

## **PART F**

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## **BILL OF QUANTITIES**

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JABATAN KERJA RAYA MALAYSIA

**MENGGANTI JAMBATAN FT2490, JALAN PERWIRA JAYA – SELANCAR,  
ROMPIN, PAHANG**

**SENARAI KUANTITI**

Kami seperti nama syarikat di bawah mengesahkan tawaran harga yang tersenarai di dalam senarai kuantiti ini adalah sama sepertimana di dalam Borang Tender yang dihasilkan di dalam sistem dan sebarang percanggahan akan menyebabkan tawaran kami ditolak.

- A. Nama Syarikat: **Nama Petender**
- B. CIDB/UPKJ/PUKONSA No.: **No.Pendaftaran Petender**
- C. Harga Tawaran: **Harga Tawaran Petender**
- D. No. Siri Tender: **JKR/CJ/23680/2024**
- E. Tarikh Cipta Senarai Kuantiti: **11/8/2024**

Senarai kuantiti ini dikeluarkan oleh BKUB/CJ. Sebarang pertanyaan boleh berhubung dengan pegawai yang menyediakan tender dan maklumat pegawai untuk dihubungi boleh didapati di laman iklan.

# **JABATAN KERJA RAYA MALAYSIA**

## **MENGGANTI JAMBATAN FT2490, JALAN PERWIRA JAYA – SELANCAR, ROMPIN, PAHANG**

### **SENARAI KUANTITI**

No. Tender: JKR/CJ/23680/2024

**RINGKASAN TENDER****MENGGANTI JAMBATAN FT2490, JALAN PERWIRA JAYA – SELANCAR, ROMPIN, PAHANG**

ITEM	DESCRIPTION	PAGE NO.	AMOUNT(RM)
1	GENERAL ITEMS	RT/1	
	DEMOLITION AND SITE CLEARANCE	BQ 1 - 5/5	
	EARTHWORKS	BQ 2 - 1/1	
	DRAINAGE WORKS	BQ 3 - 3/3	
	PAVEMENT WORKS	BQ 4 - 1/1	
	ROAD FURNITURE	BQ 5 - 3/3	
	GEOTECHNICAL WORKS	BQ 6 - 3/3	
	STRUCTURES - BRIDGE WORKS	BQ 7 - 3/3	
	TRAFFIC MANAGEMENT AND CONTROL	BQ 8 - SUM 1/1	
	ENVIRONMENTAL PROTECTION AND ENHANCEMENT WORKS	BQ 9 - 4/4	
	ROUTINE MAINTENANCE WORKS	BQ 10 - 7/7	
	OCCUPATIONAL SAFETY AND HEALTH MANAGEMENT	BQ 11 - 5/5	
	PROVISIONAL SUM	BQ 12 - 1/1	
	PRIME COST SUM	BQ 13 - 1/1	
		BQ 14 - 1/1	
Sila pilih:			-

RT/1

## MENGGANTI JAMBATAN FT2490, JALAN PERWIRA JAYA - SELANCAR, ROMPIN, PAHANG

## BILL NO. 1 - GENERAL ITEMS

No.	Code No.	Description	Unit	Qty.	Rate (RM)	Amount (RM)
	<b>A100</b>	<b><u>CONTRACTUAL REQUIREMENTS</u></b>				
	A110	<b><u>Bond</u></b>				
A	A111	Performance Bond; Banker's/Insurance/Financial Institution Guarantee*	sum			
		<b><u>Insurances</u></b>				
B	A121	Insurance of the Works.	sum			
C	A122	Public Liability Insurance.	sum			
D	A123	SOCISO/Workmen Compensation Insurance.	sum			
		<b><u>Statutory Obligations</u></b>				
E	A140	Statutory obligation (Compliance with law, regulations or by laws, or any order of directive issued by public authorities).	sum			
		<b><u>SO REQUIREMENTS</u></b>				
		<b><u>Facilities</u></b>				
		Rate shall be deem to include the provision of water supply, electricity and communication facilities.				
F	A211	Establishment and Removal of Office as per Specification  a) JKR Design (Category 1) as per drawing with floor area of 64.32m <sup>2</sup> .**  OR  b) New Relocatable Type with floor area of 64.32m <sup>2</sup> .**  OR  c) Rental of Shop Lot with floor area of 64.32m <sup>2</sup> .**	sum			
G	A212	Maintenance of Office.	mth	22		
		<b><u>Material Testing Laboratory Services</u></b>				
H	A219	The contractor shall provide an accredited laboratory approved by Department of Standard Malaysia. The laboratory shall be equipped according to the type of tests with the necessary equipment and staff required to carry out the tests as identified in Appendix 1D (List of Laboratory Equipment).	nr	10		
Page Total carried to Summary of Bill No. 1						

\* Do not price if tenderer opt for Performance Guarantee Sum

\*\* Choose one option and delete where not applicable

## MENGANTI JAMBATAN FT2490, JALAN PERWIRA JAYA - SELANCAR, ROMPIN, PAHANG

## BILL NO. 1 - GENERAL ITEMS

No.	Code No.	Description	Unit	Qty.	Rate (RM)	Amount (RM)
		<b><u>SO REQUIREMENTS (cont'd...)</u></b>				
		<b><u>Establishment and Removal of Office Equipment</u></b>				
		Provision and removal of office equipment upon completion as per Specification ( <b>Appendix 1E</b> ). Equipment to be reverted to the Contractor after completion.				
A	A221.1	2 No. Laptop.	sum			
B	A221.2	1 No. A3 Laser Jet Colour Printer.	sum			
C	A221.3	1 No. Photostate Machine with Scanner.	sum			
D	A221.4	1 No. Projector.	sum			
E	A221.5	1 No. Digital Camera.	sum			
F	A222	Maintenance of Office Equipment.	nth	22		
		<b><u>Services for the SO's Representative</u></b>				
		Provision of suitable transport services as listed in <b>APPENDIX 1C</b> of the Specification and Appendix <b>A4</b> of the Contractual Requirements for the duration of contract period;				
G	A231	1 No. of Four Wheel Drive (4WD) vehicle	sum			
H	A232	Operation and maintenance of 1 no. of Four Wheel Drive (4WD) vehicle	nth	22		
	<b>A240</b>	<b><u>Attendance for the SO's Representative</u></b>				
J	A241	Provide 1 No. of Driver	man-nth	22		
K	A245	Provide 1 No. of Licensed Security Guard.	man-nth	22		
	<b>A250</b>	<b><u>Submission of Documents</u></b>				
L	A254	Works programme ; To provide and update works programme using Microsoft Project to produce Critical Path Method (CPM) and Works Breakdown Structure (WBS) etc. by the planner including providing supply of (1 copy) Microsoft Project Software (latest version) or equivalent as specified in Special Provision to the Standard Specification for Road Works : Work Programme Specification, to be submitted for consent before commencement of works.	sum			
Page Total carried to Summary of Bill No. 1						

## MENGGANTI JAMBATAN FT2490, JALAN PERWIRA JAYA - SELANCAR, ROMPIN, PAHANG

## BILL NO. 1 - GENERAL ITEMS

No.	Code No.	Description	Unit	Qty.	Rate (RM)	Amount (RM)
		<b><u>SO REQUIREMENTS (cont'd...)</u></b>				
		<b><u>Miscellaneous</u></b>				
A	A262	Project signboard as per drawing.	nr	1		
B	A263	As built drawings as per Specification and bridge inventory card as per SO approval.	sum			
C	A269	Project report in 10 sets comprising of progress report and quality control report. All the reports to be converted/scanned to a digital copy (in pdf format or equivalent and stored in CD) and to be enclosed with each set of the Project Report including compilation of:  Progress photographs and Video recording; (i) Photographic and Video capture of work progress on ground using camera.  (ii) Aerial Photography and Aerial Video capture of work progress using Drone or Unmanned Aerial Vehicle / UAV.	mth	22		
		<b><u>PROJECT REQUIREMENTS</u></b>				
		<b><u>Survey and Setting Out</u></b>				
D	A310	Survey and setting out by Licensed Surveyor.	sum			
		<b><u>Quality Assurance/Quality Control (QA/QC)</u></b>				
E	A321	QA/QC Plan as per Specification.	sum			
		<b><u>Clearance of Site Upon Completion</u></b>				
F	A360	Clearance of site upon completion as per Specification. Rate shall be deemed to include making good all affected works.	sum			
Page Total carried to Summary of Bill No. 1						

## MENGGANTI JAMBATAN FT2490, JALAN PERWIRA JAYA - SELANCAR, ROMPIN, PAHANG

## BILL NO. 1 - GENERAL ITEMS

No.	Code No.	Description	Unit	Qty.	Rate (RM)	Amount (RM)
	<b>A500</b>	<b><u>CONTRACTOR'S REQUIREMENTS</u></b>				
	<b>A510</b>	<b><u>Contractor's Facilities</u></b>  Item shall be deemed to include the provision of water supply, electricity, and sanitary facilities and their continuing operation and maintenance.				
A	A511	Establishment, maintenance and removal of office as per specification.	sum			
B	A512	Provision and maintenance of office equipment; remove upon completion.	sum			
C	A515	Establishment, maintenance and removal of stores as per specification.	sum			
D	A517	Establishment, maintenance and removal of workmen accomodation as per specification.	sum			
		<b><u>Temporary Works and Access</u></b>				
E	A521	Construct, maintain and remove temporary access roads; fixed charge.  <b><u>Site Management (Inclusive of All Staff)</u></b>  Provide, maintain and removal of supervision; fixed and time related charges.	sum			
F	A551	Supervision	sum			
G	A552	Administration	sum			
H	A553	Labour team	sum			
		<b><u>Mobilisation and demobilisation</u></b>				
J	A560	Mobilisation and demobilisation of any construction plants and equipments; fixed charge excluding piling and other specialist works.	sum			
Page Total carried to Summary of Bill No. 1						



MENGGANTI JAMBATAN FT2490, JALAN PERWIRA JAYA - SELANCAR, ROMPIN, PAHANG

BILL NO. 1 - GENERAL ITEMS

No.	Code No.	Description	Unit	Qty.	Rate (RM)	Amount (RM)
		<b>Summary of Bill No. 1 : General Items</b>				
		Page BQ1 - 1/5				
		Page BQ1 - 2/5				
		Page BQ1 - 3/5				
		Page BQ1 - 4/5				
Total of Bill No. 1 carried to Summary of Tender						

**MENGGANTI JAMBATAN FT2490, JALAN PERWIRA JAYA - SELANCAR, ROMPIN, PAHANG****BILL NO. 2 - DEMOLITION & SITE CLEARANCE  
(PROVISIONAL QUANTITY)**

