

Name of Work : LAYING & CONSTRUCTION OF 10" NB X 175 Meter & 4" NB x 25 Meter UNDERGROUND STEEL PIPELINE NETWORK & ASSOCIATED WORKS IN PRAGATI INDUSTRIAL AREA, CHAKAN IN PUNE

Bid document No. MNGL/C&P/2017-18/136 dated 13.03.2018

MAINLINE, TERMINALS & ASSOCIATED WORKS		Name of Bidder :					
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1.0	<b>CARBON STEEL PIPES</b>						
1.1	<b>PIPELINE LAYING / INSTALLATION in normal surface/ unprepared surface (Katcha Surface)</b>						
	"Receiving and taking over" as defined in the specifications, handing, loading, transportation and unloading of Owner supplied 3-Layer PE coated and bare linepipes from Owner's designated stack-yard to Contractor's stock yard/workshop/work-site including preliminary activities, preparation of drawings, wherever required for crossing etc. including handling, stacking, stringing on the pipeline Right-of-Use/ pipeline route alignment, carrying out inspection of company supplied materials including linepipes at the time of taking over, laying/ installation of coated linepipes, associated buried valves, barred tees, insulating joints, flanges & fittings of all sizes, thickness & ANSI class rating and accessories as per specification wherever required depending on site condition including execution of all works, "taking over", handling , including loading and unloading, transportation of Owner supplied materials other than linepipe from Owner's designated place (s) of issue to work site,						
	additional lands required for Contractor's storage, fabrication, access for construction, procurement and supply of all materials (except Owner supplied materials), consumables, equipment, labour and other inputs, carrying out all temporary, ancillary, auxiliary works, ready for commissioning of pipeline as per drawings, specifications, other provisions of Contract document and instructions of Engineer-in-charge, including but not limited to carrying out the following works:						
	- Surveying of route and detours required at the time of execution including marking the same in topographical sheet, preparation of construction drawings showing survey details, and submit same to Owner for review / approval.						
	- Staking and installation of construction markers, clearing, fencing, grubbing, cutting of trees, full filling all the requirements of various statutory/ environment authorities to the entire satisfaction of concerned authorities, grading of work area. Shifting of all obstruction within the ROU/ Pipeline route alignment viz. electrical lines/ poles, telephone line / poles, etc. coordination with concerned authorities and obtain permissions from these authorities.						

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	- Barricading the pipeline construction area prior to execution of the works as per drawing no. MNGL/Plng./steel/04 enclosed with tender document and to the entire satisfaction of Owner / Engineer-in-charge.						
	- Trenching to all depths by excavation in all types of soils including soft/ hard rock and different type of pavement / footpath / roads etc. including rock breaking, chiselling or otherwise cutting etc. as required and storing excavated soil, reusable materials at designated area as directed by Engineer in charge and to a width to accommodate the pipeline and HDPE conduit for OFC as per the relevant standard/ specification etc. [The minimum depth of the top of pipeline shall be 1.0m measured from top of pipeline coating to the top of undisturbed surface of the soil or as per SCC/ OISD - 141 / 226, whichever is higher]. Dewater of trenches if required as per site condition.						
	- Carrying out repairs of pipe defects/ replacement in case of irreparable defects and repairs of defects of pipe coating not attributable to Owner including defects/ damages occurring during transportation / handling.						
	- Stringing of line pipes along pipeline trench / ROU on straw / sand / soft soil bags including supply of bags and its filling materials.						
	- Checking, cleaning, aligning, bending, cutting and bevelling (as required) of pipes for welding and field adjustments including pipe fittings, welding, carrying out non-destructive testing of welds as required including 100% radiography by X-ray and providing all requisite equipment, labour, supervision, materials, films, consumables, all facilities and personnel to process, develop, examine and interpret radiographs and other tests as required, carrying out repairs of weld joints found defective by Engineer-in-Charge, carrying out re-radiography and other tests as required on repaired joints.						
	- Carrying out installation of carrier line pipe at all minor crossing viz. cartrack, pathway, water bodies etc. at designated depth by open cut (except at crossing by HDD method).						
	- Carrying out installation of carrier line pipe in the casing pipe at cased crossing (excluding installation of casing pipes which is covered separately).						
	- Coating of field weld joints, long radius bends (R=3D), elbows, buried fittings and valves etc. including supply of coating materials etc. (i.e. heat shrinkable sleeves and high build epoxy etc.) as per PJS & Technical Specification compatible with 3 layer PE coating material of the line pipe.						

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	- Counting the number and type of trees cut in presence of DFO/concerned authorities and keeping record thereof, stacking and handing over of all cut trees.						
	- Installation / lowering the pipeline in trench to required depth as per PJS, Technical Specification & drawings, supply & placement of 1.0mm thk. HDPE Yellow colour warning mat over the pipeline & HDPE duct in same trench along the complete route as per standard drawings, data sheets & technical specifications, padding around pipeline as per Standard Drg. no. <b>MNGL/Ping./Steel/03</b> with suitable soil duly approved by EIC including supply of padding material, backfilling and its compaction to the satisfaction of concerned authorities with excavated earth / borrowed select soil including supply of borrowed select soil duly approved by EIC before backfilling and make ready for restoration to be done by Onwer / concerned authorities.						
	- Supply and installation of slope breakers, wherever required or, as directed by Onwer / Engineer-in-charge.						
	- Supply and installation of bank protection alongwith backfill materials duly approved by EIC for pipeline trench and banks falls under minor water body crossing as per technical specification & Std. Drg. No. <b>MNGL/Ping./Steel/28</b> , wherever required or, as directed by Onwer / EIC.						
	- Training and diversions of streams in steep slope area, wherever required.						
	- Carrying out air cleaning, pigging, flushing, cleaning and hydrostatic testing of complete pipeline with required quantity of corrosion inhibitor including pre-testing of designated sections complete as per specification and approved by Engineer-in-charge to specified pressures indicated elsewhere and duration after stabilization as per specification, providing all equipment, pumps, fittings, instruments, dead weight tester, pressure recorder, thermocouples etc., and services, supervision, labour, consumables, water including supply of corrosion inhibitor, air, etc. as required, locating of leaks and rectification of defect attributable to Contractor (rectification of defects in linepipe material not attributable to contractor shall be paid separately as per other item of schedule of rate), re-testing after rectification, dewatering after successful completion of hydrotesting of entire section and as approved by Engineer-in-Charge.						
	- All tying-in, including the tie-in(s) of the pipeline with the adjacent sections of pipeline including cutting of test header, rebeveling as required, radiography and other NDT examination, joint coating as per specification.						

