

# Government of India Ministry of Science and Technology Department of Science and Technology Administration II (B) Section Technology Bhavan, New Mehrauli Road New Delhi-110 016

Tender Enquiry No.D-13022/ 3/ 2016 Admin II (B)

Date: 17th May., 2018

To,

All interested & eligible vendors

Sub: Percentage Rate & Lump sum Rate Tender & contract for works related to repair of toilet in S & T Block I in DST, Technology Bhavan, New Delhi -16

Dear Sirs,

For and on behalf of the President of India, sealed tenders are invited from eligible firms registered with CPWD or PWD for Percentage Rate Tender & contract for works for repair of toilets in S & T Block I in Department of Science & Technology, Technology Bhavan, New Delhi-16 as per the following requirements: -

i) Civil Works: Schedule I

- 2. In case your firm is eligible & interested in the above said work, you are requested to quote your lowest prices (% above/ below basis) in the enclosed Proforma (Schedule I) in a sealed cover. The sealed cover containing the quotation should be super scribed "Quotation for Percentage Rate Tender & contract for works for repair of toilets in S & T Block I in DST, Technology Bhavan, New Delhi 16" and 11<sup>th</sup> June., 2018 latest by 1500 hours, which will be opened on the same day at 1530 hrs in Raman Auditorium, S & T Block II in the presence of such tenderers who wish to be present. The Department reserves the right to accept or reject any quotation/ estimates without assigning any reason thereof.
- 3. The sealed envelop must be accompanied by a Demand Draft/ Pay order/ banker's cheque of Nationalized Bank for Rs.10,000/- (Rupees Ten Thousand only) as Earnest Money Deposit (EMD) in favour DDO, DST. The earnest money amount will be returned to the unsuccessful firm immediately after the award of the contract to successful bidders and the earnest money of the successful tenderer will be returned only after completion of the work to the satisfaction of the Purchaser.
- 4. Tendering firms fulfilling the requirements in this tender document are requested to quote their competitive lowest prices as per the requirements given in the attached schedule.

Yours faithfully,

(Himanshu Gandhi) Under Secretary to the Govt of India

Tel: 26590264

#### <u>-02/09-</u>

# IMPORTANT INFORMATION & GENERAL INSTRUCTIONS

SI No.	Points	Description
1.	Purchaser	THE PRESIDENT OF INDIA
2.	Single bid system	This tender will be processed in single bid system
3.	Eligibility of Firm	a) Vendors/ firms registered for similar nature of works with CPWD, PWD, Public Sector undertaking set up by Central/ State Government or any other Central/ State Government organization/ PSU notified by Ministry of Urban Development (MOUD) shall only be allowed to participate (Please enclose Registration Certificate).  b) The firm should have satisfactorily executed at least one work (either repair or new work) related to toilet in Govt/ semi-Govt/ PSU amounting to Rs.5 Lakhs during FY 2016-17 or FY 2017-18 (Please enclose work order and satisfactory completion report issued by concerned Ministry/ Department/ Semi-Govt/ PSU).  c) In case of non-fulfilment of the above condition, the bid will be considered as incomplete and will be rejected straightway without assigning any reason thereof. No representation in this regard will be entertained by the Department.
4.	Firm and fixed rates	Prices should be quoted on a firm & fixed price basis. The prices/rates quoted should be indicated in words as well as in figures and in INR only. Request for enhancement of contracted rates shall not be considered under any circumstances. Tenders with variable prices or seeking provision for enhancement of prices/contracted rates shall be rejected straightaway without any consideration.
5.	Non- transferability	This tender is non-transferable.
6.	Terms & conditions	Terms & Conditions as set out in this Tender Document shall have to be complied with by the tendering firm. Offers not complying with such terms & conditions shall be ignored/rejected at the discretion of this Department.
7.	Earnest Money Deposit	The requisite amount has to be submitted by way of Demand Draft, Pay Order/Banker's Cheque along with the original copy of the tender submitted by the firm in the name of DDO, DST, New Delhi. Payment by any other mode shall not be acceptable. Offers received without EMD shall be ignored straightaway and will not be considered under any circumstances. EMD of tendering firms who submit the sealed quotation but withdraw the same before expiry of the tender validity date may be forfeited.
8.	Performance Security	Successful bidders who are awarded the work order for carrying out the jobs on the basis of this Tender Enquiry shall be required to furnish a Performance Security for a period of six months (Warranty period) of an amount equal to 10% of the awarded cost of the contract (excluding statutory duties and taxes) in the form of DD/ Pay order, Banker's Cheque, Fixed Deposit Receipt (FDR) or Bank Guarantee from any Nationalized Indian Bank within 15 days of the award of the Contract for a period of three months. The format for such Performance Bank Guarantee (PBG) will be provided by DST along with the work order. In the event of failure on the part of the successful bidder awarded the Contract to furnish Performance Security, EMD furnished with the Tender by such firm shall stand forfeited.
9.	Prescribed Forms	Tenders of firms received in the format prescribed in this tender document shall only be considered. Offers not received in prescribed format shall be ignored and no correspondence in this regard will be entertained. Telegraphic/ Telex/ Fax/ E-mail/ Letterhead/ Quotations will not be accepted and ignored straightaway.

