approval given by the S.O.'s Representative to the Contractor within the terms of such delegation shall bind the Contractor and the Government as though it had been given by the S.O. PROVIDED THAT failure of the S.O.'s Representative to disapprove any work or material shall not prejudice the power of the S.O. thereafter to disapprove such work or materials and to order the pulling down, removal or breaking up thereof.
- (c) If the Contractor is not satisfied with any decision of the S.O.'s Representative, the Contractor shall refer the matter to the S.O. who shall confirm, reverse or vary the decision of the S.O.'s Representative.
- (d) The delegation under this clause shall not preclude the S.O. from himself exercising or performing at any time any of the delegated powers and duties.

4.0 S.O.'S RIGHT TO TAKE ACTION

4.1 Notwithstanding any provision in this Contract it is hereby agreed that:

- (a) the power of the S.O. to issue instruction requiring a variation under clause 24 shall be subject to the financial limits as set out in Appendix 1 hereto. If the instruction for a variation under clause 24 is more than the financial limits as set out in the Appendix 1, the S.O. shall obtain the prior written approval of the relevant authorities of the Government; and
- (b) the right to act on behalf of the Government in respect of any matter which arises out of the provisions of clauses 51, 52, 53, 58 and 66 shall be exercised by the Officer Named in Appendix 1;

4.2 The Contractor shall not be entitled to extension of time or any additional cost or expense or whatsoever arising from compliance with this clause 4.

5.0 S.O.'S INSTRUCTIONS

5.1 The S.O. may from time to time issue further drawings, details and/or written instructions (all of which are hereafter collectively referred to as "S.O.'s instructions") in regard to-

- (a) the Variation as referred to in clause 24 hereof;
- (b) any discrepancy in or between the Contract Documents as referred to in clause 3.2(b) hereof;

- (c) the removal from the Site of any materials or goods brought thereon by the Contractor and the substitutions of any other materials or goods therefore;
 - (d) the removal and/or re-execution of any works executed by the Contractor;
 - (e) the dismissal from the Works of any person mentioned in clause 23.6 hereof employed thereupon;
 - (f) the opening up for inspection of any work covered up;
 - (g) the amending and making good of any defects whatsoever under clause 48;
 - (h) any matter which is necessary and incidental to the carrying out and completion of the Works under this Contract; and
 - (i) any matter in respect of which the S.O. is expressly empowered by this Contract to issue instructions.
- 5.2 All instructions issued by the S.O. shall be in writing. The Contractor shall forthwith comply with all instructions issued to him by the S.O. If such instruction is given orally, the S.O. shall then issue a written instruction within seven (7) days from the date of such oral instruction is given.
- 5.3 If within seven (7) days after receipt of a written notice from the S.O. requiring compliance of an instruction and the Contractor does not comply therewith, then the S.O. without prejudice to any other rights or remedies available to the Government under this Contract, undertake the work departmentally or employ and pay another Contractor or any other persons to execute any work whatsoever which may be necessary to give effect to such instruction. All costs and expenses incurred in connection with such employment (including On-Cost Charges), shall be deducted from any money due or to become due to the Contractor under this Contract, and failing which such deductions shall be recovered from the Performance Bond or as a debt due from the Contractor.
- 5.4 The Contractor shall be responsible for all costs and expenses incurred by the Government in carrying out the Works under clause 5.3 and On-Cost Charges (calculated by applying the Percentage of On-Cost Charges stated in Appendix hereto to the amount incurred). The Government shall be entitled to deduct such costs, expenses and On-cost Charges or any part thereof from any monies due or to become due to the Contractor under this Contract or to recover the same from the Performance Bond or as a debt due from the Contractor.

6.0 SCOPE OF CONTRACT

- 6.1 The Contractor shall upon and subject to this Contract, construct and complete the Works using materials, goods and workmanship of the quality and standards therein specified in accordance with best industry practice.
- 6.2 The Contractor shall also undertake any consequential work in relation to the construction and completion of Works on the Site i.e. removal/diversion of public sewer, water mains, electrical mains, gas mains and telephone mains and the installation of permanent connections thereto shall be borne by the Government. The Government shall reimburse the Contractor for such costs by adding it to the Contract Sum PROVIDED THAT such cost have not already been included in the Contract Sum by way of a Provisional Sum or otherwise.

PROVIDED FURTHER any temporary connection shall be obtained by the Contractor with no additional cost to the Government for purpose of carrying out their work.

- 6.3 The Contractor shall also make good any defect, imperfection, shrinkage or any other fault whatsoever which may appear during the Defects Liability Period in accordance with clause 48 hereof.

7.0 CONTRACT SUM

The Government hereby covenants to pay the Contractor in consideration of the construction and completion of the Works and making good of any defects whatsoever to the Works the sum of Ringgit:

..... (RM.....) or such other sum as shall become payable under and at the times and in the manner specified in this Contract.

8.0 CONTRACT DOCUMENTS

8.1 Custody of the Contract Documents

- (a) The Contract shall be prepared in two (2) original copies. The original copies of the Contract shall remain in the custody of the S.O. and the Contractor.
- (b) Immediately after the execution of this Contract, the S.O. shall furnish to the Contractor without any charge (unless he shall have been previously furnished) with:
 - (i) two (2) copies of the Contract Drawings; and
 - (ii) two (2) copies of the unpriced Bills of Quantities and (if requested by the Contractor) one copy of the priced Bills of Quantities.
- (c) The S.O. shall, as and when necessary and without charge to the Contractor, furnish him with two (2) copies of such further working drawings or details as are reasonably necessary either to explain and amplify the Contract Drawings or the Specification (if any) or to enable the Contractor to construct and complete the Works in accordance with this Contract. PROVIDED THAT nothing contained in the said working drawings or details shall impose any obligation beyond those imposed by the Contract Documents.
- (d) The Contractor shall keep one copy of the Contract Drawings, the Specification (if any), unpriced Bills of Quantities, priced Bills of Quantities (if any) and other like documents referred to in sub-clause (c) hereof on the Site and the S.O. shall at all reasonable times have access to the same.
- (e) Upon final payment being made pursuant to the issuance of Final Account and Payment Certificate under clause 31, the Contractor shall return to the S.O. all drawings, details, specifications, unpriced copy of Bill of Quantities and priced Bill of Quantities, if any.
- (f) None of the documents hereinbefore mentioned shall be used by the Contractor for any purpose other than this Contract.

8.2 Sufficiency of Contract Documents

- (a) The Contract documents are to be taken as mutually explanatory of one another. The Contractor shall provide everything necessary for the proper execution of the Works until its completion according to the true intent and meaning of the Contract Documents taken together whether the true intent and meaning may or may not be particularly shown or described PROVIDED THAT it can be reasonably inferred therefrom.
- (b) If the Contractor shall find any discrepancy in or divergence between any two or more of the Contract Documents including a discrepancy or divergence between parts of any one of them, he shall immediately give to the S.O. a written notice specifying the

discrepancy or divergence and the S.O. shall issue instructions in regard thereto PROVIDED ALWAYS that such discrepancy or divergence shall not vitiate this Contract.

9.0 REPRESENTATIONS, WARRANTIES AND UNDERTAKINGS OF THE CONTRACTOR

9.1 Representations and Warranties

The Contractor hereby represents and warrants to the Government that—

- (a) it is a corporation validly existing under the laws of Malaysia*;
- (b) the Contractor has obtained a valid registration with the Construction Industry Development Board;
- (c) it has the corporate power to enter into and perform its obligations under this Contract and to carry out the transactions and to carry on its business as contemplated by this Contract*;
- (d) it has taken all necessary corporate actions to authorize the entry into and performance of this Contract and to carry out the transactions contemplated by this Contract*;
- (e) as at the execution date, neither the execution nor performance by it of this Contract nor any transactions contemplated by this Contract will violate in any respect any provision of—
 - (i) its Memorandum and Articles of Association; or
 - (ii) any other document or agreement which is binding upon it or its asset*;
- (f) no litigation, arbitration, tax claim, dispute or administrative proceeding is presently current or pending or, to its knowledge, threatened, which is likely to have a material adverse effect upon it or its ability to perform its financial or other obligations under this Contract;
- (g) this Contract constitutes a legal, valid and binding obligation of the Contractor and is enforceable in accordance with its terms and conditions;
- (h) it has necessary financial and technical capability to undertake the Works,

and the Contractor acknowledges that the Government has entered into this Contract in reliance on its representations and warranties as aforesaid.

9.2 Undertakings of the Contractor*

The Contractor undertakes that—

- (a) it shall comply with all requirements, statutory or otherwise, regulating or relating to the conduct, trade, business or profession of a contractor, and the Contractor shall be fully and solely liable for all costs incurred thereby;

* applicable only if the Contractor is a company registered under the Companies Act 1965.

- (b) it shall pay all taxes that may be imposed on the profits made in respect of this Contract in accordance with the applicable laws; and
- (c) it shall ensure that all his employees, including non-Malaysian personnel, comply with all relevant laws to which they are subject to including payment of income tax, which in respect thereto the Contractor shall make such deductions from the salaries of his employees as may be lawfully imposed by the relevant authority.

10.0 OBLIGATIONS OF THE CONTRACTOR

The Contractor shall—

- (a) construct, complete, test and commission the Works in accordance with the Specifications, Contract Drawings and any other documents specified in the Contract Documents;
- (b) perform the Works in a proper manner and in accordance with good management practice and to the best advantage of the Government;
- (c) take all appropriate measures expected of a contractor providing similar works to ensure that the Works comply with the requirements of this Contract;
- (d) perform the Works and discharge its obligations as contained in this Contract by exercising professional judgment and practice, requisite skill, care and diligence. In performing the Works, the Contractor shall provide well-outlined procedures in the form agreed by the Government for reporting and co-ordination purposes;
- (e) at all times perform the Works in such manner as will always safeguard and protect the Government's interest in relation to the Works and take all necessary and proper steps to prevent abuse or uneconomical use of facilities, if any, made available by the Government to the Contractor;
- (f) inform the Government immediately in writing of the occurrence of any factor or event, which is likely to affect the Works. Such notification shall not be construed as a discharge of any of the Contractor's obligations under this Contract;
- (g) provide and maintain throughout the Contract Period such number, categories of qualified and competent personnel necessary to perform the Works;
- (h) provide and maintain at its own cost and expense all equipment and materials necessary for the proper and effective performance of the Works;
- (i) instruct and supervise its staffs and sub-contractor in carrying out the Works' repairs and other works in relation to the Works;
- (j) make good any defect, imperfection, shrinkage or any other fault whatsoever which may appear during the Defects Liability Period; and
- (k) carry out any other obligations and responsibilities under this Contract.

11.0 INSPECTION OF SITE

- 11.1 The Contractor shall be deemed to have inspected and examined the Site and its surroundings and to have satisfied himself before submitting his tender as to the following:
 - (a) the nature of the ground and subsoil;

- (b) the form and nature of the Site;
 - (c) the extent and nature of the work, materials and goods necessary for the completion of the Works;
 - (d) the means of communication with and access to the Site;
 - (e) the accommodation he may require; and
 - (f) in general to have obtained for himself all necessary information as to risks, contingencies and all circumstances influencing and affecting his tender.
- 11.2 Any information or document forwarded by the Government to the Contractor shall not relieve the Contractor of his obligations under the provisions of this clause.

12.0 PROGRAMME OF WORK

- 12.1 Within fourteen (14) days from the receipt of the Letter of Acceptance by the Government, the Contractor shall submit to the S.O for his approval -
- (a) a work programme for the carrying out of the Works (hereinafter referred to as "Work Programme") in such form and details as determined by the S.O. showing the detail activities of the Works so as to enable the Government to monitor the progress thereof; and
 - (b) a general description in writing, of the arrangements and methods of construction which the Contractor proposes to adopt for the carrying out of the Works.
- 12.2 The S.O shall within (....) days after receipt of the Contractor's programme:
- (i) approve the Work Programme in writing; or
 - (ii) reject the Work Programme in writing with reasons and/or request modifications; and/or
 - (iii) request the Contractor to supply further information to clarify or substantiate the Work Programme or to satisfy the S.O as to its reasonableness having regard to the Contractor's obligations under the Contract,

PROVIDED THAT if none of the above actions is taken within the said period of (....) days the S.O shall be deemed to have approved the Work Programme as submitted.

- 12.3 The Contractor shall upon receipt from the S.O any request under clause 12.2(ii) or (iii) resubmit a modified Work Programme or provide further information as requested.
- 12.4 If at any time it should appear to the S.O that the actual progress of Works does not conform to the approved Work Programme referred to herein before the Contractor shall produce, at the request of the S.O., a revised Work Programme showing the modifications to the approved Work Programme necessary to ensure completion of the whole Works within the time for completion provided for in clause 39 hereof or extended time granted pursuant to clause 43 hereof.
- 12.5 The submission to and approval by the S.O or the S.O's Representative of such Work Programme or the furnishing of such particulars shall not relieve the Contractor of any of his duties or responsibilities under this Contract.

13.0 PERFORMANCE BOND/PERFORMANCE GUARANTEE SUM

- 13.1(a) The Contractor shall, on the date of the possession of Site, provide a Performance Bond or Performance Guarantee Sum as the case may be substantially in the form as in Appendix issued by an approved licensed bank or financial institution incorporated in Malaysia in favour of the Government for a sum equivalent to five percent (5%) of the total Contract Sum as specified in Appendix to secure the due performance of the obligations under this Contract by the Contractor. The Performance Bond shall remain valid and effective until twelve (12) months after the expiry of the Defect Liability Period or the issuance of the Certificate of Completion of Making Good Defects, whichever is the later.
- (b) If the Contractor fails to submit the said Performance Bond as specified in sub-clause (a) above on the date of possession of site, then the Contractor shall be deemed to have opted for Performance Bond in the form of Performance Guarantee Sum as provided for under clause 13.2 hereof.
- 13.2 The Contractor may opt for a Performance Bond in the form of Performance Guarantee Sum in lieu of the Bank, Insurance or Finance Company Guarantee as specified in clause 13.1 hereof whereby deductions of ten percent (10%) shall be made from the first interim payments and subsequent interim payment until the total amount deducted aggregate to a sum equivalent to five (5) percent of the Contract Sum. The amount deducted shall be retained by the Government up to twelve (12) months after the expiry of the Defect Liability Period or the issuance of the Certificate of Completion of Making Good Defects, whichever is the later.
- 13.3 Notwithstanding anything contained in this Contract, the Government shall be entitled at any time to call upon the Performance Bond, wholly or partially, in the event that the Contractor fails to perform or fulfil its obligations under this Contract and such failure is not remedied in accordance with this Contract.
- 13.4 If a payment is made to the Government pursuant to any claim under the Performance Bond, the Contractor shall issue to the Government further security in the form of additional performance bond or bonds for an amount not less than the amount so paid to the Government on or prior to the date of such payment so that the total sum of the Performance Bond shall be maintained at all times at the value specified in clause 13.1(a).
- 13.5 The Performance Bond (or any balance thereof remaining for the credit of the Contractor) may be released or refunded to the Contractor on the completion of making good of all defects, shrinkages or other faults which may appear during the Defects Liability Period and upon the giving of the Certificate of Completion of Making Good Defects for the whole of the Works under clause 48.
- 13.6 Notwithstanding the above, in the event that this Contract is terminated under clause 51 hereof the said Performance Bond or any balance thereof shall be forfeited.

14.0 INDEMNITY IN RESPECT OF PERSONAL INJURIES AND DAMAGE TO PROPERTY

- 14.1 The Contractor agrees with the Government that—
- (a) it shall perform all of its obligations under this Contract at its own risk and releases, to the fullest extent permitted by law, the Government and their agents and servants from all claims and demands of every kind resulting from any accident, damage, injury or death arising from the carrying out of the Works except where such accident, damage, injury or death is caused or contributed to by any act or omission or negligence of the Government or its agents and servants. The Contractor expressly agrees that in the absence of any such act, omission or negligence as aforesaid the Government shall have no responsibility or liability whatsoever in relation to such accident, damage, injury or death;

- (b) it shall indemnify and keep indemnified the Government from and against all actions, suits, claims or demands, proceedings, losses, damages, compensation, costs (including legal cost), charges and expenses whatsoever to which the Government shall or may be or become liable in respect of or arising from—
- (i) the negligent use, misuse or abuse by the Contractor or its personnel, servants, agents or employees appointed by the Contractor;
 - (ii) any loss or damage to property or injury of whatsoever nature or kind and howsoever or wherever sustained or caused or contributed to by carrying out of the Works by the Contractor to any person and not caused by the negligence or wilful act, default or omission of the Government, its agents or servants; or
 - (iii) any loss, damage or injury from any cause whatsoever to property or persons affected by the Works to the extent to which the same is occasioned or contributed to by the act, omission, neglect, breach or default of the Contractor or personnel, servants, agents or employees; and
- (c) the obligations under this clause shall continue after the expiry or earlier termination of this Contract in respect of any act, deed, matter or thing happening before such expiration or termination of this Contract.
- 14.2 The Contractor shall indemnify, protect and defend at its own cost and expense, the Government and its agents and servants from and against all actions, claims and liabilities arising out of acts done by the Contractor in the performance of this Contract.

15.0 INSURANCE AGAINST PERSONAL INJURIES AND DAMAGE TO PROPERTY

15.1 Taking of Insurance

- (a) Without prejudice to his liability to indemnify the Government under clause 14 hereof, the Contractor shall, as a condition precedent to the commencement of any work under this Contract, effect and maintain such insurances whether with or without an excess amount as specified in Appendix hereto as are necessary to cover the liability of the Contractor and all sub-contractors, whether nominated or otherwise.
- (b) Such insurance shall be for the purpose of personal injuries or death, damage or loss to property, movable or immovable, arising out of, or in the course of, or by reason of the execution of the Works and caused by any negligence, omission, breach of contract or default of the Contractor or any sub-contractor, whether nominated or otherwise, or of any servants or agents of the Contractor or of any such sub-contractor, whether nominated or otherwise. Where an excess amount is specified in Appendix, the Contractor shall bear the amount of such excess. The policy or policies of insurance shall contain a cross liability clause indemnifying each of the jointly insured against claims made by on him by the other jointly insured.
- (c) Such insurance as referred to under sub-clause (a) hereof shall be effected with an insurance company as approved by the Government and maintained in the joint names of the Government and Contractor and all sub-contractors, whether nominated or otherwise. Such insurance shall cover from the period of the date of possession of site until the date of issuance of Certificate of Making Good Defects for any claim occasioned by the Contractor or any sub-contractor in the course of any operations carried out by the Contractor or any sub-contractor for the purpose of complying with his obligations under Clause 48 hereof.

15.2 Production of Policies

It shall be the duty of the Contractor to produce and shall deposit the relevant policy or policies of the insurance together with receipts in respect of premiums paid to the S.O., whether demanded or not.

15.3 Default in Insuring

If the Contractor fails to effect or renew such insurances as are required to be effected and maintained under this Contract, the Government or the S.O. on its behalf may effect or renew such insurance and shall be entitled to deduct a sum equivalent to the amount in respect of the premiums paid and On-Cost Charges (calculated by applying the 'Percentage for On-cost Charges' stated in Appendix hereto to the premiums paid), from any money due or to become due to the Contractor under this Contract or to recover the same from the Performance Bond or as a debt due from the Contractor.

15.4 Cancellation of Insurance

- (a) The Contractor shall ensure that any insurance policy effected hereto shall only be cancelled by the insurer after the expiry of thirty (30) days from the date of receipt by the Government of a written notice from the insurer advising of such impending cancellation PROVIDED THAT the Contractor has been issued with the Certificate of Making Good Defects in accordance with clause 48.
- (b) The Contractor shall not at any time permit or cause to be done any act, matter or thing which may result in any insurance effected by virtue of this Contract being vitiated or rendered void or voidable or whereby the rate of the premium on any insurance effected shall be liable to be increased.

15.5 Loss or Damage Occasioned by Insured Risk

- (c) In the event of any damage or loss occurring during the performance of this Contract, the Contractor shall repair, replace or make good such damage or loss from the amount of insurance claimed, if sufficient, or if insufficient, using his own resources.

16.0 INDEMNITIES TO GOVERNMENT IN RESPECT OF CLAIMS BY WORKMEN

16.1 Workmen Compensation

- (a) The Contractor shall be liable for and shall indemnify and keep indemnified the Government and its officers or servants from all liabilities arising out of claims by any workman employed by the Contractor in and for the performance of this Contract for payment of compensation under or by virtue of the Workmen's Compensation Act 1952 and the Employee's Social Security Act 1969 or any other law amending or replacing such law and from all costs and expenses incidental and consequential thereto.
- (b) The Contractor shall effect and maintain throughout the Contract Period a "Workmen Compensation Insurance" or any other applicable insurance for its personnel, servants, agents or employees required under the laws of Malaysia.

17.0 EMPLOYEES' SOCIAL SECURITY ACT, 1969

17.1 Registration with SOCSO

Without prejudice to his liability to indemnify the Government under clause 16, the Contractor shall register or cause to register all local workmen employed in the execution of the Works and who are subject to registration under the Employee's Social Security Scheme ("the SOCSO Scheme") in accordance with the Employee's Social Security Act 1969 or any subsequent modification or re-enactment of the said Act. For the purpose of this sub-clause, the term "local workmen" shall include workmen who are Malaysian citizens and those who have permanent resident status.

17.2 Contribution to SOCSO

The Contractor shall submit the Code Number and Social Security Numbers of all the workmen registered under the SOCSO scheme to the S.O. for verification. The Contractor shall make payment of all contribution from time to time on the first contribution day on which the same ought to be paid and until the completion of this Contract and it shall be the duty of the Contractor to produce to the S.O. contribution statement or payment vouchers as evidence of payment of such contribution, whether demanded or not.

17.3 Default in Complying with SOCSO

If the Contractor fails to comply with the terms of this Clause, the Government or the S.O. on its behalf may without prejudice to any other remedy available to the Government for breach of any terms of this Contract:

- (a) withhold an amount from any money which would otherwise be due to the Contractor under this Contract and which in the opinion of the S.O. will satisfy any claims for compensation by workmen that would have been borne by SOCSO Scheme had the Contractor not made default in maintaining the contribution; and/or
- (b) pay such contributions as have become due and remain unpaid and deduct the amount of such contributions including On-Cost Charges (calculated by applying the Percentage of On-Cost Charges stated in Appendix to the contributions paid), from any money due or to become due to the Contractor under this Contract, and failing which such contributions shall be recovered from the Performance Bond or as a debt due from the Contractor.

18.0 INSURANCE OF WORKS

18.1 Taking of Insurance

- (a) The Contractor shall in the joint names of the Government and the Contractor insure against loss and damage by fire, lightning, explosion, storm, tempest, flood, ground subsidence, bursting or overflowing of water tanks, apparatus or pipes, aircraft and other aerial devices or articles dropped therefrom, riot and civil commotion, all work executed and all unfixed materials and goods, delivered to, placed on or adjacent to the Works and intended therefore (but excluding temporary buildings, plant, tools and equipment owned or hired by the Contractor or any sub-contractor, nominated or otherwise) to the full value thereof (plus any amount which may be specifically stated in Appendix or elsewhere in the Contract Documents) and shall keep such work, materials and goods so insured until the completion of the whole of the Works, notwithstanding any arrangement for Sectional Completion or Partial Occupation by the Government under this Contract. Such insurance policy or policies shall provide expressly for payment in the first place to the Government of any insurance monies due under the policy or policies.
- (b) The said insurance with or without an excess clause as specified in Appendix hereto shall be effected with an insurance company approved by the S.O. and it shall be the duty of the Contractor to produce to the S.O. the said policy or policies and the receipts in respect of the premium paid. Where an excess clause is specified in Appendix, the Contractor shall bear the amount of such excess.

18.2 Default in Insuring

If the Contractor fails to effect or renew such insurance as are necessary under this clause, the Government or the S.O. on its behalf may renew such insurance and pay the premium in respect thereof and deduct the amount so expended including On-Cost Charges (calculated by applying the 'Percentage of On-cost Charges' stated in Appendix to the premiums paid), from any money

due or to become due to the Contractor under this Contract, and failing which such premium shall be recovered from the Performance Bond or as a debt due from the Contractor.

18.3 Payment of Insurance in the Event of any Loss/Damage

Upon the occurrence of any loss or damage to the Works or unfixed materials or goods prior to the date the Works has been certified as practically completed by the S.O. in the Certificate of Practical Completion, the Contractor shall notwithstanding that settlement of any insurance claim has not been completed, with due diligence restore, replace or repair the same, remove and dispose of any debris and proceed with the carrying out and completion of the Works. All money if and when received from the insurance under this clause shall be paid in the first place to the Government and then (less any such amounts as are specifically required in Appendix or elsewhere in the Contract Documents) be released to the Contractor by instalments on the certificate for payment issued by the S.O., calculated as from the date of receipt of the money in proportion to the extent of the work of restoration, replacement or repair and the removal and disposal of debris previously carried out by the Contractor. The Contractor shall not be entitled to any payment in respect of the work of restoration, replacement or repair and the removal and disposal of debris other than the money received under the said insurance.

18.4 Cancellation of Insurance Policy

The Contractor shall ensure that any insurance policy effected hereto shall only be cancelled by the insurer after the expiry of thirty (30) days from the date of receipt by the Government of a written notice from the insurer advising of such impending cancellation PROVIDED THAT the Contractor has been issued with the Certificate of Making Good Defects in accordance with clause 48.

19.0 SETTING OUT

19.1 The Contractor shall be responsible for the true and proper setting out of the Works and for the correctness of the positions, levels, dimensions and alignments of all parts of the Works and for the provisions of all necessary instruments, appliances and labour in connection therewith.

19.2 If at any time during the progress of the Works any error in the positions, levels, dimensions or alignments of any part of the Works is discovered, the Contractor shall at his own expense rectify such error unless such error is based on incorrect data supplied in writing by the S.O.'s Representative in which case the expense of rectifying shall be borne by the Government.

19.3 If at any time during the progress of the Works, any error shall appear or arise in the setting-out required to construct the Works or in the position, levels, dimensions or alignment of any part of the Works, the Contractor, on being required to do so by the S.O., shall at his own expense rectify such error to the satisfaction of the S.O. The checking of any setting out of or of any line or level by the S.O. shall not in any way relieve the Contractor of his responsibility for the correctness thereof and the Contractor shall carefully protect and preserve all things used in the setting-out required for the construction of the Works until the S.O. agrees that the said things may be abandoned.

19.4 The Contractor shall give to the S.O. without charge such information as may be required by the S.O. to enable him to check the setting-out required for the construction of the Works including interpreting any marks made by the Contractor for the purpose of setting out.

20.0 UNFIXED MATERIALS AND GOODS

Unfixed materials and goods delivered to, placed on or adjacent to the Site and intended for incorporation therein, shall not be removed except for use upon the Works, unless the S.O. has consented in writing to such removal. Where the S.O. has included the value of such materials or

goods in any certificate in accordance with clause 28, under which the Contractor has received payment, such materials and goods shall become the property of the Government, but the Contractor shall remain responsible for loss or damage to the same.

21.0 COMPLIANCE WITH THE LAW

- 21.1 The Contractor shall comply in all respects (including the giving of all notices and the paying of all fees required) with any law, regulation or by-law, or any order or directive issued by any public authority or public service company (hereinafter referred to as "Statutory Requirements"), relating to the Works or, in the case of public authority or public service company, with those systems the same are or will be connected. The Contractor shall submit to the S.O. all approvals received by the Contractor in connection therein. The Contractor shall keep the Government indemnified against all penalties and liability of every kind for breach of any such Statutory Requirements.
- 21.2 If after the Date of Tender (as specified in Appendix) there is any change or amendment in any written law, regulations and by-laws which necessitates any variation to the Works, the Contractor shall, before making such variation, give to the S.O. a written notice specifying and giving the reason for such variation and apply for the S.O.'s instruction in respect of the matter.

22.0 DESIGN

22.1 Design Liability

- (a) Notwithstanding any design and specifications supplied by the Government, if the Contractor is required under this Contract to undertake the design of any part of the Works which is a stand alone design as determined by the Government, the Contractor shall ensure that such design is suitable, functional, safe, compatible and integrates with the design and specifications of the Works and it shall be undertaken, approved and endorsed by a competent and registered professional.
- (b) The Contractor shall submit to the S.O. all drawings, specifications, calculations and any other relevant information pertaining to the stand alone design for approval. No work shall commence without prior written consent of the S.O.
- (c) The Contractor shall be fully responsible and guarantee the Government that the stand alone design, integration, execution of the Works, materials and workmanship for the Works or part of the Works are independent of fault, suitable, functional, safe and compatible with the requirements of the Government.
- (d) The approval of the stand alone design by the S.O pursuant to sub-clause (b) shall not absolve the Contractor from its responsibility under sub-clause (c) and the Contractor shall be liable and shall fully indemnify and keep the Government indemnified for any design defects, damage, inadequacies or insufficiency of such design.

22.2 Design Guarantee Bond

- (a) The Contractor shall provide a Design Guarantee Bond for the stand alone design issued by an approved licensed bank or financial institution of the sum of Ringgit ... (RM:...) amounting to 5% of the value of the said part of the Works substantially in the form as in Appendix [.....] upon or before the issuance of the Certificate of Practical Completion of the Works as a security for the Contractor's obligations and warranties under Clause 22.1. Such Design Guarantee Bond shall remain valid for a period of 5 years from the date of practical completion of the Works.
- (b) If any defect or damage shall occur to that particular part of the Works as a result of any defect, fault, insufficiency, imperfection, shrinkages or inadequacy in the stand alone

design including workmanship, materials or equipment which has become defective arising from design fault then the approved licensed bank or financial institution issuing the Design Guarantee Bond pursuant to sub-clause (a) above shall pay to the Government, on demand by the Government in writing notwithstanding any objection by the Contractor or any third party, the sum of.... being equal to 5% of the value of the said part of the Works or such part thereof as may be demanded.

- (c) If the Design Guarantee Bond is not deposited with the Government in accordance with sub-clause (a) above, the Government shall have the right to claim from the Performance Bond the sum of Ringgit (RM...) being equal to 5% of the value of the said part of the Works or such part thereof as may be demanded
- (d) If a payment is made to Government pursuant to clause (b), the Contractor shall ensure that further security in the form of an additional Design Guarantee Bond for an amount no less than the amount so paid to Government shall be issued to Government prior to or upon the date of such payment. If any of the issued Design Guarantee Bond were to expire prior to the validity period, a replacement Design Guarantee Bond shall be issued to Government on or prior to the date of expiry of the first mentioned Design Guarantee Bond in an amount not less than the amount of that Design Guarantee Bond.

23.0 EMPLOYMENT OF WORKMEN

23.1 Workmen

- (a) The Contractor shall employ, in the execution of this Contract, only Malaysian citizens as workmen.
- (b) If in any particular trade or skill required to complete the Works, the Contractor can show to the satisfaction of the S.O. that Malaysian citizens are not available, then the Contractor may employ non-Malaysian citizens subject to the approval of the Government.
- (c) The Contractor shall on the commencement of the Works furnish to the Jabatan Tenaga Kerja of the State in which this Contract is performed all particulars connected with this Contract and such returns as may be called for from time to time in respect of labour employed by him on for the execution of this Contract, in accordance with the requirements of the Employment Act 1955, Employment (Restriction) Act 1968, and Internal Security (Registration of Labour) Regulation 1960 or any subsequent modification or re-enactment thereof.
- (d) The Contractor shall maintain on the Site at all times during the progress of the Works an up to date register containing particulars of all workers employed by him.
- (e) The Contractor shall cause his sub-contractors (including 'labour only' sub-contractors) and Nominated Sub-Contractors to comply with the provisions of this clause.

23.2 Compliance with Employment Act 1955, etc.

In the employment of workmen for the execution of this Contract, the Contractor shall comply, and shall cause his sub-contractors (including "labour only" sub-contractors) and Nominated Sub-Contractors to comply with all the requirements of the Employment Act 1955, Employment (Restriction) Act 1968, Employee's Provident Fund Act 1951, the Industrial Relations Act 1967 and any other law relating to the employment of workmen, or any subsequent modification or re-enactment thereof. PROVIDED THAT the Contractor shall not be entitled to any claim for additional costs and payments whatsoever in respect of his compliance with this clause.

23.3 Days and Hours of Working

No work shall be done on:

- (a) the weekly day of rest;
- (b) any public holiday which is recognised in the state where this Contract is being carried out; or
- (c) between the hours of six in the evening and six in the following morning;

without the written permission of the S.O. PROVIDED THAT when such written application of the Contractor is approved by the S.O., the Contractor shall comply fully with all the requirements of the Employment Ordinance 1955 in regard thereto or any subsequent modification or re-enactment thereof and shall bear any costs for compliance therewith, and any extra costs incurred by the Government in connection with the supervision of the Works.

23.4 Wages Books and Time Sheets

- (a) The Contractor shall keep and shall cause his sub-contractors (including "labour only" sub-contractors) and Nominated Sub-Contractors to keep proper wages books and time sheets showing wages paid to and the time worked by all workmen employed by him and his sub-contractors as aforesaid in and for the performance of this Contract.
- (b) The Contractor shall produce such wages books and time sheets on demand for inspection by any persons duly authorised by the S.O.
- (c) The Contractor shall furnish to the S.O. or S.O.'s Representative such information relating to the wages and conditions of employment of such workmen as the S.O. may from time to time require.

23.5 Default in Payment of Wages

In the event of default in the payment of –

- (a) any money in respect of wages; and/or
- (b) payment in respect of Employees Provident Fund Contributions,

of any workmen employed by the Contractor or his sub-contractors (including "labour only" sub-contractors) and Nominated Sub-contractors in and for the performance of this Contract, which a claim has been filed with the Department of Labour, then the S.O. shall make payment to the Director General of Labour and/or Employees Provident Fund, as the case may be, out of any monies at any time due to the Contractor under this Contract and such payment shall be deemed to be a payment made to the Contractor by the Government under and by virtue of this Contract.

23.6 Discharge of Workmen

- (a) The Contractor shall employ in and about the execution of the Works only such persons as are of good character, careful, skilled and experienced in their respective vocations and trades.
- (b) The S.O. shall be at liberty to object to and require the Contractor to remove immediately from the Site any person employed by the Contractor in or about the execution of the Works who in the opinion of the S.O. misconducts himself or is incompetent or negligent in the proper performance of his duties. Such person shall not again be employed upon the Works without the prior written permission of the S.O.

- (c) Any person so removed from the Works shall be replaced without delay by a substitute approved by the S.O. PROVIDED THAT the Contractor shall not be entitled to any claim for any expense whatsoever incurred by him in respect of any direction given by the S.O. under this clause.

24.0 VARIATIONS

- 24.1 The S.O. may issue instructions requiring a Variation in a form of a Variation Order. No variation required by the S.O. shall vitiate this Contract. Upon the issuance of such Variation Order, the Contractor shall forthwith comply with the Variation Order issued by the S.O.
- 24.2 The term 'Variation' means a change in the Contract Document which necessitates the alteration or modification of the design, quality or quantity of the Works as described by or referred to therein and affects the Contract Sum, including:
 - (a) the addition, omission or substitution of any work;
 - (b) the alteration of the kind or standard of any of the materials, goods to be used in the Works; or
 - (c) the removal from the Site of any work executed or materials or goods brought thereon by the Contractor for the purposes of the Works other than work, materials or goods which are not in accordance with this Contract.
- 24.3 Any variation made under this clause shall not relieve the Contractor from his obligations under clause 22.1(c).

25.0 VALUATION OF VARIATION

- 25.1 All variations instructed in writing by the S.O. in accordance with clause 24 hereof shall be measured and valued by the S.O. The valuation of Variations, unless previously or otherwise agreed, shall be made in accordance with the following rules:
 - (a) the rates in the Bills of Quantities after adjustment if necessary as provided in clauses 26.6 and 26.7 hereof, shall determine the valuation of work of similar character and executed under similar conditions as work priced therein;
 - (b) the said rates, where work is not of similar character or executed under similar conditions as aforesaid, shall be the basis of rates for the same, so far as may be reasonable, failing which a fair valuation thereof shall be made by the S.O.;
 - (c) the rates in the Bills of Quantities shall determine the valuation of items omitted, PROVIDED THAT if the omission substantially vary the conditions under which any remaining items of work are carried out, the rates of such remaining items shall be valued under rule (b);
- 25.2 Where work cannot properly be measured or valued, the S.O. may allow daywork price as specified in Appendix. Unless otherwise provided in the Bills of Quantities, the daywork prices for the purpose of this Contract shall be taken to mean the actual net cost to the Contractor of his materials, plant and labour for the work concerned. The Contractor shall be paid daywork prices, plus fifteen percent (15%), which shall include for the cost of all ordinary plant, tools, scaffolding, supervision and profit. PROVIDED ALWAYS that as a condition precedent to any right to any payment the Contractor shall produce vouchers, receipts and wage books specifying the time for labour and plant employed and materials used to the S.O. not exceeding seven (7) days after the work shall have been done.

- 25.3 The amount of variations shall be certified by the S.O. and added to or deducted from the Contract Sum as the case may be and the amount shall be adjusted accordingly.

26.0 BILL OF QUANTITIES

Basis of Contract Sum

- 26.1 The quality and quantity of the Works as set out in the Bills of Quantities shall be the basis of the Contract Sum. Any error in description or quantity or omission of Works from the Bills of Quantities shall not vitiate this Contract but shall be rectified and the amount in respect of such rectification shall be added to or deducted from the Contract Sum as the case may be.
- 26.2 The Government reserves the right to adjust the prices and rates in the Bills of Quantities submitted by the Contractor to ensure their reasonableness before acceptance of tender and the decision of the Government shall be final.
- 26.3 Any adjustment of the prices and/or rates in the Bills of Quantities required under clause 26.2 and any arithmetical error or omission in the prices or rates and/or calculations of the Contractor in the Bills of Quantities shall before the signing of this Contract be so rectified and adjusted that when correctly calculated, the total amount in the Summary of the Bills of Quantities shall represent the same amount as the tender amount in the Form of Tender. The tender amount shown in the Form of Tender shall remain unaltered but the nett aggregate amount of the difference between the total adjusted amount in the Summary of the Bills of Quantities and the tender amount shown in the Form of Tender, whether a nett deduction or nett addition, shall be calculated as a percentage of the total adjusted amount shown in the Summary of the Bills of Quantities and all prices and/or rates throughout the Bills of Quantities shall be subject to such percentage discounts or premiums as the case may be. Provided always that Provisional and Prime Cost Sums shall be excluded from such calculation and shall not be subject to such percentage discount or premium.

Standard Method of Measurement

- 26.4 The Bills of Quantities, unless otherwise expressly stated in respect of any specified item or items, shall be deemed to have been prepared in accordance with the principles of the Standard Method of Measurement of Building Works as published by the Institution of Surveyors (Malaysia) or Civil Engineering Method of Measurement published by Institution of Civil Engineers (London) or Method of Measurement as set out in Bill of Quantities.

Provisional Quantities

- 26.5 Unless where the quantities of the Works or any part thereof are stated as 'provisional' in the Bills of Quantities such quantities are firm and the Works shall not be subject to re-measurement unless the Bills of Quantities are proven to be erroneous and shall be dealt with under clause 26.1.
- 26.6 Where the quantities of Works are stated as "provisional" in the Bills of Quantities, such quantities are the estimated quantities which shall not be taken as the actual and correct quantities of Works to be executed by the Contractor in the fulfilment of his obligations under the Contract. The amount to be paid to the Contractor in respect of such Works upon completion of this Contract shall be ascertained by remeasurement of the work as it is actually executed and valued in accordance with clause 25.1 hereof, after adjustment if necessary as provided in clause 25.3 hereof.
- 26.7 For the purpose of clause 26.6, the amount to be paid to the Contractor shall be set off against the amount for such work in the Bills of Quantities, and the balance shall be added to or deducted from the Contract Sum as the case may be.

27.0 MEASUREMENT OF WORKS

- 27.1 The S.O. shall, when he requires any part or parts of the Works to be measured or remeasured for the purposes of clauses of Variation under clause 24 and provisional quantities under clause 26.5, give reasonable notice to the Contractor who shall attend or send a qualified agent to assist the S.O. or S.O.'s Representative in making such measurement and shall furnish all particulars required by the S.O.. Should the Contractor fail to attend or neglect or omit to send such agent, then the measurement made by the S.O. or approved by him shall be taken to be the correct measurement of the work.
- 27.2 Upon the completion of the measurement pursuant to clause 27.1, the S.O. shall supply the Contractor with such measurement in respect of the said parts.

28.0 PAYMENT TO CONTRACTOR AND INTERIM CERTIFICATES

- 28.1 When the Contractor has executed work including delivery to or adjacent to the Works of any unfixed materials or goods intended for incorporation into the Works in accordance with the terms of this Contract and their total value of work thereof has reached the sum referred to in Appendix, the S.O. shall at that time make the first valuation of the same.
- 28.2 Thereafter, once (or more often at the discretion of the S.O.) during the course of each succeeding month the S.O. shall make a valuation of the works properly executed and of unfixed materials and goods delivered to or adjacent to the Site, provided the total value of work properly executed and the value of unfixed materials and goods as specified in clause 28.4 hereof, delivered to the Site intended for incorporation into the Works in each subsequent valuation shall not be less than the sum referred to in Appendix.
- 28.3 Within fourteen (14) days from the date of any such valuation being made and subject to the provision mentioned in clause 28.1, the S.O. shall issue an Interim Certificate stating the amount due to the Contractor from the Government. PROVIDED THAT the signing of this Contract shall not be a condition precedent for the issue of the first Interim Certificate (and no other) so long as the Contractor has returned the Letter of Acceptance of Tender duly signed and has deposited with the S.O. or the Government the relevant insurance policies under clauses 15 and 18 hereof.
- 28.4 The amount stated as due in an Interim Certificate shall, subject to any agreement between the Parties as to payment by stages, be the estimated total value of the work properly executed and up to ninety percent (90%) of the value of the unfixed materials and goods delivered to or adjacent to the Site intended for incorporation into the permanent Works up to and including the date the valuation was made, less any payment (including advance payment) previously made paid under this Contract. PROVIDED THAT such certificate shall only include the value of the said unfixed materials and goods as and from such time as they are reasonably and properly and not prematurely delivered to or adjacent to the Site and adequately protected against weather, damage or deterioration.
- 28.5 This clause shall not apply to any unfixed materials and goods which are supplied and delivered by Nominated Suppliers for which payment shall be made for the full value of the unfixed materials and goods.
- 28.6 Within a number of days as stated in Appendix (or if none stated then within thirty (30) days of the issue of any such Interim Certificate), the Government shall make a payment to the Contractor as follows:
- (a) where the Performance Bond is in the form of a Banker's, Insurance or Finance Company Guarantee, payment shall be made on the amount certified as due to the Contractor in the said Interim Certificate; or
 - (b) where the Performance Bond is in the form of a Performance Guarantee Sum, payment of ninety percent (90%) on the amount certified as due to the Contractor shall be made

with the remaining ten percent (10%) being retained by the Government as a Performance Guarantee Sum. PROVIDED THAT when the sum retained is equivalent to five percent (5%) of the Contract Sum then in any subsequent Certificate, payment shall be made on the full amount certified as due to the Contractor.

29.0 ADJUSTMENT OF CONTRACT SUM

The amount to be added to or deducted from the Contract Sum in respect of expense or loss due to fees and charges in relation to the supply of water and electricity and permanent connections to water, electricity, telephone and sewerage mains under clause 6.2, variations under clause 24, rectification of errors in Bill of Quantities under clause 26.3, fluctuation of price under clause 30, payment of P.C. Sums and Provisional Sums under clause 34, opening up work for inspection and testing of materials or goods and executed work under clause 35.2, loss and expense under clause 44 and costs of disposal of fossils, etc. under clause 65 hereof, shall be certified by the S.O.

30.0 FLUCTUATION OF PRICE

In accordance with the Special Provisions to the Conditions of Contract for Fluctuation of Price as contained in Appendix (if applicable), the amount payable by the Government to the Contractor upon the issue by the S.O. of an Interim Certificate under clause 28 hereof shall be increased or decreased accordingly. The net total of any such increases or decreases shall be given effect to in determining the Contract Sum.

31.0 FINAL ACCOUNT AND PAYMENT CERTIFICATE

- 31.1 As soon as is practicable but not later than three (3) months after the issuance of the Certificate of Practical Completion, the Contractor shall submit full particulars complete with receipts, vouchers records that would substantiate the Contractor's claim under clause 44 together with any documents, supporting vouchers and any explanation and calculations including documents relating to the accounts of Nominated Sub-Contractors or Nominated Suppliers, which may be necessary to enable the Final Account to be prepared by the S.O. PROVIDED ALWAYS the Contractor had given the notice of claim in writing within the stipulated time or times in the said provisions.
- 31.2 If the Contractor fails to submit full particulars of all claims within the stipulated period, the S.O. shall forthwith make the assessment based on the available documents submitted by the Contractor for the purpose of the Final Account. The Government shall be discharged from all liabilities in connection with the claims.
- 31.3 Within three (3) months after the expiry of the Defects Liability Period for the whole of the Works or three (3) months after the issue of the Certificate of Completion of Making Good Defects under clause 48 hereof, whichever is the later, the S.O. shall issue the Final Certificate.
- 31.4 The Final Certificate shall be supported by documents, and full particulars complete with receipts, vouchers records showing the S.O.'s final valuation of Works and any amount determined in clause 31.1 in accordance with the terms of this Contract. After setting out or allowing for all payments or other expenditure of the Government or any permitted deductions made by the Government or the S.O. on its behalf, the Final Certificate shall state any final balance due from the Government to the Contractor or from the Contractor to the Government, as the case may be, which shall thereupon become the debt payable. Such certificate shall also take account of any outstanding permitted deductions not yet made by the Government under the terms of this Contract whether by way of liquidated damages or otherwise.

- 31.5 No final payment due to the Contractor under the Final Certificate, shall be made unless and until the Contractor shall have satisfied the S.O. by means of a Statutory Declaration made by or on behalf of the Contractor to the effect that the workmen who have been employed by the Contractor on the Works including workmen employed by sub-contractors, whether nominated or otherwise (including "labour only" sub-contractors) have received all wages due to them in connection with such employment, and that all dues or contributions under the Employment Act 1955, the Employee's Social Security Act 1969, the Employee's Provident Fund Act 1965 and any other laws relevant to the employment of workmen, have been paid.

32.0 EFFECT OF S.O.'S CERTIFICATES

No certificate of the S.O. under any provision of this Contract shall be considered as conclusive evidence as to the sufficiency of any work, materials or goods to which it relates, nor shall it relieve the Contractor from his liability to amend and make good all defects, imperfections, shrinkages, or any other faults whatsoever as provided by this Contract. In any case, no certificate of the S.O. shall be final and binding in any dispute between the Government and the Contractor if the dispute is brought whether before an arbitrator or in the Courts.

33.0 DEDUCTION FROM MONEY DUE TO CONTRACTOR

The Government or the S.O. on its behalf shall be entitled to deduct any money owing from the Contractor to the Government under this Contract from any sum which may become due or is payable by the Government to the Contractor under this Contract or any other contracts to which the Government and Contractor are Parties thereto. The S.O. in issuing any certificate under clauses 28 and 31, shall have regard to any such sum so chargeable against the Contractor, provided always that this provision shall not affect any other remedy to which the Government may be entitled for the recovery of such sums.

34.0 PRIME COST / PROVISIONAL SUMS

- 34.1 In respect of any and every Prime Cost or P.C. Sum provided in the Contract, the amount due to any Contractor shall be determined by deducting the said Prime Cost or P.C. Sum and the relevant profit and/or attendance charges from the Contract Sum and substituting for the same with the actual amount due to relevant Nominated Sub- Contractor or Nominated Supplier as valued in accordance with the relevant sub-contract and the sums due to any Contractor by-way of profit and/or attendance charges at the rates or prices stipulated in the Contract Documents (if any).
- 34.2 The Provisional Sum may be expended at such times and in such amounts 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 Contractor in respect of Provisional Sums shall be ascertained in accordance with clause 25 hereof. The said value of such work executed by the Contractor shall be set off against all such Provisional Sums and the balance shall be added to or deducted from the Contract Sum as the case may be.
- 34.3 Any work to be executed, or materials or goods to be supplied for which Provisional Sums are provided in the Bills of Quantities may, if the S.O. so decides, be treated as P.C. Sum items and shall be dealt with in accordance with clause 34.1.
- 34.4 Where the Contractor in the ordinary course of his business directly carries out works for which P.C. Sums are provided in the Bills of Quantities and where such works are set out in Appendix hereto and the S.O. is prepared to accept tenders from the Contractor for such works the Contractor shall be permitted to tender for the same or any of them without prejudice to Government's right to reject the lowest or any tender. If the tender of the Contractor for any work

included in the P.C. Sum is accepted, such tender shall be held to include the profit and attendance charges, and the Contractor shall not be entitled to the profit and attendance charges as contained in the Bills of Quantities notwithstanding any provision to the contrary under clause 34.1.