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(1)	(2)					(3)	(4)	(5)	(6)	(7)=(5)+(6)	(8)=(4)X(7)
	- Final clean-up of right-of-use or area disturbed by contractor during their construction activities for laying of pipeline works and disposal of debris and surplus material to designated disposal areas and backfilling of trench and compaction of the same as per satisfaction of Owner and / Or as directed by Engineer-in-charge.										
	- Installation of all burried valves (except extended stem valves) inside the valve pit and making provision to operate the valve.										
	- Preparation of as-built drawings, pipe-books (1 set of tracing on polyester film and 6 sets of as-built drawings and 1 soft copy and 6 hard copies of pipe book) All the works shall be executed in accordance with the provision of contract including carrying out all temporary/ ancillary/ auxiliary works required for the performance of the works and all other acts, deeds, matters and things necessary to make the pipeline ready for precommissioning activities.										
	Specified dia (inches)	Thk (mm)	Material	Coating Type	Length of each pipe						
1.1.1	10" (250 mm)	6.4	API 5L Gr. B	3 Layer PE Coating (Externally)	Double random (approx. 11.5 m to 12.5 m)	Meter	50				
1.1..2	4" (100 mm)	6.4	API 5L Gr. B	3 Layer PE Coating (Externally)	Double random (approx. 11.5 m to 12.5 m)	Meter	20				
	<u>Note:</u>										
i)	This item shall be applicable for the underground steel grid main pipeline & branch pipeline including tap-off for distribution pipelines, valves, barred tees, insulating joints, bends (R=3D), flanges & fittings, accessories etc. (i.e. including arrangement for making provision for tap-off on proposed steel grid main pipeline) and aboveground approach pipeline upto Insulating Joint (excluding installation of aboveground insulating joint) for various stations.										
ii)	<b>In above item, restoration works are excluded from contractor's scope, except certain restoration works detailed in clause no. 17C. (V) of 3a. Particular Job Specification under Vol.-I of III. Since restoration works for backfilled pipeline trench shall be done by the concerned authorities / Owner.</b>										

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(1)	(2)	(3)	(4)	(5)	(6)	(7)=(5)+(6)	(8)=(4)X(7)
iii)	In above item, backfilling of pipeline trench by borrowed select soil duly approved by Owner / EIC shall be paid by separate item mentioned elsewhere in the SOR.						
iv)	Contractor shall not perform any pipeline activities along ROU without specified barricading as per Drg. No. MNGL/Ping./steel/04 and other safety measures. In case contractor does not provide specified barricading, Owner will levy penalty at 5% of the pipeline laying running meter rate, for the relevant section of the pipeline apart from other actions as per contract.						
v)	Items except above are covered separately. The lengths of pipelines are tentative.						
1.2	<b>PIPELINE LAYING / INSTALLATION in a built-up surface / Hard surface</b> Raking up of hard surface of any type including metal, concrete, bituminous, tiled, brick lined soft rock which is breakable in pieces manually (without use of pneumatic machine) etc. All tiles/ slabs/ curb stones etc. removed during excavation shall be placed properly. The other activities are as per SOR 1.1. Payment for cutting of hard rock, if any, is covered under SOR no. 6.0						
1.2.1	10" (250mm) 6.4 API 5L Gr. B 3 Layer PE Coating (Externally) Double random (approx. 11.5 m to 12.5 m)	Meter	25				
1.2.2	4" (100mm) 6.4 API 5L Gr. B 3 Layer PE Coating (Externally) Double random (approx. 11.5 m to 12.5 m)	Meter	10				
i)	Note: This item shall be applicable for the underground steel grid main pipeline & branch pipeline including tap-off for distribution pipelines, valves, barred tees, insulating joints, bends (R=3D), flanges & fittings, accessories etc. (i.e. including arrangement for making provision for tap-off on proposed steel grid main pipeline) and aboveground approach pipeline upto Insulating Joint (excluding installation of aboveground insulating joint) for various stations.						
ii)	In above item, restoration works are excluded from contractor's scope, except certain restoration works detailed in clause no. 17C. (V) of 3a. Particular Job Specification under Vol.-I of III. Since restoration works for backfilled pipeline trench shall be done by the concerned authorities.						

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iii)	In above item, backfilling of pipeline trench by borrowed select soil duly approved by Owner / EIC shall be paid by separate item mentioned elsewhere in the SOR.						
iv)	Contractor shall not perform any pipeline activities along ROU without specified barricading as per Drg. No. MNGL/PInG./steel/04 and other safety measures. In case contractor does not provide specified barricading, Owner will levy penalty at 5% of the pipeline laying running meter rate, for the relevant section of the pipeline apart from other actions as per contract.						
v)	Items except above are covered separately. The lengths of pipelines are tentative.						
1.3	<b>Permission Liasioning /Follow-up</b>						
1.3.1	Liasioning & follow up for Permission with all the concerned authorities & boards viz Railways, NH, Local Municipal, Panchyat, Electricity, REC, RES, Sewage water, Drinking water, Forest, Social Forestry, Owners of OFC, Traffic, Law & Order, Fire Brigade etc. for entire pipeline length and associated terminals (like SVs, tap-offs) alongwith associated work as per tender.	Meter	205				
<b>2.0</b>	<b><u>RESTORATION</u></b>						
	Restoration of asphalt / concrete / red stone roads / pavement/Footpath/Paver block including compaction of soil, to original condition as per requirement and to the entire satisfaction of EIC and / or concerned Owners having jurisdiction for following thickness.						
2.1	Restoration of Asphalt road as per the tender specs & drg no.MNGL/PInG./Steel/31	Sq. metre	5				
2.2	Reconstruction of Footpath as per tender specs & drg no. MNGL/PInG./Steel/32	Sq. metre	5				
2.3	Reconstruction of Concrete Paving as per tender specs & drg no. MNGL/PInG./Steel/34	Sq. metre	5				
2.4	Reconstruction of road having (asphalt) Black Top, Full Crust(Type 1) as per tender document & drg no. MNGL/PInG./Steel/35	Sq. metre	5				

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3.0	<p><b>BORROWED LOCAL SELECT SOIL FOR BACKFILLING</b></p> <p>Additional work over and above item 1.0 for supply of specified and approved quality of borrowed local soft graded soil / sand in place of available excavated material and / or other suitable soil as per applicable standards / specifications, including backfilling of excavated trench for specified length after laying and padding of pipeline, including local transportation of such special backfill material over all distances, complete.</p> <p><b>Note - Soil obtained from within 10 km radius of work-site(s) shall be considered as local soil otherwise the soil will be considered as foreign soil.</b></p>	m <sup>3</sup>	5				
4	<p><b>CROSSING BY BORING / OPEN CUT/ HDD METHOD FOR ROAD CROSSING</b></p> <p><b>By Boring</b> - Complete work of the other road crossings (between the limits as defined at site and decided by Engineer-in-charge) including supply of casing pipe of minimum 2 mm PE tape externally coated of size 600mm OD x 6.4mm thk., 400mm OD x 6.4mm thk., 300 mm NB x 6.4mm thk., 200 mm NB x 6.4mm thk., confirming to API 5L Gr. B/ IS:3589 or equivalent and CS conduit (for OFC laying) of size 168mm OD, 6.4mm thk. duly coal tar epoxy coated of minimum 300 micron confirming to API 5L Gr. B / IS:3589 or equivalent ERW pipe including handling, loading, transportation, unloading to Contractor's own stock yard/ work site. Pre-construction survey and making of crossing drawing based on site visit and getting their approval from concerned Authority/ Engineer-in-charge prior to start the execution of work.</p>						
	<p>Preparation of required length of carrier pipeline welded string including all other works as mentioned in item no. 1.0 above and specification/ drawings. Insertion of carrier pipeline welded string including all other works as mentioned in item no. 1.0 above and as per specification/ drawings. Insertion of carrier pipe in casing pipe after above ground pretesting at specified test pressure and installation of casing insulators as per specification/ drawings. Installation of vent and drain assembly, fixing of end seals, backfilling and restoration as original of the facilities crossed and performing all other works including pigging, cleaning, final hydrotesting etc. alongwith mainline works (as mentioned in item no. 1.0 above) and as per specification, approved procedure, drawing etc. and instruction of Engineer-in-charge and provision of contract document, getting NOC from all concerned Authority of the facilities crossed.</p>						

