



MILLENNIUM CHALLENGE ACCOUNT NEPAL (MCA-NEPAL)

Recycling Pilot Works Contract – Dhan Khola Lamahi 40km Road Section MCA-N/RMP/CB/008

ADDENDUM #2

Date of Issue: 11 December 2024

This Addendum No. 2 modifies respective portions of the Bidding Document issued on 30 October 2024 and amended through Addendum #1 on 28 November 2024. The changes, as indicated below, are effective on the date of issue of this Addendum.

Except as expressly amended by this Addendum, all other terms and conditions of the Bidding Document - issued on 30 October 2024 and amended through Addendum #1 on 28 November 2024, remain unchanged and shall remain in full force and effect in accordance with their terms.

SN	Pages/Paragraph	Amendments
1.	Volume I, Bill of Quantities (BoQ) PDF Page 55 of 136 to 83 of 136	<p>The Bill of Quantities (BoQ) is amended as per Attachment 1 of this Addendum #2.</p> <p>Mainly the following changes have been made:</p> <p><u>A. In Bill of Quantities</u></p> <ol style="list-style-type: none"> 1. BOQ item no 1.02: Specification Reference clause has been updated to "109". 2. BoQ item no 2.06: The unit has been changed to "LS" and the quantity to "1", to be compatible with Annex B of BoQ. 3. BOQ item no 6.14: The item description has been updated to "120 watt LED". 4. BOQ item no. 11.01: Specification Reference clause has been updated to "109". 5. BOQ item no. 11.03: The item unit has been corrected to "ps". 6. Item no 4.09 Surface Dressing Works, section 1302, 1303: Added the wording "(DBST)"

2.	<p>Volume II, Employer's Re- quirement, 1318 Full Depth Rec- lamation of HMA Pavement with Cement, Page 50 and 51 of 961</p>	<p>(i) Mix Design</p> <p>The Contractor shall remove samples of RAP, base and sub-base material to the specified depth and perform appropriate testing to establish mix design. The mix design shall be submitted to the Engineer for approval fifteen working days before the planned start of work. Approval of the mix design by the Engineer is solely for monitoring quality control and in no way releases the Contractor from their responsibilities.</p> <p>has been replaced by:</p> <p>The Contractor shall remove samples of Reclaimed Asphalt Pavement (RAP), base and sub-base material to the specified depth and perform appropriate testing to establish mix design. The mix design shall be submitted to the Engineer for approval fifteen (15) working days before the planned start of work. Approval of the mix design by the Engineer is solely for monitoring quality control and in no way releases the Contractor from their responsibilities. Cement has to be added to achieve the target Uniaxial Compressive Strength (UCS) of 2.1 MPa after 7 days of curing with a maximum value of 3.1 MPa.</p>
3.	<p>Volume II, Employer's Re- quirement, 1320 Specification for International Roughness In- dex, IRI, Page 59 of 961</p>	<p>(2) Measurement and Payment</p> <p>Bonus for MRI requirements shall be paid at the rate 10% of value of works associated with BoQ item no. 4.12 for the Wearing course and shall be the full and final compensation for the cost of compliance of all requirements as mentioned in this Clause. The Contractor shall not get any overhead charges and profit on the payment made under this clause despite the provision of the contracts for the payment associated with PS items.</p> <p>has been replaced by:</p> <p>(2) Measurement and Payment</p> <p>Bonus for MRI requirements shall be paid through project contingency amount by MCA-Nepal which shall be 10% of value of works associated with BoQ item no. 4.12 for the Wearing course and shall be the full and final compensation for the cost of compliance of all requirements as mentioned in this Clause.</p> <p>The MRI measurement and payment modality will be to first complete the Asphalt Wearing Course and measure with the Contractor each 0.1 km and payment is based on those sections rather than the whole road. The MRI will be measured after the Contractor completed the whole work, this value can be measured and bonus applied.</p>
4.	<p>Volume II, Employer's Re- quirement, 1516 Street Lighting</p>	<p>(1) Definition</p> <p>A street lighting system is an outdoor lighting unit used for illuminating a street or an open area. It consists of 12090 watt LED street light with sensor</p>

	<p>Systems, (3) Specifications of the Street Lighting System, (1) Definition, Page 65 of 961</p>	<p>with auto-dimming, 8 m fully galvanized pole with double arm of one meter long light arms as shown in the drawings, ceramic insulator, ABC connector and ABC cables with supply connection from the power distribution cable using appropriate wire and connector.</p> <p>has been replaced by:</p> <p>(1) Definition</p> <p>A street lighting system is an outdoor lighting unit used for illuminating a street or an open area. It consists of 120 watt LED street light with sensor with auto-dimming, 8 m fully galvanized pole with double arm of one-meter-long light arms as shown in the drawings, ceramic insulator, ABC connector and ABC cables with supply connection from the power distribution cable using appropriate wire and connector.</p>
<p>5.</p>	<p>Volume II, Employer's Requirement, 1516 Street Lighting Systems, (3) Specifications of the Street Lighting System, (A) Lamp, (i) &(ii), Page 65 of 961</p>	<p>(i) The lamp should be 1290 Watt Light-emitting diode (LED) with standard casing to use for street lighting system. (ii) The light output from the lamps should be around 120000±5 % lumens (for 1290 W LED).</p> <p>has been replaced by:</p> <p>(A) Lamp</p> <p>(i) The lamp should be 120 Watt Light-emitting diode (LED) with standard casing to use for street lighting system. (ii) The light output from the lamps should be around 120000±5 % lumens (for 120 W LED).</p>

Annex I
Revised Bill of Quantities



241206_BoQ -
Addendum 2.pdf



241206_BOQ -
Addendum 2.xlsx

Millennium Challenge Account Nepal

Recycling Pilot Works Contract– Dhan Khola Lamahi 40 km Road Section

Chainage: Km 676+000 km to Km 714+985

Contract No.: MCA-N/RMP/CB/008

Summary of Bill of Quantities

Bill No.	Description	Amount (US\$)	Remarks
1	General		
2	Site Clearance		
3	Earthwork		
4	Pavement Works		
5	Road Structures		
6	Road Furniture and Traffic Safety Measures		
7	Environmental Mitigation (Including Bio-engineering)		
8	Repair and Maintenance of Bridges		
9	Repair and Maintenance of Slab Culverts		
10	Schedule of Day Works		
11	Provisional Sum	121,000.00	
A	Total Bid Price with Provisional Sum [Items 1 to 11]:		
B	VAT @ 13% of (A):		
D	Total Bid Price with Provisional Sum and VAT [A+B]:		