35.0 MATERIALS, GOODS AND WORKMANSHIP

- 35.1 All materials, goods and workmanship shall be of the respective kinds and standards described in the Specification and of good quality and in accordance with the standard of the workmanship in the industry. The Contractor shall upon the request of the S.O. furnish him with the relevant certificates and/or vouchers to prove that the materials and goods comply with the Specification.
- 35.2 The Contractor shall, entirely at his own cost, provide samples of materials and goods for testing purposes. The Contractor shall, when instructed by the S.O. to open up for inspection any work covered up, or arrange for or carry out any test of any materials or goods (whether or not already incorporated in the Works) or of any executed work which the S.O. may in writing require and the cost of such opening up or testing (together with the cost of making good in consequence thereof) shall be added to the Contract Sum unless provided for in the Bills of Quantities by way of Provisional Sums or otherwise or unless the inspection or test shows that the work, materials or goods are not in accordance with this Contract.
- 35.3 The Contractor shall pay all duties and taxes which may be imposed by law, such as customs duties and sales tax, on all materials, goods and equipment, whether purchased or imported in the Contractor's name or his agent, which are incorporated in the Works or used directly in the construction, completion or maintenance of the Works.
- 35.4 Except where otherwise specified, the Contractor shall pay all tonnage and other royalties, rent fees and other payments or compensation (if any) for getting stone, sand, gravel, clay or other materials required for the Works.

36.0 INSPECTION AND TESTING OF MATERIALS, GOODS AND EQUIPMENT

- 36.1 Further to his the Contractor's obligations under clause 10, the Contractor shall submit to the S.O. for his approval, proposals for inspecting the design and setting out of the Works and testing the materials and workmanship to ensure that the Contractor's obligations under the Contract are fulfilled.
- 36.2 The Contractor shall carry out the inspection and tests approved under clause 36.5 or elsewhere in the Contract and such further tests as the S.O. may reasonably require, including to open up for inspection any work covered up or to carry out any test of any materials or goods (whether or not already incorporated in the Works or any executed Works).
- 36.3 The S.O. may issue instructions to the Contractor to remove from the Site or rectify any work, goods which are not in accordance with this Contract at his own cost.
- 36.4 The Contractor shall, as may be required by the S.O. from time to time, provide such assistance, instruments, machines, labour and materials as are normally required for the purpose of examining, measuring and testing of any work, as well as and the quality, weight or quantity of the materials used, and shall supply samples of materials before incorporation in the Works for testing.
- 36.5 Unless the Contract otherwise provides, the cost of making any test shall be borne by the Contractor if such test is:
 - (a) proposed by the Contractor; or

(b) clearly intended by or provided for in the Contract.

- 36.6 Notwithstanding anything in clause 36.5, if the Contractor carries out any further test as required by the S.O. pursuant to clause 36.2 and the result of such test shows the workmanship or materials is not in accordance with the provisions of the Contract, then the cost of such test shall be borne by the Contractor. But if the result of such test shows the workmanship or materials comply with the provisions of the Contract, then the cost of such test shall be borne by the Government.

37.0 CONSTRUCTIONAL PLANT, EQUIPMENT, VEHICLES AND MACHINERIES

- 37.1 The Contractor shall pay all port dues including (but not by way of limitation) wharfage dues, pilotage fees, anchorage, berthage and mooring fees, quarantine dues, loading portage and overtime fees for constructional plant, equipment, vehicles and machineries for use directly in connection with the construction, completion of the works brought into and despatched from Malaysia by the Contractor (or in his name by agents).
- 37.2 The Contractor shall furnish to the S.O. all such shipping documents, invoices and other documentation as may be required by the Customs Authorities in connection with the importation of goods, materials, constructional plant, equipment, vehicles and machineries.
- 37.3 In the case of constructional plant, equipment, vehicles, and machineries imported on the Contractor's behalf by importing agents and the like both the shipping documents and the invoices of the original suppliers or manufacturers must indicate clearly that the consignment is for the Contractor's account.
- 37.4 The procedure in respect of the requirements of the foregoing shall be determined by the Customs Authorities. The Contractor shall make written application to the S.O. and shall provide the relevant documentation of all constructional plant, equipment, vehicles and machineries to be imported into Malaysia not less than forty-five (45) days before the arrival of the said constructional plant, equipment, vehicles and machineries.
- 37.5 The Contractor shall pay all charges and other expenses in connection with the landing and shipment of all constructional plant materials and other things of whatsoever nature brought into or despatched from Malaysia for the purpose of the Contract.
- 37.6 The Contractor shall make his own arrangement in obtaining clearance through the Customs of constructional plant, equipment, vehicles and machineries. However, if required, the S.O.'s assistance may be sought.
- 37.7 Under this Contract, the Contractor shall be required to furnish all lists of constructional plant, equipment, vehicles and machineries to the S.O. whether the constructional plant, equipment, vehicles and machineries are hired or acquired.

38.0 POSSESSION OF SITE

- 38.1 No work under this Contract shall commence unless and until the Performance Bond stipulated under clause 13 and such insurance policy as specified under clauses 15 and 18 shall have been deposited with the Government, PROVIDED THAT for the purposes of this clause only (but for no other), if the Contractor shall produce to the Government the cover note of the said insurance policy and the receipt of premium paid, it shall be a sufficient discharge of his obligations under this clause.
- 38.2 Unless the Contract Documents shall otherwise provide, possession of the Site as complete as may reasonably be possible but not so as to constitute a tenancy, shall be given on or before the "Date for Possession" stated in the Letter of Acceptance to the Contractor who shall thereupon

and forthwith commence the Works (but subject to clause 38.1) and regularly and diligently proceed with and complete the Works on or before the Date for Completion as stated in Appendix.

- 38.3 The "Date for Completion" of the Works as referred to under clause 39 hereof shall be calculated from the said "Date for Possession". PROVIDED ALWAYS that the possession of Site may be given in section or in parts and any other restrictions upon possession of the Site shall be stated in the Appendix to these Conditions or in the Contract Documents.
- 38.4 In the event of any delay in giving possession of the Site from the "Date for Possession" as stated in Letter of Acceptance or delay in giving any section or part of the Site as provided in clause 38.3, the S.O. may issue instructions in regard to the revision of the "Date for Possession" and the "Date for Completion" shall be appropriately revised under clause 43.1(h) hereof, but the Contractor shall not be entitled to claim for any loss or damage caused by such delay in giving possession of the Site, nor shall he be entitled to terminate this Contract.
- 38.5 In the event that the giving of the possession of the whole Site is delayed beyond ninety (90) days of the "Date for Possession" stated in the Letter of Acceptance, the S.O. shall give written notice to the Contractor of the causes of such delay. Upon the receipt of the said written notice issued by the S.O., the Contractor may, inform the S.O. in writing of its decision within fourteen (14) days of receipt of the said notice either to:
- (a) agree to proceed with the Works when the Site is subsequently made available, in which case clause 38.4 shall apply in particular, the Contractor shall not be entitled to claim for any loss or damage caused by such delay in giving possession of the Site, or
 - (b) terminate this Contract, without prejudice to any other rights or remedies that the Government and the Contractor may have as a result of the termination.
- 38.6 In the event that the giving of possession of any section or part of the Site (whether provided for in clause 38.3 or otherwise) is delayed beyond ninety (90) days from the Date of Possession stated in the Appendix or the date the Contractor is scheduled to commence work on that section or part of the Works in accordance with the approved programme of Works as referred to in clause 12 hereof as the case may be, then the S.O. shall give written notice to the Contractor of the causes of such delay. Upon receipt of the said written notice, the Contractor may inform the S.O. in writing, within fourteen (14) days of receipt of the said notice of its decision either to:
- (a) agree to proceed with the Works when the section or part of the Site is subsequently made available, in which case sub-clause 38.5(a) above shall apply and in particular, the Contractor shall not be entitled to claim for any loss or damage caused by such delay as aforesaid; or
 - (b) request for S.O.'s instruction to omit the relevant section or part of the Works from the Contract. If the S.O. agrees to such request then the relevant section or part of the Works shall be duly omitted and deemed to be a variation to the Contract. Such variation shall not vitiate this Contract. If the S.O. does not agree to such request as aforesaid, then the Contractor shall be entitled to claim for any loss and/or expenses caused by and in respect of such delay beyond ninety (90) days as aforesaid.

39.0 COMPLETION OF WORKS

- 39.1 Subject to clauses 38.3 and 41, the Contractor shall complete the whole of the Works on or before the "Date for Completion" as stated in the Appendix or such extended time as may be allowed under clause 43 hereof.
- 39.2 If the Contractor considers that the works have achieved practical completion, the Contractor shall notify the S.O. in writing to that effect.

- 39.3 Within 14 days of receipt of such notice, the S.O. shall carry out testing/ inspection of the Works. Pursuant to such inspection/testing, the S.O. shall –
- (a) issue the Certificate of Practical Completion to the Contractor if in his opinion the whole Works have reached Practical Completion and have satisfactorily passed any inspection/test carried out by the S.O. The date of such completion shall be certified by the S.O. and such date shall be the date of the commencement of the Defects Liability Period as provided in clause 48 hereof; or
 - (b) give instruction to the Contractor specifying all defective works which are required to be completed by the Contractor before the issuance of the Certificate of Practical Completion.
- 39.4 If the S.O. has given instruction pursuant to clause 39.3(b), no Certificate of Practical Completion shall be issued to the Contractor until the Contractor has effectively carried out the remedial work within reasonable period to the satisfaction of the S.O.
- 39.5 The Works shall not be regarded as practically complete unless it has fulfilled the following:
- (a) the Works have been completed in accordance with the terms and conditions of this Contract;
 - (b) the Government can have full, proper and beneficial use of the Works for their intended purpose, notwithstanding that there may be works of a very minor defects PROVIDED THAT such works do not prevent or diminish the full, proper and beneficial use as aforesaid;
 - (c) the Works have passed any commissioning tests required in the Contract Document;
 - (d) the Works shall be made available to the Government in a condition fit for occupation; and
 - (e) all the essential services, including access roads, landscape, car parks, drains, sanitary, water and electricity installation, fire hydrant, sewerage and refuse disposal equipment and fire lifts specified in this Contract.
- 39.6 When the whole of the Works have reached practical completion to the satisfaction of the S.O., the date of such completion shall be certified by him and such date shall be the date of the commencement of the Defects Liability Period as provided in clause 48 hereof.
- 40.0 DAMAGES FOR NON-COMPLETION**
- 40.1 If the Contractor fails to complete the Works by the Date for Completion or within any extended time granted pursuant to clause 43, the S.O. shall forthwith issue a Certificate of Non-Completion to the Contractor.
- 40.2 Without prejudice to the Government's right to terminate this Contract, when the S.O. issues the Certificate of Non-Completion, the Government shall be entitled to recover from the Contractor, Liquidated and Ascertained Damages calculated at the rate stated in Appendix 1 from the period of the issuance of the Certificate of Non-Completion to the date of issuance of Certificate of Practical Completion or the date of termination of this Contract. The S.O. may deduct such Liquidated and Ascertained Damages from any money due or to become due to the Contractor, failing which such damages shall be recovered from the Performance Bond or as a debt due from the Contractor. The S.O. shall inform the Contractor in writing of such deduction.
- 40.3 The Liquidated and Ascertained Damages stated in Appendix 1 shall be deemed to be a reasonable amount of loss which the Government will suffer in the event that the Contractor is in

breach of this clause. The Contractor by entering into this Contract agrees to pay to the Government the said amount(s) if the same become due without the need of the Government to prove his actual damage or loss.

- 40.4 The payment or deduction of such Liquidated and Ascertained Damages shall not relieve the Contractor from his obligation to complete the Works or from any of its obligations and liabilities under the Contract.

41.0 SECTIONAL COMPLETION

- 41.1 Where different completion dates for different sections or parts of the Works are stated and identified in Appendix or elsewhere in the Contract Documents and different and separate Liquidated and Ascertained Damages are provided for each section or part of the Works, the provisions of this Contract in regard to:

- (a) Certificate of Practical Completion;
- (b) Delay and Extension of Time;
- (c) Liquidated Ascertained Damages; and
- (d) Defects Liability Period,

but not Insurance of the Works under clause 18, Performance Bond under clause 13 and final payment on the Final Certificate under clause 31 hereof shall, in the absence of any express provision to the contrary elsewhere in the Contract Documents apply as if each such section or part was the subject of a separate and distinct contract between the Government and the Contractor.

- 41.2 For the avoidance of doubt, nothing contained in clause 41.1 shall entitle the Contractor to the release of the whole or any part of the Performance Bond or Performance Guarantee Sum deposited by him. The Performance Bond or Performance Guarantee Sum shall be released or be refunded only upon the issue of the Certificate of Making Good Defects of the whole of the Works or in respect of the last section of the Works, as the case may be.

42.0 PARTIAL OCCUPATION/TAKING OVER BY GOVERNMENT

- 42.1 If at any time before the whole of the Works have reached practical completion pursuant to clause 39, the Government with the consent of the Contractor (which consent shall not be unreasonably withheld) shall take possession of and occupy any part or parts of the same (any such part being hereinafter in this Clause referred to as 'the relevant part'), then notwithstanding anything expressed or implied elsewhere in this Contract.

Certificate of Partial Occupation

- (a) within seven (7) days from the date on which the Government shall have taken possession of the relevant part, the S.O. shall issue a Certificate of Partial Occupation in respect of the relevant part stating the estimated value of the said relevant part, and for all the purposes of this Clause (but for no other) the value so stated shall be deemed to be the total value of the said relevant part;

Defects Liability Period

- (b) for the purposes of clauses 39 and 48 hereof, the relevant part shall be deemed to have reached practical completion and the Defects Liability Period in respect of the relevant

part shall be deemed to have commenced on the date on which the Government shall have taken possession and occupied thereof;

Certificate of Making Good Defects

- (c) at the end of the Defects Liability Period of the relevant part and if in the opinion of the S.O. any defect, imperfection, shrinkage or any other fault whatsoever in respect of the relevant part which he may have required to be made good under clause 48.1, shall have been made good by the Contractor, the S.O. shall issue a certificate to that effect;

Reduction of Liquidated Ascertained Damages

- (d) if, before the time of completion of the whole of the Works or, if applicable any section, a Certificate of Practical Completion has been issued for any part of the Works or of a section, the rate of the liquidated and ascertained damages for delay in completion of the remainder of the Works or of that section shall, for any period of delay after the date stated in such Certificate of Practical Completion, be reduced in the proportion which the value of the part so certified bears to the value of the whole of the Works or section, as applicable;

Insurance of the Works

- (e) notwithstanding the partial occupation by the Government of the relevant part the Contractor shall insure and keep insured the Works in the manner as stipulated under clause 18 and the Contractor shall give notice to the insurer of such partial occupation; and

Performance Bond Not Affected

- (f) it is expressly agreed that nothing contained in the preceding paragraphs shall entitle the Contractor to the release of the Performance Bond or any part thereof deposited by him under clause 13 hereof, the intention being that the said Performance Bond or any part thereof shall be released or refunded only upon the completion of making good all defects, imperfections, shrinkages or other faults which may appear during the Defects Liability Period and upon the giving of the Certificate of Completion of Making Good Defects for the whole of the Works under clause 48 hereof.

43.0 DELAY AND EXTENSION OF TIME

43.1 Upon it becoming reasonably apparent that the progress of the Works is delayed, the Contractor shall forthwith give written notice to the S.O. as to the causes of delay and relevant information with supporting documents enabling the said officer to form an opinion as to the cause and calculation of the length of delay. If in the opinion of the S.O. the completion of the Works is likely to be delayed or has been delayed beyond the Date for Completion stated in Appendix 1 or beyond any extended Date for Completion previously fixed under this Clause due to any or more of the following events:

- (a) force majeure as provided under clause 58;
- (b) exceptionally inclement weather;
- (c) suspension of Works under clause 50;
- (d) directions given by the S.O., consequential upon disputes with neighbouring owners provided the same is not due to any act, negligence or default of the Contractor or any sub-contractor, nominated or otherwise;

- (e) S.O.'s instructions issued under clause 5 hereof, PROVIDED THAT such instructions are not issued due to any act, negligence, default or breach of this Contract by the Contractor or any sub-contractor, nominated or otherwise;
- (f) the Contractor not having received in due time instructions in regard to the nomination of sub-contractors and/or suppliers provided in this Contract, necessary instructions, drawings or levels for the execution of the Works from the S.O. due to any negligence or default of the S.O. PROVIDED THAT the Contractor shall have specifically applied in writing on a date which having regard to the Date for Completion stated in Appendix or to any extension of time then fixed under this clause, was neither unreasonably distant from nor unreasonably close to the date on which it was necessary for him to receive the same;
- (g) delay in giving possession of the Site as provided under clause 38.4 hereof other than claim in effecting insurance and Performance Bond;
- (h) delay on the part of artists, tradesmen or others engaged by the Government in executing work not forming part of this Contract;
- (i) the Contractor's inability for reason beyond his control and which he could not reasonably have foreseen at the date of closing of tender of this Contract to secure such goods, materials and/or services as are essential to the proper carrying out of the Works; or
- (j) delay on the part of the Nominated Sub-contractors and/or Nominated Suppliers to perform their works, due to reasons as stated above in sub-clauses (a) to (i),

then the S.O. may if he is of the opinion that the extension of time should be granted, so soon as he is able to estimate the length of the delay beyond the date or time aforesaid issue a Certificate of Delay and Extension of Time giving a fair reasonable extension of time for completion of the Works.

PROVIDED THAT all such delays are not due to any act, negligence, default or breach of contract by the Nominated Sub-contractor and/or Nominated Supplier and/or the Contractor, or any of the servants or agents of such Nominated Sub-contractor or Nominated Supplier or the Contractor.

PROVIDED ALWAYS that the Contractor has taken all reasonable steps to avoid or reduce such delay and shall do all that may reasonably be required to the satisfaction of the S.O. to proceed with the Works.

PROVIDED FURTHER that the Contractor shall not be entitled to any extension of time where the instructions or acts of the S.O. are necessitated by or intended to remedy any default of or breach of contract by the Contractor.

44.0 CLAIMS FOR LOSS AND EXPENSE

- 44.1 If at any time during the regular progress of the Works or any part thereof has been materially affected by reason of delays as stated under clause 43.1 (c), (d), (e), (f) and (h), and the Contractor has incurred direct loss and/or expense beyond that reasonably contemplated and for which the Contractor would not be reimbursed by a payment made under any other provision in this Contract, then the Contractor shall within thirty (30) days of the occurrence of such event or circumstances or instructions give notice in writing to the S.O. of his intention to claim for such

direct loss or expense together with an estimate of the amount of such loss and/or expense, subject always to clause 44.2 hereof.

44.2 As soon as is practicable but not later than ninety (90) days after practical completion of the Works, the Contractor shall submit full particulars of all claims for direct loss or expense under clause 44.1 together with all supporting documents, vouchers, explanations and calculations which may be necessary to enable the direct loss or expense to be ascertained by the S.O.. The amount of such direct loss or expense ascertained by the S.O. shall be added to the Contract Sum.

44.3 If the Contractor fails to comply with clauses 44.1 and 44.2, he shall not be entitled to such claim and the Government shall be discharged from all liability in connection with the claim.

45.0 INVESTIGATION BY THE GOVERNMENT AND OTHER PERSONS IN CASE OF ACCIDENT, FAILURE OR OTHER EVENT

Where the Government, its employee or any person or body appointed or authorised by it carries out any investigation in relation to any accident, failure or other event which has occurred to, in or in connection with the Works or any part thereof for the purpose of determining the cause or reason for the said accident, failure or event, the Contractor shall render all such necessary assistance and facilities as may be required by the Government, its employee or such person or body, including the giving of access to all specifications, designs, records and other available information relating to the Works.

46.0 ACCESS FOR WORKS, ETC.

46.1 Access for S.O.

- (a) The S.O. and any person authorised by the S.O. shall at all times have access to the Works and to the factories, workshops or other places of the Contractor or of any sub-contractor or supplier where any equipment, materials, goods or work are being manufactured, fabricated, assembled, prepared or stored for the Contract.
- (b) Where any such equipment, materials, goods or work are being manufactured, fabricated, assembled, prepared or stored in the factories, workshops or other places of a sub-contractor or supplier, the Contractor shall by a term in the sub-contract secure a similar right of access to those factories, workshops or other places for the S.O. and any person authorised by the S.O., and shall take reasonable steps required of him by the S.O. to enforce or assist in enforcing such right.
- (c) Any person so removed from the Works shall be replaced without delay by a substitute approved by the S.O.; PROVIDED THAT the Contractor shall not be entitled to any claim for any expense whatsoever incurred by him in respect of any direction given by the S.O. under this Clause.

46.2 Access for Other Contractors and Workmen

The Contractor shall in accordance with the requirements of the S.O. afford all reasonable access and facilities to any other person engaged by the Government and their workmen and of any other constituted authorities for the purposes of executing any work on or near the Site.

47.0 SUB-CONTRACT OR ASSIGNMENT

- 47.1 The Contractor shall not without the prior written consent of the S.O. (which consent shall not be unreasonably delayed or withheld) sub- contract the design for any portion of the Works under clause 22 of this Contract. Where the S.O. consents to any sub-contract under this clause, such consent shall not in any way absolve the obligations of the Contractor under clause 10.
- 47.2 The Contractor shall not sub- contract the whole or any substantial part of the Works without the prior written consent of the S.O. (which consent shall not be unreasonably delayed or withheld). Any such consent, if given, shall not relieve the Contractor from any liability or obligation under this Contract and he shall be responsible for the due observance by such sub-contractors, of all the terms, stipulations and conditions under this Contract.
- 47.3 Notwithstanding any sub-contract made pursuant to clauses 47.1 and 47.2, the Contractor shall be fully responsible for the acts, defaults or neglects of any sub-contractor, including 'labour only' sub-contractors, his agents, servants or workmen as if they were the acts, defaults or neglects of the Contractor, his agents, servants or workmen; PROVIDED THAT the provision of labour on a piecework basis shall not be deemed to be a sub-contract under this clause.
- 47.4 It shall be a condition in any sub-contract which has been consented to by the Government that upon termination of the Contractor's employment under the Contract, the employment of the sub-contractor under the sub-contract shall terminate immediately. No claim whatsoever shall be made by the Contractor and/or sub-contractor against the Government for any work done or materials or goods supplied.
- 47.5 If the Contractor sub-contracts the Works, in whole or in part, to any person without getting prior written consent of the S.O. as provided under this clause, the S.O. shall have the right to instruct the Contractor to forthwith terminate such sub-contract and the Contractor shall be liable for all costs and expense relating to such termination.
- 47.6 The Contractor shall not assign the Contract or any part thereof, or any benefit or interest therein or thereunder otherwise than by way of assignment in favour of the Contractor's banker or any financial institution or Corporation of any monies due or to become due under this Contract without prior written consent of the S.O.

48.0 DEFECTS AFTER COMPLETION

48.1 Completion of Outstanding Work and Remedying Defects

- (a) At any time during the Defects Liability Period as stated in Appendix hereto (or if none stated the period is twelve (12) months from the date of practical completion of the Works), any defect, imperfection, shrinkage or any other fault whatsoever which may appear and which are due to materials or goods or workmanship not in accordance with this Contract, the S.O. shall issue written instruction to the Contractor to make good such defects, imperfections, shrinkages or any other fault whatsoever at the Contractor's own cost. The Contractor shall complete all such works with due expedition or within such time as may be specified by the S.O.
- (b) Without prejudice to sub-clause (a), any defect, imperfection, shrinkage or any other fault whatsoever which may appear during the Defects Liability Period to be made good by the Contractor, shall be specified by the S.O. in the Schedule of Defects which he shall deliver to the Contractor not later than fourteen (14) days after the expiration of the Defects Liability Period. The defects, imperfections, shrinkages or any other fault whatsoever specified in the Schedule of Defects shall be made good by the Contractor at his own costs and to be completed within a reasonable time but in any case not later than three (3) months after the receipt of the said Schedule. PROVIDED THAT the S.O.

shall not be allowed to issue any further instruction requiring the Contractor to make good of any defect, imperfection, shrinkage or any other fault whatsoever after the issuance of the said Schedule of Defects or after fourteen (14) days from the expiration of the said Defects Liability Period, whichever is the later.

48.2 Default in Remedying Defects

If the Contractor shall fail to comply with either clause 48.1(a) and/or 48.1(b) within the time so specified, the materials or works so affected may be made good in such manner as the S.O. may think fit, in which case the costs incurred including On-Cost Charges (calculated by applying the Percentage of On-Cost Charges stated in Appendix to the costs incurred), shall be deducted from any money due or to become due, to the Contractor under this Contract and failing which such costs shall be recovered from the Performance Bond or as a debt due from the Contractor.

48.3 Diminution in Value of Works

If any defect, imperfection, shrinkage or any other fault whatsoever is such that, in the opinion of the S.O., it shall be impracticable or inconvenient to the Government to have the Contractor to remedy the same, the S.O. shall ascertain the diminution in the value of the Works due to the existence of such defects, imperfections, shrinkages or any other fault whatsoever. The amount of such diminution shall be recoverable by the Government from the Contractor as a debt due under the Contract and failing which such diminution shall be recovered from the Performance Bond.

48.4 Certificate of Completion of Making Good Defects

When in the opinion of the S.O. the Contractor has made good the defects, imperfections, shrinkages or any other fault whatsoever which he is required to make good under clauses 48.1(a) or (b), or both, the S.O. shall issue a certificate to that effect, and the date specified in such certificate shall be the date on which the Contractor has completed making good such defects, imperfections, shrinkages or any other fault whatsoever. The said Certificate shall be referred to as the "Certificate of Completion of Making Good Defects".

49.0 UNFULFILLED OBLIGATIONS

Notwithstanding the issue of the Certificate of Completion of Making Good Defects under clause 48.4 hereof the Contractor and the Government shall remain liable for the fulfilment of any obligation incurred under the provisions of the Contract, prior to the issue of the said certificate, which remains unfulfilled at the time such certificate is issued, and for the purpose of determining the nature and extent of any such obligation, the Contract shall be deemed to remain in force between the Parties hereto.

50.0 SUSPENSION OF WORKS

50.1 Suspension and Resumption of Works

- (a) The S.O. may at any time instruct the Contractor to suspend part or all of the Works.
- (b) Upon receipt of such written instruction, the Contractor shall suspend part or all of the Works for such time and in such manner as specified in the instruction and shall duly protect, store and secure the Works or such part of the Works against any deterioration, loss or damage.
- (c) During the suspension period, the Contractor shall continue to perform its obligations under this Contract, which are not affected by the instruction to suspend, including the obligation to effect and maintain insurances and Performance Bond.

- (d) The S.O. may instruct the Contractor to resume the Works at any time thereafter. Upon receipt of such instruction the Contractor shall resume the Works and the Parties shall jointly examine the Works affected by the suspension. The Contractor shall make good any deterioration or defect in or loss of the Works which has occurred during the suspension. The Contractor shall also take all necessary actions to mitigate the expenses incurred

50.2 Extension of Time

If the Contractor suffers delay and/or incurs expenses in complying with the instruction under clause 50.1(a), and in resumption of the Works, and if such delay and/or expenses was not foreseeable by the Contractor, the Contractor shall give notice for extension of time under clause 43 and the provisions thereof shall apply accordingly. PROVIDED THAT the Contractor shall not be entitled to such extension if the suspension is due to a cause attributable to the Contractor and he shall not be entitled to payment of loss and expense if he –

- (a) fails to take measures specified in clause 50.1(b); and
- (b) fails to take all necessary action to mitigate the expenses incurred.

In the event such suspension shall continue for a period exceeding twelve (12) months, the Parties shall then discuss whether to mutually terminate the Contract or suspend the Works for a further period.

50.3 Consequences of Mutual Termination

- (a) If the Contract is mutually terminated under this clause-
 - (i) clause 51.1(c)(i) shall be applicable; and
 - (ii) payment obligations including all costs and expenditure incurred by the Government and the Contractor shall be ascertained in accordance with clause 54.

51.0 EVENTS AND CONSEQUENCES OF DEFAULT BY THE CONTRACTOR

51.1 Default of Obligations

(a) Events of Default

In the event the Contractor -

- (i) fails to commence works at the Site within two (2) weeks after the Date for Possession;
- (ii) suspends or abandons the carrying out of the Works or any part thereof for a continuous period of (....) days;
- (iii) fails to proceed regularly and diligently with the performance of his obligations under the Contract;
- (iv) fails to execute the Works in accordance with the Contract;
- (v) persistently neglects to carry out his obligations under the Contract;

- (vi) refuses or persistently neglects to comply with a written notice from the S.O. in relation to any defective work or equipment, materials or goods which are defective or do not meet the requirements of the Contract;
- (vii) fails to comply with the provisions of clause 47; or
- (viii) fails to comply with any terms and conditions of this Contract,

then the Government shall give written notice to the Contractor specifying the default, and requiring the Contractor to remedy such default within fourteen (14) days of the receipt of the default notice or any period determined by the Government.

(b) Termination

If the Contractor fails to remedy the breach within such period, the Government shall have the right to forthwith terminate this Contract by giving a written notice to that effect

(c) Consequences of Termination

If this Agreement is terminated under clause 51.1(b) -

- (i) the Contractor shall -
 - (A) forthwith cease all operations of the Works;
 - (B) carry out any protection works so as to secure the Site, equipment, goods, materials therein against any deterioration, loss or damage and to do all things necessary so as to leave the Site in a clean and tidy condition;
 - (C) remove its personnel and workmen from the Site;
 - (D) vacate the Site within the time stipulated by the S.O., remove all temporary buildings, plant, tools, equipment, goods and unfixed materials which have not been paid by the Government, as specified by the S.O. Failing which, the Government may (but without being responsible for any loss or damage) remove and sell any such property belonging to the Contractor, holding the proceeds, less all cost incurred, to the credit of the Contractor;
 - (E) either -
 - (aa) terminate all third party contracts entered into by the Contractor for the purposes of this Contract;
 - (bb) assign to the Government, if so required by the S.O., at no cost or expense to the Government, the benefit of any agreement for the supply of materials or goods and/or for the execution of any work or services for the purposes of this Contract; or
 - (cc) allow such third party to enter into a contract with the Government or any person deemed necessary by the Government for the purpose of completing the Works;

PROVIDED THAT the Government shall not be obliged to pay any third party for any materials or goods delivered or any work executed or services for the purposes of this Contract (whether before or after the date of termination) for which the Government has paid but the Contractor has failed to make payment to the third party;

- (F) at no cost to the Government, hand over to the Government all plans, designs, specification and other relevant documents relating to the Works;
- (G) pay to the Government for any losses and damages as a result of termination of this Contract in the manner provided under clause 56; and
- (H) not be released from any of its obligations under the Contract.

(ii) the Government shall –

- (A) call upon the Performance Bond or forfeit the Performance Guarantee Sum;
- (B) enter and repossess the Site;
- (C) be entitled to carry out and complete the Works on its own or employ any other person to carry out and complete the Works; and
- (D) be entitled to claim against the Contractor for any losses, costs, expenses and damages suffered as a result of termination of this Contract in the manner provided under clause 56.

(iii) for the avoidance of doubt, the Parties hereby agree that the Contractor shall not be entitled to any form of losses including loss of profit, damages, claims or whatsoever upon termination of this Contract under this clause.

51.2 General Default

(a) Events of Default

If at any time during the Contract Period-

- (i) the Contractor becomes bankrupt;
- (ii) the Contractor becomes insolvent or compounds with or enters into an arrangements or compositions with its creditors;
- (iii) an order is made or resolution is effectively passed for the winding-up of the Contractor (except for the purpose of restructuring or amalgamation with the written consent of the Government, which consent shall not be unreasonably withheld);
- (iv) a provisional liquidator, receiver or manager of its business or undertaking duly appointed, or possession taken by or on behalf of creditors or debenture holders secured by a floating charge of any property comprised in or subject of the floating charge; or
- (v) execution is levied against a substantial portion of the Contractor's assets,

then the Government shall have the right to terminate this Contract forthwith by giving notice to that effect.

(b) **Consequences of Termination**

- (i) In the event the termination of this Contract under clause 51.2 takes place, clauses 51.1(c)(i) and 51.1(c)(ii) shall apply.
- (ii) For the avoidance of doubt, the Parties hereby agree that the Contractor shall not be entitled to any form of losses including loss of profit, damages, claims or whatsoever upon termination of this Contract under this clause.

52.0 TERMINATION ON NATIONAL INTEREST

52.1 Termination

- (a) Notwithstanding any provision of this Contract, the Government may terminate this Contract by giving not less than thirty (30) days written notice to that effect to the Contractor (without any obligation to give any reason thereof) if the Government considers that such termination is necessary for national interest, national policy or national security.
- (b) For the purpose of this clause, what constitutes "national interest", "national policy" and "national security", shall be solely made and determined by the Government and such determination shall for all intent and purposes be final and conclusive and shall not be open to any challenge whatsoever.

52.2 Consequences of Termination

Upon such termination of this Contract under clause 52.1-

- (a) payment obligations including all costs and expenditure incurred by the Government and the Contractor shall be ascertained in accordance with clause 54; and
- (b) clause 51.1(c)(i) and clause 51.1(c)(ii)(B) and (C) shall apply.

53.0 TERMINATION ON CORRUPTION, UNLAWFUL OR ILLEGAL ACTIVITIES

53.1 Termination

Without prejudice to any other rights of the Government, if the Company, its personnel, servants or employees is convicted by a court of law for corruption or unlawful or illegal activities in relation to this Contract or any other agreement that the Contractor may have with the Government, the Government shall be entitled to terminate this Contract at any time, by giving immediate written notice to that effect to the Contractor.

53.2 Consequences of Termination

Upon such termination under clause 53.1 -

- (a) the Government shall be entitled to all losses, costs, damages and expenses including any incidental costs and expenses incurred by the Government arising from such termination;
- (b) clause 51.1(c)(i) and (ii) shall apply; and

- (c) for the avoidance of doubt, the Parties hereby agree that the Contractor shall not be entitled to any other form of losses including loss of profit, damages, claims or whatsoever upon termination of this Contract.

54.0 PAYMENTS UPON SUSPENSION AND TERMINATION ON NATIONAL INTEREST

54.1 If this Contract is terminated under clause 50 or clause 52, the amount to be paid (in so far as such amounts or items have not already been covered by payments on account made to the Contractor) shall be the following:

- (a) the value of all work carried out up to the date of termination;
- (b) the amounts payable in respect of any preliminary items so far as the Work or service comprised therein has been carried out or performed and a proper proportion of any such items which have been partially carried out or performed;
- (c) the cost of materials or goods reasonably ordered for the Works which have been delivered to the Contractor or of which the Contractor is legally liable to accept delivery (such materials or goods becoming the property of the Government upon such payment being made to the Contractor);
- (d) a sum being the amount of any expenditure reasonably incurred by the Contractor in so far as such expenditure has not been recovered by any other payments referred to in this sub-clause; and
- (e) the reasonable cost of any protection works and removal of equipment and site facilities pursuant to termination as provided under this Contract,

PROVIDED THAT such amount to be paid by the Government shall be confined only to those items as are clearly and expressly stated in sub-clauses (a)-(e) above.

54.2 For the avoidance of doubt, the Parties hereby agree that the Contractor shall not be entitled to any other form of losses including loss of profit, damages, claims or whatsoever other than stipulated under clause 54.1(a)-(e). The Parties further agree that the amount agreed above by the Government shall constitute as a full and final settlement between the Parties.

54.3 Upon termination of this Contract under clause 50 and clause 52, a final account of this Contract shall be prepared and issued by the S.O.

55.0 EVENTS AND CONSEQUENCES OF DEFAULT BY THE GOVERNMENT

Default of Obligations

(a) Events of Default

If the Government without any reasonable cause fails to perform or fulfil any of its obligations which adversely affects the Works,

then the Contractor may issue a notice specifying the default by the Government and requiring the Government to remedy the same within the period specified therein taking into account the nature of the remedy to be carried out by the Government or such other period as may be agreed by both Parties from the date of receipt of such notice.

(b) Termination

If the Government fails to remedy the default period specified in such notice issued under Clause 55 (a) within the stipulated period time therein, the Contractor shall have the right to forthwith terminate this Contract by giving a written notice to that effect.

(c) Consequences of Termination

If this Contract is terminated under Clause 55 (b)

- (i) the Government shall pay to the Contractor –
 - (a) the value of the Works carried out up to the date of termination;
 - (b) the amounts payable in respect of any preliminary items so far as the Work or service comprised therein has been carried out or performed and a proper proportion of any such items which have been partially carried out or performed;
 - (c) the cost of materials or goods reasonably ordered for the Works which have been delivered to the Contractor or of which the Contractor is legally liable to accept delivery (such materials or goods becoming the property of the Government upon such payment being made to the Contractor); and
 - (d) a sum being the amount of any expenditure reasonably incurred by the Contractor in so far as such expenditure has not been recovered by any other payments referred to in this sub-clause.
- (ii) For the avoidance of doubt, the Parties hereby agree that the Contractor shall not be entitled to any other form of losses including loss of profit, damages, claims or whatsoever upon termination of this Contract.

56.0 CERTIFICATE OF TERMINATION COSTS

56.1 As soon as the arrangements for the completion of the Works made by the Government enable the S.O. to make a reasonably accurate assessment of the ultimate cost to the Government of completing the Works following the termination of the Contractor's employment and the engagement of other contractors or persons, and the amount of direct loss and/or damage caused to the Government due to the termination has been ascertained by the S.O., then the S.O. may issue a certificate (hereinafter referred to as the "Certificate of Termination Costs") stating the Completion Cost (hereinafter defined) and the Final Contract Sum (hereinafter defined).

56.2 The Completion Cost comprises the following sums, costs or expenditure:

- (a) the sums previously paid to the Contractor by the Government;
- (b) the sums paid or payable to other contractors or persons engaged by the Government to complete the Works;
- (c) any sums paid to sub-contractors or suppliers under clause 61;
- (d) any costs or expenditure incurred or to be incurred including On-Cost Charges incurred by the Government in completing the Works; and
- (e) the amount of direct loss and/or damage caused to the Government due to the termination.

56.3 The Final Contract Sum comprises of the following amounts or sums:

- (a) the amount which would have been payable under the Contract on completion in accordance with the Contract, allowing any variations or other matters which would have resulted in an adjustment of the original Contract Sum; and
- (b) any other sums which the Government might be entitled under the terms of the Contract to deduct from the original Contract Sum,

had the Contractor's employment not been terminated.

- 56.4 The Certificate of Termination Costs shall state the difference between the Final Contract Sum and the Completion Cost. If the Final Contract Sum is less than the Completion Cost, the difference shall be a debt payable by the Contractor to the Government and if greater the difference shall be a debt payable by the Government to the Contractor.
- 56.5 The Certificate of Termination Costs shall be binding and conclusive on the Contractor as to the amount of such loss or damage specified therein.
- 56.6 In the event the completion of the Works being undertaken departmentally, allowance shall be made, when ascertaining the amount to be certified as costs and expense incurred by the Government, for cost of supervision, interest and depreciation on plant and all other usual overhead charges and profit as would be incurred if the Works were completed by other contractors or persons.

57.0 SURVIVING RIGHTS

Any termination under this Contract shall not affect the liability of either Party hereto for any of its acts or omissions during the period of the Contract and both Parties shall thereafter continue to be so liable and shall keep the other Party hereto indemnified and hold harmless in respect of any claims arising therefrom.

58.0 EFFECT OF FORCE MAJEURE

- 58.1 Neither the Government nor the Contractor shall be in breach of its obligations under this Contract if it is unable to perform its obligation under this Contract (or any part of thereof), other than the payment obligations as a result of the occurrence of an Event of Force Majeure.
- 58.2 An "Event of Force Majeure" is an event beyond the control of both Parties which are:
 - (a) war (whether declared or not), hostilities, invasion, act of foreign enemies;
 - (b) insurrection, revolution, rebellion, military or usurped power, civil war, terrorism;
 - (c) natural catastrophe including but not limited to earthquakes, floods, subterranean spontaneous combustion or any operation of the forces of nature against which an experienced contractor could not reasonably have been expected to take precautions;
 - (d) nuclear explosion, radioactive or chemical contamination or radiation (unless caused by the negligence act, omission or default of the Contractor, its agents or personnel);
 - (e) pressure waves caused by aircraft or other aerial devices traveling at sonic or supersonic speeds; and
 - (f) riot, commotion or disorder, unless solely restricted to employees of the Contractor or its personnel, servants or agents.

- 58.3 If an Event of Force Majeure occurs by reason of which either Party is unable to perform any of its obligation under this Contract (or any part thereof), the Party shall inform the other Party immediately of the occurrence of that Event of Force Majeure with full particulars thereof and the consequences thereof.
- 58.4 If either Party considers the Event of Force Majeure to be of such severity or to be continuing for such period of time that it effectively frustrates the original intention of this Contract, then the Parties may agree that this Contract may be terminated upon mutual agreement of the Parties.
- 58.5 If this Contract is terminated by an Event of Force Majeure pursuant to the above clause, all rights and obligations of the Parties under this Contract shall forthwith terminate and neither Party shall have any claim against the other Party and neither Party shall be liable to each other save for any rights and liabilities accruing prior to the occurrence of the Event of Force Majeure.
- 58.6 Neither Party shall be entitled to rely upon the provisions above if both Parties reasonably determine that an Event of Force Majeure has not occurred.
- 58.7 For avoidance of doubt, the Parties shall continue to perform those parts of those obligations not affected, delayed or interrupted by an Event of Force Majeure and such obligations shall, pending the outcome of this clause continue in full force and effect.

59.0 SITE AGENT AND ASSISTANTS

Unless otherwise provided elsewhere in this Contract, the Contractor shall keep constantly on the Site a competent, efficient, suitability qualified, experienced and good character site agent and his assistants in each trade as may be necessary who must be capable of receiving instructions in Bahasa Malaysia, and in default it shall be the responsibility of the Contractor to provide replacement for them and all wages and other expenses in connection with the employment of such replacement site agent and assistants. Any directions, explanations or instructions given to such site agent by the S.O. shall be deemed to have been given to the Contractor under this Contract.

60.0 NOMINATED SUB-CONTRACTORS AND/OR NOMINATED SUPPLIERS

- 60.1 The S.O. shall obtain tenders for Nominated Sub-Contractor's or Nominated Supplier's work or services, or for the supply of materials or goods in respect of which Prime Cost Sums or Provisional Sums are included in the Bills of Quantities, and the Contractor shall, on the written instruction of the S.O., enter into such sub-contracts with the Nominated Sub-Contractor or Nominated Supplier as the case may be and such sub-contracts shall be in the form as referred to in clause 60.2(b).
- 60.2 The S.O. shall not nominate as a sub-contractor or a supplier in connection with the Works:
- (a) a person against whom the Contractor shall make in writing within twenty one (21) days from the date of the S.O.'s instruction under clause 60.1 hereof what the S.O. considers to be reasonable objection;
 - (b) a person who will not enter into a sub-contract with terms and conditions as provided in the Government standard form of sub-contract for Nominated Sub-contractor (Form PWD 203N) or for Nominated Supplier (Form PWD 203P), as the case may be; or
 - (c) a person who will not give to the Government such indemnity with terms and conditions as provided in the Government standard form of Letter of Indemnity for Nominated Sub-contractors (Form PWD 203N7) or for Nominated Suppliers (Form PWD 203P7), as the case may be.

60.3 If pursuant to clause 60.2, the Contractor is not required to enter into a sub-contract with a Nominated Sub-contractor or Nominated Supplier, as the case may be, the S.O. shall do one or more of the following:

- (a) nominate an alternative sub-contractor or supplier, as the case may be, in which case clause 60.2 hereof shall apply;
- (b) by order under clause 24 vary the Works or the work or services, materials or goods, the subject of the Prime Cost Sums or Provisional Sum as aforesaid, including if necessary the omission of any such work or services, materials or goods so that they may be provided by workmen, contractors or suppliers, as the case may be, employed by the Government either concurrently with the Works or at some other date in which case the Contractor shall not be entitled to claim for any losses therefrom; or
- (c) in accordance with clause 34.4 arrange for the Contractor to execute such work or services, or to supply such materials or goods.

61.0 PAYMENT TO NOMINATED SUB-CONTRACTOR OR SUPPLIER

61.1 The S.O. in issuing Interim Certificates under clause 28 or the Final Certificate under clause 31 hereof shall state separately the amount of interim or final payment due to each Nominated Sub-Contractors or Suppliers which amount subject to clause 61.2 hereof, shall be paid by the Government direct to the Nominated Sub-contractors or Suppliers. The amount paid by the Government direct to the Nominated Sub-contractors or Suppliers shall be deemed to be a payment to the Contractor by the Government under and by virtue of this Contract.

61.2 Subject to the relevant provisions in the sub-contract (Form PWD 203N or Form PWD 203P as the case may be), the Contractor shall be entitled to be paid and the Government may pay to the Contractor out of any money otherwise due to a Nominated Sub-contractors or Suppliers:

- (a) any amount which the Government or the S.O. on its behalf in exercise of any rights under this Contract has deducted from any money due to the Contractor and such deduction is in respect of some act or default solely of the Nominated Sub-contractors or Suppliers, his servants or agents;
- (b) any amount agreed by the Nominated Sub-Contractor or Suppliers as due to the Contractor, or any amount awarded in arbitration or litigation in favour of the Contractor which arises out of or under the sub-contract; and
- (c) the amount of any claim for loss and/or expense actually incurred by the Contractor by reason of any breach or failure to observe the provisions of the sub-contract by the Nominated Sub-contractors or Suppliers under the sub-contract.

61.3 Any amount paid to the Contractor in accordance with this clause shall be deemed to be a payment to the Nominated and/or Sub-Contractors or Suppliers under the sub-contract.

62.0 NO LIABILITY OF GOVERNMENT TO NOMINATED AND/OR SUB-CONTRACTOR OR SUPPLIER

Nothing in clauses 60 or 61 or anything else contained in this Contract shall render the Government in any way liable to any Nominated and/or Sub-Contractor or Supplier.

63.0 RESPONSIBILITIES OF CONTRACTOR TO NOMINATED AND/OR SUB-CONTRACTORS OR SUPPLIERS

- 63.1 The Contractor shall be fully responsible to ensure that the Nominated Sub-Contractor or Suppliers shall conform with the terms and conditions of this Contract and shall be fully responsible for the acts, defaults or breach of any terms and/or conditions of this Contract by the Nominated Sub-Contractors or Suppliers on their part in the same way as for his own or those of other sub-contractors or suppliers engaged by himself. The Government shall in no circumstances be liable to the Contractor for the default of any Nominated Sub-Contractors or Suppliers.
- 63.2 In the event of repudiation or abandonment of his sub-contract by any Nominated Sub-contractor or Supplier, or the determination by the Contractor of the employment of the Nominated Sub-contractor or Supplier for any reason whatsoever under the sub-contract, the Contractor shall do one of the following :
- (a) with the consent of the S.O. (such consent not to be unreasonably withheld) employ another competent sub-contractor or supplier to complete the sub-contract; or
 - (b) undertake to complete the sub-contract himself.

PROVIDED THAT in any of such events the Contractor is entitled to be paid the same sum for the work or services to be executed, or materials or goods to be supplied, as would have been payable had the original Nominated Sub-contractor or Supplier completed the sub-contract without any default on its part.

64.0 INTELLECTUAL PROPERTY RIGHTS

- 64.1 The Copyright and all other proprietary rights whatsoever in the Works and other material developed and supplied by the Contractor pursuant to or under this Contract shall vest in and shall be the sole property of the Government and the Contractor shall not during or at any time after completion of the Works or after the expiry or termination of this Contract, in any way, question or dispute the ownership of the Government. The proprietary rights in the Works shall vest in the Government free and clear of all liens, claims and encumbrances on the Works.
- 64.2 The Contractor shall be responsible for any claim that the equipment supplied infringes a patent, copyright or registered design.
- 64.3 If the Government's use or possession of the equipment is likely to constitute an infringement, then the Contractor shall promptly and at its own expenses procure for the Government the right to continue using and possessing the equipment; or modify or replace the equipment so as to avoid the infringement (in which event the Contractor shall compensate the Government for the amount of any direct loss or damage sustained or incurred by the Government during such modification or replacement).
- 64.4 The Contractor shall indemnify the Government against any claim for the infringement of any letters patent, copyright or registered designs by the use of any equipment or of information supplied under this Contract and against all costs and damages which the Government may incur in any action for which such infringements or for which the Government may become liable in any such action.