#### <u>-03/09-</u>

SI	Points	Description
No.		
10.	Late/ delayed tenders	Tenders received late/ delayed after prescribed closing time due to any reason whatsoever will not be accepted under any circumstances. In the event of any confusion, the time set in the clock in the room of Under Secretary (Admn.II-B) will be taken as standard and decisive. Tenderers may note that if the date of tender opening given in this Tender Document is declared a closed holiday by the Central Government, the tender shall be opened on the next working day at the same timing. In such an event the closing hours for receipt of tenders in DST will stand automatically extended up to 1500 hours of the next working day in the Central Government offices.
11.	Purchaser's right	Purchaser reserves the right to reject any tender/all tenders in full or part thereof without assigning any reasons.
12	Duties & Taxes	Rate should be quoted considering GST and if claimed separately by the successful bidder, the same will not be paid separately.
13	Purchaser's Address	The quotation should be addressed to "Under Secretary, Admin II (B) Section, Department of Science & Technology, Technology Bhavan, New Mehrauli Road, New Delhi-16 and should be dropped in the Tender Box of Admn. II B Section kept near Reception Room at the entrance of Technology Bhavan, New Mehrauli Road, New Delhi <b>on or before at 1500 hours on 11<sup>th</sup> June., 2018.</b> In case the sealed envelope is larger than the mouth of the Tender Box, and cannot be dropped in the Tender Box, the same may be submitted by hand to Under Secretary, Admn.II B or S.O. Admn II B, DST.
15	Liquidated Damages	In case the firm does not complete the work within the work execution period as stipulated, action will be taken against the firm to recover from the contractor as agreed liquidated damages including administrative expenses (and not by way of penalty) a sum equivalent to ½ % per week of the price of any stores which the contractor has failed to execute/ deliver/install within the stipulated time limit. Where delivery thereof is accepted after expiry of the aforesaid period, the total damages so claimed shall not exceed 10% of the total contract price.
16	Inspecting Officer	Authorized representative of DST, New Delhi
17	Inspection Authority	Department of Science and Technology (DST), Technology Bhavan, New Delhi or any party, a Govt. agency, so authorized by DST.
18	Work site	DST, Technology Bhavan, New Delhi-16.
19	Job Execution period	Within 30 days of the receipt of confirmed work order by the firm.
20	Dispatch instructions	Stores are required to be delivered at the Technology Bhavan premises on free delivery to the consignee's premises/ freight paid basis.
21	Payments Terms	100% payment shall be released on successful execution of the work complete. The quantity mentioned in the schedule 1 to this Tender Enquiry Notice is tentative. The actual work may vary in lower or upper side of the given quantity. The payment will be made on actual execution of work. Advance payment shall not be made under any circumstances.
22	Paying Authority	Controller of Accounts or his authorized representative, Pay & Accounts Office, DST, New Delhi-110016
23	Scope of work	<ul> <li>a) Dismantling &amp; abandoning of existing sewer lines of the toilets (Gents', ladies and pantry) located in the west wing of S &amp; T Block I.</li> <li>b) Laying of 8" diameter new CI sewer line including flooring with marble, granite, WC (Indian &amp; European) etc.</li> <li>c) During laying of new CI sewer line, damage to the existing flooring should be done minimum and <u>Underground Directional Drilling Machine</u> may be used for boring. Repairing to the existing flooring, if any required as a consequence of the job execution, would be part of the scope of work.</li> </ul>