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	Installation of casing pipe and CS conduit by jacking/ boring/ for rail/ road and other unspecified crossings in all type of sub-soil condition including soft / hard rock and open cut for adjacent service road, canal, minor nature of water channel, utility line crossing (if any) wherever required for all depth in all type of soils and terrain for carrier pipe insertion and pulling of OFC & HDPE conduit. All other Contractor supplied materials like casing insulators and casing end seals as per enclosed specification/ drawings, materials for casing vents and drain assembly etc. including supply of all other materials, equipments, consumables, manpower, welding including visual inspection of all weld joints.						
	<b>By HDD</b> Complete work of the road crossing (between the limits are defined as approved drawings) by HDD method including "Receiving and taking over" owner supplied three layer PE coated line pipes from Owner's designated place to issue/ dump site(s) and transportation to Contractor's stock yard/ work shop/ work site including all handling loading, unloading, aligning etc. supply of all Contractor supplied material including required length of CS conduit duly coal tar epoxy coated of minimum 300 micron for OFC laying of size 150mm NB; 6.4mm thk. of API 5L Gr. B / IS : 3589 or equivalent ERW pipe to work site(s), manpower, equipment, other resources and acquiring the required land for storage, fabrication including string preparation of pipes, welding, welding repair, radiography, coating of field joints with special type Heat Shrink Sleeve and repair of pipeline coating with special repair patch materials as per specification,						
	pre-testing etc. of complete string made for crossing access for Contractor etc. and execution of, but not limited to, following works in accordance with specifications and instruction of Engineer-in-charge and as per all provision of Contract Document.						
	Pre-construction survey based on site visit, collection of data (if required) from concerned Authority including design and detail engineering and making of crossing drawings for getting their approval from concerned Authority/ Engineer-in-charge, getting work permit/ NOC for road crossing as well as utility crossings (if any) encountered during road crossing prior to start the execution of work.						



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	Directional drilling to required depth from top of road including maintenance of drill hole in all types of strata including rocky terrain at all depth to accommodate the pipeline and CS conduit for OFC laying at all conditions encountered during rail/ road crossing by approved HDD methods for providing minimum cover specified in code/ specification or the actual depth as decided by concerned authority, whichever is more.						
	Backfilling of the ditch/ trench including restoration and cleanup of area and all other works including pigging, cleaning, final hydrotesting etc. alongwith mainline works (as mentioned in item no. 1.0 above) required as per specification, approved drawings, calculations, methods and to the satisfaction of Engineer-in-charge and/or as directed by concerned Authority.						
	<b>Details of Road Crossing</b> Road Crossings at various locations as decided by EIC at site as per concerned authority requirement.						
<b>4.1</b>	<b>1."Installation of pipeline across National/ State Highways at 1.5 top covers as per SCC and technical specifications</b>						
4.1.1	10" NB, WT 6.4 mm, API 5L Grade B (underground pipe line laying) by Open Cut / jacking /boring / HDD (along with MDPE upto 180 mm Dia if necessary)	Meter	100				
5.0	<b>Excavation beyond 1.5m depth in case of crossing of utilities/ drain/ culverts etc. through open cut upto the following depth (including restoration of the damaged area to its original condition and satisfaction of the Engineer-in-charge / concerned authorities)</b> :-						
5.1	<b>In Normal Surface / Unprepared surface (Katcha Surface)</b>						
i)	Deeper than 1.5 m & upto 2.5 m below existing level (for 250 mm NB Pipeline)	Meter	10				
ii)	Deeper than 2.5 m & upto 4.5 m below existing level (for 250 mm NB Pipeline)	Meter	10				
iii)	Deeper than 1.5 m & upto 2.5 m below existing level (for 100 mm NB Pipeline)	Meter	10				
iv)	Deeper than 2.5 m & upto 4.5 m below existing level (for 100 mm NB Pipeline)	Meter	10				
6.0	<b>Excavation of hard rock</b>						
	Excavation of hard rock wherever hard rock of single piece exceeding 1.0 m in length removable by pneumatic chisel/ drill as per direction of EIC.	Cub. M	25				

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7.0	<b>REPAIR OF DEFECT IN PIPES (NOT ATTRIBUTED TO CONTRACTOR)</b> Repair of defects on Owner supplied linepipes of all grades and wall thickness as specified in following items, noted and recorded at the time of "receiving and taking over" by Contractor in the presence of Engineer-in-charge.						
7.1	Cutting and rebeveling for dents in bevels exceeding 3 mm in depth for pipe sizes:						
	<b>Specified OD, mm</b>						
7.1.1	273	Nos.	5				
7.1.2	114.3	Nos.	5				
7.2	Jack out of dents in bevels ranging between 1 mm and 3 mm in depth for pipe sizes:						
	<b>Specified OD, mm</b>						
7.2.1	273	Nos.	5				
7.2.2	114.3	Nos.	5				
8.0	<b>REPAIR OF COATING DEFECTS (NOT ATTRIBUTED TO CONTRACTOR)</b>						
8.1	<b>Repair of Holiday in Coating (Noted and recorded at the time of "receiving and taking over")</b> Supply of all coating repair materials as per requirements of specification to be compatible with line pipe coating material, supply of all consumables, utilities, equipments and all manpower required, pipe cleaning and surface preparation, repairing of coating defects (resulting in holiday) and testing including all handling, transportation, etc. for line pipes, performing all works necessary for the completion of the works strictly in accordance with relevant specification and instructions of Engineer-In-Charge. This rate shall be applicable per sq. cm of the exposed steel area exposed steel area.	Sq. cm.	10				

