



KERAJAAN MALAYSIA

**Pelaksanaan Syarat Perubahan Harga
(*Variation Of Price – VOP*)
dalam Kontrak Kerja
(Pindaan pada 1 Mei 2022)**

PERBENDAHARAAN MALAYSIA

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KERJA KEJURUTERAAN AWAM**Lampiran E/CW/DB-L (2021)**

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List Of Relevant Components, Recovery Factors And Base Indices Subjected To Price Variation In Accordance With The “Special Provisions To The Conditions Of Contract (Variation Of Price) For Mechanical & Electrical Works” (Design & Build Contracts)

PERJANJIAN TAMBAHAN

Lampiran G(DB) (2021)

6) LAMPIRAN H-KAEDAH PENGIRAAN

PELAKSANAAN SYARAT PERUBAHAN HARGA (*VARIATION OF PRICE – VOP*) DALAM KONTRAK KERJA

1. Tujuan

- 1.1 Kerajaan melalui Perutusan Khas YAB Perdana Menteri pada 28 Jun 2021 bagi Pakej Perlindungan Rakyat Dan Pemulihan Ekonomi (PEMULIH) telah bersetuju untuk melaksanakan Syarat bagi Perubahan Harga atau *Variation of Price* (VOP) dalam kontrak kerja berikutan peningkatan ketara kos beberapa bahan binaan demi memastikan projek Kerajaan tidak terjejas dan dapat disiapkan mengikut jadual.
- 1.2 Pekeling Perbendaharaan (PP)/Perolehan Kerajaan (PK) 2.4 ini bertujuan untuk memaklumkan mengenai syarat dan kaedah pengiraan VOP dalam kontrak kerja. PP/PK2.4 ini berkuatkuasa mulai 1 Januari 2021 hingga 30 Jun 2022.

2. Latar Belakang

- 2.1 Kerajaan sedia maklum tentang kenaikan harga bahan binaan di pasaran berikutan kesan pandemik COVID-19 di seluruh dunia.
- 2.2 Satu kajian telah dilaksanakan oleh Jabatan Kerja Raya (JKR) berdasarkan kepada Siaran Khas 1, 2 dan 3 yang dikeluarkan oleh Jabatan Perangkaan Malaysia (*Department of Statistics Malaysia-DOSM*). Hasil kajian menunjukkan terdapat kenaikan kepada Indeks Kos Bahan Binaan Bangunan dan Harga Unit Purata bagi bahan.
- 2.3 Kerajaan memutuskan untuk melaksanakan VOP dalam kontrak kerja yang dipelawa secara tender bagi memastikan perolehan projek Kerajaan tidak terjejas dan dapat disiapkan mengikut jadual tertakluk kepada senarai bahan binaan berikut:

2.3.1 Besi Bertetulang

Diambil kira dalam Kontrak Kerja Binaan Bangunan dan Kejuruteraan Awam di mana pelaksanaan VOP untuk besi adalah berasaskan kepada perubahan harga unit besi seperti yang dikeluarkan dalam **Siaran Khas 1** oleh DOSM, tertakluk kepada kuantiti maksimum yang ditetapkan.

2.3.2 *Crushed Aggregate (Crusher Run)*

Diambil kira dalam Kontrak Kerja Kejuruteraan Awam di mana pelaksanaan VOP untuk *Crushed Aggregate (Crusher Run)* adalah berasaskan kepada perubahan harga unit seperti yang dikeluarkan dalam **Siaran Khas 1** oleh DOSM, tertakluk kepada kuantiti maksimum yang ditetapkan.

2.3.3 *Mild Steel Pipe (Paip Air dan Paip Pembentungan)*

Diambil kira dalam Kontrak Kerja Kejuruteraan Awam di mana pelaksanaan VOP untuk *mild steel pipe* bagi paip air dan paip pembentungan adalah berasaskan kepada perubahan harga unit seperti yang dikeluarkan dalam **Siaran Khas 1** oleh DOSM, tertakluk kepada kuantiti maksimum yang ditetapkan.

2.3.4 *Copper*

Diambil kira dalam Kontrak Kerja Mekanikal dan Elektrikal termasuk Kontrak Kerja Kejuruteraan Awam dan Kontrak Kerja Binaan Bangunan yang mana komponen kerja Mekanikal dan Elektrikal (M&E) adalah sebahagian dari skop kerja. Pelaksanaan perubahan harga untuk kerja M & E adalah berasaskan kepada Indeks Kos Komponen yang mengandungi bahan *copper sahaja* seperti yang dikeluarkan dalam **Siaran Khas 3** (Untuk Kerja Mekanikal dan Elektrikal) oleh DOSM.

3. **Kaedah Pelaksanaan Syarat Perubahan Harga Bagi Kontrak Secara Konvensional**

- 3.1 Syarat perubahan harga bagi kontrak secara konvensional dengan pelawaan secara sebut harga dan tender adalah termasuk Kerja-Kerja Binaan Bangunan, Kerja-Kerja Kejuruteraan Awam dan Kerja-Kerja Mekanikal dan Elektrikal yang masih dalam pembinaan pada **1 Januari 2021** dan diberikan kepada projek yang mana Surat Setuju Terima (SST) dikeluarkan sehingga 31 Disember 2021. Pengiraan VOP adalah bermula pada 1 Januari 2021 sehingga tamat kontrak.
- 3.2 Pelaksanaan VOP bagi kerja dipelawa secara sebut harga adalah tertakluk kepada perkara berikut:
 - (i) Perolehan sebut harga dengan had nilai dari RM500 ribu hingga RM800 ribu yang menggunakan SST bagi tempoh pembinaan melebihi tiga (3) bulan; dan

- (ii) Projek yang telah siap dan dimuktamadkan akaun akhir sebelum atau pada 31 Disember 2021, VOP adalah tidak terpakai bagi projek tersebut.

3.3 Kerja-Kerja Binaan Bangunan

3.3.1 Kaedah pengiraan perubahan untuk kerja-kerja binaan bangunan bagi projek dalam pembinaan bermula dari 1 Januari 2021 adalah berasaskan kepada Harga Unit bagi Besi Bertetulang tertakluk kepada kuantiti maksimum yang ditetapkan. Maklumat terperinci dijelaskan dalam lampiran berikut:

- (i) bagi kontrak secara konvensional yang baharu seperti di **Lampiran A/BW/K-B (2021)**.
- (ii) bagi kontrak secara konvensional yang masih dalam pembinaan seperti di **Lampiran A/BW/K-L (2021)** bagi pelawaan secara tender dan **Lampiran SEBUT HARGA (Kerja-kerja Binaan Bangunan)** bagi pelawaan secara sebut harga.

3.3.2 Dalam menguruskan syarat perubahan harga ini, perkara-perkara berikut perlu dilaksanakan oleh Agensi:

- (i) memasukkan peruntukan khas kepada syarat-syarat kontrak ke dalam dokumen tender/kontrak seperti di **Lampiran A/BW/K-B (2021)** atau **Lampiran A/BW/K-L (2021)** bagi pelawaan secara tender dan **Lampiran SEBUT HARGA (Kerja-kerja Binaan Bangunan)** bagi pelawaan secara sebut harga, yang mana berkenaan, bagi tujuan penyeragaman;
- (ii) nilai yang diambilkira dalam pengiraan perubahan harga adalah nilai kerja pembina (*builder's work*) sahaja; dan
- (iii) kerja-kerja membaiki, mengubahsuai dan meroboh bangunan tidak layak diberi perubahan harga. Walau bagaimanapun bagi kerja-kerja ubahsuai yang melibatkan kerja sambungan yang menyerupai bangunan lengkap dengan asas, dinding dan bumbung dan jika jumlah nilainya merupakan sebahagian utama iaitu melebihi 50% daripada jumlah nilai kerja membaiki, kerja sambungan dan mengubahsuai sesebuah bangunan, maka semua kerja membaiki dan mengubahsuai adalah tertakluk kepada syarat perubahan harga ini. Kategori bagi kerja-kerja seperti ini hendaklah mengikut kategori jenis bangunan sambungan yang berkenaan.

3.4 Kerja-Kerja Kejuruteraan Awam

3.4.1 Kaedah pengiraan perubahan untuk kerja-kerja kejuruteraan awam bagi projek dalam pembinaan bermula dari 1 Januari 2021 adalah berasaskan kepada Harga Unit bagi Besi Bertetulang, dan *Crushed Aggregate (Crusher Run)* dan *Mild Steel Pipe* bagi paip air dan paip pembentungan tertakluk kepada kuantiti maksimum yang ditetapkan. Maklumat terperinci dijelaskan dalam lampiran berikut:

- (i) bagi kontrak secara konvensional yang baharu seperti di **Lampiran B/CW/K-B (2021)**.
- (ii) bagi kontrak secara konvensional yang masih dalam pembinaan seperti di **Lampiran B/CW/K-L (2021)** bagi pelawaan secara tender dan **Lampiran SEBUT HARGA (Kerja-kerja Kejuruteraan Awam)** bagi pelawaan secara sebut harga.

3.4.2 Dalam menguruskan syarat perubahan harga ini Agensi hendaklah memasukkan peruntukan khas kepada syarat-syarat kontrak ke dalam dokumen tender/kontrak seperti di **Lampiran B/CW/K-B (2021)** atau **Lampiran B/CW/K-L (2021)** bagi pelawaan secara tender dan **Lampiran SEBUT HARGA (Kerja-kerja Kejuruteraan Awam)** bagi pelawaan secara sebut harga, yang mana berkenaan, bagi tujuan penyeragaman.

3.5 Kerja-kerja Mekanikal Dan Elektrikal (M&E)

3.5.1 Pelaksanaan perubahan harga untuk kerja-kerja M&E adalah berasaskan kepada Indeks Kos Komponen. Maklumat terperinci dijelaskan dalam lampiran berikut:

- (i) bagi kontrak secara konvensional yang baharu seperti di **Lampiran C/ME/K-B (2021)**.
- (ii) bagi kontrak secara konvensional yang masih dalam pembinaan seperti di **Lampiran C/ME/K-L (2021)** bagi pelawaan secara tender dan **Lampiran SEBUT HARGA (Kerja-kerja Mekanikal dan Elektrik)** bagi pelawaan secara sebut harga.

3.5.2 Indeks Kos Komponen ditetapkan seperti di **Appendix A kepada Lampiran C/ME/K-B (2021)** dan **Lampiran C/ME/K-L (2021)** bagi pelawaan secara tender dan **Appendix A kepada Lampiran SEBUT HARGA (Kerja-kerja Mekanikal dan Elektrik)** bagi pelawaan secara sebut harga.

3.5.3 Dalam menguruskan syarat perubahan harga ini Agensi hendaklah memasukkan peruntukan khas kepada syarat-syarat kontrak ke dalam dokumen tender/kontrak seperti di **Lampiran C/ME/K-B (2021)** atau **Lampiran C/ME/K-L (2021)** bagi pelawaan secara tender dan **Lampiran SEBUT HARGA (Kerja-kerja Mekanikal dan Elektrik)** bagi pelawaan secara sebut harga, yang mana berkenaan, bagi tujuan penyeragaman.

3.6 Perjanjian Tambahan

3.6.1 Bagi projek yang masih dalam pembinaan, Agensi hendaklah mengikat satu Perjanjian Tambahan (*Supplemental Contract*) dengan Kontraktor bagi mengambil kira pemakaian kaedah perubahan harga mulai 1 Januari 2021 dan hendaklah disempurnakan selewat-lewatnya 30 Jun 2022. Contoh Format Perjanjian Tambahan adalah seperti **Lampiran G(K) (2021)** bagi pelawaan secara tender dan **Lampiran SEBUT HARGA (Perjanjian Tambahan)** bagi pelawaan secara sebut harga.

4. Kaedah Pelaksanaan Syarat Perubahan Harga Bagi Kontrak Secara Reka Dan Bina

4.1 Pelaksanaan Syarat Perubahan Harga Khas bagi kontrak secara reka dan bina hendaklah dibuat berdasarkan perkongsian risiko sama rata (50:50).

4.2 Syarat perubahan harga bagi kontrak secara reka dan bina adalah termasuk Kerja-Kerja Binaan Bangunan, Kerja-Kerja Kerjuruteraan Awam dan Kerja-Kerja Mekanikal dan Elektrikal yang masih dalam pembinaan pada **1 Januari 2021** dan diberikan kepada projek yang mana Surat Setuju Terima (SST) dikeluarkan sehingga 31 Disember 2021. Pengiraan VOP adalah bermula pada 1 Januari 2021 sehingga tamat kontrak.

4.3 Kerja-Kerja Binaan Bangunan

4.3.1 Kaedah pengiraan perubahan untuk kerja-kerja binaan bangunan bagi projek dalam pembinaan bermula dari 1 Januari 2021 adalah berasaskan kepada Harga Unit bagi Besi Bertetulang tertakluk kepada kuantiti maksimum yang ditetapkan. Maklumat terperinci dijelaskan dalam lampiran berikut:

- (i) bagi kontrak secara konvensional yang baru seperti di **Lampiran D/BW/DB-B (2021)**.
- (ii) bagi kontrak secara konvensional yang masih dalam pembinaan seperti di **Lampiran D/BW/DB-L (2021)**.

4.3.2 Dalam menguruskan syarat perubahan harga ini Agensi hendaklah memasukkan peruntukan khas kepada syarat-syarat kontrak ke dalam dokumen tender/kontrak seperti di **Lampiran D/BW/DB-B (2021)** atau **Lampiran D/BW/DB-L (2021)**, yang mana berkenaan, bagi tujuan penyeragaman.

4.4 **Kerja-Kerja Kejuruteraan Awam**

4.4.1 Kaedah pengiraan perubahan untuk kerja-kerja kejuruteraan awam adalah berasaskan kepada Harga Unit bagi Besi Bertetulang, *Crushed Aggregate (Crusher Run)* dan *Mild Steel Pipe* bagi paip air dan paip pembentungan tertakluk kepada kuantiti maksimum yang ditetapkan. Maklumat terperinci dijelaskan dalam lampiran berikut:

- (i) bagi kontrak secara konvensional yang baharu seperti di **Lampiran E/CW/DB-B (2021)**.
- (ii) bagi kontrak secara konvensional yang masih dalam pembinaan seperti di **Lampiran E/CW/DB-L (2021)**.

4.4.2 Dalam menguruskan syarat perubahan harga ini Agensi hendaklah memasukkan peruntukan khas kepada syarat-syarat kontrak ke dalam dokumen tender/kontrak seperti di **Lampiran E/CW/DB-B (2021)** atau **Lampiran E/CW/DB-L (2021)**, yang mana berkenaan, bagi tujuan penyeragaman.

4.5 **Kerja-kerja Mekanikal Dan Elektrikal (M&E)**

4.5.1 Pelaksanaan perubahan harga untuk kerja-kerja M&E adalah berasaskan kepada Indeks Kos Komponen. Maklumat terperinci dijelaskan dalam lampiran berikut:

- (i) bagi kontrak secara konvensional yang baharu seperti di **Lampiran F/ME/DB-B (2021)**.
- (ii) bagi kontrak secara konvensional yang masih dalam pembinaan seperti di **Lampiran F/ME/DB-L (2021)**.

4.5.2 Indeks Kos Komponen ditetapkan seperti di **Appendix A kepada Lampiran F/ME/DB-B (2021)** dan **Lampiran F/ME/DB-L (2021)**.

4.6 **Perjanjian Tambahan**

4.6.1 Bagi projek yang masih dalam pembinaan, Agensi hendaklah mengikat satu Perjanjian Tambahan (*Supplemental Contract*) dengan Kontraktor bagi mengambil kira pemakaian kaedah

perubahan harga mulai 1 Januari 2021 dan hendaklah disempurnakan selewat-lewatnya 30 Jun 2022. Contoh Format Perjanjian Tambahan adalah seperti **Lampiran G(DB) (2021)**.

5. Penetapan Indeks Kos/ Harga Unit Asas

- 5.1 Bagi projek dalam pembinaan, indeks kos/harga unit asas adalah seperti berikut:
 - 5.1.1 **Bulan tender ditutup** bagi pelawaan tender yang ditutup pada/selepas 1 Januari 2021; dan
 - 5.1.2 **Bulan Disember 2020** bagi kontrak yang masih dalam pembinaan pada 1 Januari 2021 dan pelawaan tender yang ditutup sebelum 1 Januari 2021.
- 5.2 Bagi pelawaan secara rundingan terus, indeks kos/harga unit asas adalah berdasarkan bulan harga muktamad dipersetujui oleh Jawatankuasa Rundingan Harga Agensi.

6. Kemudahan Khas

- 6.1 Bagi memastikan projek Kerajaan yang dilaksanakan tidak terjejas dan dapat disiapkan, Agensi hendaklah membuat bayaran kemajuan interim yang lebih kerap iaitu dua (2) kali sebulan mengikut nilai kerja sebenar.

7. Penamatan Bersama

- 7.1 Jika sekiranya kontraktor masih tidak mampu untuk meneruskan projek walaupun syarat perubahan harga ini diberikan untuk menampung kenaikan harga bahan, maka kontrak boleh ditamatkan secara persetujuan bersama atas permintaan kontraktor. Kontraktor tidak akan dikenakan tindakan dengan syarat ia bukan berpunca daripada kelemahan pelaksanaan kontraktor. Namun begitu, 50% daripada nilai bon pelaksanaan hendaklah dirampas.
- 7.2 Bagi kontrak M&E lantikan secara sub-kontraktor dinamakan (*Nominated Sub Contractor-NSC*) yang sedang berjalan dalam peringkat pembinaan, sub-kontraktor masih berpeluang untuk meneruskan pelaksanaan perubahan harga bagi komponen M&E walaupun kontraktor utama tidak bersetuju dengan pelaksanaan perubahan harga ke atas bahan binaan bangunan. Bagi tujuan ini sub-kontraktor M&E perlu menandatangani perjanjian tambahan sebagai syarat yang ditetapkan, namun begitu NSC

masih tertakluk kepada syarat-syarat kontrak utama sedia ada. Peraturan ini hanya tertakluk kepada NSC yang mana Kontraktor Utama bagi kontrak tersebut telah ditamatkan secara persetujuan bersama.

- 7.3 Tatacara pelaksanaan penamatan bersama hendaklah merujuk kepada perenggan 6(ii),PP/PK4.1.

8. Agensi Yang Boleh Dihubungi

- 8.1 Agensi yang memerlukan maklumat lanjut mengenai pekeliling ini boleh menghubungi agensi berkaitan seperti berikut:

8.1.1 Nasihat Berkaitan Pekeliling Perbendaharaan

Bahagian Perolehan Kerajaan, Kementerian Kewangan
Telefon : 03-8882 4476/3225
E-mel : dasar.bpk@treasury.gov.my

8.1.2 Maklumat Terperinci Berkaitan VOP

Cawangan Kontrak dan Ukur Bahan
Jabatan Kerja Raya Malaysia

- a) Khidmat nasihat hal-hal umum
Telefon: 03-2614 5009
E-mel: bdat.ckub@jkr.gov.my
- b) Khidmat nasihat kaedah pengiraan
Telefon: 03-2614 1414
E-mel: pwic@jkr.gov.my

9. Tarikh Kuat Kuasa

- 9.1 Pekeliling ini berkuat kuasa **sehingga 30 Jun 2022 sahaja**.
- 9.2 Sekiranya terdapat perbezaan arahan Kementerian Kewangan, peraturan dan tatacara perolehan dalam pekeliling khusus lain, maka peraturan yang digariskan melalui pekeliling ini adalah terpakai dan berkuat kuasa bagi tempoh yang ditetapkan oleh Kerajaan.

**SPECIAL PROVISIONS TO THE CONDITIONS OF CONTRACT
(VARIATION OF PRICE) FOR BUILDING WORKS**

**A. VARIATION IN PRICE OF BUILDING MATERIALS
(VARIATION IN UNIT PRICES)**

1. Adjustments (upwards and downwards) shall be made to the monthly interim payments and finally to the Contract Sum where there is variation in the Unit Prices of mild steel reinforcement bars and high tensile steel reinforcement bars (Materials) approved for use in reinforced concrete.

2. Reference Publication

The reference publication to determine the “Unit Prices” of Materials specified in paragraph 1 shall be the **Special Release 1** published by the Department of Statistics in the particular month in which the Materials are delivered to site for use.

