CIVIL WORKS

SL.	ITEM	MAKE
NO.		
1	GREY CEMENT	ACC, AMBUJA, JK
		UltraTech, OR
		OTHER BRAND WITH APPROVAL OF ENGINEER
		INCHARGE.
2	WHITE CEMENT	JK, BIRLA OR EQUIVALENT
3	REINFORCEMENT/STRUCTURAL	SAIL, TISCO, RINL, JINDAL
	STEEL	
4	ANTI-TERMITE TREATMENT	PEST CONTROL INDIA LTD, PEST CON INDIA,
		PEST CONTROL INCORPORATED, OR ANY OTHER
		AGENCY TO BE APPROVED BY THE ENGINEER IN
		CHARGE
5	CONCRETE ADDITIVE	FOSROC, STP, CICO-TL, SIKA, PIDILITE
6	FLUSH DOORS	GREEN, DURO, CENTURY, MAYUR, JAYNA, ARCHID
0	TLUSIT DOOKS	PLY, ALPRO
7	FIRE CHECK DOORS	GLOBAL FIRE PROTECTION COMPANY, RADIENT
,		SAFE FIRE DOORS, GODREJ
8	PLYWOOD / BLOCK BOARD /	ANCHOR, DURO, MAYUR, GREEN LAM, CENTURY,
	SOFT BOARD	ARCHID PLY, ALPRO
9	PRELAMINATED PARTICLE BOARD	ACTION TESA, NOVAPAN, ANCHOR, MERINO,
		GREEN LAM, CENTRURY, ARCHID PLY
10	LAMINATES	CENTURY, ROYAL CHALLENGE, MERINO, GREEN
		LAMP, ARCHID LAM
11	ADHESIVE FOR WOOD WORK	DUNLOP, FEVICOL, VAMICOL, PIDILITE
12	POLYRETHANE SEALANT	MBT, CHOKSEY,PIDILITE
a)		DOWNLOODNING ALGTONE OD DOWNLADY
b)	SILICON SEALANT	DOWN CORNING, ALSTONE OR EQUIVALENT
13	POLYETHELENE BOARD	SUPREME OR EQUIVALENT
13	ALUMINIUM EXTRUSIONS	JINDAL, HINDALCO, NARMADA, BHARUKA, INDAL,
14 a.		MAHAVIR OR EQUIVALENT
	STAINI ESS STEEL	<u>`</u>
b.	STAINLESS STEEL	SALEM, JINDAL OR EQUIVALENT
C.	EXPANSION, FASTENERS	FISCHER, HILTI, ANCHORS, AXEL
15	Structural Steel	TATA, Jindal, SAIL