No.	Code No.	Description	Unit	Qty.	Rate (RM)	Amount (RM)
	<b>E100</b>	<b><u>GENERAL CLEARANCE</u></b>				
		<b><u>Above Ground</u></b>				
A	E110	General clearance include all type of vegetation.	ha	1.8		
		<b><u>Water Bodies</u></b>				
B	E120	All type of vegetation at water bodies	ha	0.1		
	<b>E400</b>	<b>STRUCTURES</b>				
		<b>Demolition and removal from site of all buildings and existing structures</b>				
		<b><u>Concrete</u></b>				
C	E412.1	Below ground – 1 nos existing single RCP pipe size 0.8m diameter x 24.9 m length including wingwall (overall complete structure below ground).	sum			
D	E412.2	Below ground - 1 nos existing twin RCP pipe size 1.0m diameter x 24.5m length including wingwall (overall complete structure below ground).	sum			
E	E412.3	Below ground - 1 nos existing twin box culvert size 0.8m x 0.8m x 8m length including wingwall (overall complete structure below ground).	sum			
<b>Total of Bill No. 2 carried to Summary of Tender</b>						

## MENGGANTI JAMBATAN FT2490, JALAN PERWIRA JAYA - SELANCAR, ROMPIN, PAHANG

BILL NO.3 - EARTHWORKS  
(PROVISIONAL QUANTITY)

No.	Code No.	Description	Unit	Qty.	Rate (RM)	Amount (RM)
	<b>F100</b>	<b><u>EXCAVATION</u></b>				
		<b><u>Stripping</u></b>				
A	F111.1	Topsoil of average depth of 150 mm and disposed to the Contractor's dumpsite as approved by the S.O.	m <sup>2</sup>	500		
B	F111.2	Topsoil of average depth of 150 mm and stockpile for re-use as top soil for turfing.	m <sup>2</sup>	5,400		
		<b><u>Excavate, load, haul and deposit</u></b>				
	<b>F120</b>	<b><u>Cut to Fill</u></b>				
		Excavation in cut shall be deemed to include trimming and preparation of excavated surface and transportation from source to place of fill.				
		Excavation in hard mass and rock mass shall be deemed to include trial excavation (direct method) and point load test (indirect method) as per latest JKR Standard Specification for Roadworks.				
C	F121	Excavate in earth from original ground level to form embankment and reuse for road shoulder/verge area.	m <sup>3</sup>	8,900		
		<b><u>Excavate, load, haul and dispose</u></b>				
	<b>F130</b>	<b><u>Cut and dispose</u></b>				
		Excavation in cut shall be deemed to include trimming and preparation of excavated surface and transportation from source to place of dispose.				
		Excavation in hard mass and rock mass shall be deemed to include trial excavation (direct method) and point load test (indirect method) as per latest JKR Standard Specification for Roadworks.				
D	F131	Excavate in earth to disposal site approved by the S.O.	m <sup>3</sup>	500		
Page Total carried to Summary of Bill No. 3						

MENGGANTI JAMBATAN FT2490, JALAN PERWIRA JAYA - SELANCAR, ROMPIN, PAHANG

**BILL NO.3 - EARTHWORKS  
(PROVISIONAL QUANTITY)**

No.	Code No.	Description	Unit	Qty.	Rate (RM)	Amount (RM)
A	<b>F300</b>	<b><u>FILLING</u></b>  <b><u>Spread, grade and compact</u></b>  The following items for filling shall include compaction, testing and confirmation material and additional filling necessitated by settlement or penetration into underlying material as applicable.				
	<b>F320</b>	<b><u>Embankments</u></b>				
	F321	Using suitable excavated material as per Specification to form embankment	m <sup>3</sup>	6,900		
B	F322	Imported material from Contactor's own source as per Specification to form embankment.	m <sup>3</sup>	2,000		
C	<b>F400</b>	<b><u>LANDSCAPING</u></b>  Items for landscaping shall be deemed to include digging, planting media, bedding, stalking, protection, watering, weeding, required fertilising, and replacement of dead item until the vegetation is established.				
	F410	Close turfing to slopes as per specification.	m <sup>2</sup>	2,600		
Page Total carried to Summary of Bill No. 3						

MENGGANTI JAMBATAN FT2490, JALAN PERWIRA JAYA - SELANCAR, ROMPIN, PAHANG

BILL NO.3 - EARTHWORKS  
(PROVISIONAL QUANTITY)

No.	Code No.	Description	Unit	Qty.	Rate (RM)	Amount (RM)
		<b>Summary of Bill No. 3 : Earthworks</b>				
		Page BQ3 - 1/3				
		Page BQ3 - 2/3				
Total of Bill No. 3 carried to Summary of Tender						

## MENGANTI JAMBATAN FT2490, JALAN PERWIRA JAYA - SELANCAR, ROMPIN, PAHANG

BILL NO.4 - DRAINAGE  
(PROVISIONAL QUANTITY)

No.	Code No.	Description	Unit	Qty.	Rate (RM)	Amount (RM)
A	Q111	<p><b><u>SURFACE DRAIN</u></b></p> <p><b><u>Excavation</u></b></p> <p>Depth not exceeding 1.5m.</p> <p><b><u>Roadside Drains for Rural Area</u></b></p> <p>Rate for roadside drain shall be deemed to include surface preparation, rendering, RC slab and other related works as per Drawing.</p>	m	800		
B	Q230	<p>Roadside drain <b>RSD5</b>; precast reinforced concrete drain 600mm wide with average 600mm high.</p> <p><b><u>Cascade Drain</u></b></p>	m	800		
C	Q260	<p>Cascade drains; cast in-situ concrete block drain grade C20/25; 750mm wide x 400mm deep at berms without handrails.</p> <p><b>Type 2 (With existing stream) (OD2)</b></p> <p><b><u>SUMPS</u></b></p> <p><b><u>Excavation</u></b></p>	m	51		
D	Q141	<p>Earth commencing from existing ground level (size 1650mm x 1650mm width x 1.5m depth).</p> <p><b><u>Sump at Fill</u></b></p>	m <sup>3</sup>	24		
E	Q710	Bricks; 1650mm x 1650mm; including mild steel grating cover for 100kN load as per Drawing.	nr	8		
Total of Bill No. 4 carried to Summary of Tender						

## MENGANTI JAMBATAN FT2490, JALAN PERWIRA JAYA - SELANCAR, ROMPIN, PAHANG

BILL NO.5 - PAVEMENT  
(PROVISIONAL QUANTITY)

No.	Code No.	Description	Unit	Qty.	Rate (RM)	Amount (RM)
A	R110	<b><u>FLEXIBLE PAVEMENT</u></b>  In accordance to latest Standard Specification for Road Works hereafter referred to as the Specification (rate to include all the tests required).  <b><u>NEW PAVEMENT</u></b>  <b>R100    <u>Subgrade Preparation</u></b>	m <sup>2</sup>	8,900		
		Earth material to receive road pavement to achieve design CBR as stated in the Drawing. Rate to include clearing, grubbing, stripping top soil, scarifying, levelling, and compaction of the top 300 mm of the subgrade including proof rolling test.				
		<b><u>Carriageway and Paved Shoulder</u></b>  <b>R200    <u>Sub-Base</u></b>				
		200mm thick granular material with a CBR value of not less than 30%, complying with grading limits of the Specification.				
		<b>R300    <u>Roadbase</u></b>				
		200mm thick crushed aggregates with a CBR value of not less than 80%, complying with the Specification.				
		<b>R500    <u>Bituminous Pavement Courses</u></b>				
		Bituminous prime coat to be applied at a rate of 0.5 - 1.0 litre per square metre as per Specification.				
		Bituminous tack coat to be applied at a rate of 0.25 - 0.55 litre per square metre as per Specification.				
		<b><u>Asphaltic Concrete</u></b>				
B	R221	200mm thick granular material with a CBR value of not less than 30%, complying with grading limits of the Specification.	m <sup>2</sup>	8,900		
C	R320	200mm thick crushed aggregates with a CBR value of not less than 80%, complying with the Specification.	m <sup>2</sup>	8,900		
D	R520	Bituminous prime coat to be applied at a rate of 0.5 - 1.0 litre per square metre as per Specification.	m <sup>2</sup>	8,900		
E	R530	Bituminous tack coat to be applied at a rate of 0.25 - 0.55 litre per square metre as per Specification.	m <sup>2</sup>	8,900		
F	R541	150mm thick Binder Course (AC28) as per Specification.	m <sup>2</sup>	8,900		
G	R551	50mm thick Wearing Course (AC14), as per Specification.	m <sup>2</sup>	8,900		
H	R410	<b><u>Fill Material on Unpaved Shoulder</u></b>  The following items for filling shall include compaction, and additional filling necessitated by settlement or penetration into underlying material as applicable.  <b><u>Sub-Base</u></b>	m <sup>2</sup>	1,000		
		200mm thick imported material from Contactor's own source as per Specification.				
Page Total carried to Summary of Bill No. 5						

MENGGANTI JAMBATAN FT2490, JALAN PERWIRA JAYA - SELANCAR, ROMPIN, PAHANG

BILL NO.5 - PAVEMENT  
(PROVISIONAL QUANTITY)

No.	Code No.	Description	Unit	Qty.	Rate (RM)	Amount (RM)
A	R530	<b><u>TREATMENT TO EXISTING PAVEMENT</u></b>				
		<b><u>Regulation and Overlay</u></b>				
		Bituminous tack coat to be applied at a rate of 0.25 - 0.55 litre per square metre as per Specification.	m <sup>2</sup>	500		
B	R551	<b><u>Asphaltic Concrete</u></b> 50mm thick Wearing Course (AC14), using bitumen of penetration grade 60-70 as per Specification.	m <sup>2</sup>	500		
Page Total carried to Summary of Bill No. 5						



MENGGANTI JAMBATAN FT2490, JALAN PERWIRA JAYA - SELANCAR, ROMPIN, PAHANG

BILL NO.5 - PAVEMENT  
(PROVISIONAL QUANTITY)

No.	Code No.	Description	Unit	Qty.	Rate (RM)	Amount (RM)
		<b>Summary of Bill No. 5 : Pavement Works</b>  Page BQ5 - 1/3  Page BQ5 - 2/3				
Total of Bill No. 5 carried to Summary of Tender						

## MENGANTI JAMBATAN FT2490, JALAN PERWIRA JAYA - SELANCAR, ROMPIN, PAHANG

BILL NO.6 - ROAD FURNITURE  
(PROVISIONAL QUANTITY)