3. Basic Unit Prices of Materials

The “Basic Unit Prices” for the purposes of calculating variation of price for the Materials specified in paragraph 1 shall be the appropriate Unit Prices of the Materials as stated in the **Special Release 1** published by the Department of Statistic for the month during which the tender closes and shall be inserted in the **Appendix A** to this provision prior to the signing of the Contract.

4. Variation in Price of Materials

(i) Any adjustments will only be made where there is variation in price in respect of Materials specified in paragraph 1 and against which Basic Unit Prices are given in **Appendix A** to this provision.

(ii) Where a Contractor has paid a higher or lower price for the Materials as compared to the Basic Unit Price specified in **Appendix A** to this provision, the Contract Sum shall be accordingly increased or decreased provided that such increase or decrease shall not exceed the difference between the Basic Unit Price specified in **Appendix A** to this provision and the Unit Price stated in the **Special Release 1** published by the Department of Statistics in the particular month in which the Materials are delivered to site for use.

5. Quantity of Materials Subject to Variation of Price

- (i) Quantities for the Materials specified in paragraph 1 shall be pre-ascertained by the S.O. at the time of tendering and inserted in **Appendix A** to this provision. The quantities so ascertained shall be the maximum quantities subject to price variation under this provision.
- (ii) The maximum quantities as fixed in **Appendix A** to this provision may be varied only when the original scope of works have been varied. The adjustment of the maximum quantities of the Materials shall be made proportionately to the variation of the scope of the work in which the relevant Materials so relate.

6. Works Not Included

- (i) This provision shall not apply to any of the Materials which have been used in works which shall have been rejected by the S.O. or which have been executed in places outside the limits of the site without the prior approval of the S.O.
- (ii) The Contractor shall keep accurate and complete records of all Materials or other items required for the replacement of works rejected by the S.O. The quantities of the Materials which have been used in works rejected by the S.O. shall be excluded from any claims for price variations under this provision.

7. Contract Period and Extension

This provision shall only apply to works done within the Contract Period and any extended period which had been allowed in accordance with the terms of the Contract.

8. Works Executed Outside the Period Permitted Under Contract

This provision shall not apply to works carried out by the Contractor outside the period permitted under the terms of Contract except in the following case:

Where the quantity of Materials used by the Contractor within the period permitted under the terms of Contract is less than that specified in **Appendix A** to this provision, adjustments shall be made to the Contract Sum in respect of the balance of the Materials where there is variation in price notwithstanding

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that the balance of Materials is used beyond the period permitted under the Contract provided that:

- (i) In the case of any increase in prices, adjustments will only be made if the increase does not exceed the Unit Price stated in the Special Release 1 issued by the Department of Statistics in the final month of the period permitted under the Contract.
- (ii) In the case of any reduction in price, adjustments will be made in accordance with paragraph 4 (ii).

9. Notification and Documentary Evidence

- (i) The Contractor shall within a reasonable time give the S.O. written notice of any variation in the price of Materials.
- (ii) The S.O. may at any time call for invoices, receipts and such other documentary evidence as may be required. The Contractor shall not withhold any information or documentary evidence as required by the S.O.

**LIST OF MATERIALS TOGETHER WITH QUANTITIES AND BASIC UNIT PRICES
SUBJECT TO PRICE VARIATION IN ACCORDANCE WITH THE “SPECIAL
PROVISIONS TO THE CONDITIONS OF CONTRACT
(VARIATION OF PRICE) FOR BUILDING WORKS”**

Materials	Unit	Quantity	Basic Unit Price
A. Mild Steel Round Bars, BS 4449			
- 10mm (3/8")	Metric Ton	*	
- 12 mm (1/2")	“	*	
- 16mm (5/8")	“	*	
- 20mm – 25mm (3/4"-1")	“	*	
- 32 mm (1 1/4")	“	*	
B. High Tensile Deformed Bars	Metric Ton	*	
- 10mm (3/8")	“	*	
- 12 mm (1/2")	“	*	
- 16mm – 25 mm (5/8" - 1")	“	*	
- 32 mm (1 1/4")	“	*	

* Quantities shall be pre-ascertained by the Superintending Officer at the time of tendering.

Notes:

1. The above quantities are intended for the purpose of price variation only and do not necessarily reflect the actual quantities required for the Contract. The Contractor shall ascertain himself the actual quantities required upon which his tender is deemed to have been based.
2. Price Variation shall be applied to the above quantities fixed or actual quantities used, whichever is the lesser.
3. The “Basic Unit Prices” shall be the appropriate Unit Price as stated in the Special Release 1 published by the Statistics Department for the month during which the tender closes and only need to be inserted prior to the signing of the Contract Document.

**SPECIAL PROVISIONS TO THE CONDITIONS OF CONTRACT
(VARIATION OF PRICE) FOR CIVIL ENGINEERING WORKS**

**A. VARIATION IN PRICE OF CIVIL ENGINEERING MATERIALS
(VARIATION IN UNIT PRICES)**

1. Adjustments (upwards and downwards) shall be made to the monthly interim payments and finally to the Contract Sum where there is variation in the Unit Prices in respect of selected “Materials” described hereunder:

- (i) Crushed Aggregates (Crusher Run);
- (ii) Steel Reinforcement Bars (Mild Steel Reinforcement Bars & High Tensile Steel Reinforcement Bars); and
- (iii) Mild Steel Pipe for water pipe and sewerage pipe.

2. Reference Publication

The reference publication to determine the “Unit Prices” of Materials specified in paragraph 1 shall be the **Special Release 1** published by the Department of Statistics in the particular month in which the Materials are delivered to site for use.

3. Basic Unit Prices of Materials

The “Basic Unit Prices” for the purposes of calculating variation of price for the Materials specified in paragraph 1 shall be the appropriate Unit Prices of the Materials as stated in the **Special Release 1** published by the Department of Statistic for the month during which the tender closes and shall be inserted in the **Appendix A** to this provision prior to the signing of the Contract.

4. Variation in Price of Materials

(i) Any adjustments will only be made where there is variation in price in respect of Materials specified in paragraph 1 and against which Basic Unit Prices are given in **Appendix A** to this provision.

(ii) Where a Contractor has paid a higher or lower price for the Materials as compared to the Basic Unit Price specified in **Appendix A** to this provision, the Contract Sum shall be accordingly increased or decreased provided that such increase or decrease shall not exceed the difference between the Basic

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Unit Price specified in **Appendix A** to this provision and the Unit Price stated in the **Special Release 1** published by the Department of Statistics in the particular month in which the Materials are delivered to site for use.

5. Quantity of Materials Subject to Variation of Price

- (i) Quantities for the Materials specified in paragraph 1 shall be pre-ascertained by the S.O. at the time of tendering and inserted in **Appendix A** to this provision. The quantities so ascertained shall be the maximum quantities subject to price variation under this provision.
- (ii) The maximum quantities as fixed in **Appendix A** to this provision may be varied only when the original scope of works have been varied. The adjustment of the maximum quantities of the Materials shall be made proportionately to the variation of the scope of the work in which the relevant Materials so relate.

6. Works Not Included

- (i) This provision shall not apply to any of the Materials which have been used in works which shall have been rejected by the S.O. or which have been executed in places outside the limits of the site without the prior approval of the S.O.
- (ii) The Contractor shall keep accurate and complete records of all Materials or other items required for the replacement of works rejected by the S.O. The quantities of the Materials which have been used in works rejected by the S.O. shall be excluded from any claims for price variations under this provision.

7. Contract Period and Extension

This provision shall only apply to works done within the Contract Period and any extended period which had been allowed in accordance with the terms of the Contract.

8. Works Executed Outside the Period Permitted Under Contract

This provision shall not apply to works carried out by the Contractor outside the period permitted under the terms of Contract except in the following case:

Where the quantity of Materials used by the Contractor within the period permitted under the terms of Contract is less than that specified in **Appendix A** to this provision, adjustments shall be made to the Contract Sum in respect of the balance of the Materials where there is variation in price notwithstanding that the balance of Materials is used beyond the period permitted under the Contract provided that:

- (i) In the case of any increase in prices, adjustments will only be made if the increase does not exceed the Unit Price stated in the **Special Release 1** issued by the Department of Statistics in the final month of the period permitted under the Contract.
- (ii) In the case of any reduction in price, adjustments will be made in accordance with paragraph 4 (ii).

9. Notification and Documentary Evidence

- (i) The Contractor shall within a reasonable time give the S.O. written notice of any variation in the price of Materials.
- (ii) The S.O. may at any time call for invoices, receipts and such other documentary evidence as may be required. The Contractor shall not withhold any information or documentary evidence as required by the S.O.

**LIST OF MATERIALS TOGETHER WITH QUANTITIES AND BASIC UNIT PRICES
SUBJECT TO PRICE VARIATION IN ACCORDANCE WITH THE “SPECIAL
PROVISIONS TO THE CONDITIONS OF CONTRACT
(VARIATION OF PRICE) FOR CIVIL ENGINEERING WORKS”**

Materials	Unit	Quantity	Basic Unit Price
1. Mild Steel Round Bars, BS 4449 - 10mm (3/8") - 12 mm (1/2") - 16mm (5/8") - 20mm – 25mm (3/4"-1") - 32 mm (1 1/4")	Metric Ton " " " " " " " "	* * * * *	
2. High Tensile Deformed Bars - 10mm (3/8") - 12 mm (1/2") - 16mm – 25 mm (5/8" - 1") - 32 mm (1 1/4")	Metric Ton " " " " " " " "	* * * * *	
3. Crushed Aggregates (Crusher Run)	Metric Ton	*	
4. Water Pipe and Sewerage Pipe - Mild Steel Pipe 300mm	Metre	*	} Refer Appendix B

* Quantities shall be pre-ascertained by the Superintending Officer at the time of tendering.

Notes:

1. The above quantities are intended for the purpose of price variation only and do not necessarily reflect the actual quantities required for the Contract. The Contractor shall ascertain himself the actual quantities required upon which his tender is deemed to have been based.
2. Price Variation shall be applied to the above quantities fixed or actual quantities used, whichever is the lesser.
3. The quantities of materials (subject to those listed above) used in precast concrete components shall be determined and included in the quantities for relevant materials above. The computation for price variation shall be considered when the completed precast components are delivered to site for use.
4. The “Basic Unit Prices” shall be the appropriate Unit Price as stated in the **Special Release 1** published by the Department of Statistics for the month during which the tender closes and only need to be inserted prior to the signing of the Contract Document.

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Appendix B
 (untuk digunakan bagi projek baharu)

**LIST OF CATEGORY AND SIZE OF MILD STEEL PIPE TOGETHER WITH
 QUANTITY AND BASIC UNIT PRICE SUBJECT TO PRICE VARIATION IN
 ACCORDANCE WITH THE "SPECIAL PROVISIONS TO THE CONDITIONS OF
 CONTRACT (VARIATION OF PRICE) FOR CIVIL ENGINEERING WORKS"**

Category and Size of Mild Steel Pipe	Quantity (M)	Unit Price For Basic Material	Adjustment Factor	Basic Unit Price
WATER PIPE				
1. 100 mm Ø	*			
2. 150 "	*			
3. 200 "	*			
4. 250 "	*			
5. 300 "	*			
6. 350 "	*			
7. 400 "	*			
8. 450 "	*			
9. 500 "	*			
10. 600 "	*			
11. 700 "	*			
12. 750 "	*			
13. 800 "	*			
14. 900 "	*			
15. 1000 "	*			
16. 1100 "	*			
17. 1150 "	*			
18. 1200 "	*			
19. 1300 "	*			
20. 1400 "	*			
21. 1500 "	*			
22. 1600 "	*			
23. 1700 "	*			
24. 1800 "	*			
25. 1900 "	*			
26. 2000 "	*			
27. 2100 "	*			
28. 2200 "	*			
SEWERAGE PIPE				
1. 100 mm Ø	*			
2. 125 "	*			
3. 150 "	*			
4. 200 "	*			
5. 250 "	*			

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Category and Size of Mild Steel Pipe	Quantity (M)	Unit Price For Basic Material	Adjustment Factor	Basic Unit Price
6. 300 "	*			
7. 350 "	*			
8. 400 "	*			
9. 450 "	*			
10. 500 "	*			
11. 550 "	*			
12. 600 "	*			
13. 650 "	*			
14. 700 "	*			
15. 750 "	*			
16. 800 "	*			
17. 850 "	*			
18. 900 "	*			
19. 950 "	*			
20. 1000 "	*			
21. 1200 "	*			
22. 1400 "	*			
23. 1600 "	*			
24. 1800 "	*			
25. 2000 "	*			
26. 2100 "	*			
27. 2200 "	*			

* Quantities shall be pre-ascertained by the Superintending Officer at the time of tendering.

Notes:

1. The above quantities are intended for the purpose of price variation only and do not necessarily reflect the actual quantities required for the Contract.
2. Price Variation shall be applied to the above quantities fixed or actual quantities used, whichever is the lesser.
3. The "Basic Unit Price" for each material shall be based on the Unit Price of the "Selected Basic Material" for the relevant category of pipe as stated in the Special Release 1 published by the Department of Statistics for the month during which the tender closes multiplied by "Price Adjustment Factor" for the said material and only need to be inserted prior to the signing of the Contract Document.
4. Price Adjustment Factor shall be as stated in the **Special Release 1** published by the Department of Statistics.
5. The Basic Material is the most commonly used material for the relevant category of pipes in most projects.

**SPECIAL PROVISIONS TO THE CONDITIONS OF CONTRACT
(VARIATION OF PRICE) FOR MECHANICAL & ELECTRICAL WORKS**

1. This provision shall be applicable for Mechanical and Electrical Works carried out under the following arrangement:
 - (i) Direct contract;
 - (ii) Prime Cost Sum by Nominated Sub-contractor; and
 - (iii) Packaged as part of Builder's Works under the Main Contract.

2. Adjustment (upwards and downwards) shall be made to the monthly interim payments and finally to the Contract Sum where there is variation in the Component Cost Indices in respect of seven (7) main Mechanical and Electrical (M&E) Components described hereunder:
 - (i) Cables
 - (ii) Switchgears
 - (iii) Transformers
 - (iv) Generators
 - (v) Lightning Protection System & Earthing System
 - (vi) Air Conditioning System
 - (vii) Motor (Pumpset)

3. Reference Publication

The reference publication to determine the "Component Cost Indices" of M&E Components specified in paragraph 2 shall be the **Special Release 3** published by the Department of Statistics for the month of installation.

4. Base Indices

The "Base Indices" for the purposes of calculating variation of price for the M&E Components specified in paragraph 2 shall be the appropriate Component Cost Index of the M&E Components as stated in the **Special Release 3** published by the Department of Statistic for the month during which the tender closes and shall be inserted in the **Appendix A** to this provision prior to the signing of the Contract.

5. Application of Adjustments

- (i) The adjustments shall only be applied to the "Effective Value of Work Done" (as defined hereunder) in respect of each M&E component installed on site. The "Effective Value of Work Done" shall mean the difference between:
 - (a) The amount of each relevant component installed on site by the Contractor up to the date of the current monthly interim valuation less the amount for any items based on actual costs or current prices; and
 - (b) The amount calculated in accordance with (a) above up to the date of the preceding monthly interim valuation.
- (ii) The total tendered price of each M&E component is the total price of the supply and installation as tendered by the Contractor. The "Recovery Factor" of each component is the percentage of the supply component price with respect to the tendered price. The Recovery Factor of the selected M&E component is specified in **Appendix A** to this provision.

6. Variations in Component Cost Index

- (i) The Variation in the Component Cost Index shall mean any increase or decrease in the "Current Index" (as defined under paragraph (ii) hereof) as compared to the Base Index (as defined under paragraph 4 above) for the relevant category or categories of M&E component as stated in **Appendix A** to this provision.
- (ii) The Current Index shall mean the appropriate Component Cost Index as stated in **Special Release 3** issued by the Department of Statistics for the month of installation.

Provided that in respect of Works executed outside the period permitted under the provisions of the Contract, the Current Index shall be the appropriate Component Cost Index as stated in the **Special Release 3** issued by the Department of Statistics for either the final month of the period permitted under the provisions of the Contract, or the month of the monthly interim valuation, whichever is the lower.

7. Calculation for Adjustments

The increase or decrease payable or deductible shall be calculated by multiplying the “Effective Value of Work Done” by a factor referred to as Fluctuation Factor which shall be ascertained from the product of the Recovery Factor of relevant M&E Component and the difference between the relevant Current Index and the Base Index, divided by the Base Index as follows:

$$\text{Fluctuation Factor} = \text{Recovery Factor} \times \frac{\text{Current Index} - \text{Base Index}}{\text{Base Index}}$$

Provided that:

- (i) (a) If the relevant Current Index had not been published by the date the interim payment certificate is to be issued, or

(b) If the total amount of any monthly interim valuation (excluding any sums for increases or decreases under this provision) is inadequate to justify the issue of an interim payment certificate, then the increase or decrease payable in respect of that monthly interim valuation shall be added to or deducted from the amount payable upon the issue by the Superintending Officer (S.O.) of the next interim payment certificate after all the relevant Current Indices have been published or when the total amount of the monthly interim valuation is adequate to justify the issue of the said certificate, as the case may be.
- (ii) The Fluctuation Factor for the Effective Value of Work Done in respect of any balance due or to become due and payable to the Contractor after the payment for each component installed up to the date certified by the S.O. as being completed had been made, shall be the ratio of the aggregate total of all the previous increases and/or decreases and the corresponding cumulative total of all the previous Effective Value of Work Done, as follows:

$$L = F \times \frac{M}{E}$$

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Where:

- L = The value of increase or decrease payable or deductible in respect of the balance due or to become due and payable to the contractor;
- F = The amount of the balance due or to become due and payable to the contractor excluding the value of L after deducting the amount in respect of items based on actual costs or current prices;
- M = The aggregate total amount of increases or decreases payable under the above provisions in respect of all the previous interim payments made;
- E = The corresponding cumulative total of all the previous Effective Value of Work Done.

**LIST OF RELEVANT COMPONENTS, RECOVERY FACTOR AND BASE INDICES
SUBJECTED TO PRICE VARIATION IN ACCORDANCE WITH THE “SPECIAL
PROVISIONS TO THE CONDITIONS OF CONTRACT
(VARIATION OF PRICE) FOR MECHANICAL & ELECTRICAL WORKS”**

Bil.	Category Of Components	Recovery Factor	Base Index (of Component in region _____* for the months of _____**)
1.	<p>COPPER CABLES</p> <p>i) Concealed/ Surface wiring using G.I. conduit (per unit point)</p> <p>ii) Cables in galvanized trunking (per meter run)</p> <p>iii) Cables laid underground (per meter run)</p> <p style="padding-left: 20px;">a) 120 sq. mm and above</p> <p style="padding-left: 20px;">b) Below 120 sq. mm</p> <p>iv) Cables on tray/ ladder (per meter run)</p> <p style="padding-left: 20px;">a) 120 sq. mm and above</p> <p style="padding-left: 20px;">b) Below 120 sq. mm</p> <p>v) Busduct</p>	<p>0.50</p> <p>0.55</p> <p>0.90</p> <p>0.75</p> <p>0.75</p> <p>0.50</p> <p>0.75</p>	
2.	<p>SWITCHGEARS</p> <p>i) MV Switchgears</p> <p>ii) LV Switchboards (Incomer breaker 600A and above)</p> <p>iii) LV Switchboards and Sub Switchboards (Incomer breaker below 600A)</p> <p>iv) TPN & SPN Distribution Boards (Incomer breaker 100A and below and Feeder Pillars)</p>	<p>0.90</p> <p>0.85</p> <p>0.85</p> <p>0.85</p>	
3.	<p>TRANSFORMERS</p> <p>i) Cast Resin Transformer</p> <p>ii) Hermetically Sealed (Oil filled) Transformer</p>	<p>0.80</p> <p>0.80</p>	

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Bil.	Category Of Components	Recovery Factor	Base Index (of Component in region _____* for the months of _____**
4.	GENERATORS i) Generators Sets Ratings Above 500kVA ii) Generator Sets Ratings 500kVA and below	0.85 0.75	
5.	LIGHTNING PROTECTION SYSTEM & EARTHING SYSTEM i) Lightning Protection System ii) Earthing system (a) Earthing System for MV Switchgears, Transformers, LV Switchboards and Sub Switchboards, Generator Sets, Feeder Pillars and Traffic Lights Controllers (b) Earthing System for Distribution Boards and others	0.65 0.75 0.50	
6.	AIR CONDITIONING SYSTEM i) Water Cooled Chiller ii) Air Cooled Chiller iii) Water Cooled Package iv) Air Cooled Package v) Split Unit System (a) Wall Mounted (b) Ceiling Cassette/Mounted vi) VRV System (a) Indoor (b) Outdoor	0.75 0.90 0.70 0.75 0.75 0.90 0.85 0.95	
7.	MOTOR (PUMPSET) i) Condenser Water Pump ii) Chilled Water Pump iii) Hose Reel Pump	0.80 0.80 0.55	

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Appendix A
(untuk digunakan bagi projek baharu)

Notes:

*Penisular Malaysia

* Sabah

*Sarawak

** The “Base Index” shall be the appropriate Component Cost Index as stated in the **Special Release 3** published by the Department of Statistics for the month during which the tender closes and only need to be inserted prior to the signing of the Contract Document.