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9.0	<b>PERMANENT MARKERS</b> Supply, fabrication and installation of all types of permanent markers along the route including all associated civil works such as excavation in all types of soil, construction in all types of soil, construction of pedestals and grouting with concrete, clearing, supply and application of approved colour and quality of primer and paint, stencil letter cutting for numbers, direction, change etc., restoration of area to original condition and performing all works as per drawing, specification and instruction of engineer-in-charge.						
9.1	Pipeline RCC boundary / route marker as per drawing	Nos.	10				
9.2	Pipeline warning markers with post & foundations	Nos.	2				
9.3	Pipeline warning plate markers without post & foundations	Nos.	2				
9.4	Pipeline direction marker with post & foundations	Nos.	2				
10.0	<b>LEAK / BURST (ATTRIBUTABLE TO OWNER)</b> All works for locating leak / burst in Company's supplied material only (occurred during hydrostatic testing) including necessary repairing/replacing defective pipe lengths including cutting and out and removing the defective pipe, pre-testing and welding of replacement pipe, NDT of welds, repair and retesting of defective welds, coating/painting of replacement pipe, pretesting the replacement pipe into mainline/branch line, coating/painting of welding joints, cleanup, retesting including cost of all labour materials, consumables and performing all works in accordance with the provisions of the Contract document and as directed by Owner /Engineer-in-charge/ Engineer in-charge						
10.1	For 10" NB Line	Lumpsum	1				
10.2	For 4" NB Line	Lumpsum	1				
	Note: i) This rate is applicable for manufacturing defects in Owner supplied material only. ii) Leak detection, its rectification and successfully re-hydrotesting shall be carried out as per approved procedure by Contractor with a view that completion of all activity for successful hydrotesting is not inordinately extended which will hamper the overall project schedule.						

Name of Work : LAYING & CONSTRUCTION OF 10" NB X 175 Meter & 4" NB x 25 Meter UNDERGROUND STEEL PIPELINE NETWORK & ASSOCIATED WORKS IN PRAGATI INDUSTRIAL AREA, CHAKAN IN PUNE

Bid document No. MNGL/C&P/2017-18/136 dated 13.03.2018

MAINLINE, TERMINALS & ASSOCIATED WORKS		Name of Bidder :					
Item No.	Description of item	Unit	Qty	Unit rate inclusive of all taxes & duties except GST (Rs.)	Per Unit Goods & Service Tax (GST) @ % (Rs.)	Unit rate inclusive of all taxes & duties including GST (Rs.)	Total Amount inclusive of all taxes & duties including GST (Rs.)
(1)	(2)	(3)	(4)	(5)	(6)	(7)=(5)+(6)	(8)=(4)X(7)
11.0	<b>PRE-COMMISSIONING AND ASSISTANCE IN COMMISSIONING OF PIPELINE SYSTEM</b> Swabbing, drying, purging with nitrogen of the complete pipeline network and the associated facilities being installed to the specified acceptance criteria, carrying out pre-commissioning works, providing assistance during the complete duration of commissioning operations for entire pipeline network system including supply of all equipment, man-power, consumables (including pigs & nitrogen required for purging with maintaining nitrogen column of minimum 10% of pipeline geometric volume) materials for all temporary works and performing all associated works, complete as per the relevant specifications, other provisions of Contract document and instructions of Engineer-in-charge.						
11.1	For 10" NB Pipeline	Meter	175				
11.2	For 4" NB Pipeline	Meter	30				
12.0	<b>IDLE TIME PRESERVATION OF PIPELINE</b> Preservation of complete pipeline and associated facilities forming part of the pipeline as per Bid document and its maintenance including supply of all consumables, all equipment, manpower, etc. complete as per the requirements of specifications, other provisions of Contract document and instructions of Engineer-in-charge. Note : Owner reserves the right to exercise either or none of the rates below.						
12.1	By filling and pressurizing with nitrogen to a pressure of 2 bar(g) for a period of 3 months.						
i)	For 10" NB Pipeline	Meter	175				
ii)	For 4" NB Pipeline	Meter	30				
12.2	For every additional period of one month or part thereof						
i)	For 10" NB Pipeline	Meter	175				
ii)	For 4" NB Pipeline	Meter	30				

Name of Work : LAYING & CONSTRUCTION OF 10" NB X 175 Meter & 4" NB x 25 Meter UNDERGROUND STEEL PIPELINE NETWORK & ASSOCIATED WORKS IN PRAGATI INDUSTRIAL AREA, CHAKAN IN PUNE

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Item No.	Description of item	Unit	Qty	Unit rate inclusive of all taxes & duties except GST (Rs.)	Per Unit Goods & Service Tax (GST) @ % (Rs.)	Unit rate inclusive of all taxes & duties including GST (Rs.)	Total Amount inclusive of all taxes & duties including GST (Rs.)
(1)	(2)	(3)	(4)	(5)	(6)	(7)=(5)+(6)	(8)=(4)X(7)
13.0	<b>VALVE PITS</b> All civil works including supply of all materials, excavation of pit, piping supports including all PCC and RCC works for valves pits including pedestals with insert plates as required sealing of pipe at valve pits, providing cover etc. and finishing , clean-up and restoration of site, filling and grading of area around valve station for avoiding any local flooding of area, as per typical drawing and specification enclosed and instructions of Engineer-in-charge.						
13.1	Valve Pit of Size 2m x 1.5m	Nos.	2				
14.0	<b>SUPPLY OF ASSORTED PIPE, FITTINGS AND FLANGES</b> Complete works of supply of pipes, flanges & fittings for aboveground & underground installation including all taxes, duties, transportation and inspection charges but not limited to, the following items in accordance with PMS (piping material specification), relevant specifications & drawings indicated in job specification under SCC (technical) and instructions of Engineer-in-charge and as per all provisions of the CONTRACT DOCUMENT. - Handling including lifting, transportation from Contractor Stores to CONTRACTOR's workshop for fabrication and/ or to work site for field fabrication and erection for all piping items supplied by Contractor.						
14.1	<b>Carbon Steel Pipe (A 106, Gr. B, Seamless B-36.10)</b>						
	Size                      Rating/ Schedule						
i)	4" NB, BE              S40	Meter	10				
ii)	2" NB, BE              S80	Meter	10				
iii)	1½" NB, PE            S80	Meter	10				
iv)	1" NB, PE              S80	Meter	10				
v)	¾" NB, PE              S80	Meter	10				

Name of Work : LAYING & CONSTRUCTION OF 10" NB X 175 Meter & 4" NB x 25 Meter UNDERGROUND STEEL PIPELINE NETWORK & ASSOCIATED WORKS IN PRAGATI INDUSTRIAL AREA, CHAKAN IN PUNE

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Item No.	Description of item	Unit	Qty	Unit rate inclusive of all taxes & duties except GST (Rs.)	Per Unit Goods & Service Tax (GST) @ % (Rs.)	Unit rate inclusive of all taxes & duties including GST (Rs.)	Total Amount inclusive of all taxes & duties including GST (Rs.)
(1)	(2)	(3)	(4)	(5)	(6)	(7)=(5)+(6)	(8)=(4)X(7)
14.2	<b>Flanges</b>						
a)	<b>Weld Neck (B-16.5, 150# A105, Serrated finish)</b>						
	Size                      Rating/ Schedule						
i)	4" NB, RF End thickness to match with pipe wall thickness	Nos.	10				
ii)	2" NB, RF End thickness to match with pipe wall thickness	Nos.	2				
iii)	1½" NB, RF End thickness to match with pipe wall thickness	Nos.	2				
b)	<b>Blind Flanges (B-16.5, 150# A105, Serrated)</b>						
	Size						
i)	4" NB, RF	Nos.	10				
ii)	2" NB, RF	Nos.	2				
iii)	1½" NB, RF	Nos.	2				
14.3	<b>Elbow (Seamless)</b>						
a)	<b>90° Elbow (A234 Gr. WPB, B-16.9, 1.5D)</b>						
	Size                      Rating/ Schedule						
i)	10" NB                      Sch. Std.	Nos.	5				
ii)	4" NB End thickness to match with pipe wall thickness	Nos.	5				
iii)	2" NB                      Sch. 80	Nos.	5				
iv)	1" NB                      SW, 3000#	Nos.	4				