No.	Code No.	Description	Unit	Qty.	Rate (RM)	Amount (RM)
	<b>R800</b>	<b><u>ROAD FURNITURE</u></b>  <b><u>Warning and Regulatory Traffic Signs</u></b>  Traffic signs shall generally be in accordance with <u>the latest version of Arahan Teknik (Jalan) 2A/87</u> . Post mounted signages shall be deemed to include foundations, support posts, purlins frame and connections, excavation, preparation of surfaces, disposal of excavated material, upholding sides of excavation, backfilling, concrete, reinforcement, and joints.  <b>Non-illuminated retro-reflective</b>				
A	R811.1	Non-illuminated high intensity prismatic retro-reflective sheeting mounted on aluminium alloy sign plate for type WD 24a sign size 900mm x 300mm.	nr	6		
B	R811.2	Non-illuminated high intensity prismatic retro-reflective sheeting mounted on aluminium alloy sign plate for type WD 24b sign size 900mm x 300mm.	nr	6		
	<b>R820</b>	<b><u>Pavement Markings</u></b>  Hot-applied reflectorised thermoplastic road markings.  Pavement markings shall generally be hot-applied reflectorised thermoplastic and in accordance with <u>the latest version of Standard Specification for Road Works: Section 6: Road Furniture (Road Markings)</u>  <b>Intermittent Line</b>				
C	R823	Type 5 centre/lane line (rural area): 100mm wide intermittent line with 2700mm line and 4500mm gap.	m	440		
		<b>Continuous line</b>				
D	R822.1	Type 6 Edge line: 150mm wide continuous line.	m	440		
E	R822.2	Type 10 Double line: 100mm wide continuous double line.	m	50		
		<b>Direction arrow and pavement marking for roads.</b>				
F	R821	Single straight directional arrow.	nr	4		
Page Total carried to Summary of Bill No. 6						

MENGGANTI JAMBATAN FT2490, JALAN PERWIRA JAYA - SELANCAR, ROMPIN, PAHANG

BILL NO.6 - ROAD FURNITURE  
(PROVISIONAL QUANTITY)

No.	Code No.	Description	Unit	Qty.	Rate (RM)	Amount (RM)
A	R843	<b><u>TRAFFIC BARRIER</u></b>				
		<b><u>Guardrail</u></b>				
		Single mounted corrugated steel beam guardrail with post up to 2m spacing inclusive of delineators. Rate to include bolts, nuts, posts, and other ancillary work.	m	107		
B	R844	<b><u>Guardrail end-treatment</u></b>				
		Guardrail end Type 2 . Rate to include bolts, nuts, posts, and other ancillary work.	nr	4		
Page Total carried to Summary of Bill No. 6						

MENGGANTI JAMBATAN FT2490, JALAN PERWIRA JAYA - SELANCAR, ROMPIN, PAHANG

BILL NO.6 - ROAD FURNITURE  
(PROVISIONAL QUANTITY)

No.	Code No.	Description	Unit	Qty.	Rate (RM)	Amount (RM)
		<b>Summary of Bill No. 6 : Road Furniture</b>				
		Page BQ6 - 1/3				
		Page BQ6 - 2/3				
Total of Bill No. 6 carried to Summary of Tender						

## MENGGANTI JAMBATAN FT2490, JALAN PERWIRA JAYA - SELANCAR, ROMPIN, PAHANG

BILL NO. 7 - GEOTECHNICAL WORKS  
(PROVISIONAL QUANTITY)

No.	Code No.	Description	Unit	Qty.	Rate (RM)	Amount (RM)
		<p>The description stated in the Bill of Quantities (BQ) are not comprehensive and reference shall made to:</p> <p>1) General Conditions and Drawings  2) Specifications  3) Malaysian Civil Engineering Standard Method of Measurement 2nd. Edition (MyCESSM 2)  4) A Guide to Malaysian Civil Engineering Standard Method of Measurement 2nd. Edition (MyCESSM 2)  5) Preambles and Method of Measurement by JKR Malaysia  6) For embankment fill, please refer to BQ Bill No. 3 - Earthworks</p> <p>These rates and prices inserted shall be deemed to have allowed for compliance with the above stipulations and other documents forming part of the Contract.</p> <p><b>G500</b> <u>A) GROUND TREATMENT</u></p> <p><u>A.1) GROUND TREATMENT :</u>  <u>UNSUITABLE MATERIAL / SOFT SOIL REPLACEMENT AND/OR STABILITY</u></p> <p>The following items shall include of supply and lay geotextile and PVD, filling and compact suitable material/sand layer.</p> <p><u>Removal of Unsuitable Material and/or Soft Soil Layer</u></p> <p><i>Item for removal of unsuitable material and/or soft soil shall be deemed to include cost of :-</i>  - carrying out Mackintosh Probe/JKR Probe to determine depth of soft soil;  - carrying out trial pit to determine unsuitable material including appropriate tests as per Specification.</p>				
A	F135	Excavate and remove unsuitable material and/or soft soil as shown on the Drawing or as directed by the S.O. to disposal site approved by the S.O., max. depth: 1.0 m.	m <sup>3</sup>	5,700		
	<b>G570</b>	<u>Geotextile.</u>				
		<i>Item for geotextile shall be deemed to include cost of storage at site with neccessary protection against exposure to direct sun.</i>				
B	G570.1	Non-woven geotextile, Type NW13 with minimum design strength of 13 kN/m as separator as per Specification.	m <sup>2</sup>	6,500		
C	G570.2	Woven geotextile Type HS200/50 with minimum design strength of 200 kN/m (MD) as soil reinforcement as per Specification.	m <sup>2</sup>	6,500		
Page Total carried to Summary of Bill No. 7						

MENGGANTI JAMBATAN FT2490, JALAN PERWIRA JAYA - SELANCAR, ROMPIN, PAHANG

BILL NO. 7 - GEOTECHNICAL WORKS  
(PROVISIONAL QUANTITY)

No.	Code No.	Description	Unit	Qty.	Rate (RM)	Amount (RM)
A	F334	<b><u>UNSUITABLE MATERIAL / SOFT SOIL REPLACEMENT AND/OR STABILITY (cont'd...)</u></b>	m³	2,000		
		<b><u>Replacement of Unsuitable Material and/or Soft Soil (To max. depth 1m)</u></b>  Items for filling shall include filling earth in layers, compaction, and additional filling necessitated by settlement or penetration into underlying material as applicable.  River sand as per Specification to replace unsuitable material.				
Page Total carried to Summary of Bill No. 7						

MENGGANTI JAMBATAN FT2490, JALAN PERWIRA JAYA - SELANCAR, ROMPIN, PAHANG

BILL NO. 7 - GEOTECHNICAL WORKS  
(PROVISIONAL QUANTITY)

No.	Code No.	Description	Unit	Qty.	Rate (RM)	Amount (RM)
		<b>Summary of Bill No. 7 : Geotechnical Work</b>  Page BQ7 - 1/3  Page BQ7 - 2/3				
Total of Bill No. 7 carried to Summary of Tender						

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BILL NO. 8 - STRUCTURES  
SUMMARY OF BIL NO. 8

No.	Code No.	Description	From Page	Amount (RM)
	BQ8.1	TEMPORARY ROAD & TRAFFIC DIVERSION AND BRIDGE CROSSING	BQ8.1 - 1/1	
	BQ8.2	PILING WORKS	BQ8.2 - 3/3	
	BQ8.3	SUB STRUCTURE	BQ8.3 - 5/5	
	BQ8.4	SUPER STRUCTURE	BQ8.4 - 4/4	
	BQ8.5	MISCELLANEOUS WORKS	BQ8.5 - 3/3	
Total of Bill No. 8 carried to Summary of Tender				



## MENGGANTI JAMBATAN FT2490, JALAN PERWIRA JAYA - SELANCAR, ROMPIN, PAHANG

## BILL NO. 8 - STRUCTURES

## 8.1- TEMPORARY ROAD &amp; TRAFFIC DIVERSION AND BRIDGE CROSSING

No.	Code No.	Description	Unit	Qty.	Rate (RM)	Amount (RM)
		<b><u>TEMPORARY ROAD &amp; TRAFFIC DIVERSION AND BRIDGE CROSSING FOR PUBLIC USE.</u></b>  Design and proposed shop drawing with endorsed by Professional Engineer with Practising Certificate (PEPC) to be submitted and approved by S.O.  Rate not to include temporary traffic signs, barriers and barricades, temporary road markings, temporary traffic signals, and road lighting.  <b><u>Temporary Road and Traffic Diversion</u></b>				
A	A371	Construct road and traffic diversion for existing road as per specification and typical drawings	sum			
B	A353	Routine maintenance of temporary traffic diversion	sum			
C	A354	Periodic maintenance of temporary traffic diversion	sum			
D	A360	Remove upon completion; temporary road and traffic diversion; fixed charge includes reinstatement of the site	sum			
		<b><u>Temporary Bridge Crossing</u></b>				
E	A374.1	Design, supply, install and construct temporary bridges.	sum			
F	A374.2	Remove upon completion; temporary bridges over stream/channel ; fixed charge includes removal and reinstatement of the site.	sum			
G	A374.3	Maintain temporary bridges duration of contract period; time related charge.	sum			
Total of Bill No. 8.1 carried to Summary of Bill No. 8						

## MENGANTI JAMBATAN FT2490, JALAN PERWIRA JAYA - SELANCAR, ROMPIN, PAHANG

## BILL NO. 8 - STRUCTURES

## 8.2 - PILING WORKS (PROVISIONAL QUANTITY)

No.	Code No.	Description	Unit	Qty.	Rate (RM)	Amount (RM)
		<p>Items for piling work shall be deemed to include piling records and disposal of excavated and surplus materials and sonic logging pipes (ø15-35mm) as shown in the Drawing.</p> <p><b><u>600MM DIAMETER BORED PILES</u></b></p> <p>Items for bored piles shall be deemed to include temporary casings, stabilising agent, and enlarged bases.</p> <p><b><u>Plant and Equipment</u></b></p>				
A	H110	Provision of all necessary piling plant and equipment, transportation to the site, handling, assembling, and removal of the site after completion of operation.	sum			
B	H120	Moving and handling of all piling plant and equipment within the site and from location to location as often as is, and whenever necessary for the execution of the whole piling operation.	sum			
C	H130	Provision of temporary staging for piling work at the banks / abutment.	sum			
		<p><b><u>Working Piles</u></b></p> <p><b>600mm diameter bored piles as working piles.</b></p>				
D	H211	Boring in earth as per Drawing for 20 nos. of pile points.	m	300		
E	H212	Boring through rock as per Drawing for 20 nos. of pile points.	m	100		
F	H213	12mm thick mild steel permanent casings.	m	40		
		<b>High tensile reinforcement straight bars.</b>				
G	H214.1	Nominal diameter not exceeding 25mm.	t	30		
		<b>High tensile reinforcement helical bars.</b>				
H	H215	Nominal diameter not exceeding 20 mm.	t	5		
J	H216	Concreted length with grade C32/40 with minimum cement replacement of pulverized fly ash (PFA) up to 25% as per Drawing and Specification.	m	400		
K	H217	Cut-off piles.	nr	20		
L	H218	Preparing heads.	nr	20		
Page Total Carried to Summary of Bill No. 8.2						