#### <u>-04/09-</u>

SI No.	Points	Description
24	Rates	The schedule of works of this tender document has three parts and the firm required to quote rates in the following manner: -
		<u>Sub Head A to Schedule I:</u> The items mentioned in this part is CPWD's DSR based and the participating firm is required to quote the rate % (Percentage above or below basis).
		<u>Sub Head B to Schedule I:</u> The item mentioned in this part is a Non-schedule item and the participating firm is required to quote Lump Sum rate for the complete work.
		<u>Sub Head C to Schedule I :</u> The participating firm is required to quote the total of complete work i.e. Sub Head A & B to Schedule I.
25	Acceptance of offer/ Evaluation of bid	The bid will be evaluated on the basis of Sub Head C to Schedule I of the tender document irrespective of rate quoted for Sub Head A & B separately. The firm quoting the lowest price for Sub Head C to Schedule I will be awarded the work. If the participating firm do not quote the rates of Sub Head A & B separately, the bid will be summarily rejected. In case, if two firms have quoted the same rate, the contract will be awarded to the firm considering the date of registration of the firm with CPWD, PWD, Public Sector undertaking set up by Central/ State Government or any other Central/ State Government organization/ PSU notified by Ministry of Urban Development (MOUD) for such type of work.
26	Warranty	Six months comprehensive from the date of completion of job. Any complaint shall be attended within a response time of 48 hours on 24X7 basis. Any defects in workmanship or detoriation in the quality or deviation to tender specifications coming to notice shall be rectified at site within 72 hours of the reporting of the same to the contractor. If system is required to be picked up and taken to your premises for removing the defects, the same shall be picked up from the consignee latest by the next working day and dropped back to the consignee within 07 working days. Any component required to be replaced within the warranty period shall be totally new component and not reconditioned or repaired component.
27	Deviation of work	The deviation of work is permitted @ 10% of the original work. In case, the deviation is exceeding more than @10% of the original work, this should be brought to the notice of the Competent Authority of the Department by the vendor before the execution of the work. Without prior approval of DST, no work should be carried out if the same is deviated more than @10% of the original work. If not reported, the payment of more than @10% deviation will not also be paid to the successful bidder.
28	Extra Item not mentioned in CPWD's DSR	If any work/ item is required, which is not mentioned in the Schedule, this should be brought to the notice of the Competent Authority of the Department before execution of work with justification. The payment of the same may be made as per the rate quoted by the firm on CPWD's DSR-2016 item and if the item is Non-scheduled item, the contractor may obtain the authenticate NS Rate from CPWD and produce to DST for consideration.
29	Validity of tender	Tender shall be kept valid for acceptance by DST for a period not less than 90 days after the tender opening date.

#### <u>-05/09-</u>

#### **Annexure I**

# Department of Science & Technology <u>Admin II (B) Section</u> <u>Contractor's details: Mandatory Information (To be filled with supporting document)</u>

Supporting documents be annexed with the application form (Applications found deficient in any respect are liable to be rejected without further correspondence)