Name of Work : LAYING & CONSTRUCTION OF 10" NB X 175 Meter & 4" NB x 25 Meter UNDERGROUND STEEL PIPELINE NETWORK & ASSOCIATED WORKS IN PRAGATI INDUSTRIAL AREA, CHAKAN IN PUNE

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MAINLINE, TERMINALS & ASSOCIATED WORKS				Name of Bidder :			
Item No.	Description of item	Unit	Qty	Unit rate inclusive of all taxes & duties except GST (Rs.)	Per Unit Goods & Service Tax (GST) @ % (Rs.)	Unit rate inclusive of all taxes & duties including GST (Rs.)	Total Amount inclusive of all taxes & duties including GST (Rs.)
(1)	(2)	(3)	(4)	(5)	(6)	(7)=(5)+(6)	(8)=(4)X(7)
b)	<b>45° Elbow (A234 Gr. WPB, B-16.9, 1.5D)</b>						
	Size Rating/ Schedule						
i)	4" NB End thickness to match with pipe wall thickness	Nos.	2				
ii)	2" NB Sch. 80	Nos.	2				
iii)	1" NB SW, 3000#	Nos.	2				
c)	<b>90° Elbow (A234 Gr. WPB, B-16.9, R= 3 D)</b>						
	Size Rating/ Schedule						
i)	10" NB Sch. Std.	Nos.	6				
ii)	4" NB End thickness to match with pipe wall thickness	Nos.	6				
d)	<b>45° Elbow (A234 Gr. WPB, B-16.9, R= 3 D)</b>						
	Size Rating/ Schedule						
i)	10" NB Sch. Std.	Nos.	5				
ii)	4" NB End thickness to match with pipe wall thickness	Nos.	4				
e)	<b>22½° Elbow (A234 Gr. WPB, B-16.9, R= 3 D)</b>						
	Size Rating/ Schedule						
i)	10" NB Sch. Std.	Nos.	5				
ii)	4" NB End thickness to match with pipe wall thickness	Nos.	4				
f)	<b>11½° Elbow (A234 Gr. WPB, B-16.9, R= 3 D)</b>						
	Size Rating/ Schedule						
i)	10" NB Sch. Std.	Nos.	5				

Name of Work : LAYING & CONSTRUCTION OF 10" NB X 175 Meter & 4" NB x 25 Meter UNDERGROUND STEEL PIPELINE NETWORK & ASSOCIATED WORKS IN PRAGATI INDUSTRIAL AREA, CHAKAN IN PUNE

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(1)	(2)	(3)	(4)	(5)	(6)	(7)=(5)+(6)	(8)=(4)X(7)
14.4	<b>Tees (Seamless)</b>						
a)	<b>Equal Tee (A234 Gr. WPB, B16.9)</b>						
	Size Rating/ Schedule						
i)	4" NB x 4" NB x 4" NB End thickness to match with pipe wall thickness	Nos.	4				
ii)	2" NB x 2" NB x 2" NB Sch. 80	Nos.	2				
b)	<b>Unequal Tee (A234 Gr. WPB, B16.9)</b>						
	Size Rating/ Schedule						
i)	4" NB x 4" NB x 2" NB End thickness to match with pipe wall thickness x Sch.80	Nos.	2				
14.5	<b>Weldolet and Sockolet</b>						
a)	<b>Weldolet (A 234 Gr. WPB, BW)</b>						
	Size Rating/ Schedule						
i)	4" NB x 2" NB Sch. Std.	Nos.	5				
b)	<b>Butt Weld Disc End Cap (A234 Gr. WPB, B16.9)</b>						
	Size Rating/ Schedule						
i)	10" 150#	Nos.	2				
ii)	4" 150#	Nos.	2				
14.6	<b>Barred Tees (As per Data Sheets)</b>						
a)	<b>Equal / Unequal Barred Tees (A234 Gr. WPB, B16.9)</b>						
	Size Rating/ Schedule						
i)	10" NB x 10" NB x 4" NB Sch. Std.x Sch. XS	Nos.	2				



Name of Work : LAYING & CONSTRUCTION OF 10" NB X 175 Meter & 4" NB x 25 Meter UNDERGROUND STEEL PIPELINE NETWORK & ASSOCIATED WORKS IN PRAGATI INDUSTRIAL AREA, CHAKAN IN PUNE

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(1)	(2)	(3)	(4)	(5)	(6)	(7)=(5)+(6)	(8)=(4)X(7)
	Note:						
i)	For all the supply items mentioned above, procurement shall be made as per enclosed Data Sheets and respective technical specification, after due approval of Engineer-in-charge.						
ii)	The quantities mentioned above are tentative and quantities for above supply items shall be finalised & procured by Contractor only after due approval of EIC. Contractor supplied any surplus item during reconciliation shall not be accepted / taken by the Owner.						
15.0	<b>PLANT PIPING (ABOVEGROUND)</b> Transportation of all piping items from Owner's and/ or Contractor's storage point to work at site/ workshop as applicable, complete work of fabrication, erection, painting, testing of pipes, flanges and fittings and making ready for further Commissioning / Start-up of carbon steel piping of all sizes and ratings including supply of all consumables, equipment, manpower and other resources and execution of, but not limited to, the following works in accordance with relevant specifications indicated in item 5.5 of PJS & scope of work indicated in SCC, drawings, specification and instructions of Engineer-in-charge and as per all provisions of the CONTRACT DOCUMENT.						
	Fabrication including cutting, edge preparation, inclusive of grinding the edges of pipes, fittings, flanges etc. to match with the matching edges of uneven/different thickness wherever required, welding, attachment of all pipe fittings like elbows, tees, reducers. Supply of all olets less than 2" NB size, all sizes of nipples and coupling etc. as required for completion of job.						
	Weldolets, sockolets, flanges, vent and drain point connection etc., including providing stubin connections, fabricated fittings and reinforcement pads etc., as required.						
	Erection including prior cleaning, lifting, placing on pipe sleepers and supports, overhead on racks, skids and at all elevations including installation and carrying out connected activities for all types of valves including supply and fixing of gaskets, studs/ bolts, nuts wherever required for all sizes, levelling, aligning, joining of flanges, blind flanges, connecting with equipment, nozzles, strainers, tie-in with existing piping/facilities, etc. tapping for inline instruments like pressure gauges, thermowells, sample connection, etc.						