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BILL NO. 8 - STRUCTURES  
8.2 - PILING WORKS (PROVISIONAL QUANTITY)

No.	Code No.	Description	Unit	Qty.	Rate (RM)	Amount (RM)
A	H510.1	<b>Pile Tests</b> Initial static load test (maintain load test) on 600mm diameter bored pile; up to two times working load of 2000kN.	nr	1		
B	H510.2	Subsequent static load test (maintain load test) on 600mm diameter bored pile; up to two times working load of 2000kN	nr	1		
C	H520	Pile Dynamic Analyzer (PDA) Test.	nr	4		
D	H530	Pile Integrity Test.	nr	2		
E	H540	Sonic logging test on 600mm diameter bored pile.	nr	2		
Page Total Carried to Summary of Bill No. 8.2						

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BILL NO. 8 - STRUCTURES  
8.2 - PILING WORKS (PROVISIONAL QUANTITY)

No.	Code No.	Description	Unit	Qty.	Rate (RM)	Amount (RM)
		<b>Summary of Bill No. 8.2 - Piling Works</b>  Page BQ8.2 - 1/3  Page BQ8.2 - 2/3				
Total of Bill No. 8.2 carried to Summary of Bill No. 8						

## MENGANTI JAMBATAN FT2490, JALAN PERWIRA JAYA - SELANCAR, ROMPIN, PAHANG

## BILL NO. 8 - STRUCTURES

## 8.3 - SUB STRUCTURE (PROVISIONAL QUANTITY)

No.	Code No.	Description	Unit	Qty.	Rate (RM)	Amount (RM)
		<b>TEMPORARY WORKS</b>				
		<b>Design and proposed shop drawing shall be endorsed by Professional Engineer with Practising Certificate (PEPC) to be submitted and approved by S.O.</b>				
		<b><u>Temporary Staging and Working Platform</u></b>				
A	A560	Mobilisation and demobilisation; to and from both river banks and to access site area fixed charge including all necessary works for the purpose of construction of the abutments	sum			
B	A527.1	Design, supply, install and construct temporary staging and working platform at abutment; fixed charge including excavation, handling, disposal of excavated soils and debris, shoring, levelling, driving, allowing for access way platform with safety features, decking, platform accessories and all necessary works for the purpose of construction of the abutments.	sum			
C	A527.2	Remove temporary staging and working platform upon completion; fixed charge includes removal and reinstatement of the site.	sum			
D	A527.3	Maintain temporary staging and working platform for duration of construction; time related charge.	sum			
		<b>ABUTMENTS</b>				
		<b><u>Earthwork</u></b>				
	F120	<b><u>Cut to Fill</u></b>				
		<b>Excavation in cut shall be deemed to include trimming and preparation of excavated surface and transportation from source to place of fill.</b>				
E	F121	Excavate in earth material from original ground level.	m <sup>3</sup>	50		
	F130	<b><u>Cut and Dispose</u></b>				
		<b>Excavation in cut shall be deemed to include trimming and preparation of excavated surface and transportation from source to place of disposal.</b>				
F	F131	Excavate in earth material to disposal site approved by the S.O. outside of boundary - contractor dump site.	m <sup>3</sup>	150		
Page Total Carried to Summary of Bill No. 8.3						

## MENGANTI JAMBATAN FT2490, JALAN PERWIRA JAYA - SELANCAR, ROMPIN, PAHANG

## BILL NO. 8 - STRUCTURES

## 8.3 - SUB STRUCTURE (PROVISIONAL QUANTITY)

No.	Code No.	Description	Unit	Qty.	Rate (RM)	Amount (RM)
		<b>ABUTMENTS (cont'd...)</b>				
	<b>F340</b>	<b>Filling</b>  The following items for filling shall include compaction, testing and confirmation material and additional filling necessitated by settlement or penetration into underlying material as applicable.				
A	F341	Using suitable excavated material as per Specification.	m <sup>3</sup>	50		
B	F342	Imported material well - graded granular backfill material (crushed aggregate) behind abutment from contractors own source as per Specification.  <b>Grouted Stone Pitching Steps</b>  <b>Hand rail</b>  Item for hand rail shall be deemed to include fixing to other work, supply of fixing components, and drilling or cutting of other work.	m <sup>3</sup>	150		
C	L240.1	Galvanised mild steel handrail of 100mm x 50mm x 5mm thickness and 900mm high.	m	15		
D	L240.2	Galvanised mild steel handrail post of 50mm x 50mm x 5mm thickness and 900mm high.	m	12		
		<b>Grade C16/20 Concrete</b>				
E	I122	Mass concrete 300mm thick footing for pitching steps.	m <sup>3</sup>	1		
		<b>Masonry Step</b>				
F	J390	Natural stone masonry jointed in (1:3) cement mortar flush pointed for step. Rate shall be deemed to include fair facing finish.	m <sup>2</sup>	21		
G	F312	Imported material – mining / river sand material as per Specification for sand bedding for masonry step.	m <sup>3</sup>	4		
		<b>Slope Protection</b>  Rate shall be deemed to include plant and equipment, preparation of surface, blinding, aggregate, geotextile, all necessary concrete and formwork and laying underwater.				
H	G420	203mm thk. concrete articulating slab with grout filled mattress, directional cable (6mm steel wire rope) and anchor trench filling as per Drawing including pin rebar at 1.5m c/c.	m <sup>2</sup>	800		
Page Total Carried to Summary of Bill No. 8.3						

## MENGANTI JAMBATAN FT2490, JALAN PERWIRA JAYA - SELANCAR, ROMPIN, PAHANG

## BILL NO. 8 - STRUCTURES

## 8.3 - SUB STRUCTURE (PROVISIONAL QUANTITY)

No.	Code No.	Description	Unit	Qty.	Rate (RM)	Amount (RM)
		<b>ABUTMENTS (Cont'd..)</b>				
		<b><u>Subsurface Drains</u></b>				
		<b>Item for subsurface drains shall be deemed to include geotextiles fabric, lining, and filter material.</b>				
A	Q310	Subsoil drains; 150mm diameter HDPE perforated pipe including aggregate (20mm – 40mm) wrapped with geotextiles filter.	m	28		
B	Q320	Outlet drains; 150mm diameter UPVC pipe including fittings. Rate to include bends, filter fabric and concrete surround.	m	28		
		<b><u>Permeable Layer</u></b>				
C	R211	500mm thick permeable layer comprising of 20mm-40mm crushed stone as per Specification.	m <sup>2</sup>	112		
		<b><u>Grade C12/15 Concrete</u></b>				
D	I111	150mm thick Lean concrete blinding.	m <sup>2</sup>	17		
		<b><u>Bituminous / Coal Tar Paint Coating **</u></b>				
		<b>Prepare and apply two (2) coats of bituminous / coal tar paint ** to:</b>				
E	N631	Exposed surfaces: Smooth concrete surfaces of class F3 of abutment and wingwalls.	m <sup>2</sup>	10		
F	N641	Buried surfaces: Rough concrete surfaces of class F1 of abutment, wingwalls and approach slab.	m <sup>2</sup>	280		
G	G580	Supply and lay geofabric/geogrid or equivalent in according to Drawing.	m <sup>2</sup>	160		
		<b>In Situ Concrete Design Mix For Abutment, Wing walls, Parapet Wall and Approach Slab</b>				
		<b><u>Grade C12/15 Concrete</u></b>				
H	I111.1	Lean concrete blinding, 50mm thick to approach slab.	m <sup>2</sup>	112		
J	I111.2	Lean concrete blinding, 50mm thick to abutment and wing walls.	m <sup>2</sup>	45		
		<b><u>Grade C32/40 Concrete</u></b>				
K	I172	Reinforced concrete with minimum cement replacement of pulverized fly ash (PFA) up to 25% at bridge abutment, wing walls, parapet wall, and approach slab as per Drawing and Specification.	m <sup>3</sup>	290		
Page Total Carried to Summary of Bill No. 8.3						

## MENGANTI JAMBATAN FT2490, JALAN PERWIRA JAYA - SELANCAR, ROMPIN, PAHANG

## BILL NO. 8 - STRUCTURES

## 8.3 - SUB STRUCTURE (PROVISIONAL QUANTITY)

No.	Code No.	Description	Unit	Qty.	Rate (RM)	Amount (RM)
		<b>ABUTMENTS (Cont'd..)</b>				
		<b>Formwork For Abutment, Wing walls, Parapet Wall and Approach Slab.</b>				
		<b>Rate for formwork shall be deemed to include the projections and intrusions and any temporary staging required.</b>				
		<b><u>Sides and Soffit</u></b>				
A	I531.1	F1: Rough finish for buried surfaces of abutment, wingwalls and approach slab.	m <sup>2</sup>	320		
B	I531.2	F2: Fair finish for exposed surfaces of abutment, wingwalls and approach slab.	m <sup>2</sup>	114		
C	I531.3	F3: Smooth finish for exposed surfaces for parapet wall.	m <sup>2</sup>	36		
		<b>Reinforcement For Abutment, Wing Walls, Parapet Wall and Approach Slab.</b>				
		<b><u>High Tensile Bars</u></b>				
D	I624	Nominal diameter: 12mm.	t	3		
E	I625	Nominal diameter: 16 mm.	t	20		
F	I626	Nominal diameter: 20 mm.	t	2		
G	I627	Nominal diameter: 25 mm.	t	20		
H	I628	Nominal diameter: 32 mm.	t	25		
J	I716	Dowels bar – plain, 16mm diameter x 900mm long high tensile bars at 200mm centre to centre at approach slab.	nr	125		
Page Total Carried to Summary of Bill No. 8.3						



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BILL NO. 8 - STRUCTURES  
8.3 - SUB STRUCTURE (PROVISIONAL QUANTITY)

No.	Code No.	Description	Unit	Qty.	Rate (RM)	Amount (RM)
		<b>Summary of Bill No. 8.3 - Substructure</b>				
		Page BQ8.3 - 1/5				
		Page BQ8.3 - 2/5				
		Page BQ8.3 - 3/5				
		Page BQ8.3 - 4/5				
Total of Bill No. 8.3 carried to Summary of Bill No. 8						