65.0 ANTIQUITIES

- 65.1 All fossils, coins, antiquities and other objects of interest or value which may be found on the Site or in excavating the same during the progress of the Works shall become absolute property of the Government and upon discovery of such an object the Contractor shall forthwith-

- (a) not to disturb the object and shall cease work if and in so far as the continuance of the work would endanger the object or prevent or impede its excavation or its removal;
 - (b) take all steps which may be necessary to preserve the object in the exact position and condition in which it was found; and
 - (c) inform the S.O. of the discovery and precise location of the object.
- 65.2 The S.O. shall issue instructions in regard to what is to be done concerning the object reported by the Contractor under clause 65.1 and (without prejudice to the generality of his power) such instructions may require the Contractor to permit the examination, excavation or removal of the object by a third party. Any such third party shall for the purpose of clause 15 be deemed to be a person for whom the Government is responsible and not to be a sub-contractor.
- 65.3 If compliance with the provisions of clause 65.1 or with an instruction issued under clause 65.2 has involved the Contractor in direct loss and/or expense for which he would not be reimbursed by a payment made under any other provisions of this Contract then the amount of such loss and/or expense shall be added to the Contract Sum.
- 66.0 ARBITRATION**
- 66.1 If any dispute or difference shall arise between the Government and the Contractor out of or in connection with the contract, then parties shall refer such matter, dispute or difference to the officer named in Appendix for a decision.
- 66.2 The officer named in Appendix's decision shall be in writing and shall subject to clause 66.4 hereof, be binding on the Parties until the completion of the Works and shall forthwith be given effect to by the Contractor who shall proceed with the Works with all due diligence whether or not notice of dissatisfaction is given by him.
- 66.3 If the Parties –
 - (a) fails to receive a decision from the officer named in the Appendix within forty-five (45) days after being requested to do so; or
 - (b) is dissatisfied with any decision of the officer named in the Appendix,then such dispute or difference shall be referred to arbitration within forty-five (45) days to an arbitrator to be agreed between the Parties and failing such agreement, to be appointed by the Director of the Regional Centre for arbitration in Kuala Lumpur on the application of either Party hereto. Such arbitration shall be heard at the Kuala Lumpur Regional Centre for Arbitration and shall be conducted in accordance with the rules for arbitration of the Kuala Lumpur Regional Centre for Arbitration using the facilities and the system available at the Centre.
- 66.4 Such reference, except on any difference or dispute under clause 51 hereof shall not be commenced until after the completion or alleged completion of the Works or determination or alleged determination of the Contractor's employment under this Contract, or abandonment of the Works, unless with the written consent of the Government and the Contractor.
- 66.5 In the event that such consent has been obtained in accordance with clause 66.4, the reference of any matter, dispute or difference to arbitration pursuant to this clause and/or the continuance of any arbitration proceedings consequent thereto shall in no way operate as a waiver of the obligations of the parties to perform their respective obligations under this Contract.
- 66.6 In any arbitration proceedings conducted pursuant to clause 66.3, the Parties may make any counter claim in relation to any dispute or difference arising from the Contract.

- 66.7 Upon every or any such reference the costs of such incidental to the reference and award shall be in the discretion of the Arbitrator who may determine the amount thereof, or direct the amount to be taxed as between solicitor and client or as between party and party, and shall direct by whom and to whom and in what manner the same be borne, award and paid.
- 66.8 The award of the Arbitrator shall be final and binding on the Parties.
- 66.9 In the event of the death of the arbitrator or his unwillingness or inability to act, then the Government and the Contractor upon agreement shall appoint another person to act as the arbitrator, and in the event the Government and the Contractor fail to agree on the appointment of an arbitrator, an arbitrator shall be appointed by the Director of the Regional Centre for Arbitration in Kuala Lumpur.
- 66.10 In this clause, "reference" shall be deemed to be reference to arbitration within the meaning of the Arbitration Act 2005.
- 66.11 The arbitration shall be governed by the Arbitration Act 2005 and the laws of Malaysia.
- 67.0 NOTICE, ETC.
- 67.1 Any notice, approval, consent, request or other communication required or permitted to be given or made under this Contract shall be in writing in Bahasa Malaysia or English language.
- 67.2 Such notice shall be effected by:
- (i) hand delivery or courier and an acknowledgement of receipt obtained;
 - (ii) leaving the notice at the registered office or site office of the Contractor in which case it shall be deemed to have been duly delivered; or
 - (iii) registered post in which case it shall be deemed to have been received seven (7) days after the date of posting.
- 67.3 The address of the Government and the Contractor is as shown below or such other address as either party may have notified the sender:
- to the Government:
Address:
- to the Contractor:
Address:
- 67.4 It shall be the duty of the parties to notify the other if there is a change of address or entity by giving a written notice within fourteen (14) days. In the event of the Contractor failing to notify the S.O. of such an address or any change in his address, such written notices and instructions shall be deemed to have been served upon the Contractor if they are sent in the manner stated above to the address stated in this Contract or to the Contractor's site office.

68.0 SAFETY AT THE SITE

68.1 Compliance with Safety Requirements

The Contractor shall comply with all relevant laws, regulations, rules, by-laws, directive or order by the relevant authorities on the requirements of safety-at-work ("Safety Requirements") and shall ensure his personnel, workmen and sub-contractors at all times during the execution of Works comply with such Safety Requirements.

68.2 Submission of Safety Programme

- (a) Within 14 days from the receipt of the Letter of Acceptance by the Government, the Contractor shall submit to the S.O a safety programme to ensure that all construction activities required for the execution of the Works are carried out in a safe manner and in compliance with Safety Requirements.
- (b) The safety programme shall be subject to the approval of the S.O. The submission to and approval by the S.O of the safety programme shall not relieve the Contractor of any of his obligations and liabilities pertaining to the safety requirement under the Contract.

68.3 Safety Officer and Personnel

- a) The Contractor shall appoint a suitably qualified and experienced person as safety officer who shall be responsible for compliance with Safety Requirements and all safety matters relating to the Works. The Contractor shall, from time to time, provide such other personnel and resources as may be required to ensure the effective implementation of the safety programme on Site.
- b) The Contractor shall conduct training programmes for all workmen including workmen of his sub-contractors for compliance with the Safety Requirements.

68.4 Safety Measures

- (a) The Contractor shall ensure that the constructional plant together with all other tools and equipment and other items used in the execution of the Works are in a safe, sound and good condition and capable of performing the functions for which they are intended.
- (b) The Contractor is responsible for instituting a safe method of construction on Site for all the workers and shall ensure that his sub-contractors whether nominated or otherwise institute the same method of construction for their workers.
- (c) Without limiting his liability under the Contract, the Contractor shall provide all workmen on Site with the necessary safety equipment including but not limited to safety boots, safety helmets and protective clothing.

69.0 ADVANCE PAYMENT

- 69.1 The Contractor shall be entitled to an advance payment on the Contract amounting to 25% of the value of the Contract Sum less Provisional Sums (hereinafter referred to as the "Builder's Work") but subject to a maximum of RM10 million on compliance with the following conditions:

- (a) on return of the Letter of Acceptance duly signed by the Contractor together with the Performance Bond (if any), insurance policies, confirmation from SOCSO Authorities and the receipts for all premium paid;
- (b) production of a Banker's/Insurance/Finance Company Guarantee in the approved format equal in value to the advance proposed to be paid;
- (c) Submission of the Banker's Guarantee / Insurance Guarantee / Financial Company Guarantee not later than 3 months from the date of possession of Site.

69.2 The advance payment shall be recouped when the cumulative total value of the Builder's Work executed and certified (including the amount certified for materials on site) reaches (25%) twenty five percent of the total contract value of Builder's Work, by way of a fixed percentage deduction from the total certified value of the Builder's Work executed (including the amount certified for materials on site) during the period covered by an Interim Payment Certificate, in all the subsequent Interim Payment Certificates on the basis that the advance payment made shall be fully recovered in the Interim Payment Certificate in which the cumulative total certified value of the Builder's Work executed (including the amount certified for materials on site) reaches seventy-five (75) percent of the total contract value of the Builder's work*. The deduction shall be calculated as follows:

$$\$ D = \frac{200}{B} \text{ percent of } \$ P$$

Where \$ D = cumulative deduction to be made in Interim Payment Certificate,

\$ A = total amount of advance paid,

\$ B = total contract value of Builder's Work

\$ P = gross certified value of Builder's Work executed (including the amount certified for materials on site) or agreed cumulative scheduled payments in excess of 25% of \$ B

69.3 The liability under the advance guarantee shall be terminated upon realization by the Government of the full sum of advance paid. However if the full sum of the advance paid cannot be realized before the completion date of the contract or any authorised extension thereof or the case of the contract been determined before the date of the determination, then the balance of the advance repayable to the Government shall be recovered from the advance guarantee.

70.0 AMENDMENT

No modification, amendment or waiver of any of the provisions of this Contract shall be effective unless made by mutual consent and made in writing by way of supplementary agreement specifically referring to this Contract and duly signed by the Parties. The provisions in respect of such amendment, variation or modification thereof shall be supplemental to and be read as integral part of this Contract which shall remain in full force and effect as between both Parties.

71.0 CONFIDENTIALITY

71.1 This Contract and all such drawings, records, data, books, reports and all matters pertaining hereto shall be considered as confidential matter and shall not be disclosed to any third party without prior written mutual agreement, save and except where-

- (a) disclosure of such information is necessary for the purposes of raising finance to undertake the obligations of the Contractor under this Contract;
- (b) disclosure of such information is made to the Contractor's consultants, auditors or advisers;
- (c) disclosure of such information is required by law or by any government agency or for the performance of any obligations under this Contract; or
- (d) the information has entered public domain.

71.2 Where information has been disclosed to third parties pursuant to clause 69.1, the Contractor undertakes to ensure that such third parties shall not disclose the information to any other third party.

71.3 The restrictions contained in this clause shall survive the termination of this Contract and shall continue to bind both Parties without limit in point of time.

72.0 STAMP DUTY

The Contractor shall solely bear the stamp duties, legal costs and fees in the preparation and execution of this Contract and anything incidental thereto.

73.0 SEVERABILITY

If any provision of this Contract is held to be illegal or is invalid under any laws or regulations effective and applicable during the term of this Contract such provision shall be fully severable and this Contract shall be construed as if such illegal or invalid provision had never comprised as part of this Contract and the remaining provisions of this Contract shall remain in full force and effect and shall not be affected by the illegal or invalid provision or by its severance from this Contract.

74.0 WAIVER

Failure by any Party to enforce at any time, any provision of this Contract shall not be construed as a waiver of its right to enforce the breach of such provision or any other provision in this Contract or as a waiver of any continuing, succeeding or subsequent breach of any provision or other provision of this Contract.

75.0 LAWS APPLICABLE

This Contract shall be governed by and construed in accordance with the laws of Malaysia and the Parties irrevocably submit to the exclusive jurisdiction of the courts of Malaysia.

76.0 SUCCESSORS BOUND

This Contract shall be binding upon the respective successors-in-title of the Parties.

77.0 EPIDEMICS AND MEDICAL ATTENDANCE

- 77.1 The Contractor shall maintain the Site in clean and sanitary condition and shall comply with all requirements of the Government Health and Sanitary Authorities. In the event of any outbreak of illness of an epidemic nature, the Contractor shall comply with and carry out such regulations, orders and requirements as may be made by the Government or the local medical or health authorities for the purpose of dealing with and overcoming the same.
- 77.2 The Contractor shall ensure that sufficient first aid kits are made available at suitable locations on the Site.

78.0 TECHNOLOGY TRANSFER

If the Contractor appoints foreign professionals, the Contractor shall endeavour to ensure that the employees of the Government are trained or exposed to the expertise of such foreign professionals pursuant to a programme for technology transfer.

79.0 GENERAL DUTIES AND PERFORMANCE STANDARD

79.1 Industry Practice

The Contractor shall provide and perform the Works in a proper manner in accordance with good management and best industry practice and to the best advantage of the Government and shall comply with all law, statutes and any guidelines or direction issued by the Government to the contractor from time to time.

79.2 Competency

The Contractor shall provide and perform its obligations under this Contract and take all appropriate measures expected of a competent company using due care and skills of a professional person providing similar service or works to ensure that the Works comply with the terms and conditions of this Contract.

79.3 Government's Interest

The Contractor shall at all times perform the Works in such manner as will always safeguard and protect the Government's interest and take all necessary and protect the Government's interest take all necessary and proper steps to prevent abuse and in accordance with the provisions of this Contract.

80.0 RESTRICTION AND PROCEDURE ON USE OF IMPORTED MATERIALS AND GOODS

- 80.1 The Contractor shall use local goods/materials as listed in the 'Senarai Bahan/Barangan Buatan Tempatan' issued by IKRAM QA Services Sdn. Bhd. and/or issued by SIRIM QA Services Sdn. Bhd., whichever is relevant. If the Contractor fails to comply with this requirement, the Government may reject the goods/materials which are found to be not in compliance with this requirement.
- 80.2 For local goods/materials not listed as aforesaid, such goods/materials may be allowed if prior testing and certification from IKRAM QA Services Sdn. Bhd. or SIRIM QA Services Sdn. Bhd., whichever is relevant, has been obtained. Where such testing cannot be carried out by IKRAM

QA Services Sdn. Bhd. or SIRIM QA Services Sdn. Bhd. the Contractor may, with the S.O.'s prior approval, have the testing to be done by another agency.

- 80.3 Under no circumstances shall the Contractor be permitted to incorporate or supply imported materials, plant, equipment, vehicles or other goods into the Works or forming part of the scope of the Works except those approved by the Government, prior to the execution of the Contract. The Contractor shall at his own cost entirely substitute any materials, plant, equipment, vehicles or other goods proposed to be imported but not approved by the Government, with suitable local materials, plant, equipment, vehicles or other goods, including making any necessary subsequential changes or adjustment to the design of the Works to accommodate such substitution, all to the concurrence of the S.O..
- 80.4 The Contractor shall ensure that the procurement of approved imported materials, plant, equipment, vehicles or other goods are obtained directly from the country of origin based on F.O.B. or other similar basis. The transportation and insurance of such imported materials, plant, equipment, vehicles or other goods from the country of origin to the Site shall be arranged by the Contractor through the Government's Multi Modal Transport Operators (hereinafter referred to as MTO) as listed in Appendix. The Contractor shall allow in his tender all costs and time required in complying with the requirements of this Clause including the cost required for the services provided by the MTO.
- 80.5 The Contractor shall submit documentary evidence of compliance with this clause to the S.O. within one (1) month from the date of each delivery to the Site of such materials, plant, equipment, vehicles or other goods.

81.0 TIME

Time whenever mentioned shall be of the essence of this Agreement.

IN WITNESS WHEREOF the Parties hereto have executed this Agreement on the day and year first above written.

SIGNED for and on behalf of

)

)

THE GOVERNMENT OF MALAYSIA

)

)

in the presence of:

)

)

*¹The Common Seal of

)

)

)

(Co. No. :

)

)

was hereunto affixed

)

in the presence of:

)

.....
Director

Name :

NRIC No.:

.....
Director/Secretary

Name :

NRIC No.:

¹ applicable only if the Contractor is a company registered under the Companies Act 1965

APPENDIX TO THE CONDITIONS OF CONTRACT

Clause

4.1(a)

Officer(s) empowered to approve variations according to the limits as set out in Treasury's Instructions No. 202 as amended.

Financial Limits	Officer

4.1(b)

Officer(s) empowered to take action on behalf of the Government in respect of:

Clauses 51, 52, 53, 58 and 66.....

13

Performance Bond

Amount of Guarantee RM.....

Guarantor Bank/Insurance Company/
Finance Company

Guarantee No.

15

Minimum insurance cover for any one accident or series of accidents arising out of one event RM.....

Policy No.....

Period of insurance.....

15.1 (b)

Amount of excess RM.....

APPENDIX TO THE CONDITIONS OF CONTRACT - (Cont'd)

Clause	
17	SOCSCO Scheme registration number.. .. .
18	Amount to be added to full value of Contract Sum as the insured sum RM.....
	Total Amount Insured RM.....
	Policy No.....
	Period of insurance
18 (b)	Amount of excess RM.....
21.2	Date of Tender
28.1	Value of work to be executed including materials and goods to be delivered before First Interim Certificate will be issued RM.....
28.2	Value of work to be executed including materials and goods to be delivered before each subsequent Interim Certificate will be issued RM.....
28.6	Period for honouring payment certificate (if none stated, then within thirty (30) days of the issue of the Certificate)
34.4	Work covered by P.C. Sums for which the Contractor will be permitted to tender
38.2	'Date for Possession' of the Site
39.1	'Date for Completion' for whole of the Works.
40.2	Liquidated and Ascertained Damages at the rate of RM.....per.....

APPENDIX TO THE CONDITIONS OF CONTRACT - (Cont'd)

Clause

41.1 Sectional Completion:

Identification of Sections or parts	Date for Possession [Clause 38.3]	Date for Completion	Liquidated & Ascertained Damages

48.1(a) Defects Liability Period (if none stated,
then the period is twelve (12) months)

5.3, 5.4, 15.3, 17.3(b), 18.2 Percentage of on-cost charges 5%

48.2, 56.2(d) Percentage of on-cost charges 10%



JKR Malaysia,
Jalan Sultan Salahuddin
50580 Kuala Lumpur

DOKUMEN D (ii)

**ADDENDUM KEPADA
SYARAT-SYARAT KONTRAK**

Lampiran A

This Addendum No. 1 to the Conditions of Contract PWD 203/203A (Rev. 1/2010) consisting of 4 pages (including this page) which are and shall be read and construed as part of the said Contract.

.....
Signature of Contractor

.....
Signature of Officer

(Name in full.....)

(Name in full

I.C. No.

Designation

In the capacity of

Duly authorised to sign for and on behalf of

Duly authorised to sign for and on behalf of
the Government

.....
Contractor's Chop or Seal

.....
Official Chop

Witness

Witness

Name in full

Name in full

I.C. No.

Occupation

Designation

Address

Address

ADDENDUM NO. 1 TO THE CONDITIONS OF CONTRACT PWD 203/203A (Rev. 1/2010)

NO.	AMENDMENTS
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1. Page 20, Clause 28

Substitute the whole of Clause 28.0 with the new Clause 28.0 as follows:

- 28.1 Subject to compliance with the terms and conditions under this Contract, The Contractor shall be entitled for Interim Payment certified by the S.O.'s monthly evaluation (or more often at the discretion of the S.O.). Provided always that the Contractor shall submit to the S.O., at such times and in such form as the S.O. may prescribe, written application for Interim Payments showing the amounts which in the Contractor's opinion are due under the Contract Payments. The submission shall include the following:
- (a) the value of Works done and properly executed and valued in accordance with these terms of Contract;
 - (b) the amount of any valuation of variations or of the Instructions by the S.O. (clause 25);
 - (c) the amount in regard to the expenditure of Provisional Sums and Prime Cost Sums executed or expended (clause 34);
 - (d) the value of any goods or unfixed materials delivered to or adjacent to the Site intended for use or to be incorporated into the Works;
 - (e) the value of fluctuation of price pursuant to clause 30; and
 - (f) all relevant documents including site measurement, working diagrams, delivery orders, relevant invoices, as-built drawings, shop drawings relevant tests and environmental impact assessment of the Works or other relevant documents as the S.O. may require, to substantiate the Contractor's written application for interim payments..
- 28.2 The S.O. shall within fourteen (14) days from the date of receipt of the application for Interim Payments, inspect and verify the Works, and make a valuation of the same and issue an Interim Payment Certificate stating the amount due to the Contractor from the Government PROVIDED THAT the total value in each monthly valuation shall not be less than the sum referred to in Appendix 1.
- 28.3 The amount stated as due in an Interim Payment Certificate shall be the estimated total value of the Works done and properly executed and up to ninety (90) percent of the value of any goods or unfixed materials delivered to or adjacent to the Site intended for use or to be incorporated into the Works up to and including the date the valuation was made, less any payments (including Advance Payment) previously paid under this Contract. PROVIDED THAT such Certificate shall only include the value of the said goods or unfixed materials as and from such time as they are reasonably and properly and not prematurely delivered to or adjacent to the Site and adequately protected against weather, damage or deterioration.

- 28.4 This clause shall not apply to any unfixed materials and goods which are supplied and delivered by Nominated Suppliers for which payment shall be made for the full value of the unfixed materials and goods.
- 28.5 Within a number of days as stated in Appendix (or if none stated then within thirty (30) days of the issue of any such Interim Certificate), the Government shall make a payment to the Contractor as follows:
- (a) where the Performance Bond is in the form of a Banker's, Insurance or Finance Company Guarantee, payment shall be made on the amount certified as due to the Contractor in the said Interim Certificate; or
 - (b) where the Performance Bond is in the form of a Performance Guarantee Sum, payment of ninety percent (90%) on the amount certified as due to the Contractor shall be made with the remaining ten percent (10%) being retained by the Government as a Performance Guarantee Sum. PROVIDED THAT when the sum retained is equivalent to five percent (5%) of the Contract Sum then in any subsequent Certificate, payment shall be made on the full amount certified as due to the Contractor.
- 28.6 If the Contractor fails to submit full particulars of written application for Interim Payment as stipulated in clause 28.1, the S.O. shall make the valuation of works based on the available documents to him for the purpose of the Interim Payment Certificate. The Government shall be discharged from all liabilities in connection with the Interim Payments.

2. Page 21, Clause 31

Substitute the whole of Clause 31.0 with the new Clause 31.0 as follows:

- 31.1 As soon as is practicable but not later than three (3) months after the issuance of the Certificate of Practical Completion, the Contractor shall submit full particulars complete with receipts, vouchers records that would substantiate the Contractor's claim under clause 44 together with any documents, supporting vouchers and any explanation and calculations including documents relating to the accounts of Nominated Sub-Contractors or Nominated Suppliers, which may be necessary to enable the Final Account to be prepared by the S.O. PROVIDED ALWAYS the Contractor had given the notice of claim in writing within the stipulated time or times in the said provisions.
- 31.2 Within three (3) months after issuance of the Certificate of Completion of Making Good Defects, the Contractor shall submit to the S.O. a statement of the final account showing in detail the value in accordance with the Contract, of the Works carried out together with all further sums which the Contractor considers to be due to him after giving credit to the Government for all amounts previously paid by the Government and for all sums to which the Government is entitled under the Contract up to the date of the Certificate of Completion of Making Good Defects or the Certificate of Completion of Maintenance, as the case may be. The Final Account shall be supported by all documentation substantiating the value of the same.
- 31.3 If the Contractor fails to submit full particulars of all claims within the stipulated period,

the S.O. shall forthwith make the assessment based on the available documents submitted by the Contractor for the purpose of the Final Account. The Government shall be discharged from all liabilities in connection with the claims.

- 31.4 Within three (3) months after the expiry of the Defects Liability Period for the whole of the Works or three (3) months after the issue of the Certificate of Completion of Making Good Defects under clause 48 hereof, whichever is the later, the S.O. shall issue the Final Certificate.
- 31.5 The Final Certificate shall be supported by documents, and full particulars complete with receipts, vouchers records showing the S.O.'s final valuation of Works and any amount determined in clause 31.1 in accordance with the terms of this Contract. After setting out or allowing for all payments or other expenditure of the Government or any permitted deductions made by the Government or the S.O. on its behalf, the Final Certificate shall state any final balance due from the Government to the Contractor or from the Contractor to the Government, as the case may be, which shall thereupon become the debt payable. Such certificate shall also take account of any outstanding permitted deductions not yet made by the Government under the terms of this Contract whether by way of liquidated damages or otherwise.
- 31.6 No final payment due to the Contractor under the Final Certificate, shall be made unless and until the Contractor shall have satisfied the S.O. by means of a Statutory Declaration made by or on behalf of the Contractor to the effect that the workmen who have been employed by the Contractor on the Works including workmen employed by sub-contractors, whether nominated or otherwise (including "labour only" sub-contractors) have received all wages due to them in connection with such employment, and that all dues or contributions under the Employment Act 1955, the Employee's Social Security Act 1969, the Employee's Provident Fund Act 1965 and any other laws relevant to the employment of workmen, have been paid.

3. Page 27, Clause 40

3.1 Substitute clause 40.1 with the new clause 40.1 as follows:

- 40.1 If the Contractor fails to complete the Works by the Date for Completion or within any extended time granted pursuant to clause 43, the S.O. shall issue a Certificate of Non-Completion to the Contractor.

3.2 Substitute clause 40.2 with the new clause 40.2 as follows:

- 40.2 Without prejudice to the Government's right to terminate this Contract, when the S.O. issues the Certificate of Non-Completion, the Government shall be entitled to recover from the Contractor, Liquidated and Ascertained Damages calculated at the rate stated in Appendix 1 from the date of the failure to complete the work pursuant to clause 40.1 to the date of the Practical Completion or the date of termination of this Contract. The S.O. may deduct such Liquidated and Ascertained Damages from any money due or to become due to the Contractor, failing which such damages shall be recovered from the Performance Bond or as a debt due from the Contractor. The S.O. shall inform the Contractor in writing of such deduction.

DOKUMEN D (iii)

PERUNTUKAN KHAS KEPADA SYARAT-SYARAT KONTRAK

- **Bon Perlaksanaan Dalam
Bentuk Wang Jaminan Bank**

SPECIAL PROVISIONS TO THE CONDITIONS OF CONTRACT (PWD 203/203A)

PERFORMANCE BOND IN THE FORM OF PERFORMANCE GUARANTEE SUM

1.0 For the due observance and performance of this Contract the Contractor may opt for Performance Bond in form of Performance Guarantee Sum in lieu of cash, Treasury's Deposit, Bankers Draft, Bankers/Licensed Finance Company/Insurance Guarantee as stipulated under Clause 37 of the Conditions of Contract. If the Contractor opt for Performance Bond in the form of Performance Guarantee Sum, the relevant clauses under the Conditions of Contract shall be deemed and agreed to have been amended as follows:

(a) Performance Bond

(i) Replace clause 37 (a) with the following clause:

The Contractor shall allow deductions of ten percent (10%) from interim payments until the total amount deducted aggregate to a sum equivalent to five percent (5%) of original Contract Sum for the due observance and performance of this Contract.

(ii) Delete clause 37 (b)

b) Possession of Site

(iii) Replace clause 38 (a) with the following:

No work on this Contract shall be commenced unless and until such insurance policies as specified under clause 33, 34 and 36 hereof, shall have been deposited with the Government or the S.O. Provided that for the purpose of this Condition only (but for no other), if the Contractor shall produce to the Government or the S.O. the Cover Notes of the said insurance policies and the receipts of premiums paid, it shall be sufficient discharge of his obligations under this Condition.

c) Partial Occupation by Government

(i) Replace subclause 42 (f) with the following:

It is expressly agreed that nothing contained in the preceeding paragraphs shall entitle the Contractor to the release of the Performance Bond or any part thereof the intention being that the said Performance Bond or any part thereof shall be released or refunded only upon the completion of making good all defects, imperfections, shrinkages or other faults which may appear during the Defects Liability Period and upon the giving of the Certificates of Completion of Making Good Defects for the whole of the Works under Clause 45 hereof.

(d) Payment to Contractor and Interim Certificate

i) Replace subclause 47 (b) with the following:

Within fourteen (14) days from the date of any such valuation being made and subject to the proviso mentioned in sub clause (a) above, the S.O. shall issue an Interim Certificate stating the amount due to the Contractor from the Government. Provided that the signing of this Contract shall not be a condition precedent for the issue of the first Interim Certificate (and no other) so long as the Contractor has returned the Letter of Acceptance of Tender duly signed and has deposited with the S.O. or the Government the relevant insurance policies under Clauses 33, 34 and 36 hereof.

ii) Sub clause 47 (d)

Delete Item No. 52 in Addendum to the Conditions of Contract and substitute the whole of Clause 47 (d) with the new Clause 47 (d) as follows:

Within a number of days as stated in the Appendix to these Condition (or if none so stated then within thirty (30) days) of the issue of any such Interim Certificate as aforesaid, the Government shall make a payment to the Contractor of ninety percent (90%) on the amount certified as due to the Contractor with the remaining ten percent (10%) being retained as a Performance Guarantee Sum. Provided that when the total amount retained aggregate to a sum equivalent to five percent (5%) of the original Contract Sum then any payment made in subsequent Interim Certificates shall be the full amount certified as due to the Contractor.

JAMINAN BANK / JAMINAN SYARIKAT KEWANGAN / JAMINAN INSURANS UNTUK BON PERLAKSANAAN (KONTRAK KERJA)

Sebagaimana balasan kepada Kontrak No..... yang dibuat antara Majlis Bandaraya Petaling Jaya, kemudian daripada ini dirujuk sebagai "Majlis" dan kemudian daripada ini dirujuk sebagai "Kontraktor" bagi (namakan projek), kemudian daripada ini dirujuk sebagai "Kontrak", kami yang bertandatangan di bawah, atas permohonan kontraktor, mengaku janji yang tak boleh batal untuk memberi Jaminan kepada Majlis ke atas pelaksanaan yang sepatutnya Kontrak tersebut mengikut cara sebagaimana yang terdapat kemudian daripada ini.

MAKA Penjamin dengan ini bersetuju dengan Majlis seperti berikut :-

1. Apabila sahaja Majlis membuat tuntutan bertulis, maka Penjamin hendaklah dengan serta merta membayar kepada Majlis nilai yang ditentukan dalam tuntutan tersebut tanpa mengira sama ada terdapat apa-apa bantahan atau tentangan daripada Kontraktor atau Penjamin atau mana-mana pihak ketiga yang lain tanpa bukti atau bersyarat. Dengan syarat sentiasa bahawa jumlah tuntutan yang dibuat tidak melebihi sebanyak Ringgit (nyatakan nilai jaminan dalam perkataan). (RM.....) dan bahawa tanggungan Penjamin untuk membayar kepada Majlis di bawah Perjanjian ini tidak melebihi nilai tersebut di atas.
2. Majlis berhak untuk membuat apa-apa tuntutan separa jika dikehendakinya dan jumlah kesemua tuntutan separa itu hendaklah tidak melebihi nilai Ringgit (nyatakan nilai jaminan dalam perkataan) (RM.....) dan liabiliti Penjamin untuk membayar kepada Majlis jumlah yang disebutkan terdahulu hendaklah dikurangkan dengan perkadaran yang bersamaan dengan apa-apa bayaran separa yang telah dibuat oleh Penjamin.
3. Penjamin tidak akan dilepaskan dari Jaminan ini oleh sebarang perkiraan yang dibuat antara Kontraktor dan Majlis samaada dengan atau tanpa persetujuan Penjamin atau oleh sebarang perubahan tentang kewajipan yang diakui janji oleh Kontraktor atau oleh sebarang penangguhan sama ada dari segi pelaksanaan, masa, pembayaran atau sebaliknya.
4. Jaminan ini adalah Jaminan yang berterusan dan tak boleh batal dan berkuat kuasa dari sehingga (kemudian daripada ini disebut "Tarikh Mati Asal") (Initial Expiry Date) iaitu dua belas (12) bulan selepas tarikh tamat tempoh kecacatan atau dalam keadaan dimana Kontrak dibatalkan satu (1) tahun selepas tarikh Kontrak dibatalkan. Penjamin hendaklah melanjutkan Tarikh Mati Asal (Initial Expiry Date) Jaminan ini untuk tempoh tambahan selama tidak melebihi satu (1) tahun daripada Tarikh Mati Asal (Initial Expiry Date) (kemudian daripada ini disebut "Tarikh Mati Lanjutan") (Extended Expiry Date) apabila diminta oleh Majlis dan Jaminan ini adalah dengan ini dilanjutkan. Jumlah agregat maksimum yang Majlis berhak di bawah Perjanjian ini mestilah sentiasa dipastikan tidak melebihi jumlah Ringgit (nyatakan nilai Jaminan dalam perkataan) (RM.....).

5. Apa-apa tanggungjawab dan tanggungan Penjamin di bawah Perjanjian ini hendaklah luput apabila Perjanjian ini tamat pada Tarikh Mati Asal (Initial Expiry Date) atau Tarikh Mati Lanjutan (Extended Expiry Date) melainkan jika sebelumnya Majlis telah meminta secara bertulis kepada Penjamin untuk membayar sejumlah wang tertentu yang masih belum dijelaskan mengikut peruntukan kontrak.

6. SEMUA TUNTUTAN BERKAITAN DENGAN JAMINAN INI, JIKA ADA MESTILAH DITERIMA OLEH PIHAK BANK / SYARIKAT KEWANGAN / SYARIKAT INSURANS DALAM TEMPOH SAH LAKU JAMINAN INI ATAUPUN DALAM MASA EMPAT (4) MINGGU DARI TAMATNYA TARIKH JAMINAN INI, MENGIKUT MANA YANG LEBIH KEMUDIAN.

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

Ditandatangani untuk	)	
Dan bagi pihak Penjamin	)	Nama :
Di hadapan	)	Jawatan :
	)	Cop Bank / Syarikat Kewangan /
	)	Syarikat Insurans :

.....
(Saksi)

Nama :
Jawatan :
Cop Bank / Syarikat Kewangan / Syarikat Insurans :

DOKUMEN E

SPESIFIKASI

MBPJ STANDARD SPECIFICATION A
SPECIFICATION FOR

General Conditions

Scope of
The contract

A/1. The contract is for supply of all tools, plants, labor, equipment and materials for the complete construction of works in accordance with the specification and drawing and to the entire satisfaction of the S.O.

Superintending

A/2. The term 'superintending officer' or the Initial S.O. wherever used herein after and in all contract documents shall mean the Municipal Engineer, Petaling Jaya and his successors in office and also such persons as may be deputed by him in writing to act on his behalf for the purpose of this contract.

Work to be
Carried-out

A/3. The work shall be carried out under the complete direction of the Municipal Engineers, Petaling Jaya or his representative, whose decision on all points in connection with the contract shall be final and binding on the contractor.

Site Inspection
and access

A/4. a) The contractor shall be deemed to have inspected and examined the site and its surrounding and shall have satisfied himself before submitting his tender as to the nature of the ground, the form and nature of the site and the quantities and the nature of the work and materials necessary, means of access and any other contingency likely to affect his tendered price as no claims for extras in this connection will be entertained.

b) The contractor shall make his own arrangements for the use private roads or way leaves across private land and he shall indemnify the Municipal against any claims arising from his use of those access roads.

Labor to be
Employed on
the works

A/5. a) The contractor shall employ in sufficient numbers to ensure the completion of the works within the time allowed in the contract.

b) The contractor shall increase the number of employees on receiving instructions from S.O. to do so.

c) The laborers shall be Federal Citizens comprise of various proportionately whenever possible.

Day and hours
Of works

A/6. No work shall be done on .

a) Any public holiday which is recognized in the district where this contract is being carried out, without the written permission of the S.O.

b) Between the hours of five in the evening and seven the following morning without the written permission of the S.O.

Setting out

A/7. The contractor shall set out the works and during the progress thereof he shall amend at his own cost any errors arising from inaccurate setting out unless the S.O. shall otherwise decide. Any assistance which the S.O. may render to the contractor in setting out shall in no way relieve the contractor of entire responsibility for the correctness of all setting out.

Health Measures and Housing Contractors

A/8. The contractor shall be responsible for the proper housing of his labor force to be the satisfaction of the Health Officer. He shall comply with all the rules and regulations in force at the time in the Municipality regarding health and housing measures at site. He shall be responsible for all Municipality fees, other charges or expenses incurred in connection with this work.

Watching and Lighting

a) The contractor shall comply with all the requirements of the S.O. Police and Traffic Authorities regarding guarding, watching and lighting the works and shall carry out the works in such a way as to minimize any obstructions to vehicles, traffic or pedestrians and shall erect and maintain during the course of the works adequate traffic and warning signs. The contractor shall not obstruct the accesses to any property without the written authority of the S.O.

b) All temporary barriers, fences, lights, signs, watchman and other means necessary for the safety and regulations of traffic or pedestrians shall be provided and maintained by the contractor throughout the works.

c) Compliance with this clause shall not relieve the contractor of his responsibilities under the conditions of contract.

d) If the contractor fails to comply after the expiry of 3 days with his requirements as per item (a) and (b) above, the S.O. shall carry out the works as he deems necessary and shall deduct the cost involved from the contract sum without further notice.

Materials

A/10. Materials and workmanship throughout the work shall be the best of their kinds locally obtainable. When ever possible materials of Malaysian origin shall receive priority unless specified unless specified otherwise.

Whenever any proprietary goods or materials are specified use in the works, the contractor may supply goods or materials of alternative provided that those specified in appearance, quality and place of manufacture.

Sample

A/11. At any time the superintending officer shall be at liberty to call for the submission of samples or materials or the execution of samples or workmanship for approval and for any further samples

as required until samples submitted or executed are, in his opinion in accordance with the specification. Samples after approval shall indicate the standard of materials and workmanship to be maintained in the execution of the works.

Ordering of Materials

A/12. The contractor shall be responsible for placing his orders for all materials required for the completion of the contract and he shall be required to do this within seven days of the date of acceptance of Tender. Any delay arising from non compliance with this clause will be held to be the responsibility of the contractor. Should the contractor experience any difficulty which is beyond his control in placing the order he should at once inform the S.O.

Supply of materials by Municipality

A/13. If the contractor fails for any reason to supply any materials which he has contracted to supply or if he fails to supply any such materials in sufficient time to enable the contract to be completed by the agreed date for completion, then in either event the Municipality may supply any portion or all of such materials.

If the Municipality supplies such materials the cost in respect thereof to be borne by the contractor shall be:-

- a) The cost of such materials calculated at the agreed rates set down by the contractor in the schedule of rates.
- b) The current market rates.
- c) The actual cost to the municipality at the date of supply, including overheads and any other charges, whichever is the greater.

The cost to be borne by the contractor, as above detailed shall be deducted from money due or to become due to the contractor under this contract and the contract sum shall be adjusted accordingly, provided that any variation order issued by virtue of this clause shall not be taken into account when computing the final amount of this contract on which the retention fund is based and no claim for loss or profit shall be deemed to have arisen. No action by the S.O. under this clause shall be deemed in any way to affect or modify right of the municipality to a claim of damages in the event of the contractor's failure to complete the works by the agreed date for completion.

Conditions of tendering

A/14. a) Each tenderer must submit, enclosed and sealed in an envelope addressed as stipulated in the tender notice, a genuine tender on the form of tender provided.

b) Each tenderer must enter in the space provided on the form of tender, the time he will require to complete the works.

c) Tenders must be delivered to the place at or before the time stipulated in the tender notice.

d) In the case of a tender not being delivered by hand the tenderer must arrange for his tender and other document to be posted in time to reach the stipulated place not later than the stipulated time.

e) Any tender delivered after the stipulated time may not be considered at all.

f) In no case will any expenses incurred by a Tenderer in the preparation of this tender be allowed.

g) Tenders shall remain valid eight weeks from the final date for submission of tenders stipulated in the tender notice and no tenderer may withdraw his tender within that period unless allowed by the S.O.

h) The municipality shall not be bound to accept the lowest or any tender.

Lump sum

A/15. a) The contractor shall be considered to have satisfied himself that the lump sum paid under the contract shall be complete payment for all works covered by the contract, specification and plans.

b) The contractor shall be considered to have checked the quantities set out in the plans and satisfied himself as to their accuracy and the contractor shall not be entitled to any extra payment on account of any inaccuracies that shall any time become apparent.

Fire workmen & public liability insurance

A/16. The contractor shall produce receipts for premiums paid, for the inspection by the S.O for the workmen's compensation, fire and public liability insurance within ten days posting or delivering by hand of notification of acceptance.

Underground Cable and Services Pipes

A/17. a) Before commencing any excavation for the purpose of carrying out work, the contractor or his representative shall accompany the S.O. on site inspection in order to consider any circumstances which may indicate the presence of underground cables, water or other services pipes at or in the vicinity of such excavation. There after the contractor shall carry out the excavation in such manner and sequence as the S.O. directs.

b) If during the excavation, the contractor's workmen uncover any cables, pipes etc. Work shall be stopped immediately and shall not be started again until the matter has been reported to the S.O. who will issue what ever directions he deems appropriate.

c) The contractor will be responsible for and bear the cost of any damage of these services and in the event of change to any such service the contractor must notify the authority concerned immediately and must arrange for any repairs required.

Discrepance
in the
Drawing

A/18. Should there be any discrepancy in the drawing, the matter be immediately referred to the S.O. and figured dimension shall be preferred to scaling. The contractor shall not be absolved of any responsibility for any error that may occur in the works through the neglect of this precaution.

Clearing
Of site

A/19. On completion of the works and before acceptance of the works by the S.O. the contractor shall remove all debris, rubbish temporary sheds, tins, scaffolding etc, and leave the site of the works in a clean and tidy condition, to the satisfaction of the S.O.

MAJLIS BANDARAYA PETALING JAYA

SPECIFICATION FOR BAKAU PILING

GENERAL

1. Where Bakau piling is required as indicated in the drawing or otherwise stated, the following specifications should be closely adhered to :-

- i) All Bakau piles shall be of approved type and of average 5" diameter. All piles shall be inspected by the S.O before driving.
- ii) Whenever possible all piles shall be driven true and plumb and pitched accurately in position. No pile which has been wrongly aligned shall be driven and the S.O may at his discretion order the contractor to withdraw and re-driven any pile which is not in correct alignment or otherwise.
- iii) The head of the Bakau pile shall be sawn square and adequately protected by M/S or wrought iron helmet driving to prevent brooming.
- iv) After driving, the heads of piles should be cut off below the lowest ground water level to the complete satisfaction of the S.D.

N.B The tenderer's attention is drawn to the following :-

- a) The price 'supply only' shall include delivery to site of bakau piles to the lengths ordered by the S.O or his representative.
- b) The measurement for driving piles shall be the nett lengths driven into the ground including setting up of pile frame and cutting off to required lengths completion.
- c) Test piles shall be driven as directed by the S.O and the length of pile to be used shall be decided after test-piles are driven.

British Standard referred to in this specification

BS 12	Portland cement (ordinary and rapid hardening)
BS 146	Portland-blastfurnace cement
BS 410	Test sieves
BS 812	Sampling and testing of mineral aggregates, sands and filters
Part 1	Sampling, size, shape and classification
Part 3	Mechanical properties
BS 882, 1201	Aggregates from natural sources for concrete (including granolithic)
BS 1014	Pigments for Portland cement and Portland cement products
BS 1047	Air cooled blastfurnace slag coarse aggregate for concrete
BS 1610	Methods for the load verification of testing machines
BS 1881	Methods of testing concrete
Part 4	Methods of testing concrete for strength

Technical Note TN39

Domestic Crossovers & Driveways Design & Construction in Interlocking Concrete

1.0 Introduction

This Technical Note is based on Australian guides for the design and construction of interlocking concrete pavements for vehicular traffic (1,2). These have been developed and validated from extensive research in Australia and overseas into the behaviour and performance of interlocking concrete paving under Australian conditions. As this research is based only on concrete paving units the information contained herein is not applicable to other materials.

Interlocking concrete paving units are manufactured in all States in a variety of shapes and colours, producing aesthetically pleasing pavements which when properly designed and constructed are structurally sound and durable. Since the mid 1970s they have been used by local Government authorities in Australia for residential streets, pedestrian and shopping malls, and bus and car parking areas.

Interlocking pavements offer a particular advantage in areas where uneven ground settlement may occur or where it is necessary to attend to underground utilities. They can be readily lifted and replaced at little cost and with negligible visual evidence of repair.

2.0 Scope

In extending the range of applications for interlocking paving this Technical Note provides recommendations for the

design and construction of domestic vehicle footpath crossings and internal driveways. It is intended to apply only to single or multi-unit residential developments where traffic is predominantly of the passenger car type with occasional light service or commercial vehicles (Figure 1).

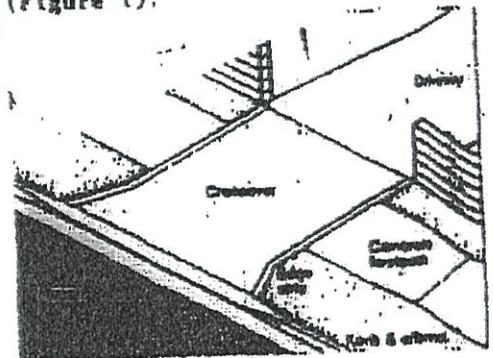


Figure 1. Vehicle footpath crossing

For cluster or medium density developments, industrial or commercial applications or situations where access driveways carries regular heavy commercial truck traffic, pavements design should be carried out in accordance with the recommendations of TN34, Interim Guide to the Design of Interlocking Concrete Pavements for Vehicle Traffic (1).

3.0 Pavement Structure

An interlocking concrete footpath crossing pavement will usually incorporate a number of elements (see Figure 2):

- (1) A compacted sub-base layer of gravel or crushed rock overlying

the existing ground which has been previously shaped to profile and compacted (and where the CBR is not more than 8%).

- (2) A firm edge restraint to prevent lateral movement of paving units at pavement edges which could result in the opening of joints between individual paving units.
- (3) A sand bedding layer which when compacted will have a uniform thickness of approximately 30mm.
- (4) A course of interlocking concrete paving units.

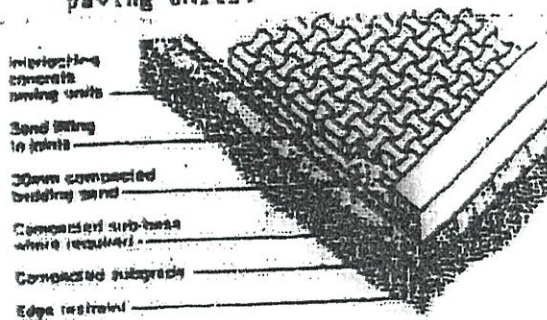


Figure 2. typical structure of interlocking concrete paving

4.0 Sub-base Layer

Gravel or crushed rock complying with the specification of the local Road or Municipal Authority for use as a sub-base material in road pavements will be adequate for use as a sub-base material for an interlocking pavement for domestic footpath crossings.

The required compacted thickness of the sub-base layer will depend on the existing ground conditions. For the purpose of footpath crossing and driveways design the ground can be conveniently classified.

These classifications are defined in Table 1 which also gives the recommended minimum compacted sub-base thickness for each. Where the ground is particularly weak, selection of the

sub-base thickness may need to be based on local soils experience. In any case it is recommended that where possible sites be evaluated individually to enable the soil characteristics to be properly assessed.

Ground Classification

Compacted
Thickness
of Sub-base
(mm)

Strong

Ground having a California Bearing Ratio better than 8% or which has obviously firmed under the action of traffic over a period without significant deformation, and which would not suffer a significant loss in strength as a result of moderate changes in moisture content. This classification may include rocky ground, gravels, sandy loams or sand containing a small amount of silt.

111

Average

Ground having a California Bearing Ratio between 4% and 8% inclusive. This classification may include sands, loams and some stiff clays not subject to a high groundwater level.

75

Weak

Ground having a California Bearing Ratio of less than 4%. This classification will include wet clays or other soils which may readily deform under the action of passenger vehicles or as a result of significant increases in moisture content.

125

Table 1:
Recommended Minimum Sub-Base
Thickness

5.0 Edge Restraint

It is recommended that edge restraint should be provided along the perimeter of all interlocking concrete footpath crossings. The purpose of the edge restraint is to ensure that the paving units do not rotate or migrate under load with consequent opening of joints and loss of interlock. Any convenient form of edge restraint may be used as long as it has sufficient stability to withstand damage or displacement if accidentally overrun by a vehicle. In built-up areas existing kerb and channel and internal driveways will form a restraint at two edges. Where a footpath crossing is constructed continuously with a driveway of in situ concrete or interlocking concrete paving, no separate edge restraint is required at the property alignment. Side edge restraints will need to be profiled and shaped to comply with dimensions and levels required by the Local Authority.

Edge restraints for footpath crossings can serve as moving strips and may be concealed or exposed (Figure 3). Where ground conditions require a sub-base it should extend beneath the full width of edge restraints placed as part of the crossing pavement.

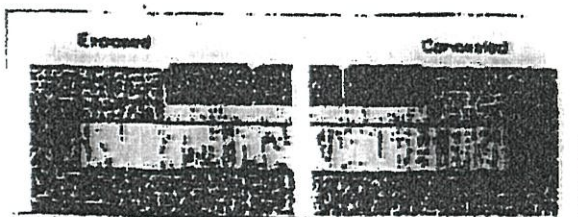


Figure 3. Edge restraints

In strong hard-packed ground where existing surface levels are close to finished pavement levels, an edge restraint may be omitted, particularly where wheel paths are not expected, to encroach within 300mm of the pavement edge.