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Bill of Quantities

Item No.	Spec. Clause	Item Description	Unit	Quantity	Unit Rate (US\$)		Total Amount (US\$)
					In Figures	In Words	
1		General					
1.01	103A	Contractor's material testing laboratory at site					
a		Providing laboratory space as shown in the drawings, maintaining and operating, etc. of the material testing laboratory at site, all complete.	month	24.00			
b		Providing furniture and equipment at the material testing laboratory at site, installation and calibration of all equipment etc. all complete. At the completion of the project, the furniture and equipment shall property of Employer.	LS	1.00			
1.02	109	Maintenance of road: Maintenance of road during construction period other than routine maintenance based on DoR definition of type of maintenance as mentioned in item number 11.01 (for details refer 109B).	km-month	960.00			
1.03	110	Provision and installation of project notice board					
a		Project Information Notice Board	nos	2.00			
b		MCC/MCAN Project Board	nos	3.00			
1.04	116	Prepare and supply video documentary of the site before, during and after the site works including required photographs of special events in albums	sets	3.00			
1.05	122	Preparation of documents and reports					
a		Preparation of Quality Management Plan	LS	1.00			
b		Provide quality control documents, reporting services, test reports, material certificates, site records, including daily log books and monthly progress reports, all meetings specification requirements required to maintain the quality of works and as instructed by the Engineer	month	24.00			
c		Preparation and submission of As-built drawings	LS	1.00			
1.06	104	Preparation and Implementation of Traffic Management Plan during Construction Works including construction and maintenance of diversions as detailed in the Drawings and Specifications	month	24.00			

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					In Figures	In Words	
1.07	111	Provide and establishment of contractor's camps, adequate drinking water facility, environment friendly cooking facility and toilets (separate to different gender) for contractor's labors and staffs and Demolish camp site and re-instate the ground in original condition as per Specifications and Engineers Instruction all complete.					
a		Establishment of contractor's camp and mobilization of all manpower, equipment and resources	LS	1.00			
b		Maintenance of the contractor's camp facilities, for all the staff and labors	month	24.00			
c		Demobilization of the contractor's camps and facilities	LS	1.00			
1.08	119	Performance Security Bank Commission for Project Period as per the contract and instructed by the Engineer	LS	1.00			
1.09	119	Insurance of Works, plants, materials, contractor's immovable equipment, extended maintenace policy, and third party property and persons as per the Conditions of the Contract and instructed by the Engineer	LS	1.00			
1.10	111	Providing temporary access to public for houses and shops during construction as necessary and directed by the Engineer	LS	1.00			
Total of Part 1 - Carried to Summary:							

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Bill of Quantities

Item No.	Spec. Clause	Item Description	Unit	Quantity	Unit Rate (US\$)		Total Amount (US\$)
					In Figures	In Words	
2		Site Clearance					
2.01	201	Clearing and grubbing including uprooting, transporting and disposing of vegetation, grass bush, sapling and trees of girth up to 300 mm (measured at a height of 1m above the ground level), all complete.	sqm	309,574.00			
2.02	201	Clearance of landslides, debris from roads, culverts and side drains including haulage and disposal during construction and DNP, all complete.	cum	15,800.00			
2.03	201	Felling trees (the girth measured at a height of 1m above the ground level) including cutting of trunks and branches, removing the roots, stacking serviceable material, disposal of unserviceable material and back filling the depressions/pits, all complete					
a.		Above 600 mm to 900 mm	nos	5.00			
b.		Above 900 mm to 1800mm	nos	156.00			
c.		Above 1800mm to 2500mm	nos	17.00			
d.		Above 2500mm	nos	17.00			

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Item No.	Spec. Clause	Item Description	Unit	Quantity	Unit Rate (US\$)		Total Amount (US\$)
					In Figures	In Words	
2.04	202	Dismantling the structures including stockpiling of the reusable materials and disposal of unusable materials, all complete (mechanical means)					
a		Dismantling all type of Concrete (Plain and Reinforced/ Prestress)	cum	639.00			
b		Dry Stone Masonry	cum	66.00			
c.		Dismantling Brick and Stone Masonry works	cum	16,279.00			
d		Dismantling of pipe culverts of any diameter	m	1,673.00			
e		Gabion masonry works	cum	1,970.00			
f		Existing Rigid concrete pavement	cum	270.00			
g	202 (8)	Dismantling of existing minor RCC Slab culverts and/or bridges as a whole including stockpiling of the reusable materials and disposal of unusable materials, all complete	nos	7.00			
2.05	105	Relocation of HT, LT Line & Transformer Post completely from the Dhankhola to Lamahi all complete as per NEA specification and as instructed by Engineer. Please refer the breakdown of quantities under Annex A of this BoQ.	LS	1.00			
2.06	105	Relocation of existing water pipeline system (1/2" water supply pipe line or similar) with fitting, accessories and structures as required, complete as instructed by Engineer. Pplease refer the breakdown of quantities under Annex B of this BoQ.	LS	1.00			
Total of Part 2 - Carried to Summary:							

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Item No.	Spec. Clause	Item Description	Unit	Quantity	Unit Rate (US\$)		Total Amount (US\$)
					In Figures	In Words	
3		Earthwork					
3.01	905, 906	Road way Excavation in all types of soil including rock (not requiring blasting) as per Drawing and technical Specifications including removal of stumps and other deleterious matter, all lifts and lead as per Drawing and instruction of the Engineer.	cum	151,207.00			
3.02	909, 910	Providing, laying, spreading and construction of embankment with Suitable Material obtained from Roadway excavation and/or from borrow pits, out sourcing and compact to the required density as per Drawing and Technical Specifications.	cum	22,592.00			
3.03	907	Earth work in Excavation of Foundation of structures, in all types of soil including construction of shoring and bracing, removal of stumps and other deleterious matter and backfilling with approved Material, as per design drawings, technical Specifications and to the satisfaction of Engineer all complete all complete.	cum	66,400.00			
3.04	908	Providing suitable material and Back filling behind the structures such as masonry walls, gabion walls, abutment, wing wall and return wall complete as per Drawing and Technical Specifications using locally available Material as per design and Specifications	cum	20,935.00			
3.05	704	Transportation (from Nepal Telecom Office, Lamahi) and laying of PLHDPE pipe of dia 40 mm including earthwork excavation joining (by socketing), backfilling, compaction all complete as per drawings, Specifications or as directed by the Engineer. (PLHDPE pipe shall be provided by the Employer)	rm	45,000.00			
3.06	1205	Providing laying and construction of Median and Island above road level with approved Material deposited including compaction as per Drawing and Specifications. (using material from Roadway excavation).	cum	1,333.00			
Total of Part 3 - Carried to Summary:							