## MENGANTI JAMBATAN FT2490, JALAN PERWIRA JAYA - SELANCAR, ROMPIN, PAHANG

## BILL NO. 8 - STRUCTURES

## 8.4 - SUPER STRUCTURE (PROVISIONAL QUANTITY)

No.	Code No.	Description	Unit	Qty.	Rate (RM)	Amount (RM)
		<b>POST-TENSIONED PRESTRESSED BEAMS</b>				
		<u>Temporary Staging and Working Platform</u>				
		<b>Design and proposed shop drawing shall be endorsed by Professional Engineer with Practising Certificate (PEPC) to be submitted and approved by S.O.</b>				
A	A560	Mobilisation and demobilisation; to and from both river banks and to access site area fixed charge including all plant, equipment, crane and all necessary works for operation of beam launching to its final position.	sum			
B	A527.1	Design, supply, install and construct temporary staging and working platform over stream/channel; fixed charge including installation, handling, assembling and other related works for the purpose of beam launching operation to its final position.	sum			
C	A527.2	Remove temporary staging and working platform upon completion over stream/channel; fixed charge includes removal and reinstatement of the site.	sum			
D	A527.3	Maintain temporary staging and working platform for duration of construction; time related charge.	sum			
		<u>Prestressed Beams</u>				
		<b>Item for precast concrete shall be deemed to include supply, erection, launching to its final position, machineries and all temporary works required as shown in the drawings.</b>				
E	I430	Grade C70/85 prestressed post-tensioned beam, I-Section 50m long as per Drawing and Specification.	nr	5		
		<b>DECK SLAB</b>				
		<b>Cast in-situ Concrete For Deck Slab</b>				
		<b>In Situ Concrete Design Mix</b>				
		<u>Grade C32/40 Concrete</u>				
F	I178	Reinforced concrete with minimum cement replacement of pulverized fly ash (PFA) up to 25% to bridge deck slab and diaphragm as per Drawing and Specification.	m <sup>3</sup>	155		
Page Total Carried to Summary of Bill No. 8.4						

## MENGANTI JAMBATAN FT2490, JALAN PERWIRA JAYA - SELANCAR, ROMPIN, PAHANG

## BILL NO. 8 - STRUCTURES

## 8.4 - SUPER STRUCTURE (PROVISIONAL QUANTITY)

No.	Code No.	Description	Unit	Qty.	Rate (RM)	Amount (RM)
A	I515	<b>DECK SLAB (Cont'd...)</b>  <b>Formwork For Deck Slab</b>  <b>Rate for formwork shall be deemed to include the projections, temporary bracings and intrusions and any temporary staging required.</b>  <b>Side</b> F2: Fair finish to deck slabs.	m <sup>2</sup>	30		
B	I525	<b>Soffit</b> F3: Smooth finish to cement board permanent formwork as shown in Drawing including all temporary strut or bracings.  <b>Reinforcement For Deck Slab</b>  <b>Rate for reinforcement shall be deemed to include labour for cutting, bending, and placing.</b>  <b>High Tensile Bars</b>	m <sup>2</sup>	400		
C	I624	Nominal diameter: 12 mm.	t	7		
D	I625	Nominal diameter: 16 mm.	t	22		
		<b>PARAPET</b>  <b>Pre New Jersey Parapet</b>  <b>Item for supply and erection of precast concrete parapet wall shall be deemed to include reinforcement, connections, joints and accessories for wall joints.</b>  <b>Precast concrete parapets with concrete grade C32/40 including reinforcement, anchorage, hooks etc. with ribbed finish as per drawing.</b>				
E	I480.1	Type (1) as shown in drawing.	nr	100		
F	I480.2	Type (2) as shown in drawing.	nr	4		
		<b>In-situ Concrete Parapet Wall</b>  <b>In Situ Concrete Design Mix</b>  <b>Grade C32/40 Concrete</b>				
G	I178	Reinforced concrete with minimum cement replacement of pulverized fly ash (PFA) up to 25% to parapet wall as per drawing and Specification.	m <sup>3</sup>	20		
Page Total Carried to Summary of Bill No. 8.4						

## MENGANTI JAMBATAN FT2490, JALAN PERWIRA JAYA - SELANCAR, ROMPIN, PAHANG

## BILL NO. 8 - STRUCTURES

## 8.4 - SUPER STRUCTURE (PROVISIONAL QUANTITY)

No.	Code No.	Description	Unit	Qty.	Rate (RM)	Amount (RM)
A	I514	<b>PARAPET (Cont'd...)</b>  <b>Formwork</b>  Rate for formwork shall be deemed to include the projections and intrusions and any temporary staging required.  <b>Sides</b> F3: smooth finish to walls.  <b>Reinforcement</b>  <u><b>High Tensile Bars</b></u>	m <sup>2</sup>	90		
B	I623	Nominal diameter: 10mm.	t	1		
C	I625	Nominal diameter: 16mm.	t	2		
D	I628	Nominal diameter: 32mm as a dowel bar.	t	2		
E	L240	<u><b>Handrail and Post On New Jersey Parapet</b></u>  Item for handrail and post shall be deemed to include fixing to other work, supply of fixing components and drilling or cutting of other work.  Circular hollow section galvanised iron handrail and post fixed on precast concrete parapets wall as shown in drawing. Rate to include full assemblies.  <b>BRIDGE BEARING</b>  <u><b>ELASTOMER LAMINATED RUBBER BEARING</b></u>  Item for bearing shall be deemed to include supply, install, mortar grout, epoxy mortar and all temporary work.  Supply and install the following bearings inclusive of mortar grout, epoxy mortar and all temporary work.	m	100		
F	V415	600mm x 400mm x 115.5 mm thick elastomer laminated rubber bearing as shown in Drawing.	nr	10		
G	A332	Testing of materials; 600mm x 400mm x 115.5mm thick Laminated Elastomeric bearings at Rubber Research Institute of Malaysia all in accordance with BS5400 part 9:1983.	nr	1		
Page Total Carried to Summary of Bill No. 8.4						

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BILL NO. 8 - STRUCTURES  
8.4 - SUPER STRUCTURE (PROVISIONAL QUANTITY)

No.	Code No.	Description	Unit	Qty.	Rate (RM)	Amount (RM)
		<b>Summary of Bill No. 8.4 - Superstructure</b>				
		Page BQ8.4 - 1/4				
		Page BQ8.4 - 2/4				
		Page BQ8.4 - 3/4				
Total of Bill No. 8.4 carried to Summary of Bill No. 8						

## MENGANTI JAMBATAN FT2490, JALAN PERWIRA JAYA - SELANCAR, ROMPIN, PAHANG

## BILL NO. 8 - STRUCTURES

## 8.5 - MISCELLANEOUS WORKS (PROVISIONAL QUANTITY)

No.	Code No.	Description	Unit	Qty.	Rate (RM)	Amount (RM)
		<b>JOINTS</b>				
		<b>Rate for joints shall be deemed to include formwork.</b>				
A	I715.1	Joint filler or joint sealant, 25mm wide to approach slabs.	m	25		
B	I715.2	Joint sealant all round, 50mm wide to parapets.	m	10		
		<b>BRASS PLAQUE</b>				
		<b>Rate shall be deemed to include fixing cost.</b>				
C	V320	Brass plaque 420mm x 297mm x 3.2mm thick as shown on the drawing.	nr	1		
		<b>DRAINAGE TO STRUCTURES ABOVE GROUND</b>				
		<u>Water Down Pipe</u>				
		<b>Rate for downpipes shall be deemed to include fixing and supply of fixing components as shown in drawing.</b>				
D	Q410	150mm diameter uPVC Class D rain water down pipes including G.I pipe hanger, metal strip, 'T' joint, bends, elbow, equal tee, end cap, etc. at 3000mm centres at deck slab with grating fitting.	m	32		
		<u>Scupper Drain</u>				
E	Q340	150mm diameter scupper drains with grating on bridge.	m	100		
		<b>CONNECTION BETWEEN PARAPET AND CABLE PIT FOR STREET LIGHTING</b>				
		<u>Unplasticised Polyvinyl Chloride (uPVC) Pipes for Cable at Parapet.</u>				
F	O434	2 nos 100 mm Unplasticised polyvinyl chloride (uPVC) pipes to MS 628, with bell mouth joints encase in concrete in between bridge parapet and cable pit in accordance with the drawing.	m	100		
		<u>GI Pipe</u>				
G	O438.1	2 nos of 100mm GI pipe complete with duct seal, encase in concrete in between bridge parapet and cable pit in accordance with the drawing.	m	10		
H	O438.2	150mm GI pipe with duct seal.	m	15		
Page Total Carried to Summary of Bill No. 8.5						

## MENGANTI JAMBATAN FT2490, JALAN PERWIRA JAYA - SELANCAR, ROMPIN, PAHANG

## BILL NO. 8 - STRUCTURES

## 8.5 - MISCELLANEOUS WORKS (PROVISIONAL QUANTITY)

No.	Code No.	Description	Unit	Qty.	Rate (RM)	Amount (RM)
		<b>CONNECTION BETWEEN PARAPET AND CABLE PIT FOR STREET LIGHTING (cont'd...)</b>				
		<b><u>Cable Pit</u></b>				
A	U635	400mm x 460mm x 760mm concrete cable pit to be fill with sand in accordance with the drawing.	nr	2		
		<b><u>Unplasticised Polyvinyl Chloride (uPVC) Pipes for Cabel at Parapet (Type 2)</u></b>				
B	O434.1	1 no 100 mm Unplasticised polyvinyl chloride (UPVC) pipes to MS 628, with bell mouth joints as per drawing and Specification.	m	20		
		<b><u>Opening Cable Access At Parapet Type 2</u></b>				
C	O434.2	Provide 250mm x 250mm opening for cable access in accordance with the drawing.	nr	4		
		<b><u>UHPFRC LINK SLAB</u></b>				
		<b>Rate shall be deemed to include plant and equipment, preparation of surface, blinding, aggregate, reinforcement, all necessary concrete and formwork.</b>				
D	I713	Cast in-situ think link slab connection (800mm x 12500mm x 100mm thick) in multiple-spans bridge made from ultra-high-performance concrete (UHPC) in accordance with the drawing.	m	28		
Page Total Carried to Summary of Bill No. 8.5						

MENGGANTI JAMBATAN FT2490, JALAN PERWIRA JAYA - SELANCAR, ROMPIN, PAHANG

BILL NO. 8 - STRUCTURES  
8.5 - MISCELLANEOUS WORKS (PROVISIONAL QUANTITY)

No.	Code No.	Description	Unit	Qty.	Rate (RM)	Amount (RM)
		<b>Summary of Bill No. 8.5 - Miscellaneous Works</b>				
		Page BQ8.5 - 1/3				
		Page BQ8.5 - 2/3				
Total of Bill No. 8.5 carried to Summary of Bill No. 8						



## MENGGANTI JAMBATAN FT2490, JALAN PERWIRA JAYA - SELANCAR, ROMPIN, PAHANG

BILL NO. 9 - TRAFFIC MANAGEMENT AND CONTROL  
(PROVISIONAL QUANTITY)