6.0 Interlocking Paving Units

Interlocking Concrete Paving Units are manufactured in accordance with H&S, Interim Specification for Interlocking Concrete Paving Units, published by the Concrete Masonry Association of Australia. To rationalise the description of the various paving units they have been grouped under three shape classifications. These are defined in Table 2 which also indicates the minimum thickness of units suitable for domestic vehicular footpath crossings. Individual manufacturers provide information on the shape and classification of the units available in a particular area.

Interlock is provided by a combination of paving unit shape and the laying pattern. The laying patterns are a function of the shape of the paving units, those used in footpath crossings are herringbone, basket-weave and stretcher bond (Figure 4). Research has shown that the strongest pavement results from the use of shape A units laid in herringbone pattern. Other combinations of unit shape and laying pattern are, however, satisfactory when maximum strength is not required.

Shape Type	Description	Required Thickness
A	Dentated units which key into each other on all four faces, are capable of being laid in herringbone and by their plan geometry when keyed together resist the spread of joints parallel to both the longitudinal and transverse axes of the units	80mm

- B Dentated units which key into each other on two faces only, are not capable of being laid in herringbone bond and by their plan geometry when keyed together resist the spread of joints parallel to the longitudinal axes of the units and rely on their dimensional accuracy and accuracy of laying to interlock on the other faces.

60mm

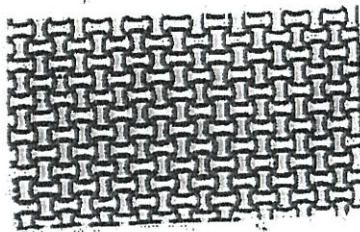


Figure 4. Laying patterns.

- C Rectangular units with chamfers between the upper (wearing) surface and the sides or rumble units which do not key together and rely on their dimensional accuracy and accuracy of laying to develop interlock.

75mm

Table 2: Paving Unit Shape Classification

7.0 Surface Drainage

After only a short period in service joints between paving units become effectively sealed. Surface drainage can therefore be provided in the normal way, providing attention is paid to laying the pavement to proper falls. As crossovers will normally be constructed using light compaction equipment it is recommended that falls should be at least 1%.

8.0 Construction

Being relatively small in area, vehicle footpath crossing construction is best

undertaken with simple and readily available equipment.

8.1 Existing Ground

The existing ground should be broken out and shaped as closely as practicable to the required dimension and levels. Compaction of the ground should be carried out using overlapping passes of a vibrating plate compactor which can also be utilised for the sub-base and sand bedding layer.

8.2 Sub-base

The sub-base material should be loosely spread in one layer to the required level and if necessary water added before compaction to reach the desired moisture content. Again using the vibrating plate compactor in a series of overlapping passes the sub-base should be thoroughly compacted. The sub-base construction should extend beneath any new edge restraints constructed as part of the pavement and be closely trimmed to the required levels. The sand bedding should not be used to fill undulations in this will almost certainly lead to uneven compaction of the sand bedding, resulting in an uneven surface in the completed footpath crossing.

8.3 Edge Restraints

Most interlocking concrete paving units have a chamfer between the top face and the sides. The finished level of new edge restraints should therefore be slightly lower than adjacent paving units to ensure that water can drain freely from channels formed by abutting units. In the case of existing edge restraints, the depth of excavation should be adjusted to achieve the same result.

8.4 Sand Bedding Layer

The bedding material needs to be a well-graded concrete sand passing a 5mm sieve. Bricklayers sand and single sized dune sands are not suitable for the purpose. Since the appearance of the pavement surface will usually

be important, the sand should be free of deleterious soluble salts or other contaminants which could contribute to efflorescence. At the time of placing, the sand should have a uniform moisture content.

The sand should be spread and screeded in a loose condition. No attempt should be made to compact the sand layer before or after the actual screeding. The loosely screeded sand layer will have a small surcharge to allow for compaction to the recommended thickness of 30mm. In accidental pre-compaction occurs by foot traffic, rain, or even where sand is left uncovered overnight, the sand layer must be brought back to its loose condition before further paving proceeds.

8.5 Laying Paving Units

Having adopted a suitable laying pattern, paving normally commences from the lowest level edge restraint. Where the footpath crossing and driveway are to be constructed at the same time, using interlocking paving, the starting point may be either at the kerb line or the end of the driveway, depending on which is the lower point.

Paving units should be placed with 2 to 4mm gaps between adjacent units, maintaining correct joint alignment but without pre-compaction of the sand bedding layer. It is important that the joint width between paving units be maintained. If paving units are placed directly against each other it may be difficult to maintain an even laying pattern and to compact the sand bedding without damage to the units. Complete rows of full units should be laid first. Any gaps at the pavement edge adjacent to edge restraints can be neatly filled by cutting units to size by hydraulic guillotine or bolster. To fill small gaps less than a quarter block in size, dry packed mortar should be used.

8.6 Compaction and Joint Filling

After laying, the units should be immediately compacted and brought to level by not less than three passes of the vibrating plate compactor. The plate should have sufficient area to

simultaneously cover 12 units. As soon as possible after compaction, sand for joint filling should be broomed over the pavement and into the joints. Excess sand should be removed as soon as joints are filled.

Ideally the sand used for joint filling should be finer than for the bedding layer with a nominal maximum particle size of 2mm. Sand used for joint filling should be free from salts or contaminants likely to cause efflorescence. However, the use of a bricklayers sand or the addition of a small amount of silty material to the joint filling sand can be of considerable benefit in reducing water penetration in the early life of the pavement.

8.7 Opening to Traffic

Interlocking concrete pavement responds favourably to early trafficking which is therefore recommended. Traffic should be encouraged to use the pavement immediately in completion of joint filling, with wheel paths varying to cover the greatest possible area. Any deformation tends to occur in the early life of the pavement, the pavement gaining rigidity with repeated load applications.

An excellent check on the adequacy of construction methods and the future performance of the pavement is to put a straight edge across the pavement a short time after it has gone into service under traffic. Deformation from constructed profiles should not exceed, say, 10mm over a 2m length after the first 500 to 1000 standard axle loads. (Note that the likely deformation under traffic tends to be greater with those units that do not interlock on all four sides). This will provide a most satisfactory surface for pedestrians.

References

- (1) J. Hodgkinson and C. S. Morrish, Interim Guide to the Design of Interlocking Concrete Pavements for Vehicular Traffic (TNS4).

Cement & Concrete Association of
Australia, March 1980.

- (2) J. Hodgkinson, Interim Outline
Specification for Construction of
Trafficked Interlocking Concrete
Pavements (TN35), Cement & Concrete
Association of Australia, March
1980.
- (3) Interim Specification for Inter-
locking Concrete Paving Units (MA 15)
Concrete Masonry Association of
Australia, March 1980.

MAJLIS BANDARAYA PETALING JAYA

M.B.P.J STANDARD SPECIFICATION F SPECIFICATION FOR RUBBLE WALLS

QUALITY OF RUBBLE

1. All rubble wall used shall be of quality from an approved quarry. Stones which in the opinion of the S.O is not of sound quality or from an approved quarry will be reject. In a case the contractor shall remove all stones from the site.

SIZE

2. The sizes to be used shall vary from 150mm. – 225mm. and shall be work. The rubble wall shall be not less than 22 mm. thick.

SETTING

3. The rubble shall be well set in 1:3 cement mortar and all joints shall be well pointed in cement mortar.

FOUNDATIONS

4. The rubble wall shall be set on a concrete foundation base. The base shall be 600mm. x 150mm. Spanning the whole length of the wall to be constructed / repaired.

All concrete used shall be mixed for at least two minutes in an approved mechanical mixer hand mixing will only be allowed for small quantities of concrete and in this case 10% extra cement should be added to the proportion specified below.

The concrete mix shall be 1:3:6 and the proportion shall be measured by volume. The top of the foundation base shall in all case not extend above the soffit level at the drain or as shown in the drawings.

WEEP HOLSE

5. Pipe weep holes shall be provide 1200mm. Apart longitudinally near the base OR where S.O directs. Where the height of the rubble wall exceeds 155mm. , two row of weep holes shall be provided and height in excess of 1800mm. Shall have a row for every 900mm. Excess in height.

The sizes of the pipes used as weep holes shall be not less than 75 or 100mm. int. dia. An shall continue through the whole thickness of the wall. The rear end of the weep holes shall filled to depth of least 150mm. with 37.5 – 50mm. aggregate.

The gradient for the weep holes shall be so arranged so as to enable free flow of water from behind the wall into the open drains.

SPECIFICATION FOR ASTM
RETROREFLECTIVE SHEETING FOR
PERMANENT SIGNING

(High Intensity Prismatic Grade)

Sept 2004

- 2.2 Coefficient of Retroreflection: The coefficients of retroreflection shall be determined in accordance with ASTM E-810, for the minimum requirements of Table II. This table contains "core" values as found in ASTM D 4956, to characterize sheeting performance throughout its expected range of use.

Table II High Intensity Prismatic
Minimum Coefficient of Retroreflection
(cd/lux/m²)

White			
4:0	360	170	
2:0	150	72	
Yellow			
4:0	270	135	
2:0	110	54	
Red			
4:0	65	30	
2:0	27	13	
Green			
4:0	50	25	
2:0	21	10	
Blue			
4:0	30	14	
2:0	13	6.0	

- 2.3 Certification of Sheeting: All sheeting submitted during the tender process shall provide proof of testing certificate to international standard such as to ASTM D4956-01 by accredited third party laboratory
- 2.4 The sheeting manufacturer shall provide the end user with product performance warranty provided that the sheeting was applied in accordance to the manufacturer's recommendation methods and onto the manufacturer's approved substrate

Table B - Color Specification Limits (Daytime)*

Color	x	y	x	y	x	y	x	y	Reflectance Limit (Y)	
									Min	Max
White	.303	.300	.368	.366	.340	.393	.274	.329	27.0	
Yellow	.498	.412	.557	.442	.479	.520	.438	.472	15.0	40.0
Green ^a	.026	.399	.166	.364	.286	.446	.207	.771	3.0	8.0
Red	.648	.351	.735	.265	.629	.281	.565	.346	2.5	11.0
Blue ^a	.140	.035	.244	.210	.190	.255	.065	.216	1.0	10.0
Brown	.430	.340	.610	.390	.550	.450	.430	.390	3.0	9.0

*The four pairs of chromaticity coordinates determine the acceptable color in terms of the CIE 1931 standard colorimetric system measured with CIE standard illuminant D65.

^aThe saturation limit of green and blue may extend to the border of the CIE chromaticity locus for spectral colors.

B. Color

Colors of the retroreflective sheeting conform to Table B when measured in accordance with Federal Specification FP-96 or ASTM D4956.

C. Adhesives

Series 2870 sheetings have a heat activated adhesive which conforms to the adhesive requirements for class 2 of FP-96 and ASTM D4956. The heat-activated adhesive is designed for use in the heat-lamp-vacuum applicator. Prior to vacuum application, sheeting is preapplied onto the sign substrate with a hand squeeze roll applicator.

Series 3870 sheetings have a pressure-sensitive adhesive which conforms to the adhesive requirements for class 1 of FP-96. The pressure sensitive adhesive lends itself to large scale, rapid production of signs. Applications should be made at temperatures above 65°F (18°C).

Series 5870 sheetings have High Tack adhesive, an aggressive pressure sensitive adhesive which conforms to the adhesive requirements for class 4 of ASTM D4956. It is particularly suited for application at temperatures as low as -10°F (-23°C).

Series 6870 sheetings have a conformable aluminum foil backing with a pressure sensitive adhesive. The material is designed for application to moderately rough or porous metal, wood, or masonry surfaces. Prior to application such surfaces generally require priming with 3M™ Scotchlite™ Primer 4448. Applications may be made at temperatures as low as 35°F (20°C).

Series 9800 sheetings have a thin, semi-rigid aluminum backing coated with an aggressive pressure-sensitive adhesive. The material is intended for application in the sign shop or in the field to a variety of clean, smooth, weather resistant surfaces, including old sign surfaces meeting these criteria, when air and application surface temperatures are above 50°F (10°C).

Series 3860 sheetings have the edge perforated for electronic cutting machines. Series 3860 sheeting is intended for the production of traffic control letters, legends, logos, etc. These sheetings meet requirements for series 3800 sheeting.

Test Methods for Adhesive and Film Properties

Unless otherwise specified in attachments, the adhesive and film properties listed below are applicable to all encapsulated lens materials.

A. Standard Conditioning

All mounted and unmounted test specimens shall be conditioned for 24 hours at 73°F ± 2°F (23° ± 1°C) and 50% ± 4% R.H. before testing.

B. Standard Test Panel and Application

Unless otherwise specified, the reflective sheeting shall be applied according to the manufacturer's recommendations to smooth 0.040 inches minimum thickness 6061-T6, 5052-H38 or equivalent aluminum panels that have been degreased and lightly acid etched. Lack of contamination of test panels must be confirmed by passing water break test and tape snap test as described in Information Folder 1.7.

Pressure Sensitive Adhesive (See chart following for recommended application for each Series)

1. 48" squeeze roll applicator with approved heater (Reference IF 1.4).
2. Hand squeeze roll applicator (Reference IF 1.6).
3. Hand application (Reference IF 1.5).

Information Folder (IF) Reference Subjects:

IF 1.2: Heat-Lamp Vacuum Application (HLVA)

IF 1.4 Squeeze Roll Applicator, with and without heater (ISRA)

IF 1.5: Hand Application Instructions

IF 1.6 Hand Squeeze Roll Application (HSRA)

IF 1.7: Sign Base Surface Preparation

IF 1.9: Application of System 5 Series 9800

B. Substrates

For traffic sign use, most clean, smooth, relatively non-porous, flat, rigid, weather resistant surfaces can be prepared for application of retroreflective sheeting. Common substrates found to be most reliably durable have been properly prepared sheet aluminum and extrusions.

Users are urged to carefully evaluate all others. Sign failures caused by the substrate or improper surface preparation are not covered by the 3M Sheeting Warranty. See Information Folder 1.7.

C. Process Colors

Scotchlite high intensity grade sheeting may be processed into traffic signs by screen processing, using 3M™ Scotchlite™ Process Color Series 880. Series 880 process color is designed for compatibility with these encapsulated lens sheetings; use of other process color series is not recommended or warranted.

Series 880 process color can be screen processed at 60-100°F (16-38°C) at relative humidity of 20-50%. Use of PE 157 screen mesh with a fill pass is recommended. See Information Folder 1.8 for details.

3M assumes no responsibility for failure of sign face legends or backgrounds that have been processed with non-3M process colors.

High Intensity Grade Sheeting Traffic Sign Application Reference Guide¹

Sign Background Sheeting	Direct Applied ² Legend Material	Recommended Application	
		Background	Copy
1. 2870 Series (Screened)	N/A	Complete High Intensity cycle in HLVA (IF 1.2)	N/A
2. 2870 Series	2870 Series	One minute cycle under vacuum in HLVA (IF 1.2) (Note: Avoid double heat cycle)	High Intensity cycle in HLVA (IF 1.2)
3. 2870 Series	3870 Series Black 3625 or 1170 E.C. Film 180-12 ³	Complete High Intensity cycle in HLVA (IF 1.2)	Hand Apply with plastic squeeze or hand rubber roller (IF 1.3)
4. 2870 Series (Screened face)	N/A	HSRA (IF 1.6)	N/A
5. 3870, 3871 ⁴ Blue or Clear Liner	3870 Series Black 3625-12, or 1170 Series E.C. Film 180-12 ³	ISRA room temp. HSRA	Hand Apply
6. 3872, 3875, 3877, 3879	3870 Series	Nominal 18" and narrower width ISRA HSRA Room Temp. 18"-48" width ISRA with approved heater.	Hand Apply
7. 3872, 3875, 3877, 3879 Blue or Clear Liner	3870 Series	RT one aluminum 120°F Cal Rodden for plywood	Hand Apply
8. Porcelain	3870 Series	N/A	Not recommended Use Demonstrable copy only.
9. Painted surfaces	3870 Series		Hand apply (IF 1.5). Use most suitable primer for intended use (IF 1.7).
10. Moderately rough or porous metal, wood or masonry surfaces.	6870 Series		Hand apply priming the surface with 444B Scotchlite™ primer prior to application is generally required.
11. Weathered Sheeting 9880 Series	N/A		HSRA or hand apply (IF 1.3)

¹Additional product combinations exist but are not recommended due to different durability, poor contrast ratios or labor intensive fabrication procedures.
²Reverse or direct screen processing of Series 1170 E.C. Film is recommended for signs with narrow stroke width legends, such as smaller street name signs.
³Scotchlite™ Reflective Sheeting Engineer Grade is not recommended for use on high intensity grade sheeting.
⁴Applications of 3800 Series Sheeting on PLYWOOD substrates requires an ISRA with an approved heater. See Product Bulletin 3800.

D. Clear Coating and Edge Sealing

Edge sealing of high intensity grade sheeting is generally not required. Following extended exposure, airborne dust particles may become trapped within the row of cut hexagonal cells along the sheeting edge. This should have no adverse effect upon sign performance. Reverse or direct screen processing or Series 1170 E.C. Film is recommended for signs with narrow stroke width legends, such as smaller street name signs.

Literature Reference

- PB 880 3M™ Scotchlite™ Process Color Series 880
- IF 1.1 Instructions for Heat Lamp Vacuum Applicators
- IF 1.2 Application Instructions for Heat Lamp Vacuum Applicators
- IF 1.3 Instructions for Squeeze Roll Applicator
- IF 1.4 Application Instructions for Squeeze Roll Application
- IF 1.5 Hand Application Instructions for 3M™ Scotchlite™ Reflective Sheeting and 3M™ Scotchcal™ Films with Pressure Sensitive Adhesive
- IF 1.6 Instructions for Hand Squeeze Roll Application
- IF 1.7 Sign Base Surface Preparation for 3M™ Scotchlite™ Reflective Sheeting Application
- IF 1.8 Application of 3M™ Scotchlite™ Process Color 700 and 800 on Scotchlite Reflective Sheatings
- IF 1.9 Instructions for Application of 3M™ Scotchlite™ High Intensity System 5 Reflective Sheeting
- IF 1.10 Cutting, Matching, Premasking and Prespacing of 3M™ Scotchlite™ Reflective Sheatings and Films
- IF 1.11 Storage, Packing, Installation, Sign Positioning, Cleaning, Nighttime Inspection, Sign Face Replacement and Sheeting Removal

Additional References

- Standard Specification for Retroreflective Sheeting for Traffic Control Type III
ASTM D 4956
- Federal Specification, FP 96, 1996
Section 718.01 Retroreflective Sheeting
FP-96 (FHWA)
- Color Measurement
ASTM E 1347
ASTM E 1349
- Gloss Measurement
ASTM D 523
- Retroreflection Measurement
ASTM E 810
- Impact Resistance
ASTM D 2794

FOR INFORMATION OR ASSISTANCE CALL:

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Important Notice

All statements, technical information and recommendations contained herein are based on tests we believe to be reliable, but the accuracy or completeness thereof is not guaranteed, and the following is made in lieu of all warranties, express or implied. Seller's and manufacturer's only obligation shall be to replace such quantity of the product proved to be defective. Neither seller nor manufacturer shall be liable for any injury, loss or damage, direct or consequential, arising out of the use of or the inability to use the product. Before using, user shall determine the suitability of the product for his/her intended use, and user assumes all risk and liability whatsoever in connection therewith. Statements or recommendations not contained herein shall have no force or effect unless in an agreement signed by officers of seller and manufacturer.



Traffic Control Materials Division
3M Center, Building 225-5S-08
P.O. Box 33225
St. Paul, MN 55133-3225
www.3M.com/tcm

3M Canada
P.O. Box 5757
London, Ontario N6A 4T1

3M México, S.A. de C.V.
Av. Santa Fe No. 55
Col. Santa Fe, Del. Álvaro Obregón
México, D.F. 01210

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MAJLIS BANDARAYA PETALING JAYA

Standard Specification For Supply Of Black Earth & Close Turfing

1. **Site Clearance**
The contractor is to clear the entire region marked in red colour as indicated on plan of all vegetation, debris, bushes, lalang, stones etc. The boundary where clearing work should be done well in advance of the minor trimming and turfing. All roots of trees, shrubs etc. Must be grubbed up and cart away.
2. **Minor Trimming of Areas to be Turfed**
Before the turfing work can be carried out, the contractor will be responsible to do minor trimming at isolated places especially at the slope. The Contractor is expected to include the cost of trimming into the cost of turfing. No extra claim will be entertained for trimming of ground.
3. **Supply of Black Earth**
The contractor is required to supply and spread a 1" layer of approved black earth as top soil for close turfing the entire area shown in red colour on plan. The black earth supplied must be of suitable quality as top soil for close turfing purposes. Its quality is subject to the approval by the S.O. or his representative. If requested by the S.O., the contractor may be required to supply a lorry load as sample. The sample will have to be placed at a particular spot in the vicinity of the site concerned for the purpose of comparison with the loads of black earth supplied subsequently.
4. **Close Turfing**
The Entire area coloured red on plan should be close turfed unless otherwise specified, with approved wide blade couch grass (cow grass) including the sloping area.
All turfing on slopes should be securely pegged. The contractor shall ensure that the grass are watered regularly until satisfactorily established. The contractor will be liable for the maintenance of the turfing for a period of 6 month and should at his own expense returf those isolated cases where the turfing is not well established.
5. **Payments of work Done**
The payment of this contract shall be based on the actual area measured and shall be priced according to the rates quoted.
6. **Turfing on Slope**
All ground with inclination of more than 20% with respect to the horizontal will be regarded as slope ground and for turfing work purpose secured pegs will be required.
7. **Condition of Tendering**
All contractors intending to tender for this job are advised to visit the site and if requested arrangement, will be made for any clarifications that may be sought.

SPECIFICATION FOR SUPPLY AND LAY OF P.C. KERBS

- D/1. All concrete kerbs shall be cast in steel moulds to the required sizes and dimensions as shown on plan.
- D/2. The cost per meter run shall include for excavation, concrete to base, haunching, cost of supplying and fixing of kerbs, filling up with earth behind the kerbs up to 1,000 mm width including levelling off and compaction. The portion of road in front of kerb to be made good with 75 mm deep. 1:3:6 - 20 mm concrete.
- D/3. The concrete to base and haunching shall be 1:3:6 mix./20 mm agg.
- D/4. The precast concrete kerbs shall be of 1:2:4 mix./20 agg. and the kerbs shall be allowed to cure for at least 14 days before use. A sample must be submitted for approval before use of the kerbs.
- D/5. Outlet holes for scupper drains shall be provided at a distance of not greater than 10 m intervals and whenever required a round corner to be not less than 1.5 m interval.
- D/6. The Quantities are provisional only and payment will be made for the actual work carried out on site.
- D/7. All corner kerbs shall be cast with the appropriate radius.
- D/8. All precast concrete kerbs shall have a smooth exposed surface free from honeycomb/segregation and approval from the S.O.

**MAJLIS PERBANDARAN PETALING JAYA
SPECIFICATION
FOR THE SUPPLY OF ROAD TRAFFIC SIGN FOR
MAJLIS PERBANDARAN PETALING JAYA**

TRAFFIC SIGNS

General Conditions of Contract

This specification is to be read in conjunction with the General Conditions of Contract.

Description

This work shall consist of the supply, assembly, erection and installation of sign faces, sign posts and backing frames, all in accordance with the details shown on the Drawings and as specified herein. It shall include all excavation and backfilling, all necessary foundations, anchorages, fixtures and fastenings, brackets, lighting units and electrical installations where required, application of paints and finishes, etc., to complete the work all to the satisfaction of the S.O.

Sign Definitions

For the purpose of this Specification, traffic signs are defined as follows:

- i) Non-illuminated signs are those signs which are not lit either internally or externally and shall be retro-reflective;
- ii) Externally illuminated signs are those which comprise either retro-reflective or non-retro-reflective facing with external lighting luminaries

Sign Classification

For the purpose of this Specification, the following classifications shall apply:

(a) **Permanent Traffic signs**

Any of the traffic signs defined in Sub-Section above or any part thereof as designated on the Drawings or as directed by the S.O. to remain in position upon completion of the works.

(b) **Temporary Traffic Signs**

Any of the traffic signs defined in Sub-Section above or any part thereof designed by the Contractor with the approval of the S.O. which will not remain in position at the completion of the works.

Standards

All traffic signs shall, except where specified otherwise, comply with the requirements of ARAHAN TEKNIK (JALAN) series 2, published by Cawangan Jalan, Ibu Pejabat JKR, Kuala Lumpur.

Permanent Traffic Signs

General Requirements

Permanent traffic signs shall be constructed, assembled, located and erected as shown on the Drawings or as directed by the S.O.

Each complete traffic sign or part thereof shall be capable of passing the test specified in B.S. 873.

All externally illuminated traffic signs shall comply with category 1 luminance of B.S. 873 unless otherwise shown on the Drawings.

Before the commencement of fabrication of any traffic sign, unless otherwise shown on the Drawings, the Contractor shall submit for the S.O.'s approval the details of fabrication drawings for all signs.

All traffic sign housings shall be provided with vandal and weather resistant locks. Keys, in the quantities determined by the S.O., shall be provided to the S.O. Types of lock shall be kept to a minimum.

Traffic signs shall be carefully handled to prevent damage (method shall include the use of proper slings), and shall be transported and stored in accordance with the manufacturer's instructions.

Wide Angle Prismatic Lens Retro-Reflective Sheeting

Wide-angle prismatic lens Retro-Reflective sheeting (WAPLERRS) material shall be used for the faces of all signs.

The color required is to conform to the Road Traffic Ordinance 1958 color for Traffic Signs or any new amendments thereafter

Samples (General)

Samples of the following traffic signs shall be submitted together with the tender.

- i. Size 750mm dia. Circular shape 'No Entry' (RP 4)
- ii. Size 900mm dia. Octagonal shape 'Berhenti' (RP 1)
- iii. Size 750mm dia. Triangular shape 'Berlalu' (RP13)
- iv. Size 750mm dia. Square shape 'Lampu Isyarat Dihadapan' (WD22)

Only samples submitted by the successful contractor shall be retained until the expiration of this contract. (Sample of unsuccessful tenderers will be returned)

It should be noted that the quality of the samples submitted should be taken into account in assessing the tenders received and that the lowest quotation will not necessarily be accepted.

Samples shall be clearly marked with the name and address of the Contractor. Tenders received without sample shall not be considered.

Method of Application of Wide Angle Prismatic Lens Retro Reflective Sheeting

The Contractor will start their work after get approval from S.O based on the samples.

The surface to which the wide-angle prismatic lens retro reflective sheeting is to be applied shall perfectly smooth and shall be free of all irregularities. The aluminum plate shall be cleansed by washing and edging with cold water and a suitable detergent. It should be noted that the manufactures recommend common household detergents. Washing should be continued until all oil, grease or other foreign material has been removed and the surface shall then flushed with cold water only. Soap Shall Not Be Used For Any Process In This Connection.

On completion of cleaning of the surface, apply the wide angle prismatic lens retro reflective sheeting by removing the protective paper backing as recommend by the manufacturer. The face of the sign after fixing on to the FRP sheet shall be covered by the paper backing to protect the face from scratching and defacing during handling and delivery.

Vacuum Applicator

The approved method of application for wide angle prismatic lens retro reflective sheeting is by means of a vacuum heat applicator.

Foundations

The type and size of foundations for permanent traffic signs shall be as shown on the Drawings and, unless otherwise stated therein, shall comply with this Specification.

All excavations, erection of formworks, placing of reinforcement, etc., for foundations shall be carried out in compliance with this Specification and shall be approved by the S.O. before placing of concrete and backfilling.

Unless otherwise shown on the Drawings, signs supported by a single post placed in the ground shall have the post installed centrally in 300 mm diameter holes filled with grade 20/20 concrete complying with Section 9 of this Specification to within 500 mm of the ground surface. The hole shall be excavated either mechanically or manually.

Posts shall be supported for a minimum of three (3) days after placing the concrete. Backfilling shall not take place until at least 48 hours after placing the concrete, or other period agreed by the S.O.

Where signs are illuminated, provision shall be made for cable entry through the foundation by means of ducting as shown on the Drawings.

Where pockets are formed in concrete foundations their plan dimensions shall be 100 mm larger than of the post.

All backfilling of foundation pits and reinstatement of existing surfaces above the foundations shall comply with the relevant requirements of this Specification.

Posts

Posts for permanent traffic signs shall be as shown on the Drawings and shall comply with B.S. 873.

Posts shall be of tubular hollow section Galvanized Iron, Class A of not less than 75 mm outside diameter complying with B.S. 1387.

Unless otherwise shown on the Drawing, posts shall not protrude above the top of the sign unless supporting an external luminary where the protrusion shall be kept to a minimum.

Signs created on a single post shall be positioned so that the post is in the center of the sign, unless otherwise shown on the Drawings.

Compartments for electrical equipment shall be as shown on the drawings. In the case of signs supported by more than one post, such compartments shall be on the post furthest from the carriageway unless otherwise directed by the S.O.

Flange plates shall have holes or slots as shown on the drawings to accommodate any holding down bolts.

Sign Plates

All permanent sign plates shall be as shown on the Drawings and shall comply with B.S. 873. Sign plates shall be made of Fiber Reinforced Plastic (FRP) sheet with a minimum thickness of 3 mm.

All Fiber Reinforced Plastic (FRP) sheet shall be of Hand-Lay-Up process consisting of 2 glass mats in 3 mm thickness. Resin to be Polyester Resin. Color shall be homogenous black. Finishing shall be gel coated on one side and semi-smooth on other.

If material is found unsatisfactory, proof from manufactures/importers as to quality may be requested for.

A sign not exceeding 1.2 m in height and 2.4 m in width shall be made from a single sheet.

Where more than one sheet is used to make up a sign plate, the sheets shall be rectangular, of approximately the same size and shape, and the position of the joints shall be to the approval of the S.O.

Sign plates shall be drilled at all locations where rivets or bolts are required for attaching the plate to the backing frame or fixings before application of the sign face. However, riveting shall be carried out only after the application of the sign face.

Subject to the S.O.'s approval, double sided "Very High Bond" (V.H.B.) tapes may be used as an alternative to rivets. Nevertheless, the tape shall comply with the following requirements: -

- i) Peel Adhesion - 440 N per 100 mm
- ii) Tensile Adhesion - 910 kPa;
- iii) Dynamic Shear - 550 kPa.

Where top and bottom light spill screens are required as shown on the Drawings, these shall extend for the whole width of the sign, be fabricated out of the same material as the sign plate and shall have corners cut to the same radius as the other corners of the sign plate.

Top and bottom light spill screens shall be considered part of the sign plate and any stiffeners and mounting fittings shall be designed to accommodate the combined size.

Sign Faces

Sign faces for permanent traffic signs shall be as shown on the Drawings and shall comply with the 'Draft Malaysian Standard Specification for Reflective Sign Face Materials (SIRIM Reference D111 (ISCF)), and on replacement of this draft, the respective Malaysian Standard Specification.

All retro-reflective plastic sheeting shall be fixed in accordance with the manufacturer's instructions.

Unless otherwise agreed by the S.O., sign faces shall be formed from a single piece of plastic sheeting.

Where, with the agreement of the S.O., more than one plastic sheet is used, the number of sheets shall be kept to a minimum. All faces up to 1 m in size shall be produced with a single sheet and joint will be accepted.

Only vertical and horizontal joints shall be permitted and all joints in plastic sheeting shall be overlapped by not less than 6 mm. The overlap in the horizontal joints shall be from the top and the vertical joints be from the left; butt joints in plastic sheeting will not be accepted.

Plastic sheeting shall be applied evenly over the whole surface of the sign plate and shall adhere fully. It shall be free from twists, cracks, folds or cuts, air bubbles and other blemishes.

All plastic sheeting used on the same sign shall be carefully matched for color to produce a uniform appearance both by day and by night. Non-uniform shades of color on any sign will not be accepted.

The edge of all plastic sheeting shall be sealed. Edge sealing shall be continuous and uniform and shall also be applied to all bolt and rivet holes.

A coat of lacquer shall be applied to the whole of the face and edge of each finished sign plate at the time of fabrication. The lacquer shall be continuous and uniform and shall be the type specified or supplied by the manufacturer of the sheeting material.

Where sheeting is applied to extruded sections by pressure roller, it shall extend over the top bottom edges of these sections by not less than 3 mm.

Any cut-out letters, numerals, symbols and borders shall be of material compatible with the sheeting to which they are applied. They shall be applied in accordance with the sheeting manufacturer's.

Screen processed letters, numerals, symbols and borders shall be screen printed with materials in accordance with the sheeting manufacturer's instructions. Any inks, pastes and finishing coats used shall be compatible with the sheeting material.

The finish of all sign faces shall be capable of passing the tests described in B.S. 873, and the standards of fabrication and workmanship shall be such that under normal conditions of service and proper maintenance, the sign faces shall last not less than 5 years without any serious blemishes or defects for Engineering Grade retro-reflective sheeting and 8 years for High Intensity retro-reflective sheeting. The Contractor shall furnish to the S.O. a letter of warranty for the specified period for all sign faces from the supplier of the sheeting or the sign fabricator.

Backing Frames

Backing frames for permanent traffic signs shall be as shown on the Drawings and shall comply with this Specification.

Signs exceeding 600 mm in height or width shall be stiffened by means of angles while signs exceeding 1 m in height or width shall have a backing frame fabricated from 40 mm x 3 mm angles. The angles used for the backing frames shall be made from hot dipped galvanized iron.

The angles shall be welded, bolted or riveted together to form the backing frames as shown on the Drawings.

Backing frames shall not project beyond the sign.

Where large signs are built in sections, the backing frames of these sections shall be bolted together with 8 mm diameter bolts at not more than 200 mm centers.

The details of joints between angles of the backing frame and of joints between sections of large signs shall be to the approval of the S.O.

The sign plate shall be riveted to the backing frame after the application of the sign face.

Sign Dating

Sign dating sticker (150mm x 150mm) shall be provided by contractor on the back of every traffic sign. Example of a sign dating sticker is as shown

The objective of a sign dating sticker on a traffic sign are identified as follows:-

- i. To have a uniform sign dating implementation to all end-users and concession companies.
- ii. Allows agencies to know and determine the useful life of the sheeting, average annual cost of the sheeting and actual performance versus performance claims of the sheeting.
- iii. Allow agencies to plan budget and program installation, maintenance and replacement on a programmed basis.
- iv. As evidence of installation dates and attention to problem areas.
- v. Allows recovery if materials fails to meet warranty claims.
- vi. The sign dating sticker can be used as an effective tool for sign inventory maintenance. The usage of color coding enable engineers and its users to have quick and easy reference on the fabrication date and year, the contractor/sign manufacturer and the sheeting manufacturer.

Construction and Assembly

Traffic signs shall be constructed and assembled as shown on the Drawings and shall comply with B.S. 873.

All sign plates, backing frames, purlins, posts and other components shall be de-burred prior to assembly.

Where framing and stiffening are not an integral part of the plate, their joints shall be welded or joined with suitable brackets utilizing nuts, bolts and washers.

Where purlins are adopted, they shall be attached to each vertical member of the backing frame and the sign stiffening and framing shall be continuous in the vertical direction. Unless otherwise permitted by the S.O., purlins shall be spaced equally apart. Connections shall be made at every point where a purlins crosses a post.

Where purlins are not adopted, the sign stiffening and framing shall be continuous in the horizontal direction.

All rivets and other devices used in the fixing of sign plates to their stiffeners or backing frames, or those used in the construction of housings, shall be of a material compatible with the materials being joined.

Spacing of rivets or other devices used in the fixing of sign plates to their stiffeners or backing frames shall be uniform and shall not exceed 150 mm around the outside edge of any sheet or section of a sheet, and shall not exceed 300 mm on cross braces. Hollow rivets shall be filled with a plastic plug flush with the head of the rivet.

An additional washer of neoprene, nylon or other material approved by the S.O. shall be used against the sign face to protect it from the effects of any metal nuts, bolts, washers and/or screws.

Where traffic signs, including external lighting luminaries or their supports, are required to have holding down bolt fixings, the bolts shall be lightly greased before final installation and their anchorages shall be installed so as to achieve the holdings, torque settings and requirements shown on the Drawings.

Sign plates shall be connected to posts by a method approved by the S.O. Banding system shall be of stainless steel.

Where ferrous components are permitted, any drilling of such components shall be completed before the application of any finish.

Any hole drilled to accommodate rivets or bolts in plates with plastic sheeting shall, immediately prior to the insertion of the rivet or bolt, have a clear lacquer, as recommended by the manufacturer of the plastic sheeting, applied to its edge to prevent the ingress of moisture. The surfaces of rivets or bolts exposed on the sign face shall be colored by a material approved by the S.O. to match that part of the face.

Traffic signs to be erected on road lighting columns shall have fixings compatible with the column cross-section and finish. Unless otherwise permitted by the S.O., columns shall not be drilled and wiring shall be contained in approved external conduits.

In addition to the requirements of the Specification, variable message traffic signs shall be of a type approved by the relevant authorities.

Location and Erection

The approximate location of each permanent traffic sign shall be as shown on the Drawings. All traffic signs shall have their exact location determined by the S.O. and recorded on the as-built Drawings.

All posts shall be erected plumb and where two or more posts are provided for any one sign, the face of the posts shall be lined up.

Signs erected on two posts shall have each post positioned so that the distance from the center of the post to the edge of the sign plate is 300 mm unless otherwise directed by S.O.

Any pockets formed in concrete foundations to receive the posts shall immediately prior to erection be cleaned out. The posts shall be placed centrally in the pockets and be bedded on and filled up to finished foundation level with grade 20/20 concrete.

Traffic signs mounted on posts, except those on gantries, shall be erected to have their faces plumb and orientated in relation to the carriageway in accordance with ARAHAN TEKNIK (JALAN) 2B/85.

Traffic signs mounted on gantries, shall be erected as shown on the drawings. No traffic sign shall be dismantled, resited or removed without prior approval from the S.O.

Covering of permanent Traffic Signs.

Where it is required in the Contract that permanent traffic signs are to be blanked-out or are to have an alternative message, the covering to be adopted shall comply with the following requirements.

The covering shall be 1.5 mm (16 S.W.G) thick made from a material compatible with that of the sign plate, or a material approved by the S.O.

Cover plates shall be fixed by means of 5 mm diameter stainless steel bolts, washers and nuts or non-ferrous rivets not more than 600 mm apart, the bolts passing through 12 mm diameter, 5 mm thick plastic distance pieces between the sign face and cover plate. Any holes remaining in the finished sign face shall be filled with blocked rivets colored on the face by methods approved by the S.O.

Where self-adhesive plastic film is used, it shall be compatible with the sign face materials and be applied and removed in compliance with the manufacturer's instructions.

Any loose covering used must be sufficiently opaque to prevent reflection from the covered sign and be securely fastened to the back of the sign. Under no circumstances shall tape or other adhesive material be applied to the face of the sign. A minimum space of 50 mm shall be left between the covering and the face to permit airflow over the sign.

Traffic signs that are to be covered shall not be erected on trafficked highways without the covering in place.

Removal of any covering shall be carried out with minimum disturbance to traffic and only after the S.O. has given his approval.

Irrespective of any requirement in the Contract to cover signs, any traffic sign erected at such time that its legend does not relate either wholly or in part to the traffic movement and route in operation, shall have its sign face securely covered with one of the materials described above until such time as the S.O. authorizes its removal.

Traffic Signs On Gantries

Where traffic signs are erected on gantries, the signs shall comply with the relevant requirements of this Specification.

Fabrication and construction of gantries shall be shown on the Drawings and as directed by S.O.

Preparation and Finish of Metal and Other Surfaces

Traffic signs shall be prepared, protected against corrosion and finished in compliance with B.S 873.

Faces of sign plates shall be prepared to receive sign face materials in compliance with B.S 873 and in accordance with the manufacturer's recommendations.

Steel backing frames, fittings and purlins shall be prepared and protected in compliance with B.S 873.

Steel posts and posts housings shall be prepared and protected in compliance with B.S 873.

Backs of Fiber Reinforced Plastic (FRP) sheets forming plate signs and external parts of luminaires housings and other permanently expose components shall, to prevent retro-reflection, be dull with paint using a method approved by the S.O.

Ferrous steel shall be finished both inside and out by galvanizing, electroplating or application of zinc or aluminum spray or other equivalent finish approved by the S.O. aluminum and other metals shall be left untreated unless otherwise shown on the Drawings.

Unless otherwise shown on the Drawings, stainless steel shall be left untreated except where the component is visible against the sign face when it shall be colored on the face by methods approved by the S.O.

External surfaces shall be prepared and protected as described in the Contract. Cabinets and feeder pillars shall have final coats of paint applied on Site after final installation, including the fitting of any internal apparatus required as part of the permanent Works. Internal surfaces shall, unless otherwise shown on the Drawings, receive the same treatment as for external surfaces except that final paint coats shall be applied before internal components are installed.

Compliance with Contract Orders

When a Contractor does not execute and order within a period of contract or supply item that do not comply with the requirements of this contract, the Municipality reserves right to cancel the order and make arrangements, after the expiry of the two weeks period, for the supply of all part of the signs for other sources and any extra cost so incurred will be charged to the contractor or deducted from monies due to the Contractor.

Guaranteed Period

The Contractor shall guarantee and be liable for all the signs supplied to the Municipality for a period of 5 years from any defects such as discoloring and peeling, cracking or any other causes due to manufacturing defects.

Inspection

The Municipal Engineer or his representative shall have access to the Contractor's Workshop to inspect and reject any signs that are not made to specification.

MAJLIS BANDARAYA PETALING JAYA

SPECIFICATION FOR BRICKLAYER

Bricks

1. (a) Common clay bricks shall be from an approved kiln and shall be of standard size, hard, sound and well burnt. No soft, broken, twisted or otherwise defective bricks may be used.

(b) All bricks shall be thoroughly wetted in a satisfactory manner before being laid. No bricks shall absorb more than 15% of its own weight when soaked in water.

Mortar

2. Mortar shall be comprised of 1 part of cement, and 3 parts of sand by volume measured in proper gauge boxes. All constituents of mortar shall be thoroughly while dry to ensure uniformity of composition and shall be mixed on a clean water tight platform and used immediately after addition of the appropriate amount of water. On no account shall mortar be mixed or used after partially setting.

Brickwork Generally

3. (a) All mortar joints shall not exceed $\frac{3}{8}$ " in thickness, so that no four courses shall rise more than one foot. Vertical joints of alternate courses shall be directly above one another. Bricks shall be properly bedded in mortar and surplus mortar struck off flush. Exposed joints on all walls specified to be rendered shall be raked out to a depth of $\frac{1}{2}$ ", to provide an adequate key.

(b) All brickwork shall be in 'English Bond' with the exception of half brick walling which shall be in 'Stretcher Bond'. No bats shall be used except as required for closers to obtain the true bond.

(c) All unfinished brickwork shall be left toothed with projecting headers to form bond with succeeding work. As far as practicable, all walls in each building shall be carried up at uniform height during construction otherwise no brickwork shall be carried up more than 3'-0" above adjacent work.

(d) Brickwall shall be accurately set out and built true to line and face with vertical surfaces truly plumb and horizontal joints truly level. Intersections, angles, pilasters and piers shall be properly bonded. Broken bricks may be used only to obtain bond.

(e) All clay bricks shall be soaked in water for at least 30 minutes before being laid and the contractor shall provide sufficient tanks for this to be done. Brickwork shall be protected from sunlight by damp sacks for at least 36 hours after being laid.

SPECIFICATION FOR

ROAD TRAFFIC SIGNALS SYSTEM

GENERAL

1.1 SCOPE OF CONTRACT

The contract comprises the provision by the Contractor of all tools, labours, plants, transport, materials and everything else for the complete supply and installation of the road traffic signal system, but excluding Lembaga Letrik Negara incoming supply and reinstatement of road pavement.

The Tenderer shall indicate in writing the annual cost of servicing maintenance and replacement of consumable posts for the signal system offered. He shall also indicate the extent of service he is prepared to offer and shall give an undertaking that he would honour his offer for a period of not less than 5 years commencing from the expiry of the guarantee period.

Tenderers wishing to submit proposals differing from the above may do so on a separate sheet of paper. Such proposals shall comply with BS 505 : 1971 (Incorporating amendment issued May 1976 (AMD 1990)) and the Road Traffic Ordinance.

1.2 Tender Documents

Before submitting tenders, the Tenderer shall visit the site, study the site conditions, extent of work, restriction as to working space, intensity of vehicular traffic, conditions of tendering, conditions of contract, plans, drawings and specifications and ensure that their tenders comply with these conditions.

1.3 Definitions

For the purposes of this specification, the definitions given in BS 505 : 1971, Incorporating amendment issued May 1976 (AMD 1990) & BS 892 shall apply, unless stated otherwise.

1.4 Road Traffic Signal System

The road traffic signal system shall comprise of the following main components:-

- (a) Intersection Controller,
- (b) Optical System,
- (c) Vehicle Detectors, and
- (d) The associated accessories for (a), (b) and (c), and inter-connecting cables but excluding the Lembaga Letrik Negara incoming cable.

2. Intersection Controller

The intersection controller shall be equipped with the following features:-

- (a) modular construction
- (b) can be easily programmed
- (c) fixed time and vehicle actuated operation
- (d) can be used either autonomously or as part of a coordinated or centralised traffic control system

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2.1 General

The intersection controller shall be able to handle a maximum of six signal groups apportioned among vehicle signal groups and pedestrian groups. The signal group versions of the intersection controller shall be as follows:-

VERSION	VEHICLE SIGNAL GROUP (3-LIGHT SIGNAL HEAD)	PEDESTRIAN SIGNAL GROUP (2-LIGHT SIGNAL HEAD)
2	2	-
	1	1
4	3	1
	2	2
6	4	2
	3	3

The signal head for the above shall be

red
red/amber
green
amber

for vehicle signal groups

and

red
green
green flashing
blank out

for pedestrian signal group

2.2 Operational Modes

The signal groups shall be capable of the following operational modes:

- fixed time control
- vehicle actuated control governed by vehicle detectors and pedestrian push buttons
- coordinated control
- remote control governed by a master controller
- manual control

2.3 Information on intersection controller

Information on assembly, adjustments, programming and testing of the intersection controller shall be provided for by the Tenderer.

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The intersection controller shall have facilities for time adjustments in steps of one second and a maximum cycle time of 200 seconds. Facilities for programming and adjustment of the following shall be provided:-

- The start of the green, amber, red and amber, and red phases of each vehicle signal group
- The start of the green, flashing green and red phases of each pedestrian signal group
- The waiting times during which the time base is held whilst a particular condition remains unchanged
- The start and finish of the skip periods
- The maximum cycle time

2.4.1 Vehicle Detection

When operating the intersection controller in the vehicle actuated mode, the time interval between consecutive detections used to activate the next cycle phase, i.e. gap times, of 0.5-6.5 seconds, adjustable in steps of 0.5 seconds, can be programmed per vehicle signal group.

2.4.2 Vehicle Actuated Control

The intersection controller shall be provided with the following control facilities:-

Vehicle actuated green extension up to a predetermined maximum

Vehicle actuated green extension plus waiting time for one or more vehicle signal groups and green or demand for all other signal groups.

Green or demand for each signal group.

2.4.3 Autonomous or Coordinated Operation

The intersection controller shall operate either autonomously or as part of a linked system or area traffic control system.

For autonomous operation, data from local detectors shall be fed directly into the intersection controller for full vehicle actuated operation.

When operating as part of a coordinated area traffic control system it shall be linked by a coordinator.

When coordinated by a synchronising module, several of these intersection controllers shall be able to operate as a stand-alone sub area.

3. OPTICAL SYSTEM REQUIREMENTS

3.1 Distribution of light

3.1.1 Optical systems for providing non-restrictive traffic signals

When fitted with the appropriate standard lamp in accordance with the requirements of 5.5; with a coloured lens such that the colour of the light transmitted falls within the limits specified in 3.7 for the red, amber and green signals as appropriate; and for amber signals shall be not less than twice the values set out in Tables/and 2 respectively.

.../...

