CADANGAN MEMBINA DAN MENYIAPKAN LAMP POLE SETINGGI 30 METER DI ATAS LOT 1019, KG. CHENDERONG BATU, MUKIM CHENDERONG BATU, DAERAH WAKAF BHARU, JAJAHAN TUMPAT, KELANTAN UNTUK TETUAN INFRA QUEST SDN BHD

[TAMAN KEBAKAT (BKAD)]

ITEM	DESCRIPTION	PAGE NO.	AMOUNT (RM)
	FINAL SUMMARY		
1	PRELIMINARIES	A1	
2	CIVIL AND STRUCTURE	B1/10/1	
3	MECHANICAL AND ELECTRICAL WORKS	C1/1/5	
4	CONTINGENCY SUM	D1	7,000.00
	GRAND TOTAL		

PRELIMINARIES AND GENERAL ITEM

	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	PRELIMINARIES AND GENERAL ITEM				
	The Contractors shall allow for expenses involved in complying with the following:-				
1	Mobilisation and demobilisation of all labours, plants and equipments and incidentals necessary to perform the Contract works and for the removal of the same upon completion of the works	ITEM			
2	Insurance of Works/ Public Libility	ITEM			
3	Workman Compensation or Employee Social Security Act 1969	ITEM			
	TOTAL CARRIED TO SUMMARY				

CIVIL & STRUCTURE

	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	ELEMENT NO. 1 - SITE CLEARANCE (ALL PROVISIONAL)				
A	Allow for taking over and clear the site of all articles, objects, obstructions, vegetation and trees, bushes, including grubbing up roots and break up into transportable size, load, cart away from site and dispose at contractor's own dump site to approval	M2	100		
	Cutting down trees and grubbing up their root and remove from site to contractor's own dump				
B	300mm Girth*	NO			
C	600mm Girth*	NO			
D	900mm Girth*	NO			
E	1200mm Girth*	NO			
	TO COLLECTION				

CIVIL & STRUCTURE

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	ELEMENT NO. 2 - EARTHWORKS (ALL PROVISIONAL)				
A	Excavate to remove 150mm top soils to Contractor's own dumpsite inclusive of all payment to Authorities, complete as directed by the S.O.	L/S			
B	Imported fill materials as specified in making up level laid and compacted in layers as specified to required formation level all within boundary of site	M3	111		
	TO COLLECTION				

CIVIL & STRUCTURE

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	ELEMENT NO. 3 - PILE CAPS (2400MM X 2400MM X 600MM) (ALL PROVISIONAL)				
	Excavated, get out, part return, fill in and ram, remove excavated material to the Contractor's own dump area				
A	Excavate pit for pile caps exceeding 1.50m deep	L/S			
B	Approved imported sand filling spread, levelled, consolidated and compacted in layers	M3	9		
	Lean concrete (1:3:6 - 38mm aggregate) as specified in:				
B	50mm Thick blinding under pile caps	M2	6		
	Vibrated reinforced concrete Grade 30 as specified in:				
C	Pile caps	M3	4		
D	Column stumps	M3	3		
	Mild steel bar reinforcement bar as specified in:				
E	10 mm Diameter as loops in pile caps	KG	13		
F	10 mm Diameter as link in column stumps	KG	135		
	High steel bar reinforcement bar as specified in:				
G	16 mm Diameter as main bar in pile caps	KG	370		
H	20 mm Diameter as main bar in column stumps	KG	219		
	Sawn formwork as described to sides of:				
J	Pile caps	M2	6		
K	Column stumps	M2	7		