No.	Code No.	Description	Unit	Qty.	Rate (RM)	Amount (RM)
	C100	<b>TRAFFIC MANAGEMENT PLAN</b>  Traffic Management Plan and the associated work shall be in accordance with the latest version of Specification for Road Works : Section 19.  <u><b>Traffic Impact Study</b></u>				
A	C110	To conduct comprehensive traffic impact study to assessed the impact of a contruction proposal on the existing traffic including preparation and submission of traffic impact report in hardcopy and softcopy. Final report must be endorsed by Qualified Traffic Consultant with Professional Engineer with Practicing Certificate (PEPC).  <u><b>Traffic Management Plan</b></u>	sum			
B	C120	Preparation of traffic management plan including emergency response plan. Rate to include the cost of any survey required, literature, references, consultations, and the production of the document. It shall also include the cost for the engagement of profesional civil engineers with experience in road contruction required for carrying out the respective study and the preparation of the site plan.	sum			
	C130	<b>TRAFFIC MANAGEMENT TEAM (TMT) / EMERGENCY RESPONSE TEAM (ERT)</b>  Traffic Management Team (TMT) / Emergency Response Team (ERT) shall be in accordance with the latest version Specification for Road Works : Section 19.  <u><b>Appointment of Qualified and Trained TMT</b></u>				
C	C132	Traffic management officer - 1 person.	man-mth	22		
D	C133	Supervisor - 1 person.	man-mth	22		
E	C134	Traffic controller - 2 person.	man-mth	44		
F	C139	Flagman - 1 person.	man-mth	22		
Page Total Carried to Summary of Bill No. 9						

## MENGGANTI JAMBATAN FT2490, JALAN PERWIRA JAYA - SELANCAR, ROMPIN, PAHANG

BILL NO. 9 - TRAFFIC MANAGEMENT AND CONTROL  
(PROVISIONAL QUANTITY)

No.	Code No.	Description	Unit	Qty.	Rate (RM)	Amount (RM)
	C200	<b><u>TEMPORARY ROAD FURNITURE</u></b>  Items for temporary road furniture shall be deemed to include the supply, installation, maintenance, and removal upon completion.  The supply of temporary road furniture shall be deemed to include base preparation, cost of materials, fabrication, and fixing including posts, struts, bolts and nuts, base, storage, and transportation. Installation of temporary road furniture shall be deemed to include cost for multiple shifting within the contractual boundaries and its vicinities that is affected by the traffic management plan.  Temporary road furniture shall be deemed to include cost for the inspection, immediate repair and replacement of any damaged, missing or stolen items throughout the duration of the construction, and removal upon completion.				
	C210	<b><u>Temporary Traffic Signs</u></b>  Temporary traffic signs shall be in accordance with Specification for Road Works : Section 19.  <b><u>Non-illuminated retro-reflective sheeting.</u></b>				
A	C211.1	Portable fluorescent orange prismatic not exceeding 1.0m <sup>2</sup> .	nr	21		
B	C211.2	Portable fluorescent orange prismatic exceeding 1.0m <sup>2</sup> but not exceeding 2.0m <sup>2</sup> .	nr	14		
C	C211.3	Portable fluorescent orange prismatic exceeding 2.0m <sup>2</sup> but not exceeding 3.0m <sup>2</sup> .	nr	4		
D	C211.4	Portable fluorescent orange prismatic exceeding 4.0m <sup>2</sup> .	nr	4		
E	C212	Portable Changeable Message Signs (PCMS) of 1.8m x 1.2m.	nr	4		
	C220	<b><u>Barriers and Barricades</u></b>				
F	C221	Portable Heavy Duty water or sand-filled barrier 1000mm (L) x 800mm (H) x 500mm (W).	nr	100		
G	C222	Portable Concrete Barrier 1000mm (L) x 800mm (H) x 500mm (W).	nr	240		
H	C229	Light Weight Movable Plastic Hoarding 1200mm (L) x 800mm(H) x 60mm (W).	nr	300		
Page Total Carried to Summary of Bill No. 9						

## MENGGANTI JAMBATAN FT2490, JALAN PERWIRA JAYA - SELANCAR, ROMPIN, PAHANG

BILL NO. 9 - TRAFFIC MANAGEMENT AND CONTROL  
(PROVISIONAL QUANTITY)

No.	Code No.	Description	Unit	Qty.	Rate (RM)	Amount (RM)
		<b><u>TEMPORARY ROAD FURNITURE (CONT'D)</u></b>				
	C230	<b><u>Delineators</u></b>				
A	C231	Portable traffic guidance cones with reflective bands.	nr	100		
B	C233	Battery operated flashing arrows on powder coated mild steel plate.	nr	2		
C	C234	Battery operated beacon lights.	nr	25		
D	C235	Polycarbonate lens battery operated blinkers.	nr	50		
E	C236	Delineator strip on barrier.	nr	50		
F	C239	Chevron Light.	nr	6		
	C240	<b><u>Temporary Road Marking</u></b> All temporary road marking that more than one (1) month shall be of thermoplastic type.				
G	C242.1	Continuous Line Type 1.	m	400		
H	C242.2	Edge Line Type 6.	m	400		
J	C243	Intermittent Line Type 3.	m	400		
K	C245	Transverse bars.	m <sup>2</sup>	150		
L	C241	Single turning arrow thermoplastic road marking.	nr	10		
M	C290	Flood Lightings deem to include with electrical power supply.	nr	4		
	C300	<b><u>TRAFFIC MANAGEMENT REPORT</u></b>				
N	C310	Submission 6 sets of Traffic Management Safety report once in every 3 months. (quarterly). Rate to include the cost of any survey required, literatures, references, consultations, and the production of the document.	sum			
Page Total Carried to Summary of Bill No. 9						

MENGGANTI JAMBATAN FT2490, JALAN PERWIRA JAYA - SELANCAR, ROMPIN, PAHANG

BILL NO. 9 - TRAFFIC MANAGEMENT AND CONTROL  
(PROVISIONAL QUANTITY)

No.	Code No.	Description	Unit	Qty.	Rate (RM)	Amount (RM)
		<b>Summary of Bill No. 9 : Traffic Management and Control</b>				
		Page BQ9 - 1/4				
		Page BQ9 - 2/4				
		Page BQ9 - 3/4				
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## MENGGANTI JAMBATAN FT2490, JALAN PERWIRA JAYA - SELANCAR, ROMPIN, PAHANG

BILL NO. 10 - ENVIRONMENTAL PROTECTION AND ENHANCEMENT WORKS  
(PROVISIONAL QUANTITY)

No.	Code No.	Description	Unit	Qty.	Rate (RM)	Amount (RM)
		<b><u>NON - PHYSICAL WORKS</u></b>				
		<b><u>ENVIRONMENTAL MANAGEMENT PLAN (EMP)</u></b>				
		Preparation of EMP shall be deemed to include the cost of any survey required, literature, references, consultation and the production of the documents. It shall also include the cost for the engagement of registered environmental consultant required for carrying out the preparation of the said report in accordance with DOE Guidelines:				
A	B110	Preparation, submission and approval of EMP by environmental consultant registered with DOE including: a) Land-Disturbing Pollution Prevention and Mitigation Measures (LD-P2M2)*. b) Erosion and Sediment Control Plan. c) Silt Curtain Maintenance Plan*.	sum			
		<b><u>APPOINTMENT OF ENVIRONMENTAL OFFICER (E.O.)</u></b>				
		Provision of a full time environmental officer (E.O.) for environmental management works only, throughout the contract period for the implementation of JKR <i>Sistem Pengurusan Alam Sekitar</i> (SPAS).				
B	B120	<u>For non-EIA Project</u> E.O. shall have a degree in Civil Engineering or Environmental Science with minimum three (3) years of related experience in environmental management works.	man-mth	22		
	B300	<b><u>WATER QUALITY CONTROL AND MONITORING</u></b>				
	B340	<b><u>Water Quality Sampling and In Situ Testing</u></b>				
		Water quality testing shall be deemed to include testing by accredited laboratory:				
C	B349	Conduct in-situ monthly river/stream/other waterbody quality monitoring as specified and as shown in the drawing for the following parameters or as directed by the S.O throughout the contract period :-  i. Turbidity. ii. pH. iii. Dissolved Oxygen (DO). iv. Temperature.	sum			
Page Total Carried to Summary of Bill No. 10						

## MENGGANTI JAMBATAN FT2490, JALAN PERWIRA JAYA - SELANCAR, ROMPIN, PAHANG

BILL NO. 10 - ENVIRONMENTAL PROTECTION AND ENHANCEMENT WORKS  
(PROVISIONAL QUANTITY)

No.	Code No.	Description	Unit	Qty.	Rate (RM)	Amount (RM)
		<b><u>WATER QUALITY CONTROL AND MONITORING</u></b>				
		<b><u>Water Quality Sampling and Laboratory Testing</u></b>				
		<b>Water quality testing shall be deemed to include testing by accredited laboratory:</b>				
A	B359.1	Conduct monthly river/stream/other water body quality monitoring as specified and as shown in the drawing for the following parameters or as directed by the S.O. throughout the contract period :- i. Total suspended solid (TSS). ii. Biochemical oxygen demand (BOD). iii. Chemical oxygen demand (COD). iv. Escherichia coli (E.coli). v. Ammoniacal nitrogen. vi. Oil and grease.	sum			
B	B359.2	Conduct monthly water quality monitoring at the discharge outlet of silt trap, sediment pond, sediment basin as specified and as shown on drawing or as directed by the S.O throughout the contract period: i) Water quality sampling: 1. Turbidity test at the discharge outlet. ii) Water quality sampling and laboratory testing: 1. Total suspended solids (TSS)	sum			
	B400	<b><u>AIR QUALITY CONTROL AND MONITORING</u></b>				
	B450	<b><u>Air Quality Sampling</u></b>				
		<b>Air quality sampling shall be deemed to include testing by accredited laboratory:</b>				
C	B459	Conduct quarterly air quality monitoring for Particulate Matter (PM <sub>10</sub> ), Particulate Matter (PM <sub>2.5</sub> ), NO <sub>2</sub> , SO <sub>2</sub> , CO and O <sub>3</sub> for 24-hour period including wind velocity and direction as specified throughout the contract period. All equipment or generator set that produce heat and power shall be monitored for NO <sub>2</sub> and CO periodically.	sum			
	B500	<b><u>NOISE AND VIBRATION CONTROL AND MONITORING</u></b>				
	B530	<b><u>Noise Level Measurement</u></b> <b><u>Noise level measurement shall be deemed to include monitoring by accredited laboratory:</u></b>				
D	B539	Conduct quarterly noise monitoring (24 hours) including Leq, L <sub>10</sub> and L <sub>90</sub> as specified or as directed by the S.O throughout the contract period. i) Day time (7.00 am - 7.00 pm) ii) Evening (7.00 pm - 10.00 pm) iii) Night time (10.00 pm - 7.00 am)	sum			
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## MENGGANI JAMBATAN FT2490, JALAN PERWIRA JAYA - SELANCAR, ROMPIN, PAHANG