ROADS, WHERE APPROACH SPEEDS ARE LESS THAN 80 km/h AND WHERE SIGNALS ARE NOT VISIBLE ON APPROACHES GREATER THAN 200 m (CANDELAS)

Horizontal \ Vertical	On geometric axis	10° on either side of geometric axis	25° on either side of geometric axis
On Geometric Axis	400	150	25
1° below geometric axis	475	200	30
10° below geometric axis	200	100	25

Each signal shall represent a uniform appearance, free from excessively bright spots or sectors, over the whole area of the lens when viewed from any direction within the cone of directions for which the intensities are specified in TABLE 1 or TABLE 2. Polar curves shall be reasonably smooth and reasonably free from secondary maxima.

Phantom effects, when measured by the method specified in 6.8, shall not for signals on normal roads and on high-speed roads, have an intensity greater than 1.5×10^{-3} cd/lx of incident light.

TABLE 2. DISTRIBUTION OF RED AND GREEN LIGHT FOR SIGNALS ON HIGH-SPEED ROADS, WHERE APPROACH SPEEDS ARE GREATER THAN 80 km/h AND WHERE SIGNALS ARE VISIBLE ON APPROACHES GREATER THAN 200 m (CANDELAS)

Horizontal \ Vertical	On geometric axis	10° on either side of geometric axis	25° on either side of geometric axis
On geometric axis	800	380	50
10° below geometric axis	375	200	40

The lamp intensities shall be capable of an automatic reduction during the hours of darkness to between $\frac{1}{4}$ and $\frac{1}{12}$ of the normal intensities. When the light intensity of any signal is so reduced it shall still comply fully with the requirements as to colour set out in 3.7. The means of controlling the lamp intensities shall be provided unless otherwise specified.

The light intensity requirements of this sub clause will not necessarily apply to traffic signals at railway level crossings or to portable signals.

3.1.2 Optical Systems for providing restrictive traffic signals

3.1.2.1 Green arrow and pedestrian optical systems. When fitted with the appropriate standard lamp in accordance with the requirement of with a coloured lens such that the colour of the light transmitted falls within the limits specified for the green arrow or pedestrian symbol in 3.7; and without any signal visor the mean minimum luminance values shall be as set out in TABLE 3 when tested in accordance with the requirements of 6.6.

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The lamp intensities shall be capable of an automatic reduction during the hours of darkness to between $\frac{1}{4}$ and $\frac{1}{12}$ of the normal intensities. When the light intensity of any signal is so reduced it shall still comply fully with the requirements as to colour set out in 3.7. The means of controlling the lamp intensities shall be provided unless otherwise specified.

TABLE 3. MINIMUM VALUES OF LUMINANCE FOR GREEN ARROW AND RED AND GREEN PEDESTRIAN SIGNALS (CANDELAS PER SQUARE METRE)

Horizontal Vertical	On geometric axis	10° on either side of geometric axis	30° on either side of geometric axis
On geometric axis	3500*	2 200	700
10° below geometric axis	2500*	1 350	600
15° below geometric axis	1500*	1 000	400

* The variation of luminance over the surface of the green arrow or pedestrian symbol shall not exceed the ratio 10 : 1, at the test points 'marked with an asterisk'.

Each signal shall present a uniform appearance, free from excessively bright spots or sectors, over the whole area of the signal face when viewed from any direction within the cone of directions for which luminance values are specified in TABLE 3. Polar curves shall be reasonably smooth and free from secondary maxima.

Phantom effects, when measured by the method specified in 6.8, shall not, for green arrows and green and red pedestrian signals, have a luminance greater than 4×10^{-2} cd/m² per lux of incident light. Where in particular situations due to exceptional site conditions optical systems complying with this requirement give rise to unacceptable phantom effects, agreed means of reducing the phantom effect shall be provided.

3.1.2.2 Optical systems for providing other restrictive traffic signals

These shall conform to the requirements of 3.1.2.1 so far as is practicable, unless otherwise specified.

3.1.2.3 Prescribed traffic signs, internally illuminated

For the requirements of prescribed traffic signs which may require to be fitted in association with traffic signals, reference should be made to BS 873, Part 1.

3.2 Directions of Beam

3.2.1 Light signals intended for drivers. On high speed roads, the light signals shall be directed to a point approximately 200 m from the primary signal face and approximately 1.5 m above ground level at the centre line of the carriageway allocated to approaching traffic. Where signals are mounted above the carriageway on mast arms or gantries or suspended on catenaries, the light signals shall be directed at a point approximately 1.5 m above the carriageway allocated to approaching traffic between 200 m and 400 m (depending on site conditions) from the primary signal face. In other situations,

20 m for overhead signals. These dimensions may be varied where special circumstances require otherwise.

3.2.2 Light signals intended for pedestrians. The light signals shall be directed towards the centre line of that part of the carriageway allocated to pedestrian movement unless special circumstances require otherwise.

3.3 Arrangement of Optical Systems

3.3.1 Light signals intended for drivers. Each signal face shall, unless otherwise specified, contain three optical systems arranged vertically, each having a diameter of not less than 200 mm nor more than 215 mm. The coloured lens of the upper optical system shall be red, the middle one amber, and the lower one green. Where green arrows are used they shall have an optical system having a diameter of not less than 295 mm nor more than 305 mm, which shall incorporate green arrows in accordance with the requirement of 3.4. The green light in one of the permitted arrangements shown in Fig. 1. Where prescribed traffic signs are incorporated in the signal face they shall be internally illuminated and shall have an optical system having a diameter not less than 295 mm nor more than 305 mm, and shall comply with the requirements of BS 873, Part 1. The optical system spacings shall be in accordance with the dimensions given in Fig. 2.

3.3.1.2 Light signals intended for pedestrians. Each signal face shall contain two optical systems arranged vertically, each having a diameter of not less than 295 mm nor more than 305 mm, which shall incorporate pedestrian symbols in accordance with the requirements of 3.5. The upper optical system shall illuminate a red symbol and the lower one a green symbol. The optical system spacings shall be in accordance with the details given in Fig. 3.

3.4 Green Arrow

Where an optical system incorporating a green arrow is used, the background for the arrow shall be obtained by coating the lens or fitter as may be appropriate with heat-resisting black point or enamel, or by other suitable means. The green arrow shall be of the shape and dimensions shown in Fig. 5.

3.5 Pedestrian Signal

Where optical systems incorporating red or green pedestrian symbols are used, the background for the symbols shall be obtained by coating the lens or fitter as may be appropriate with heat-resistant black paint or enamel, or by other suitable means. The red and green symbols shall be of the shape and dimensions shown in Figs. 3a and 3b.

3.6 Pedestrian Push-Button Box

The dimensions and layout of the front of the pedestrian push-button box are shown in Fig. 8.

Means shall be provided for securing the box to the signal post.

Push-button plungers and mountings shall be so designed as to minimise the risk of jamming by foreign objects, moisture or the products of corrosion. They shall be weather-proof and reasonably dust-proof and

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NO VOLTAGE IN EXCESS OF 50V SHALL BE CONNECTED TO THIS
terminal.

The signal request, by means of the push-button shall bear the inscription, as shown in Fig. 8, in two illuminated windows.

A signboard encouraging the use of this pedestrian facility shall be positioned above the push button box. Details are given in Fig. 8.

3.7 LIMITS OF CHROMATICITY OF SIGNALS

The colour of the light transmitted by the signals shall comply with the limits set out in British Standard 1376, Table 1, as follows:

(1) Vehicle signal

Red:	Signal Red Class B1
Amber:	Signal Yellow Class A
Green:	Signal Green Class B
Green arrow:	Signal Green Class B

(2) Pedestrian signal

Red symbols:	Signal Red Class B1
Green symbol:	Signal Green Class B

3.8.1 Post-mounted traffic control light signals

3.8.1.1 Fixed light signals intended for drivers. The height of signals shall be such that when erected the centre of the amber optical system shall be not less than 2.4 m nor more than 4 m above the carriageway level. Where no amber signal is installed (i.e. certain WIG-WAG signals) these dimensions apply to the centre of the red signal.

3.8.1.2 Light signals intended for pedestrians. The height of signals shall be such that when erected the height of the lower edge of the housing enclosing the green signal shall be not less than 2.1 m nor more than 2.6 m above the carriageway level.

3.8.2 Overhead mounted traffic control light signals. The height of overhead mounted signals shall be such that when erected the centre of the amber optical system shall be not less than 6.1 m nor more than 9 m above the carriageway level.

4. VEHICLE LOOP DETECTOR SYSTEM

4.1 DEFINITION OF TERMS

The following definitions will be used and referred to in this Specification:-

ACTUATION:	that change in conditions above the loop intended to cause the sensor unit to produce an output.
CHANNEL:	one of a number of functionally independent detector circuits within the sensor unit of a sampling detector.
COUNTING RATE:	the number of successive actuations in one second which can be detected.

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DETECTOR:	the complete assembly of sensor unit, power supply, loop and associated interconnecting cables.
LIMITED PRESENCE DETECTOR:	a detector which produces an output for a limited period while a vehicle is present within its detection zone.
LOOP:	one or more turns of insulated conductor installed below the road surface and which acts as the transducer.
MEMORY TIME (PRESENCE TIME):	the time during which the detector produces an output from a continuous actuation, and at the end of which the detector readjusts itself to ignore the vehicle in the detection zone.
OCCUPANCY:	the ratio of the time that actuations exist to the total time expressed as a percentage.
PARALYSIS TIME:	the time after a detector output ceases while an actuation is still present, before a further actuation can generate another output.
PASSAGE DETECTOR:	a detector which produces a short (pulse) output of relatively constant duration independent of the speed, mass or type of vehicle within the detection zone.
POWER SUPPLY:	the part of the detector which derives energising potentials to drive the sensor unit electronic circuits from the mains supply.
PRESENCE DETECTOR:	a detector which produces an output while a vehicle is present within its detection zone.
RECOVERY TIME:	the minimum time between two successive actuation producing separate outputs.
RESPONSE TIME:	the time delay between a change in input conditions (loop) and the corresponding change in output (sensor unit).
SAMPLING DETECTOR:	a detector which scans a number of separate loops sequentially and produces independent outputs for each.
SENSITIVITY:	a measure of the minimum change in conditions produced by a vehicle the detection zone causing the detector to produce an output.
SENSOR CABLE:	the cable(s) which interconnect the sensor unit and its associated loop.
SENSOR UNIT:	the part of the detector which converts the information from the loop into an electrical output.
TRANSDUCER:	a device which receives energy from one medium or transmission system, and supplies related energy to another medium or transmission system.
VEHICLE:	any motor-driven car, truck, cycle or omnibus.

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4.1.1 DETECTION EQUIPMENT

The detection equipment shall include the following:-

- (i) A sensor unit which, when connected to a suitable loop transducer and the associated power supply, will provide the specified operation.
- (ii) A power supply which may be integral with the sensor unit, or may be mounted in the same housing as the sensor unit(s).
- (iii) All casings, racks and brackets necessary for the mounting of the detection equipment in a controller housing.
- (iv) Any special plugs and sockets or other special inter-connecting equipment required, including the cables referred to under Clause 4.3.6.

4.1.2 DETECTOR APPLICATIONS

4.1.2.1 VEHICLE ACTUATED CONTROL

The loop detector shall be capable of the following applications, either a combination or individually:-

- a) Green extension - spacing between vehicles is measured to give indications of traffic flow. The traffic lights controlling the direction with the heaviest flow are then kept at green longer till maximum green.
- b) Demand function - the traffic light set is switched to green when a vehicle is stationary above the detector loop.
- c) Queue detection - decreasing traffic speed and inter-vehicle spacing are detected and used to give advance warning of queue formation.

4.1.2.2 AREA TRAFFIC CONTROL

In these systems a number of intersections are linked to obtain an optimum traffic flow through the network.

Variations in traffic flows demand different programmes and an automatic selection requires input data from detectors in the area to analyse the actual situation. For this purpose detectors located at strategic points shall be able to provide all required input data.

4.2 OPERATIONAL REQUIREMENTS

4.2.1 Speed Range

The speed range of the detector within which it shall be actuated by a vehicle shall be 5 - 120 km/h.

4.2.2 Detection Zone

The probability of detection shall exceed 90% when the edge of the vehicle is on the loop boundary. The probability of detection shall not exceed 10% when the edge of the vehicle is 0.8 m outside the loop boundary. The sensitivity of any detector having up to 300 m of sensor cable between the loop and the sensor unit shall be such as to give a counting error not exceeding $\pm 0.05\%$ for vehicle headways greater than 1.8 seconds in one lane.

For the purposes of this clause, requirements shall be related to a rectangular loop 2 m x 2 m having 3 turns of insulated conductor, and a passenger car approximately 4 m long.

4.2.3 Paralysis Time

The paralysis time for a passage detector shall not exceed 2 seconds.

4.2.4 Memory Time

The memory time (presence time) for a limited presence detector shall be between 5 and 10 minutes for all vehicles except motor cycles. For motor cycles the memory time of a limited presence detector shall be not less than 1 minute. The memory time for a presence detector shall exceed 10 minutes.

For the purpose of these requirements a motor cycle shall be deemed to be represented by an inductance drop of 0.02% with the loop referred to in Clause 4.2.2.

If one or more vehicles are standing or moving within the detection zone, any variation in the number of vehicles standing or moving in this area shall not cause the output to be interrupted unless the detection zone is completely vacated.

4.2.5 Recovery Time

The recovery time of a presence detector or limited presence detector shall not exceed 0.5 second.

4.2.6 Response Time

When the detector operates in the (limited) presence mode the turn-on delay time shall not exceed 100 milliseconds. The turn-off delay time shall be within 200 ms of the measured turn-on delay time. This performance shall be substantially independent of vehicle speed within the range stipulated in Clause 4.2.1. The permissible variation in turn-on delay time between detectors of the same type shall not exceed 10%.

These requirements shall apply for the loop referred to in clause 4.2.2 with the sensitivity adjusted such that the sensor unit will detect a stimulus not smaller than 0.05%.

4.2.7 Passage Detector Output

Each vehicle entering the detection zone of a passage detector shall produce an output of duration 100 ± 25 milliseconds.

4.2.8 Sensor Unit Output Characteristics

When an output occurs the impedance at 50 Hz across the output terminals shall not exceed 1 ohm, and the "stand-off" voltage for an electronic switching circuit shall not exceed 2 volts.

In the absence of an output the impedance at 50 Hz between the output terminals shall have a minimum value of 0.1 megohms.

The output device of the sensor unit shall be capable of being connected into and operating correctly in conjunction with external circuits powered with either A.C. up to 32 volts or D.C. up to 100 volts. The current carrying capacity of the detector output circuit shall be not less than 1 ampere for A.C. or 100 milliamperes for D.C. The detector sensor unit output circuit shall not require any modification to adapt to either A.C. or D.C. working.

part of the sensor unit and earth (including case). The isolation between the output terminals and the remainder of the sensor circuit or case shall be able to withstand 1000 volts R.M.S. for an indefinite period.

4.2.9 Automatic Drift Compensation (Tracking)

The detector shall be fully self-compensating for the effects of variations in ambient conditions and normal changes in component characteristics due to ageing.

4.2.10 Failure of Electricity Supply

In the event of an interruption to the electricity supply of sufficient duration to cause the detection equipment to cease functioning, then on restoration of power the sensor unit shall automatically regain the specified operation within a period of 10 seconds of the electricity supply being restored, or alternatively, within a period of 2 minutes provided that a continuous output (within the meaning of Clause 4.2.8) shall occur during such period.

4.2.11 Damage to the Loop or Sensor Cable

In the event of damage or failure of the loop or associated sensor cable, resulting in an impedance condition substantially outside the normal tuning range of the sensor unit, the detectors shall provide a continuous output (within the meaning of Clause 4.2.8).

4.2.12 Surge Protection

The detection equipment shall be adequately protected against surges and transients induced into the detection equipment via either the loop, the electricity supply or the output terminals of the sensor unit.

4.2.13 Variation in Electricity Supply

The detector shall operate as specified during variations of main supply voltage $\pm 17\%$ of the nominal value (refer Clause 4.3.1) variations of supply frequency $\pm 4\%$, or any combination of these conditions.

4.2.14 Ambient Conditions

The detection equipment shall function correctly in the range of ambient temperatures from minus 5° Celsius to plus 65° Celsius and under all normal weather conditions.

The detection equipment shall operate substantially as specified with the loop installed in all types of road pavement met in practise, including steel reinforced concrete road pavement.

4.2.15 Adjustment Facilities

For the purpose of initial setting up of the sensor unit a coarse manual adjustment will be accepted, provided such adjustment can be effected under normal traffic conditions within or in the vicinity of its detection zone.

Manual adjustment of sensitivity if provided, shall be independent of the manual tuning or setting up facilities referred to above. Such adjustment of sensitivity shall be in the form of a switched range with each position calibrated and marked.

4.2.16 Interference and Interaction

The detector shall be designed to have a low susceptibility to external interference induced into the loop or sensor-cable within the radiation limits permitted within certain specified bandwidths for ISM equipment, and communications equipment operated under the regulations laid down by the JABATAN TELEKOM, MALAYSIA.

Adequate precautions shall be taken to prevent any interaction between sensor units connected to different loops or between different loops located in adjacent traffic lanes.

Sensor units shall be electromagnetically shielded such that they may be installed anywhere within a controller cabinet and adjacent to each other without adverse effects.

4.2.17 Leakage to Earth

The detector shall operate as specified when any single conductor in the sensor cable is connected to electrical earth.

4.3 ELECTRICAL REQUIREMENTS

4.3.1 Power Supply

The power supply associated with the sensor unit shall be energised from a nominal 240 volts r.m.s. 50 Hertz earthed-neutral electricity supply.

4.3.2 Protection

The detector equipment shall comply with the relevant requirements of the Lembaga Letrik Negara. The loop or sensor unit shall not suffer any damage if any of the connecting cables are short-circuited, open-circuited, or disconnected while the equipment is energised.

The voltages impressed on the sensor cables shall not exceed the extra-low voltage as referred to in A.S. 3000.

4.3.3 Radiation Limits

The electro-magnetic radiation limits of the detector equipment shall be within those stipulated in A.S. 1044 and shall be approved by the JABATAN TELEKOM, MALAYSIA.

4.3.4 Indicator Lamp

The sensor unit shall have a visual indicator located on the front panel to monitor the output. The indicator shall have a minimum operating life of 5 years and shall have sufficient luminous intensity to provide adequate visibility in bright day-light. The indicator shall be illuminated while the detector output is present.

4.3.5 Switches

All switches and manual adjustment facilities shall be clearly and permanently calibrated and identified, and shall be located on the front panel of the sensor unit.

4.3.6 Cable Connector

Each loop detector sensor unit shall be provided with a single multi-pin male connector mounted on the front panel. The connector shall be MIL series MS 3102A18-8P having 8 pins designated as follows:

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PIN CODE	FUNCTION	LEAD COLOUR
A	240 V.A.C. Active	red
C	240 V.A.C. Neutral	black
H	Supply mains earth	green
D	Loop	white
E	Loop	white
B	Output common (+)	white/red
F	Output when actuated (-)	white/black
G	Output when not actuated (-)	yellow

Each sampling type loop detector sensor unit having up to 4 channels shall be provided with a single multi-pin male connector mounted on the front panel. The connector shall be MIL series MS 3102A22-14P having 19 pins designated as follows:

PIN CODE	FUNCTION	LEAD COLOUR
A	240 V.A.C. Active	red
C	240 V.A.C. Neutral	black
H	Supply mains earth	green
D	Channel 1 loop	white
E	Channel 1 loop	white
F	Channel 2 loop	brown
G	Channel 2 loop	brown
J	Channel 3 loop	light blue
K	Channel 3 loop	light blue
L	Channel 4 loop	yellow
M	Channel 4 loop	yellow
N	Channel 1 output (+)	white/red
P	Channel 1 output (-)	white/black
R	Channel 2 output (+)	brown/red
S	Channel 2 output (-)	brown/black
T	Channel 3 output (+)	lt. blue/red
U	Channel 3 output (-)	lt. blue/black
V	Channel 4 output (+)	yellow/red
B	Channel 4 output (-)	yellow/black

Each detector shall be supplied with the mating female connector with 2.5 m long leads, minimum gauge 16/0.2, ready for wiring into the controller housing.

4.3.7 Reliability

The design objective of the sensor unit and its associated power supply, including connectors used, shall be such that the calculable (95% confidence level) mean-time-between-failures is not less than 40,000 hours for each detector; or 10^7 actuations at the rated output conditions stipulated under Clause 4.2.8 if relay contacts are used as the output medium. The data reference for the purposes of this clause shall be the American MIL-HDBK-217B: "Reliability Stress and Failure Rate Data for Electronic Equipment".

4.4 MECHANICAL REQUIREMENTS

4.4.1 Construction

The materials and form of construction of the sensor unit and its protective casing shall be such as to ensure that the sensor unit

has adequate mechanical strength and durability to withstand the conditions of installation and operation which may be expected in normal use. The materials used shall be either inherently corrosion-resistant or shall be adequately treated to prevent corrosion. The protective casing shall be free from sharp corners and projections.

4.4.2 Identification

The following information shall be displayed on the front panel of each sensor unit or on the main assembly of the sensor unit in a prominent position:

- (a) Supplier's name
- (b) Equipment Type or Model Number
- (c) Serial number

This information shall be applied in a distinctive and permanent manner.

4.4.3 Overall Dimensions

The maximum external dimensions of the sensor unit protective case shall be as follows:

Height: 155 mm } front panel
Width: 40 mm }

Depth: 260 mm for sampling type loop detectors having more than one detector channel in a single case the maximum width may be increased from 40 mm to 60 mm.

The general construction and layout of the sensor units and associated cables shall be such that each unit can be independently installed, adjusted and inspected from the front of a traffic signal controller.

4.5 INSTALLATION

The installation of the loop detector system shall be simple and requires no special measuring equipment.

The detector loop shall be embedded in the asphalt road pavement by cutting a slot in the pavement with a cutter, and subsequently sealed with bitumen.

All adjustments to detector circuits shall be made during installation and shall then require no further attention.

4.6 COMPLIANCE WITH JABATAN TELEKOM REQUIREMENTS

The Contractor shall submit evidence that the equipment offered does not contravene any regulation laid down by the Jabatan Telekom Malaysia at the frequency or over the range of frequencies at which the equipment is intended to be operated during normal service.

5. CONSTRUCTIONAL REQUIREMENTS

5.1 SIGNAL HEAD ASSEMBLY

The signal head assembly shall be suitable for the type of mounting specified. The signal head, the fixing brackets and the necessary parts thereof shall be so designed that, when installed, the signals shall be capable of adjustment both vertically and horizontally to

meet the requirements of 3.2 in respect of all approach roads and pedestrian crossings to which the signals apply. The adjustment shall be such that no signal shall obstruct the view of optical systems of any other signal head within 25° of the axis of the beam. The signal head assembly shall be capable of being locked securely after adjustment.

Unless otherwise specified a backing (see Fig. 4) shall be provided with each signal face intended for vehicle drivers, extending not less than 300 mm above the centre of the upper optical system nor less than 230 mm below the centre of the lower optical system. It shall extend not less than 280 mm horizontally either side of the vertical centre line of the optical system, unless there is an adjacent backing board associated with another signal face in which case this dimension may be reduced to 220 mm on the adjacent side. Where there are subsidiary signal heads attached to the main signal head the backing board shall extend not less than 230 mm vertically above the centre of the upper subsidiary signal optical system and below the centre of the lower subsidiary signal optical system, and horizontally not less than 230 mm from the vertical centre line of the subsidiary signal optical system. The backing board shall have a white border not less than 45 mm nor more than 55 mm wide.

All parts of the signal head assembly shall be finished matt black with the white border of the backing boards on the front face only.

All screws and fixings shall be non-corrodible.

5.2 SIGNAL HEAD

The signal head shall be reasonably weather-proof and dust-proof and neither corrodible nor brittle over a temperature range of -25°C to $+70^\circ\text{C}$. It shall be of such form as to resist deterioration over this temperature range and to resist distortion in wind velocities up to 145 km/h. Means shall be provided for securely fixing and accurately locating the optical systems into the signal head.

Where non-metallic material is used, special precautions shall be taken to ensure that all fixings are firmly anchored in the material.

Each tungsten halogen lamp shall be provided with an appropriate transformer complying with the requirements of BS 2214, mounted within the signal head and connected to a terminal block which may be mounted remotely. Wiring between the lamp holder and the transformer and between the transformer and the terminal block shall be in compliance with the requirements of BS 6004 or BS 6007.

External wiring to the signal head shall be protected by non-flexible tubing, or if not less than 2 m above ground level protection may be flexible tubing.

5.3 OPTICAL SYSTEMS

The optical system shall be rain-proof, reasonably dust-proof and manufactured from materials which are neither corrodible nor brittle over a temperature range of -25°C to $+70^\circ\text{C}$. It shall be of such form as to resist deterioration over this temperature range. The component parts shall be so designed that when assembled they shall be accurately located relative to one another. Means shall be provided so that when mounted the optical system cannot be rotated from its normal position.

If the lens be of plastics, it shall have a Vicat softening point of not less than 109°C, as tested in accordance with the requirements of BS 2782, method 102D. Regard should be paid to the permanence of the colour of lenses at the operating temperatures specified and to the mounting of the lenses, to avoid undue deformation within this temperature range.

5.4 REFLECTOR

Where a reflector is fitted it shall comply with the requirements of 5.4.1, 5.4.2, 5.4.3.

5.4.1 Silvered glass reflector

The silvering and its protective backing shall be in accordance with the provisions of BS 1871 for general service use.

5.4.2 Metal reflector.

It shall be of aluminium alloy to BS 4300/2, with an anodic coating of not less than AA5 grade to BS 1615. However, the spectral characteristics of aluminium alloys to BS 4300/2 tend to fall off as the degree of anodic coating is increased beyond about AA7 grade to BS 1615, and if very high reflectances are required, super-purity aluminium grade S1 to BS 1470 should be used with anodic coating of not less than AA10 grade to BS 1615. The reflector shall be of sufficient thickness to retain its shape during assembly, relamping or cleaning operations.

5.4.3 Other reflector.

Reflectors of this class shall have a general performance equivalent to that of 5.4.1 and 5.4.2. They shall be sufficiently strong to retain their shape and position during assembly, relamping and cleaning, at temperatures to which they are exposed in normal operation and over the temperature range given in 5.3.

5.5 LAMP AND LAMP HOLDER

The lamp used in the optical system to meet the requirements of 3.1, Tables 1 and 3, shall be a 12 V, 50 W long life tungsten halogen lamp.

The bulb shall be clear, uncoloured and the filament shall only be used in the horizontal position. The lamp shall meet the following specification:

nominal lumens:	900 lm at 12 V input
nominal life:	2000 h continuous burning at 12 V input
nominal colour temperature:	2850 K at 12 V input
overall length:	44 mm maximum
overall diameter:	12 mm maximum
light centre:	30 ± 0.25 mm
base:	single ended bi-pin to International Designation GY 6.35-13
nominal operating voltage:	11.7 V

To meet the requirements of 3.1, Table 2, a 12 V, 100 W long life tungsten halogen lamp, having a nominal output of at least 1800 lm at 12 V but otherwise to the requirements specified above, shall be used.

The lamp holder shall be suitable for use with the above type of lamp. The dielectric shall be of porcelain or tough incombustible insulating material which will not soften when heated to a temperature of 250°C, and, after twenty-four hours' immersion in water, it shall not have increased in weight by more than 0.5% after all moisture has been removed from the surface. The spring contact material shall be so designed as to maintain adequate electrical conductivity and to ensure that the lamp remains securely located under traffic vibration.

5.6 VISOR

A visor shall be fitted to each of the optical systems and, unless otherwise specified, shall be as shown in Fig. 6 for visors for 210 mm signals and as in Fig. 7 for visors for 300 mm signals. It shall be manufactured from material which is neither corrodible nor brittle over a temperature range of - 25°C to + 70°C. It shall be of such form as to resist deterioration over this temperature range, to resist substantial distortion in winds of up to 145 km/h and to prevent permanent deformation from the same cause.

5.7 POST

The post shall have a diameter of between 100 mm and 115 mm and a strength and rigidity at least equivalent to that for a seamless steel tube of 100 mm outside diameter and 4.4 mm thickness and a tensile strength of 375 MN/m².

It shall be so designed and constructed as to provide adequate support and stability for the signal head and shall be fitted with a weather-proof cap.

Where an aperture is required to permit the entry of an electric supply cable, unless otherwise specified by the purchaser it shall be not less than 300 mm high by 50 mm wide and the top of the slot shall be between 75 mm and 130 mm below ground level. The top and bottom of the aperture shall be radiused with radii equal to half the slot width. Where an aperture is required to permit the entry cables which are not supply cables, it shall be capable of accommodating four cables each of 32 mm diameter and any apertures above ground level shall be fitted with a suitable gland or grommet maintaining as far as possible a smooth surface of the same colour as the post.

Unless otherwise specified the post shall be of sufficient length to allow a minimum of 700 mm below ground level when correctly erected.

The interior of steel posts shall be protected by:

- (1) a finish complying with the requirements of BS 729; or
- (2) an anti-corrosive paint which shall be effective over the temperature range - 25°C to +70°C.

The exterior portion of the steel posts below ground level, and extending to at least 450 mm above ground level, shall be protected:

- (3) by spraying with molten zinc to BS 2569, Part 1, or
- (4) as in (1)

The exterior surface of steel posts shall be finished grey to BS 381C (No. 693) in weather-resisting plastics material as specified in Clause 6 of BS 873, Part 1, 1970.

Any surface cut after galvanising, painting, or the application of the plastics finish shall be protected by one of the methods (1) to (3) above as appropriate.

The poles shall be painted with alternate horizontal black and white bands of 300 mm width.

On roadways whose edges are defined by a raised kerb the poles shall be erected so that no part of the signal head, other than overhead signals, project over the roadway. The signal head shall have a minimum clearance of 300 mm behind the kerb line.

Where there is no kerb, the post shall be so erected that the signal head is clear of the shoulder (useable area) and shall not be less than 2 m or more than 3 m from the edge of the nearest traffic lane.

In difficult condition, the contractor shall consult the S.O. for a solution.

5.8 SUPPORTS FOR OVERHEAD MOUNTED SIGNALS

Overhead signals may be mounted on mast arms or gantries, finished grey to BS 381C (No. 693). The assembly shall be of such a form as to resist distortion in wind velocities up to 145 km/h and shall provide minimum clearance of the carriageway of 5.5 m.

Backing boards are to be provided with overhead signals in accordance with the requirements of 5.1. When an acceptable black background can be provided as part of the gantry structure separate backing boards need not be provided.

5.9 EQUIPMENT HOUSING

Housings for the control mechanism, push buttons, detectors and other auxiliary apparatus shall be rain-proof, reasonably dust-proof, and shall be constructed of one of the following.

- (1) Cast iron to BS 1452.
- (2) Cast aluminium to BS 1490.
- (3) Sheet steel to BS 1449. The interior of housings constructed from sheet steel shall be protected against corrosion by an anti-corrosive paint which shall be effective over the temperature range - 25°C to + 70°C or by one of the finishes specified below for the exterior of such housings. The exterior of sheet steel housings shall be protected against corrosion by a finish complying with BS 729, or by hot metal spray to BS 2569, Part 1.
- (4) Sheet aluminium to BS 1470. The finish shall comply with the requirements of 6.5 of BS 873, Part 1.
- (5) Non-metallic material which is neither corrodible nor brittle, reinforced where necessary by an internal framework so as to give at least equal protection to equipment as that provided by housings of (1), (2) (3) or (4).

Sheet metal housings as in (3) and (4) shall be constructed of not less than 2 mm thickness material where the unsupported area is not greater than 0.25 m², or not less than 3 mm thickness material where the unsupported area is greater than 0.25 m². Areas over 0.75 m² shall be adequately stiffened or supported. In all cases the length to breadth ratio shall not exceed 3:1.

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Where any part is below ground level it shall be constructed of cast iron or non-ferrous material, or hot dip galvanized steel.

The equipment shall be easily removable and apparatus readily accessible for maintenance purposes.

All external corners and edges in excess of 40 mm, excepting lower edges, shall be rounded to at least 4 mm radius and all other external edges shall have a radius of at least 1.5 mm.

Appropriate means of entry and support for cables shall be provided.

Equipment housings other than pedestrian push-button housings shall be grey in colour to BS 381C (No. 693).

Pedestrian push-button housings shall be lemon yellow in colour to BS 381C (No. 355).

5.10 LOCKS

Access to the switch for selecting hand-operation, fixed-time working or automatic operation, the lamps' on/off switch, detector fault alarm test and re-set, special facility keys and the telephone jack provided shall be by means of a door separate from that giving access to the control apparatus, including cables, wiring terminations and the timing adjustments. All means of access shall be protected by locks of different patterns and the corresponding locks and keys shall be identical for controller housings of the same make, type and series. Not less than two keys of each type shall be supplied with each controller.

5.11 INTERCONNECTING CABLES

Interconnecting cables, shall have copper conductors of nominal cross-sectional area not less than 1.0 mm^2 , or shall have aluminium conductors having equivalent electrical performance and comparable mechanical strength, or as otherwise specified.

Cables which are entirely contained within a duct or conduit shall be in accordance with the requirements of BS 6004 or BS 6007. Cables which are not wholly within the duct or conduit shall be armoured cables complying with the requirements of BS 6346 if the conductors have a nominal cross-sectional area of 1.5 mm^2 or above, or, if the conductors have a nominal cross-sectional area of less than 1.5 mm^2 they shall comply in all other respects with the requirements for 1.5 mm^2 armoured cable of BS 6346.

5.12 EARTHING

Non-current carrying metal parts of the equipment, including signal posts and housings, shall be bonded together and effectively earthed in accordance with CP 1013.

This clause is not applicable to battery or low-voltage generator operated equipment.

5.13 MAINS TERMINATION

A single pole fuse in accordance with BS 88, a neutral link and a double pole switch to BS 861 or equivalent miniature circuit breaker to BS 3871 shall be provided for connection to the mains supply. Sufficient space shall also be provided for mounting the electricity supply authority cable termination.

In addition to the main switch and fuse a switch to control the lamp current only shall be provided. Unless the control is designed to be intrinsically immune to the effect of a lamp becoming short circuited

or to other surges, a fuse of suitable rating or a similar device shall be provided for this purpose.

The controller mechanism shall be separately and suitably fused or protected.

This clause is not applicable to battery or low-voltage generator operated equipment.

5.14 SAFETY

Where right of way signals are provided for any controlled traffic, the design of any control equipment shall be such that when the right of way signal is shown to one phase, it shall not be possible through failure of any operating component of the controller to give a right of way signal to a conflicting traffic signal.

5.15 CONTROLLER ELECTRICAL COMPONENTS

The controller components including the lamp switching arrangements shall be of adequate rating to ensure a normal life of at least five years. By agreement with the purchaser, alternative components with a more limited life shall be acceptable provided they are easily replaceable.

The control circuitry shall be designed to preclude as far as is reasonably possible the chance of wrong switching and shall be proof against failure from current or voltage surges present in the electric mains or signal cables.

The construction of the controller shall be in accordance with the relevant Malaysian or British Standard, where appropriate, in regard to insulation, rectifiers, capacitors, resistors, transistors, any other solid state switching devices and any motors. The general construction and finish shall be in accordance with accepted standards of good workmanship.

5.16 TIME SWITCH

Provision shall be made for a time switch to be accommodated. Where a time switch is fitted it shall be of the synchronous motor type with spring reserve.

5.17 CABLE AND WIRING

The installation of cables and cable terminations shall comply where appropriate, with the relevant requirements of the Lembaga Elektrik Negara and shall be approved by the Lembaga Elektrik Negara before commissioning.

5.18 INTERCHANGEABILITY

All parts shall be interchangeable with like parts for equipment of the same make, type and series.

5.19 VIBRATION AND NOISE

The apparatus shall be reasonably quiet and the mechanism shall not cause undue vibration. The apparatus shall be constructed so as to reduce to a minimum any damage to lamps and equipment due to vibration caused by traffic.

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The design of equipment shall be such as to prevent telegraphic, telephonic or radio interference. The apparatus will be considered to meet this requirement, so far as radio interference is concerned, if the interference produced by it does not exceed the limits laid down in BS 800.

5.21 AMBIENT AIR TEMPERATURE

The equipment shall operate satisfactorily within an ambient air temperature range of -15°C to $+50^{\circ}\text{C}$ under normal operating conditions except where otherwise specified.

6 TESTS

6.1 GENERAL

Tests according to this specification, with the exception of the 'conformity of production' test of, are type tests.

The selection of signals for type tests and conformity of production tests shall be agreed between

NOTE. The marking of BS 505 on an article that one or more similar products have complied with all the type test requirements of this standard. It does not necessarily mean that every article so marked has been individually tested in accordance with every requirement of the standard.

6.2 TIMING

Mains operated equipment. When the equipment is tested at works the duration of all periods timed by the controller shall be within $\pm 7\%$ of the nominal time when the applied voltage varies in the range between $\pm 10\%$ of its nominal value and $\pm 4\%$ of its nominal frequency and over an ambient temperature range of -15°C to 60°C . Equipment shall be tested in its normal housing in accordance with the requirements of BS 2011, Part 2A, for the lower temperature limit of -15°C , and to BS 2011, Part 2B, method Bb for the upper temperature limit of $+60^{\circ}\text{C}$. The period of exposure at these temperatures of -15°C and $+60^{\circ}\text{C}$ respectively shall be 16 h in both cases. The equipment shall perform within its specification:

- (1) before the equipment is introduced into the test chamber,
- (2) after the period of exposure and before the period of recovery,
- (3) at about 5° increments during the period of recovery,
- (4) after the period of recovery.

A visual inspection shall be made before and after the test.

The above applies to those timing arrangements which measures selected fixed periods and those conditioned by variable functions such as speed or number of vehicles. The controller shall continue to function correctly (except for the accuracy of timed periods) within supply voltage limits of $+15\%$ and -20% from the nominal value.

The flashing rate of any flashing signals shall be within the range 72 to 88 flashed per minute when the applied voltage varies in the range between $+15\%$ and -20% of its nominal value and $\pm 4\%$ of its nominal frequency and over a temperature range of -15°C to $+50^{\circ}\text{C}$.

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When installed on site the duration of all periods timed by the controller shall be within $\pm 10\%$ of the nominal time when the applied mains voltage is within the range between $\pm 10\%$ of its nominal value and $\pm 4\%$ of its nominal frequency. This shall apply to those timing arrangements which measure selected fixed periods. The flashing rate of any flashing signals shall be between 76 and 84 flashes per minute within the same mains voltage and frequency limits.

6.3 COMPLIANCE WITH CUSTOMER REQUIREMENTS

The controller shall be tested at the makers' works to prove its compliance with customer requirements regarding specified facilities.

6.4 INSULATION RESISTANCE AND ELECTRIC STRENGTH

6.4.1 Controller

A high-voltage test shall be carried out on a new and completed apparatus at the conclusion of the test of 4.3, by applying 1000 V a.c. for one minute between the mains line and neutral input terminals coupled together and earth. The low-voltage connection to any mains transformer shall be disconnected during this test. The test voltage shall be at 50 Hz $\pm 20\%$ and be of approximately sine-wave form. During this test no breakdown of the insulation shall occur.

6.4.2 Completed installation

The insulation resistance of the main leads, excluding those to any transformers providing low-voltage power supplies which are connected to the main supply by plug and socket and excluding any Post Office plant, shall be tested on a d.c. supply at 500 V and shall have a resistance of not less than 1 M Ω .

6.5 CHROMATICITY

The colour of the light emitted for compliance with the requirements of 2.7 shall be measured with a lamp of the correct colour temperature as used in service. The colour shall be defined by the chromaticity of the light reflected at an angle of 45° from a magnesium oxide screen placed normal to the beam axis at a distance of not less than ten signal diameters from the front of the signal. Alternatively, the signal may be operated in an integrating photometer and the colour shall be defined by the chromaticity of the integrated light.

6.6 LUMINANCE MEASUREMENTS (GREEN ARROW AND RED AND GREEN PEDESTRIAN SIGNALS)

The luminance values for compliance with the requirements of 3.1, Table 3, shall be taken over circular areas approximately 25 mm in diameter. A matt black mask with circular openings arranged as shown in Fig. 9 shall be placed against the front face of a full green signal, i.e. a green signal without the symbol, and the luminance measurements over the nine holes averaged for each direction specified in Table 3.

Luminance values for a red signal may be determined from those obtained for a green signal by multiplying the green signal values by the factor:

$$\frac{\text{red transmission factor}}{\text{green transmission factor}}$$

As agreed between the purchaser and the manufacturer, optical systems may, from time to time, be subjected to photometric tests to check that production units meet the optical requirements of the standard.

The lamp (as specified in 3.5) used in the optical system under test should have its lumen output at 12 V measured in an integrating photometer.

The intensity/luminance values obtained in these tests shall be multiplied by the following factor before comparing them with the values given in the appropriate tables:

$\frac{900 \text{ lm}}{\text{measured lamp lumen output}}$	OR	$\frac{1800 \text{ lm}}{\text{measured lamp lumen output}}$
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as appropriate.

For the purpose of the test, the photometric requirements specified in the appropriate table of 2.1 shall be deemed to have been met when:

(1) the mean of the measured intensity/luminance values, corrected as above, for not less than six optical systems is not less than the minimum intensity/luminance values specified in the appropriate table, and

(2) no intensity/luminance values obtained in (1) for any optical system are less than the minimum values specified in the appropriate table adjusted in accordance with the factors shown in Table 4.

TABLE 4. MULTIPLYING FACTORS FOR ADJUSTING THE MINIMUM INTENSITY/LUMINANCE VALUES SHOWN IN TABLES 1, 2 AND 3

Horizontal Clause 2.1, Table	Geometric axis			
	on axis	10° either side	25° either side	30° either side
1	1.00	0.85	0.80	
2	1.00	0.85	0.80	
3	0.80	0.80		0.80

6.8 MEASUREMENT OF PHANTOM EFFECTS

A light source subtending an angle of approximately $\frac{1}{2}^\circ$ at the signal under test shall be located at a vertical angle of $+10^\circ$ and a horizontal angle of 0° in front of, and shall be aimed at, the signal under test. The illumination from this source measured at the signal shall be not less than 1000 lx.

The intensity of the resulting phantom signal for optical systems complying with 3.1.1 shall be measured at a vertical angle of 0° and a horizontal angle of 0° in the same manner as that in which the emitted intensity of the signal is measured.

The luminance of the resulting phantom signal for optical systems complying with the requirements of 2.1.2 shall be measured at a vertical angle of 0° and a horizontal angle of 0° . The luminance values shall be averaged over five circular areas approximately 25 mm in diameter at the spacing shown in Fig. 9 but covering the luminous area of the symbol or green arrow. The mask (Fig. 9) shall not be used.

...24/-

For the purpose of these tests the visor shall be removed and allowance shall be made for any specular reflection from the front face of the signal.

7 MAINTENANCE AND GUARANTEE

On completion of installation and testing, the contractor shall be obliged to supply free servicing, change in phasing, timing and operational mode, maintenance and free replacement of defective parts for a period of one year from the date of completion. A qualified service engineer provided by the contractor should be available on 24 hours service to attend to any breakdown at anytime irrespective of public holidays.

The contractor shall also quote for a year's service maintenance agreement, inclusive parts replacements, as provided for in 1.1.

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MAJLIS BANDARAYA PETALING JAYA

**M.B.P.J STANDARD SPECIFICATION F
SPECIFICATION FOR RUBBLE WALLS**

QUALITY OF RUBBLE

1. All rubble wall used shall be of quality from an approved quarry. Stones which in the opinion of the S.O is not of sound quality or from an approved quarry will be reject. In a case the contractor shall remove all stones from the site.

SIZE

2. The sizes to be used shall vary from 150mm. – 225mm. and shall be work. The rubble wall shall be not less than 22 mm. thick.

SETTING

3. The rubble shall be well set in 1:3 cement mortar and all joints shall be well pointed in cement mortar.

FOUNDATIONS

4. The rubble wall shall be set on a concrete foundation base. The base shall be 600mm. x 150mm. Spanning the whole length of the wall to be constructed / repaired.

All concrete used shall be mixed for at least two minutes in an approved mechanical mixer hand mixing will only be allowed for small quantities of concrete and in this case 10% extra cement should be added to the proportion specified below.

The concrete mix shall be 1:3:6 and the proportion shall be measured by volume. The top of the foundation base shall in all case not extend above the soffit level at the drain or as shown in the drawings.

WEEP HOLE

5. Pipe weep holes shall be provide 1200mm. Apart longitudinally near the base OR where S.O directs. Where the height of the rubble wall exceeds 155mm. , two row of weep holes shall be provided and height in excess of 1800mm. Shall have a row for every 900mm. Excess in height.

The sizes of the pipes used as weep holes shall be not less than 75 or 100mm. int . dia. An shall continue through the whole thickness of the wall. The rear end of the weep holes shall filled to depth of least 150mm. with 37.5 – 50mm. aggregate.

The gradient for the weep holes shall be so arranged so as to enable free flow of water from behind the wall into the open drains.

SPECIFICATION FOR ASTM
RETROREFLECTIVE SHEETING FOR
PERMANENT SIGNING

(High Intensity Prismatic Grade)

Sept 2004

- 2.2 Coefficient of Retroreflection: The coefficients of retroreflection shall be determined in accordance with ASTM E-810, for the minimum requirements of Table II. This table contains "core" values as found in ASTM D 4956, to characterize sheeting performance throughout its expected range of use.

Table II High Intensity Prismatic
Minimum Coefficient of Retroreflection
(cd/lux/m²)

White	4:0°	30:0°	
0:2°	360	170	
0:5°	150	72	
Yellow	4:0°	30:0°	
0:2°	270	135	
0:5°	110	54	
Red	4:0°	30:0°	
0:2°	65	30	
0:5°	27	13	

Green	4:0°	30:0°	
0:2°	50	25	
0:5°	21	10	
Blue	4:0°	30:0°	
0:2°	30	14	
0:5°	13	6.0	

- 2.3 Certification of Sheeting: All sheeting submitted during the tender process shall provide proof of testing certificate to international standard such as to ASTM D4956-01 by accredited third party laboratory
- 2.4 The sheeting manufacturer shall provide the end user with product performance warranty provided that the sheeting was applied in accordance to the manufacturer's recommendation methods and onto the manufacturer's approved substrate

Table B - Color Specification Limits (Daytime)^a

Color	X	Y	X	Y	X	Y	X	Y	Reflectance Limit (Y)	
									Min	Max
White	.303	.300	.368	.366	.340	.393	.274	.329	27.0	
Yellow	.498	.412	.557	.442	.479	.520	.438	.472	15.0	40.0
Green ^b	.026	.399	.166	.364	.286	.446	.207	.771	3.0	8.0
Red	.648	.351	.735	.265	.629	.281	.565	.346	2.5	11.0
Blue ^b	.140	.035	.244	.210	.190	.255	.065	.216	1.0	10.0
Brown	.430	.340	.610	.390	.550	.450	.430	.390	3.0	9.0

^aThe four pairs of chromaticity coordinates determine the acceptable color in terms of the CIE 1931 standard colorimetric system measured with CIE standard illuminant D65.

^bThe saturation limit of green and blue may extend to the border of the CIE chromaticity locus for spectral colors.

B. Color

Colors of the retroreflective sheeting conform to Table B when measured in accordance with Federal Specification FP-96 or ASTM D4956.

C. Adhesives

Series 2870 sheetings have a heat activated adhesive which conforms to the adhesive requirements for class 2 of FP-96 and ASTM D4956. The heat-activated adhesive is designed for use in the heat-lamp-vacuum applicator. Prior to vacuum application, sheeting is preapplied onto the sign substrate with a hand squeeze roll applicator.

Series 3870 sheetings have a pressure-sensitive adhesive which conforms to the adhesive requirements for class 1 of FP-96. The pressure sensitive adhesive lends itself to large scale, rapid production of signs. Applications should be made at temperatures above 65°F (18°C).

Series 5870 sheetings have High Tack adhesive, an aggressive pressure sensitive adhesive which conforms to the adhesive requirements for class 4 of ASTM D4956. It is particularly suited for application at temperatures as low as -10°F (-23°C).

Series 6870 sheetings have a conformable aluminum foil backing with a pressure sensitive adhesive. The material is designed for application to moderately rough or porous metal, wood, or masonry surfaces. Prior to application such surfaces generally require priming with 3M™ Scotchlite™ Primer 4448. Applications may be made at temperatures as low as 35°F (20°C).

Series 9800 sheetings have a thin, semi-rigid aluminum backing coated with an aggressive pressure-sensitive adhesive. The material is intended for application in the sign shop or in the field to a variety of clean, smooth, weather resistant surfaces, including old sign surfaces meeting these criteria, when air and application surface temperatures are above 50°F (10°C).