**SPECIAL PROVISIONS TO THE CONDITIONS OF CONTRACT
(VARIATION OF PRICE) FOR BUILDING WORKS**

**A. VARIATION IN PRICE OF BUILDING MATERIALS
(VARIATION IN UNIT PRICES)**

1. Adjustments (upwards and downwards) shall be made to the monthly interim payments and finally to the Contract Sum where there is variation in the Unit Prices of mild steel reinforcement bars and high tensile steel reinforcement bars (Materials) approved for use in reinforced concrete.

2. Reference Publication

The reference publication to determine the “Unit Prices” of Materials specified in paragraph 1 shall be the **Special Release 1** published by the Department of Statistics in the particular month in which the Materials are delivered to site for use.

3. Basic Unit Prices of Materials

The “Basic Unit Prices” for the purposes of calculating variation of price for the Materials specified in paragraph 1 shall be the appropriate Unit Prices of the Materials as stated in the **Special Release 1** published by the Department of Statistic and shall be inserted in the **Appendix A** to this provision.

The Basic Unit Price shall be determined as follows based on:

- (i) The month during which tender closes (for tenders closed on and after 1st January 2021); or
- (ii) The month December 2020 (for tender closed before 1st January 2021)

4. Variation in Price of Materials

- (i) Any adjustments will only be made where there is variation in price in respect of Materials specified in paragraph 1 and against which Basic Unit Prices are given in **Appendix A** to this provision.

- (ii) Where a Contractor has paid a higher or lower price for the Materials as compared to the Basic Unit Price specified in **Appendix A** to this provision, the Contract Sum shall be accordingly increased or decreased provided that such increase or decrease shall not exceed the difference between the Basic Unit Price specified in **Appendix A** to this provision and the Unit Price stated

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in the **Special Release 1** published by the Department of Statistics in the particular month in which the Materials are delivered to site for use.

5. Quantity of Materials Subject to Variation of Price

- (i) Quantities for the Materials specified in paragraph 1 shall be pre-ascertained by the S.O. based on **balance of work to be executed from 1st January 2021** and inserted in **Appendix A** to this provision. The quantities so ascertained shall be the maximum quantities subject to price variation under this provision.
- (ii) The maximum quantities as fixed in **Appendix A** to this provision may be varied only when the original scope of works have been varied. The adjustment of the maximum quantities of the Materials shall be made proportionately to the variation of the scope of the work in which the relevant Materials so relate.

6. Works Not Included

- (i) This provision shall not apply to any of the Materials which have been used in works which shall have been rejected by the S.O. or which have been executed in places outside the limits of the site without the prior approval of the S.O.
- (ii) The Contractor shall keep accurate and complete records of all Materials or other items required for the replacement of works rejected by the S.O. The quantities of the Materials which have been used in works rejected by the S.O. shall be excluded from any claims for price variations under this provision.

7. Contract Period and Extension

This provision shall only apply to works done within the Contract Period and any extended period which had been allowed in accordance with the terms of the Contract.

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8. Works Executed Outside the Period Permitted Under Contract

This provision shall not apply to works carried out by the Contractor outside the period permitted under the terms of Contract except in the following case:

Where the quantity of Materials used by the Contractor within the period permitted under the terms of Contract is less than that specified in **Appendix A** to this provision, adjustments shall be made to the Contract Sum in respect of the balance of the Materials where there is variation in price notwithstanding that the balance of Materials is used beyond the period permitted under the Contract provided that:

- (i) In the case of any increase in prices, adjustments will only be made if the increase does not exceed the Unit Price stated in the **Special Release 1** issued by the Department of Statistics in the final month of the period permitted under the Contract.
- (ii) In the case of any reduction in price, adjustments will be made in accordance with paragraph 4 (ii).

9. Notification and Documentary Evidence

- (i) The Contractor shall within a reasonable time give the S.O. written notice of any variation in the price of Materials.
- (ii) The S.O. may at any time call for invoices, receipts and such other documentary evidence as may be required. The Contractor shall not withhold any information or documentary evidence as required by the S.O.

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**LIST OF MATERIALS TOGETHER WITH QUANTITIES AND BASIC UNIT PRICES
SUBJECT TO PRICE VARIATION IN ACCORDANCE WITH THE “SPECIAL
PROVISIONS TO THE CONDITIONS OF CONTRACT
(VARIATION OF PRICE) FOR BUILDING WORKS”**

Materials	Unit	Quantity	Basic Unit Price
A. Mild Steel Round Bars, BS 4449			
- 10mm (3/8")	Metric Ton	*	
- 12 mm (1/2")	“	*	
- 16mm (5/8")	“	*	
- 20mm – 25mm (3/4"-1")	“	*	
- 32 mm (1 1/4")	“	*	
B. High Tensile Deformed Bars	Metric Ton	*	
- 10mm (3/8")	“	*	
- 12 mm (1/2")	“	*	
- 16mm – 25 mm (5/8" - 1")	“	*	
- 32 mm (1 1/4")	“	*	

* Quantities shall be pre-ascertained by the Superintending Officer based on **balance of work to be executed from 1st January 2021**.

Notes:

1. The above quantities are intended for the purpose of price variation only and do not necessarily reflect the actual quantities required for the Contract. The Contractor shall ascertain himself the actual quantities required upon which his tender is deemed to have been based.
2. Price Variation shall be applied to the above quantities fixed or actual quantities used, whichever is the lesser.
3. The “Basic Unit Prices” shall be the appropriate Unit Price as stated in the Special Release 1 published by the Department of Statistics. The Basic Unit Price shall be determined as follows based on:
 - (i) The month during which tender closes (for tenders closed on and after 1st January 2021); or
 - (ii) The month December 2020 (for tender closed before 1st January 2021)

**SPECIAL PROVISIONS TO THE CONDITIONS OF CONTRACT
(VARIATION OF PRICE) FOR CIVIL ENGINEERING WORKS**

**A. VARIATION IN PRICE OF CIVIL ENGINEERING MATERIALS
(VARIATION IN UNIT PRICES)**

1. Adjustments (upwards and downwards) shall be made to the monthly interim payments and finally to the Contract Sum where there is variation in the Unit Prices in respect of selected “Materials” described hereunder:

- (i) Crushed Aggregates (Crusher Run);
- (ii) Steel Reinforcement Bars (Mild Steel Reinforcement Bars & High Tensile Steel Reinforcement Bars); and
- (iii) Mild Steel Pipe for water pipe and sewerage pipe.

2. Reference Publication

The reference publication to determine the “Unit Prices” of Materials specified in paragraph 1 shall be the **Special Release 1** published by the Department of Statistics in the particular month in which the Materials are delivered to site for use.

3. Basic Unit Prices of Materials

The “Basic Unit Prices” for the purposes of calculating variation of price for the Materials specified in paragraph 1 shall be the appropriate Unit Prices of the Materials as stated in the **Special Release 1** published by the Department of Statistic and shall be inserted in the **Appendix A** to this provision.

The Basic Unit Price shall be determined as follows based on:

- (i) The month during which tender closes (for tenders closed on and after 1st January 2021); or
- (ii) The month December 2020 (for tender closed before 1st January 2021)

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4. Variation in Price of Materials

- (i) Any adjustments will only be made where there is variation in price in respect of Materials specified in paragraph 1 and against which Basic Unit Prices are given in **Appendix A** to this provision.
- (ii) Where a Contractor has paid a higher or lower price for the Materials as compared to the Basic Unit Price specified in **Appendix A** to this provision, the Contract Sum shall be accordingly increased or decreased provided that such increase or decrease shall not exceed the difference between the Basic Unit Price specified in **Appendix A** to this provision and the Unit Price stated in the **Special Release 1** published by the Department of Statistics in the particular month in which the Materials are delivered to site for use.

5. Quantity of Materials Subject to Variation of Price

- (i) Quantities for the Materials specified in paragraph 1 shall be pre-ascertained by the S.O. based on **balance of work to be executed from 1st January 2021** and inserted in **Appendix A** to this provision. The quantities so ascertained shall be the maximum quantities subject to price variation under this provision.
- (ii) The maximum quantities as fixed in **Appendix A** to this provision may be varied only when the original scope of works have been varied. The adjustment of the maximum quantities of the Materials shall be made proportionately to the variation of the scope of the work in which the relevant Materials so relate.

6. Works Not Included

- (i) This provision shall not apply to any of the Materials which have been used in works which shall have been rejected by the S.O. or which have been executed in places outside the limits of the site without the prior approval of the S.O.
- (ii) The Contractor shall keep accurate and complete records of all Materials or other items required for the replacement of works rejected by the S.O. The quantities of the Materials which have been used in works rejected by the

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(untuk digunakan bagi projek yang sedang dalam pembinaan)

S.O. shall be excluded from any claims for price variations under this provision.

7. Contract Period and Extension

This provision shall only apply to works done within the Contract Period and any extended period which had been allowed in accordance with the terms of the Contract.

8. Works Executed Outside the Period Permitted Under Contract

This provision shall not apply to works carried out by the Contractor outside the period permitted under the terms of Contract except in the following case:

Where the quantity of Materials used by the Contractor within the period permitted under the terms of Contract is less than that specified in **Appendix A** to this provision, adjustments shall be made to the Contract Sum in respect of the balance of the Materials where there is variation in price notwithstanding that the balance of Materials is used beyond the period permitted under the Contract provided that:

- (i) In the case of any increase in prices, adjustments will only be made if the increase does not exceed the Unit Price stated in the **Special Release 1** issued by the Department of Statistics in the final month of the period permitted under the Contract.
- (ii) In the case of any reduction in price, adjustments will be made in accordance with paragraph 4 (ii).

9. Notification and Documentary Evidence

- (i) The Contractor shall within a reasonable time give the S.O. written notice of any variation in the price of Materials.
- (ii) The S.O. may at any time call for invoices, receipts and such other documentary evidence as may be required. The Contractor shall not withhold any information or documentary evidence as required by the S.O.

(untuk digunakan bagi projek yang sedang dalam pembinaan)

**LIST OF MATERIALS TOGETHER WITH QUANTITIES AND BASIC UNIT PRICES
TO PRICE VARIATION IN ACCORDANCE WITH THE “SPECIAL PROVISIONS TO
THE CONDITIONS OF CONTRACT
(VARIATION OF PRICE) FOR CIVIL ENGINEERING WORKS”**

Materials	Unit	Quantity	Basic Unit Price
1. Mild Steel Round Bars, BS 4449 - 10mm (3/8") - 12 mm (1/2") - 16mm (5/8") - 20mm – 25mm (3/4"-1") - 32 mm (1 1/4")	Metric Ton " " " "	* * * * *	
2. High Tensile Deformed Bars - 10mm (3/8") - 12 mm (1/2") - 16mm – 25 mm (5/8" - 1") - 32 mm (1 1/4")	Metric Ton " " " "	* * * * *	
3. Crushed Aggregates (Crusher Run)	Metric Ton	*	
4. Water Pipe and Sewerage Pipe - Mild Steel Pipe 300mm	Metre	*	} Refer Appendix B

* Quantities shall be pre-ascertained by the Superintending Officer based on **balance of work to be executed from 1st January 2021**.

Notes:

1. The above quantities are intended for the purpose of price variation only and do not necessarily reflect the actual quantities required for the Contract. The Contractor shall ascertain himself the actual quantities required upon which his tender is deemed to have been based.
2. Price Variation shall be applied to the above quantities fixed or actual quantities used, whichever is the lesser.
3. The “Basic Unit Prices” shall be the appropriate Unit Price as stated in the Special Release 1 published by the Department of Statistics. The Basic Unit Price shall be determined as follows based on:
 - a. The month during which tender closes (for tenders closed on and after 1st January 2021); or
 - b. The month December 2020 (for tender closed before 1st January 2021)

(untuk digunakan bagi projek yang sedang dalam pembinaan)

**LIST OF CATEGORY AND SIZE OF MILD STEEL PIPE TOGETHER WITH
QUANTITY AND BASIC UNIT PRICE SUBJECT TO PRICE VARIATION IN
ACCORDANCE WITH THE "SPECIAL PROVISIONS TO THE CONDITIONS OF
CONTRACT (VARIATION OF PRICE) FOR CIVIL ENGINEERING WORKS"**

Category and Size of Mild Steel Pipe	Quantity (M)	Unit Price For Basic Material	Adjustment Factor	Basic Unit Price
WATER PIPE				
1. 100 mm Ø	*			
2. 150 "	*			
3. 200 "	*			
4. 250 "	*			
5. 300 "	*			
6. 350 "	*			
7. 400 "	*			
8. 450 "	*			
9. 500 "	*			
10. 600 "	*			
11. 700 "	*			
12. 750 "	*			
13. 800 "	*			
14. 900 "	*			
15. 1000 "	*			
16. 1100 "	*			
17. 1150 "	*			
18. 1200 "	*			
19. 1300 "	*			
20. 1400 "	*			
21. 1500 "	*			
22. 1600 "	*			
23. 1700 "	*			
24. 1800 "	*			
25. 1900 "	*			
26. 2000 "	*			
27. 2100 "	*			
28. 2200 "	*			
SEWERAGE PIPE				
1. 100 mm Ø	*			
2. 125 "	*			
3. 150 "	*			
4. 200 "	*			
5. 250 "	*			

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Appendix B

(untuk digunakan bagi projek yang sedang dalam pembinaan)

Category and Size of Mild Steel Pipe	Quantity (M)	Unit Price For Basic Material	Adjustment Factor	Basic Unit Price
6. 300 "	*			
7. 350 "	*			
8. 400 "	*			
9. 450 "	*			
10. 500 "	*			
11. 550 "	*			
12. 600 "	*			
13. 650 "	*			
14. 700 "	*			
15. 750 "	*			
16. 800 "	*			
17. 850 "	*			
18. 900 "	*			
19. 950 "	*			
20. 1000 "	*			
21. 1200 "	*			
22. 1400 "	*			
23. 1600 "	*			
24. 1800 "	*			
25. 2000 "	*			
26. 2100 "	*			
27. 2200 "	*			

* Quantities shall be pre-ascertained by the Superintending Officer based on **balance of work to be executed from 1st January 2021**.

Notes:

1. The above quantities are intended for the purpose of price variation only and do not necessarily reflect the actual quantities required for the Contract.
2. Price Variation shall be applied to the above quantities fixed or actual quantities used, whichever is the lesser.
3. The "Basic Unit Prices" shall be the appropriate Unit Price as stated in the **Special Release 1** published by the Department of Statistics. The Basic Unit Price shall be determined as follows based on:
 - (i) The month during which tender closes (for tenders closed on and after 1st January 2021); or
 - (ii) The month December 2020 (for tender closed before 1st January 2021)
4. Price Adjustment Factor shall be as stated in the **Special Release 1** published by the Department of Statistics.
5. The Basic Material is the most commonly used material for the relevant category of pipes in most projects.

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(untuk digunakan bagi projek yang sedang dalam pembinaan)

SPECIAL PROVISIONS TO THE CONDITIONS OF CONTRACT
(VARIATION OF PRICE) FOR MECHANICAL & ELECTRICAL WORKS

1. This provision shall be applicable for Mechanical and Electrical Works carried out under the following arrangement:
 - (i) Direct contract;
 - (ii) Prime Cost Sum by Nominated Sub-contractor; and
 - (iii) Packaged as part of Builder's Works under the Main Contract.

2. Adjustment (upwards and downwards) shall be made to the monthly interim payments and finally to the Contract Sum where there is variation in the Component Cost Indices in respect of seven (7) main Mechanical and Electrical (M&E) Components described hereunder:
 - (i) Cables
 - (ii) Switchgears
 - (iii) Transformers
 - (iv) Generators
 - (v) Lightning Protection System & Earthing System
 - (vi) Air Conditioning System
 - (vii) Motor (Pumpset)

3. Reference Publication

The reference publication to determine the "Component Cost Indices" of M&E Components specified in paragraph 2 shall be the **Special Release 3** published by the Department of Statistics for the month of installation.

4. Base Indices

The "Base Indices" for the purposes of calculating variation of price for the M&E Components specified in paragraph 2 shall be the appropriate Component Cost Index of the M&E Components as stated in the **Special Release 3** published by the Department of Statistic and shall be inserted in the **Appendix A** to this provision prior to the signing of the Contract.

LAMPIRAN C/ME/K-L (2021)
(untuk digunakan bagi projek yang sedang dalam pembinaan)

The Base Index shall be determined as follows based on:-

- (i) The month during which tender closes (for tenders closed on and after 1st January 2021); or
- (ii) The month December 2020 (for tender closed before 1st January 2021)

5. Application of Adjustments

- (i) The adjustments shall only be applied to the "Effective Value of Work Done" (as defined hereunder) in respect of each M&E component installed on site **from 1st January 2021**. The "Effective Value of Work Done" shall mean the difference between:
 - (a) The amount of each relevant component installed on site by the Contractor up to the date of the current monthly interim valuation less the amount for any items based on actual costs or current prices; and
 - (b) The amount calculated in accordance with (a) above up to the date of the preceding monthly interim valuation.
- (ii) The total tendered price of each M&E component is the total price of the supply and installation as tendered by the Contractor. The "Recovery Factor" of each component is the percentage of the supply component price with respect to the tendered price. The Recovery Factor of the selected M&E component is specified in **Appendix A** to this provision.

6. Variations in Component Cost Index

- (i) The Variation in the Component Cost Index shall mean any increase or decrease in the "Current Index" (as defined under paragraph (ii) hereof) as compared to the Base Index (as defined under paragraph 4 above) for the relevant category or categories of M&E component as stated in **Appendix A** to this provision.
- (ii) The Current Index shall mean the appropriate Component Cost Index as stated in **Special Release 3** issued by the Department of Statistics for the month of installation.

LAMPIRAN C/ME/K-L (2021)
(untuk digunakan bagi projek yang sedang dalam pembinaan)

Provided that in respect of Works executed outside the period permitted under the provisions of the Contract, the Current Index shall be the appropriate Component Cost Index as stated in the **Special Release 3** issued by the Department of Statistics for either the final month of the period permitted under the provisions of the Contract, or the month of the monthly interim valuation, whichever is the lower.

7. Calculation for Adjustments

The increase or decrease payable or deductible shall be calculated by multiplying the “Effective Value of Work Done” by a factor referred to as Fluctuation Factor which shall be ascertained from the product of the Recovery Factor of relevant M&E Component and the difference between the relevant Current Index and the Base Index, divided by the Base Index as follows:

$$\text{Fluctuation Factor} = \text{Recovery Factor} \times \frac{\text{Current Index} - \text{Base Index}}{\text{Base Index}}$$

Provided that:

- (i)
 - (a) If the relevant Current Index had not been published by the date the interim payment certificate is to be issued, or
 - (b) If the total amount of any monthly interim valuation (excluding any sums for increases or decreases under this provision) is inadequate to justify the issue of an interim payment certificate, then the increase or decrease payable in respect of that monthly interim valuation shall be added to or deducted from the amount payable upon the issue by the Superintending Officer (S.O.) of the next interim payment certificate after all the relevant Current Indices have been published or when the total amount of the monthly interim valuation is adequate to justify the issue of the said certificate, as the case may be.
- (ii) The Fluctuation Factor for the Effective Value of Work Done in respect of any balance due or to become due and payable to the Contractor after the payment for each component installed up to the date certified by the S.O. as being completed had been made, shall be the ratio of the aggregate total of all the previous increases and/or decreases and the corresponding cumulative total of all the previous Effective Value of Work Done, as follows:

LAMPIRAN C/ME/K-L (2021)
(untuk digunakan bagi projek yang sedang dalam pembinaan)

$$L = F \times \frac{M}{E}$$

Where:

- L = The value of increase or decrease payable or deductible in respect of the balance due or to become due and payable to the contractor;
- F = The amount of the balance due or to become due and payable to the contractor excluding the value of L after deducting the amount in respect of items based on actual costs or current prices;
- M = The aggregate total amount of increases or decreases payable under the above provisions in respect of all the previous interim payments made;
- E = The corresponding cumulative total of all the previous Effective Value of Work Done.