L	Assemble and install 870mm diameter base plate with 16 nos 28 mm high tensile J - bolt as per drawing	NO	1		
M	2 Nos 100mm Dia. Poly Pipe x 7M long	Set	1		
	TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	ELEMENT NO. 4 - CONCRETE FOR COMPOUND AREA (ALL PROVISIONAL)				
	Concrete plinth				
A	200mm Vibrated Reinforced concrete Grade 20 as specified in concrete plinth	M3	14		
B	Layer of steel fabric reinforcement (BRC A10) well lapped at joints and embedded in cocrete plinth (measured nett - no allowance made for laps)	M2	70		
C	Sawn formwork as specified to edges of plinth slab 200mm high	M2	7		
	Trench				
D	Layer of steel fabric reinforcement (BRC A10) well lapped at joints and embedded in cocrete plinth (measured nett - no allowance made for laps)	M2	18		
E	Sawn formwork as specified to edges of plinth slab 200mm high	M2	7		
F	Fill in with approved aggregates 20 - 24mm	M3	1		
	TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	ELEMENT NO. 5 - ROADWORKS (ALL PROVISIONAL)				
	Concrete Road				
A	Excavate to formation level to a maximum depth not exceeding 1.00m commencing from ground level including compacting with roller to receive road and base material including removal of surplus excavated material to contractor's own dump	M2	14		
B	50mm thick granular material as specified for sub-base, compacted to receive crusher run road base (measured separately)	M2	14		
C	250mm thick crusher run as sepcified for road base, compacted to receive concrete (measured separately)	M2	14		
D	Single layer of steel fabric reinforcement (BRC A6) lapped and embedded in concrete	M2	14		
E	125mm thick concrete G30 spread, levelled and compacted to an event gradient and crossfall to form road surface	M3	5		
F	Sawn formwork as specified to edges of concrete road 125mm	M2	2		
	TO COLLECTION				

CIVIL & STRUCTURE

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	ELEMENT NO. 6 - FENCING (ALL PROVISIONAL)				
A	Galvanised iron fencing 2.10m high consisting of 65mm diameter galvanised iron post at 2.40m centres with bottom end embedded in concrete (1:3: - 25mm aggregate) with welded 4mm mild steel plate and with 50mm x 150mm x 5mm welded fencing panel, and including four strands of razor wire (with 4 pointed barb at 75mm) on top and all requisite fixing bolts, clips and nuts set, painted all steel work with one coat of anti rust primer before erection and two coats of silver metalic paint after erection and including kerb with and including all necessary formwork and painting as specified.	M	23		
B	A pair of mild steel gate in two equal leaves overall size 4.00m wide x 2.40m high, each leaf comprising of 4 No 75mm x 75mm x 5mm thick mild steel angle frame constructed of mild steel plate welded to and including 2 No 50mm x 50mm x 5mm thick mild steel angle closed at end to frame and including 4 No 50mm x 50mm x 5mm thick mild steel angle closed at ends with 300mm x 300mm 10mm thick mild steel plate, infilled with 50mm x 50mm x 3.3/2.8mm PVC coated chain link complete with 6 nos 20mm diameter galvanised mild steel bolt and nut welded to 150mm diameter x 6mm thick steel pipe gate post infilled with concrete enchased at bottom in 750mm x 750mm x 750mm deep mass concrete as specified footing, including 20mm diameter x 400mm drop bolt at center with 25mm diameter x 100mm long PVC pocket sleeve recessed in concrete road and bottom of each fitted with roller with and including all accessories, welding and painting.	NO	1		
C	50mm brass cylinder pad lock (ABUS) - to be determined by S.O.	NO	1		
	TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	ELEMENT NO. 7 - APRON (ALL PROVISIONAL)				
	Apron				
A	Supply and lay 0.5mm thick polythene sheet by s.o approval	M2	70		
	Lean concrete grade 20 as specified in:				
B	100mm Thick lean concrete to compound area (excluding road, plinth) (Gred 20)	M2	30		
C	200mm thick hardcore as specified spread, levelled, well rammed and consolidated to receive concrete (measured seperately)	M2	81		
D	Supply and instal PVC Pipe 75mm	M	12		
	TO COLLECTION				