Series 3860 sheetings have the edge perforated for electronic cutting machines. Series 3860 sheeting is intended for the production of traffic control letters, legends, logos, etc. These sheetings meet requirements for series 3800 sheeting.

Test Methods for Adhesive and Film Properties

Unless otherwise specified in attachments, the adhesive and film properties listed below are applicable to all encapsulated lens materials.

A. Standard Conditioning

All mounted and unmounted test specimens shall be conditioned for 24 hours at 73°F ± 2°F (23° ± 1°C) and 50% ± 4% R.H. before testing.

B. Standard Test Panel and Application

Unless otherwise specified, the reflective sheeting shall be applied according to the manufacturer's recommendations to smooth 0.040 inches minimum thickness 6061-T6, 5052-H38 or equivalent aluminum panels that have been degreased and lightly acid etched. Lack of contamination of test panels must be confirmed by passing water break test and tape snap test as described in Information Folder 1.7.

Pressure Sensitive Adhesive (See chart following for recommended application for each Series)

1. 48" squeeze roll applicator with approved heater (Reference IF 1.4).
2. Hand squeeze roll applicator (Reference IF 1.6).
3. Hand application (Reference IF 1.5).

Information Folder (IF) Reference Subjects:

- IF 1.2: Heat-Lamp Vacuum Application (HLVA)
 IF 1.4: Squeeze Roll Applicator, with and without heater (ISRA)
 IF 1.5: Hand Application Instructions
 IF 1.6: Hand Squeeze Roll Application (HSRA)
 IF 1.7: Sign Base Surface Preparation
 IF 1.9: Application of System 5 Series 9800

B. Substrates

For traffic sign use, most clean, smooth, relatively non-porous, flat, rigid, weather resistant surfaces can be prepared for application of retroreflective sheeting. Common substrates found to be most reliably durable have been properly prepared sheet aluminum and extrusions.

Users are urged to carefully evaluate all others. Sign failures caused by the substrate or improper surface preparation are not covered by the 3M Sheeting Warranty. See Information Folder 1.7.

C. Process Colors

Scotchlite high intensity grade sheeting may be processed into traffic signs by screen processing, using 3M™ Scotchlite™ Process Color Series 880. Series 880 process color is designed for compatibility with these encapsulated lens sheetings; use of other process color series is not recommended or warranted.

Series 880 process color can be screen processed at 60-100°F (16-38°C) at relative humidity of 20-50%. Use of PE 157 screen mesh with a fill pass is recommended. See Information Folder 1.8 for details.

3M assumes no responsibility for failure of sign face legends or backgrounds that have been processed with non-3M process colors.

High Intensity Grade Sheeting Traffic Sign Application Reference Guide¹

Sign Background Sheeting	Direct Applied ¹ Legend Material	Recommended Application	
		Background	Copy
1. 2870 Series (Screened)	N/A	Complete High Intensity cycle in HLVA (IF 1.2)	N/A
2. 2870 Series	2870 Series	One minute cycle under vacuum in HLVA (IF 1.2) (Note: Avoid double heat cycle)	High Intensity cycle in HLVA (IF 1.2)
3. 2870 Series	3870 Series Black 3655 or 1170 E.C. Film 180-12 ²	Complete High Intensity cycle in HLVA (IF 1.2)	Hand Apply with plastic squeegee or hand rubber roller (IF 1.5)
4. 3870 Series (Screened face)	N/A	HSRA (IF 1.6)	N/A
5. 3870, 3871 ³ Blue or Clear Liner	3870 Series Black 3650-12, or 1170 Series E.C. Film 180-12 ²	ISRA room temp. HSRA	Hand Apply
6. 3872, 3875, 3877, 3879	3870 Series	Nominal 18" and narrower width; ISRA HSRA Room Temp. 18"-48" width; ISRA with approved heater.	Hand Apply
7. 3872, 3875, 3877, 3879 Blue or Clear Liner	3870 Series	RT on aluminum 120°F Cal Rod on for plywood	Hand Apply
8. Porcelain	3870 Series	N/A	Not recommended Use Dismountable copy only.
9. Painted surfaces	3870 Series		Hand apply (IF 1.5). Use must ensure suitability in intended use (IF 1.7).
10. Moderately rough or porous metal, wood or masonry surfaces.	6870 Series		Hand apply. Priming the surface with 4448 Scotchlite™ primer prior to application is generally required.
11. Weathered Sheeting 9180 Series	N/A		HSRA or hand apply (IF 1.5)

¹Additional product combinations exist but are not recommended due to different durability, poor contrast ratios or labor intensive fabrication procedures.
²Reverse or direct screen processing or Series 1170 E.C. Film is recommended for signs with narrow stroke width legends, such as smaller street name signs.
³Scotchlite™ Reflective Sheeting Engineer Grade is not recommended for use on high intensity grade sheeting.
⁴Applications of 3800 Series Sheeting on PLYWOOD substrates require an ISRA with an approved heater. See Product Bulletin 3800.

D. Clear Coating and Edge Sealing

Edge sealing of high intensity grade sheeting is generally not required. Following extended exposure, airborne dust particles may become trapped within the row of cut hexagonal cells along the sheeting edge. This should have no adverse effect upon sign performance. Reverse or direct screen processing or Series 1170 E.C. Film is recommended for signs with narrow stroke width legends, such as smaller street name signs.

Literature Reference

- PB 880 3M™ Scotchlite™ Process Color Series 880
- IF 1.1 Instructions for Heat Lamp Vacuum Applicators
- IF 1.2 Application Instructions for Heat Lamp Vacuum Applicators
- IF 1.3 Instructions for Squeeze Roll Applicator
- IF 1.4 Application Instructions for Squeeze Roll Application
- IF 1.5 Hand Application Instructions for 3M™ Scotchlite™ Reflective Sheeting and 3M™ Scotchcal™ Films with Pressure Sensitive Adhesive
- IF 1.6 Instructions for Hand Squeeze Roll Application
- IF 1.7 Sign Base Surface Preparation for 3M™ Scotchlite™ Reflective Sheeting Application
- IF 1.8 Application of 3M™ Scotchlite™ Process Color 700 and 800 on Scotchlite Reflective Sheatings
- IF 1.9 Instructions for Application of 3M™ Scotchlite™ High Intensity System 5 Reflective Sheeting
- IF 1.10 Cutting, Matching, Premasking and Prespacing of 3M™ Scotchlite™ Reflective Sheatings and Films
- IF 1.11 Storage, Packing, Installation, Sign Positioning, Cleaning, Nighttime Inspection, Sign Face Replacement and Sheeting Removal

Additional References

Standard Specification for Retroreflective Sheeting for Traffic Control	ASTM D 4956 Type III
Federal Specification, FP 96, 1996 Section 718.01 Retroreflective Sheeting	FP-96 (FHWA)
Color Measurement	ASTM E 1347
Gloss Measurement	ASTM E 1349
Retroreflection Measurement	ASTM D 523
Impact Resistance	ASTM E 810
	ASTM D 2794

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Important Notice

All statements, technical information and recommendations contained herein are based on tests we believe to be reliable, but the accuracy or completeness thereof is not guaranteed, and the following is made in lieu of all warranties, express or implied. Seller's and manufacturer's only obligation shall be to replace such quantity of the product proved to be defective. Neither seller nor manufacturer shall be liable for any injury, loss or damage, direct or consequential, arising out of the use of or the inability to use the product. Before using, user shall determine the suitability of the product for his/her intended use, and user assumes all risk and liability whatsoever in connection therewith. Statements or recommendations not contained herein shall have no force or effect unless in an agreement signed by officers of seller and manufacturer.



Traffic Control Materials Division
3M Center, Building 225-SS-08
P.O. Box 33225
St. Paul, MN 55133-3225
www.3M.com/tcm

3M Canada
P.O. Box 5757
London, Ontario N6A 4T1

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MAJLIS BANDARAYA PETALING JAYA

Standard Specification For Supply Of Black Earth & Close Turfing

1. **Site Clearance**
The contractor is to clear the entire region marked in red colour as indicated on plan of all vegetation, debris, bushes,alang, stones etc. The boundary where clearing work should be done well in advance of the minor trimming and turfing. All roots of trees, shrubs etc. Must be grubbed up and cart away.
2. **Minor Trimming of Areas to be Turfed**
Before the turfing work can be carried out, the contractor will be responsible to do minor trimming at isolated places especially at the slope. The Contractor is expected to include the cost of trimming into the cost of turfing. No extra claim will be entertained for trimming of ground.
3. **Supply of Black Earth**
The contractor is required to supply and spread a 1" layer of approved black earth as top soil for close turfing the entire area shown in red colour on plan. The black earth supplied must be of suitable quality as top soil for close turfing purposes. Its quality is subject to the approval by the S.O. or his representative. If requested by the S.O., the contractor may be required to supply a lorry load as sample. The sample will have to be placed at a particular spot in the vicinity of the site concerned for the purpose of comparison with the loads of black earth supplied subsequently.
4. **Close Turfing**
The Entire area coloured red on plan should be close turfed unless otherwise specified, with approved wide blade couch grass (cow grass) including the sloping area.
All turfing on slopes should be securely pegged. The contractor shall ensure that the grass are watered regularly until satisfactorily established. The contractor will be liable for the maintenance of the turfing for a period of 6 month and should at his own expense return those isolated cases where the turfing is not well established.
5. **Payments of work Done**
The payment of this contract shall be based on the actual area measured and shall be priced according to the rates quoted.
6. **Turfing on Slope**
All ground with inclination of more than 20% with respect to the horizontal will be regarded as slope ground and for turfing work purpose secured pegs will be required.
7. **Condition of Tendering**
All contractors intending to tender for this job are advised to visit the site and if requested arrangement, will be made for any clarifications that may be sought.

SPECIFICATION FOR SUPPLY AND LAY OF P.C. KERBS

- D/1. All concrete kerbs shall be cast in steel moulds to the required sizes and dimensions as shown on plan.
- D/2. The cost per meter run shall include for excavation, concrete to base, haunching, cost of supplying and fixing of kerbs, filling up with earth behind the kerbs up to 1,000 mm width including levelling off and compaction. The portion of road in front of kerb to be made good with 75 mm deep. 1:3:6 - 20 mm concrete.
- D/3. The concrete to base and haunching shall be 1:3:6 mix./20 mm agg.
- D/4. The precast concrete kerbs shall be of 1:2:4 mix./20 agg. and the kerbs shall be allowed to cure for at least 14 days before use. A sample must be submitted for approval before use of the kerbs.
- D/5. Outlet holes for scupper drains shall be provided at a distance of not greater than 10 m intervals and whenever required a round corner to be not less than 1.5 m interval.
- D/6. The Quantities are provisional only and payment will be made for the actual work carried out on site.
- D/7. All corner kerbs shall be cast with the appropriate radius.
- D/8. All precast concrete kerbs shall have a smooth exposed surface free from honeycomb/segregation and approval from the S.O.

MAJLIS PERBANDARAN PETALING JAYA
SPECIFICATION
FOR THE SUPPLY OF ROAD TRAFFIC SIGN FOR
MAJLIS PERBANDARAN PETALING JAYA

TRAFFIC SIGNS

General Conditions of Contract

This specification is to be read in conjunction with the General Conditions of Contract.

Description

This work shall consist of the supply, assembly, erection and installation of sign faces, sign plates, posts and backing frames, all in accordance with the details shown on the Drawings and as specified herein. It shall include all excavation and backfilling, all necessary foundations, anchorages, fixtures and fastenings, brackets, lighting units and electrical installations where required, application of paints and finishes, etc., to complete the work all to the satisfaction of the S.O.

Sign Definitions

For the purpose of this Specification, traffic signs are defined as follows:

- i) Non-illuminated signs are those signs which are not lit either internally or externally and shall be retro-reflective;
- ii) Externally illuminated signs are those which comprise either retro-reflective or non-retro-reflective facing with external lighting luminaries

Sign Classification

For the purpose of this Specification, the following classifications shall apply:

(a) **Permanent Traffic signs**

Any of the traffic signs defined in Sub-Section above or any part thereof as designated on the Drawings or as directed by the S.O. to remain in position upon completion of the works.

(b) **Temporary Traffic Signs**

Any of the traffic signs defined in Sub-Section above or any part thereof designed by the Contractor with the approval of the S.O. which will not remain in position at the completion of the works.

Standards

All traffic signs shall, except where specified otherwise, comply with the requirements of ARAHAN TEKNIK (JALAN) series 2, published by Cawangan Jalan, Ibu Pejabat JKR, Kuala Lumpur.

Permanent Traffic Signs

General Requirements

Permanent traffic signs shall be constructed, assembled, located and erected as shown on the Drawings or as directed by the S.O.

Each complete traffic sign or part thereof shall be capable of passing the test specified in B.S. 873.

All externally illuminated traffic signs shall comply with category 1 luminance of B.S. 873 unless otherwise shown on the Drawings.

Before the commencement of fabrication of any traffic sign, unless otherwise shown on the Drawings, the Contractor shall submit for the S.O.'s approval the details of fabrication drawings for all signs.

All traffic sign housings shall be provided with vandal and weather resistant locks. Keys, in the quantities determined by the S.O., shall be provided to the S.O. Types of lock shall be kept to a minimum.

Traffic signs shall be carefully handled to prevent damage (method shall include the use of proper slings), and shall be transported and stored in accordance with the manufacturer's instructions.

Wide Angle Prismatic Lens Retro-Reflective Sheeting

Wide-angle prismatic lens Retro-Reflective sheeting (WAPLERRS) material shall be used for the faces of all signs.

The color required is to conform to the Road Traffic Ordinance 1958 color for Traffic Signs or any new amendments thereafter

Samples (General)

Samples of the following traffic signs shall be submitted together with the tender.

- i. Size 750mm dia. Circular shape 'No Entry' (RP 4)
- ii. Size 900mm dia. Octagonal shape 'Berhenti' (RP 1)
- iii. Size 750mm dia. Triangular shape 'Beri Laluan' (RP13)
- iv. Size 750mm dia. Square shape 'Lampu Isyarat Dihadapan' (WD22)

Only samples submitted by the successful contractor shall be retained until the expiration of this contract. (Sample of unsuccessful tenderers will be returned)

It should be noted that the quality of the samples submitted should be taken into account in assessing the tenders received and that the lowest quotation will not necessarily be accepted.

Samples shall be clearly marked with the name and address of the Contractor. Tenders received without sample shall not be considered.

Method of Application of Wide Angle Prismatic Lens Retro Reflective Sheeting

The Contractor will start their work after get approval from S.O based on the samples.

The surface to which the wide-angle prismatic lens retro reflective sheeting is to be applied shall perfectly smooth and shall be free of all irregularities. The aluminum plate shall be cleansed by washing and edging with cold water and a suitable detergent. It should be noted that the manufactures recommend common household detergents. Washing should be continued until all oil, grease or other foreign material has been removed and the surface shall then flushed with cold water only. Soap Shall Not Be Used For Any Process In This Connection.

On completion of cleaning of the surface, apply the wide angle prismatic lens retro reflective sheeting by removing the protective paper backing as recommend by the manufacturer. The face of the sign after fixing on to the FRP sheet shall be covered by the paper backing to protect the face from scratching and defacing during handling and delivery.

Vacuum Applicator

The approved method of application for wide angle prismatic lens retro reflective sheeting is by means of a vacuum heat applicator.

Foundations

The type and size of foundations for permanent traffic signs shall be as shown on the Drawings and, unless otherwise stated therein, shall comply with this Specification.

All excavations, erection of formworks, placing of reinforcement, etc., for foundations shall be carried out in compliance with this Specification and shall be approved by the S.O. before placing of concrete and backfilling.

Unless otherwise shown on the Drawings, signs supported by a single post placed in the ground shall have the post installed centrally in 300 mm diameter holes filled with grade 20/20 cor complying with Section 9 of this Specification to within 500 mm of the ground surface. The hole shall be excavated either mechanically or manually.

Posts shall be supported for a minimum of three (3) days after placing the concrete. Backfilling shall not take place until at least 48 hours after placing the concrete, or other period agreed by the S.O.

Where signs are illuminated, provision shall be made for cable entry through the foundation by means of ducting as shown on the Drawings.

Where pockets are formed in concrete foundations their plan dimensions shall be 100 mm larger than of the post.

All backfilling of foundation pits and reinstatement of existing surfaces above the foundations shall comply with the relevant requirements of this Specification.

Posts

Posts for permanent traffic signs shall be as shown on the Drawings and shall comply with B.S. 873.

Posts shall be of tubular hollow section Galvanized Iron, Class A of not less than 75 mm outside diameter complying with B.S. 1387.

Unless otherwise shown on the Drawing, posts shall not protrude above the top of the sign unless supporting an external luminary where the protrusion shall be kept to a minimum.

Signs created on a single post shall be positioned so that the post is in the center of the sign, unless otherwise shown on the Drawings.

Compartments for electrical equipment shall be as shown on the drawings. In the case of signs supported by more than one post, such compartments shall be on the post furthest from the carriageway unless otherwise directed by the S.O.

Flange plates shall have holes or slots as shown on the drawings to accommodate any holding down bolts.

Sign Plates

All permanent sign plates shall be as shown on the Drawings and shall comply with B.S. 873. Sign plates shall be made of Fiber Reinforced Plastic (FRP) sheet with a minimum thickness of 3 mm.

All Fiber Reinforced Plastic (FRP) sheet shall be of Hand-Lay-Up process consisting of 2 glass mats in 3 mm thickness. Resin to be Polyester Resin. Color shall be homogenous black. Finishing shall be gel coated on one side and semi-smooth on other.

If material is found unsatisfactory, proof from manufactures/importers as to quality may be requested for.

A sign not exceeding 1.2 m in height and 2.4 m in width shall be made from a single sheet.

Where more than one sheet is used to make up a sign plate, the sheets shall be rectangular, of approximately the same size and shape, and the position of the joints shall be to the approval of the S.O.

Sign plates shall be drilled at all locations where rivets or bolts are required for attaching the plate to the backing frame or fixings before application of the sign face. However, riveting shall be carried out only after the application of the sign face.

Subject to the S.O.'s approval, double sided "Very High Bond" (V.H.B.) tapes may be used as an alternative to rivets. Nevertheless, the tape shall comply with the following requirements: -

- i) Peel Adhesion - 440 N per 100 mm
- ii) Tensile Adhesion - 910 kPa;
- iii) Dynamic Shear - 550 kPa.

Where top and bottom light spill screens are required as shown on the Drawings, these shall extend for the whole width of the sign, be fabricated out of the same material as the sign plate and shall have corners cut to the same radius as the other corners of the sign plate.

Top and bottom light spill screens shall be considered part of the sign plate and any stiffeners and mounting fittings shall be designed to accommodate the combined size.

Sign Faces

Sign faces for permanent traffic signs shall be as shown on the Drawings and shall comply with the 'Draft Malaysian Standard Specification for Reflective Sign Face Materials (SIRIM Reference D111 (ISCF)), and on replacement of this draft, the respective Malaysian Standard Specification.

All retro-reflective plastic sheeting shall be fixed in accordance with the manufacturer's instructions.

Unless otherwise agreed by the S.O., sign faces shall be formed from a single piece of plastic sheeting.

Where, with the agreement of the S.O., more than one plastic sheet is used, the number of sheets shall be kept to a minimum. All faces up to 1 m in size shall be produced with a single sheet and joint will be accepted.

Only vertical and horizontal joints shall be permitted and all joints in plastic sheeting shall be overlapped by not less than 6 mm. The overlap in the horizontal joints shall be from the top and the vertical joints be from the left; butt joints in plastic sheeting will not be accepted.

Plastic sheeting shall be applied evenly over the whole surface of the sign plate and shall adhere fully. It shall be free from twists, cracks, folds or cuts, air bubbles and other blemishes.

All plastic sheeting used on the same sign shall be carefully matched for color to produce a uniform appearance both by day and by night. Non-uniform shades of color on any sign will not be accepted.

The edge of all plastic sheeting shall be sealed. Edge sealing shall be continuous and uniform and shall also be applied to all bolt and rivet holes.

A coat of lacquer shall be applied to the whole of the face and edge of each finished sign plate at the time of fabrication. The lacquer shall be continuous and uniform and shall be the type specified or supplied by the manufacturer of the sheeting material.

Where sheeting is applied to extruded sections by pressure roller, it shall extend over the top and bottom edges of these sections by not less than 3 mm.

Any cut-out letters, numerals, symbols and borders shall be of material compatible with the sheeting to which they are applied. They shall be applied in accordance with the sheeting manufacturer's.

Screen processed letters, numerals, symbols and borders shall be screen printed with materials in accordance with the sheeting manufacturer's instructions. Any inks, pastes and finishing coats used shall be compatible with the sheeting material.

The finish of all sign faces shall be capable of passing the tests described in B.S. 873, and the standards of fabrication and workmanship shall be such that under normal conditions of service and proper maintenance, the sign faces shall last not less than 5 years without any serious blemishes or defects for Engineering Grade retro-reflective sheeting and 8 years for High Intensity retro-reflective sheeting. The Contractor shall furnish to the S.O. a letter of warranty for the specified period for all sign faces from the supplier of the sheeting or the sign fabricator.

Backing Frames

Backing frames for permanent traffic signs shall be as shown on the Drawings and shall comply with this Specification.

Signs exceeding 600 mm in height or width shall be stiffened by means of angles while signs exceeding 1 m in height or width shall have a backing frame fabricated from 40 mm x 3 mm angles. The angles used for the backing frames shall be made from hot dipped galvanized iron.

The angles shall be welded, bolted or riveted together to form the backing frames as shown on the Drawings.

Backing frames shall not project beyond the sign.

Where large signs are built in sections, the backing frames of these sections shall be bolted together with 8 mm diameter bolts at not more than 200 mm centers.

The details of joints between angles of the backing frame and of joints between sections of large signs shall be to the approval of the S.O.

The sign plate shall be riveted to the backing frame after the application of the sign face.

Sign Dating

Sign dating sticker (150mm x 150mm) shall be provided by contractor on the back of every traffic sign. Example of a sign dating sticker is as shown

The objective of a sign dating sticker on a traffic sign are identified as follows:-

- i. To have a uniform sign dating implementation to all end-users and concession companies.
- ii. Allows agencies to know and determine the useful life of the sheeting, average annual cost of the sheeting and actual performance versus performance claims of the sheeting.
- iii. Allow agencies to plan budget and program installation, maintenance and replacement on a programmed basis.
- iv. As evidence of installation dates and attention to problem areas.
- v. Allows recovery if materials fails to meet warranty claims.
- vi. The sign dating sticker can be used as an effective tool for sign inventory maintenance. The usage of color coding enable engineers and its users to have quick and easy reference on the fabrication date and year, the contractor/sign manufacturer and the sheeting manufacturer.

Construction and Assembly

Traffic signs shall be constructed and assembled as shown on the Drawings and shall comply with B.S. 873.

All sign plates, backing frames, purlins, posts and other components shall be de-burred prior to assembly.

Where framing and stiffening are not an integral part of the plate, their joints shall be welded or joined with suitable brackets utilizing nuts, bolts and washers.

Where purlins are adopted, they shall be attached to each vertical member of the backing frame and the sign stiffening and framing shall be continuous in the vertical direction. Unless otherwise permitted by the S.O., purlins shall be spaced equally apart. Connections shall be made at every point where a purlins crosses a post.

Where purlins are not adopted, the sign stiffening and framing shall be continuous in the horizontal direction.

All rivets and other devices used in the fixing of sign plates to their stiffeners or backing frames, or those used in the construction of housings, shall be of a material compatible with the materials being joined.

Spacing of rivets or other devices used in the fixing of sign plates to their stiffeners or backing frames shall be uniform and shall not exceed 150 mm around the outside edge of any sheet or section of a sheet, and shall not exceed 300 mm on cross braces. Hollow rivets shall be filled with a plastic plug flush with the head of the rivet.

An additional washer of neoprene, nylon or other material approved by the S.O. shall be used against the sign face to protect it from the effects of any metal nuts, bolts, washers and/or screws.

Where traffic signs, including external lighting luminaries or their supports, are required to have holding down bolt fixings, the bolts shall be lightly greased before final installation and their anchorages shall be installed so as to achieve the holdings, torque settings and requirements shown on the Drawings.

Sign plates shall be connected to posts by a method approved by the S.O. Banding system shall be of stainless steel.

Where ferrous components are permitted, any drilling of such components shall be completed before the application of any finish.

Any hole drilled to accommodate rivets or bolts in plates with plastic sheeting shall, immediately prior to the insertion of the rivet or bolt, have a clear lacquer, as recommended by the manufacturer of the plastic sheeting, applied to its edge to prevent the ingress of moisture. The surfaces of rivets or bolts exposed on the sign face shall be colored by a material approved by the S.O. to match that part of the face.

Traffic signs to be erected on road lighting columns shall have fixings compatible with the column cross-section and finish. Unless otherwise permitted by the S.O., columns shall not be drilled and wiring shall be contained in approved external conduits.

In addition to the requirements of the Specification, variable message traffic signs shall be of a type approved by the relevant authorities.

Location and Erection

The approximate location of each permanent traffic sign shall be as shown on the Drawings. All traffic signs shall have their exact location determined by the S.O. and recorded on the as-built Drawings.

All posts shall be erected plumb and where two or more posts are provided for any one sign, the face of the posts shall be lined up.

Signs erected on two posts shall have each post positioned so that the distance from the center of the post to the edge of the sign plate is 300 mm unless otherwise directed by S.O.

Any pockets formed in concrete foundations to receive the posts shall immediately prior to erection be cleaned out. The posts shall be placed centrally in the pockets and be bedded on and filled up to finished foundation level with grade 20/20 concrete.

Traffic signs mounted on posts, except those on gantries, shall be erected to have their faces plumb and orientated in relation to the carriageway in accordance with ARAHAN TEKNIK (JALAN) 2B/85.

Traffic signs mounted on gantries, shall be erected as shown on the drawings. No traffic sign shall be dismantled, resited or removed without prior approval from the S.O.

Covering of permanent Traffic Signs.

Where it is required in the Contract that permanent traffic signs are to be blanked-out or are to have an alternative message, the covering to be adopted shall comply with the following requirements.

The covering shall be 1.5 mm (16 S.W.G) thick made from a material compatible with that of the sign plate, or a material approved by the S.O.

Cover plates shall be fixed by means of 5 mm diameter stainless steel bolts, washers and nuts or non-ferrous rivets not more than 600 mm apart, the bolts passing through 12 mm diameter, 5 mm thick plastic distance pieces between the sign face and cover plate. Any holes remaining in the finished sign face shall be filled with blocked rivets colored on the face by methods approved by the S.O.

Where self-adhesive plastic film is used, it shall be compatible with the sign face materials and be applied and removed in compliance with the manufacturer's instructions.

Any loose covering used must be sufficiently opaque to prevent reflection from the covered sign and be securely fastened to the back of the sign. Under no circumstances shall tape or other adhesive material be applied to the face of the sign. A minimum space of 50 mm shall be left between the covering and the face to permit airflow over the sign.

Traffic signs that are to be covered shall not be erected on trafficked highways without the covering in place.

Removal of any covering shall be carried out with minimum disturbance to traffic and only after the S.O. has given his approval.

Irrespective of any requirement in the Contract to cover signs, any traffic sign erected at such time that its legend does not relate either wholly or in part to the traffic movement and route in operation, shall have its sign face securely covered with one of the materials described above until such time as the S.O. authorizes its removal.

Traffic Signs On Gantries

Where traffic signs are erected on gantries, the signs shall comply with the relevant requirements of this Specification.

Fabrication and construction of gantries shall be shown on the Drawings and as directed by the S.O.

Preparation and Finish of Metal and Other Surfaces

Traffic signs shall be prepared, protected against corrosion and finished in compliance with B.S 873.

Faces of sign plates shall be prepared to receive sign face materials in compliance with B.S 873 and in accordance with the manufacturer's recommendations.

Steel backing frames, fittings and purlins shall be prepared and protected in compliance with B.S 873.

Steel posts and posts housings shall be prepared and protected in compliance with B.S 873.

Backs of Fiber Reinforced Plastic (FRP) sheets forming plate signs and external parts of luminaire housings and other permanently expose components shall, to prevent retro-reflection, be dulled with paint using a method approved by the S.O.

Ferrous steel shall be finished both inside and out by galvanizing, electroplating or application of zinc or aluminum spray or other equivalent finish approved by the S.O. aluminum and other metals shall be left untreated unless otherwise shown on the Drawings.

Unless otherwise shown on the Drawings, stainless steel shall be left untreated except where the component is visible against the sign face when it shall be colored on the face by method approved by the S.O.

External surfaces shall be prepared and protected as described in the Contract. Cabinets and feeder pillars shall have final coats of paint applied on Site after final installation, including the fitting of any internal apparatus required as part of the permanent Works. Internal surfaces shall, unless otherwise shown on the Drawings, receive the same treatment as for external surfaces except that final paint coats shall be applied before internal components are installed.

Compliance with Contract Orders

When a Contractor does not execute and order within a period of contract or supply item that do not comply with the requirements of this contract, the Municipality reserves right to cancel the order and make arrangements, after the expiry of the two weeks period, for the supply of all part of the signs for other sources and any extra cost so incurred will be charged to the contractor or deducted from monies due to the Contractor.

Guaranteed Period

The Contractor shall guarantee and be liable for all the signs supplied to the Municipality for a period of 5 years from any defects such as discoloring and peeling, cracking or any other causes due to manufacturing defects.

Inspection

The Municipal Engineer or his representative shall have access to the Contractor's Workshop to inspect and reject any signs that are not made to specification.

MAJLIS BANDARAYA PETALING JAYA

SPECIFICATION FOR BRICKLAYER

Bricks

1. (a) Common clay bricks shall be from an approved kiln and shall be of standard size, hard, sound and well burnt. No soft, broken, twisted or otherwise defective bricks may be used.

(b) All bricks shall be thoroughly wetted in a satisfactory manner before being laid. No bricks shall absorb more than 15% of its own weight when soaked in water.

Mortar

2. Mortar shall be comprised of 1 part of cement, and 3 parts of sand by volume measured in proper gauge boxes. All constituents of mortar shall be thoroughly while dry to ensure uniformity of composition and shall be mixed on a clean water tight platform and used immediately after addition of the appropriate amount of water. On no account shall mortar be mixed or used after partially setting.

Brickwork Generally

3. (a) All mortar joints shall not exceed 3/8" in thickness, so that no four courses shall rise more than one foot. Vertical joints of alternate courses shall be directly above one another. Bricks shall be properly bedded in mortar and surplus mortar struck off flush. Exposed joints on all walls specified to be rendered shall be raked out to a depth of 1/2", to provide an adequate key.

(b) All brickwork shall be in 'English Bond' with the exception of half brick walling which shall be in 'Stretcher Bond'. No bats shall be used except as required for closers to obtain the true bond.

(c) All unfinished brickwork shall be left toothed with projecting headers to form bond with succeeding work. As far as practicable, all walls in each building shall be carried up at uniform height during construction otherwise no brickwork shall be carried up more than 3'-0" above adjacent work.

(d) Brickwall shall be accurately set out and built true to line and face with vertical surfaces truly plumb and horizontal joints truly level. Intersections, angles, pilasters and piers shall be properly bonded. Broken bricks may be used only to obtain bond.

(e) All clay bricks shall be soaked in water for at least 30 minutes before being laid and the contractor shall provide sufficient tanks for this to be done. Brickwork shall be protected from sunlight by damp sacks for at least 36 hours after being laid.

DOKUMEN F

**SYARAT-SYARAT
KESELAMATAN, KESIHATAN
PEKERJAAN DAN ALAM
SEKITAR (KKPAS)**



SYARAT-SYARAT KKPAS KEPADA KONTRAKTOR

Dokumen Meja Terkawal

Lampiran 5

NO.	PERKARA
1.	Mengenalpasti Bahaya, Penilaian Risiko dan Penentuan Kawalan (HIRADC) a) Penyediaan Mengenalpasti Bahaya, Penilaian Risiko dan Penentuan Kawalan (HIRADC) untuk semua dan setiap aktiviti kerja yang dilakukan oleh kakitangan, pekerja dan pekerja kontrak. b) Menyiapkan, menyemak semula, mengemaskini dan menyerahkan HIRADC sebelum bermulanya setiap kerja sepanjang tempoh kontrak.
2.	Pelan Keselamatan, Kesihatan Pekerjaan dan Alam Sekitar (KKPAS) a) Penyediaan dan penyerahan Pelan Keselamatan, Kesihatan Pekerjaan dan Alam Sekitar (KKPAS) yang merangkumi prosedur – prosedur seperti yang tercatat di dalam Lampiran 3: Pelan KKPAS
3.	Personel Keselamatan dan Kesihatan Pekerjaan atau Orang Kompeten a) Operator Kren yang ditauliahkan oleh JKPP b) Pemeriksa Bulanan Peranti Mengangkat c) Penyelia Aktiviti Angkat-Mengangkat d) Penyelia Aktiviti Pengorekan dan Penggalian e) Pemeriksa Bulanan Mesin, Jentera dan Peralatan Berkuasa Mudah Alih f) Pengawal Keselamatan Tapak
4.	Pengeluaran, Pematuhan dan Penutupan Permit Bekerja (Permit To Work – PTW) Penyediaan, pengeluaran dan penutupan Sistem PTW untuk aktiviti-aktiviti yang berisiko tinggi termasuk, tetapi tidak terhad kepada: a) Angkat-mengangkat beban menggunakan <i>Mobile Crane</i> b) Angkat-mengangkat orang menggunakan <i>Skylift</i> atau <i>Boomlift</i> atau <i>Scissorslift</i> c) Penggalian atau pengorekan yang kedalamannya melebihi 2 meter d) Memasuki Ruang Terkurung atau <i>Confined Space</i> dibawah Kod Amalan Ruang Terkurung 2010 oleh JKPP atau <i>DOSH</i> e) Kerja-kerja runtuh bangunan atau struktur f) Aktiviti-aktiviti yang melibatkan gangguan dan kemungkinan kemalangan kepada trafik atau lalulintas. g) Bekerja di tempat tinggi yang melebihi 2 meter seperti di atas Perancah, di atas bumbung, h) Aktiviti yang melibatkan penggunaan mesin X-Ray atau Bahan radioaktif untuk tujuan <i>Non Destructive Testing (NDT)</i> i) Kerja-kerja Panas atau <i>Hot Work</i> yang boleh menyebabkan kebakaran atau letupan seperti mengimpal, mencanai atau memotong besi j) Kerja yang dilakukan di waktu malam selepas pukul 7 pm
5.	Mesyuarat Jawatankuasa KKPAS (Jika ada 40 Pekerja atau lebih) Menjalankan mesyuarat dan pemeriksaan KKPAS dalam tempoh kontrak seperti: a) Mesyuarat Jawatankuasa setiap bulan bagi tempoh kontrak. b) Pemeriksaan Tempat Kerja oleh Jawatankuasa setiap bulan.
6.	Pemeriksaan KKPAS di tapak a) Pemeriksaan KKPAS di tapak oleh SHO atau SSS pada setiap hari
7.	Induksi dan Latihan KKPAS Menghadiri atau menjalankan latihan dan kursus induksi untuk setiap pekerja dan mana-mana kursus berkaitan yang diperlukan, untuk keseluruhan projek. a) Kursus CIDB Kad Hijau

	b) Kursus Induksi keselamatan dan kesihatan pekerjaan MBPJ c) Taklimat Harian KKPAS (<i>Tool box Talk</i>) d) Latihan berkenaan Peraturan Jawatan Kuasa KKPAS 1996 untuk ahli-ahli Jawatankuasa. e) Prosedur Kerja Selamat (<i>Safe Operating Procedure</i>) f) Bekerja di Tempat Tinggi g) Persediaan Kecemasan, Tindakan Kecemasan dan Pengosongan Bangunan/Tapak h) Memadamkan kebakaran i) Pertolongan Cemas dan <i>CPR</i> j) Keselamatan pengendalian bahan kimia k) Keselamatan pengendalian jentera, mesin dan peralatan seperti <i>Forklift</i>, <i>Overhead Crane</i>, <i>Skylift</i>, <i>Back Hoe</i>, <i>Bar bender</i>, <i>bar Cutter</i>, <i>Pile Rig</i>, dan lain lain yang berkenaan l) Keselamatan operasi mengangkat menggunakan Kren dan <i>Skylift</i> m) Keselamatan bekerja di atas jalan raya n) Keselamatan pemanduan berhempah di jalanraya o) Permit Bekerja dengan selamat (Permit To Work – PTW) p) Keselamatan Ruang Terkurung q) Penjagaan Alam Sekitar r) Dan lain-lain yang dirasakan perlu berdasarkan hasil penilaian HIRADC.
8.	Penyediaan Permit Bekerja, Skim Insuran, CIDB <i>Green Card</i> dan Pemeriksaan Kesihatan a) Pihak Kontraktor mestilah memastikan setiap pekerja yang bekerja di tapak mempunyai Permit Bekerja yang sah dari Jabatan Imigresen b) Pihak Kontraktor mestilah memastikan Skim Pampasan Insuran Nyawa atau Kemalangan kepada setiap pekerja c) Pihak Kontraktor mestilah memastikan setiap pekerja telah menghadiri Kursus Kad Hijau atau <i>Green Card</i> yang ditauliahkan oleh CIDB dan mempunyai <i>Green Card</i> CIDB yang sah sepanjang tempoh kontrak d) Pihak Kontraktor mestilah memastikan setiap pekerja sentiasa sihat mental dan fizikal ketika berada di tapak kerja. Pemeriksaan kesihatan yang berkala mestilah dilakukan ke atas setiap pekerja untuk memastikan kesihatan pekerja sentiasa terjamin semasa berada di tapak kerja.
9.	Alatan Perlindungan Diri (<i>Personnel Protective Equipment – PPE</i>) Menyediakan (mengikut keperluan yang tercatat di dalam Borang HIRADC), menyelenggara dan menggantikan mana-mana kerosakan alatan pelindung diri yang telah diluluskan oleh SIRIM atau JKPP (<i>DOSH</i>) atau Badan-Badan Antarabangsa yang bertaualiah kepada semua pekerja, pekerja sub kontrak. a) <i>Vest</i> Keselamatan Berwarna Kuning dengan Pemantul Cahaya b) Cermin Mata Keselamatan atau <i>Safety Glasses</i> c) Gogal Keselamatan atau <i>Safety Goggles</i> d) Pelindung Muka atau <i>Face Shield</i> e) Abah-Abah Keselamatan atau <i>Safety Harness</i> dan Tali Penyangkut atau <i>lanyards</i> f) Kasut keselamatan atau <i>Safety boots</i> g) Sarung Tangan Keselamatan (Sarung tangan yang sesuai dengan aktiviti tersebut seperti Sarung Tangan Kalis Kimia untuk pengendalian bahan kimia) h) Topi keselamatan atau <i>Safety Helmet</i> i) Penyumbat atau Penutup Telinga atau <i>Ear Plugs</i> atau <i>Ear Muffs</i> j) Peralatan Perlindungan Pernafasan (untuk kerja-kerja ruang terkurung, berhabuk dan pendedahan kepada bahan kimia) k) Pakaian perlindungan atau <i>Coverall</i> l) Lain-lain (sila nyatakan)
10.	Penyediaan Laporan Bulanan/Mingguan KKPAS a) Menyediakan laporan bulanan atau mingguan KKPAS dan laporan penutupan hasil penemuan audit KKPAS kepada Penyelia Projek, iaitu Kakitangan MBPJ

11.	Pemeriksaan dan Penyelenggaraan Berkala Peranti Mengangkat (Seperti <i>Wire Rope, Chain Block, Web Sling, Shackle, Eye bolts</i>) dan Penyimpanan Rekod a) Pemeriksaan bulanan peranti mengangkat untuk memastikan penggunaan yang selamat b) Menyimpan dan menyelenggara secara berkala semua rekod pemeriksaan dan ujian
12.	Pemeriksaan dan Penyelenggaraan Berkala Jentera & Mesin dan Penyimpanan Rekod a) Pemeriksaan bulanan jentera, mesin dan peralatan berkuasa mudah alih untuk memastikan penggunaan yang selamat dan peranti keselamatan seperti suis kecemasan, <i>protective guard, sensor keselamatan, interlock keselamatan</i> sentiasa berfungsi. b) Pemeriksaan wajib oleh JKPP atau <i>DOSH</i> pada setiap 15 bulan untuk mesin dan jentera seperti <i>Mobile Crane, Tower Crane, Crawler Crane, Compressor, Pile Rig</i> dan <i>Skylift</i> c) Penyelenggaraan bulanan jentera, mesin dan peralatan berkuasa mudah alih secara berkala mengikut spesifikasi yang telah ditetapkan oleh pihak Pengeluar atau Pembekal. d) Menyimpan dan menyelenggara secara berkala semua rekod pemeriksaan jentera, mesin, peralatan berkuasa mudah alih e) Jentera, Mesin dan Peralatan yang dimaksudkan termasuk, tetapi tidak terhad kepada: I. Kren menara dan peralatannya II. Kren mudah alih/ (<i>Mobile/Crawler crane</i>) dan peralatannya III. <i>Hoist</i> bahan dan <i>Hoist</i> penumpang IV. Pelantar Bekerja Berkuasa Turun Naik & Mudah Alih seperti <i>Skylift, Boom Lift, Scissors Lift</i> V. Mesin <i>Bar Bender</i> dan <i>Bar Cutter</i> VI. Penggerak utama (<i>Prime Mover</i> seperti <i>Disel Genset</i>) VII. Mesin pemotongan mekanikal seperti <i>Drill, Grinder, Cutter</i> VIII. Gondola atau Pelantar Tergantung IX. Peralatan dan mesin elektrik X. Perancah XI. Pengandung Tekanan dan Mesin Pemampat (<i>Compressor</i>) XII. Mesin Cerucuk (<i>Pile Rig</i>), Mesin Cerucuk <i>Sheet Pile, Back Hoe</i> XIII. dan sebagainya
13.	Peralatan Kecemasan atau Kecederaan a) Menyediakan dan penyelenggaraan peti pertolongan cemas yang mencukupi b) Menyediakan sekurang-kurangnya seorang pekerja yang terlatih dengan ilmu Pertolongan Cemas yang sentiasa ada di tapak projek
14.	Keselamatan Elektrik a) Penggunaan <i>industrial plug</i>, soket, wayar penyambung, <i>Distribution Board (DB)</i> yang diluluskan oleh SIRIM b) Penjagaan dan penyelenggaraan wayar elektrik, wayar penyambung, soket dan <i>DB</i> c) Pemeriksaan bulanan kepada semua peralatan berkuasa elektrik d) Jarak selamat bekerja berhampiran dengan Wayar TNB di atas kepala (<i>TNB Overhead Electrical Transmission Cable</i>)
15.	Keselamatan Kerja-Kerja Pengorekan atau Penggalian a) Penyediaan dan penyelenggaraan pagar kawasan pengorekan atau penggalian untuk kedalaman melebihi 3 meter b) Pemasangan dan penyelenggaraan Papan tanda, kon keselamatan, tali keselamatan, lampu <i>spotlight</i> di waktu malam dan lampu kelip-kelip c) Penyediaan Pengawal Bendera jika pengorekan dilakukan di jalanraya. d) Tangga keluar masuk yang selamat untuk kedalaman melebihi 1.2 meter e) Pemeriksaan keselamatan kawasan pengorekan setiap minggu atau selepas hujan ribut dan banjir, dilakukan oleh Penelia Pengorekan
16.	Perancah (Scaffolding): a) Menyediakan Pemasang Perancah yang terlatih dan mempunyai sijil latihan

	b) Memastikan setiap perancah yang dibina yang melebihi 3 meter diluluskan oleh Perancah Kompeten (Competent Scaffolder) yang bertauliah dan sah dari pihak JKKP atau DOSH dan ditandakan dengan <i>Scaffold Tag</i> Hijau. c) Memastikan perancah yang dibina dilengkapi dengan <i>base plate</i>, <i>sole board</i>, pelantar yang tidak terbuka atau ruang yang terbuka, <i>top rail</i>, <i>mid rail</i>, <i>toe board</i>, tangga turun naik yang khas dan struktur yang stabil.
17.	Perlindungan Kepada Orang Awam & Alam Sekitar a) Tiada bahaya kemalangan trafik disebabkan oleh kerja-kerja yang berhampiran dengan jalanraya awam b) Pembersihan lumpur dan tanah dari kenderaan yang keluar dari tapak kerja dan tiada pengaliran lumpur atau tanah dari tapak kerja ke longkang awam atau keluar dari tapak kerja. c) Tiada kebisingan yang melampau (Kurang dari 55 dBA di waktu malam dan kurang dari 65 dBA di waktu siang) dari tapak kerja d) Tiada asap hitam (melebihi skala No. 1 Carta Ringlemann) yang dilepaskan oleh kenderaan atau jentera di tapak e) Penyaliran najis kumbahan ke tangki septic dan tidak ke longkang awam f) Pengawal lalulintas atau trafik di pintu masuk utama tapak kerja
18.	Peralatan Pemadaman Kebakaran a) Menyediakan dan menyelenggara alat pemadam api mudah alih yang mencukupi dan sah di tempat kerja b) Lain-lain peralatan menghadapi kecemasan seperti <i>Loud Hailer</i> dan <i>Siren</i>
19.	Pencegahan Kejatuhan di Tempat Kerja a) Sisi dan tepi yang tidak dilindungi Membekal, memasang, mendirikan dan menyelenggara pagar penghadang, <i>barricade</i> dan <i>toe board</i> untuk tepi / bukaan terdedah tetapi tidak terhad kepada: I. Bukaan perimeter bangunan II. Bukaan <i>Lift Shaft</i> III. Bukaan Lantai IV. Pelantar bekerja V. Pelantar muatan (<i>Loading platform</i>) b) Susur Tangan Menyediakan, memasang dan menyelenggara susur tangan sementara di tangga yang digunakan sebagai akses dan jalan keluar/masuk. c) Penutupan sementara Menyediakan, memasang dan menyelenggara penutupan sementara yang mencukupi dengan menggunakan bahan yang tebal dan kuat untuk mana-mana bukaan lantai apabila pagar penghadang/ <i>barricade</i> tidak sesuai digunakan. d) Jaring Keselamatan/ <i>peripheral net</i> Menyediakan, memasang dan menyelenggara jaring keselamatan dan <i>peripheral net</i> untuk mengelakkan kejatuhan objek e) Sistem penangkap individu terjatuh Menyediakan, memasang dan menyelenggara sistem penangkap individu jika terjatuh yang termasuk: I. <i>anchor/ hook</i> penyangkut <i>lanyard</i> keselamatan II. Abah-abah keselamatan atau <i>Safety Harness</i> III. <i>Lanyard</i> IV. <i>Wire Rope Static Life line</i> V. dan lain-lain yang perlu berdasarkan Borang HIRADC f) Sistem mengawal pekerja dari jatuh dan lemas jikalau bekerja berjampiran sungai, tasik atau longkang besar Penyediaan dan penyelenggaraan pagar penghadang atau pelampung atau <i>life jacket</i> dan papan

	tanda amaran
20.	Kemudahan dan fasiliti kepada Pekerja. a) Stor Penyimpanan Barangan Penyediaan dan penyelenggaraan setor penyimpanan barangan, peralatan dan bahan-bahan kerja yang mencukupi, teratur dan bersih b) Tandas Penyediaan dan penyelenggaraan tandas yang mencukupi kepada pekerja c) Kemudahan Air Minuman Penyediaan dan penyelenggaraan air minuman bersih yang mencukupi kepada pekerja d) Pencahayaan Penyediaan dan penyelenggaraan pencahayaan yang mencukupi di kawasan kerja, di laluan dan jalan keluar masuk yang gelap e) Ruang Rehat Penyediaan dan penyelenggaraan ruang rehat yang teduh dari hujan dan panas dan yang selamat dan bersih f) Kawasan Merokok Penyediaan dan penyelenggaraan kawasan merokok yang khas dilengkapi dengan dulang habuk, alat pemadam api dan papan tanda. g) Pengudaraan Penyediaan dan penyelenggaraan pengudaraan mekanikal di kawasan di mana tiada pengudaraan semula jadi terutamanya di kawasan-kawasan yang memerlukan peredaran udara yang berterusan yang melibatkan debu, gas dan asap seperti <i>generator</i>, aktiviti kimpalan, aktiviti mengecat, ruang terkurung, dan lain-lain
21.	Pegendalian Bahan Kimia dan Bahan Berbahaya a) Pelabelan dan Penyimpanan Penyediaan dan pegemaskinian label bekas bahan kimia; penyediaan dan pengawalan bahan kimia dan ruang penyimpanan yang selamat di tapak atau di tempat kerja untuk mematuhi Peraturan Klasifikasi, Pelabelan dan Lembaran Data Keselamatan Bahan Kimia Berbahaya Kepada Kesihatan 2013 (<i>CLASS Regulations 2013</i>) dan Peraturan Penggunaan dan Standard Pendedahan Bahan Kimia Berbahaya kepada Kesihatan (<i>USECHH Regulations 2000</i>) b) Peralatan Pelindungan Diri (PPE) kepada pekerja. Menggunakan <i>PPE</i> untuk mengendalikan bahan kimia berbahaya di tempat kerja untuk mematuhi Peraturan (<i>USECHH Regulations 2000</i>) seperti: I. <i>Goggles</i> II. Cermin mata keselamatan III. Pelindung muka penuh IV. Sarung tangan kalis bahan kimia V. Pelindung Pernafasan atau <i>Respirator</i> VI. Pakaian perlindungan seperti <i>Lab Coat</i> atau <i>Coverall</i> VII. Kasut Keselamatan atau Kasut kulit yang bertutup VIII. dan lain-lain <i>PPE</i> yang diperlukan mengikut kehendak <i>CHRA</i>. c) Program pengendalian bahan kimia berbahaya di tapak Peruntukan untuk menyediakan langkah-langkah berikut: I. Latihan bahan kimia berbahaya di tapak. II. Pemantauan pendedahan bahan kimia berbahaya di tapak. III. Pengawasan kesihatan untuk pekerja yang terdedah kepada bahan kimia berbahaya (Di bawah Jadual ke-2 Peraturan <i>USECHH 2000</i>) di tapak.
22.	Situasi Kerja Khas a) Bekerja di dalam Ruang Terkurung (RT)

	I. Melaksanakan keperluan Sistem PTW dan kehendak prosedur untuk memasuki ruang terkurung dengan selamat. II. Menyediakan, memasang dan menyelenggara tanda-tanda amaran keselamatan untuk ruang terkurung. III. Menyediakan laluan masuk dan keluar yang selamat IV. Menyediakan dan melaksanakan Pelan Tindakan Kecemasan untuk menyelamatkan mangsa jika berlaku apa-apa kemalangan RT. b) Bekerja berhampiran atau di jalanraya awam atau keluar masuk ke jalanraya awam I. Menyediakan Penjaga Bendera atau Pengawal Lalulintas yang mencukupi lengkap dengan vest keselamatan, bendera dan baton yang menyala pada waktu malam untuk mengawal kenderaan di jalan raya awam atau jentera pembinaan yang keluar masuk dari tapak II. Menyediakan papan tanda dan kon-kon keselamatan yang mencukupi (mematuhi Arahan Teknik JKR yang berkaitan) untuk mengelakkan kemalangan dari berlaku.
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Syarat-Syarat ini dipersetujui dan wajib dipatuhi oleh Kontraktor:

Nama:

Tandatangan:

No. K/P:

Jawatan:

Syarikat:

Tarikh:

Cop Syarikat:

DOKUMEN G

**PERJANJIAN PEMATUHAN
ASPEK KESELAMATAN
KESIHATAN PEKERJA DAN
ALAM SEKITAR (OSHE)
TERHADAP KERJA – KERJA
YANG DIJALANKAN OLEH
KONTRAKTOR DI BAWAH
SELIAN MBPJ**



**PERJANJIAN PEMATUHAN ASPEK KESELAMATAN,
KESIHATAN PEKERJAAN DAN ALAM SEKITAR (OSHE)
TERHADAP KERJA-KERJA YANG DIJALANKAN OLEH
KONTRAKTOR DI BAWAH SELIAAN MBPJ**

Tandatangan Kontraktor : _____

1.0 PENALTI

- 1.1 **Kontraktor** di dalam keadaan di mana kerja-kerja kontrak yang dilaksanakan adalah kurang memuaskan dari aspek **pelaksanaan pematuhan OSHE** akan menyebabkan **MBPJ** bertindak dalam apa cara sekalipun dalam memastikan pelaksanaan pematuhan OSHE di tapak dilaksanakan. Dimana kerja-kerja yang dilakukan oleh **Kontraktor** adalah didapati tidak memuaskan dari aspek **pematuhan OSHE** seperti yang diperuntukan dibawah **Perjanjian** ini dan **MBPJ** tidak bercadang untuk menganggap perbuatan **Kontraktor** tersebut sebagai pecah syarat yang boleh mengakibatkan **Perjanjian** ini ditamatkan, **MBPJ** berhak **mengenakan penalti** kepada **kontraktor** seperti yang ditunjukkan di bawah **Jadual Kadar Penalti**.
- 1.2 Jumlah penalti tersebut adalah termasuk jumlah kos atau perbelanjaan yang **MBPJ** belanjakan bagi melakukan kerja-kerja kontrak yang tidak memenuhi keperluan **Perjanjian** ini dan **MBPJ** boleh membuat potongan terhadap bayaran bulanan **Kontraktor** akibat daripada denda / penalti yang dikenakan ini.