(untuk digunakan bagi projek yang sedang dalam pembinaan)

**LIST OF RELEVANT COMPONENTS, RECOVERY FACTOR AND BASE INDICES
SUBJECTED TO PRICE VARIATION IN ACCORDANCE WITH THE “SPECIAL
PROVISIONS TO THE CONDITIONS OF CONTRACT
(VARIATION OF PRICE) FOR MECHANICAL & ELECTRICAL WORKS”**

Bil.	Category Of Components	Recovery Factor	Base Index (of Component in region _____* for the months of _____**)
1.	COPPER CABLES i) Concealed/ Surface wiring using G.I. conduit (per unit point) ii) Cables in galvanized trunking (per meter run) iii) Cables laid underground (per meter run) a) 120 sq. mm and above b) Below 120 sq. mm iv) Cables on tray/ ladder (per meter run) a) 120 sq. mm and above b) Below 120 sq. mm v) Busduct	0.50 0.55 0.90 0.75 0.75 0.50 0.75	
2.	SWITCHGEARS i) MV Switchgears ii) LV Switchboards (Incomer breaker 600A and above) iii) LV Switchboards and Sub Switchboards (Incomer breaker below 600A) iv) TPN & SPN Distribution Boards (Incomer breaker 100A and below and Feeder Pillars)	0.90 0.85 0.85 0.85	
3.	TRANSFORMERS i) Cast Resin Transformer ii) Hermetically Sealed (Oil filled) Transformer	0.80 0.80	

(untuk digunakan bagi projek yang sedang dalam pembinaan)

Bil.	Category Of Components	Recovery Factor	Base Index (of Component in region _____* for the months of _____**)
4.	GENERATORS i) Generators Sets Ratings Above 500kVA ii) Generator Sets Ratings 500kVA and below	0.85 0.75	
5.	LIGHTNING PROTECTION SYSTEM & EARTHING SYSTEM i) Lightning Protection System ii) Earthing system (a) Earthing System for MV Switchgears, Transformers, LV Switchboards and Sub Switchboards, Generator Sets, Feeder Pillars and Traffic Lights Controllers (b) Earthing System for Distribution Boards and others	0.65 0.75 0.50	
6.	AIR CONDITIONING SYSTEM i) Water Cooled Chiller ii) Air Cooled Chiller iii) Water Cooled Package iv) Air Cooled Package v) Split Unit System (a) Wall Mounted (b) Ceiling Cassette/Mounted vi) VRV System (a) Indoor (b) Outdoor	0.75 0.90 0.70 0.75 0.75 0.90 0.85 0.95	
7.	MOTOR (PUMPSET) i) Condenser Water Pump ii) Chilled Water Pump iii) Hose Reel Pump	0.80 0.80 0.55	

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Appendix A
(untuk digunakan bagi projek yang sedang dalam pembinaan)

Notes:

*Penisular Malaysia

* Sabah

*Sarawak

** The "Base Index" shall be the appropriate Component Cost Index as stated in the **Special Release 3** published by the Department of Statistics. The Base Index shall be determined as follows based on:-

- (i) The month during which tender closes (for tenders closed on and after 1st January 2021); or
- (ii) The month December 2020 (for tender closed before 1st January 2021)

**SPECIAL PROVISIONS TO THE CONDITIONS OF CONTRACT
(VARIATION OF PRICE) FOR BUILDING WORKS**

**B. VARIATION IN PRICE OF BUILDING MATERIALS
(VARIATION IN UNIT PRICES)**

5. Adjustments (upwards and downwards) shall be made to the monthly interim payments and finally to the Contract Sum where there is variation in the Unit Prices of mild steel reinforcement bars and high tensile steel reinforcement bars (Materials) approved for use in reinforced concrete.

6. Reference Publication

The reference publication to determine the “Unit Prices” of Materials specified in paragraph 1 shall be the **Special Release 1** published by the Department of Statistics in the particular month in which the Materials are delivered to site for use.

7. Basic Unit Prices of Materials

The “Basic Unit Prices” for the purposes of calculating variation of price for the Materials specified in paragraph 1 shall be the appropriate Unit Prices of the Materials as stated in the **Special Release 1** published by the Department of Statistic and shall be inserted in the **Appendix A** to this provision.

The Basic Unit Price shall be determined as follows based on:

- (iii) The month during which **Sebut Harga* closes (for **Sebut Harga* closed on and after 1st January 2021); or
- (iv) The month December 2020 (for **Sebut Harga* closed before 1st January 2021)

8. Variation in Price of Materials

- (iii) Any adjustments will only be made where there is variation in price in respect of Materials specified in paragraph 1 and against which Basic Unit Prices are given in **Appendix A** to this provision.
- (iv) Where a Contractor has paid a higher or lower price for the Materials as compared to the Basic Unit Price specified in **Appendix A** to this provision, the Contract Sum shall be accordingly increased or decreased provided that such increase or decrease shall not exceed the difference between the Basic

**Sebut Harga as per item 7 in Pekeliling Perbendaharaan/Perolehan Kerajaan (PP/PK) 2.1*

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Unit Price specified in **Appendix A** to this provision and the Unit Price stated in the **Special Release 1** published by the Department of Statistics in the particular month in which the Materials are delivered to site for use.

10. Quantity of Materials Subject to Variation of Price

- (iii) Quantities for the Materials specified in paragraph 1 shall be pre-ascertained by the S.O. based on **balance of work to be executed from 1st January 2021** and inserted in **Appendix A** to this provision. The quantities so ascertained shall be the maximum quantities subject to price variation under this provision.
- (iv) The maximum quantities as fixed in **Appendix A** to this provision may be varied only when the original scope of works have been varied. The adjustment of the maximum quantities of the Materials shall be made proportionately to the variation of the scope of the work in which the relevant Materials so relate.

11. Works Not Included

- (iii) This provision shall not apply to any of the Materials which have been used in works which shall have been rejected by the S.O. or which have been executed in places outside the limits of the site without the prior approval of the S.O.
- (iv) The Contractor shall keep accurate and complete records of all Materials or other items required for the replacement of works rejected by the S.O. The quantities of the Materials which have been used in works rejected by the S.O. shall be excluded from any claims for price variations under this provision.

12. Contract Period and Extension

This provision shall only apply to works done within the Contract Period and any extended period which had been allowed in accordance with the terms of the Contract.

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13. Works Executed Outside the Period Permitted Under Contract

This provision shall not apply to works carried out by the Contractor outside the period permitted under the terms of Contract except in the following case:

Where the quantity of Materials used by the Contractor within the period permitted under the terms of Contract is less than that specified in **Appendix A** to this provision, adjustments shall be made to the Contract Sum in respect of the balance of the Materials where there is variation in price notwithstanding that the balance of Materials is used beyond the period permitted under the Contract provided that:

- (iii) In the case of any increase in prices, adjustments will only be made if the increase does not exceed the Unit Price stated in the **Special Release 1** issued by the Department of Statistics in the final month of the period permitted under the Contract.
- (iv) In the case of any reduction in price, adjustments will be made in accordance with paragraph 4 (ii).

14. Notification and Documentary Evidence

- (iii) The Contractor shall within a reasonable time give the S.O. written notice of any variation in the price of Materials.
- (iv) The S.O. may at any time call for invoices, receipts and such other documentary evidence as may be required. The Contractor shall not withhold any information or documentary evidence as required by the S.O.

**LAMPIRAN SEBUT HARGA
(Kerja-kerja Binaan Bangunan)**

Appendix A

**LIST OF MATERIALS TOGETHER WITH QUANTITIES AND BASIC UNIT PRICES
SUBJECT TO PRICE VARIATION IN ACCORDANCE WITH THE
“SPECIAL PROVISIONS TO THE CONDITIONS OF CONTRACT
(VARIATION OF PRICE) FOR BUILDING WORKS”**

Materials	Unit	Quantity	Basic Unit Price
A. Mild Steel Round Bars, BS 4449			
- 10mm (3/8")	Metric Ton	*	
- 12 mm (1/2")	“	*	
- 16mm (5/8")	“	*	
- 20mm – 25mm (3/4"-1")	“	*	
- 32 mm (1 1/4")	“	*	
B. High Tensile Deformed Bars	Metric Ton	*	
- 10mm (3/8")	“	*	
- 12 mm (1/2")	“	*	
- 16mm – 25 mm (5/8" - 1")	“	*	
- 32 mm (1 1/4")	“	*	

* Quantities shall be pre-ascertained by the Superintending Officer based on **balance of work to be executed from 1st January 2021**.

Notes:

4. The above quantities are intended for the purpose of price variation only and do not necessarily reflect the actual quantities required for the Contract. The Contractor shall ascertain himself the actual quantities required upon which his **Sebut Harga* is deemed to have been based.
5. Price Variation shall be applied to the above quantities fixed or actual quantities used, whichever is the lesser.
6. The “Basic Unit Prices” shall be the appropriate Unit Price as stated in the Special Release 1 published by the Department of Statistics. The Basic Unit Price shall be determined as follows based on:
 - (iii) The month during which **Sebut Harga* closes (for **Sebut Harga* closed on and after 1st January 2021); or

The month December 2020 (for **Sebut Harga* closed before 1st January 2021)

SPECIAL PROVISIONS TO THE CONDITIONS OF CONTRACT
(VARIATION OF PRICE) FOR CIVIL ENGINEERING WORKS

B. VARIATION IN PRICE OF CIVIL ENGINEERING MATERIALS
(VARIATION IN UNIT PRICES)

5. Adjustments (upwards and downwards) shall be made to the monthly interim payments and finally to the Contract Sum where there is variation in the Unit Prices in respect of selected “Materials” described hereunder:

- (iv) Crushed Aggregates (Crusher Run);
- (v) Steel Reinforcement Bars (Mild Steel Reinforcement Bars & High Tensile Steel Reinforcement Bars); and
- (vi) Mild Steel Pipe for water pipe and sewerage pipe.

6. Reference Publication

The reference publication to determine the “Unit Prices” of Materials specified in paragraph 1 shall be the **Special Release 1** published by the Department of Statistics in the particular month in which the Materials are delivered to site for use.

7. Basic Unit Prices of Materials

The “Basic Unit Prices” for the purposes of calculating variation of price for the Materials specified in paragraph 1 shall be the appropriate Unit Prices of the Materials as stated in the **Special Release 1** published by the Department of Statistic and shall be inserted in the **Appendix A** to this provision.

The Basic Unit Price shall be determined as follows based on:

- (iii) The month during which **Sebut Harga* closes (for **Sebut Harga* closed on and after 1st January 2021); or
- (iv) The month December 2020 (for **Sebut Harga* closed before 1st January 2021)

*Sebut Harga as per item 7 in Pekeliling Perbendaharaan/Perolehan Kerajaan (PP/PK) 2.1

SEBUT HARGA
(Kerja-kerja Kejuruteraan Awam)

8. Variation in Price of Materials

- (iii) Any adjustments will only be made where there is variation in price in respect of Materials specified in paragraph 1 and against which Basic Unit Prices are given in **Appendix A** to this provision.
- (iv) Where a Contractor has paid a higher or lower price for the Materials as compared to the Basic Unit Price specified in **Appendix A** to this provision, the Contract Sum shall be accordingly increased or decreased provided that such increase or decrease shall not exceed the difference between the Basic Unit Price specified in **Appendix A** to this provision and the Unit Price stated in the **Special Release 1** published by the Department of Statistics in the particular month in which the Materials are delivered to site for use.

10. Quantity of Materials Subject to Variation of Price

- (iii) Quantities for the Materials specified in paragraph 1 shall be pre-ascertained by the S.O. based on **balance of work to be executed from 1st January 2021** and inserted in **Appendix A** to this provision. The quantities so ascertained shall be the maximum quantities subject to price variation under this provision.
- (iv) The maximum quantities as fixed in **Appendix A** to this provision may be varied only when the original scope of works have been varied. The adjustment of the maximum quantities of the Materials shall be made proportionately to the variation of the scope of the work in which the relevant Materials so relate.

11. Works Not Included

- (iii) This provision shall not apply to any of the Materials which have been used in works which shall have been rejected by the S.O. or which have been executed in places outside the limits of the site without the prior approval of the S.O.
- (iv) The Contractor shall keep accurate and complete records of all Materials or other items required for the replacement of works rejected by the S.O. The quantities of the Materials which have been used in works rejected by the S.O. shall be excluded from any claims for price variations under this provision.

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12. Contract Period and Extension

This provision shall only apply to works done within the Contract Period and any extended period which had been allowed in accordance with the terms of the Contract.

13. Works Executed Outside the Period Permitted Under Contract

This provision shall not apply to works carried out by the Contractor outside the period permitted under the terms of Contract except in the following case:

Where the quantity of Materials used by the Contractor within the period permitted under the terms of Contract is less than that specified in **Appendix A** to this provision, adjustments shall be made to the Contract Sum in respect of the balance of the Materials where there is variation in price notwithstanding that the balance of Materials is used beyond the period permitted under the Contract provided that:

- (iii) In the case of any increase in prices, adjustments will only be made if the increase does not exceed the Unit Price stated in the **Special Release 1** issued by the Department of Statistics in the final month of the period permitted under the Contract.
- (iv) In the case of any reduction in price, adjustments will be made in accordance with paragraph 4 (ii).

14. Notification and Documentary Evidence

- (iii) The Contractor shall within a reasonable time give the S.O. written notice of any variation in the price of Materials.
- (iv) The S.O. may at any time call for invoices, receipts and such other documentary evidence as may be required. The Contractor shall not withhold any information or documentary evidence as required by the S.O.

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Appendix A

**LIST OF MATERIALS TOGETHER WITH QUANTITIES AND BASIC UNIT PRICES
TO PRICE VARIATION IN ACCORDANCE WITH THE “SPECIAL PROVISIONS TO
THE CONDITIONS OF CONTRACT
(VARIATION OF PRICE) FOR CIVIL ENGINEERING WORKS”**

Materials	Unit	Quantity	Basic Unit Price
1. Mild Steel Round Bars, BS 4449 - 10mm (3/8") - 12 mm (1/2") - 16mm (5/8") - 20mm – 25mm (3/4"-1") - 32 mm (1 1/4")	Metric Ton " " " "	* * * * *	
2. High Tensile Deformed Bars - 10mm (3/8") - 12 mm (1/2") - 16mm – 25 mm (5/8" - 1") - 32 mm (1 1/4")	Metric Ton " " " "	* * * * *	
3. Crushed Aggregates (Crusher Run)	Metric Ton	*	
4. Water Pipe and Sewerage Pipe - Mild Steel Pipe 300mm	Metre	*	} Refer Appendix B

* Quantities shall be pre-ascertained by the Superintending Officer based on **balance of work to be executed from 1st January 2021**.

Notes:

4. The above quantities are intended for the purpose of price variation only and do not necessarily reflect the actual quantities required for the Contract. The Contractor shall ascertain himself the actual quantities required upon which his **Sebut Harga* is deemed to have been based.
5. Price Variation shall be applied to the above quantities fixed or actual quantities used, whichever is the lesser.
6. The “Basic Unit Prices” shall be the appropriate Unit Price as stated in the Special Release 1 published by the Department of Statistics. The Basic Unit Price shall be determined as follows based on:
 - c. The month during which **Sebut Harga* closes (for **Sebut Harga* closed on and after 1st January 2021); or
 - d. The month December 2020 (for **Sebut Harga* closed before 1st January 2021)

SEBUT HARGA
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Appendix B

**LIST OF CATEGORY AND SIZE OF MILD STEEL PIPE TOGETHER WITH
QUANTITY AND BASIC UNIT PRICE SUBJECT TO PRICE VARIATION IN
ACCORDANCE WITH THE "SPECIAL PROVISIONS TO THE CONDITIONS OF
CONTRACT (VARIATION OF PRICE) FOR CIVIL ENGINEERING WORKS"**

Category and Size of Mild Steel Pipe	Quantity (M)	Unit Price For Basic Material	Adjustment Factor	Basic Unit Price
WATER PIPE				
1. 100 mm Ø	*			
2. 150 "	*			
3. 200 "	*			
4. 250 "	*			
5. 300 "	*			
6. 350 "	*			
7. 400 "	*			
8. 450 "	*			
9. 500 "	*			
10. 600 "	*			
11. 700 "	*			
12. 750 "	*			
13. 800 "	*			
14. 900 "	*			
15. 1000 "	*			
16. 1100 "	*			
17. 1150 "	*			
18. 1200 "	*			
19. 1300 "	*			
20. 1400 "	*			
21. 1500 "	*			
22. 1600 "	*			
23. 1700 "	*			
24. 1800 "	*			
25. 1900 "	*			
26. 2000 "	*			
27. 2100 "	*			
28. 2200 "	*			
SEWERAGE PIPE				
1. 100 mm Ø	*			
2. 125 "	*			
3. 150 "	*			
4. 200 "	*			
5. 250 "	*			

SEBUT HARGA
(Kerja-kerja Kejuruteraan Awam)

Category and Size of Mild Steel Pipe	Quantity (M)	Unit Price For Basic Material	Adjustment Factor	Basic Unit Price
6. 300 "	*			
7. 350 "	*			
8. 400 "	*			
9. 450 "	*			
10. 500 "	*			
11. 550 "	*			
12. 600 "	*			
13. 650 "	*			
14. 700 "	*			
15. 750 "	*			
16. 800 "	*			
17. 850 "	*			
18. 900 "	*			
19. 950 "	*			
20. 1000 "	*			
21. 1200 "	*			
22. 1400 "	*			
23. 1600 "	*			
24. 1800 "	*			
25. 2000 "	*			
26. 2100 "	*			
27. 2200 "	*			

* Quantities shall be pre-ascertained by the Superintending Officer based on **balance of work to be executed from 1st January 2021.**

Notes:

6. The above quantities are intended for the purpose of price variation only and do not necessarily reflect the actual quantities required for the Contract.
7. Price Variation shall be applied to the above quantities fixed or actual quantities used, whichever is the lesser.
8. The "Basic Unit Prices" shall be the appropriate Unit Price as stated in the **Special Release 1** published by the Department of Statistics. The Basic Unit Price shall be determined as follows based on:
 - (iii) The month during which **Sebut Harga* closes (for **Sebut Harga* closed on and after 1st January 2021); or
 - (iv) The month December 2020 (for **Sebut Harga* closed before 1st January 2021)
9. Price Adjustment Factor shall be as stated in the **Special Release 1** published by the Department of Statistics.
10. The Basic Material is the most commonly used material for the relevant category of pipes in most projects.

SEBUT HARGA
(Kerja-kerja Mekanikal dan Elektrik)

SPECIAL PROVISIONS TO THE CONDITIONS OF CONTRACT
(VARIATION OF PRICE) FOR MECHANICAL & ELECTRICAL WORKS

1. This provision shall be applicable for Mechanical and Electrical Works carried out under the following arrangement:

- (iv) Direct contract;
- (v) Prime Cost Sum by Nominated Sub-contractor; and
- (vi) Packaged as part of Builder's Works under the Main Contract.

2. Adjustment (upwards and downwards) shall be made to the monthly interim payments and finally to the Contract Sum where there is variation in the Component Cost Indices in respect of seven (7) main Mechanical and Electrical (M&E) Components described hereunder:

- (viii) Cables
- (ix) Switchgears
- (x) Transformers
- (xi) Generators
- (xii) Lightning Protection System & Earthing System
- (xiii) Air Conditioning System
- (xiv) Motor (Pumpset)

3. Reference Publication

The reference publication to determine the "Component Cost Indices" of M&E Components specified in paragraph 2 shall be the **Special Release 3** published by the Department of Statistics for the month of installation.

4. Base Indices

The "Base Indices" for the purposes of calculating variation of price for the M&E Components specified in paragraph 2 shall be the appropriate Component Cost Index of the M&E Components as stated in the **Special Release 3** published by the Department of Statistic and shall be inserted in the **Appendix A** to this provision prior to the signing of the Contract.