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					In Figures	In Words	
4		Pavement Works					
4.01	202	Dismantling of flexible pavements and disposal of dismantled Materials up to a lead of 1000 meters, stacking serviceable and unserviceable Material separately and reusing the same in the FDR	cum	1,064.00			
4.02	1003, 1005	Construction of Subgrade by compacting Original Ground supporting sub-grade. Loosening of the ground up to a level of 250 mm below the sub-grade level, watered, graded and compacted in layers as per design drawings, technical Specifications and to the satisfaction of Engineer all complete	sqm	207,575.00			
4.03	1201	Providing and laying Granular Sub-Base Material on prepared surface, mixing at OMC, and compacting to achieve the desired density, as per design drawings, technical Specifications and to the satisfaction of Engineer all complete(Grade II)	cum	5,050.00			
4.04	1203	Providing, laying, spreading and compacting graded crushed stone aggregate with 37.5 mm nominal size to Wet Mix Macadam Specifications including premixing the Material with water at OMC laying in uniform layers by paver finisher in Base Course on well prepared surface and compacting to achieve required density as per design drawings, technical Specifications and to the satisfaction of Engineer all complete.	cum	5,050.00			
4.05	1318	Full depth reclamation (FDR) using an in-place mixing process to obtain a homogenous mixture using the new base materials with existing pavement material at site as required to maintain the design profile for carriageway and shoulder with cement content of 4% by weight as per drawing and Specifications	cum	135,864.00			
4.06		Rate per metric ton for over or under usage of cement in Full depth reclamation (FDR) as mentioned in item 4.05, quantity to be in accordance with actual cement content usage (Job mix formula)	ton	2,717.28			

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					In Figures	In Words	
4.07	1302	Providing and applying Prime Coat MC30/70 by Mechanical Means with Hot Bitumen (including cutter) on prepared surface of granular base including cleaning of road surface and spraying by mechanical means as per design drawings, technical Specifications and to the satisfaction of Engineer, all complete	ltr	554,182.00			
4.08	1302	Providing and applying Tack Coat with hot Bitumen (VG-30) by Mechanical Means at specified rate i) over the non-bituminous (base course and ii) bituminous surfaces (DBM) including cleaning as per design drawings, technical Specifications and to the satisfaction of Engineer, all complete.	ltr	459,937.00			
4.09	1302, 1303	Surface Dressing Works (DBST)					
a	1302	Providing and applying Bituminous Binder (VG-30) by Mechanical Means at specified rate i) over the non-bituminous base course including cleaning as per design drawings, technical specification and to the satisfaction of Engineer all complete.	ltr	458,762.00			
b	1303	Providing and laying 19 mm nominal size chipping on a recently applied layer of bituminous binder on prepared surface as per drawing and technical Specifications	sqm	201,212.00			
c.	1303	Providing and laying 10 mm nominal size chipping on a recently applied layer of bituminous binder on prepared surface as per drawing and technical Specifications	sqm	201,212.00			
4.10	1303	Providing and mixing anti-stripping agent as per design/direction of Engineer.	kg	4,830.00			
4.11	1319/13 20	Providing and laying Superpave Asphalt Concrete pavement with Polymer modified bitumen (PG 76-22) using crushed aggregates of specified grading and filler and bitumen content 11% by volume as per Drawing and Technical Specifications using the nominal maximum aggregate size - 12.5 mm	cum	18,156.00			

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Item No.	Spec. Clause	Item Description	Unit	Quantity	Unit Rate (US\$)		Total Amount (US\$)
					In Figures	In Words	
4.12	1319/13 20	Providing and laying wearing course - Superpave Asphalt Concrete pavement with Polymer modified bitumen (PG 76-22) using crushed aggregates of specified grading and filler and bitumen content 11% by volume as per Drawing and Technical Specifications using the nominal maximum aggregate size - 9.5 mm	cum	13,641.00			
4.13		Rate per metric ton for over or under usage of bitumen in Superpave asphalt concrete pavement, quantity to be in accordance with actual bitumen content usage (Job mix formula)	ton	349.77			
4.14	1302 (5)	Supply and apply sand blinding as per instruction of Engineer including the required activities all complete	sqm	50,381.00			
Total of Part 4 - Carried to Summary:							
5		Road Structures					
5.01	2600	Providing and laying of Stone Soling/Packing Works for levelling in line and level, as per design drawings, technical Specifications and to the satisfaction of Engineer all complete.	cum	3,143.00			
5.02	2600	Providing and laying random rubble stone masonry in cement sand mortar MM5 for structure work including scaffolding, curing, preparation of mortar, with pointing, installation of weep hole pipe etc. all complete.	cum	37,880.00			
5.03	2402	Supply and assembly of machine made mechanically selvedge gabion and mattresses produced from double twisted heavy coated GI wire, of hexagonal mesh size 100mm x 120 mm, with mesh wire 3mm, selvedge wire 3.9mm, lacing wire 2.4mm and stone filling in gabion including transport and fixing of gabion in position, all complete.	cum	7,874.00			
5.04	2000	Providing and placing machine mixed Cement Concrete in M10/40 for PCC works with crushed aggregates including form works (F1 finish), compaction, curing, testing, as per design drawings, technical Specifications and to the satisfaction of Engineer all complete.	cum	5,306.00			

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Contract No.: MCA-N/RMP/CB/008

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Item No.	Spec. Clause	Item Description	Unit	Quantity	Unit Rate (US\$)		Total Amount (US\$)
					In Figures	In Words	
5.05	2416 (4), (6)	Plum concrete works with M15/20 grade concrete and plum stones for structures including scaffolding, placing, compaction and curing etc., all complete including formworks.	cum	3,799.00			
5.06	2000	Providing and placing machine mixed Cement Concrete in M15/40 for PCC works with crushed aggregates including form works (F1 finish), compaction, curing, testing, as per design drawings, technical Specifications and to the satisfaction of Engineer all complete.	cum	3,287.00			
5.07	2000	Providing and placing machine mixed Cement Concrete in M20/20 for PCC works with crushed aggregates including form works (F2 finish), compaction, curing, testing, as per design drawings, technical Specifications and to the satisfaction of Engineer all complete.	cum	6,226.00			
5.08	2000	Providing and placing machine mixed Cement Concrete in M25/20 for RCC works in slab culverts and bridges with crushed aggregates including form works (F3 finish), compaction, curing, testing, as per design drawings, technical Specifications and to the satisfaction of Engineer all complete.	cum	10,960.00			
5.09	2000	Providing and placing machine mixed Cement Concrete in M35/20 for RCC works in slab culverts and bridges with crushed aggregates including form works (F3 finish), compaction, curing, testing, as per design drawings, technical Specifications and to the satisfaction of Engineer all complete.	cum	641.00			
5.10	2404	Supply and place geotextile as per design drawings.	sqm	9,780.00			
5.11	2014	Providing and laying Reinforcement bar including cutting bending, binding, fixing in position, all complete.	ton	903.00			
5.12	701	Providing and Laying Reinforced Cement Concrete NP3 Flush jointed pipe for culverts including fixing with cement mortar 1:2 as per drawing and Technical Specifications.					
a		900mm Internal Diameter	rm	1,675.00			