SI No.	Description	Information			
01	Name of the Applicant				
02	Nationality				
03	Address (attach separate paper for addresses of other offices)	Regd. Office			
		Head office			
04	Telephone Numbers	Landline No.			
		Mobile No.			
		Fax No.			
		E-mail address			
05	Other Details	PAN Details			
	Series Because	GST Registration Number			
06	Constitution	Individual			
		Sole Proprietorship Concern			
		Partnership Firm			
		Public Ltd. Company			
		Private Itd. Company/ Public Sector Enterprises			
	TE				
07	If partnership firm/ If company, Name of all				
07	company, Name of all Partners/ Directors or Board				
07	company, Name of all Partners/ Directors or Board Is the Individual/ sole	Dismissed Government Servant	yes	No	
	company, Name of all Partners/ Directors or Board	Dismissed Government Servant  Removed from approved list of contractors	yes Yes	No No	
	company, Name of all Partners/ Directors or Board Is the Individual/ sole Proprietor/ any Partner of the	Removed from approved list of			
	company, Name of all Partners/ Directors or Board Is the Individual/ sole Proprietor/ any Partner of the	Removed from approved list of contractors  Demoted to a lower class of	Yes Yes Yes	No	
	company, Name of all Partners/ Directors or Board Is the Individual/ sole Proprietor/ any Partner of the	Removed from approved list of contractors  Demoted to a lower class of contractors in CPWD/ PWDs	Yes Yes	No No	
	company, Name of all Partners/ Directors or Board Is the Individual/ sole Proprietor/ any Partner of the	Removed from approved list of contractors  Demoted to a lower class of contractors in CPWD/ PWDs  Convicted by a court of law  Retired official of Govt of India	Yes Yes Yes	No No No	
	company, Name of all Partners/ Directors or Board Is the Individual/ sole Proprietor/ any Partner of the	Removed from approved list of contractors  Demoted to a lower class of contractors in CPWD/ PWDs  Convicted by a court of law  Retired official of Govt of India within last one year  Director or partner of any other company/ firm with CPWD/ PWDs or any other Govt	Yes Yes Yes Yes	No No No No	
08	company, Name of all Partners/ Directors or Board Is the Individual/ sole Proprietor/ any Partner of the	Removed from approved list of contractors  Demoted to a lower class of contractors in CPWD/ PWDs  Convicted by a court of law  Retired official of Govt of India within last one year  Director or partner of any other company/ firm with CPWD/ PWDs or any other Govt Department  Member of Parliament or any	Yes Yes Yes Yes Yes Yes	No No No No No No No	e sheet
	company, Name of all Partners/ Directors or Board  Is the Individual/ sole Proprietor/ any Partner of the Firm/ Director of Company  a) Name of the person	Removed from approved list of contractors  Demoted to a lower class of contractors in CPWD/ PWDs  Convicted by a court of law  Retired official of Govt of India within last one year  Director or partner of any other company/ firm with CPWD/ PWDs or any other Govt Department  Member of Parliament or any State Legislative Assembly	Yes Yes Yes Yes Yes Yes	No No No No No No No	e sheet
08	company, Name of all Partners/ Directors or Board  Is the Individual/ sole Proprietor/ any Partner of the Firm/ Director of Company	Removed from approved list of contractors  Demoted to a lower class of contractors in CPWD/ PWDs  Convicted by a court of law  Retired official of Govt of India within last one year  Director or partner of any other company/ firm with CPWD/ PWDs or any other Govt Department  Member of Parliament or any State Legislative Assembly	Yes Yes Yes Yes Yes Yes	No No No No No No No	e sheet

#### <u>-06/09-</u>

11	Place	e of business				
12	CPW under Centrol or an Gove PSU Urba (MOU Natu Electrol	JD) for Composite re of work (Civil & rical).				
	Orga firm	Yes Name of the nization with which the is registered				
	and Comp Elect	ify Registration details date of registration for cosite works (Civil & rical)  Attach  Attach  Amentary Proof				
13	the a	ny person working with applicant a near relative ne official of DST? If give details	Yes		No	
14	Certi	ficates				
	a)	I/ we (including all partners) certify that I/ we have read the Terms & Conditions mentioned in the tender enquiry form and shall abide by them				
	b)	understand that if any of the information is found wrong/ false at any stage. I/ we are liable to be deregistered from panel of approved contractors/ banned for doing any business dealings wit Government Departments or blacklisted or subject to any monetary penalties that be deemed for and appropriate by DST/ Government.				I/ we are liable to be usiness dealings with es that be deemed fit
	c)	I/ we certify that all the submitted for considera		riginal Tender Doc	cument are duly si	gned & stamped and

#### -07/09-

#### **Department of Science & Technology**

<u>Schedule I to TE No. D-13022/ 3/ 2016 Admin II (B)</u>
<u>Date: 15<sup>th</sup> May., 2018</u>

### Sub: Percentage Rate & Lump sum Rate Tender & contract for works related to repair of toilet in S & T Block I in DST, Technology Bhavan, New Delhi -16

### I. Sub Head A to Schedule I to TE No. D-13022/ 3/ 2016 Admin II (B) Date: 15<sup>th</sup> May., 2018 (As per CPWD's DSR 2016)