BILL NO. 10 - ENVIRONMENTAL PROTECTION AND ENHANCEMENT WORKS  
(PROVISIONAL QUANTITY)

No.	Code No.	Description	Unit	Qty.	Rate (RM)	Amount (RM)
	<b>B540</b>	<b><u>Vibration Measurement</u></b> <b><u>Vibration measurement shall be deemed to include monitoring by accredited laboratory:</u></b>  Conduct vibration monitoring as specified or as required throughout the contract period:				
A	B541	i. Ground vibration monitoring.	sum			
B	B542	ii. Structural vibration monitoring.	sum			
		<b><u>ENVIRONMENTAL MONITORING REPORT</u></b>  Preparation of five (5) copies (per month) of the following report (submitted with photos) in accordance with DOE/EPD/JKR Malaysia requirement throughout the contract period :-				
C	B810	Monthly environmental monitoring report (EMR) including Laboratory Result.	sum			
		<b><u>ENVIRONMENTAL AUDIT</u></b>  <b>This audit where applicable shall be in accordance with DOE / JKR Malaysia requirements:</b>				
D	B820	Conduct quarterly 3rd party audit as specified including preparation of five (5) copies of Environmental Audit Report (per audit) throughout the contract period.	sum			
E	B830	Conduct an environmental closure audit prior to issuance of certificate of practical completion including preparation of five (5) copies of the report.	sum			
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## MENGGANTI JAMBATAN FT2490, JALAN PERWIRA JAYA - SELANCAR, ROMPIN, PAHANG

BILL NO. 10 - ENVIRONMENTAL PROTECTION AND ENHANCEMENT WORKS  
(PROVISIONAL QUANTITY)

No.	Code No.	Description	Unit	Qty.	Rate (RM)	Amount (RM)
		<b><u>PHYSICAL WORKS</u></b>  <b><u>DUST AND MUD CONTROL</u></b>  <b><u>Tyre Washing Facilities</u></b>  <b>Item for tyre washing facilities shall be deemed to include construction of tyre washing concrete platform, and provision and maintenance of water supply and portable water jets:</b>				
A	B410	Provision, operation, maintenance and removal upon project completion of Tyre Washing Facilities including operators, water tank, water supply and other necessary equipments as specified and as per drawing to clean vehicle tyres at various exits of the worksites or as directed by the S.O..	set	1		
		<b><u>Wash Trough</u></b>  <b>Provision, operation, maintenance and removal upon project completion of wash trough including operators, water tank, water supply and other necessary equipments as specified and as per drawing to clean vehicle tyres at various exits of the worksites or as directed by the S.O..</b>	nr	1		
		<b><u>Water Bowser Truck</u></b>  <b>Item for water bowser truck shall be deemed to include provision and maintenance of vehicle, water supply and driver:</b>				
C	B430	Water bowser truck for carrying out water spraying along haul/access roads, existing roads, near settlements and other required area, for a minimum of three times per day.	nr	1		
		<b><u>SURFACE RUN-ON OR RUN-OFF CONTROL</u></b>  <b><u>Silt Fence</u></b>  <b>Construction of 1.0 m high silt fence including non-woven geotextile and wooden post with dimension as specified and as per drawing or as directed by the S.O..</b>	m	400		
		<b><u>Turbidity Curtain/Silt Curtain</u></b>  <b>Installation of Turbidity curtain/Silt curtain including silt curtain screen made from high strength woven polyester geotextile, bottom weigth, achoring and and floatation system as specified and as per drawing or as directed by the S.O..</b>	m <sup>2</sup>	100		
		<b><u>Sand Bags</u></b>  <b>Supply and lay gunny sack (or equivalent) size (350-500mm x 600-700mm) filled with sand as specified and as shown in the drawing or as directed by the S.O..</b>	nr	100		
F	B230					
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BILL NO. 10 - ENVIRONMENTAL PROTECTION AND ENHANCEMENT WORKS  
(PROVISIONAL QUANTITY)

No.	Code No.	Description	Unit	Qty.	Rate (RM)	Amount (RM)
		<b><u>TEMPORARY DRAINAGE WORKS</u></b>				
		<b><u>Drain Excavation</u></b>				
		Drain excavation shall be deemed to include preparation site, excavation, levelling, trimming, shaping and compacting surface of excavation to the required lines, levels, grade and dimensions and disposal of surplus excavated material, reinstatement of site on completion of the work, Inspection at regular interval and after heavy rain to check for clogs and sediment laden and removal of accumulated sediment to disposal site and reshaping of temporary drainage.				
A	B291	In earth, depth not exceeding 1.5 m.	m <sup>3</sup>	300		
		<b><u>EROSION CONTROL</u></b>				
		<b><u>Proprietary Products</u></b>				
B	B292	Supply, install and maintain proprietary or any man-made products available in the market to control erosion on slopes subjected to JKR's approval.	m2	150		
		<b><u>SEDIMENT CONTROL</u></b>				
		<b><u>Silt Trap</u></b>				
C	B271	Excavation to form silt trap as per drawing including backfilling and disposal of surplus material.	m <sup>3</sup>	180		
D	B272.1	Sand bedding for silt traps.	m <sup>3</sup>	55		
E	B272.2	Stone filling at inlet and outlet.	m <sup>3</sup>	5		
F	B272.3	25mm size aggregate filling including geotextile.	m <sup>3</sup>	10		
		Gabion cage with rock fill and geotextile including excavation, jointing, backfilling and disposal of surplus materials as specified and as per drawing or as directed by the S.O.:				
G	B275	1.0 m x 1.0 m x 1.0 m gabion.	m <sup>3</sup>	30		
H	B276	1.0 m x 1.0 m x 0.3 m gabion mattress.	m <sup>3</sup>	30		
		<b><u>STOCKPILE PROTECTION</u></b>				
J	B293	Provision and maintenance of canvas/tarpaulin sheeting to immediately cover topsoil stockpile for turfing and landscaping.	m <sup>2</sup>	20		
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## MENGGANTI JAMBATAN FT2490, JALAN PERWIRA JAYA - SELANCAR, ROMPIN, PAHANG

BILL NO. 10 - ENVIRONMENTAL PROTECTION AND ENHANCEMENT WORKS  
(PROVISIONAL QUANTITY)

No.	Code No.	Description	Unit	Qty.	Rate (RM)	Amount (RM)
		<b><u>MAINTENANCE</u></b>				
		Items for maintenance shall be deemed to include disposal of accumulated debris, sediment and silt to an approved site, unless otherwise stated:				
A	B281	Silt fence.	sum			
B	B282	Silt curtain.	sum			
C	B283	Sand bags.	sum			
D	B284	Gabion wall.	sum			
E	B287	Silt trap.	sum			
		<b><u>FUEL SPILLAGE MANAGEMENT</u></b>				
		<b><u>Containment Bund for Bulk Fuel Tank</u></b>				
		Item for skid tank bund shall be deemed to include traps, oil and grease separators, and its maintenance and removal upon completion:				
F	B310	Construct impervious concrete base as per drawing to contain 110% volume of stored fuel including grease trap.	sum			
	<b>B600</b>	<b><u>WASTE MANAGEMENT</u></b>				
		Item for scheduled waste shall be deemed to include storage, labelling and transportation from site by a licensed contractor for disposal as per Department of Environment (DOE) Regulation:				
G	B610	Scheduled wastes storage and disposal.	sum			
H	B630	Construction solid waste storage/Roll-on Roll-off (RoRo) and disposal shall be deemed to include 3R approach: reduce, reuse and recycling of household solid waste before disposal.	sum			
		<b><u>Grease Trap</u></b>				
J	B690	Provision and maintenance of grease traps at kitchen and accommodation areas, site office, workshop and scheduled waste storage.	nr	1		
		<b><u>MANAGEMENT OF DISPOSAL SITE FOR SURPLUS MATERIALS</u></b>				
K	B930	Item coverage shall be deemed to include all necessary works as mentioned in the 'Instruction to contractors on disposal of surplus cut material' drawing and 'Surplus material disposal embankment' drawing.	sum			
Page Total Carried to Summary of Bill No. 10						

MENGGANTI JAMBATAN FT2490, JALAN PERWIRA JAYA - SELANCAR, ROMPIN, PAHANG

BILL NO. 10 - ENVIRONMENTAL PROTECTION AND ENHANCEMENT WORKS  
(PROVISIONAL QUANTITY)

No.	Code No.	Description	Unit	Qty.	Rate (RM)	Amount (RM)
		<b>Summary of Bill No. 10 : Environmental Protection And Enhancement Works</b>				
		Page BQ10 - 1/7				
		Page BQ10 - 2/7				
		Page BQ10 - 3/7				
		Page BQ10 - 4/7				
		Page BQ10 - 5/7				
		Page BQ10 - 6/7				
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## MENGGANTI JAMBATAN FT2490, JALAN PERWIRA JAYA - SELANCAR, ROMPIN, PAHANG

BILL NO. 11 - ROUTINE MAINTENANCE WORKS  
(PROVISIONAL QUANTITY)

No.	Code No.	Description	Unit	Qty.	Rate (RM)	Amount (RM)
		<b>ROUTINE MAINTENANCE WORKS DURING CONSTRUCTION PERIOD</b>				
	<b>A351</b>	<b>MAINTAIN THE EXISTING ROAD</b>				
		<b>Provision of all labour, equipments, tools material, transport and whatever necessary to all the works stated below as per standard JKR road specification:</b>				
A	A351.1	<b><u>Maintenance of Pavement Surface</u></b> The works shall comprise of : a) Routine inspection to identify defects at the frequency of 2 cycles per week b) Patching of potholes to be commenced immediately c) Treatment/sealing of surface cracks d) Reinstatement edge deterioration of back filled trenches e) Treatment to stripping of aggregate f) Treatment for rutting g) Treatment to deterioration of concrete pavement surface h) Repair to concrete pavement joints i) Repair to paving blocks and slabs.	km-mth	9.7		
B	A351.2	<b><u>Maintenance of Road Shoulder</u></b> The works shall comprise of : a) Re-grading and clearing of vegetation b) Topping up of shoulder with suitable filling material c) Filling of irregularities in unsealed shoulders d) Filling of pavement/shoulder level differences e) Clear vegetation on paved shoulder	km-mth	9.7		
C	A351.3	<b><u>Grass Cutting</u></b> The works shall comprise grass cutting, disposal of cut grass and debris. The frequency of grass cutting shall be carried out once a month. The limit and extent as described below :  a) Road shoulder b) Slope area c) Berm drain, interceptor drain and all other types of drain on slopes d) Median e) Clear vegetation on paved surface	km-mth	9.7		
D	A351.4	<b><u>Road Furnitures</u></b> The works shall comprise of cleaning works and shall be carried out 4 cycles/year of cleaning of : i) Guardrails and barriers ii) Signages and posts iii) Kilometer post and delineator post iv) Traffic signal aspects.	cycle	8		
Page Total Carried to Summary of Bill No. 11						