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Item No.	Spec. Clause	Item Description	Unit	Quantity	Unit Rate (US\$)		Total Amount (US\$)
					In Figures	In Words	
5.13	3110	Providing and laying of Filter media with granular Material/stone crushed aggregates over the entire surface behind abutment, wing wall and return wall to the full height compacted to a firm condition complete as per drawing and Technical Specifications.	cum	5,823.00			
5.14	3103	Supply and place compressible joint filler.	sqm	500.00			
5.15	2708	Epoxy bonding of new concrete to old concrete.	sqm	1,000.00			
5.16	1406	Supply and placing of precast RCC cover slab as per the drawing and instruction by the Engineer, all complete.					
a		Type A (550x 800)	nos	4,646.00			
b.		Type B (1150x 500)	nos	200.00			
5.17	2404, 2414	Supply and Installation of Semi perforated HDPE Pipe of dia 160mm 6kgf pressure for sub surface drain all complete	rm	1,463.00			
5.18	2416	Providing and laying Grouted Stone Pitching in protection work, with stone size not less than 0.01 cum and cement: sand mortar (1:3) all complete as per Drawing and Technical Specifications.	sqm	1,621.00			
Total of Part 5 - Carried to Summary:							

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					In Figures	In Words	
6		Road Furniture and Traffic Safety Measures					
6.01	1501	Supply and erect Traffic Signs in place including required size of steel tubes, steel plates, cement concrete, painting, writing and supporting steel angles, nuts and bolts etc. all complete, as per Drawings.					
a		Single post	nos	652.00			
b.		Double or more posts	nos	50.00			
6.02	1401	Providing and laying of M20 precast cement concrete Kerb 38 cm * 20 cm * 25 cm (H*B*L) with 12 mm thick 1:3 cement sand mortar bedding and joints including foundation excavation levelling but excluding foundation concrete for foundation or sand gravel material, all complete as per Drawing and Technical Specifications.	rm	31,241.00			
6.03	1402	Providing and making footpath/separator of 150 mm compacted granular sub base and 25 mm thick cement concrete grade M20, over laid with pre-cast concrete tiles in cement mortar 1:3 including provision of all drainage arrangements but excluding Kerb channel as per Drawing and Technical Specifications.	sqm	10,344.00			
6.04	1402	Supply, lay kerbed ramp crossing with audio-tactile block on footpath all complete as per drawing and Specifications	sqm	1,787.00			
6.05	3105	Providing, fencing and erecting 50 mm dia painted steel pipe railing in 3 rows on precast M 20 grade RCC vertical posts 1.8 meters high (1.2 m above Ground Level) with 3 holes 50 mm dia for pipe, fixed 2 meters center to, complete as per Drawing and Technical Specifications.	rm	4,466.00			
6.06	1511	Providing and erecting a "W" beam crash barrier comprising of 3 mm thick corrugated shed metal beam rail, 70cm above road/ ground level, fixed on ISMC series channel vertical post, 150x75x5 mm spaced 2m c/c, 1.8m high 1.1m below ground/ road level metal beam rail to be fixed on the vertical post with a spacer of channel section 150x75x5mm, 330mm long including Fishtail at ends all complete as per drawing and technical Specifications.	rm	3,212.00			

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					In Figures	In Words	
6.07	1504	Providing and laying of Hot applied thermoplastic compound at least 2mm thick including reflectorizing glass beads as per DOR Traffic sign manual/Specifications finished surface to be level, uniform and free from streaks and holes, as per design drawings, technical Specifications and to the satisfaction of Engineer all complete	sqm	20,614.00			
6.08	1506	Providing and Fixing Reinforced cement concrete road marker stone including all activities as per standard Drawing and Technical Specifications					
a		1 km post	nos	32.00			
b.		5 km post	nos	7.00			
6.09	1507	Providing and installation of 150 mmx150 mm and 1.5 m long RCC M20 grade (with F3 finish form works) Delineators (road way indicators, hazard markers, object markers), 80-100 cm high above ground level, painted black and white in 20 cm wide strips and with reflective element, buried or pressed into the ground as per design drawings, technical Specifications and to the satisfaction of Engineer all complete.	nos	5,637.00			
6.10	1504	Providing, laying and construction of painted rumble strip at locations including painting as per drawings and Specifications etc., all complete.	sqm	7,550.00			
6.11	1505	Providing and fixing of Road Stud 100x100mm,die-cast in aluminum, resistant to corrosive effect of saltand grit, fitted with lenses reflectors, installed in concrete or as phaltic surface by drilling hole 30mm upto a depth of 60 mm and bedded in suitable bituminous grout or epoxy mortar, as per design drawings, technical Specifications and to the satisfaction of Engineer all complete	nos	35,917.00			
6.12	1515	Providing and installation of precast RCC New Jersey Block with reflective paint in prepared level surface including maintaining the line and level etc., all complete as per the drawings and Specifications	rm	192.00			

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Item No.	Spec. Clause	Item Description	Unit	Quantity	Unit Rate (US\$)		Total Amount (US\$)
					In Figures	In Words	
6.13	1514	Providing and installation of precast RCC Confidence Block with reflective paint in prepared level surface including maintaining the line and level etc., all complete as per the drawings and Specifications	rm	2,221.00			
6.14	1516	Supply, Installation and Commissioning of 120 watt LED street light with sensor with auto-dimming-2, 8 m fully galvanized pole with double arm of one meter long light arms, ceramic insulator, ABC connector and ABC cables with supply connection from the power distribution cable using appropriate wire and connector and all other required accessories as per Specifications and Drawings, all complete with civil works	nos	50.00			
6.15		Supply and fixing MS square pipe for median fencing all complete as per drawing and Specifications	m	1,333.00			
		Total of Part 6 - Carried to Summary:					
7		Environmental, Social, Gender, Health and Safety					
7.1	111	Preparation, submission and approval of Contractor's ESHSMP (CESHSMP) as instructed by the Engineer and covering 40km of length of the Road	LS	1.00			
7.2	111	Implementation of Contractor's ESHSMP (CESHSMP) as instructed by the Engineer and covering 40km of length of the Road:	-	-			