Tandatangan Kontraktor : _____



**JADUAL KADAR PENALTI BAGI
KETIDAKPATUHAN ASPEK OSHE**

Tandatangan Kontraktor : _____

2.0 PEMATUHAN PELAKSANAAN OSHE

2.1 Kegagalan pihak kontraktor dan subkontraktor yang menjalankan kerja-kerja di bawah seliaan Majlis mengikut spesifikasi di dalam Prosedur dan keperluan Keselamatan, Kesihatan Pekerjaan dan Alam Sekitar (OSHE) yang telah ditetapkan oleh Majlis akan menyebabkan tindakan pemotongan pembayaran dikenakan. Pegawai Keselamatan dan Kesihatan (SHO) MBPJ akan mengenakan tindakan penalti mengikut kadar yang telah ditetapkan seperti jadual berikut.

a) KATEGORI KESALAHAN / KEGAGALAN BAGI PEMATUHAN KEPERLUAN KESELAMATAN DAN KESIHATAN PEKERJAAN (OSHE) DI TAPAK ATAU KAWASAN KERJA

BIL	KETIDAKPATUHAN	DIKENAKAN TERHADAP	JUMLAH PENALTI (RM)	CATATAN KETIDAKPATUHAN
A	KOMPETENSI			
1.	Gagal melantik Pegawai keselamatan dan kesihatan (SHO) - (Projek melebihi 20 Juta)	Organisasi	5000 / Bulan	
2.	Gagal melantik Penyelia keselamatan tapak binaan (SSS) – (Projek bernilai RM20 Ribu)	Organisasi	3500 / Bulan	
3	Tapak projek tidak mempunyai SHO / SSS semasa kerja dijalankan	Organisasi	500	
4.	Gagal melantik 'Traffic Managemnet Officer' TMO bagi kerja-kerja yang berkaitan jalan raya	Organisasi	5000	
5.	Gagal melantik 'Pengapit' CHRA bagi kerja-kerja berkaitan penilaian bahan kimia	Organisasi	5000	
6.	Gagal melantik Penguji Gas 'Authorised Gas Tester' bagi kerja-kerja berkaitan ruang terkurung	Organisasi	500 / Hari	
7.	Gagal melantik chargeman (AO/A1) bagi kerja-kerja berkaitan elektrik	Organisasi	800 / Ujian	

Tandatangan Kontraktor : _____

B Peralatan Perlindungan Diri (PPE)				
1.	Tidak memakai topi keselamatan (<i>Safety Helmet</i>) semasa di tapak.	Bagi Setiap Penemuan Kesalahan	50	
2.	Tidak memakai kasut keselamatan (<i>Safety Shoes</i>) semasa di tapak.	Bagi Setiap Penemuan Kesalahan	50	
3.	Tidak memakai vest keselamatan (<i>Safety Vest</i>) semasa di tapak.	Bagi Setiap Penemuan Kesalahan	50	
4.	Tidak memakai Peralatan Perlindungan Diri (PPE) yang diperlukan mengikut kerja. (<i>Safety Harness / Respirator / Glove / Goggle / Safety Glass / Ear Muff / Ear Plug / Face Shield</i>)	Bagi Setiap Penemuan Kesalahan	50	
C Perancah (Scaffolding)				
1.	Tiada pengesahan daripada Jurutera Professional bagi ketinggian perancah yang melebihi 15 meter	Organisasi	300	
2.	Tiada pemeriksaan oleh kompeten <i>scaffolder</i> ke atas perancah. (sekali dalam seminggu)	Organisasi	300	
3.	Pendirian perancah tidak menggunakan <i>base plate / sole plate</i> .	Organisasi	150	
4.	Tidak menggunakan metal deck working platform pada perancah.	Organisasi	300	
5.	Perancah tumbang secara tiba-tiba dari ketinggian.	Organisasi	500	
6.	Menggunakan perancah yang tidak diluluskan (Red Tag).	Organisasi	300	
D Struktur dan Konkrit				
1.	Menggunakan <i>Concrete Bucket</i> yang rapuh dan tidak selamat.	Organisasi	300	
2.	Menggunakan platform yang tidak kukuh untuk kerja-kerja konkrit.	Organisasi	300	
3.	Starter bar atau rebar menonjol / terdedah tanpa perlindungan. (<i>End Cap Rebar</i>)	Organisasi	100	

Tandatangan Kontraktor : _____

4.	Tidak membersihkan serpihan dari kawasan kerja dan platform	Organisasi	100	
E	WELDING / PEMOTONGAN			
1.	Menjalankan kerja panas (<i>welding/cutting</i>) kurang daripada 3 meter dari bahan mudah terbakar	Organisasi	200	
2.	Tidak menyediakan peralatan pemadam kebakaran (<i>Fire Extinguisher</i>) di tempat melakukan kerja-kerja panas.	Organisasi	200	
3.	Kimpalan oleh pengimpal yang tidak berkelayakan.	Organisasi	300	
4.	Melakukan kerja-kerja kimpalan atau pemotongan <i>Hot Work</i> tanpa penyelian	Organisasi	150	
F	PENGOPERASI MESIN DAN PERALATAN			
1.	Menggunakan jentera, peralatan dan mesin tanpa kebenaran atau kelulusan daripada pihak berwajib. (JKKP/DOE/JPJ)	Bagi Setiap Penemuan Kesalahan	500	
2.	Jentera, peralatan dan mesin dikendalikan oleh orang yang tidak dilatih.	Bagi Setiap Penemuan Kesalahan	300	
3.	Menggunakan mesin yang tiada penghadang bagi rantai atau tali sawat yang sedang beroperasi.	Bagi Setiap Penemuan Kesalahan	300	
4.	Silinder gas tidak berada dalam kedudukan menegak.	Bagi Setiap Penemuan Kesalahan	500	
5.	Tidak memasang <i>Flashback arrestor</i> untuk hos gas.	Bagi Setiap Penemuan Kesalahan	300	
6.	Membawa penumpang pada pengoperasian jentera.	Bagi Setiap Penemuan Kesalahan	300	
7.	Menggunakan jentera, peralatan dan mesin yang tiada PMA/PMT	Bagi Setiap Penemuan Kesalahan	500	
8.	Pengendali tidak membuat pemeriksaan secara berkala terhadap mesin yang digunakan. (Menggunakan borang senarai semak)	Bagi Setiap Penemuan Kesalahan	150	

Tandatangan Kontraktor : _____

9.	Tiada kakitangan yang memerhatikan kerja yang dilakukan iaitu sebagai <i>Signalman / Banksman / Slinger / Rigger</i> yang terlatih semasa mesin beroperasi	Bagi Setiap Penemuan Kesalahan	150	
10.	Menggunakan peranti mengangkat tanpa memaklumkan kepada penyelia dan pemeriksaan	Bagi Setiap Penemuan Kesalahan	150	
11.	Tidak meletakkan metal <i>base plate</i> untuk trek jentera	Bagi Setiap Penemuan Kesalahan	500	
12.	Menyalahgunakan peralatan / mesin / jentera bagi sesuatu kerja yang boleh menyebabkan kemalangan kepada pekerja, orang awam dan harta benda	Bagi Setiap Penemuan Kesalahan	1000	
G	ACUAN			
1.	Menyimpan atau membuang formwork dalam keadaan yang berbahaya	Bagi Setiap Penemuan Kesalahan	300	
2.	Gagal mengelakkan formwork daripada jatuh atau runtuh daripada tempat tinggi.	Bagi Setiap Penemuan Kesalahan	300	
3.	Menyusun atau menyimpan barangan di tepi bangunan yang terbuka (terjatuh dari tempat tinggi)	Bagi Setiap Penemuan Kesalahan	300	
4.	Mengangkat barangan tanpa menggunakan loading platform.	Bagi Setiap Penemuan Kesalahan	300	
5.	Membuang, campak, menendang barangan daripada tempat tinggi.	Bagi Setiap Penemuan Kesalahan	300	
6.	Mengisi barangan lebih daripada muatan daripada acuan.	Bagi Setiap Penemuan Kesalahan	150	
H	ELEKTRIKAL			
1.	Menggunakan kabel / penyambung / plug elektrik yang tidak selamat.	Bagi Setiap Penemuan Kesalahan	150	
2.	Menggunakan komponen / peralatan elektrik yang bukan daripada jenis perindustrian.	Bagi Setiap Penemuan Kesalahan	300	

Tandatangan Kontraktor : _____

3.	Menggunakan <i>Distribution Board</i> yang tidak selamat.	Bagi Setiap Penemuan Kesalahan	300	
4.	Meletakkan kabel / wayar elektrik di atas tanah yang boleh menyebabkan bahaya elektrik.	Bagi Setiap Penemuan Kesalahan	300	
5.	<i>Distribution Board</i> tidak ditutup dan dikunci.	Bagi Setiap Penemuan Kesalahan	300	
I	ORGANISASI			
1.	Tiada Polisi keselamatan di tapak.	Organisasi	300	
2.	Tiada peraturan keselamatan untuk kerja-kerja yang di lakukan. (Prosedur dan SOP)	Organisasi	500	
J	KEKEMASAN (HOUSEKEEPING)			
1.	Tiada kekemasan di dalam tapak.	Organisasi	300	
2.	Barangan menghalang laluan.	Organisasi	150	
3.	Membuang barangan atau sampah di tempat yang dilarang.	Organisasi	150	
4.	Barangan disusun didalam keadaan tidak selamat.	Organisasi	150	
K	KEPERLUAN UMUM			
1.	Menggunakan tangga yang usang dan rapuh	Bagi Setiap Penemuan Kesalahan	300	
2.	Tidak menyediakan akses yang selamat untuk ke tempat tinggi.	Bagi Setiap Penemuan Kesalahan	300	
3.	Menyalahgunakan mana-mana keperluan keselamatan.	Bagi Setiap Penemuan Kesalahan	100	
4.	Mewujudkan keadaan / perbuatan yang berbahaya.	Bagi Setiap Penemuan Kesalahan	100	
5.	Tidak menyediakan penghadang untuk kawasan terbuka yang kemungkinan jatuh.	Bagi Setiap Penemuan Kesalahan	300	
6.	Gagal mengemukakan laporan tindakan pembetulan mengikut tarikh yang ditetapkan oleh Unit Audit Keselamatan.	Bagi Setiap Pemeriksaan	300	

Tandatangan Kontraktor : _____

7.	Gagal mengikut arahan " <i>Stop work Order</i> "	Organisasi	1000	
8.	Gagal mengemukakan dokumen OSHE seperti yang dikehendaki oleh Unit Audit Keselamatan.	Bagi Setiap Penemuan Kesalahan	100	
9.	Gagal menyediakan kawasan khas merokok dan diletakkan papan tanda " <i>Kawasan Merokok</i> "	Organisasi	100	
10.	Gagal menyediakan Pelan Kecemasan (ERP) dan tempat berkumpul ketika kecemasan.	Organisasi	200	
11.	Gagal menyediakan <i>Wash Truck Tyre Bay</i> sistem di tapak projek (Projek Skala Besar Kerja Tanah)	Organisasi	200	
12.	Gagal menyediakan <i>sediment trap, sediment basin & temporary earth drain</i> (Projek Skala Besar Kerja Tanah)	Organisasi	200	
13.	Gagal menyediakan Traffic Management Officer (TMO) / Traffic Management Plan / Flagman / bagi kerja-kerja di atas jalanraya	Organisasi	300	
14.	Gagal melakukan toolbox talk kepada pekerja	Organisasi	300	
15.	Tiada HIRADC disediakan ditapak / tiada HIRADC disediakan untuk aktiviti dilakukan	Organisasi	300	
16.	Gagal menyediakan peralatan pemadam kebakaran (<i>Fire Extinguisher</i>) ditapak	Organisasi	300	
17.	Gagal menyediakan First Aid Box ditapak	Organisasi	300	
18.	Papan tanda keselamatan dan papan tanda amaran tidak disediakan / dipamerkan ditapak	Organisasi	500	
19.	Gagal mengemaskini modul <i>site update</i> didalam OSHE Apps	Organisasi	300	
20.	Gagal menyediakan latihan kecemasan kepada pekerja ditapak	Organisasi	300	
22.	Pekerja menghisap rokok semasa melakukan kerja	Bagi Setiap Penemuan Kesalahan	50	

Tandatangan Kontraktor : _____

23	Pekerja menghisap rokok bukan di tempat yang dikhaskan	Bagi Setiap Penemuan Kesalahan	50	
L	PERMIT KERJA			
1.	Tidak memohon Permit Kerja Selamat (PTW) untuk bekerja sebagaimana yang diperlukan oleh MBPJ.	Bagi Setiap Aktiviti	500	
2.	Menjalankan kerja ditapak tanpa Permit Kerja Selamat (PTW) yang sah	Bagi Setiap Aktiviti	500	
3.	Menjalankan kerja tanpa memperbaharui Permit Kerja Selamat	Bagi Setiap Aktiviti	500	
M	BAHAN KIMIA			
1.	Menyimpan bahan kimia di dalam bekas yang dilarang.	Bagi Setiap Bahan Kimia	300	
2.	Tidak menyediakan / memaparkan label dan <i>Safety Data Sheet</i> SDS di tapak bagi setiap bahan kimia.	Bagi Setiap Bahan Kimia	300	
3.	Tidak menyediakan dulang tadahan kawalan ketumpahan bahan kimia bagi setiap tong/bekas bahan kimia.	Bagi Setiap Bahan Kimia	300	
4.	Tidak menyediakan ruang / stor penyimpanan bahan kimia.	Bagi Setiap Penemuan Kesalahan	300	
5.	Tidak menyediakan alat pemadam api di ruang / stor penyimpanan bahan kimia.	Bagi Setiap Penemuan Kesalahan	200	
N	PENDAFTARAN PEKERJA / KESELAMATAN			
1.	Pekerja tidak mempunyai kad Induksi OSHE MBPJ	Organisasi	50 / Individu	
2.	Pekerja tidak mempunyai kad CIDB	Organisasi	100 / Individu	
3.	Operator tidak memiliki kelayakan atau sijil kelayakan	Organisasi	500 / individu	
O	PENDAFTARAN TAPAK BINA / JENTERA			
1.	Pendaftaran butiran projek dan butiran pekerja di dalam Aplikasi OSHE MBPJ	Organisasi	500	
2.	Tapak bina yang melebihi tempoh 6 minggu dan menggunakan jentera	Organisasi	1000	

Tandatangan Kontraktor : _____

	tidak didaftarkan kepada JKPP / DOSH.			
P	PENJAGAAN ALAM SEKITAR			
1.	Pembuangan bahan kimia seperti minyak, cat dan bekas-bekas bahan kimia ke dalam tong yang bukan dikhaskan untuk Bahan Buangan Terjadual (BBT) atau tempat yang tidak dikhaskan untuk BBT.	Organisasi	500	
2.	Pengaliran lumpur ke dalam perparitan dan jalan awam.	Organisasi	500	
3.	Pembuangan kain-kain buruk dan sarung tangan yang telah tercemar dengan bahan kimia, minyak dan cat ke dalam tong yang bukan dikhaskan untuk BBT atau tempat yang tidak dikhaskan untuk BBT.	Organisasi	500	

Tandatangan Kontraktor : _____



JABATAN : _____

BORANG PENGESAHAN PEMOTONGAN BAYARAN PENALTI KETIDAKPATUHAN OSHE

Tajuk Projek : _____

Nama Kontraktor : _____ No Kontrak : _____

BIL	KETIDAKPATUHAN	BIL. JENIS KESALAHAN	CATATAN KETIDAKPATUHAN	JUMLAH PENALTI (RM)
A	KOMPETENSI			
B	PERALATAN PERLINDUNGAN DIRI (PPE)			
C	PERANCAH (SCAFFOLDING)			
D	STRUKTUR DAN KONKRIT			
E	WELDING / PEMOTONGAN			
F	PENGOPERASI MESIN DAN PERALATAN			
G	ACUAN			
H	ELEKTRIKAL			
I	ORGANISASI			
J	KEKEMASAN (HOUSEKEEPING)			
K	KEPERLUAN UMUM			
L	PERMIT KERJA			
M	BAHAN KIMIA			
N	PENDAFTARAN PEKERJA / KESELAMATAN			
O	PENDAFTARAN TAPAK BINA / JENTERA			
P	PENJAGAAN ALAM SEKITAR			
JUMLAH				

Disediakan oleh :

Disahkan oleh :

PEGAWAI KESELAMATAN &
KESIHATAN MBPJ (SHO)

PEGAWAI PENGUASA

Nama :

Nama :

Jawatan : Pegawai Keselamatan &
Kesihatan MBPJ (SHO)

Jawatan :

Tarikh :

Tarikh :

SURAT PENGESAHAN AKHIR PEMATUHAN OSHE

Rujukan :

Tarikh :

Nama Kontraktor

Alamat Kontraktor

**PEMBERITAHUAN TINDAKAN PENALTI BERKENAAN TAHAP PEMATUHAN OSHE DI
TAPAK KERJA**

BERDAFTAR DENGAN CIDB DALAM KELAS :

NO. KONTRAK :

TAJUK KERJA :

Berdasarkan pemeriksaan tapak bagi sepanjang tempoh pelaksanaan projek, didapati bahawa syarikat ini **telah melakukan kesalahan terhadap pematuhan OSHE yang melibatkan kadar penalti berjumlah RM _____** bagi kesalahan seperti di lampiran /
Tiada kesalahan terhadap pematuhan OSHE.

Disediakan oleh :

Disahkan oleh :

PEGAWAI KESELAMATAN &
KESIHATAN MBPJ (SHO)

Nama :

Jawatan : Pegawai Keselamatan &
Kesihatan MBPJ

Tarikh :

PEGAWAI PENGUASA

Nama :

Jawatan :

Tarikh :

AKUAN TERIMA

Salinan asal telah diterima oleh

T/Tangan :

Nama Penerima :

Tarikh Penerimaan :

Syarikat :

Tarikh :

Borang Kesalahan Pematuhan OSHE

BIL.	JENIS KESALAHAN OSHE	LOKASI	TARIKH / MASA	JUMLAH PENALTI
JUMLAH				

Disahkan oleh :

PEGAWAI PENGUASA

Nama :
Jawatan :
Tarikh :

Tarikh : _____

DOKUMEN H

SENARAI KUANTITI

SENARAI KUANTITI

KERJA TEBATAN BANJIR SERTA LAIN-LAIN KERJA BERKAITAN DI SEBAHAGIAN JALAN 19/6, SEKSYEN 19 DAN KAWASAN SEKITARNYA, PETALING JAYA, SELANGOR DARUL EHSAN.

Senarai Kuantiti ini hendaklah dibaca berhubung dengan Arahan, Borang Tender & Syarat-Syarat Tender, Syarat-Syarat Kontrak, Spesifikasi dan Pelan-Pelan.

Kuantiti kerja dalam Senarai Kuantiti ini adalah KUANTITI SEMENTARA yang menjadi kuantiti anggaran kerja tersebut dan ianya tidak akan diambil kira sebagai kuantiti yang benar atau tepat. Amaun yang akan dibayar kepada kontraktor berkenaan hendaklah ditentukan dengan mengukur semula sebagaimana ianya dilaksanakan sebenarnya.

Senarai Kuantiti telah disediakan mengikut prinsip-prinsip Kaedah Ukuran Standard Bagi Kerja-Kerja Kejuruteraan Awam, Malaysia (CESMM), Editor : Lembaga Pembangunan Industri Pembinaan Malaysia. Kaedah ukuran ini juga akan diguna pakai bagi ukuran terhadap sebarang Perubahan Kerja.



Ir. Ts. AHMAD ROSLAN BIN HAIRUDIN,
Pengarah Jabatan Kejuruteraan,
Majlis Bandaraya Petaling Jaya.

KERJA TEBATAN BANJIR SERTA LAIN-LAIN KERJA BERKAITAN DI SEBAHAGIAN JALAN 19/6, SEKSYEN 19 DAN KAWASAN SEKITARNYA, PETALING JAYA, SELANGOR DARUL EHSAN.

BILL NR 1 PERKARA-PERKARA AM

Bil.	Butir-Butir Kerja	Unit	Kuantiti	Kadar	Jumlah
	<u>KEPERLUAN KONTRAK</u>				
A	Insurans Terhadap Kecederaan Diri dan Kerosakan Kepada Harta, Dan Insurans Kerja, ATAU Insurans Semua Risiko Kontraktor (CAR), sebagai ganti kepada kedua-dua Insurans tersebut di atas dengan syarat ianya menepati kehendak-kehendak yang sama.	Sum			
B	Insurans Pampasan Pekerja	Sum			
C	Bon Pelaksanaan	Sum			
	<u>KEPERLUAN DITENTUKAN</u>				
	<u>Papantanda Projek</u>	Sum			
D	Kontraktor akan menyediakan papantanda projek seperti rekabentuk ditunjukkan di dalam lukisan piawai MBPJ, pada tempat-tempat yang ditentukan oleh Pegawai Penguasa dan diselenggara dan dilupus setelah siap kerja	Nr	1		
	<u>Gambar Kemajuan</u>				
E	Kontraktor hendaklah menyediakan dan menyerahkan 4 set Laporan Kemajuan Kerja Bulanan (laporan berwarna) serta mengadakan mesyuarat tapak bulanan sepanjang tempoh kontrak.	Sum			
F	<u>Mengesan Utiliti Bawah Tanah</u> Kontraktor hendaklah, sebelum memulakan kerja korekan, mengupah pakar yang berdaftar untuk mengesan dan menanda segala utiliti bawah tanah di dalam kawasan tapak bina dan sekitarnya bagi mengelak daripada berlakunya kerosakan terhadap kabel-kabel dan paip-paip utiliti agar dapat menghindar bencana dan gangguan umum. Kontraktor hendaklah bertanggungjawab sepenuhnya jika berlaku sebarang kerosakan kepada utiliti bawah tanah.	M ²	3,889		
	Jumlah dibawa ke himpunan				

BILL NR 1 : PERKARA-PERKARA AM (DISAMBUNG)

Bil.	Butir-Butir Kerja	Unit	Kuantiti	Kadar	Jumlah
	<u>CAJ-CAJ MENURUT KAEDAH</u>				
	<u>'Mobilisasi dan Demobilisasi'</u>				
G	Kerja-kerja mangatur gerak, membawa masuk ke tapak bina, segala jentera dan peralatan yang diperlukan bagi penyiapan projek selepas itu, setelah segala kerja disiapkan, sebelum Pegawai Penguasa mengeluarkan Sijil Siap Kerja, kontraktor hendaklah mengeluarkan dari tapak bina segala jentera dan peralatan tersebut termasuklah kerja-kerja berganda (double handling) jika ada.	Sum			
	<u>Keria Ukur</u>				
H	Kontraktor harus mengupah Jurukur Berlesen bagi melaksanakan kerja-kerja ukur ke atas cadangan kerja, terdiri daripada kawalan-kawalan aras, trabas, aras-aras setempat iaitu dan butiran keratan memanjang dan rentas dengan sela jajaran setiap 20m, menyediakan Batu-batu Aras Sementara dan memancang kerja-kerja cadangan dan lukisan siapbina dalam format digital ACAD, dan dalam bentuk salinan kertas (hardcopy) sebanyak dua (2) salinan. (Kawasan Bercerun) Panjang jajaran kerja : < 1 km.	M	3,889		
	<u>Membersih Tapak Bina</u>				
I	Kontraktor hendaklah memastikan tapak bina sentiasa di dalam keadaan bersih dan teratur sepanjang masa dengan sentiasa membersihkan dan melupus segala sisa-sisa dan runtuhan binaan. Setelah penyiapan semua kerja, kontraktor hendaklah dengan secepat mungkin mengalih keluar semua logi, acuan dan lebihan bahan-bahan binaan, kecuali yang diarah supaya ditinggalkan di tapak bina, serta membuang sampah sarap. Segala perkhidmatan, jalan, bangsal dan penghadang sementara yang digunakan semasa pembinaan, hendaklah dipotong, ditanggal, dirobuhkan dan dilupuskan dari tapak bina ke tapak pelupusan yang dibenarkan.	Sum			
	<u>Kawalan dan Lencongan Lalulintas</u>				
J	Kontraktor tidak akan menghalang lalulintas biasa para pengguna jalanraya-jalanraya awam dan disepanjang tempoh kerja dijalankan, kontraktor hendaklah menyediakan penghadang, tanda & lampu amaran dsb. yang diperlukan untuk kawalan lalu-lintas sewajarnya, termasuk juga mendapatkan segala permit diperlukan dari pihak-pihak berkuasa berkenaan dan membayar segala kos dan yuran berkaitan	Sum			
	Jumlah dibawa ke himpunan				

BILL NR 1 : PERKARA-PERKARA AM (DISAMBUNG)

Bil.	Butir-Butir Kerja	Unit	Kuantiti	Kadar	Jumlah
	<u>CAJ-CAJ MENURUT KAEDAH (Sambung)</u>				
	Bekalan Elektrik dan Air				
K	Kontraktor hendaklah menyediakan segala keperluan bekalan elektrik sementara serta bekalan air sementara bagi keperluan kerja dan membayar segala kos dan yuran-yuran berkaitan.	Sum			
	<u>Menghindar Kacaugangguan</u>				
L	Kontraktor harus menjalankan kerja-kerja dengan cara yang hanya mengganggu seminima yang boleh kepada orang-orang yang tinggal di harta-harta bersebelahan dengan tapak bina dan kepada orang awam. Kontraktor harus juga bertanggungjawab membersihkan sepanjang masa, semua jalanraya dan parit apabila ianya dikotori akibat daripada kerjanya.	Sum			
	<u>Laporan 'Dilapidation Survey'</u>				
M	Kerja ini bagi menyediakan laporan mengenai keadaan struktur binaan berdekatan sedia ada yang disahkan oleh Jurukur Bangunan Berdaftar atau Jurutera Perunding. Laporan bertujuan mengelak pertikaian yang mungkin berlaku akibat kerja-kerja projek ini. (jumlah peruntukan untuk perkara ini akan dibayar kesemuanya atau sebahagian atau tidak sama sekali tertakluk kepada arahan Pegawai Penguasa).	Sum			
	<u>Kerja Sementara</u>				
N	Kontraktor harus memastikan persekitaran tapak bina adalah selamat. Cadangan untuk membina struktur perlindungan sementara, lencongan aliran air atau keperluan lain perlu mengemukakan lukisan, pengiraan rekabentuk dan 'method statement' yang disahkan oleh Jurutera Profesional.	Sum			
	<u>Laporan Pemantauan Sungai</u>				
O	Kontraktor dikehendaki mengemukakan laporan bulanan pemantauan kenaikan aras Sungai Penchala dan projek dalam bentuk pelan (LiDAR) dan video menggunakan dron berkualiti dari bahagian hulu sungai sehingga ke tapak projek. (Sepanjang tempoh projek). Spesifikasi dron seperti berikut : Kualiti Imej : Hasselblad Wide-Angle Camera : Next-Gen 4/3 CMOS, 100 MP Effective Pixels, Max Video Resolution of 6K/60fps HDR or 4K/120fps Medium tele camera : 1/1.3" CMOS, 48 MP Effective Pixels, Max Video Resolution of 4K/60fps HDR or 4K/100fps Tele camera : 1/1.5" CMOS, 50 MP Effective Pixels, Max Video Resolution of 4K/60fps HDR or 4K/100fps Obstacle Sensing : 0.1-Lux Nightscape Omnidirectional : Up/Down/Left/Right/Forward/Backward Equipped With Forward-Facing LiDAR	Sum			
	Jumlah dibawa ke himpunan				

BILL NR 1 : PERKARA-PERKARA AM (DISAMBUNG)

Bil.	Himpunan	Jumlah
A	Jumlah dibawa dari mukasurat M/s 1	_____
B	Jumlah dibawa dari mukasurat M/s 2	_____
C	Jumlah dibawa dari mukasurat M/s 3	_____
JUMLAH DIBAWA KE RINGKASAN SENARAI KUANTITI		_____

BILL NR. 2 : AKTA KESELAMATAN & KESIHATAN PEKERJA

Bil.	Butiran Kerja	Unit	Kuantiti	Kadar	Jumlah
	<u>AKTA KESELAMATAN & KESIHATAN PEKERJA</u>				
A	Kontraktor hendaklah menyediakan, mengemukakan dan mematuhi segala peraturan yang terkandung di dalam Akta Keselamatan Dan Kesihatan Pekerja dan Peraturan-Peraturannya (OSHA 1994 And It's Regulations) dan Akta Kilang dan Jentera (FMA 1967) dan Peraturan-Peraturannya.				
A.1	Menyediakan Rancangan Keselamatan	Sum			
A.2	Menyediakan Hirac (Risk Assesment)	Sum			
A.3	Menyediakan laporan keselamatan dan kesihatan	Sum			
A.4	Kontraktor hendaklah menyediakan dan melantik Penyelia Keselamatan Tapak (Site Safety Supervisor - SSS) yang belum kompeten tetapi telah menghadiri latihan SSS untuk projek yang bernilai di bawah RM5 juta.	Bulan	10		
	<u>PAPAN TANDA AMARAN DAN PAPAN TANDA KESELAMATAN</u>				
B	Menyediakan, memasang dan menyelenggara tanda-tanda amaran dan papantanda keselamatan berukuran seperti beriku :				
B.1	1800 mm x 1200mm 'Gunakan peralatan perlindungan diri seperti Kasut Keselamatan, Vest Keselamatan, Cermin Mata Keselamatan, Goggle, Topi Keselamatan, Pelindung Pernafasan, Ear plugs dan lain-lain yang perlu mengikut keperluan yang tercatat di dalam HIRADC.'	Nr.	1		
B.2	1200 mm x 1050 mm 'Bahaya Trafik Dan Lalulintas'	Nr.	1		
B.3	1200 mm x 600 mm Tanda anak panah arah trafik	Nr.	4		
B.4	1500 mm x 750 mm Tanda anak panah arah trafik yang menyala dan berkelip-kelip di waktu malam	Nr.	4		
B.5	Lampu Kelip-Kelip	Nr.	4		
B.6	600 mm x 300 mm Laluan Keluar Kecemasan	Nr.	4		
B.7	300 mm x 150 mm Tanda Bahaya Elektrik	Nr.	4		
B.8	450 mm x 600 mm Berhati-hati dengan objek jatuh	Nr.	4		
B.9	450 mm x 600 mm Lokasi Peti Pertolongan Cemas	Nr.	4		
	Jumlah dibawa ke himpunan				

KERJA TEBATAN BANJIR SERTA LAIN-LAIN KERJA BERKAITAN DI SEBAHAGIAN JALAN 19/6, SEKSYEN 19 DAN KAWASAN SEKITARNYA, PETALING JAYA, SELANGOR DARUL EHSAN.

BILL NR. 2 : AKTA KESELAMATAN & KESIHATAN PEKERJA (DISAMBUNG)

Bil.	Butir-Butir Kerja	Unit	Kuantiti	Kadar	Jumlah
	<u>PAPAN TANDA AMARAN DAN PAPAN TANDA KESELAMATAN (Sambung)</u>				
B.10	450 mm x 600 mm Gunakan akses dan jalan keluar yang selamat	Nr.	4		
B.11	450 mm x 600 mm Berhati-hati dengan bukaan dan tepi Jalan terbuka	Nr.	4		
	<u>PERALATAN PERLINDUNGAN DIRI (PERSONNEL PROTECTIVE EQUIPMENT - PPE)</u>				
C	Menyediakan (mengikut keperluan yang tercatat di dalam borang HIRADC), menyelenggara dan menggantikan mana-mana kerosakan peralatan perlindungan diri yang telah diluluskan oleh SIRIM atau JKKP (DOSH) atau Badan-Badan Antarabangsa yang bertaualiah kepada Pegawai Projek, wakil pegawai Pegawai Projek dan Pelawat :				
C.1	Vest Keselamatan berwarna kuning dengan pemantul cahaya.	Nr.	4		
C.2	Abah-abah keselamatan atau Safety Harness dan Tali Penyangkut atau lanyards	Nr.	4		
C.3	Kasut Keselamatan atau 'safety boots'	Nr.	4		
C.4	Topi keselamatan atau 'Safety Helmet'	Nr.	4		
C.5	Peralatan Perlindungan Pernafasan (Untuk kerja-kerja ruang terkurung, berhabuk dan pendedahan kepada bahan kimia) Pakai Buang	Nr.	4		
C.6	Lain-lain peralatan keselamatan mengikut kesesuaian tapak sekiranya perlu	Sum			
	<u>PENGENDALIAN BAHAN KIMIA DAN BAHAN BERBAHAYA</u>				
D	Peralatan Perlindungan Diri (PPE) kepada Pegawai Projek, wakil pegawai projek dan Pelawat. Menggunakan PPE untuk mengendalikan bahan kimia berbahaya di tempat untuk mematuhi Peraturan (USECHH Regulations 2000) seperti :				
D.1	Goggles	Nr.	5		
D.2	Cermin mata keselamatan	Nr.	5		
D.3	Perlindungan Muka Penuh	Nr.	5		
D.4	Perlindungan Pernafasan atau 'Respirator'	Nr.	5		
D.5	Kasut Keselamatan atau Kasut kulit yang tertutup	Nr.	5		
	Jumlah dibawa ke himpunan				

KERJA TEBATAN BANJIR SERTA LAIN-LAIN KERJA BERKAITAN DI SEBAHAGIAN JALAN 19/6, SEKSYEN 19 DAN KAWASAN SEKITARNYA, PETALING JAYA, SELANGOR DARUL EHSAN.

BILL NR. 2 : AKTA KESELAMATAN & KESIHATAN PEKERJA (DISAMBUNG)

Bil.	Butir-Butir Kerja	Unit	Kuantiti	Kadar	Jumlah
	<u>PENGENDALIAN BAHAN KIMIA DAN BAHAN BERBAHAYA (Sambung)</u>				
D.6	lain-lain PPE yang diperlukan mengikut kehendak CHRA	Sum			
	<u>KESELAMATAN KERJA-KERJA PENGOREKAN ATAU PENGALIAN</u>				
E	Penghadang keruntuhan tebing yang selamat jika kedalamannya melebihi 1.5 meter.	M	100		
	<u>PERLINDUNGAN KEPADA ORANG AWAM & ALAM SEKITAR</u>				
F	Penyediaan dan menyelenggara pagar (hoarding) kawasan atau tapak kerja. (Metal Deck - 3 meter)	M	50		
	<u>SITUASI KERJA KHAS BEKERJA DI DALAM RUANG TERKURUNG (ST)</u>				
G	Menyediakan sistem pengudaraan yang terjamin dan memastikan aliran udara yang mencukupi ke kawasan kerja ruang terkurung	Nr.	2		
	<u>PELAN PENGURUSAN PERLINDUNGAN ALAM SEKITAR (EMP)</u>				
H	Penyediaan dokumen EMP dan perlaksanaan EMS ISO 14001	Sum			
I	Penyediaan Pegawai Perlindungan Alam Sekitar sepenuh masa sepanjang tempoh pembinaan. (syarikat lantikan perlu mempunyai CEPsWam (Certificated Environmental Profesional in Schedule Waste Management) berpengalaman bekerja lebih 10 tahun dalam bidang Pengurusan Alam Sekitar dan kelayakan Minima diploma dalam bidang pengurusan alam sekitar atau bidang kejuruteraan Alam Sekitar. Salinan sijil serta salinan kad pengenalan perlu dikemukakan. Skop kerja yang terlibat adalah seperti berikut :	Bulan	10		
	(i) Menyediakan laporan pemantauan terhadap inventori 'schedule waste' dalam bentuk pembelian dan pelupusan.				
	(ii) Menyediakan laporan tindakan pengawalan pencemaran air				
	(iii) Menyediakan laporan tindakan pengawalan pencemaran bunyi bising dan udara				
	(iv) Melaporkan apa-apa pencemaran dan kacau ganggu alam sekitar yang dirasakannya mengikut arahan Pegawai Penguasa dari semasa ke semasa.				
	Jumlah dibawa ke himpunan				

KERJA TEBATAN BANJIR SERTA LAIN-LAIN KERJA BERKAITAN DI SEBAHAGIAN JALAN 19/6, SEKSYEN 19 DAN KAWASAN SEKITARNYA, PETALING JAYA, SELANGOR DARUL EHSAN.

BILL NR. 2 : AKTA KESELAMATAN & KESIHATAN PEKERJA (DISAMBUNG)

Bil.	Butir-Butir Kerja	Unit	Kuantiti	Kadar	Jumlah
J	<u>LAPORAN PERLINDUNGAN ALAM SEKITAR</u> Penyediaan dan penyerahan 2 set laporan hardcopy dan softcopy dalam bentuk CD setiap 2 bulan yang mengandungi : (i) Inventory 'Schedule Waste (ii) Pemantauan Kualiti Udara (iii) Pemantauan Kualiti Bunyi (iv) Pemantauan Kualiti Air	Nr.	10		
K	<u>PENGAWALAN HABUK DAN LUMPUR</u> <u>Lori 'Waste Broser'</u> Lori 'Broser' termasuk pemandu, mengisi air, air tangki dan peralatan lain yang diperlukan untuk menjalankan kerja-kerja menyiram sepanjang jalan sedia ada seperti yang diarahkan oleh Pegawai Penguasa ((SO/PD	sum			
Jumlah dibawa ke himpunan					

KERJA TEBATAN BANJIR SERTA LAIN-LAIN KERJA BERKAITAN DI SEBAHAGIAN JALAN 19/6, SEKSYEN 19 DAN KAWASAN SEKITARNYA, PETALING JAYA, SELANGOR DARUL EHSAN.

BILL NR. 2 : AKTA KESELAMATAN & KESIHATAN PEKERJA (DISAMBUNG)

Bil.	Himpunan	Jumlah
A	Jumlah dibawa dari mukasurat M/s 5	_____
B	Jumlah dibawa dari mukasurat M/s 6	_____
C	Jumlah dibawa dari mukasurat M/s 7	_____
D	Jumlah dibawa dari mukasurat M/s 8	_____
JUMLAH DIBAWA KE RINGKASAN SENARAI KUANTITI		_____

BILL NR. 3 : PENYEDIAAN TAPAK DAN KERJA MEMUSNAH

[illegible]

Bil.	Butiran Kerja	Unit	Kuantiti	Kadar	Jumlah
	<u>KERJA TANAH</u> <u>Korekan Dan Kambus Semula</u> Kerja mengorek tanah secara mekanikal bagi tujuan memasang longkang jenis kekotak pembentung baru, membina 'sump' dan membina tembok dinding penahan jenis HD-Series serta kambus semula dari bahan korekan atau tanah import secara mekanikal seperti dibutirkan di dalam lukisan berukuran seperti berikut :				
A	Saiz 900mm x 750mm Longkang Jenis Kekotak	M3	3,130		
B	Saiz 900mm x 900mm Longkang Jenis Kekotak	M3	450		
C	Saiz 1200mm x 1200mm Longkang Jenis Kekotak	M3	67		
D	Saiz 1500mm x 1200mm Longkang Jenis Kekotak	M3	2,790		
E	Sama seperti diatas tetapi untuk kerja-kerja binaan sump bersaiz 1200mm x 1200mm .	M3	98		
F	-sda-' sump berukuran 1660mm x 1660mm	M3	23		
G	-sda-' sump berukuran 1800mm x 1800mm	M3	63		
H	Sama seperti di atas tetapi untuk dinding penahan HD-Series	M3	49		
I	Menimbus semula dan memadat dibahagian bawah, kiri, kanan dan atas bahagian luar longkang, 'sump' baru dan dinding penahan menggunakan bahan korekan sediada atau tanah import	M3	1,334		
J	Melupus lebihan bahan korekan keluar dari tapak bina ke tapak pelupusan yang dibenarkan.	M3	5,336		
	<u>KERJA CERUCUK</u> Perkara untuk kerja cerucuk hendaklah termasuk rekod cerucuk dan pelupusan bahan yang dikorek serta lebihan <u>Precast Concrete Soldierpile HD-Series</u> T-Post HD-450				
K	Membekal dan menanam 6000mm panjang x 520mm lebar x 450mm tebal Precast Post (HD-450) dan 2000mm panjang x 1600mm lebar x 360mm tebal Precast Lagging termasuk kaedah pre boring, memotong hujung tiang, capping beam dan kerja-kerja dan bahan-bahan yang diperlukan untuk tujuan pembinaannya.	M	82		
	Jumlah dibawa ke himpunan				

[illegible]

KERJA TEBATAN BANJIR SERTA LAIN-LAIN KERJA BERKAITAN DI SEBAHAGIAN JALAN 19/6, SEKSYEN 19 DAN KAWASAN SEKITARNYA, PETALING JAYA, SELANGOR DARUL EHSAN.

BILL NR. 4 : KERJA TANAH, KERJA CERUCUK DAN KERJA SEMENTARA (DISAMBUNG)

Bil.	Himpunan	Jumlah
A	Jumlah dibawa dari mukasurat M/s 11	_____
B	Jumlah dibawa dari mukasurat M/s 12	_____
JUMLAH DIBAWA KE RINGKASAN SENARAI KUANTITI		_____

**KERJA TEBATAN BANJIR SERTA LAIN-LAIN KERJA BERKAITAN DI SEBAHAGIAN JALAN 19/6, SEKSYEN 19
DAN KAWASAN SEKITARNYA, PETALING JAYA, SELANGOR DARUL EHSAN.**

BILL NR. 5 : KERJA 'SITE INVESTIGATION' (S.I)

Bil.	Butiran Kerja	Unit	Kuantiti	Kadar	Jumlah
A	<u>Condition of schedule of rates:</u>	Sum			
	<i>Deep Boring with Boring Plants</i>				
	Mobilization				
B	Bring the boring plant to the site, and remove the same from the site after completion of boring, including erecting the plant at the borehole location, when the site is:	Sum			
C	Allow for compliance with the Specification, mobilise and demobilise all manpower and geophysical equipment to site.	Sum			
D	Move the boring plant from one borehole position to the next, including dismantling it at the old position and erecting it at the new position onland (Building site) – dry	Sum			
	Boring in soil Carry out boring whether cased on uncased:				
E	Depth from existing ground level not exceeding (n.e.) 10m	M	10		
F	Ditto exceeding 10m but n.e. 20m	M	10		
G	Ditto exceeding 20m but n.e. 30m	M	10		
	Insitu field test Carry out Standard Penetration Test (SPT):				
H	Depth from existing ground level not exceeding (n.e.) 10m	Nr	6		
I	Ditto exceeding 10m but n.e. 20m	Nr	7		
J	Ditto exceeding 20m but n.e. 30m	Nr	3		
	Jumlah dibawa ke himpunan				

KERJA TEBATAN BANJIR SERTA LAIN-LAIN KERJA BERKAITAN DI SEBAHAGIAN JALAN 19/6, SEKSYEN 19
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BILL NR. 5 : KERJA 'SITE INVESTIGATION' (S.I) (DISAMBUNG)

Bil.	Butiran Kerja	Unit	Kuantiti	Kadar	Jumlah
	Sampling Obtain disturbed samples with split-barrel tubes or otherwise for the purpose of doing classification tests on these samples:				
K	Depth from existing ground level not exceeding (n.e.) 10m	Nr	6		
L	Ditto exceeding 10m but n.e. 20m	Nr	7		
M	Ditto exceeding 20m but n.e. 30m	Nr	3		
	Other Field Tests				
N	Mackintosh or JKR probes Carry out Mackintosh or JKR probes to depth not exceeding 15 meters	Nr	12		
	Hand bores (Hand auger)				
O	Move the Hand Auger equipment from one location to the next, including dismantling it at the old position	Nr	16		
P	Carry out hand bores (hand auger), including the provision of disturbed samples:				
Q	Depth from existing ground level not exceeding (n.e.) 2.5m	M	16		
R	Ditto exceeding 2.5m but n.e. 5.0m	M	16		
S	Allow for determining over-night water table in hand bores:	Nr	16		
	Jumlah dibawa ke himpunan				

KERJA TEBATAN BANJIR SERTA LAIN-LAIN KERJA BERKAITAN DI SEBAHAGIAN JALAN 19/6, SEKSYEN 19
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BILL NR. 5 : KERJA 'SITE INVESTIGATION' (S.I) (DISAMBUNG)

Bil.	Butiran Kerja	Unit	Kuantiti	Kadar	Jumlah
	Laboratory Testing <i>(Test number mentioned are those given in BS 1377: 1975 unless otherwise stated)</i> Classification tests Carry out classification tests:				
T	Moisture content (Test 1)	Nr	5		
U	Liquid limit (Test 2)	Nr	5		
V	Plastic limit (Test 3)	Nr	5		
W	Plasticity index (Test 4)	Nr	5		
X	Linear shrinkage (Test 5)	Nr	5		
Y	Specific gravity (Test 6)	Nr	5		
Z	Particle size distribution for coarse-grained soil (Test 7A or 7B)	Nr	5		
AA	Particle size distribution for fine-grained soil (Test 7C or 7D)	Nr	5		
AB	Dispersion test (Hydrometer)	Nr	3		
	<u>Geophysics Survey</u>				
	Setting Out				
AC	Setting out of the survey line using GPS coordinate, marking the lines at every 20m intervals	Nr	60		
AD	2D Geophysics Survey To carried out 2D geophysics survey for investigation subsurface profiling	Item			
AE	To carry out data analysis and interpretation of hard material and subsurface profile	Item			
AF	Site investigation report	Nr	2		
	Jumlah dibawa ke himpunan				

KERJA TEBATAN BANJIR SERTA LAIN-LAIN KERJA BERKAITAN DI SEBAHAGIAN JALAN 19/6, SEKSYEN 19 DAN KAWASAN SEKITARNYA, PETALING JAYA, SELANGOR DARUL EHSAN.