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The Base Index shall be determined as follows based on:-

- (iii) The month during which **Sebut Harga* closes (for **Sebut Harga* closed on and after 1st January 2021); or
- (iv) The month December 2020 (for **Sebut Harga* closed before 1st January 2021)

5. Application of Adjustments

- (iii) The adjustments shall only be applied to the "Effective Value of Work Done" (as defined hereunder) in respect of each M&E component installed on site **from 1st January 2021**. The "Effective Value of Work Done" shall mean the difference between:
 - (c) The amount of each relevant component installed on site by the Contractor up to the date of the current monthly interim valuation less the amount for any items based on actual costs or current prices; and
 - (d) The amount calculated in accordance with (a) above up to the date of the preceding monthly interim valuation.
- (iv) The total quoted price of each M&E component is the total price of the supply and installation as quoted by the Contractor. The "Recovery Factor" of each component is the percentage of the supply component price with respect to the quoted price. The Recovery Factor of the selected M&E component is specified in **Appendix A** to this provision.

6. Variations in Component Cost Index

- (iii) The Variation in the Component Cost Index shall mean any increase or decrease in the "Current Index" (as defined under paragraph (ii) hereof) as compared to the Base Index (as defined under paragraph 4 above) for the relevant category or categories of M&E component as stated in **Appendix A** to this provision.
- (iv) The Current Index shall mean the appropriate Component Cost Index as stated in **Special Release 3** issued by the Department of Statistics for the month of installation.

***Sebut Harga as per item 7 in Pekeliling Perbendaharaan/Perolehan Kerajaan (PP/PK) 2.1**

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Provided that in respect of Works executed outside the period permitted under the provisions of the Contract, the Current Index shall be the appropriate Component Cost Index as stated in the **Special Release 3** issued by the Department of Statistics for either the final month of the period permitted under the provisions of the Contract, or the month of the monthly interim valuation, whichever is the lower.

7. Calculation for Adjustments

The increase or decrease payable or deductible shall be calculated by multiplying the "Effective Value of Work Done" by a factor referred to as Fluctuation Factor which shall be ascertained from the product of the Recovery Factor of relevant M&E Component and the difference between the relevant Current Index and the Base Index, divided by the Base Index as follows:

$$\text{Fluctuation Factor} = \text{Recovery Factor} \times \frac{\text{Current Index} - \text{Base Index}}{\text{Base Index}}$$

Provided that:

- (iii) (a) If the relevant Current Index had not been published by the date the interim payment certificate is to be issued, or
 - (b) If the total amount of any monthly interim valuation (excluding any sums for increases or decreases under this provision) is inadequate to justify the issue of an interim payment certificate, then the increase or decrease payable in respect of that monthly interim valuation shall be added to or deducted from the amount payable upon the issue by the Superintending Officer (S.O.) of the next interim payment certificate after all the relevant Current Indices have been published or when the total amount of the monthly interim valuation is adequate to justify the issue of the said certificate, as the case may be.
- (iv) The Fluctuation Factor for the Effective Value of Work Done in respect of any balance due or to become due and payable to the Contractor after the payment for each component installed up to the date certified by the S.O. as being completed had been made, shall be the ratio of the aggregate total of all the previous increases and/or decreases and the corresponding cumulative total of all the previous Effective Value of Work Done, as follows:

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$$L = F \times \frac{M}{E}$$

Where:

- L = The value of increase or decrease payable or deductible in respect of the balance due or to become due and payable to the contractor;
- F = The amount of the balance due or to become due and payable to the contractor excluding the value of L after deducting the amount in respect of items based on actual costs or current prices;
- M = The aggregate total amount of increases or decreases payable under the above provisions in respect of all the previous interim payments made;
- E = The corresponding cumulative total of all the previous Effective Value of Work Done.

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APPENDIX A

**LIST OF RELEVANT COMPONENTS, RECOVERY FACTOR AND BASE INDICES
SUBJECTED TO PRICE VARIATION IN ACCORDANCE WITH THE “SPECIAL
PROVISIONS TO THE CONDITIONS OF CONTRACT
(VARIATION OF PRICE) FOR MECHANICAL & ELECTRICAL WORKS”**

Bil.	Category Of Components	Recovery Factor	Base Index (of Component in region _____* for the months of _____**
1.	COPPER CABLES vi) Concealed/ Surface wiring using G.I. conduit (per unit point) vii) Cables in galvanized trunking (per meter run) viii) Cables laid underground (per meter run) a) 120 sq. mm and above b) Below 120 sq. mm ix) Cables on tray/ ladder (per meter run) a) 120 sq. mm and above b) Below 120 sq. mm x) Busduct	0.50 0.55 0.90 0.75 0.75 0.50 0.75	
2.	SWITCHGEARS v) MV Switchgears vi) LV Switchboards (Incomer breaker 600A and above) vii) LV Switchboards and Sub Switchboards (Incomer breaker below 600A) viii) TPN & SPN Distribution Boards (Incomer breaker 100A and below and Feeder Pillars)	0.90 0.85 0.85 0.85	
3.	TRANSFORMERS iii) Cast Resin Transformer 8. Hermetically Sealed (Oil filled) Transformer	0.80 0.80	

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Bil.	Category Of Components	Recovery Factor	Base Index (of Component in region _____* for the months of _____**
4.	<p>GENERATORS</p> <p>iii) Generators Sets Ratings Above 500kVA</p> <p>iv) Generator Sets Ratings 500kVA and below</p>	0.85	
		0.75	
5.	<p>LIGHTNING PROTECTION SYSTEM & EARTHING SYSTEM</p> <p>iii) Lightning Protection System</p> <p>iv) Earthing system</p> <p>(a) Earthing System for MV Switchgears, Transformers, LV Switchboards and Sub Switchboards, Generator Sets, Feeder Pillars and Traffic Lights Controllers</p> <p>(b) Earthing System for Distribution Boards and others</p>	0.65	
		0.75	
		0.50	
6.	<p>AIR CONDITIONING SYSTEM</p> <p>vii) Water Cooled Chiller</p> <p>viii) Air Cooled Chiller</p> <p>ix) Water Cooled Package</p> <p>x) Air Cooled Package</p> <p>xi) Split Unit System</p> <p>(a) Wall Mounted</p> <p>(b) Ceiling Cassette/Mounted</p> <p>xii) VRV System</p> <p>(a) Indoor</p> <p>(b) Outdoor</p>	0.75	
		0.90	
		0.70	
		0.75	
		0.75	
		0.90	
		0.85	
		0.95	
7.	<p>MOTOR (PUMPSET)</p> <p>iv) Condenser Water Pump</p> <p>v) Chilled Water Pump</p> <p>vi) Hose Reel Pump</p>	0.80	
		0.80	
		0.55	

Notes:

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* Penisular Malaysia

* Sabah

* Sarawak

** The “Base Index” shall be the appropriate Component Cost Index as stated in the **Special Release 3** published by the Department of Statistics. The Base Index shall be determined as follows based on:-

- (iii) The month during which **Sebut Harga* closes (for **Sebut Harga* closed on and after 1st January 2021); or
- (iv) The month December 2020 (for **Sebut Harga* closed before 1st January 2021)

SPECIAL PROVISIONS TO THE CONDITIONS OF CONTRACT (VARIATION OF PRICE) FOR BUILDING WORKS (DESIGN & BUILD CONTRACTS)

A. EQUAL SHARING OF RISK

Adjustment (upwards and downwards) shall be made to the monthly interim payments and finally to the Contract Sum where there is variation in the prices of the selected Materials described hereunder and shall only be in respect of 50% of the actual amount so calculated (based on an equal sharing of risk 50:50 between the parties to the Contract).

B. VARIATION IN PRICE OF BUILDING MATERIALS (VARIATION IN UNIT PRICES)

1. Any adjustments will only be made where there is variation in the Unit Prices in of mild steel reinforcement bars and high tensile steel reinforcement bars (Materials) approved for use in reinforced concrete.

2. Reference Publication

The reference publication to determine the “Unit Prices” of Materials specified in paragraph A and B.1 shall be the **Special Release 1** published by the Department of Statistics in the particular month in which the Materials are delivered to site for use.

3. Basic Unit Prices of Materials

The “Basic Unit Prices” for the purposes of calculating variation of price for the Materials specified in paragraph A and B.1 shall be the appropriate Unit Prices of the Materials as stated in the **Special Release 1** published by the Department of Statistics for the month during which the tender closes and shall be inserted in the **Appendix A** to this provision prior to the signing of the Contract.

4. Variation in Price of Materials

(i) Any adjustments will only be made where there is variation in price in respect of Materials specified in paragraph A and B.1 and against which Basic Unit Prices are given in **Appendix A** to this provision.

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- (ii) Where a Contractor has paid a higher or lower price for the Materials as compared to the Basic Unit Price specified in **Appendix A** to this provision, the Contract Sum shall be accordingly increased or decreased provided that such increase or decrease shall not exceed the difference between the Basic Unit Price specified in **Appendix A** to this provision and the Unit Price stated in the **Special Release 1** published by the Department of Statistics in the particular month in which the Materials are delivered to site for use.

5. Quantity of Materials Subject to Variation of Price

- (i) Quantities for the Materials specified in paragraph A and B.1 shall be estimated by the Contractor's Consultant and inserted in **Appendix A** to this provision. The estimate of the quantities submitted by the Contractor's Consultant shall be supported by documentary evidence and subject to verification and adjustment by the P.D. before the signing of the Contract. The quantities so ascertained shall be the maximum quantities subject to price variation under this provision. Provided that if the Contractor fails to submit such estimate or any documentary evidence in support thereof, the P.D. shall make a reasonable assessment of the quantities of the Materials for the Contract.
- (ii) The maximum quantities as fixed in **Appendix A** to this provision may be varied only when the original scope of works have been varied. The adjustment of the maximum quantities of the Materials shall be made proportionately to the variation of the scope of the work in which the relevant Materials so relate.

6. Works Not Included

- (i) This provision shall not apply to any of the Materials which have been used in works which shall have been rejected by the P.D. or which have been executed in places outside the limits of the site without the prior approval of the P.D.
- (ii) The Contractor shall keep accurate and complete records of all Materials or other items required for the replacement of works rejected by the P.D. The quantities of the Materials which have been used in works rejected by the P.D. shall be excluded from any claims for price variations under this provision.

7. Contract Period and Extension

This provision shall only apply to works done within the Contract Period and any Extended Contract Period which had been allowed in accordance with terms of the Contract.

8. Works Executed Outside the Period Permitted Under Contract

This provision shall not apply to works carried out by the Contractor outside the period permitted under the terms of Contract except in the following case:

Where the quantity of Materials used by the Contractor within the period permitted under the terms of Contract is less than that specified in **Appendix A** to this provision, adjustments shall be made to the Contract Sum in respect of the balance of the Materials where there is variation in price notwithstanding that the balance of Materials is used beyond the period permitted under the Contract provided that:

- (i) In the case of any increase in prices, adjustments will only be made if the increase does not exceed the Unit Price stated in the **Special Release 1** issued by the Department of Statistics in the final month of the period permitted under the Contract.
- (ii) In the case of any reduction in price, adjustments will be made in accordance with paragraph B.4 (ii).

9. Notification and Documentary Evidence

- (i) The Contractor shall within a reasonable time give the P.D. written notice of any variation in the price of Materials.
- (ii) The P.D. may at any time call for invoices, receipts and such other documentary evidence as may be required. The Contractor shall not withhold any information or documentary evidence as required by the P.D.

LIST OF MATERIALS TOGETHER WITH QUANTITIES AND BASIC UNIT PRICES SUBJECT TO PRICE VARIATION IN ACCORDANCE WITH THE “SPECIAL PROVISIONS TO THE CONDITIONS OF CONTRACT (VARIATION OF PRICE) FOR BUILDING WORKS” (DESIGN AND BUILD CONTRACTS)

Materials	Unit	Quantity	Basic Unit Price
1. Mild Steel Round Bars, BS 4449			
- 10mm (3/8")	Metric Ton	*	
- 12 mm (1/2")	“	*	
- 16mm (5/8")	“	*	
- 20mm – 25mm (3/4"-1")	“	*	
- 32 mm (1 1/4")	“	*	
2. High Tensile Deformed Bars	Metric Ton	*	
- 10mm (3/8")	“	*	
- 12 mm (1/2")	“	*	
- 16mm – 25 mm (5/8" - 1")	“	*	
- 32 mm (1 1/4")	“	*	

* These quantities shall be estimated by the Contractor’s Consultant at the time of tendering. Such quantities shall be verified and adjusted by the Project Director before the signing of the Contract.

Notes:

1. The above quantities are intended for the purpose of price variation only and do not necessarily reflect the actual quantities required for the Contract.
2. Price Variation shall be applied to the above quantities fixed or actual quantities used, whichever is the lesser.
3. The “Basic Unit Prices” shall be the appropriate Unit Price as stated in the **Special Release 1** published by the Statistics Department for the month during which the tender closes and only need to be inserted prior to the signing of the Contract Document.

SPECIAL PROVISIONS TO THE CONDITIONS OF CONTRACT (VARIATION OF PRICE) FOR CIVIL ENGINEERING WORKS (DESIGN & BUILD CONTRACTS)

A. EQUAL SHARING OF RISK

Adjustment (upwards and downwards) shall be made to the monthly interim payments and finally to the Contract Sum where there is variation in the prices of the selected Materials described hereunder and shall only be in respect of 50% of the actual amount so calculated (based on an equal sharing of risk 50:50 between the parties to the Contract).

B. VARIATION IN PRICE OF CIVIL ENGINEERING MATERIALS (VARIATION IN UNIT PRICES)

1. Any adjustments will only be made where there is variation in the Unit Prices in respect of selected “Materials” described hereunder:

- (i) Steel Reinforcement Bars (Mild Steel Reinforcement Bars & High Tensile Steel Reinforcement Bars);
- (ii) Crushed Aggregates (Crusher Run); and
- (iii) Mild Steel Pipe for water pipe and sewerage pipe.

2. Reference Publication

The reference publication to determine the “Unit Prices” of Materials specified in paragraph A and B.1 shall be the **Special Release 1** published by the Department of Statistics in the particular month in which the Materials are delivered to site for use.

3. Basic Unit Prices of Materials

The “Basic Unit Prices” for the purposes of calculating variation of price for the Materials specified in paragraph A and B.1 shall be the appropriate Unit Prices of the Materials as stated in the **Special Release 1** published by the Department of Statistics for the month during which the tender closes and shall be inserted in the **Appendix A** to this provision prior to the signing of the Contract.

4. Variation in Price of Materials

- (i) Any adjustments will only be made where there is variation in price in respect of Materials specified in paragraph A and B.1 and against which Basic Unit Prices are given in **Appendix A** to this provision.
- (ii) Where a Contractor has paid a higher or lower price for the Materials as compared to the Basic Unit Price specified in **Appendix A** to this provision, the Contract Sum shall be accordingly increased or decreased provided that such increase or decrease shall not exceed the difference between the Basic Unit Price specified in **Appendix A** to this provision and the Unit Price stated in the **Special Release 1** published by the Department of Statistics in the particular month in which the Materials are delivered to site for use.

5. Quantity of Materials Subject to Variation of Price

- (i) Quantities for the Materials specified in paragraph A and B.1 shall be estimated by the Contractor's Consultant at the time of tendering and inserted in **Appendix A** to this provision. The estimate of the quantities submitted by the Contractor's Consultant shall be supported by documentary evidence and subject to verification and adjustment by the P.D. before the signing of the Contract. The quantities so ascertained shall be the maximum quantities subject to price variation under this provision. Provided that if the Contractor fails to submit such estimate or any documentary evidence in support thereof, the P.D. shall make a reasonable assessment of the quantities of the Materials for the Contract.
- (ii) The maximum quantities as fixed in **Appendix A** to this provision may be varied only when the original scope of works have been varied. The adjustment of the maximum quantities of the Materials shall be made proportionately to the variation of the scope of the work in which the relevant Materials so relate.

6. Works Not Included

- (i) This provision shall not apply to any of the Materials which have been used in works which shall have been rejected by the P.D. or which have been executed in places outside the limits of the site without the prior approval of the P.D.

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(untuk digunakan bagi projek baharu)

- (ii) The Contractor shall keep accurate and complete records of all Materials or other items required for the replacement of works rejected by the P.D. The quantities of the Materials which have been used in works rejected by the P.D. shall be excluded from any claims for price variations under this provision.

7. Contract Period and Extension

This provision shall only apply to works done within the Contract Period and any Extended Contract Period which had been allowed in accordance with terms of the Contract.

8. Works Executed Outside the Period Permitted Under Contract

This provision shall not apply to works carried out by the Contractor outside the period permitted under the terms of Contract except in the following case:

Where the quantity of Materials used by the Contractor within the period permitted under the terms of Contract is less than that specified in **Appendix A** to this provision, adjustments shall be made to the Contract Sum in respect of the balance of the Materials where there is variation in price notwithstanding that the balance of Materials is used beyond the period permitted under the Contract provided that:

- (i) In the case of any increase in prices, adjustments will only be made if the increase does not exceed the Unit Price stated in the **Special Release 1** issued by the Department of Statistics in the final month of the period permitted under the Contract.
- (ii) In the case of any reduction in price, adjustments will be made in accordance with paragraph B.4 (ii).

9. Notification and Documentary Evidence

- (i) The Contractor shall within a reasonable time give the P.D. written notice of any variation in the price of Materials.
- (ii) The P.D. may at any time call for invoices, receipts and such other documentary evidence as may be required. The Contractor shall not withhold any information or documentary evidence as required by the P.D.

**LIST OF MATERIALS TOGETHER WITH QUANTITIES AND BASIC UNIT PRICES
SUBJECT TO PRICE VARIATION IN ACCORDANCE WITH THE “SPECIAL
PROVISIONS TO THE CONDITIONS OF CONTRACT (VARIATION OF PRICE) FOR
CIVIL ENGINEERING WORKS” (DESIGN AND BUILD CONTRACTS)**

Materials	Unit	Quantity	Basic Unit Price
1. Mild Steel Round Bars, BS 4449 - 10mm (3/8") - 12 mm (1/2") - 16mm (5/8") - 20mm – 25mm (3/4"-1") - 32 mm (1 1/4")	Metric Ton " " " " " " " "	* * * * *	
2. High Tensile Deformed Bars - 10mm (3/8") - 12 mm (1/2") - 16mm – 25 mm (5/8" - 1") - 32 mm (1 1/4")	Metric Ton " " " " " " " "	* * * * *	
3. Crushed Aggregates (Crusher Run)	Metric Ton	*	
4. Water Pipe and Sewerage Pipe - Mild Steel Pipe 300mm	Metre	*	} Refer Appendix B

* These quantities shall be estimated by the Contractor’s Consultant at the time of tendering. Such quantities shall be verified and adjusted by the Project Director before the signing of the Contract.

Notes:

1. The above quantities are intended for the purpose of price variation only and do not necessarily reflect the actual quantities required for the Contract.
2. Price Variation shall be applied to the above quantities fixed or actual quantities used, whichever is the lesser.
3. The quantities of materials (subject to those listed above) used in precast concrete components shall be determined and included in the quantities for relevant materials above. The computation for price variation shall be considered when the completed precast components are delivered to site for use.
4. The “Basic Unit Prices” shall be the appropriate Unit Price as stated in the **Special Release 1** published by the Statistics Department for the month during which the tender closes and only need to be inserted prior to the signing of the Contract Document.