CIVIL & STRUCTURE

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	ELEMENT NO.8 - OUTSIDE BOUNDARY (ALL PROVISIONAL)				
	DRAINAGE WORKS				
	R.C.P Culvert 600mm Diameter				
	WINGWALL / HEADWALL				
	Excavate commencing from ground level, part, return, fill and ram, remainder load, spread, level and well consolidated where directed on site or remove from site including all necessary planking and strutting and grading and ramming bottom of excavation				
	Maximum depth not exceeding 4.0m				
A	Excavate trench for drainage including backfilling with approved excavated material, compaction in layers and disposal of surplus excavated material	M3			
	Lean concrete (1:3:6 - 38mm aggregate) as specified in:				
B	50mm Thick blinding under base wingwall	M2			
C	Ditto under base pipe culvert	M2			
	Vibrated reinforced concrete Grade 30				
D	To base pipe culvert	M3			
	Brickwork in common clay brick in cement mortar (1:3) as specified reinforced with and including 'exmet' at every fourth course:-				
E	One brick (225mm thick) wall	M2			
	Damp proof course as specified:				
F	225mm Wide horizontal damp proof course as described bedded on cement and sand (1:3)	M			
G	Double layer of steel fabric reinforcement (BRC A10) well lapped at joints and embedded in concrete base and wingwall (measured nett - no allowance made for laps)	M2			
H	Single layer of steel fabric reinforcement (BRC A7) well lapped at joints and embedded in concrete base pipe culvert (measured nett - no allowance made for laps)	M2			
	TOTAL CARRIED FORWARD :				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	ELEMENT NO.8 - OUTSIDE BOUNDARY (CONT'D) **(ALL PROVISIONAL)**	BROUGHT FORWARD TOTAL :			-
	DRAINAGE WORKS (CONT'D)				
	Sawn formwork as specified				
A	To sides of base wingwall	M2			
B	To sides of base pipe culvert	M2			
	Water proofed plaster				
C	13mm Thick cement & sand (1:3) water proofed rendering as specified to wingwall	M2			
	REINFORCED PIPE CULVERT 1200MM DIAMETER				
D	Supply and lay 1200mm diameter precast concrete pipe culvert (where necessary) including all necessary works	M			
	TO COLLECTION				

CIVIL & STRUCTURE

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	ELEMENT NO. 9 - ACCESS ROAD FOR ERECTION (ALL PROVISIONAL)				
A	Excavate surface to reduce level maximum depth not exceeding 1.00m commencing from ground level including compacting with roller to receive road and remove surplus excavated material to contractor's own dump	L/S			
B	250mm Thick bed of crusher run compacted in layer as specified	M2	120		
	TO COLLECTION				

CIVIL & STRUCTURE

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	SUMMARY OF CIVIL & STRUCTURE WORKS **COLLECTION** ELEMENT NO. 1 - SITE CLEARANCE (ALL PROVISIONAL) ELEMENT NO. 2 - EARTHWORKS (ALL PROVISIONAL) ELEMENT NO. 3 - PILE CAPS (2400MM X 2400MM X 600MM) ELEMENT NO. 4 - CONCRETE FOR COMPOUND AREA ELEMENT NO. 5 - ROADWORKS (ALL PROVISIONAL) ELEMENT NO. 6 - FENCING (ALL PROVISIONAL) ELEMENT NO. 7 - APRON ELEMENT NO.8 - OUTSIDE BOUNDARY ELEMENT NO. 9 - ACCESS ROAD FOR ERECTION (ALL PROVISIONAL)				
	TOTAL CARRIED TO SUMMARY				

MECHANICAL AND ELECTRICAL WORKS FOR LAMP POLE (OUTDOOR/2WAY) 30M

	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	ELEMENT NO. 1 - MECHANICAL AND ELECTRICAL WORKS				
	Notes:				
	All quantities in this bill are provisional quantities subject to remeasuerement upon construction of the said item				
	The Electrical Installation is to be executed by contractor in acordance with TNB requirement and approval				
	All earthing works shall comply with the requirement and the Contractor is to make sure that all chamber to be executed as the required ohm as per drawing				
	All manufacturers for fittings including TNB Metering, changeover, distribution and AMF Boards shall approved and suggested by CELCOS				
	All connection must be caldweld as per drawing				
	OUTDOOR				
	Supply, deliver, install and commisioning of the following:-				
A	To provide 'A' form, test result, contributions fee and other charges as required by TNB for application of power supply 3 phase (charge for deposit and ducting will be reimbursed)	LS			
B	Supply, install, test and commission approved 100A (3 phase) TNB KWH Weatherproof Metering Panel Mounted (Metering Board) on and including concrete plinth with all necessary fixings and fittings all in accordance with the manufacturer's instruction as per drawings	NO	1		
C	2 Nos. 100mm diameter galvanised iron pipe laid in trench including all necessary jointing, connection pieces, excavation, backfilling to receive compaction and end to end grounding system as per drawing	M	12		
E	Supply and install 450mm x 450mm x 450mm deep precast concrete inspection pit with hinged hot dipped galvanised chequered plate cover including all necessary excavation, 16mm diametr x 5,486mm long earth rod welded to 120mm x 25mm x 5mm thick busbar, caldweld joints and 50mm2 PVC copper cable all as per drawing	NO	4		
	TO COLLECTION				