SI No.	DSR- 2016	Work Description	Qty	Unit	Unit Rate in Rs.	Amount in Rs.
1	14.82	Dismantling W.C. Pan of all sizes including disposal of dismantled materials i/c malba all complete as per directions of Engineer-in- Charge.	3.00	Each	55.45	166.35
2	15.2	Demolishing cement concrete manually/ by mechanical means including disposal of material within 50 metres lead as per direction of Engineer - in - charge.				
	15.2.1	Nominal concrete 1:3:6 or richer mix (i/c equivalent design mix)	10.00	Cum	997.05	9990.50
3	15.23	Dismantling tile work in floors and roofs laid in cement mortar including stacking material within 50 metres lead.				
	15.23.1	For thickness of tiles 10 mm to 25 mm	30.00	Sqm	31.55	946.50
4	4.1	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:		,		
•	4.1.10	1:5:10 (1 cement : 5 coarse sand(zone-III) : 10 graded stone aggregate 40 mm nominal size)	4.00	Cum	4209.05	16836.20
5	4.2.3	1:2:4 (1 Cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)	2.00	Cum	6547.70	13095.40
	8.2	Providing and fixing 18mm thick gang saw cut mirror polished premoulded and prepolished, machine cut for kitchen platforms, vanity counters, window sills , facias and similar locations of required size, approved shade, colour and texture laid over 20mm thick base cement mortar 1:4 (1 cement : 4 coarse sand) joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing, moulding and polishing to edges to give high gloss finish etc.				
6		complete at all levels.				
	8.2.2	Granite of any colour and shade	20.00		2442.20	00000 00
7	8.2.2.2 18.27	Area of slab over 0.50 sqm.  Providing and laying S&S centrifugally cast (spun) iron pipes (Class LA) conforming to IS - 1536:	30.00	Sqm	3113.30	93399.00
	18.27.4	200 mm dia pipe	75	metre	2743.50	205762.50
8	18.28	Providing lead caulked joints to spun iron or C.I. pipes and specials, including testing of joints but excluding the cost of pig lead:				
	18.28.4	200 mm diameter pipe	100	each	408.00	40800.00
9	18.26					
	18.26.2	Over 300 mm dia	1.0	quintal	7003.10	7003.10

-08/09-

CI.	DCD	<u>-00/03-</u>	0.			
SI	DSR-	Work Description	Qty	Unit	Unit Rate	Amount in
No.	2016				in Rs.	Rs.
10	18.36	Constructing masonry Chamber 60x60x75 cm, inside in				
		brick work in cement mortar 1:4 (1 cement : 4 coarse				
		sand) for fire hydrants, with C.I. surface box 350x350				
		mm top and 165 mm deep ( inside) with chained lid				
		and RCC top slab 1:2:4 mix (1 cement : 2 coarse sand				
		: 4 graded stone aggregate 20 mm nominal size) , i/c				
		necessary excavation, foundation concrete 1:5:10 (1				
		cement: 5 fine sand:10 graded stone aggregate 40				
		mm nominal size) and inside plastering with cement				
		mortar 1:3 (1 cement : 3 coarse sand) 12 mm thick,				
		finished with a floating coat of neat cement complete				
		as per standard design :				
	18.36.1	With common burnt clay F.P.S.(non-modular) bricks of	2	each	6431.70	12863.40
		class designation 7.5		Cacii	0131.70	
11	17.1	Providing and fixing water closet squatting pan (Indian				
		type W.C. pan ) with 100 mm sand cast Iron P or S				
		trap, 10 litre low level white P.V.C. flushing cistern,				
		including flush pipe, with manually controlled device				
		(handle lever) conforming to IS: 7231, with all fittings				
		and fixtures complete, including cutting and making				
		good the walls and floors wherever required:				
	17.1.1	White Vitreous china Orissa pattern W.C. pan of size	4.0	each	3392.80	13571.20
		580x440 mm with integral type foot rests	1.0	Cacii	3372.00	
12	15.60	Disposal of building rubbish / malba / similar				3013.75
		unserviceable, dismantled or waste materials by				
		mechanical means, including loading, transporting,				
		unloading to approved municipal dumping ground or				
		as approved by beyond 50 m initial lead, for all leads				
		including all lifts involved.	25	Cum	120.55	
13		Total Amount as per DSR-2016				417447.90
14		Rate quoted % above or below				
15		Total amount after considering % rate above/ below.				