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Appendix B
(untuk digunakan bagi projek baharu)

**LIST OF CATEGORY AND SIZE OF MILD STEEL PIPE TOGETHER WITH
QUANTITY AND BASIC UNIT PRICE SUBJECT TO PRICE VARIATION IN
ACCORDANCE WITH THE "SPECIAL PROVISIONS TO THE CONDITIONS OF
CONTRACT (VARIATION OF PRICE) FOR CIVIL ENGINEERING WORKS"**

Category and Size of Mild Steel Pipe	Quantity (M)	Unit Price For Basic Material	Adjustment Factor	Basic Unit Price
WATER PIPE				
1. 100 mm Ø	*			
2. 150 "	*			
3. 200 "	*			
4. 250 "	*			
5. 300 "	*			
6. 350 "	*			
7. 400 "	*			
8. 450 "	*			
9. 500 "	*			
10. 600 "	*			
11. 700 "	*			
12. 750 "	*			
13. 800 "	*			
14. 900 "	*			
15. 1000 "	*			
16. 1100 "	*			
17. 1150 "	*			
18. 1200 "	*			
19. 1300 "	*			
20. 1400 "	*			
21. 1500 "	*			
22. 1600 "	*			
23. 1700 "	*			
24. 1800 "	*			
25. 1900 "	*			
26. 2000 "	*			
27. 2100 "	*			
28. 2200 "	*			
SEWERAGE PIPE				
1. 100 mm Ø	*			
2. 125 "	*			
3. 150 "	*			
4. 200 "	*			
5. 250 "	*			

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Appendix B
(untuk digunakan bagi projek baharu)

Category and Size of Mild Steel Pipe	Quantity (M)	Unit Price For Basic Material	Adjustment Factor	Basic Unit Price
6. 300 "	*			
7. 350 "	*			
8. 400 "	*			
9. 450 "	*			
10. 500 "	*			
11. 550 "	*			
12. 600 "	*			
13. 650 "	*			
14. 700 "	*			
15. 750 "	*			
16. 800 "	*			
17. 850 "	*			
18. 900 "	*			
19. 950 "	*			
20. 1000 "	*			
21. 1200 "	*			
22. 1400 "	*			
23. 1600 "	*			
24. 1800 "	*			
25. 2000 "	*			
26. 2100 "	*			
27. 2200 "	*			

* These quantities shall be estimated by the Contractor's Consultant at the time of tendering. Such quantities shall be verified and adjusted by the Project Director before the signing of the Contract.

Notes:

1. The above quantities are intended for the purpose of price variation only and do not necessarily reflect the actual quantities required for the Contract.
2. Price Variation shall be applied to the above quantities fixed or actual quantities used, whichever is the lesser.
3. The "Basic Unit Prices" shall be the appropriate Unit Price as stated in the **Special Release 1** published by the Statistics Department for the month during which the tender closes and only need to be inserted prior to the signing of the Contract Document.
4. Price Adjustment Factor shall be as stated in the **Special Release 1** published by the Department of Statistics.
5. The Basic Material is the most commonly used material for the relevant category of pipes in most projects.

**SPECIAL PROVISIONS TO THE CONDITIONS OF CONTRACT
(VARIATION OF PRICE) FOR MECHANICAL & ELECTRICAL WORKS
(DESIGN & BUILD CONTRACTS)**

1. This provision shall be applicable for Mechanical and Electrical Works carried out under the following arrangement:

- (i) Direct contract; and
- (ii) Packaged as part of Builder's Works under the Main Contract.

2. Equal Sharing Of Risk

Adjustment (upwards and downwards) shall be made to the monthly interim payments and finally to the Contract Sum where there is variation in the Component Cost Indices of "Copper Cables" in Mechanical and Electrical (M&E) Components and shall only be in respect of 50% of the actual amount so calculated (based on an equal sharing of risk 50:50 between the parties to the Contract).

3. Any adjustment shall be made where there is variation in the Component Cost Indices which are deemed to reflect any changes in the price of selected M&E Components which includes copper only described hereunder:

- (i) Cables
- (ii) Switchgears
- (iii) Transformers
- (iv) Generators
- (v) Lightning Protection System & Earthing System
- (vi) Air Conditioning System
- (vii) Motor (Pumpset)

4. Reference Publication

The reference publication to determine the "Component Cost Indices" of M&E Components specified in paragraph 2 and 3 shall be the **Special Release 3** published by the Department of Statistics for the month of installation.

5. Base Indices

The “Base Indices” for the purposes of calculating variation of price for the M&E Components specified in paragraph 2 and 3 shall be the appropriate Component Cost Index of the M&E Components as stated in the **Special Release 3** published by the Department of Statistic for the month during which the tender closes and shall be inserted in the **Appendix A** to this provision prior to the signing of the Contract.

6. Application of Adjustments

- (i) The adjustments shall only be applied to the "Effective Value of Work Done" (as defined hereunder) in respect of each M&E component installed on site. The "Effective Value of Work Done" shall mean the difference between:
 - (a) The amount of each relevant component installed on site by the Contractor up to the date of the current monthly interim valuation less the amount for any items based on actual costs or current prices; and
 - (b) The amount calculated in accordance with (a) above up to the date of the preceding monthly interim valuation.
- (ii) The total tendered price of each M&E component is the total price of the supply and installation as tendered by the Contractor. The “Recovery Factor” of each component is the percentage of the supply component price with respect to the tendered price. The Recovery Factor of the selected M&E component is specified in **Appendix A** to this provision.

7. Variations in Component Cost Index

- (i) The Variation in the Component Cost Index shall mean any increase or decrease in the "Current Index" (as defined under paragraph (ii) hereof) as compared to the Base Index (as defined under paragraph 5 above) for the relevant category or categories of M&E component as stated in **Appendix A** to this provision.
- (ii) The Current Index shall mean the appropriate Component Cost Index as stated in **Special Release 3** issued by the Department of Statistics for the month of installation.

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Provided that in respect of Works executed outside the period permitted under the provisions of the Contract, the Current Index shall be the appropriate Component Cost Index as stated in the Special Release 3 issued by the Department of Statistics for either the final month of the period permitted under the provisions of the Contract, or the month of the monthly interim valuation, whichever is the lower.

8. Calculation for Adjustments

The increase or decrease payable or deductible shall be calculated by multiplying the “Effective Value of Work Done” by a factor referred to as Fluctuation Factor which shall be ascertained from the product of the Recovery Factor of relevant M&E Component and the difference between the relevant Current Index and the Base Index, divided by the Base Index as follows:

$$\text{Fluctuation Factor} = \text{Recovery Factor} \times \frac{\text{Current Index} - \text{Base Index}}{\text{Base Index}}$$

Provided that:

- (i) (a) If the relevant Current Index had not been published by the date the interim payment certificate is to be issued, or
 - (b) If the total amount of any monthly interim valuation (excluding any sums for increases or decreases under this provision) is inadequate to justify the issue of an interim payment certificate, then the increase or decrease payable in respect of that monthly interim valuation shall be added to or deducted from the amount payable upon the issue by the Project Director (P.D.) of the next interim payment certificate after all the relevant Current Indices have been published or when the total amount of the monthly interim valuation is adequate to justify the issue of the said certificate, as the case may be.
- (ii) The Fluctuation Factor for the Effective Value of Work Done in respect of any balance due or to become due and payable to the Contractor after the payment for each component installed up to the date certified by the P.D. as being completed had been made, shall be the ratio of the aggregate total of all the previous increases and/or decreases and the corresponding cumulative total of all the previous Effective Value of Work Done, as follows:

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$$L = F \times \frac{M}{E}$$

Where:

- L = The value of increase or decrease payable or deductible in respect of the balance due or to become due and payable to the contractor;
- F = The amount of the balance due or to become due and payable to the contractor excluding the value of L after deducting the amount in respect of items based on actual costs or current prices;
- M = The aggregate total amount of increases or decreases payable under the above provisions in respect of all the previous interim payments made;
- E = The corresponding cumulative total of all the previous Effective Value of Work Done.

9. Contract Period and Extension

This provision shall only apply to works done within the Contract Period and any Extended Contract Period which had been allowed in accordance with terms of the Contract.

**LIST OF RELEVANT COMPONENTS, RECOVERY FACTOR AND BASE INDICES
SUBJECTED TO PRICE VARIATION IN ACCORDANCE WITH THE “SPECIAL
PROVISIONS TO THE CONDITIONS OF CONTRACT (VARIATION OF PRICE) FOR
MECHANICAL & ELECTRICAL WORKS” (DESIGN & BUILD CONTRACTS)**

Bil.	Category Of Components	Recovery Factor	Base Index (of Component in region _____* for the months of _____**)
1.	<p>COPPER CABLES</p> <ul style="list-style-type: none"> i) Concealed/ Surface wiring using G.I. conduit (per unit point) ii) Cables in galvanized trunking (per meter run) iii) Cables laid underground (per meter run) <ul style="list-style-type: none"> a) 120 sq. mm and above b) Below 120 sq. mm iv) Cables on tray/ ladder (per meter run) <ul style="list-style-type: none"> a) 120 sq. mm and above b) Below 120 sq. mm v) Busduct 	<p>0.50</p> <p>0.55</p> <p>0.90</p> <p>0.75</p> <p>0.75</p> <p>0.50</p> <p>0.75</p>	
2.	<p>SWITCHGEARS</p> <ul style="list-style-type: none"> i) MV Switchgears ii) LV Switchboards (Incomer breaker 600A and above) iii) LV Switchboards and Sub Switchboards (Incomer breaker below 600A) iv) TPN & SPN Distribution Boards (Incomer breaker 100A and below and Feeder Pillars) 	<p>0.90</p> <p>0.85</p> <p>0.85</p> <p>0.85</p>	
3.	<p>TRANSFORMERS</p> <ul style="list-style-type: none"> i) Cast Resin Transformer ii) Hermetically Sealed (Oil filled) Transformer 	<p>0.80</p> <p>0.80</p>	

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Bil.	Category Of Components	Recovery Factor	Base Index (of Component in region _____* for the months of _____**
4.	GENERATORS i) Generators Sets Ratings Above 500kVA ii) Generator Sets Ratings 500kVA and below	0.85 0.75	
5.	LIGHTNING PROTECTION SYSTEM & EARTHING SYSTEM i) Lightning Protection System ii) Earthing system (a) Earthing System for MV Switchgears, Transformers, LV Switchboards and Sub Switchboards, Generator Sets, Feeder Pillars and Traffic Lights Controllers (b) Earthing System for Distribution Boards and others	0.65 0.75 0.50	
6.	AIR CONDITIONING SYSTEM i) Water Cooled Chiller ii) Air Cooled Chiller iii) Water Cooled Package iv) Air Cooled Package v) Split Unit System (a) Wall Mounted (b) Ceiling Cassette/Mounted vi) VRV System (a) Indoor (b) Outdoor	0.75 0.90 0.70 0.75 0.75 0.90 0.85 0.95	
7.	MOTOR (PUMPSET) i) Condenser Water Pump ii) Chilled Water Pump iii) Hose Reel Pump	0.80 0.80 0.55	

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Appendix A
(untuk digunakan bagi projek baharu)

Notes:

*Penisular Malaysia

* Sabah

*Sarawak

** The “Base Index” shall be the appropriate Component Cost Index as stated in the **Special Release 3** published by the Department of Statistics for the month during which the tender closes and only need to be inserted prior to the signing of the Contract Document.

SPECIAL PROVISIONS TO THE CONDITIONS OF CONTRACT (VARIATION OF PRICE) FOR BUILDING WORKS (DESIGN & BUILD CONTRACTS)

A. EQUAL SHARING OF RISK

Adjustment (upwards and downwards) shall be made to the monthly interim payments and finally to the Contract Sum where there is variation in the prices of the selected Materials described hereunder and shall only be in respect of 50% of the actual amount so calculated (based on an equal sharing of risk 50:50 between the parties to the Contract).

B. VARIATION IN PRICE OF BUILDING MATERIALS (VARIATION IN UNIT PRICES)

1. Any adjustments will only be made where there is variation in the Unit Prices in of mild steel reinforcement bars and high tensile steel reinforcement bars (Materials) approved for use in reinforced concrete.
2. Reference Publication

The reference publication to determine the “Unit Prices” of Materials specified in paragraph A and B.1 shall be the **Special Release 1** published by the Department of Statistics in the particular month in which the Materials are delivered to site for use.

3. Basic Unit Prices of Materials

The “Basic Unit Prices” for the purposes of calculating variation of price for the Materials specified in paragraph A and B.1 shall be the appropriate Unit Prices of the Materials as stated in the **Special Release 1** published by the Department of Statistics and shall be inserted in the **Appendix A** to this provision.

The Basic Unit Price shall be determined as follows based on:

- (v) The month during which tender closes (for tenders closed on and after 1st January 2021); or
- (vi) The month December 2020 (for tender closed before 1st January 2021)

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4. Variation in Price of Materials

- (i) Any adjustments will only be made where there is variation in price in respect of Materials specified in paragraph A and B.1 and against which Basic Unit Prices are given in **Appendix A** to this provision.
- (ii) Where a Contractor has paid a higher or lower price for the Materials as compared to the Basic Unit Price specified in **Appendix A** to this provision, the Contract Sum shall be accordingly increased or decreased provided that such increase or decrease shall not exceed the difference between the Basic Unit Price specified in **Appendix A** to this provision and the Unit Price stated in the **Special Release 1** published by the Department of Statistics in the particular month in which the Materials are delivered to site for use.

5. Quantity of Materials Subject to Variation of Price

- (i) Quantities for the Materials specified in paragraph A and B.1 shall be estimated by the Contractor's Consultant based on **balance of work to be executed from 1st January 2021** and inserted in **Appendix A** to this provision. The estimate of the quantities submitted by the Contractor's Consultant shall be supported by documentary evidence and subject to verification and adjustment by the P.D. The quantities so ascertained shall be the maximum quantities subject to price variation under this provision. Provided that if the Contractor fails to submit such estimate or any documentary evidence in support thereof, the P.D. shall make a reasonable assessment of the quantities of the Materials for the Contract.
- (ii) The maximum quantities as fixed in **Appendix A** to this provision may be varied only when the original scope of works have been varied. The adjustment of the maximum quantities of the Materials shall be made proportionately to the variation of the scope of the work in which the relevant Materials so relate.

6. Works Not Included

- (i) This provision shall not apply to any of the Materials which have been used in works which shall have been rejected by the P.D. or which have been executed in places outside the limits of the site without the prior approval of the P.D.

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- (ii) The Contractor shall keep accurate and complete records of all Materials or other items required for the replacement of works rejected by the P.D. The quantities of the Materials which have been used in works rejected by the P.D. shall be excluded from any claims for price variations under this provision.

7. Contract Period and Extension

This provision shall only apply to works done within the Contract Period and any Extended Contract Period which had been allowed in accordance with terms of the Contract.

8. Works Executed Outside the Period Permitted Under Contract

This provision shall not apply to works carried out by the Contractor outside the period permitted under the terms of Contract except in the following case:

Where the quantity of Materials used by the Contractor within the period permitted under the terms of Contract is less than that specified in **Appendix A** to this provision, adjustments shall be made to the Contract Sum in respect of the balance of the Materials where there is variation in price notwithstanding that the balance of Materials is used beyond the period permitted under the Contract provided that:

- (i) In the case of any increase in prices, adjustments will only be made if the increase does not exceed the Unit Price stated in the **Special Release 1** issued by the Department of Statistics in the final month of the period permitted under the Contract.
- (ii) In the case of any reduction in price, adjustments will be made in accordance with paragraph B.4 (ii).

9. Notification and Documentary Evidence

- (i) The Contractor shall within a reasonable time give the P.D. written notice of any variation in the price of Materials.
- (ii) The P.D. may at any time call for invoices, receipts and such other documentary evidence as may be required. The Contractor shall not withhold any information or documentary evidence as required by the P.D.

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Appendix A
(untuk digunakan bagi projek yang sedang dalam pembinaan)

**LIST OF MATERIALS TOGETHER WITH QUANTITIES AND BASIC UNIT PRICES
SUBJECT TO PRICE VARIATION IN ACCORDANCE WITH THE “SPECIAL
PROVISIONS TO THE CONDITIONS OF CONTRACT (VARIATION OF PRICE) FOR
BUILDING WORKS” (DESIGN AND BUILD CONTRACTS)**

Materials	Unit	Quantity	Basic Unit Price
1. Mild Steel Round Bars, BS 4449			
- 10mm (3/8")	Metric Ton	*	
- 12 mm (1/2")	“	*	
- 16mm (5/8")	“	*	
- 20mm – 25mm (3/4"-1")	“	*	
- 32 mm (1 1/4")	“	*	
2. High Tensile Deformed Bars	Metric Ton	*	
- 10mm (3/8")	“	*	
- 12 mm (1/2")	“	*	
- 16mm – 25 mm (5/8" - 1")	“	*	
- 32 mm (1 1/4")	“	*	

* These quantities shall be estimated by the Contractor’s Consultant based on the **balance of work to be executed from 1st January 2021**. Such quantities shall be verified and adjusted by the Project Director.

Notes:

1. The above quantities are intended for the purpose of price variation only and do not necessarily reflect the actual quantities required for the Contract.
2. Price Variation shall be applied to the above quantities fixed or actual quantities used, whichever is the lesser.
3. The “Basic Unit Prices” shall be the appropriate Unit Price as stated in the **Special Release 1** published by the Department of Statistics. The Basic Unit Price shall be determined as follows based on:
 - (iv) The month during which tender closes (for tenders closed on and after 1st January 2021); or
 - (v) The month December 2020 (for tender closed before 1st January 2021)

SPECIAL PROVISIONS TO THE CONDITIONS OF CONTRACT (VARIATION OF PRICE) FOR CIVIL ENGINEERING WORKS (DESIGN & BUILD CONTRACTS)

A. EQUAL SHARING OF RISK

Adjustment (upwards and downwards) shall be made to the monthly interim payments and finally to the Contract Sum where there is variation in the prices of the selected Materials described hereunder and shall only be in respect of 50% of the actual amount so calculated (based on an equal sharing of risk 50:50 between the parties to the Contract).

B. VARIATION IN PRICE OF CIVIL ENGINEERING MATERIALS (VARIATION IN UNIT PRICES)

1. Any adjustments will only be made where there is variation in the Unit Prices in respect of selected "Materials" described hereunder:

- (i) Steel Reinforcement Bars (Mild Steel Reinforcement Bars & High Tensile Steel Reinforcement Bars;
- (ii) Crushed Aggregates (Crusher Run); and
- (iii) Mild Steel Pipe for water pipe and sewerage pipe.

2. Reference Publication

The reference publication to determine the "Unit Prices" of Materials specified in paragraph A and B.1 shall be the **Special Release 1** published by the Department of Statistics in the particular month in which the Materials are delivered to site for use.

3. Basic Unit Prices of Materials

The "Basic Unit Prices" for the purposes of calculating variation of price for the Materials specified in paragraph A and B.1 shall be the appropriate Unit Prices of the Materials as stated in the **Special Release 1** published by the Department of Statistics for the month during which the tender closes and shall be inserted in the Appendix A to this provision.

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The Basic Unit Price shall be determined as follows based on:

- (i) The month during which tender closes (for tenders closed on and after 1st January 2021); or
- (ii) The month December 2020 (for tender closed before 1st January 2021)

4. Variation in Price of Materials

- (i) Any adjustments will only be made where there is variation in price in respect of Materials specified in paragraph A and B.1 and against which Basic Unit Prices are given in **Appendix A** to this provision.
- (ii) Where a Contractor has paid a higher or lower price for the Materials as compared to the Basic Unit Price specified in **Appendix A** to this provision, the Contract Sum shall be accordingly increased or decreased provided that such increase or decrease shall not exceed the difference between the Basic Unit Price specified in **Appendix A** to this provision and the Unit Price stated in the **Special Release 1** published by the Department of Statistics in the particular month in which the Materials are delivered to site for use.

5. Quantity of Materials Subject to Variation of Price

- (i) Quantities for the Materials specified in paragraph A and B.1 shall be estimated by the Contractor's Consultant based on **balance of work to be executed from 1st January 2021** and inserted in **Appendix A** to this provision. The estimate of the quantities submitted by the Contractor's Consultant shall be supported by documentary evidence and subject to verification and adjustment by the P.D. The quantities so ascertained shall be the maximum quantities subject to price variation under this provision. Provided that if the Contractor fails to submit such estimate or any documentary evidence in support thereof, the P.D. shall make a reasonable assessment of the quantities of the Materials for the Contract.
- (ii) The maximum quantities as fixed in **Appendix A** to this provision may be varied only when the original scope of works have been varied. The adjustment of the maximum quantities of the Materials shall be made proportionately to the variation of the scope of the work in which the relevant Materials so relate.

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6. Works Not Included

- (i) This provision shall not apply to any of the Materials which have been used in works which shall have been rejected by the P.D. or which have been executed in places outside the limits of the site without the prior approval of the P.D.
- (ii) The Contractor shall keep accurate and complete records of all Materials or other items required for the replacement of works rejected by the P.D. The quantities of the Materials which have been used in works rejected by the P.D. shall be excluded from any claims for price variations under this provision.

7. Contract Period and Extension

This provision shall only apply to works done within the Contract Period and any Extended Contract Period which had been allowed in accordance with terms of the Contract .