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(1)	(2)	(3)	(4)	(5)	(6)	(7)=(5)+(6)	(8)=(4)X(7)
	Preparation of final bill of material based on piping GADs.						
	Preparation of isometric and fabrication drawings.						
	Carrying out Non-destructive testing as required except items mentioned in sl. no. 16.2 of SOR.						
	Surface preparation before application of primer by means of sand blasting including supply of approved quality of sand, manpower, machineries, tools & tackles to achieve required roughness as per specification and as per instruction of Engineer-in-charge.						
	Painting of entire system (including aboveground all pipes fittings, flanges and accessories) as per specification suitable for highly corrosive area environment including supply of approved paints and primers, application of primer and paints, identification lettering/ numbering, colour coding, etc. as specified including rub down & touch up of shop primer or scrapping of shop primer wherever required by COMPANY and providing scaffolding for all heights etc.						
	Cleaning and flushing by water/ compressed air, testing of the systems including hydrostatic, pneumatic and any other type of testing as specified, draining, drying by compressed air/other methods approved by COMPANY.						
	Precommissioning & making operational all piping system and equipments.						
	Commissioning Contractor scope shall provide all necessary assistance in term of supply of man-power, equipment, tools and tackles required amount of nitrogen for purging of entire terminal piping system including equipments etc. to the company during commissioning activities.						
	Completion of all such work in all respects as per scope of work and as per drawings, specifications and instructions of the COMPANY and keeping the system ready in all respects for further commissioning and start up.						
	Hook-up works (with client/ consumer piping at battery limits):						

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(1)	(2)	(3)	(4)	(5)	(6)	(7)=(5)+(6)	(8)=(4)X(7)
15.1	Complete Carbon Steel aboveground Piping Work with painting including all fittings, flanges and supply of all required gaskets, studs bolts & nuts etc. as described under item 14.0 above						
	Carbon Steel Pipe (ASTM A 106, Gr. B, Seamless B-36.10)						
	Size Rating/ Schedule						
i)	6" NB, BE 6.4 mm thk./ S40	Meter	10				
ii)	4" NB, BE 6.4 mm thk. / S40	Meter	10				
iii)	2" NB, BE S80	Meter	10				
iv)	1½" NB, PE S80	Meter	5				
v)	1" NB, PE S80	Meter	5				
vi)	¾" NB, PE S80	Meter	5				
Note:	1) Pipe Specification and thickness may vary depending upon availability of pipe. No extra payment shall be made for this. 2) All butt welded fittings & flanges end shall generally match with connecting pipe wall thickness. However, in case of misalignment, Contractor shall have to do end preparation without any extra cost. 3) All o-lets less than 2" NB size, all sizes of coupling and nipples etc. as required shall be supplied by contractor but no separate payments shall be made as it is covered under erection rate.						

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(1)	(2)	(3)	(4)	(5)	(6)	(7)=(5)+(6)	(8)=(4)X(7)
15.2	<b>RADIOGRAPHY</b> Performance of radiographic inspection by gamma radiation as per scope of work and as per specifications in piping of all types and thickness including providing/hiring of all necessary equipments, supply of all consumables, and whatever else even though not expressly mentioned but required to perform the work as per specifications and instructions of Engineer-in-Charge (full circle re-radiography of the repaired joint and additional radiography necessitated due to poor performance of contractor's welder shall be carried out by the Contractor at his own cost and shall not be paid extra by Company). Radiographs shall be submitted to the Engineer-in-Charge for acceptance, whose decision shall be final and binding.						
	Size						
i)	6" NB	No. of Joints	10				
ii)	4" NB	No. of Joints	10				
iii)	2" NB	No. of Joints	10				
Note:	The quantities mentioned above are tentative.						
16.0	<b>Aboveground installation of Insulating Joint &amp; Valves etc.</b> Handling including lifting and transportation from COMPANY's warehouse to CONTRACTOR'S Stores and/or work site and installation of all types of valves, insulating joint including assembly of valve accessories, (if any) by bolting, threading or welding, supply and insertion of gaskets, nuts & bolts, nipples, etc. at all elevations of pipe sleepers, supports or overhead on racks, equipments nozzle, skid & painting etc. supply of all consumables, manpower, equipment, etc. for completion of all works as per scope of work and as per drawings, specifications and instructions of Engineer-in-charge including servicing/ cleaning of valve wherever required.						
16.1	<b>Flanged/ Welded Valves (Full Bore/ Reduced Bore)</b> Ball / Globe / Check Valve						
	Size	Rating/ Schedule					
i)	4" NB	150#	Nos.	5			

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(1)	(2)	(3)	(4)	(5)	(6)	(7)=(5)+(6)	(8)=(4)X(7)
ii)	2" NB 150#	Nos.	5				
16.2	<b>Sockolet Welded Valve</b> (Ball / Globe Valve)						
	Size Rating/ Schedule						
i)	1½" NB 800#	Nos.	5				
ii)	1" NB 800#	Nos.	5				
iii)	¾" NB 800#	Nos.	5				
iv)	½" NB 800#	Nos.	1				
16.3	4" NB, 150# - Insulating Joints	Nos.	2				
17.0	<b>STRUCTURAL WORKS</b>						
17.1	Supply of erection of single leaf mild steel gate 2.5m high with mesh upto 2m height and barbed wire fencing and 2m wide complete in all respect including painting as per TS on all MS items, all works as per specification and drawings excluding foundations and RCC beams.	Nos.	2				
17.2	Supply of all materials, fabrication and erection of chain link fencing 2.5m high with mesh up to 2m height and barbed wire fencing complete in all respects including painting as per TS on all MS items, all works as per specification and drawings excluding foundation and RCC beams.	RM	40				
17.3	<b>Pipe Supports &amp; Other Structures</b>						
a)	Supply, fabrication and erection of all types of pipe supports like clamps, saddle, guide stops, cradles, turn buckles, anchors, T-posts; stockade/ trestle and pipe bridge for overhead piping; frames for canopy, approach ladders and platforms, crossover, cable tray supports, etc. including painting suitable for highly corrosive area as per specification labour and supervision & complete work as per drawings, specifications and instruction of Engineer-in-charge. (Bolts, nuts, washers, U-clamps etc. for supporting shall be supplied by the Contractor within the rates quoted. These items will not be measured and paid seperately). The work is to be completed in all respect as per scope of work and specification.	M.Ton	0.36				