# II. Sub Head B to Schedule I to TE No. D-13022/ 3/ 2016 Admin II (B) Date: 15<sup>th</sup> May., 2018 (Non-schedule Work: Trenching work by using Horizontal Directional (HDD) Trenching Machine)

SI	DSR-	Work Description	Qty	Unit	Unit Rate	Amount in
No.	2016				in Rs.	Rs.
1	NS	Horizontal Directional Drilling	25	Mtr		
2		GST				
3	Total					

## III. Sub Head C to Schedule I to TE No. D-13022/ 3/ 2016 Admin II (B) Date: 15<sup>th</sup> May., 2018 (Total Quotes of the TE) (Total Rates quoted to Schedule I)

SI	Work Description	Amount in Rs.
No.		
1	Total Rates Quoted Sub-Head A to Schedule I As per DSR-2016	
2	Total Rates Quoted Sub-Head B to Schedule I Non-Scheduled Item	

3	Total Cost quoted for the work (Sub Head A + Sub Head B)	
	Inclusive GST	

#### Name & Address of the firm: -

#### Signature with stamp of the bidder

Cont'd....09/-

#### -09/09-

#### Instruction & work specification regarding Horizontal Directional Drilling (HDD) Work:

Pre-bid Meeting on trenching work by Horizontal Directional Drilling (HDD) Machine: Prior to the submission of bid, the interested & eligible vendors are requested to make a site visit and understand the work. All issues that may be raised and tried to be resolved prior to submission of bid.

Work Specification & brief description of Horizontal Directional Drilling (HDD) work: -

HDD is a trenchless method for installing a product pipe. It is a multi-stage process consisting of site preparation, equipment setup, pilot bore, product pipe pulling through the drilled bore, and site restoration. Alignment of the bore is accomplished by proper orientation of the drill bit is determined by using an acceptable tracking system from a transmitter located within the drill bit head. When necessary, enlarge the pilot borehole (back reaming) to accommodate a product pipe larger than the pilot borehole size. Back ream ahead of or at the same time pulling the product pipe through the pilot borehole. The work includes all services, equipment, materials, tools, and labour for a complete and proper installation and testing.

In order to minimize friction and prevent collapse of the bore hole, introduce a soil stabilizing agent (drilling fluid) into the annular space from the front end of the drill bit. The rotation of the bit in the soil wetted by the drilling fluid creates slurry. The slurry stabilizes the surrounding soil, prevents the bore hole from collapsing, and provides lubrication. Select or design the drilling fluids for the site's specific soil and ground water conditions. Confine free flowing (escaping) slurry or drilling fluids at the ground surface during pull back or drilling.

The work involves excavation of HDD laying & fixing of CI pipe & Reinstatement of the Trenches as per the construction Specification.

The HDD contractor is responsible to execute even the smallest span of the works mentioned in the work order (min 5 mts onwards), where ever required in the entire route apart from the HDD shown against the reference.

It is the responsibility of the contractor to obtain clearances, if necessary, before starting of HDD work and also obtain NOC from respective agencies like PWD, MCD etc. after carrying carry out the restoration of HDD pits as per the specification of the external agency.

Location of Utilities-the majority of the specifications require the contractor to notify all companies with underground utilities in the work area via the state or local "One-call" to obtain utility locates and verify locations.

<u>Pipe Handling:</u> -Measures to endure that the drill pipes and the product pipes are stored and handled without gauging, scratching the pipe.

<u>Pilot Hole</u>- The pilot hole shall be drilled along the bore path to the following tolerance areas elevation, alignment, curve radius, entry point location, exit point location, and limitations on depth.

Reaming and Pull Back- Measures to ensure that the product pipe is pulled without excessive ground movement, over stressing the product pipe, inadvertent returns of drilling fluids, preventing the transfer of the soil cutting from the face of excavation to the launching or exit points.

<u>Site restoration</u>: Most state that following the drilling operations, the contractor shall de-mobilize equipment and restore the work-site to original condition or better. Restoration shall include paved and unpaved surfaces, shrubbery, landscaping, trees, structures, and all else encountered. Any noticeable surface defects, due to the drilling operation, shall be repaired by the contractor. All excavations will be backfilled and compacted according to other specification requirements elsewhere.

<u>Rock Area Work:</u> - Where feasible, rock should be avoided and the contractor shall notify the Liaison Person, prior to proceeding, so that alternatives may be considered. Note that any proposed change requires prior approval by the Liaison Person.

<u>Electrical Safety:</u> HDD operator be in contact with machine controls equipotential matting is required beneath the operator and shall be bonded to the machine chassis to limit operator step and touch potential. Equipotential matting shall be provided by the Contractor.

**Note:** Department of Science & Technology shall not be liable for rectification works or replacement of materials due to erosion or subsidence, or damage from any other cause, to excavations and / or materials that may result from excavations being left open.

#### Name & Address of the firm: -