8. Works Executed Outside the Period Permitted Under Contract

This provision shall not apply to works carried out by the Contractor outside the period permitted under the terms of Contract except in the following case:

Where the quantity of Materials used by the Contractor within the period permitted under the terms of Contract is less than that specified in **Appendix A** to this provision, adjustments shall be made to the Contract Sum in respect of the balance of the Materials where there is variation in price notwithstanding that the balance of Materials is used beyond the period permitted under the Contract provided that:

- (i) In the case of any increase in prices, adjustments will only be made if the increase does not exceed the Unit Price stated in the **Special Release 1** issued by the Department of Statistics in the final month of the period permitted under the Contract.
- (ii) In the case of any reduction in price, adjustments will be made in accordance with paragraph B.4 (ii).

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9. Notification and Documentary Evidence

- (i) The Contractor shall within a reasonable time give the P.D. written notice of any variation in the price of Materials.
- (ii) The P.D. may at any time call for invoices, receipts and such other documentary evidence as may be required. The Contractor shall not withhold any information or documentary evidence as required by the P.D.

(untuk digunakan bagi projek yang sedang dalam pembinaan)

**LIST OF MATERIALS TOGETHER WITH QUANTITIES AND BASIC UNIT PRICES
SUBJECT TO PRICE VARIATION IN ACCORDANCE WITH THE “SPECIAL
PROVISIONS TO THE CONDITIONS OF CONTRACT (VARIATION OF PRICE) FOR
CIVIL ENGINEERING WORKS” (DESIGN AND BUILD CONTRACTS)**

Materials	Unit	Quantity	Basic Unit Price
1. Mild Steel Round Bars, BS 4449 - 10mm (3/8") - 12 mm (1/2") - 16mm (5/8") - 20mm – 25mm (3/4"-1") - 32 mm (1 1/4")	Metric Ton " " " "	* * * * *	
2. High Tensile Deformed Bars - 10mm (3/8") - 12 mm (1/2") - 16mm – 25 mm (5/8" - 1") - 32 mm (1 1/4")	Metric Ton " " " "	* * * * *	
3. Crushed Aggregates (Crusher Run)	Metric Ton	*	
4. Water Pipe and Sewerage Pipe - Mild Steel Pipe 300mm	Metre	*	} Refer Appendix B

* These quantities shall be estimated by the Contractor's Consultant based on the **balance of work to be executed from 1st January 2021**. Such quantities shall be verified and adjusted by the Project Director.

Notes:

- The above quantities are intended for the purpose of price variation only and do not necessarily reflect the actual quantities required for the Contract.
- Price Variation shall be applied to the above quantities fixed or actual quantities used, whichever is the lesser.
- The quantities of materials (subject to those listed above) used in precast concrete components shall be determined and included in the quantities for relevant materials above. The computation for price variation shall be considered when the completed precast components are delivered to site for use.
- The Basic Unit Price shall mean the appropriate Unit Price as stated in the **Special Release 1** published by the Department of Statistics. The Basic Unit Price shall be determined as follows based on:
 - The month during which tender closes (for tenders closed on and after 1st January 2021); or
 - The month December 2020 (for tender closed before 1st January 2021)

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**LIST OF CATEGORY AND SIZE OF MILD STEEL PIPE TOGETHER WITH
QUANTITY AND BASIC UNIT PRICE SUBJECT TO PRICE VARIATION IN
ACCORDANCE WITH THE "SPECIAL PROVISIONS TO THE CONDITIONS OF
CONTRACT (VARIATION OF PRICE) FOR CIVIL ENGINEERING WORKS"**

Category and Size of Mild Steel Pipe	Quantity (M)	Unit Price For Basic Material	Adjustment Factor	Basic Unit Price
WATER PIPE				
1. 100 mm Ø	*			
2. 150 "	*			
3. 200 "	*			
4. 250 "	*			
5. 300 "	*			
6. 350 "	*			
7. 400 "	*			
8. 450 "	*			
9. 500 "	*			
10. 600 "	*			
11. 700 "	*			
12. 750 "	*			
13. 800 "	*			
14. 900 "	*			
15. 1000 "	*			
16. 1100 "	*			
17. 1150 "	*			
18. 1200 "	*			
19. 1300 "	*			
20. 1400 "	*			
21. 1500 "	*			
22. 1600 "	*			
23. 1700 "	*			
24. 1800 "	*			
25. 1900 "	*			
26. 2000 "	*			
27. 2100 "	*			
28. 2200 "	*			
SEWERAGE PIPE				
1. 100 mm Ø	*			
2. 125 "	*			
3. 150 "	*			
4. 200 "	*			
5. 250 "	*			

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Appendix B
(untuk digunakan bagi projek yang sedang dalam pembinaan)

Category and Size of Mild Steel Pipe	Quantity (M)	Unit Price For Basic Material	Adjustment Factor	Basic Unit Price
6. 300 "	*			
7. 350 "	*			
8. 400 "	*			
9. 450 "	*			
10. 500 "	*			
11. 550 "	*			
12. 600 "	*			
13. 650 "	*			
14. 700 "	*			
15. 750 "	*			
16. 800 "	*			
17. 850 "	*			
18. 900 "	*			
19. 950 "	*			
20. 1000 "	*			
21. 1200 "	*			
22. 1400 "	*			
23. 1600 "	*			
24. 1800 "	*			
25. 2000 "	*			
26. 2100 "	*			
27. 2200 "	*			

* These quantities shall be estimated by the Contractor's Consultant based on the **balance of work to be executed from 1st January 2021**. Such quantities shall be verified and adjusted by the Project Director.

Notes:

1. The above quantities are intended for the purpose of price variation only and do not necessarily reflect the actual quantities required for the Contract.
2. Price Variation shall be applied to the above quantities fixed or actual quantities used, whichever is the lesser.
3. The "Basic Unit Prices" shall be the appropriate Unit Price as stated in the **Special Release 1** published by the Department of Statistics. The Basic Unit Price shall be determined as follows based on:
 - (v) The month during which tender closes (for tenders closed on and after 1st January 2021); or
 - (vi) The month December 2020 (for tender closed before 1st January 2021)
4. Price Adjustment Factor shall be as stated in the **Special Release 1** published by the Department of Statistics.
5. The Basic Material is the most commonly used material for the relevant category of pipes in most projects.

SPECIAL PROVISIONS TO THE CONDITIONS OF CONTRACT (VARIATION OF PRICE) FOR MECHANICAL & ELECTRICAL WORKS (DESIGN & BUILD CONTRACTS)

1. This provision shall be applicable for Mechanical and Electrical Works carried out under the following arrangement:

- (i) Direct contract; and
- (ii) Packaged as part of Builder's Works under the Main Contract.

2. Equal Sharing Of Risk

Adjustment (upwards and downwards) shall be made to the monthly interim payments and finally to the Contract Sum where there is variation in the Component Cost Indices of "Copper Cables" in Mechanical and Electrical (M&E) Components and shall only be in respect of 50% of the actual amount so calculated (based on an equal sharing of risk 50:50 between the parties to the Contract).

3. Any adjustment shall be made where there is variation in the Component Cost Indices which are deemed to reflect any changes in the price of selected M&E Components which includes copper only described hereunder:

- (i) Cables
- (ii) Switchgears
- (iii) Transformers
- (iv) Generators
- (v) Lightning Protection System & Earthing System
- (vi) Air Conditioning System
- (vii) Motor (Pumpset)

4. Reference Publication

The reference publication to determine the "Component Cost Indices" of M&E Components specified in paragraph 2 and 3 shall be the **Special Release 3** published by the Department of Statistics for the month of installation.

5. Base Indices

The "Base Indices" for the purposes of calculating variation of price for the M&E Components specified in paragraph 2 and 3 shall be the appropriate Component Cost Index of the M&E Components as stated in the **Special**

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Release 3 published by the Department of Statistics and shall be inserted in the **Appendix A** to this provision.

The Base Index shall be determined as follows based on:-

- (v) The month during which tender closes (for tenders closed on and after 1st January 2021); or
- (vi) The month December 2020 (for tender closed before 1st January 2021)

6. Application of Adjustments

- (i) The adjustments shall only be applied to the "Effective Value of Work Done" (as defined hereunder) in respect of each M&E component installed on site **from 1st January 2021**. The "Effective Value of Work Done" shall mean the difference between:
 - (a) The amount of each relevant component installed on site by the Contractor up to the date of the current monthly interim valuation less the amount for any items based on actual costs or current prices; and
 - (b) The amount calculated in accordance with (a) above up to the date of the preceding monthly interim valuation.
- (ii) The total tendered price of each M&E component is the total price of the supply and installation as tendered by the Contractor. The "Recovery Factor" of each component is the percentage of the supply component price with respect to the tendered price. The Recovery Factor of the selected M&E component is specified in **Appendix A** to this provision.

7. Variations in Component Cost Index

- (i) The Variation in the Component Cost Index shall mean any increase or decrease in the "Current Index" (as defined under paragraph (ii) hereof) as compared to the Base Index (as defined under paragraph 4 above) for the relevant category or categories of M&E component as stated in **Appendix A** to this provision.
- (ii) The Current Index shall mean the appropriate Component Cost Index as stated in **Special Release 3** issued by the Department of Statistics for the month of delivery or installation whichever is earlier.

Provided that in respect of Works executed outside the period permitted under the provisions of the Contract, the Current Index shall be the appropriate

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Component Cost Index as stated in the **Special Release 3** issued by the Department of Statistics for either the final month of the period permitted under the provisions of the Contract, or the month of the monthly interim valuation, whichever is the lower.

8. Calculation for Adjustments

The increase or decrease payable or deductible shall be calculated by multiplying the “Effective Value of Work Done” by a factor referred to as Fluctuation Factor which shall be ascertained from the product of the Recovery Factor of relevant M&E Component and the difference between the relevant Current Index and the Base Index, divided by the Base Index as follows:

$$\text{Fluctuation Factor} = \text{Recovery Factor} \times \frac{\text{Current Index} - \text{Base Index}}{\text{Base Index}}$$

Provided that:

- (i)
 - (a) If the relevant Current Index had not been published by the date the interim payment certificate is to be issued, or
 - (b) If the total amount of any monthly interim valuation (excluding any sums for increases or decreases under this provision) is inadequate to justify the issue of an interim payment certificate, then the increase or decrease payable in respect of that monthly interim valuation shall be added to or deducted from the amount payable upon the issue by the Project Director (P.D.) of the next interim payment certificate after all the relevant Current Indices have been published or when the total amount of the monthly interim valuation is adequate to justify the issue of the said certificate, as the case may be.
- (ii) The Fluctuation Factor for the Effective Value of Work Done in respect of any balance due or to become due and payable to the Contractor after the payment for each component installed up to the date certified by the P.D. as being completed had been made, shall be the ratio of the aggregate total of all the previous increases and/or decreases and the corresponding cumulative total of all the previous Effective Value of Work Done, as follows:

$$L = F \times \frac{M}{E}$$

LAMPIRAN F/ME/DB-L (2021)
(untuk digunakan bagi projek yang sedang dalam pembinaan)

Where:

- L = The value of increase or decrease payable or deductible in respect of the balance due or to become due and payable to the contractor;
- F = The amount of the balance due or to become due and payable to the contractor excluding the value of L after deducting the amount in respect of items based on actual costs or current prices;
- M = The aggregate total amount of increases or decreases payable under the above provisions in respect of all the previous interim payments made;
- E = The corresponding cumulative total of all the previous Effective Value of Work Done.

9. Contract Period and Extension

This provision shall only apply to works done within the Contract Period and any Extended Contract Period which had been allowed in accordance with terms of the Contract.

LAMPIRAN F/ME/DB-L (2021)
Appendix A
(untuk digunakan bagi projek yang sedang dalam pembinaan)

Bil.	Category Of Components	Recovery Factor	Base Index (of Component in region _____* for the months of _____**
4.	<p>GENERATORS</p> <p>i) Generators Sets Ratings Above 500kVA</p> <p>ii) Generator Sets Ratings 500kVA and below</p>	0.85	
		0.75	
5.	<p>LIGHTNING PROTECTION SYSTEM & EARTHING SYSTEM</p> <p>i) Lightning Protection System</p> <p>ii) Earthing system</p> <p>(a) Earthing System for MV Switchgears, Transformers, LV Switchboards and Sub Switchboards, Generator Sets, Feeder Pillars and Traffic Lights Controllers</p> <p>(b) Earthing System for Distribution Boards and others</p>	0.65	
		0.75	
		0.50	
6.	<p>AIR CONDITIONING SYSTEM</p> <p>i) Water Cooled Chiller</p> <p>ii) Air Cooled Chiller</p> <p>iii) Water Cooled Package</p> <p>iv) Air Cooled Package</p> <p>v) Split Unit System</p> <p>(a) Wall Mounted</p> <p>(b) Ceiling Cassette/Mounted</p> <p>vi) VRV System</p> <p>(a) Indoor</p> <p>(b) Outdoor</p>	0.75	
		0.90	
		0.70	
		0.75	
		0.75	
		0.90	
		0.85	
		0.95	
7.	<p>MOTOR (PUMPSET)</p> <p>i) Condenser Water Pump</p> <p>ii) Chilled Water Pump</p> <p>iii) Hose Reel Pump</p>	0.80	
		0.80	
		0.55	

LAMPIRAN F/ME/DB-L (2021)
Appendix A
(untuk digunakan bagi projek yang sedang dalam pembinaan)

Notes:

*Peninsular Malaysia

* Sabah

*Sarawak

** The “Base Index” shall be the appropriate Component Cost Index as stated in the **Special Release 3** published by the Department of Statistics. The Base Index shall be determined as follows based on:-

- (i) The month during which tender closes (for tenders closed on and after 1st January 2021); or
- (ii) The month December 2020 (for tender closed before 1st January 2021)

LAMPIRAN G(K) (2021)
(Contoh format Perjanjian Tambahan bagi Kontrak Konvensional)

Format Perjanjian Tambahan Pelaksanaan Perubahan Harga
(*Variation of Price-VOP*) bagi Kontrak Kerja Konvensional
(Berdasarkan Syarat-syarat Kontrak P.W.D. Form 203/203A (Rev.1/2010))

THIS SUPPLEMENTAL AGREEMENT is made on.....

BETWEEN

The **GOVERNMENT OF MALAYSIA** as represented by
.....and having its address at.....
.....
(hereinafter is referred to as the “**Government**”) of the one part;

AND

[.....**Company’s name**.....],(Company No.:.....),
a company incorporated in Malaysia under the Companies Act 2016 [*Act 777*] and having
its registered office at
.....
.....(hereinafter referred to as the “**Contractor**”) of the other part.

The Government and the Company shall individually be referred to as the “**Party**” and
collectively referred to as the “**Parties**”.

WHEREAS:

- A. Pursuant to Contract No.: dated.....(hereinafter referred to as the “**Principal Contract**”) entered into between the Parties, the Government has agreed for the Contractor to undertake the Works (as therein defined in the Principal Contract) subject to the terms and conditions therein contained.

- B. Subsequent thereto, vide *Pekeliling Perbendaharaan Malaysia PK 2.4 – Pelaksanaan Syarat Perubahan Harga (Variation of Price – VOP) dalam Kontrak Kerja*, the Government has agreed for the implementation of Variation of Price in the Principal Contract due to the fluctuation of price of materials.

LAMPIRAN G(K) (2021)
(Contoh format Perjanjian Tambahan bagi Kontrak Konvensional)

- C. The Parties are now desirous of entering into this supplemental agreement (hereinafter referred to as this “**Supplemental Agreement**”) for the purpose of amending and varying the terms and conditions of the Principal Contract entered into between the Parties subject to the terms and conditions contained thereafter appearing.

NOW IT IS HEREBY AGREED AS FOLLOWS:

1. SUPPLEMENTAL AGREEMENT

- 1.1 The parties hereby agreed that this Supplemental Agreement shall be read as an integral part of the Principal Contract.
- 1.2 Save and subject to the following provisions and variations, the provisions in the Principal Contract shall remain the same and in full force and effect as between the Parties thereto.
- 1.3 In the event of any inconsistency between the provision in the Principal Contract and this Supplemental Agreement, the provisions of this Supplemental Agreement shall prevail to the extent of such inconsistency.

2. INTERPRETATION

The Parties hereby agree that save and except where the context otherwise requires, or unless this Supplemental Agreement otherwise provides, all words and expressions define in the Principal Contract shall have the same meaning when used or referred herein.

3. EFFECTIVE DATE

Notwithstanding the date of signing of this Supplemental Agreement, this Supplemental Agreement shall be deemed to have come into effect on 1 January 2021.

4. INSERTION OF A NEW CLAUSE

The Principal Contract is amended by inserting after Clause 29.0 (Adjustment of Contract Sum) a new Clause 30.0 (Fluctuation of Price) as follows:

“30.0 FLUCTUATION OF PRICE

30.1 In accordance with the Special Provisions to the Conditions of Contract for Fluctuation of Price as contained in Appendix 2 to the Conditions of Contract, 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.

30.2 For the avoidance of doubt, this clause shall apply to Works done within the Contract Period and any extension of time granted under clause 43.”.

5. INSERTION OF A NEW APPENDIX

The Principal Contract is amended by inserting after “Appendix to the Conditions of Contract” new “Appendix 2 to the Conditions of Contract” which is annexed herewith and marked as Annexure.

6. LOSS AND EXPENSE

The Contractor hereby agrees with the Government that the Contractor is not entitled nor shall make any claim or demand for any payment, loss, damages, compensations or whatsoever against the Government pursuant to this Supplemental Agreement.

LAMPIRAN G(K) (2021)
(Contoh format Perjanjian Tambahan bagi Kontrak Konvensional)

7. CONFIDENTIALITY

This Supplemental Agreement and all matters pertaining hereto shall be considered confidential matters and shall be not be disclosed to any third party without prior mutual agreement of the Parties unless the disclosure is required by law or any regulatory authorities.

8. COMPLIANCE WITH LAWS

The Contractor shall comply with all applicable laws and with all directions, orders, requirements and instructions given to the Contractor by any authority competent to do so under any applicable law.

9. AMENDMENT

This Supplemental Agreement shall not be amended, modified or varied unless such amendment, modification or variation shall be expressly agreed to in writing and signed by the Parties to this Supplemental Agreement or their duly authorized representative.

10. GOVERNING LAWS

This Supplemental Agreement 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.

11. SEVERABILITY

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

12. TIME

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

13. SUCCESSORS BOUND

This Supplemental Agreement shall be binding on the Parties hereto and their respective successors in title and permitted assigns.

14. COST AND STAMP DUTY

All costs and expenses incidental to the preparation and completion of this Supplemental Agreement including legal fees and stamp duties shall be borne and paid for by the Contractor.

LAMPIRAN G(K) (2021)
(Contoh format Perjanjian Tambahan bagi Kontrak Konvensional)

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

SIGNED for and on behalf of)
)
THE GOVERNMENT OF MALAYSIA)
)

in the presence of:)
)

*⁴The Common Seal of)
)
)
(Co. No.:))

was hereunto affixed)
in the presence of:)

.....
Director
Name:
NRIC No.:

.....
Director/ Secretary
Name:
NRIC No.:

⁴ Applicable only if the Contractor is a company registered under the Companies Act 1965

LAMPIRAN G(DB) (2021)
(Contoh format Perjanjian Tambahan bagi Kontrak Reka dan Bina)

Format Perjanjian Tambahan Pelaksanaan Perubahan Harga
(*Variation of Price-VOP*) bagi Kontrak Kerja Reka Dan Bina
(Berdasarkan Syarat-syarat Kontrak PWD Form DB (Rev.1/2010))

THIS SUPPLEMENTAL AGREEMENT is made on.....

BETWEEN

The **GOVERNMENT OF MALAYSIA** as represented by
.....and having its address
at.....

.....
...(hereinafter is referred to as the “**Government**”) of the one part;

AND

[.....**Company’s** **name**.....],(Company
No.:.....), a company incorporated in Malaysia under the Companies Act 2016
[Act 777] and having its registered office at

.....
.....
...(hereinafter referred to as the “**Contractor**”) of the other part.

The Government and the Company shall individually be referred to as the “**Party**” and collectively referred to as the “**Parties**”.

WHEREAS:

- A. Pursuant to Contract No.:
dated.....(hereinafter referred to as the “**Principal Contract**”) entered
into between the Parties, the Government has agreed for the Contractor to
undertake the Works (as therein defined in the Principal Contract) subject to the
terms and conditions therein contained.