BILL NR. 5 : KERJA 'SITE INVESTIGATION' (S.I) (DISAMBUNG)

[illegible]

KERJA TEBATAN BANJIR SERTA LAIN-LAIN KERJA BERKAITAN DI SEBAHAGIAN JALAN 19/6, SEKSYEN 19
DAN KAWASAN SEKITARNYA, PETALING JAYA, SELANGOR DARUL EHSAN.

BILL NR. 5 : KERJA 'SITE INVESTIGATION' (S.I) (DISAMBUNG)

Bil.	Himpunan	Jumlah
A	Jumlah dibawa dari mukasurat M/s 14	_____
B	Jumlah dibawa dari mukasurat M/s 15	_____
C	Jumlah dibawa dari mukasurat M/s 16	_____
D	Jumlah dibawa dari mukasurat M/s 17	_____
JUMLAH DIBAWA KE RINGKASAN SENARAI KUANTITI		_____

KERJA TEBATAN BANJIR SERTA LAIN-LAIN KERJA BERKAITAN DI SEBAHAGIAN JALAN 19/6, SEKSYEN 19 DAN KAWASAN SEKITARNYA, PETALING JAYA, SELANGOR DARUL EHSAN.

BILL NR. 6 : KERJA SALIRAN DAN PAGAR KESELAMATAN

Bil.	Butir-Butir Kerja	Unit	Kuantiti	Kadar	Jumlah
	<u>ON-SITE DETENTION (OSD)</u>				
A	Membekal dan menyiapkan OSD jenis Box Culvert bersaiz 1200mm lebar x 900Mm tinggi, asas konkrit, besi/BRC, acuan, bukaan permukaan atas, penyambungan, geotextile, pengendalian, penggalian, kambus, dan sebagainya serta merujuk butiran lukisan dan mematuhi arahan jurutera/ Pegawai Penguasa.	M	160		
	<u>OUTLET STRUCTURE</u>				
B	Membina dan menyiapkan struktur jenis konkrit tuang di tapak gred 35 termasuk tetulang T16-150, Box-Culvert 1800 x 1650 jenis kenderaan berat lalu dan sebagainya serta merujuk butiran lukisan GAR/MBPJ/S19/2024/C/RD/09 dan mematuhi arahan jurutera/Pegawai Penguasa.	Nr	1		
	<u>LURANG (SUMP) OSD BERDINDING KONKRIT</u>				
	Membina dan menyiapkan lurang pelbagai saiz jenis konkrit tuang di tapak gred 30 termasuk tetulang T16-150 dan T12-150 berketebalan 200mm asas tapak, 200mm tebal dinding, 12mm lepaan dinding dengan mortar simen pasir 1:6 dicampur bahan pemplastik pada permukaan terdedah, dipasang dalam parit tidak melebihi 3000mm kedalaman dari aras bumi. Kerja termasuk membina penutup jenis besi, acuan, peranca, dan sokongan sebagaimana diperlukan serta mematuhi arahan jurutera/Pegawai Penguasa seperti saiz berikut :				
C	1800mm x 1800mm Dimensi Dalam < 3m dalam	Nr	6		
D	1660mm x 1660mm Dimensi Dalam < 3m dalam	Nr	3		
E	1200mm X 1200mm Dimensi Dalam < 3m dalam	Nr	20		
	<u>KERJA PEMASANGAN LONGKANG JENIS KEKOTAK</u>				
	Membekal dan memasang longkang jenis kekotak pra-tuang dengan DWF bersama penutup dengan kelulusan SIRIM @ 1000 mm panjang, sambungan tumpu, dipasang dalam parit melebihi 3000mm kedalaman dari aras bumi, termasuk juga 250 mm tebal (termampat) lapisan asas 'crusher run' beserta 50mm tebal 'lean concrete' dan kambus semula dengan bahan korekan yang diluluskan serta kerja memadat seperti dibutirkan di dalam lukisan :				
F	saiz 1500mm x 1200mm dengan penutup	M	368		
G	saiz 1200mm x 1200mm dengan penutup	M	10		
H	saiz 900mm x 900mm dengan penutup	M	673		
	<u>RUANG PEMERIKSAAN</u>				
I	Ruang pemeriksaan dan penyelenggaraan setiap 6 meter sepanjang longkang tertutup, terdiri dari papak konkrit bertetulang BRC A9 dengan konkrit gred 20 beserta acuan konkrit serta kemasan kelas F1 termasuk kerja bata lengkap dengan kelengkapan pemasangannya	Nr	175		
	Jumlah dibawa ke himpunan				

KERJA TEBATAN BANJIR SERTA LAIN-LAIN KERJA BERKAITAN DI SEBAHAGIAN JALAN 19/6, SEKSYEN 19 DAN KAWASAN SEKITARNYA, PETALING JAYA, SELANGOR DARUL EHSAN.

BILL NR. 6 : KERJA SALIRAN DAN PAGAR KESELAMATAN

Bil.	Butir-Butir Kerja	Unit	Kuantiti	Kadar	Jumlah
	<u>PENUTUP KONKRIT (CONCRETE GRATING)</u>				
J	Membekal dan memasang 805mm X 800mm X 50mm penutup konkrit dari konkrit pratuang gred 30 bertetulang Y12 bersama kerangka besi 605 x 805 mm kerangka dibina dari keluli sesiku 50 x 50 x 5 mm tebal sederhana keras dikimpal kambi dari jenis 'hot dip galvanise iron' termasuk meletak pada tempatnya, kerja membuat bukaan dan semuanya seperti dibutirkan dan di tentukan.	Nr	204		
	<u>FLUSH MOUNT CAP (FMC) - GRATING</u>				
K	Membekal dan memasang jeriji keluli bergalvani celupan panas (heavy duty) dikimpal kambi pada paras dan kedudukan yang ditetapkan dan butiran seperti yang ditunjukkan di dalam lukisan rekabentuk	Nr	3		
	(No.lukisan MBPJ/KEJ/FMC-GRATING)				
	<u>PIPE CULVERT'</u>				
L	Membekal dan memasang parit erong jenis konkrit bertetulang berukuran 300mm diameter jenis 'spigot' termasuk kerja bata lengkap dengan kelengkapan pemasangannya termasuk kerja mengorek, menyiapkan tapak dan mengambus semula dengan bahan korekan.	M	70		
	<u>TRASH SCREEN</u>				
M	Membina dan menyiapkan <i>trash screen</i> jenis <i>Hot Dipped Galvanised</i> termasuk kerja-kerja dan bahan-bahan yang diperlukan untuk tujuan pembinaannya serta mematuhi arahan jurutera/Pegawai Penguasa seperti di dalam lukisan rekabentuk	Nr	10		
	<u>FLAP GATE</u>				
N	Membekal dan menyiapkan flap gate termasuk kerja-kerja dan bahan-bahan yang diperlukan untuk tujuan pembinaannya serta mematuhi arahan jurutera/Pegawai Penguasa seperti di dalam lukisan rekabentuk	Nr	3		
	<u>KERJA-KERJA MEMBINA PAGAR JENIS 'ANTI-CLIMB' (HOT DIPPED GALVANISED HARD DRAWN LOW CARBON STEEL WIRE)</u>				
O	Kerja-kerja membekal dan memasang pagar jenis 'anti-climb' ketinggian 1800mm dari aras tanah termasuk membina tiang besi galvani beserta asas nya menggunakan skeru ankor (anchor bolts) jenis HILTI bersaiz M16 X 4 dengan termasuk asas tapak sedalam 450mm atau di pasang pada rasuk tetopi seperti dibutirkan	M	32		
	<u>Pintu Pagar Jenis 'Anti Climb'</u>				
	-Seperti di atas - bagi pintu pagar bersaiz :				
P	900mm x 1200mm (1 Daun Pintu)	Nr	2		
	Jumlah dibawa ke himpunan				

KERJA TEBATAN BANJIR SERTA LAIN-LAIN KERJA BERKAITAN DI SEBAHAGIAN JALAN 19/6, SEKSYEN 19 DAN KAWASAN SEKITARNYA, PETALING JAYA, SELANGOR DARUL EHSAN.

BILL NR. 6 : KERJA SALIRAN DAN PAGAR KESELAMATAN

Bil.	Himpunan	Jumlah
A	Jumlah dibawa dari mukasurat M/s 19	_____
B	Jumlah dibawa dari mukasurat M/s 20	_____
JUMLAH DIBAWA KE RINGKASAN SENARAI KUANTITI		_____

KERJA TEBATAN BANJIR SERTA LAIN-LAIN KERJA BERKAITAN DI SEBAHAGIAN JALAN 19/6, SEKSYEN 19 DAN
KAWASAN SEKITARNYA, PETALING JAYA, SELANGOR DARUL EHSAN.

BILL NR. 7 : KERJA JALAN DAN PEJALAN KAKI

Bil.	Butir-Butir Kerja	Unit	Kuantiti	Kadar	Jumlah
	<u>KERJA-KERJA JALAN</u>				
	<u>Potong Lapisan Permukaan</u>				
A	Potong lapisan permukaan konkrit asphalt sediada setebal 50 - 100 mm dipotong lurus dan selari dengan garisan tengah jalan serta seranjang, menggunakan gergaji bilahbulat bermata intan atau bilah bulat kesat (abrasive).	M	1400		
	<u>Pengorekan</u>				
B	Pengorekan ke aras laras, 0.25 - 0.5 m kedalaman bermula dari aras bentukan, termasuk mencuramkan dan kamber hingga mencapai aras bentukan, manakala bahan korekan diletak sementara di tapakbina untuk digunapakai semula kemudian.	M3	625		
	<u>Melupus</u>				
C	Lupuskan lebihan bahan korekan keluar dari tapak bina ke tapak pelupusan yang dibenarkan.	M3	625		
	<u>Asas Dasar</u>				
D	100 mm Tebal terpadat lapis pasir atau bahan lain yang setara dan diluluskan sebagai asas dasar, serta disebar, dirata dan dipadat mencerun dan menyendeng seperti dibutir dan ditentukan.	M2	1,250		
	<u>Asas Jalan</u>				
E	375 mm Tebal terpadat lapis Asas Jalan dari pecahan batu kapur/granit dirata serta dipadat selapis-selapis dengan penggelek pengetar beroda keluli seberat 8 - 10 tonne, dan setiap lapis tidak melebihi 150 mm tebal seperti ditentukan. (Sila rujuk " Specification For Roadbase Construction, Table 1 & 2 ")	M2	1,250		
	<u>Lapis Pengikat (Binder Course)</u>				
F	50 mm Tebal nominal turapan Konkrit Asphalt lapis pengikat ACB 28, dan semburan lapis asas (prime coat) emulsi bitumen lambatsedia SS-1K @ 0.5 l/m2, dan termasuk kerja-kerja penyediaan permukaan & memadat seperti dibutir & ditentukan.	M2	1,250		
	<u>Lapis Penghausan (Wearing Course)</u>				
G	50 mm Tebal nominal turapan Konkrit Asphalt lapis pengikat ACB 28, dan semburan lapis asas (prime coat) emulsi bitumen lambatsedia SS-1K @ 0.5 l/m2, dan termasuk kerja-kerja penyediaan permukaan & memadat seperti dibutir & ditentukan.	M2	1,250		
Jumlah dibawa ke himpunan					

KERJA TEBATAN BANJIR SERTA LAIN-LAIN KERJA BERKAITAN DI SEBAHAGIAN JALAN 19/6, SEKSYEN 19 DAN KAWASAN SEKITARNYA, PETALING JAYA, SELANGOR DARUL EHSAN.

BILL NR. 7 : KERJA JALAN DAN PEJALAN KAKI (DI SAMBUNG)

Bil.	Butir-Butir Kerja	Unit	Kuantiti	Kadar	Jumlah
	<u>Bebendul Jalan (Precast)</u>				
	Membekal dan memasang 550mm x 300mm bebandul pasang siap (precast) dari konkrit gred 25 di tepi jalan dari jenis piawaian majlis termasuk kerja-kerja menyambung, mengorek, menimbus dan melupus lebihan bahan korekan disepanjang laluan pejalan kaki.				
H	Jenis 'Mountable Kerb'	M	1,250		
	<u>Bebendul Jalan Konkrit Pratuang Berongga (Precast)</u>				
I	Membekal dan memasang 550mm X 300mm Bendul lurus 1000mm panjang setiap satu dan bertetulang 5 X Y16 dan link 10 X R20 @ 100 c/c serta acuan keluli termasuk penutup seperti dibutirkan dalam lukisan dan lukisan piawai MBPJ. (sebahagian daripada komponen gegeluk (gully)	Nr	208		
	<u>Perangkap Gegeluk 'Gully Trap' (Precast)</u>				
J	Membekal dan memasang 800mm X 200mm X 450mm ukuran dalaman, @ 0.3 tonne gegeluk, dari konkrit pratuang gred 20/20 bertetulang fabrik B503(B8) (5.93 kg/m ²), termasuk meletak pada tempatnya, kerja mengorek lubang tidak melebihi 1.5m dalam, mengambus semula dan memadat, lebihan bahan korekan dilupus keluar dari tapak bina ketapak pelupusan yang di benarkan dan semuanya seperti dibutirkan dan di tentukan.	Nr	208		
	<u>Laluan Pejalan Kaki</u>				
K	Membekal dan memasang laluan pejalan kaki terdiri dari 100mm tebal konkrit gred 25 dengan tetulang BRC A8, lapisan batuan keras dipadat setebal 125mm, lapisan pasir setebal 50mm, lebar 1200mm - 1500mm dan permukaan penyudah jenis 'broom finish' . Kerja termasuk juga kerja korekan dan persiapan tapak.	M2	1,875		
	<u>Lantai Konkrit (Drive Way)</u>				
L	Membekal dan memasang laluan kenderaan terdiri dari (150mm -300mm) tebal konkrit gred 25 dengan tetulang BRC A8, lapisan batuan keras dipadat setebal 125mm, lapisan pasir setebal 50mm, berukuran 3000mm X 7000mm dengan permukaan penyudah jenis "broom finish" termasuk acuan kayu. Ketebalan adalah bergantung bergantung kepada ketinggian aras jalan dan aras tempat letak kereta. Kecondongan tidak melebihi 1:7. Kerja termasuk kerja korekan dan persiapan tapak. Rujuk lukisan butiran.	Nr	57		
	Jumlah dibawa ke himpunan				

BILL NR. 7 : KERJA JALAN DAN PEJALAN KAKI (DI SAMBUNG)

Bil.	Butir-Butir Kerja	Unit	Kuantiti	Kadar	Jumlah
M	<u>KERJA- KERJA 'MILL & PAVE'</u>				
	<u>Korekan Premix (Milling)</u> Membekal segala peralatan, jentera, pekerja, loji dan sebagainya untuk mengorek permukaan 'premix' sediaada sedalam 50mm dengan kaedah 'milling' termasuk membersihkan serta memindah keluar bahan yang tidak diperlukan ke tempat yang diluluskan sebagaimana mengikut arahan Pegawai Penguasa. NOTA: Berikut adalah kadar kedalaman korekan (Milling) yang telah ditetapkan: i) Kawasan Perumahan : 40 mm ii) Kawasan Industri : 50 mm iii) Jalan Utama/Protokol : 50 mm iv) Kawasan Kedai : 40 mm Potong dan buang lapisan permukaan konkrit asphalt sediaada mengikut kedalaman di tapak dipotong lurus menggunakan mesin pemotong jalan 'diamond cutter' membentuk keratan segi empat mengikut saiz di tapak termasuk membersihkan serta memindah keluar bahan yang tidak diperlukan ke tempat yang diluluskan sebagaimana mengikut arahan Pegawai Penguasa. NOTA : Bagi kawasan yang tidak boleh dilaksanakan menggunakan mesin 'milling' seperti kawasan mainhole atau grating. 50mm tebal mampat lapisan haus AC 14 (nom. saiz 14mm), termasuk lapisan bitumen emulsi gred RS-1K (tack coat) disembur pada kadar 0.25-0.55 liter/m2 (perlu di uji di tapak dengan kaedah 'TRAY TEST') dan kerja-kerja menyediakan permukaan & memadat mengikut Kaedah Marshall dengan menggunakan mesin penurap, pemadatan dengan penggelek roda keluli tandem dua gandar dan berat penggelek diantara 8 hingga 10 tan dan penggelek tayar pneumatik mengikut spesifikasi dan arahan Pegawai Penguasa. NOTA: KADAR HARGA MINIMUM SILING UNTUK ITEM A. 40 mm : RM 22.00 B. 50 mm : RM 26.00 *PEMBIDA TIDAK LAYAK DIPERTIMBANGKAN SEKIRANYA MENGEMUKAKAN KADAR HARGA KURANG DARIPADA HARGA MINIMUM SILING YANG DITETAPKAN	M2	6,389		
N	Sebahagian Jalan 19/8 dan kawasan sekitar	M2	6,389		
	Jumlah dibawa ke himpunan				

KERJA TEBATAN BANJIR SERTA LAIN-LAIN KERJA BERKAITAN DI SEBAHAGIAN JALAN 19/6, SEKSYEN 19 DAN KAWASAN SEKITARNYA, PETALING JAYA, SELANGOR DARUL EHSAN.

BILL NR. 7 : KERJA JALAN DAN PEJALAN KAKI (DI SAMBUNG)

Bil.	Himpunan	Jumlah
A	Jumlah dibawa dari mukasurat M/s 22	_____
B	Jumlah dibawa dari mukasurat M/s 23	_____
C	Jumlah dibawa dari mukasurat M/s 24	_____
JUMLAH DIBAWA KE RINGKASAN SENARAI KUANTITI		_____

[illegible]

KERJA TEBATAN BANJIR SERTA LAIN-LAIN KERJA BERKAITAN DI SEBAHAGIAN JALAN 19/6, SEKSYEN 19 DAN
KAWASAN SEKITARNYA, PETALING JAYA, SELANGOR DARUL EHSAN.

BILL NR. 9 : PENGURUSAN DAN KAWALAN LALULINTAS

Bil.	Butiran Kerja	Unit	Kuantiti	Kadar	Jumlah
	<u>KAWALAN LALULINTAS</u>				
	Menyediakan dan melantik Juruperunding keselamatan lalulintas yang bertauliah termasuk mengemukakan susunatur lencongan sementara serta peralatan seperti berikut :				
A	Penyelia (1 orang)	bulan	10		
B	Pengawal lalulintas (2 orang)	bulan	10		
	Kerja-kerja penyelenggaraan jalan sedia ada				
C	kerja-kerja penyelenggaraan rutin	sum			
D	Kerja-kerja penyelenggaraan berkala	sum			
E	Kerja-kerja penyelenggaraan lencongan sementara	sum			
	Menyediakan lampu isyarat sementara dengan sistem berelektronik bagi mengawal keadaan lalulintas seperti berikut :				
F	Tanda Amaran Awal	Nr.	2		
G	Tanda Lencongan	Nr.	2		
H	Tanda tidak dibenar laluan	Nr.	2		
I	Penanda Halangan	Nr.	2		
J	Tanda Maaf	Nr.	2		
	Menyediakan dan membekal "barrier and barricades" di tapak bina bagi menghadang jalan seperti berikut :				
K	"Heavy duty water-filled PVC barrier"	Nr.	20		
L	"Concrete barrier"	Nr.	20		
M	"Blinkers"	Nr.	5		
	JUMLAH DIBAWA KE RINGKASAN SENARAI KUANTITI				

BILL NR. 10 : MEKANIKAL DAN ELEKTRIKAL

Bil.	Butiran Kerja	Unit	Kuantiti	Kadar	Jumlah
	NOTA AM: Kami dengan ini bersetuju untuk menghantar, membekal, menguji dan menyiapkan utnuk diserahkan dalam keadaan berfungsi dengan baik bagi keseluruhan kerja Perkhidmatan Elektrik dan Mekankal yang mematuhi spesifikasi, lukisan yang disertakan serta sebarang tambahan (addendum) yang dikeluarkan. Sekiranya terdapat mana-mana- item yang tidak diisi dalam Jadual Harga, kos tersebut hendaklah dianggap telah dimasukkan dalam harga atau jumlah keseluruhan item lain. Harga Jumlah Keseluruhan (Lump Sum Prices) hendaklah merangkumi semua kerja pemotongan, tebukan struktur dan kerja mengorek yang perlu. Jumlah keseluruhan yang dinyatakan bagi kerja-kerja pembekalan, pemasangan, penyambungan, pengujian dan pentauliahan termasuk semua cukai kerajaan, cukai jualan, cukai tambahan, kos pentadbiran dan keuntungan adalah seperti pecahan berikut: <u>PAIP DAN KELENGKAPAN</u> Kerja-kerja pemasangan, penyiapan, pentauliahan sistem paip dalaman (bekalan air sejuk) termasuk semua kerja paip yang diperlukan, sambungan, injap dan lain-lain sebagaimana ditunjukkan dalam lukisan dan spesifikasi. Paip yang dinyatakan termasuk bagi pelbagai jenis pemasangan sama ada ditanam di bawah lantai atau rasuk dan sebagainya. Membekal dan memasang paip besi berdiameter 150mm mengikut keperluan pihak berkuasa termasuk siku, tee, penurun saiz, injap dan semua kelengkapan berkaitan untuk paip pelepasan pam tenggelam (submersible pump)				
A	Kerja Paip Paip besi berdiameter 150mm termasuk aksesori	M	15		
B	Membekal dan memasang pam tenggelam lengkap dengan penderia apungan (float sensor), hos fleksibel dan aksesori lain yang diperlukan untuk melengkapkan sistem. Kapasiti : 123 L/S @ 3m	Nr.	2		
C	Membekal dan memasang penderia apungan (float sensor) untuk pam	Nr	2		
D	Membekal dan memasang panel kawalan pam untuk pam tenggelam lengkap dengan pendawaian kawalan pam dan aksesori lain yang diperlukan untuk melengkapkan sistem	Nr	1		
E	Kerja-kerja permohonan bekalan dengan pihak TNB untuk penyambungan bekalan elektrik tiga fasa 63A (termasuk kos bayaran\CSP) termasuk kesemua pembayaran yang terlibat dan lain-lain keperluan yang berkaitan sehingga bekalan diterima dari pihak TNB termasuk perlantikan perunding sekiranya perlu.	Sum			
	Jumlah dibawa ke himpunan				

KERJA TEBATAN BANJIR SERTA LAIN-LAIN KERJA BERKAITAN DI SEBAHAGIAN JALAN 19/6, SEKSYEN 10 DAN KAWASAN SEKITARNYA, PETALING JAYA, SELANGOR DARUL EHSAN.

BILL NR. 10 : MEKANIKAL DAN ELEKTRIKAL (DI SAMBUNG)

Bil.	Butiran Kerja	Unit	Kuantiti	Kadar	Jumlah
F	Kerja-kerja pemasangan paip High-density polythylene (HDPE) menggunakan kaedah 'Horizontal Direction Drilling (HDD)' untuk tujuan penyambungan bekalan elektrik termasuk kesemua pembayaran yang terlibat dan lain-lain keperluan yang berkaitan sehingga bekalan diterima dari pihak TNB. (Nota: Sekiranya perlu jumlah kos bergantung kepada panjang (meter) paip tersebut)	sum			
G	Kerja-kerja membekal dan memasang TNB meter panel tiga fasa jenis kabinet serta kerja berkaitan dan mematuhi spesifikasi yang telah ditetapkan oleh pihak TNB seperti yang telah ditetapkan oleh pihak TNB seperti di dalam Electricity Supply Application Handbook (ESAH) dan lain-lain kelengkapan sehingga berfungsi dengan baik <u>sepertimana spesifikasi dan arahan dari Pegawai Penguasa.</u> <u>Kerja-Kerja Pengujian</u>	sum			
H	Pengujian dan pentauliahan seperti yang dinyatakan dalam spesifikasi dan lukisan bagi semua pemasangan di atas. Harga hendaklah termasuk: i. menyediakan semua peralatan ujian yang diperlukan ii. Menyediakan sekurang-kurangnya dua (2) pekerja berkemahiran di tapak semasa ujian dijalankan.	sum			
	Jumlah dibawa ke himpunan				

Bil.	Himpunan	Jumlah
A	Jumlah dibawa dari mukasurat M/s 28	_____
B	Jumlah dibawa dari mukasurat M/s 29	_____
JUMLAH DIBAWA KE RINGKASAN SENARAI KUANTITI		_____

[illegible]

KERJA TEBATAN BANJIR SERTA LAIN-LAIN KERJA BERKAITAN DI SEBAHAGIAN JALAN 19/6, SEKSYEN 19 DAN KAWASAN SEKITARNYA, PETALING JAYA, SELANGOR DARUL EHSAN.

BILL	RINGKASAN SENARAI KUANTITI	JUMLAH
1	PERKARA-PERKARA AM (dari M/s 4)	_____
2	AKTA KESELAMATAN & KESIHATAN PEKERJA (dari M/s 9)	_____
3	PENYEDIAAN TAPAK DAN KERJA MEMUSNAH (dari M/s 10)	_____
4	KERJA TANAH, KERJA CERUCUK DAN KERJA SEMENTARA (dari M/s 13)	_____
5	KERJA 'SITE INVESTIGATION' (S.I) (dari M/s 18)	_____
6	KERJA SALIRAN DAN PAGAR KESELAMATAN (dari M/s 21)	_____
7	KERJA JALAN DAN PEJALAN KAKI (dari M/s 25)	_____
8	KERJA GARISAN JALAN (dari M/s 26)	_____
9	PENGURUSAN DAN KAWALAN LALULINTAS (dari M/s 27)	_____
10	MEKANIKAL DAN ELEKTRIKAL (dari M/s 30)	_____
11	WANG PERUNTUKAN SEMENTARA (dari M/s 31)	50,000.00
	JUMLAH DIBAWA KE BORANG TENDER	_____

Ringgit Malaysia _____

TEMPOH SIAP : 40 MINGGU

HARGA INDIKATIF JABATAN : RINGGIT MALAYSIA EMPAT JUTA SATU RATUS RIBU SEMBILAN RATUS SEMBILAN PULUH ENAM SAHAJA (RM 4,100,996.00)

PERINGATAN PENTING -PERKARA BARU DALAM URUSAN PEROLEHAN

- PEMBIDA WAJIB MENGEMUKAKAN SIJIL PEMATUHAN CUKAI (TAX COMPLIANCE CERTIFICATE-TCC) SEMASA MENGEMUKAKAN TAWARAN (STATUS 'PATUH' DAN MASIH DALAM TEMPOH SAH LAKU)
Sila kepilkan sijil selepas muka surat pemberitahuan tender / sebutharga.
- PEMBIDA ADALAH DIWAJIBKAN MENGISI MAKLUMAT BARU BERKAITAN PK 1.6 - INTERGRITI DALAM PEROLEHAN KERAJAAN SEMASA MENGEMUKAKAN TAWARAN
 - BORANG PEMBERITAHUAN PEMUNYA BENEFICIAL (BENEFICIAL OWNERS - BO) LAMPIRAN 12
 - SURAT AKUAN SYARIKAT DALAM MENANGANI JENAYAH PEMERDAGANGAN ORANG DAN BURUH PAKSA (SA) - LAMPIRAN 13

Tandatangan Kontraktor

Nama : _____

Cop Syarikat : _____

Telefon : _____

Fax : _____

Tarikh : _____

Tandatangan Saksi

Nama : _____

Alamat : _____

Telefon : _____

Fax : _____

Tarikh : _____

SURAT AKUAN PEMBIDA

KERJA TEBATAN BANJIR SERTA LAIN-LAIN KERJA BERKAITAN DI SEBAHAGIAN JALAN 19/6, SEKSYEN 19 DAN KAWASAN SEKITARNYA, PETALING JAYA, SELANGOR DARUL EHSAN.

NO. TENDER : MBPJ/TD/K/023/2026

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 **MAJLIS BANDARAYA PETALING JAYA** 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 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) 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.

SURAT AKUAN PEMBIDA

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

DOKUMEN I

SENARAI LUKISAN

KERJA TEBATAN BANJIR SERTA LAIN-LAIN KERJA BERKAITAN DI SEBAHAGIAN JALAN 19/6, SEKSYEN 19 DAN KAWASAN SEKITARNYA, PETALING JAYA, SELANGOR DARUL EHSAN.

SENARAI LUKISAN

BIL	NO LUKISAN	TAJUK LUKISAN
1	GAR/MBPJ/S16/2024/C/RD/01	GENERAL ARRANGEMENT
2	GAR/MBPJ/S16/2024/C/RD/02	DRAINAGE LAYOUT PLAN
3	GAR/MBPJ/S16/2024/C/RD/03	ROAD LAYOUT PLAN
4	GAR/MBPJ/S16/2024/C/RD/04	SECTIONS
5	GAR/MBPJ/S16/2024/C/RD/05	TYPICAL ROAD AND DRAIN DETAILS
6	GAR/MBPJ/S16/2024/C/RD/06	BUTIRAN BENDUL JALAN KONKRIT PRAIUANG BERONGGA SERTA TETULANG, BUTIRAN GECELUK KONKRIT PRAIUANG SERTA TETULANG DAN JERIGI KONKRIT PRAIUANG SERTA BUTIRAN TETULANG ANTI CLIMB FENCE DETAILS
7	GAR/MBPJ/S16/2024/C/RD/07	RIVO WALL SYSTEM (PRECAST SHOULDER PILE HS SERIES)
8	GAR/MBPJ/S16/2024/C/RD/08	OUTLET STRUCTURE DETAILS
9	GAR/MBPJ/S16/2024/C/RD/09	PROJECT SIGNAGE
10	GAR/MBPJ/S16/2024/C/RD/10	

PEMILIK/PEMAJLI:



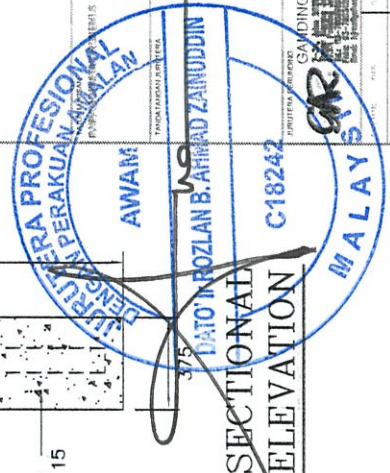
MAJLIS BANDARAYA PETALING JAYA
JABATAN KEJURUTERAAN, BAHAGIAN SALIRAN
Tingkat 12, 13 & 14,
Menara MBPJ, Jalan Tengoh,
47150 Petaling Jaya, Selangor Darul Ehsan.
Tel: 03-79584221
Faks: 03-79584220

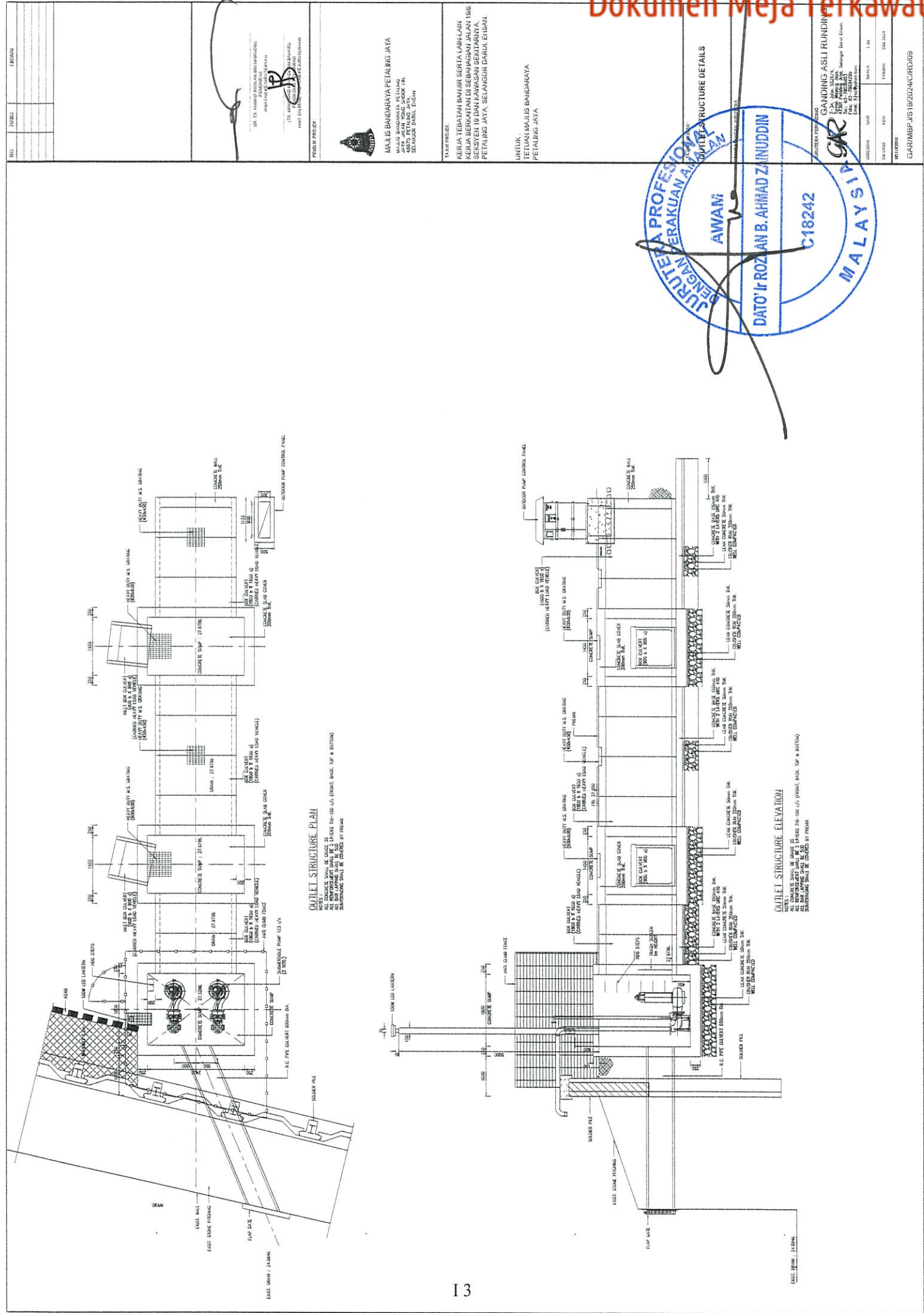
JURUTERA PERINDING AWAM DAN STRUKTUR:



GANDING ASLI RUNDING

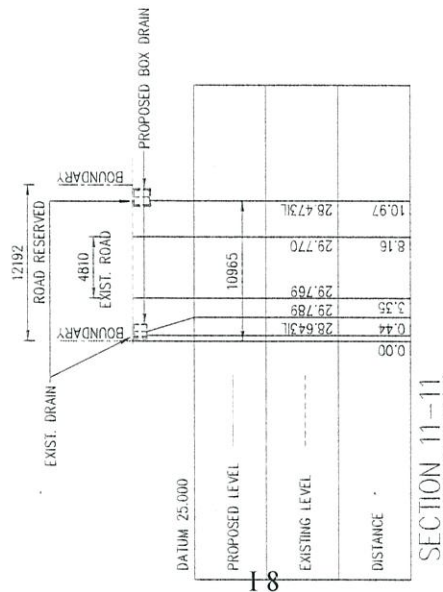
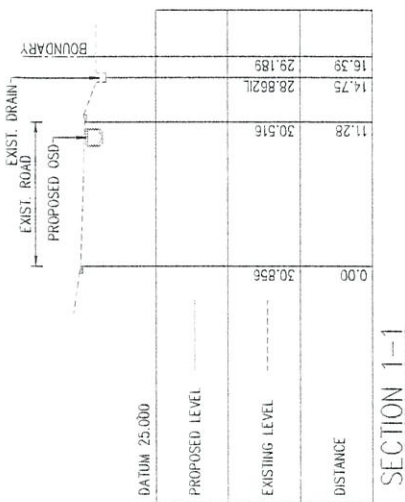
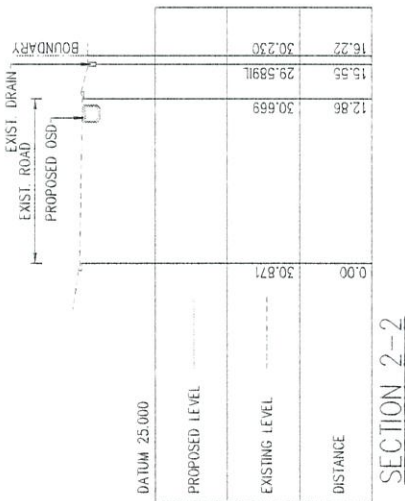
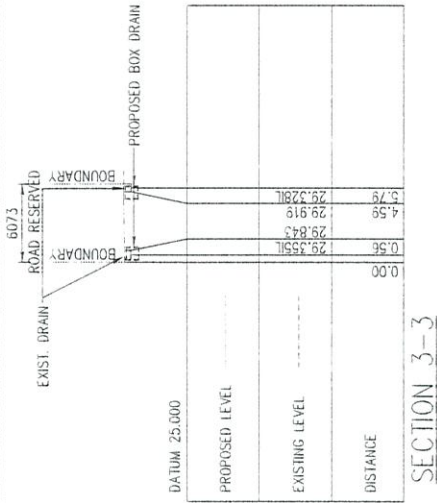
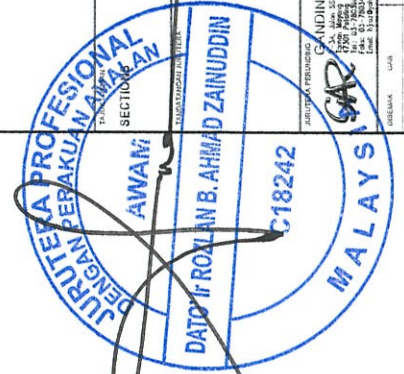
7-3A, Jalan SS26/4,
Taman Mayang Jaya,
47301 Petaling Jaya, Selangor Darul Ehsan
Tel: 03-78059853
Faks: 03-78034799
Email: h1902@yahoo.com





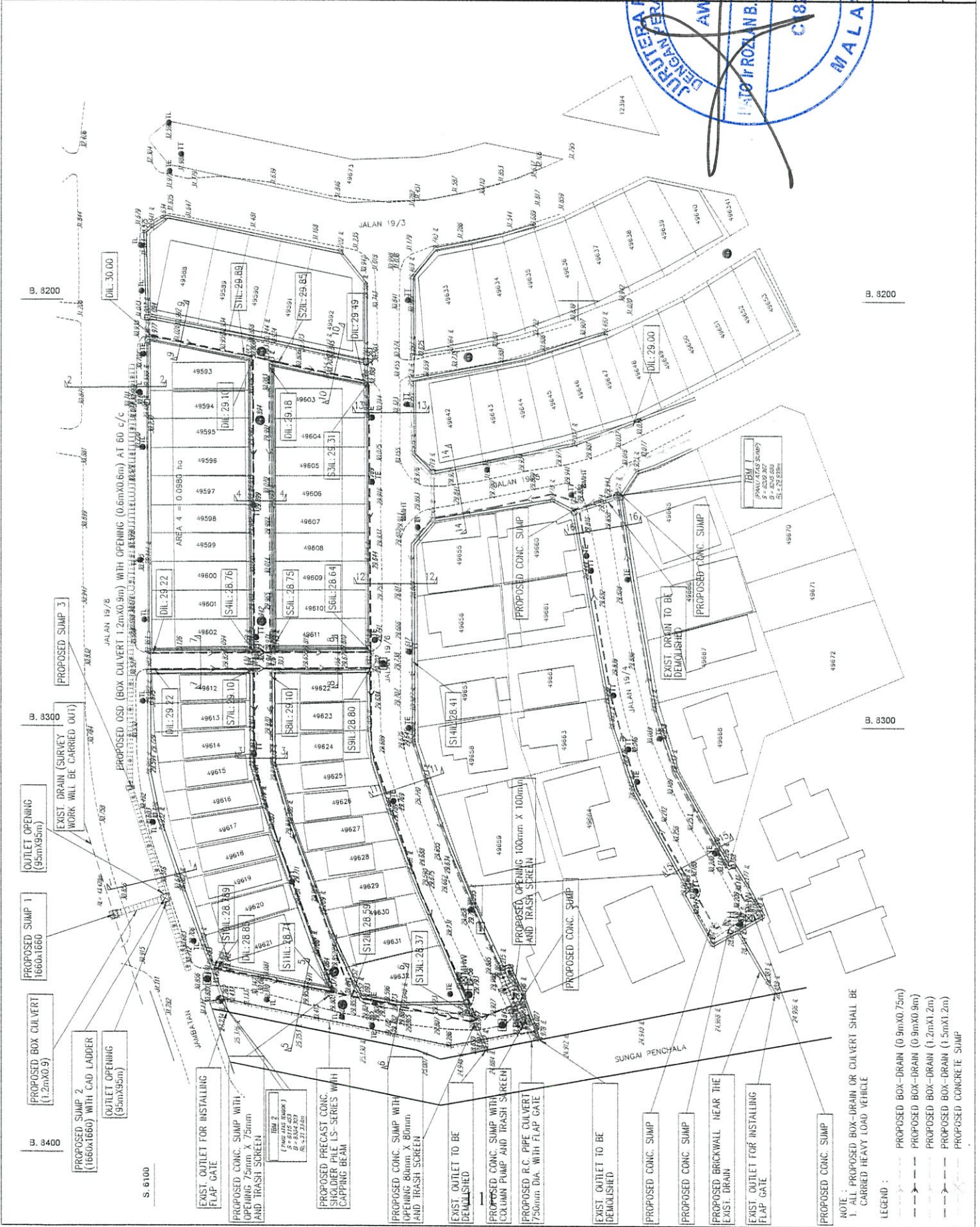












DOKUMEN J

**SENARAI SEMAK
MENGEMUKAKAN DOKUMEN
TENDER**

MAJLIS BANDARAYA PETALING JAYA

SENARAI SEMAKAN MENGEMUKAKAN TENDER UNTUK KEGUNAAN PEMBIDA

**TENDER : KERJA TEBATAN BANJIR SERTA LAIN-LAIN KERJA BERKAITAN DI
SEBAHAGIAN JALAN 19/6, SEKSYEN 19 DAN KAWASAN SEKITARNYA,
PETALING JAYA, SELANGOR DARUL EHSAN.**

NOTA :

- a. Senarai semakan ini bertujuan bagi menolong pembida mengemukakan satu tender yang lengkap dan tanpa sebarang kesilapan. Semua pembida adalah dinasihatkan supaya menggunakan senarai semakan ini bagi menyemak tender mereka sebelum menyerahkan tender masing-masing.
- b. Segala usaha telah diambil untuk menyenaraikan perkara-perkara yang lazimnya perlu diambil tindakan oleh seorang pembida dalam mengemukakan tender. Walaubagaimanapun, adalah menjadi tanggungjawab pembida sepenuhnya bagi menentukan lengkapnya sesuatu tender yang dikemukakannya.

BIL	PERKARA	TANDAKAN JIKA TINDAKAN TELAH DI AMBIL
1.	DOKUMEN A Isi dan lengkapkan semua borang-borang maklumat berikut : i) Maklumat Syarikat ii) Senarai kerja yang dalam pelaksanaan. iii) Senarai kerja yang telah disiapkan iv) Senarai pemilikan peralatan / mesin / jentera kenderaan.	
2.	DOKUMEN B <u>BORANG TENDER</u> 1.1 Muka surat No.3, Perkara No.3 : Isi tempoh menyiapkan kerja mengikut unit “Minggu” Perkara No.4 : Isi dengan perkataan dan juga angka amaun tender (Hendaklah sama dengan jumlah di senarai kuantiti) 1.2 Muka surat No. 6 : i) Isi Tarikh ii) Turunkan tandatangan, nama, dan no. kad pengenalan. Pastikan penandatangan adalah seorang yang dibenarkan untuk menandatangani ikontrak bagi pihak Syarikat seperti yang tercatat di sijil Pendaftaran PKK iii) Turunkan Cop Syarikat iv) Turunkan tandatangan saksi dan isi maklumat saksi.	

BIL	PERKARA	TANDAKAN JIKA TINDAKAN TELAH DI AMBIL
3.	DOKUMEN F <u>SENARAI KUANTITI</u> 3.1 Menghargakan senarai kuantiti i) Hargakan semua item kuantiti dan senaraikan di dalam senarai kuantiti. 3.2 Mengira harga, menjumlah dan memindahkan jumlah. i) Semak pengiraan harga bagi setiap item. ii) Semak jumlah setiap muka surat. iii) Pastikan bahawa jumlah setiap item / muka surat dipindahkan ke mukasurat "collection" dengan betul. 3.3 'Summary Of Tender' i) Pastikan bahawa jumlah di 'Summary' atau 'General Summary' (dimana berkenaan) dipindahkan ke borang tender. ii) Isi jumlah amaun tender dalam angka dan perkataan di ruang yang diperuntukan. iii) Isi tarikh, tandatangan dan Cop Syarikat Pentender. iv) Isi maklumat dan tandatangan saksi.	

BIL	PERKARA	TANDAKAN JIKA TINDAKAN TELAH DI AMBIL
4.	<u>BORANG-BORANG MAKLUMAT DAN DOKUMEN SOKONGAN</u> Pastikan butir-butir di bawah dilampirkan bersama dokumen tender i) Senaraikan kemudahan kredit dan sumber-sumber tertentu. ii) Salinan penyata kedudukan kewangan syarikat. iii) **Salinan Sijil Pendaftaran dari Pusat Khidmat Kontrak (SPKK) iv) **Salinan Sijil Pendaftaran dari Lembaga Pembangunan Industri Pembinaan Malaysia (CIDB) v) **Salinan Sijil Kementerian Kewangan Malaysia (KKM)\ vi) **Salinan Sijil Pengiktirafan Pendaftaran Syarikat Bumiputera. vii) Carta struktur organisasi syarikat / projek meliputi kakitangan pengurusan syarikat dan pengurusan tapak. viii) Senarai kakitangan / buruh syarikat. ix) Senarai nama-nama syarikat pembekal bahan-bahan binaan yang berkaitan. x) Senarai nama sub-kontraktor (jika ada) SCHEDULE OF RATES	☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐
5.	Pastikan semua kadar-kadar harga diisi dan pastikan unitnya	☐

BIL	PERKARA	TANDAKAN JIKA TINDAKAN TELAH DI AMBIL
6.	<u>KESEMPURNAAN DOKUMEN TENDER</u> i) Sila semak Dokumen Tender anda dengan Dokumen Tender di meja yang dipamerkan bagi menentukan supaya tidak ada mukasurat yang tertinggal (missing pages) atau diberi lebih dari yang sepatutnya (duplication of pages) ii) Pastikan Dokumen Tender anda yang dikembalikan adalah sama seperti yang asal iaitu tiada dokumen yang diceraikan.	☐ ☐

Tandatangan Pemborong :

Nama :

Syarikat :