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(1)	(2)	(3)	(4)	(5)	(6)	(7)=(5)+(6)	(8)=(4)X(7)
	Notes:						
i)	The quantities indicated are estimated values and hence are approximate. Final payment will be made based on actual quantities to be certified by the Purchaser.						
ii)	The cost of MS bolts (permanent and service), washers, electrodes, putty, gases, cost of straightening the raw materials, cutting of flats from plates and providing splices, paints, tools, plants etc., as required for the work shall be deemed to be included in the quoted rates.						
iii)	All handling and transport charges of raw materials and fabricated structures including double handling, as required, for completion of work in accordance with time schedule, are deemed to be included in the quoted rates.						
18.0	<b>CIVIL WORKS</b>						
18.1	<b>Site Grading</b> Earth in excavation and filling to the grades and levels shown in the approved drawings in all kinds of conditions including for Road embankments, using approved quality good earth from designated borrow area, for all heights and depths including clearing and stripping (min. 150mm) of the area marked for filling, taking spot levels, consolidating the exposed natural soil surface, excavating the earth from borrow area loading, transporting & unloading, spreading in layers not exceeding 150mm thickness, breaking clods, watering (if reqd.), ramming and compacting by manual/ mechanical means to give minimum 92% of modified Proctor's density of earth, testing & dressing including disposal of all unserviceable material all complete as per specifications and directions of Engineer-in-charge.	M <sup>3</sup>	50				
	(Rate to include cost of all labour, tools, tackles, equipment, hire charges, cost of borrow earth by way of royalties, right of way, cess etc., as applicable with all bye works and sundry works).						
18.2	<b>Plain Cement Concrete</b> Supplying and laying plain cement concrete (including shuttering of required) in all types of concrete works including levelling courses below foundation, substructure, superstructure, chambers, cable trench, under floors and any other locations, at all levels as per drawings, specifications and directions of the Engineer-in-charge.						

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(1)	(2)	(3)	(4)	(5)	(6)	(7)=(5)+(6)	(8)=(4)X(7)
a)	<b>PCC 1:2:4</b> 1 Cement : 2 Coarse sand : 4 stone aggregate 20mm nominal size.	M <sup>3</sup>	5				
b)	<b>PCC 1:4:8</b> 1 Cement : 4 Coarse sand : 8 stone aggregate 40mm nominal size. (Rate to include cost of all labour, tools, tackles, equipment, hire charges, supply of all materials, shuttering, earthwork in excavation and backfilling using approved earth in all conditions etc. with all bye works and sundry works.)	M <sup>3</sup>	5				
18.3	<b>Reinforced Cement Concrete</b> Providing and laying reinforced cement of grade M-20 with 20mm and down grade crushed stone aggregate in all types of structures like foundations, pedestals, pedestal bases, pipe supports, sleepers cable trench including construction joints, bitumen painting on surface in contact with soil, providing and fixing reinforcing steel, shuttering, inserts, finishes etc. at all depths and heights complete as per drawings, specifications and direction of the Engineer-in-charge.	M <sup>3</sup>	5				
	Rate to include cost of all labour, tools, tackles, equipment, hire charges, supply of all materials such as minimum 43 grade cement including sulphate resistant cement for substructures, R/F steel, Inserts, bolts, conduits, bitumen, other minor construction materials, shuttering, stanging, earthwork in excavation and backfilling using serviceable earth in all conditions, shorting bailing and pumping out water, testing of concrete, curing etc. with all bye works and sundry works.						
18.4	<b>Concrete Pavement</b> Providing and laying reinforced cement concrete of (M-20 grade) with 20mm and down grade crushed stone aggregate in pavement, including preparation of base (i.e. compacted subgrade, 200 thk sand and 50 thk PCC M-10 grade), leaving pockets if necessary, making recess, projections, fixing inserts conduit pipes (GI, PVC, HDPE, etc.) laying in alternate panels, filling the gaps between the panels with bitumen etc., making slopes, finishing edges, leaving bars for pedestals & sleepers including providing sand fill isolation, shuttering, providing and fixing reinforcing steel, curing, chipping and modification works etc. as specified in any shape, thickness, position and finishing the top surface smooth as per requirement etc. all complete as per drawings, specifications and directions of the Engineer-in-charge.						
	150 mm thick (Type-I)	M <sup>2</sup>	50				

Name of Work : LAYING & CONSTRUCTION OF 10" NB X 175 Meter & 4" NB x 25 Meter UNDERGROUND STEEL PIPELINE NETWORK & ASSOCIATED WORKS IN PRAGATI INDUSTRIAL AREA, CHAKAN IN PUNE

Bid document No. MNGL/C&P/2017-18/136 dated 13.03.2018

MAINLINE, TERMINALS & ASSOCIATED WORKS				Name of Bidder :			
Item No.	Description of item	Unit	Qty	Unit rate inclusive of all taxes & duties except GST (Rs.)	Per Unit Goods & Service Tax (GST) @ % (Rs.)	Unit rate inclusive of all taxes & duties including GST (Rs.)	Total Amount inclusive of all taxes & duties including GST (Rs.)
(1)	(2)	(3)	(4)	(5)	(6)	(7)=(5)+(6)	(8)=(4)X(7)
18.5	<b>Brick Work</b> Providing brick work with brick class designation M-7.5 of IS:1077 in cm1:4 (1 cement : 4 sand) in steps, walls, retaining walls and load bearing structures drains, or any shape with all lead, depths & height including curring, scaffolding, etc., as per specifications and drawings with all bye-works and direction of the Engineer-in-charge. (Rate to include cost of all labour, tools, tackles, equipment, hire charges, supply of all materials such as minimum 43 grade cement bricks, finishes, bitumen, other minor construction materials, shuttering, staging, masonry work, plastering, painting etc. with all bye-works and sundry works).	M <sup>3</sup>	15				
18.6	<b>Laying of Brick Layer</b>						
	Providing single layer of brick work with supply of brick (class designation M-7.5 of IS:1077) to entire width of trench above Warning Mat placed in trench over the laid pipeline as per standard drawing, specification and instruction of Owner. (Rate to include cost of all labour, tools, tackles, equipment, hire charges & supply of all materials, etc.)						
18.6.1	For width of 10" pipeline trench	Meter	175				
18.6.2	For width of 4" pipeline trench	Meter	30				
19.0	<b>TEMPORARY CATHODIC PROTECTION SYSTEM</b>						
19.1	Design, detailed engineering, supply, installation, testing and commissioning of the temporary Cathodic protection system using Mg/ Zn galvanic anodes to protect the external surface of 3 LPE coated entire 16 km (approx.) long steel pipeline network against corrosion for design life of minimum 1 year or till commissioning of PCP system whichever is later as per standard specification No. MNGL/Steel/TS/15 for temporary cathodic protection system. Scope shall also include but not limited to the following for completion of jobs:						
a)	Measurement of soil resistivity along the right of way of the main pipeline route as per specification for design & installation of anodes.						
b)	Collection of additional data related to cathodic protection along the right of way of pipeline as per specifications.						