- B. Subsequent thereto, vide *Pekeliling Perbendaharaan Malaysia PK 2.4 –
Pelaksanaan Syarat Perubahan Harga (Variation of Price – VOP) dalam Kontrak
Kerja*, the Government has agreed for the implementation of Variation of Price in
the Principal Contract due to the fluctuation of price of materials.

LAMPIRAN G(DB) (2021)
(Contoh format Perjanjian Tambahan bagi Kontrak Reka dan Bina)

- C. The Parties are now desirous of entering into this supplemental agreement (hereinafter referred to as this “**Supplemental Agreement**”) for the purpose of amending and varying the terms and conditions of the Principal Contract entered into between the Parties subject to the terms and conditions contained thereafter appearing.

NOW IT IS HEREBY AGREED AS FOLLOWS:

1. SUPPLEMENTAL AGREEMENT

- 1.1 The parties hereby agreed that this Supplemental Agreement shall be read as an integral part of the Principal Contract.
- 1.2 Save and subject to the following provisions and variations, the provisions in the Principal Contract shall remain the same and in full force and effect as between the Parties thereto.
- 1.3 In the event of any inconsistency between the provision in the Principal Contract and this Supplemental Agreement, the provisions of this Supplemental Agreement shall prevail to the extent of such inconsistency.

2. INTERPRETATION

The Parties hereby agree that save and except where the context otherwise requires, or unless this Supplemental Agreement otherwise provides, all words and expressions define in the Principal Contract shall have the same meaning when used or referred herein.

3. EFFECTIVE DATE

Notwithstanding the date of signing of this Supplemental Agreement, this Supplemental Agreement shall be deemed to have come into effect on 1 January 2021.

4. INSERTION OF A NEW APPENDIX

The Principal Contract is amended by inserting after “Appendix to the Conditions of Contract” new “Appendix 2 to the Conditions of Contract” which is annexed herewith and marked as Annexure.

5. LOSS AND EXPENSE

The Contractor hereby agrees with the Government that the Contractor is not entitled nor shall make any claim or demand for any payment, loss, damages, compensations or whatsoever against the Government pursuant to this Supplemental Agreement.

6. CONFIDENTIALITY

This Supplemental Agreement and all matters pertaining hereto shall be considered confidential matters and shall be not be disclosed to any third party without prior mutual agreement of the Parties unless the disclosure is required by law or any regulatory authorities.

7. COMPLIANCE WITH LAWS

The Contractor shall comply with all applicable laws and with all directions, orders, requirements and instructions given to the Contractor by any authority competent to do so under any applicable law.

8. AMENDMENT

This Supplemental Agreement shall not be amended, modified or varied unless such amendment, modification or variation shall be expressly agreed to in writing and signed by the Parties to this Supplemental Agreement or their duly authorized representative.

9. GOVERNING LAWS

This Supplemental Agreement 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.

10. SEVERABILITY

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

11. TIME

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

12. SUCCESSORS BOUND

This Supplemental Agreement shall be binding on the Parties hereto and their respective successors in title and permitted assigns.

13. COST AND STAMP DUTY

All costs and expenses incidental to the preparation and completion of this Supplemental Agreement including legal fees and stamp duties shall be borne and paid for by the Contractor.

LAMPIRAN G(DB) (2021)
(Contoh format Perjanjian Tambahan bagi Kontrak Reka dan Bina)

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

SIGNED for and on behalf of)
)
THE GOVERNMENT OF MALAYSIA)
)

in the presence of:)
)

*⁵The Common Seal of)
)
)
(Co. No.:))

was hereunto affixed)
in the presence of:)

.....
Director
Name:
NRIC No.:

.....
Director/ Secretary
Name:
NRIC No.:

⁵ Applicable only if the Contractor is a company registered under the Companies Act 1965

SEBUT HARGA
Perjanjian Tambahan

Format Perjanjian Tambahan Pelaksanaan Perubahan Harga
(*Variation of Price-VOP*) bagi Kontrak Kerja Sebut Harga
(Berdasarkan Syarat-syarat Sebutharga)

THIS SUPPLEMENTAL AGREEMENT is made on.....

BETWEEN

The **GOVERNMENT OF MALAYSIA** as represented by
.....and having its address
at.....

.....
...(hereinafter is referred to as the “**Government**”) of the one part;

AND

[.....**Company’s name**.....],(Company
No.:.....), a company incorporated in Malaysia under the Companies Act 2016
[Act 777] and having its registered office at
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.....(hereinafter referred to as the “**Contractor**”) of the other
part.

The Government and the Company shall individually be referred to as the “**Party**” and
collectively referred to as the “**Parties**”.

WHEREAS:

- A. Pursuant to Contract No.:
dated.....(hereinafter referred to as the “**Principal Contract**”) entered
into between the Parties, the Government has agreed for the Contractor to
undertake the Works (as therein defined in the Principal Contract) subject to the
terms and conditions therein contained.

- B. Subsequent thereto, vide *Pekeliling Perbendaharaan Malaysia PK 2.4 –
Pelaksanaan Syarat Perubahan Harga (Variation of Price – VOP) di dalam Kontrak
Kerja*, the Government has agreed for the implementation of Variation of Price in
the Principal Contract due to the fluctuation of price of materials.

- C. The Parties are now desirous of entering into this supplemental agreement (hereinafter referred to as this “**Supplemental Agreement**”) for the purpose of amending and varying the terms and conditions of the Principal Contract entered into between the Parties subject to the terms and conditions contained thereafter appearing.

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- 1.3 In the event of any inconsistency between the provision in the Principal Contract and this Supplemental Agreement, the provisions of this Supplemental Agreement shall prevail to the extent of such inconsistency.

2. INTERPRETATION

The Parties hereby agree that save and except where the context otherwise requires, or unless this Supplemental Agreement otherwise provides, all words and expressions define in the Principal Contract shall have the same meaning when used or referred herein.

3. EFFECTIVE DATE

Notwithstanding the date of signing of this Supplemental Agreement, this Supplemental Agreement shall be deemed to have come into effect on 1 January 2021.

4. INSERTION OF A NEW APPENDIX

The Principal Contract is amended by inserting after “Syarat-Syarat Sebut Harga Untuk Kerja ” the “Appendix Kepada Syarat-Syarat Sebut Harga ” which is annexed herewith and marked as Annexure.

5. LOSS AND EXPENSE

The Contractor hereby agrees with the Government that the Contractor is not entitled nor shall make any claim or demand for any payment, loss, damages, compensations or whatsoever against the Government pursuant to this Supplemental Agreement.

6. CONFIDENTIALITY

This Supplemental Agreement and all matters pertaining hereto shall be considered confidential matters and shall be not be disclosed to any third party without prior mutual agreement of the Parties unless the disclosure is required by law or any regulatory authorities.

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13. COST AND STAMP DUTY

All costs and expenses incidental to the preparation and completion of this Supplemental Agreement including legal fees and stamp duties shall be borne and paid for by the Contractor.

**SEBUT HARGA
Perjanjian Tambahan**

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

SIGNED for and on behalf of)
)
THE GOVERNMENT OF MALAYSIA)
)

in the presence of:)
)

*⁶The Common Seal of)
)
)
(Co. No.:))

was hereunto affixed)
in the presence of:)

.....
Director
Name:
NRIC No.:

.....
Director/ Secretary
Name:
NRIC No.:

⁶ Applicable only if the Contractor is a company registered under the Companies Act 1965

**KAEDAH DAN CONTOH PENGIRAAN PERUBAHAN HARGA BERASASKAN
KEPADA PERUBAHAN HARGA UNIT BAGI KONTRAK KERJA
BANGUNAN/KEJURUTERAAN AWAM BAGI KONTRAK KERJA REKA
DAN BINA**

BAHAN BINAAN:

(1) BESI BERTETULANG

(2) CRUSHED AGGREGATE (CRUSHER RUN)

KAEDAH PENGIRAAN

- Langkah 1 : Tentukan Harga Transaksi Asas **(A)**
(Rujuk Jadual 1 dalam Siaran Khas 1, Jabatan Perangkaan
Malaysia pada bulan tender ditutup)
- Langkah 2 : Tentukan Harga Transaksi Semasa **(B)**
(Berdasarkan resit pembayaran kontraktor dan harga yang boleh
diambil kira adalah tidak melebihi daripada perbezaan antara Harga
Transaksi Asas dan harga yang dikeluarkan di dalam Jadual 1
dalam Siaran Khas 1 untuk bulan semasa penghantaran bahan di
tapak)
- Langkah 3 : Tentukan kuantiti bahan **(C)**
(Kuantiti bahan yang dihantar ke tapak projek setiap bulan tertakluk
kepada kuantiti maksima dalam kontrak dan selagi mana kuantiti
kerja tersebut di dalam skop asal projek juga rujuk kepada nota
penghantaran bahan ke tapak.)
- Langkah 4 : Pengiraan VOP untuk bahan
Formula: **$[(B) - (A)] \times (C)$**

CONTOH PENGIRAAN – 16MM MILD STEEL ROUND BARS (Projek di Perlis)

Harga Transaksi Asas (A) = RM2,578.38/Tan Metrik (Contoh: Januari 2021)

Harga Transaksi Semasa (B) = RM2,889.30/ Tan Metrik (Contoh: Mei 2021)

Kuantiti Besi (C) = 1,000 Tan Metrik

VOP = $[(B) - (A)] \times (C)$
= $(RM2,889.30 - RM2,578.38) \times 1,000$
= RM310,920.00

Perkongsiannya risiko sama rata (50:50) = RM310,920.00 x 50%
= **RM155,460.00**

Nota:

Pengiraan bahan *crushed aggregates (crusher run)* mengguna pakai kaedah yang sama seperti pengiraan bahan besi tetulang. Harga unit bahan adalah berdasarkan Jadual 3 dalam Siaran Khas 1.

**KAEDAH DAN CONTOH PENGIRAAN PERUBAHAN HARGA BERASASKAN
KEPADA PERUBAHAN HARGA UNIT BAGI KONTRAK KERJA
KEJURUTERAAN AWAM BAGI KONTRAK KERJA REKA DAN BINA**

BAHAN BINAAN:

(3) MILD STEEL PIPE

KAEDAH PENGIRAAN

- Langkah 1 : Tentukan Harga Transaksi Asas *Mild Steel Pipe* 300mm **(A)**
(Rujuk Jadual 3 dalam Siaran Khas 1, Jabatan Perangkaan Malaysia pada bulan tender ditutup. Hanya harga asas untuk saiz 300mm diameter sahaja diterbitkan dan faktor pelarasan diberi untuk saiz paip yang lain. Bagi contoh pengiraan ini saiz 1000mm di gunakan dan faktor pelarasan adalah 4.25. Senarai yang dikeluarkan oleh Jabatan Perangkaan Malaysia telah disifatkan dalam kontrak sebagai bahan asas yang biasa digunakan dalam sesuatu projek.)
- Langkah 2 : Tentukan Harga Transaksi Semasa *Mild Steel Pipe* 300mm **(B)**
(berdasarkan resit pembayaran kontraktor dan harga yang boleh diambilkira adalah tidak melebihi daripada perbezaan antara Harga Transaksi Asas dan harga yang dikeluarkan di dalam Siaran Khas 1 untuk bulan semasa penghantaran bahan di tapak)
- Langkah 3 : Tentukan kuantiti bahan **(C)**
(Kuantiti bahan yang dihantar ke tapak projek setiap bulan tertakluk kepada kuantiti maksima dalam kontrak dan selagi mana kuantiti kerja tersebut di dalam skop asal projek juga rujuk kepada nota penghantaran bahan ke tapak.)
- Langkah 4 : Pengiraan VOP untuk bahan
Formula : **$[(B) - (A)] \times \text{Faktor Pelarasan} \times (C)$**

CONTOH PENGIRAAN – 1000MM MILD STEEL PIPE (PAIP AIR)

Harga Transaksi Asas (A)	=	RM284.00/meter (Contoh: Januari 2021)
Harga Transaksi Semasa (B)	=	RM324.00/meter (Contoh: Mei 2021)
Saiz Mild Steel Paip	=	1000mm dia
Faktor Pelarasan	=	4.25 (Mengikut saiz paip & jenis paip)
Kuantiti (C)	=	100 meter

$$\begin{aligned} \text{VOP} &= [(B) - (A)] \times \text{Faktor Pelarasan} \times (C) \\ &= [(RM324.00 - RM284.00) \times 4.25] \times 100 \text{ meter} \\ &= \text{RM17,000.00} \end{aligned}$$

$$\begin{aligned} \text{Perkongsiian risiko sama rata (50:50)} &= \text{RM17,000.00} \times 50\% \\ &= \underline{\underline{\text{RM8,500.00}}} \end{aligned}$$

LAMPIRAN H-KAEDAH PENGIRAAN

CONTOH PENGIRAAN PERUBAHAN HARGA BERASASKAN KEPADA INDEKS KOS KOMPONEN BAGI KONTRAK KERJA MEKANIKAL DAN ELEKTRIKAL BAGI KONTRAK KERJA REKA DAN BINA

BAHAN BINAAN:

(1) KOMPONEN PENDAWAIAN

KAEDAH PENGIRAAN

- Langkah 1 : Tentukan Nilai Kerja Bulanan komponen pendawaian dalam konduit (per unit) **(A)**
- (Rujuk Senarai Kuantiti bagi komponen pendawaian kerja siap di tapak)
- Langkah 2 : Tentukan *Recovery Factor* **(B)** bagi komponen pendawaian
- (Rujuk *Appendix A - List of Relevant Components, Recovery Factor and Base Indices Subjected To Price Variation In Accordance With The "Special Provisions To The Conditions Of Contract (Variation of Price) For Mechanical & Electrical Works"*)
- Recovery Factor* adalah jumlah peratusan bagi copper di dalam komponen M & E
- Langkah 3 : Tentukan Indeks Asas (*Base Index*) **(C)**
- (Rujuk Jadual 1 dalam Siaran Khas 3, Jabatan Perangkaan Malaysia pada bulan tender ditutup)
- Langkah 4 : Tentukan Indeks Semasa (*Current Index*) **(D)**
- (Rujuk Jadual 1 dalam Siaran Khas 3, Jabatan Perangkaan Malaysia pada bulan penilaian)
- Langkah 5 : Tentukan *Fluctuation Factor* **(E)**
- Formula:

$$\text{Fluctuation Factor} = \text{Recovery Factor} \times \frac{\text{Indeks Semasa} - \text{Indeks Asas}}{\text{Indeks Asas}}$$

**CONTOH PENGIRAAN PERUBAHAN HARGA BERASASKAN KEPADA
INDEKS KOS KOMPONEN BAGI KONTRAK KERJA MEKANIKAL DAN
ELEKTRIKAL BAGI KONTRAK KERJA REKA DAN BINA**

BAHAN BINAAN:

(1) KOMPONEN PENDAWAIAN

Langkah 6 : Pengiraan VOP untuk bahan

Formula :

$$VOP = \textit{Fluctuation Factor} \times \text{Nilai Kerja Bulanan}$$

Di mana,

Nilai Kerja Bulanan **(A)** = *Effective Value of Works*
Kerja yang terlibat dalam bulan itu sahaja
Kerja yang tertakluk kepada VOP sahaja

Recovery Factor **(B)** = Peratusan nilai bahan yang tertakluk kepada
perubahan harga

Fluctuation Factor **(E)** = Faktor perubahan yang tertakluk kepada VOP

CONTOH PENGIRAAN – UNTUK KOMPONEN PENDAWAIAN

Nilai Kerja Bulanan **(A)** = RM30,000.00

Recovery Factor **(B)** = 0.5

Indeks Asas **(C)** = 101.4 (Contoh: Januari 2021)

Indeks Semasa **(D)** = 106.5 (Contoh: Mei 2021)

Fluctuation Factor **(E)** = $0.5 \times [(106.5 - 101.4)/101.4]$
= 0.0251

VOP = RM30,000.00 X 0.0251
= RM753.00

Perkongsian risiko sama rata (50:50) = RM753 x 50%
= **RM376.50**

LAMPIRAN H-KAEDAH PENGIRAAN

CONTOH PENGIRAAN PERUBAHAN HARGA BERASASKAN KEPADA INDEKS KOS KOMPONEN BAGI KONTRAK KERJA MEKANIKAL DAN ELEKTRIKAL BAGI KONTRAK KERJA REKA DAN BINA

BAHAN BINAAN:

(2) KOMPONEN VRV SYSTEM (INDOOR)

KAEDAH PENGIRAAN

- Langkah 1 : Tentukan Nilai Kerja Bulanan bagi item *VRV System (Indoor)* (per unit) **(A)**
- (Rujuk *Summary of Price / Senarai Kuantiti* bagi item *VRV System (Indoor)* untuk kerja siap di tapak)
- Langkah 2 : Tentukan *Recovery Factor (B)* bagi item *VRV System (Indoor)*
- (Rujuk *Appendix A - List of Relevant Components, Recovery Factor and Base Indices Subjected To Price Variation In Accordance With The "Special Provisions To The Conditions Of Contract (Variation of Price) For Mechanical & Electrical Works"*)
Recovery Factor adalah jumlah peratusan bagi copper di dalam komponen M & E
- Langkah 3 : Tentukan Indeks Asas (*Base Index*) **(C)**
- (Rujuk Jadual 6 dalam Siaran Khas 3 Jabatan Perangkaan Malaysia pada bulan tender ditutup)
- Langkah 4 : Tentukan Indeks Semasa (*Current Index*) **(D)**
- (Rujuk Jadual 6 dalam Siaran Khas 3 Jabatan Perangkaan Malaysia pada bulan penilaian)
- Langkah 5 : Tentusahkan *Fluctuation Factor (E)* iaitu :

Formula:

$$\text{Fluctuation Factor} = \text{Recovery Factor} \times \frac{\text{Indeks Semasa} - \text{Indeks Asas}}{\text{Indeks Asas}}$$

**CONTOH PENGIRAAN PERUBAHAN HARGA BERASASKAN KEPADA
INDEKS KOS KOMPONEN BAGI KONTRAK KERJA MEKANIKAL DAN
ELEKTRIKAL BAGI KONTRAK KERJA REKA DAN BINA**

**BAHAN BINAAN:
(2) KOMPONEN VRV SYSTEM (INDOOR)**

Langkah 6 : Pengiraan VOP untuk bahan

Formula :

$$VOP = \text{Fluctuation Factor} \times \text{Nilai Kerja Bulanan}$$

Di mana,

Nilai Kerja Bulanan (A) = *Effective Value of Works*
Kerja yang terlibat dalam bulan itu sahaja
Kerja yang tertakluk kepada VOP sahaja

Recovery Factor (B) = Peratusan nilai bahan yang tertakluk kepada
perubahan harga

Fluctuation Factor (E) = Faktor perubahan yang tertakluk kepada VOP

CONTOH PENGIRAAN – UNTUK VRV SYSTEM (INDOOR)

Nilai Kerja Bulanan (A) = RM150,000.00

Recovery Factor (B) = 0.85

Indeks Asas (C) = 100.0 (Contoh: Bulan Jan 2021)

Indeks Semasa (D) = 100.0 (Contoh: Bulan Feb 2021)

Fluctuation Factor (E) = $0.85 \times [(100.0 - 100.0)/100.0]$
= 0.00

VOP = RM150,000.00 X 0.00
= RM0.00

Perkongsian risiko sama rata (50:50) = RM0.00 x 50%
= **RM0.00**

LAMPIRAN H-KAEDAH PENGIRAAN

CONTOH PENGIRAAN PERUBAHAN HARGA BERASASKAN KEPADA INDEKS KOS KOMPONEN BAGI KONTRAK KERJA MEKANIKAL DAN ELEKTRIKAL BAGI KONTRAK KERJA REKA DAN BINA

BAHAN BINAAN:

(2) KOMPONEN VRV SYSTEM (INDOOR)

NOTA :

1. Contoh bagi pengiraan nilai VOP di atas bersamaan dengan RM0.00 disebabkan tiada perbezaan Indeks Asas (C) dan Indeks Semasa (D) seperti yang terdapat di dalam **Siaran Khas 3** (Untuk Kerja-Kerja Mekanikal dan Elektrikal).
2. Indeks-indeks asas (C) dan semasa (D) di atas adalah berdasarkan kepada paip *copper* yang berada di dalam setiap peralatan mekanikal termasuk semua perpaipan *copper* yang terlibat.