MECHANICAL AND ELECTRICAL WORKS FOR LAMP POLE (OUTDOOR/2WAY) 30M

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	ELEMENT NO. 2 - MECHANICAL AND ELECTRICAL WORKS (CONT'D)				
	OUTDOOR (Cont'd)				
	350mm x 350mm x 210mm deep precast concrete heavy duty chamber including all necessary excavation, 16mm diameter electrodes, 5,486mm depth and calweld joints as per drawing no. (fuse,Hocomo,Erico)				
A	Earth chamber	NO	1		
B	75mm^2 copper cable with one end cadweld to tower leg with exposed cable run in 50mm diameter galvanised iron pipe (covered with cement and sand (1:3) mortar after installation) and other end calweld to 1,200mm x 1,200mm x 3mm thick copper plate including all necessry excavation and backfilling as per drawings	NO	1		
C	25mm x 3mm Thick copper tape laid in trench (minimum 750mm from ground level) including all necessary excavation, cadweld joints and 16mm diameter x 5,486mm long earth rods as per drawing (Material : FUSE, HOCOMO, ERICO)	M	26		
D	50mm^2 PVC green copper cable laid in 50mm diameter galvanised iron pipe from busbar to earthing chamber, cabin leg, plinth outdoor and other required (calweld) as per drawing	M	34		
	TO COLLECTION				

MECHANICAL AND ELECTRICAL WORKS FOR LAMP POLE (OUTDOOR/2WAY) 30M

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	ELEMENT NO. 3 - MECHANICAL AND ELECTRICAL WORKS (CONT'D)				
	OUTDOOR (Cont'd)				
A	355mm x 100mm x 6mm Thick copper grounding busbar with and including cover and insulator as per drawings	NO	5		
B	1 x 4C x 25mm^2 PVC/SWA/PVC power cabling + earth 35mm2 copper cabling lay in trench / overhead in galvanised iron pipe with cable and TNB feeder inlet to meter board including all necessary fixings and precast concrete poles	M	8		
C	1 x 3C x 2.5mm^2 PVC/SWA/PVC power cabling from ACPBD to street light (in galvanised iron pipe)	M	22		
D	1 x 4C x 1.5mm^2 PVC/SWA/PVC signals cabling from ACPDB to aviation light in 50mm diameter galvanised iron pipe complete with junction box and accessories	M	40		
E	Supply and install signal aviation light Li - 3272 - 240 (L.E.D Type) at top level complete with accessories	NO	1		
F	Install, testing & commissioning for equipment.	L/SUMP	1		
G	Supply and install box busbar and control panel for compound lighting control by timer and for aviation light control by photocell complete with all accessories.	NO	1		
H	Supply and install 8 Nos polypipe in stump	M	6		
	TO COLLECTION				

MECHANICAL AND ELECTRICAL WORKS FOR LAMP POLE (OUTDOOR/2WAY) 30M

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	SUMMARY OF MECHANICAL AND ELECTRICAL WORKS (CONT'D) **COLLECTION** ELEMENT NO. 1 ELEMENT NO. 2 ELEMENT NO. 3				
	TOTAL CARRIED TO SUMMARY				

	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
A	**CONTINGENCY SUM (PROVISIONAL SUM)** Provide a Provisional Sum of RM 7,000.00 (RINGGIT MALAYSIA : SEVEN THOUSAND ONLY) for Contingencies Sum to be expected as directed by the S.O. or deducted wholly or in part if not required	LS		7,000.00	7,000.00
	TOTAL CARRIED TO SUMMARY				7,000.00