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Item No.	Description of item	Unit	Qty	Unit rate inclusive of all taxes & duties except GST (Rs.)	Per Unit Goods & Service Tax (GST) @ % (Rs.)	Unit rate inclusive of all taxes & duties including GST (Rs.)	Total Amount inclusive of all taxes & duties including GST (Rs.)
(1)	(2)	(3)	(4)	(5)	(6)	(7)=(5)+(6)	(8)=(4)X(7)
c)	Supply, installation, testing & commissioning of one set of spark gap arrestor with 2 plate Zinc grounding cell of 20 kg net weight each across each insulating joint as per specification.						
d)	Supply, installation, testing & commissioning one set of polarisation cell with zinc anode at all high tension (66KV or higher) electrical power transmission line/Equipment crossing or running parallel to the pipeline for grounding purpose as per specification. The rating shall depend upon anticipated fault current & ground bed resistance at the location of installation. However, the rating of polarisation cell (krick) shall not be less than 5 KA & number of 20 kg net weight zinc anode shall not be less than two.						
e)	Supply & installation of Zinc Ribbon Anodes at 4-8 O'Clock position in the interval of 2 metre (max.) on carrier pipes at all cased crossings i.e. railways/ roads etc.						
f)	Monitoring of the protection system for 6 months.						
g)	All civil/ structural works related to TCP system including supply of bricks, cement & steel etc. required for completion of the system.						
19.1.1	For 10"	Meter	175				
19.1.2	For 4"	Meter	30				
i)	The quantities mentioned above are tentative and quantities for above including supply items shall be finalised & procured by Contractor only after due approval of EIC. Contractor supplied any surplus item during reconciliation shall not be accepted / taken by the Owner.						
ii)	For all the supply items mentioned above, procurement shall be made as per specification & Data Sheets, after due approval of Engineer-in-charge.						
20.0	<b>FIELD INSTRUMENTATION</b>						
20.1	<b>PRESSURE INSTRUMENTS</b>						
20.1.1	Supply , Installation of Pressure Gagues and their accessories inclusive of supply of necessary piping materials and tubings alongwith all necessary valves & fittings, fabrication and installation of impulse lines/ manifolds & hydraulic testing (exclusive of calibration of instruments) as per installation standard attached elsewhere in Tender Document and Supply as per Data Sheet No.MNGL/23K8/05/E5/I/001/DS-PG. Give breakup of supply and Installation rate.	Nos.	5				

Name of Work : LAYING & CONSTRUCTION OF 10" NB X 175 Meter & 4" NB x 25 Meter UNDERGROUND STEEL PIPELINE NETWORK & ASSOCIATED WORKS IN PRAGATI INDUSTRIAL AREA, CHAKAN IN PUNE

Bid document No. MNGL/C&P/2017-18/136 dated 13.03.2018

MAINLINE, TERMINALS & ASSOCIATED WORKS		Name of Bidder :					
Item No.	Description of item	Unit	Qty	Unit rate inclusive of all taxes & duties except GST (Rs.)	Per Unit Goods & Service Tax (GST) @ % (Rs.)	Unit rate inclusive of all taxes & duties including GST (Rs.)	Total Amount inclusive of all taxes & duties including GST (Rs.)
(1)	(2)	(3)	(4)	(5)	(6)	(7)=(5)+(6)	(8)=(4)X(7)
20.2	<b>TEMPERATURE INSTRUMENTS</b>						
20.2.1	Supply , Installation of Temperature Gauges with flanged Thermowell inclusive of installation of thermowell on the nozzle and installation of instruments (exclusive of calibration of instruments) as per installation standard attached elsewhere in Tender Document and Supply as per Data Sheet No. MNGL/23K8/05/E5/1/001/DS-TG. Give breakup of supply and Installation rate.	Nos.	1				
20.3	<b>CALIBRATION</b>						
20.3.1	Calibration of the instruments listed below including removal of instruments from pre-installed locations like panels, enclosure racks, fields etc. and refixing them back in respective/ required places, providing equipments, necessary test jigs, instrument air and all consumables. Calibration reports shall be prepared and to be submitted to the Purchaser/ Consultant.						
a)	Pressure Gauges	Nos.	5				
b)	Temperature Gauges	Nos.	1				
	Note:						
i)	The quantities mentioned above are tentative and quantities for above including supply items shall be finalised & procured by Contractor only after due approval of EIC. Contractor supplied any surplus item during reconciliation shall not be accepted / taken by the Owner.						

Name of Work : LAYING & CONSTRUCTION OF 10" NB X 175 Meter & 4" NB x 25 Meter UNDERGROUND STEEL PIPELINE NETWORK & ASSOCIATED WORKS IN PRAGATI INDUSTRIAL AREA, CHAKAN IN PUNE

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MAINLINE, TERMINALS & ASSOCIATED WORKS		Name of Bidder :					
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(1)	(2)	(3)	(4)	(5)	(6)	(7)=(5)+(6)	(8)=(4)X(7)
ii)	For all the supply items mentioned above, procurement shall be made as per specification & Data Sheets, after due approval of Engineer-in-charge.						
21.0	<p><b>Laying of MDPE pipe along with Steel pipe line</b>            Excluding supply of all MDPE pipe (PE 80/100,SDR11), but Including supply of Bends, Couplers, End caps, Tees, PE Reducer, CS to PE Fitting, Saddle Tapping, Warning mat etc. as required to complete the job. ( Particular job specification.)            "Receiving and taking-over" as defined in the specification, handling, loading, transportation and unloading of Owner supplied MDPE line pipes (PE80/100, SDR11) of all sizes (as free issue items) from Owner's designated place(s) of issue to Contractor's own stock-yard(s)/ Work Shop(s)/ work-site(s) including proper storing, stacking, identification, providing security &amp; insurance cover , including supply of accessories of all sizes &amp; thickness like Bends, Couplers, End caps, Tee, PE Reducer, CS to PE Fittings, Saddle Tapping, Warning Mat etc..</p>						
	Stringing/ uncoiling of the MDPE line pipe on the pipeline Right-of-Use, laying/ installation of MDPE line pipe alongwith steel pipeline (alongwith installation of required accessories as mentioned above) of following sizes, including executing all works; fabrication, access for construction; supply of all materials (except Owner supplied materials), consumables, labour and other incidental works and handing over the same after return of the surplus pipes to the Owner's designated stockyard(s); carrying out all temporary, ancillary, auxiliary works required to make the MDPE pipeline ready for commissioning as per drawings, specifications, scope of work indicated in PJS and other provisions of Contract document and instructions of Engineer-in-charge.						

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(1)	(2)	(3)	(4)	(5)	(6)	(7)=(5)+(6)	(8)=(4)X(7)
a)	UP to Dia 90mm	Meter	50				
b)	Dia 125mm	Meter	200				
	Note : The quantities indicated above against all individual item are tentative and may vary considerably depending upon site condition, methodology adopted as per site requirement with due approval of Owner/ Consultants.						
	General Note : 1 All SOR item shall be quoted by the bidder in the price part of the bid other-wise bid will be rejected. 2 All Bidders are requested to refer clause no. 17.0 of Particular Job Specification for Mainline, Mechanical & Associated works before filling the price against each item of above SOR. 3. Prices quoted shall be inclusive of all taxes/duties and nothing extra shall be payable by the owner except for statutory variation in Goods & service tax rate during the contractual period.						
	<b>Gross Total Amount inclusive of all taxes and duties including Goods &amp; Service Tax (in figures)</b>						
	<b>Gross Total Amount inclusive of all taxes and duties including Goods &amp; Service Tax (in words)</b>						

Place :  
Date :

Signature of Authorised  
Name :  
Designation :  
Seal :