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Item No.	Spec. Clause	Item Description	Unit	Quantity	Unit Rate (US\$)		Total Amount (US\$)
					In Figures	In Words	
7.2.1		Environmental Mitigation (Including Bio-engineering)	-	-			
7.2.1.1	111	Provision of safety clothing and equipment, first aid / medical facilities and other safety measure for labor considering different gender and Contractor's employees including Consultant's and Employer's personnel and visitors. The Contractor is required to submit the monthly report.	month	24.00			
7.2.1.2	111	Reinstatement of quarry pits, crusher plant, Hot mixed plant, concrete batching plant, bitumen storage and stock pile sites to the original stage at the completion of works as instructed by the Engineer.	LS	1.00			
7.2.1.3	111	Clearance of the pavement and road sides, free of construction materials like bitumen, aggregate chips etc. after construction.	LS	1.00			
7.2.1.4	111	Dust suppression measures by Spraying Water (excluding watering for compaction) as per the instruction of the Engineer. (Example: km-nos: For spraying water in 10km/lane for 2 times equals to 20km-nos.)	km-nos	36,000.00			
7.2.1.5	111, 800	Haulage of surplus cut materials using machinery beyond 1 km length to environmentally safe tipping sites as directed by the Engineer, all complete. (Example: Cum-km: For one truck of capacity 6 cum, if haulage at a distance of 5km the quantity will be 6x5 =30cum-km.)	cum-km	508,185.00			
7.2.1.6	111	Stabilization of soil, rehabilitation and vegetation of spoil disposal sites	LS	1.00			
7.2.1.7	105, 1517	Supply, fabricate and construct passenger shades according to the drawings, all complete at locations as instructed by the Engineer.	nos	20.00			
7.2.1.8	111	Enhancement of approaches to wildlife crossings using existing bridges and culverts including fencing works - For 8 number of crossing. Please refer the breakdown of quantities under Annex C of this BoQ.	LS	1.00			
7.2.1.9	111	Campsite management (medical stations, sanitation, training, vector-borne disease prevention, security).	month	24.00			
7.2.1.10	111	Construction and Operation of construction related facilities such as settling/retention ponds etc.	LS	1.00			

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Item No.	Spec. Clause	Item Description	Unit	Quantity	Unit Rate (US\$)		Total Amount (US\$)
					In Figures	In Words	
7.2.1.11		Environmental/Social awareness campaign/training such as stated below (in compliance with IEE over a period in 24 months):					
		a) Community liaison/outreach at least two events in a year,	nos	4.00			
		b) Non-hunting of wild life and Non-Timber Forest Product (NTFP);	nos	4.00			
		c) hazards to safety of community like					
		(i) anti sexual harassment,	nos	4.00			
		(ii) gender-based violence,	nos	4.00			
		(iii) child labor	nos	4.00			
		(iv) Trafficking in Person (TIP)	nos	4.00			
		(v) Sexually Transmitted Diseases like HIV/AIDS and communicable diseases	nos	4.00			
		(d) Grievance Redress Mechanism-GRM (must conduct the meeting in receipt of complains related to grievance), as per IEE					
		(i) Tier I: At least once in a month	nos	24.00			
		(ii) Tier II : At least once in two months including meeting and allowances to the participants (as per the participants in the committee member mentioned in the IEE) as per GoN norms.	nos	12.00			
		(iii) Tier III: At least semi Annually including meeting and allowances to the participants (as per the participants in the committee member mentioned in the IEE) as per GoN norms	nos	4.00			
		(iv) Handling Mechanism for GRM for as keeping GRM Box, Hotline Telephone number etc.	month	24.00			
7.2.1.12		Develop and implement TIP Risk management plan	LS	1.00			
7.2.1.13		Provision for facilities for child care of the women working as a labourer in the construction field	month	24.00			
7.2.1.14	111	Implementation of Social and Gender Integration Plan: Implement Anti-Sexual Harassment Policy, Code of Conduct, Awareness/trainings to entire staff/workers, transportation from home to work and back to women etc.	month	24.00			

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Item No.	Spec. Clause	Item Description	Unit	Quantity	Unit Rate (US\$)		Total Amount (US\$)
					In Figures	In Words	
7.2.1.15		Bio-engineering works	-	-			
a	201	Slope preparation by clearing grass and removal of Rubbish and Dressing and levelling the construction surface Clearing grass/ top soil and removal up to a distance of 50 meters outside the periphery of the area , including cutting and filling of small undulation.	sqm	67,060.00			
b.	2800	Broadcasting grass seeds on slopes <400, seeding rate 25 g per sq.m	sqm	67,540.00			
c.	2800	Planting containerized tree and shrub seedlings, including pitting, transplanting, composting and placing tree guards on toe of embankment slopes in plain areas, not less than 8 m from the road center line. Pit size 30 cm diameter x depth. Compost volume 1/4 of the volume of the pit, mixed with original soil.	nos	37,310.00			
d.	2800	Planting rooted grass slips on the slopes 45o - 60o including preparation of slips on site. a max of 5 cm depth with metal rod or Operation includes digging planting hole to hard-wood peg, depending on the nature of the soil. The planting drills should be space	sqm	67,040.00			
e.	2800	Supply and Laying of live fascines, using live hardwood cuttings of selected species (e.g. Assuro, Namdi phul, Simali) of minimum 1 m length, placed in bundles to give 4 running meters of cuttings per meter of fascine, including backfilling of trench and careful compaction.	rm	5,655.00			
f.	2800	Brush layering.	rm	4,775.00			
g.	2800	Planting single node culm cutting of grass on fill slopes < 45 and embankment slopes in plain areas etc. all complete.	sqm	6,815.00			
h.	2400	Construct live check-dams	rm	930.00			
i	2800	Supply and laying grass turfing on the various slope with cutting, watering and transportation etc.	sqm	80,000.00			
j	2413	Provide and Laying of 200 mm thick of dry stone rip rap.	sqm	3,450.00			
k	2800	Palisade	m	2,160.00			
l	2800	Supply and Laying of Live cut tree/ shrubs	nos	24,060.00			
m	2800	Construct Bamboo crib wall	sqm	200.00			

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Bill of Quantities

Item No.	Spec. Clause	Item Description	Unit	Quantity	Unit Rate (US\$)		Total Amount (US\$)
					In Figures	In Words	
n	2800	Supply and Laying of Ornamental tree/ shrubs	nos	12,000.00			
o	2413	Dry Stone Arch	sqm	174.00			
p	2800	Jute netting works	sqm	340.00			
7.2.1.16		Environmental, Social, Health and Safety Monitoring:					
a.		Air quality monitoring (Dust and Air Quality Control Plan, install community complaints hotline)	month	24.00			
b.		Water quality monitoring (based on Water Pollution Control Plan)	month	24.00			
c.		Groundwater and soil pollution monitoring (based on Spills Management Plan)	month	24.00			
d.		Solid Waste Management monitoring (based on Solid Waste Management Plan)	month	24.00			
e.		Noise Pollution Monitoring	month	24.00			
Total of Part 7 - Carried to Summary:							