## MENGGANTI JAMBATAN FT2490, JALAN PERWIRA JAYA - SELANCAR, ROMPIN, PAHANG

BILL NO. 11 - ROUTINE MAINTENANCE WORKS  
(PROVISIONAL QUANTITY)

No.	Code No.	Description	Unit	Qty.	Rate (RM)	Amount (RM)
A	A351.8	<b><u>ROUTINE MAINTENANCE WORKS DURING CONSTRUCTION PERIOD (cont'd...)</u></b>				
		<b><u>MAINTAIN THE EXISTING ROAD (cont'd...)</u></b>				
		Provision of all labour, equipments, tools material, transport and whatever necessary to all the works stated below as per standard JKR road specification:				
B	A351.9	<b><u>Drainage</u></b>				
		The works shall comprise of cleaning debris, desilting and repair works and shall be carried out 4 cycles/year : a) Debris in lined drains. b) Debris in unlined drains. c) Debris in sump. d) Debris in culverts. e) Repair to damaged drains and sumps. f) Repair to misaligned unlined drains.	cycle	8		
		<b><u>Litter Collection and Disposal of Minor Obstruction/Debris</u></b>				
C	R530	Litter collection and disposal, removal and disposal of loose material and debris, carcass as and when required	sum			
		<b><u>RESURFACING WORKS</u></b>				
		<b><u>Resurfacing</u></b>				
D	R530	Bituminous tack coat as per Specification.	m <sup>2</sup>	1,000		
E	R551	50mm thick Asphaltic Concrete Wearing Course AC14, as per Specification.	m <sup>2</sup>	1,000		
		<b><u>Pavement Markings</u></b>				
		Hot-applied reflectorised all weather thermoplastic road markings:				
F	R822	Type 6 - edge line: 150mm wide continuous line.	m	800		
G	R823	Type 5 - centre/lane line: 100mm wide intermittent line with 2700mm line and 4500mm gap.	m	350		
	R824	Type 10 - Double line	m	50		
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## MENGGANTI JAMBATAN FT2490, JALAN PERWIRA JAYA - SELANCAR, ROMPIN, PAHANG

BILL NO. 11 - ROUTINE MAINTENANCE WORKS  
(PROVISIONAL QUANTITY)

No.	Code No.	Description	Unit	Qty.	Rate (RM)	Amount (RM)
A	A390	<b><u>ROUTINE MAINTENANCE WORKS DURING CONSTRUCTION PERIOD (cont'd...)</u></b>  <b><u>Maintain The Road Lighting</u></b>  <b>Maintenance Of Existing Road Lighting Within Project Site</b>	sum			
	A391	The Contractor shall ensure the road within the project site to be lighted up sufficiently according to the local authority requirement and maintained in good working condition through out construction period including replacing all faulty and missing components, and removal from site upon completion of the road works / handovers to local authority as instructed by the S.O.				
	A359	<b><u>ROUTINE MAINTENANCE WORKS DURING DEFECT LIABILITY PERIOD</u></b>  <b><u>MAINTAIN THE COMPLETED ROAD</u></b>  <b>Provision of all labour, equipments, tools material, transport and whatever necessary to all the works stated below as per standard JKR road specification :</b>				
	A359.1	<b><u>Grass Cutting</u></b> The works shall comprise grass cutting, disposal of cut grass and debris. The frequency of grass cutting shall be carried out once a month. The limit and extent as described below:  a) Road shoulder . b) Slope area. c) Berm drain, interceptor drain and all other types of drain on slopes. d) Median. e) Clear vegetation on paved surface.				
C	A359.2	<b><u>Road Furnitures</u></b> The works shall comprise of cleaning works and shall be carried out 4 cycles/year of cleaning of :  a) Guardrails and barriers. b) Signages and posts. c) Kilometer post and delineator post.	cycle	4		
Page Total Carried to Summary of Bill No. 11						

## MENGGANTI JAMBATAN FT2490, JALAN PERWIRA JAYA - SELANCAR, ROMPIN, PAHANG

BILL NO. 11 - ROUTINE MAINTENANCE WORKS  
(PROVISIONAL QUANTITY)

No.	Code No.	Description	Unit	Qty.	Rate (RM)	Amount (RM)
	A359	<b><u>ROUTINE MAINTENANCE WORKS DURING DEFECT LIABILITY PERIOD</u></b>				
		<b><u>MAINTAIN THE COMPLETED ROAD (cont'd)</u></b>				
		<b>Provision of all labour, equipments, tools material, transport and whatever necessary to all the works stated below as per standard JKR road specification :</b>				
		<b><u>Bridges and Culverts</u></b>				
A	A359.3	The works shall comprise of cleaning works and shall be carried out 4 cycles/year of cleaning of : a) Expansion joints b) Weep holes c) Parapets d) Bearing shelves e) Graffiti and markings f) Waterway or culvert opening and bridge carriageway g) Removal of vegetation and lubricating and greasing operation for steel bearings h) Water down pipe	cycle	4		
B	A359.4	<b><u>Drainage</u></b> The works shall comprise of cleaning debris and desilting works and shall be carried out 4 cycles/year : a) Debris in lined drains. b) Debris in unlined drains. c) Debris in sump. d) Debris in culverts. e) Blocked gratings.	cycle	4		
		<b><u>Litter Collection and Disposal of Minor Obstruction/Debris</u></b>				
		<b>Provision of all labour, equipments, tools material, transport and whatever necessary to all the works stated below :</b>				
C	A359.5	Litter collection and disposal, removal and disposal of loose material and debris, carcass as and when required.	sum			
		<b><u>Landscaping</u></b>				
D	A359.6	<b>Items for maintaining all landscaping shall be deemed to include digging, planting media, bedding, staking, protection, watering, weeding, required fertilising, and replacement of dead item until the vegetation is established.</b>  The works shall comprise of : a) Watering at every alternate day b) Cutting and trimming and shall be carried out once a month c) Weeding, fertilising, insect pest and disease control, pruning and mulching shall be carried out once a month	km-mth	5.3		
Page Total Carried to Summary of Bill No. 11						

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BILL NO. 11 - ROUTINE MAINTENANCE WORKS  
(PROVISIONAL QUANTITY)

No.	Code No.	Description	Unit	Qty.	Rate (RM)	Amount (RM)
		<b>Summary of Bill No. 11 : Routine Maintenance Works</b>				
		Page BQ11 - 1/5				
		Page BQ11 - 2/5				
		Page BQ11 - 3/5				
		Page BQ11 - 4/5				
Total of Bill No. 11 carried to Summary of Tender						



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BILL NO. 12 - OCCUPATIONAL SAFETY AND HEALTH MANAGEMENT  
(PROVISIONAL QUANTITY)

No.	Code No.	Description	Unit	Qty.	Rate (RM)	Amount (RM)
		<b><u>PLANNING FOR SAFETY &amp; HEALTH MANAGEMENT SYSTEM</u></b>				
A	A411	Prepare and submit safety and health plan (S-plan) as per Specifications For Occupational Safety And Health In Engineering Construction Works.	nr	1		
B	A414	Prepare and submit monthly safety & health report as per Specifications For Occupational Safety And Health In Engineering Construction Works. (Five (5) copies per month).	nr	22		
		<b><u>RESOURCES FOR SITE SAFETY</u></b>				
C	A412	Employment of a Site Safety & Health Supervisor (SSS) and to the satisfaction of the S.O. for the entire duration of the construction period to be stationed minimum 15 hours a week at the site.	man-mth	22		
		<b><u>PROTECTIVE EQUIPMENT</u></b>				
	A413	Provision and maintenance of Personal Protective Equipment to S.O. staffs at Site of adequate quantity and of approved quality. The equipment shall include but not be limited to the following:				
D	A413.1	Safety boots.	nr	10		
E	A413.2	Safety helmets.	nr	10		
F	A413.3	Protective gloves.	nr	10		
G	A413.4	Safety jackets of reflective type.	nr	10		
H	A413.5	Ear plugs and muffs.	nr	10		
J	A413.6	Dust masks.  Provision and maintenance on the site during the duration of the works, of the adequate safety equipment to be approved by the S.O. as follows:	nr	10		
K	A413.7	Fire extinguishers.	nr	2		
L	A413.8	Hazard tape.	m	300		
M	A416	Safety signages as per Malaysian Standard Specification.	sum			
Total of Bill No. 12 carried to Summary of Tender						

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BILL NO. 13 - PROVISIONAL SUM

No.	Code No.	Description	Unit	Qty.	Rate (RM)	Amount (RM)
	<b>W100</b>	<b><u>PROVISIONAL SUM</u></b>				
	<b>W110</b>	<b><u>Relocation and Protection of Utility Services</u></b>				
A	W110.1	Allow a Provisional Sum of <b>Ringgit Malaysia Four Hundred Ninety Five Thousand Only (RM495,000.00)</b> for the protection and/or relocation of the existing Pengurusan Air Pahang (PAIP) utilities services as listed below to be expended as directed by the Superintending Officer or deducted in whole or in part if not expended.	sum			495,000.00
	<b>W210</b>	<b><u>Attendance Fee for Relocation and Protection of Utility Services</u></b>				
B	W210.1	Allow a Provisional Sum of <b>Ringgit Malaysia Five Thousand Only (RM5,000.00)</b> for the attendance fee for the protection and/or relocation of the existing Tenaga Nasional Berhad (TNB) utilities services to be expended as directed by the Superintending Officer or deducted in whole or in part if not expended.	sum			5,000.00
C	W210.2	Allow a Provisional Sum of <b>Ringgit Malaysia Seven Thousand Only (RM7,000.00)</b> for the attendance fee for the protection and/or relocation of the existing Telekom Malaysia Berhad (TM) utilities services to be expended as directed by the Superintending Officer or deducted in whole or in part if not expended.	sum			7,000.00
Total of Bill No. 13 carried to Summary of Tender						507,000.00

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BILL NO. 14 - PRIME COST SUM

No.	Code No.	Description	Unit	Qty.	Rate (RM)	Amount (RM)
		<b><u>PRIME COST SUM</u></b>				
	<b>W300</b>	<b><u>PRIME COST ITEMS</u></b>				
		<b><u>Road Lighting</u></b>				
A	<b>W310</b>	Allow a Provisional Sum of <b>Ringgit Malaysia Three Hundred Fifty Thousand Only (RM350,000.00)</b> for Road Lighting to be expended as directed by the Superintending Officer or deducted in whole or in part if not expended.	sum			350,000.00
B	<b>W320</b>	Attendance.	sum			
C	<b>W330</b>	Profit .....%	%			
Total of Bill No. 14 carried to Summary of Tender						