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Bill of Quantities

Item No.	Spec. Clause	Item Description	Unit	Quantity	Unit Rate (US\$)		Total Amount (US\$)
					In Figures	In Words	
8		Repair and Maintenance of Bridges					
8.01		Site Clearance Work					
a	201	Clearing and grubbing including uprooting, transporting and disposing of vegetation, grass bush of the bridge structures and riverbed, all complete.	no.	24.00			
b.	201	Clearing of Riverbed deposits, debris , including haulage and disposal, all complete.	cu. m.	5,000.00			
8.02		Concrete Kerbs and Footpath					
a	1401	Providing and applying two coats of ready-mix paint of approved brand on concrete kerb after through cleaning of surface to give an even shape as per Drawing and Technical Specifications.	m	2,300.00			
8.03		Expansion Joints					
a	1901	Providing and replacement of Expansion Joint (compression seal)complete as per drawing, Technical specification and direction of the Engineer	m	250.00			
b.	1901	Providing and replacement of Expansion Joint (steel plate) complete as per drawing, Technical specification and direction of the Engineer	m	30.00			
8.04		Concrete for Structures					
a	2000	Providing and placing machine mixed Cement Concrete in M15/40 for PCC works with crushed aggregates including form works (F1 finish), compaction, curing, testing, as per design drawings, technical Specifications and to the satisfaction of Engineer all complete.	cu. m.	50.00			
b.	2000	Plum concrete works with M15/20 grade concrete and plum stones for structures including scaffolding, placing, compaction and curing etc., all complete including formworks.	cu. m.	50.00			

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Contract No.: MCA-N/RMP/CB/008

Bill of Quantities

Item No.	Spec. Clause	Item Description	Unit	Quantity	Unit Rate (US\$)		Total Amount (US\$)
					In Figures	In Words	
8.05		Reinforcement					
a	2014	Providing and laying Reinforcement bar including cutting bending, binding, fixing in position, all complete.	ton	25.00			
b.	2014	Providing and laying 16 mm dia tor high strength steel dowel bar including drilling 35 mm dia bore hole with necessary bending, hooking tying reinforcement in position and grouting etc. complete as per Drawing and Technical Specifications.	no.	100.00			
8.06		River Training and Protection Works					
a	2402	Supply and assembly of machine made mechanically selvedge gabion and mattresses produced from double twisted heavy coated GI wire, of hexagonal mesh size 100mm x 120 mm, with mesh wire 3mm, selvedge wire 3.9mm, lacing wire 2.4mm and stone filling in gabion including transport and fixing of gabion in position, all complete.	cu. m.	200.00			
8.07		Repair of Structures					
a	2703	Providing and applying Micro concreting on damaged concrete (slab/beam/abutment section of bridges) with ready to use high early strength, free flow, nonshrink self compacting micro concrete (M 60 and above) as per instructions of manufacturer and approval of the Engineer	kg	10,000.00			
8.08		Sealings of Cracks by Injection of Epoxy Resin					
a	2706	Mobilization and Demobilization of equipment, manpower all complete	sum	1.00			
b.	2706	Providing and sealing of cracks/ porous concrete by injection process through nipples/ grouting complete as per technical specification C low viscosity epoxy injection resin	ltr	200.00			
c.	2706	Providing and inserting nipples with approved fixing compound after drilling holes for grouting as per Technical specifications including subsequent cutting/ removal and sealing of the hole as necessary of nipples after completion of grouting with cement/ epoxy	no.	50.00			

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Bill of Quantities

Item No.	Spec. Clause	Item Description	Unit	Quantity	Unit Rate (US\$)		Total Amount (US\$)
					In Figures	In Words	
8.09		Epoxy Bonding of New Concrete to old Concrete					
a	2708	Epoxy bonding of new concrete to old concrete	ltr	80.00			
8.10		Repair and replacement of Wearing Coat					
a	2712	Removal of Existing cement concrete wearing coat including its disposal without causing any detrimental effect to any part of the bridge structure and removal of dismantled material complete as per Technical specification	sq. m.	7,800.00			
8.11		Repair of Steel Bearings					
a	2715	Cleaning of steel bearings by sand blasting cleaning as per specification and direction of engineer	No.	171.00			
b.	2715	Providing and applying zinc rich coating for bearings complying with corrosion Class C3 ISO12944	No.	25.00			
8.12		Railings					
a	3105	Repair of damaged concrete railings as per drawing, Technical specification and direction of the Engineer	m	200.00			
b	3105	Providing and replacement of damaged concrete railings as per drawing, Technical specification and direction of the Engineer	m	350.00			
c	3105	Repairs of Steel Railings as per drawings and specifications all complete	m	15.00			
8.13		Drainage Spouts					
a	3107	Providing and fixing Drainage Spouts Type 1 complete as per drawing and technical specification	No.	300.00			
b	3107	Providing and fixing Drainage Spouts Type 2 complete as per drawing and technical specification	No.	138.00			
Total of Part 8 - Carried to Summary:							

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Bill of Quantities

Item No.	Spec. Clause	Item Description	Unit	Quantity	Unit Rate (US\$)		Total Amount (US\$)
					In Figures	In Words	
9		Repair and Maintenance of Slab Culverts					
9.01		Site Clearance Work					
a	201	Clearing and grubbing including uprooting, transporting and disposing of vegetation, grass bush of the bridge structures and riverbed, all complete.	no.	48.00			
b.	201	Clearing of Riverbed deposits, debris , including haulage and disposal, all complete.	cu. m.	200.00			
9.02		Reinforcement					
a	2014	Providing and laying 16 mm dia tor high strength steel dowel bar including drilling 35 mm dia bore hole with necessary bending, hooking tying reinforcement in position and grouting etc. complete as per Drawing and Technical Specifications.	nos.	5,000.00			
9.03		River Training and Protection Works					
a	2402	Supply and assembly of machine made mechanically selvedge gabion and mattresses for Slope Protection (Deck Slab, 1x1 m2 Gabions) produced from double twisted heavy coated GI wire, of hexagonal mesh size 100mm x 120 mm, with mesh wire 3mm, selvedge wire 3.9mm, lacing wire 2.4mm and stone filling in gabion including transport and fixing of gabion in position, all complete.	cu. m.	950.00			
b	2402	Supply and assembly of machine made mechanically selvedge gabion and mattresses for Flexible Apron (Box Culverts, 750 mm) produced from double twisted heavy coated GI wire, of hexagonal mesh size 100mm x 120 mm, with mesh wire 3mm, selvedge wire 3.9mm, lacing wire 2.4mm and stone filling in gabion including transport and fixing of gabion in position, all complete.	cu. m.	650.00			
9.04		Repair of Structures					
a	2703	Providing and applying Micro concreting on damaged concrete (slab/beam/abutment section of bridges) with ready to use high early strength, free flow, nonshrink self compacting micro concrete (M 60 and above) as per instructions of manufacturer and approval of the Engineer	kg	5,000.00			

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Bill of Quantities

Item No.	Spec. Clause	Item Description	Unit	Quantity	Unit Rate (US\$)		Total Amount (US\$)
					In Figures	In Words	
9.05		Repair and replacement of Wearing Coat					
a	2712	Removal of Existing cement concrete wearing coat including its disposal without causing any detrimental effect to any part of the bridge structure and removal of dismantled material complete as per Technical specification	sq. m.	3,400.00			
		Total of Part 9 - Carried to Summary:					
10		Schedule of Day Works					
10.01		Labour					
a.		Skilled labour (Mason, Carpenter etc.)	per day	500.00			
b.		Unskilled labour (Including Unskilled, helpers, assistant operators etc.)	per day	1,000.00			
c.		Project Manager	per day	25.00			
d.		Supervisor	per day	50.00			
e.		Surveyor	per day	50.00			
f.		Foreman	per day	50.00			
g.		Plant Operator	per day	50.00			
h.		Mechanic	per day	50.00			
i.		Truck Driver	per day	100.00			
j.		Security Guard	per day	100.00			

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Item No.	Spec. Clause	Item Description	Unit	Quantity	Unit Rate (US\$)		Total Amount (US\$)
					In Figures	In Words	
10.02		Plant / Equipment:(The rates shall include all cost of operating on site as fuel, lubricant, driver and associated labour wages, overhead and profit)		-			
a.		Tipper/truck > 5 Cu m Capacity	hr	500.00			-
b.		Loader > 1 Cum. Capacity	hr	500.00			
c.		Excavator >0.75 Cum. Capacity	hr	500.00			
d.		Motor grader (>135 HP)	hr	500.00			
e.		Vibratory roller (> above 10 ton capacity)	hr	500.00			
f.		Transit Mixture	hr	500.00			
g.		Backhoe Loader - >1.0 Cum. Capacity	hr	500.00			
h.		Compressor	hr	100.00			
i.		Concrete Mixture	hr	500.00			
j.		Concrete Batching Plant - 25 Cum/hour	hr	100.00			
k.		Crane 15 t	hr	100.00			
l.		Dozer 100HP	hr	500.00			
m.		Water Browser - 15,000 liters	hr	500.00			
n.		Welding Machine	hr	100.00			
o.		Generator	hr	100.00			
p.		Plate Vibrator	hr	500.00			

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Item No.	Spec. Clause	Item Description	Unit	Quantity	Unit Rate (US\$)		Total Amount (US\$)
					In Figures	In Words	
10.03		Material		-			
a.	700	Concrete NP3 Pipe 600mm Diameter	rm	100.00			
b.	700	Concrete NP3 Pipe 900mm Diameter	rm	150.00			
c.	600	Stone	cum	100.00			
d.	600	Cement	ton	10.00			
e.	600	Sand	cum	50.00			
f.	600	Aggregate	cum	75.00			
g.	1300	Bitumen	ton	50.00			
h.	2400	Supply of machine made gabion crates of various sizes including binding wire, all complete	sqm	1,000.00			
Total of Part 10 - Carried to Summary:							

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Bill of Quantities

Item No.	Spec. Clause	Item Description	Unit	Quantity	Unit Rate (US\$)		Total Amount (US\$)
					In Figures	In Words	
11		Provisional Sum					
11.01	109	Provision for the length worker covering all 40 km length of the road during construction period (24 months) and Defects Liability Period (12 months) for routine maintenance as per Department of Roads existing norms, rates and guidelines. The payment to the length worker and supervisor shall be paid in monthly basis. Note: Total 2 number of Supervisors and 9 numbers Length workers.	ps	1.00	100,000.00	One hundred thousand only	100,000.00
11.02		Additional testing of material or works and soil investigations as required by the Engineer.	ps	1.00	10,000.00	Ten thousand only	10,000.00
11.03		Management cost of the Legth Worker under item 11.01 and management cost of additional testing of material or works and soil investingation uner item 11.02 shall be as per GCC 13.5(b)(ii).	ps	1.00	11,000.00	Eleven thousand only	11,000.00
		Total of Part 11 - Carried to Summary:					121,000.00

ANNEX A: Relocation of HT, LT Line & Transformer Post completely from the Dhankhola to Lamahi all complete as per NEA specification and as instructed by Engineer (Item 2.05)

SN	Work Description	Unit	Quantity	Rate	Amount	Remarks
A) Material Cost						
I	11 KV Line					
1	11 Meter Pre-Stressed Concrete (PSC) Pole	Nos.	960			
2	100 sq. mm Covered Conductor	Km.	123.6			
3	11kV Disc Insulator with dead-end clamp	Set.	960			
4	11kV Pin Insulator with spindle	Set.	2,400			
5	Stay Insulator 11 kV	Set.	300			
6	Stay Insulator 11 kV	Nos.	300			
7	Stay wire 7/12 swg.	Kg.	2,400			
8	(100*50*6.4*1200)mm Bottom Cross arm Channel	Nos.	640			
9	(100*50*6.4*300)mm Top Channel	Nos.	640			
10	(40*6.0*660)mm Bracing Channel	Nos.	1280			
11	11 kV disconnecting Switch	Set.	5			
12	(100*50*6.4*2390)mm Double Pole Channel	Nos.	320			
13	(40*40*5*2071)mm Bracing Angle	Nos.	640			
14	(40*40*5*2723)mm Cross arm Bracing Angle	Nos.	640			
15	1900 mm Cross Arm Channel	Nos.				
16	PSC Pole Clamp	Nos.	1920			
17	PG Clamp	Nos.	480			
18	Nutbolts (Different Size)	Kg.	1415			
II	400/230 V Line					
1	95 sq. mm ABC 4 Core Cable	Km.	40			
2	ABC Suspension Clamp	Nos.	600			
3	ABC Tension Clamp	Nos.	400			
4	Pigtail with hexagonal nut and washer	Nos.	1,000			

SN	Work Description	Unit	Quantity	Rate	Amount	Remarks
5	ABC Cable Connector of different sizes	Nos.	5,000			
III	Transformer and Accessories					
1	11/0.4 kV-200 kVA Transformer with its secondary protection accessories	Nos.	20			Please quote rate and amount for reallocation of the existing transformer under item 1 to 5.
2	11/0.4 kV-100 kVA Transformer with its secondary protection accessories.					
3	11/0.4 kV-50 kVA Transformer with its secondary protection accessories.					
4	11/0.4 kV-25 kVA Transformer					
5	11/0.23 kV-15 kVA Transformer					
6	11kV DO Fuse	Nos.	180			
7	11kV, Lightning Arrestor	Nos.	180			
8	2390 mm Double Pole Channel	Nos.	300			
9	PVC insulated Earthing Wire	Meter	1,200			
10	Earthing Cooper Rod 12mm	Nos.	180			
11	Salt, Coal	Lot.	60			
12	HDP Pipe	Lot.	60			
13	PSC Pole Clamp	Nos.	240			
14	Single Core Transformer Cable of different sizes.	m.	960			
15	Transformer Mounting 600 mm	Nos.	240			
16	Cable Lugs 95 mm ²	Nos	900			
17	Nutbolts (Different Size)	kg	480			
	Sub-Total: A. Total Material Cost					
B. Labor Cost						
1	Poling works and transportation of Telescopic Pole (10/11/12 mtr.) from Office Store to Site.	Nos.	960			
2	Uprooting works and transportation of Steel Tubular Folding Pole (8/9 mtr.) from Site to Office Store (must be reused condition).	Nos.	500			
3	Uprooting works and transportation of PSC Pole (10/11 meter)from Site to Office Store (must be in reused condition).	Nos.	460			

SN	Work Description	Unit	Quantity	Rate	Amount	Remarks
4	Stringing and Transportation of 0.1 sq. inch(Dog) ACSR/XLPE Covered Conductor with all accessories HT from Office Store to Site (One wire)	Km.	120			
5	Stringing and Transportation of 95 sq. mm ABC Cable with all accessories LT from Site to Office Store manually (Four Wire)	Km.	38			
6	Dismantling and Transportation of 0.03 sq. inch ACSR Conductor with all accessories LT from Site to Office Store manually (One wire)	Km.	80			
7	Dismantling and Transportation of 0.05 sq. inch ACSR Conductor with all accessories LT from Site to Office Store manually (One wire)	Km.	120			
8	Dismantling and Installation of Transformer (100-300KVA) with all accessories.	Nos.	40			
9	Dismantling and Installation of Transformer (25-63 KVA) with all accessories.	Nos.	20			
10	Dismantling and Installation of Disconnecting Switch	Nos.	5			
11	Service Connection Charge	Nos	5000			
12	Stay Installation Complete	Nos	300			
13	Civil works for 410 SP 52	Nos	192			
	Sub-Total: B. Total of Labor cost					
C. Other Associated Cost						
1	Shutdown charge HT including all associated cost	LS	1			
2	Shutdown charge for LT including all associated cost	LS	1			
3	Supervision Charge for the Engineer to supervise the works under this Annex A items.	LS	1			
	Sub-Total: C. Total of other Associated cost					
Total of A+B+C (Total cost to be taken to Item 2.05 under BoQ)						

Note:

1. All associated cost related to Relocation of HT, LT Line & Transformer Post completely from the Dhankhola to Lamahi all complete as per NEA specification, guidelines, procedures and as instructed by Engineer need to be included in rates quoted for other items.

ANNEX B: Relocation of existing water pipeline system (1/2" water supply pipe line or similar) with fitting, accessories and structures as required, complete as instructed by Engineer. (Item 2.06)						
S.N	Description	Unit	Quantity	Rate	Amount	Remarks
A: Gadhawa RM - 1 , Kalakate Dang						
I	Earthwork					
1	E/W in excavation in Hard Soil	Cum	61			
2	E/W in backfilling without watering in Hard Soil	Cum	61			
II. Pipe Works: Supply and Laying of Pipe Works						
1	150 mm GI Pipe (MC)	m	54			
2	100 mm GI Pipe (MC)	m	24			
3	80 mm GI Pipe (MC)	m	24			
4	65 mm GI Pipe (MC)	m	24			
5	PE 100 PN 10 DN 75 mm HDPE Pipe	m	24			
III. Fittings: Supply of fittings and connection to the Pipes						
1	150/160 mm GI HDPE Flange set	set	4			
2	100/110 mm GI HDPE Flange set	set	2			
3	80/90 mm GI HDPE Flange set	set	2			
4	65/75 mm GI HDPE Flange set	set	2			
5	75 mm GI HDPE Flange set	set	2			
6	150 mm GI Socket (MC)	No.	8			
7	100 mm GI Socket (MC)	No.	3			
8	80 mm GI Socket (MC)	No.	3			
9	65 mm GI Socket (MC)	No.	3			
Sub-Total of A						
Sub-Total: A: Gadhawa RM - 1 , Kalakate Dang						
B: Chirange Jarauni Tinkhande						
I	Construction Works as per Standard Specification and Engineer's instruction					
1	Earth Work in excavation in BMS	m ³	16			
2	Boulder Soling Works	m ³	3			
3	PCC (1:3:6) Works	m ³	2			
4	HDPE Pipe laying & Joining Work					
5	HDPE (PE-100)PN-10, DN-110	m	20			
6	HDPE(PE-100)PN-10, DN-63	m	20			
7	Non Pressure RCC Hume Pipe NP3(450 mm dia), laying & joining works with all complete	Job	1			
II	Supply and laying of the below mentioend works as per Standard Specification and Engineer instruction					
1	Non Pressure RCC Hume Pipe NP# (450 mm dia)	m	30			
2	HDPE (PE-100)PN-10, DN-110	m	20			
3	HDPE (PE-100)PN-10, DN-63	m	20			
Sub-Total: B: Chirange Jarauni Tinkhande						
Total (A+B) (Total cost to be taken to Item 2.06 under BoQ)						

Annex C: Enhancement of approaches to wildlife crossings using existing bridges and culverts including fencing works - For 8 number of crossing (Item 7.2.1.8)

S.N.	Description	Unit	Quantity	Unit Rate	Amount	Remarks
1	Earthwork in excavation	cu.m	135			
2	Earthwork in filling	cu.m.	77			
3	RCC M15	cu.m.	52			
4	PCC M10	cu.m.	7			
5	Brick Work	cum	135			
6	Steel post of 50mm MS pipe	kg	8,800			
7	ISA frame work	kg	450			
8	Chainlink GI Wire Mesh 2"*2" size	sqm	2,125			
9	Barbed wire	m	2,210			
10	Forwork in foundation	sqm	337			
11	Stone Masonry Wall	cum	375			
12	Plaster work	sqm	1,115			
13	Rebar work in footing					
Total (Total cost to be taken to Item 7.2.1.8 under BoQ)						

Note:

1. All Barbed wire fence and associated works all complete shall be as per Engineer instruction and as per Standard specification, procedures.