SL. NO.	ITEM	MAKE							
15	FLOAT GLASS	MODI GUARD, SAINT GOBAIN, ASAHI, ATUL							
16	CERAMIC TILES	NITCO, KAJARIA, SOMANY, JOHNSON, SUNHEART, VARMORA							
17	VITRIFIED PORCELINE TILES	NAVEEN DIAMOND TILES, NITCO, JOHNSON, MARBITO BRAND, RAK, KAJARIA, VARMORA, CT TILES							
18	INTERLOCK TILES/GRASS PAVER BLOCKS/ KERB STONE	DALAL TILES, UNISTONE, MODERN OR EQUIVALENT							
19	TERRAZZO TILES	NITCO, MODERN, A-1, NTC, DALAL TILES OR EQUIVALENT AS PER ISI SPECIFICATION							
20 a)	CEMENT CONCRETE TILES	UNISTONE, ULTRA, DALAL TILES OR EQUIVALENT							
b)	HANDMADE CERAMIC TILES	RAJA, ARIHANT, JAIN							
21	ROOF WATER PROOFING	NINA CONCRETE SYSTEM PVT. LTD, C R S ASSOCIATES AND ENGINEERS PVT.LTD, CREATIONS,PIDILITE							
22	PAINT	NEROLAC, JOHNSON & NICHOLSON, BERGER, ASIAN PAINTS, SHALIMAR							
23	TEXTURED COATING	UNITILE, SPECTRUM, HERITAGE OR EQUIVALENT							
24	DOOR FITTINGS	GODREJ, DOORSET, OZONE, INDOBRASS							
25	LOCKS AND HANDLES	EVERITE, GODREJ, HARRISON, INDOBRASS							
26	NON METALLIC HARDENER COMPOUND	FOSROC, S TP, PIDILITE, CICO							
27	ROLLING SHUTTER	RAMA, PRAKASH, SANJEEV OR EQUIVALENT AS PER CPWD SPECIFICATIONS.							
28	DOOR CLOSER	DOORSET, EVERITE, GARNISH, INDOBRASS							
29	FLOOR DOOR SPRING	D-LINE,OZONE,DOORSET,EVERITE,INDOBRASS							
30	HDF LAMINATED BOARD	ARMSTRONG, BVG, EGO FLOORS, SQUARE FOOT, ACTION TESA							
31	EXPANSION FASTENERS	HILTI, FIHSER, GKW, AXEL							
32	FASTENERS	HILTI, FIHSER, GKW, AXEL							
33	GYPSUM CEILING	INDIA GYPSUM, LAFARGE							
34	CALCIUM SILICATE BOARD FALSE CEILING	AEROLITE, HYLUX							
35	PATCH FITTING	DORMA, GEZE, OZONE OR AS APPROVED							
36	WORK STATION AND MODULAR FURNITURE	GODREJ, BP ERGO, FEATHERLIGHT, WIPRO							
37	BLINDS	VISTA, MAX, ARMSTRONG							
38	ADHESIVE	FEVICOL, VEMICOL OR EQUIVALENT							
39	FURNITURE HARDWARE	UNIQUE, HATTICH INDIA, EBCO, EARL BEHARI.							
40	LACQUERED GLASS	SAINT GOBIN, ASAHI, ATUL							
41	MELAMINE POLISH	ASIAN PAINT, BERGER, SHALIMAR							

		RICAL WORKS APPROVED MAKES
1	Switch Fuse Unit (HRC Type)	Schnider/GE/L&T/Siemens/C&S/Havells/MDS
2	MCB's, MCCBs, RCCBs, ELCB's & MCB DBs	Legrand / ABB / L&T /Siemens / Havells / C&S / Schneider / GE / Hagger / Anchor / Standard / Action
3	LT XLPE Aluminium Armoured cables upto 1100v	Plaza/Skytone/ National/Ralison/PYTEX/Paragon/ KEI
4	HT XLPE Aluminium Armoured cables upto 11000V	Skytone/ National/INCAB/ Nicco
5	Air Circuit Breakers	Schneider/ GE /L & T/Siemens
6	Terminals	Elmex /Technoplast
7	Lugs	Dowells/ Ismal
8	Glands	Gripwell/ Comet
9	Indicating lamps	L &T/ Siemens/Technique
10	Power factor correction relay	Syntron/ Avomec/Sigma
11	Indicating Instruments	Automatic Electric/ Rishab
12	KWH Meters	L&T/HPL SOCOMEC
13	Current Transformers	Automatic Electric/ Kappa
14	Selector Switches	Salzer-L&T/ Kaycee
15	Change over switches	HH Elecon/HPL
16	11 KV VCB/RMU Panel	Crompton/ABB/Siemens/Areva
17	Power Transformers	Crompton/ Kirloskar/ABB/Siemens
18	HT Jointing Kits	Raychem/ Mahindra/Denson/Cabseal
19	DG Sets- Engine.	Kirloskar/Cummins/Caterpillar/Mitsubishi
20	Alternator	Kirloskar /Stamford./Crompton/Mitsubishi
21	LT Panels, Fidder Pillars etc.	Ambit, Trikolite/KEPL/Madhu elect./SPC/ Amptech/ USHA Power/Precision System Control
22	Power Capacitors	Crompton/Siemens Apcos/Khatou
23	HRC Fuse Base & HRC Fuses	L&T/GE/Schneider/HPL
24	Sound Proof Acoustic Enclosures	DG suppliers
25	Lighting Fittings & Luminaries	Crompton/Philips/Wipro/BAJAJ/Havell's
26	PVC insulated 1.1KV grade copper wires	Plaza/Pytex/National/Ralison/RKG/Finolex/Polycb / Batra-Henlay/Havells
27	Piano/Modular Type Sockets & Switches	Roma(Anchor)/Legrand/MK/Crabtree/ Philips/ Clipsal/North West
28	Steel/PVC Conduit	BEC/AKG/ATUL/STEEL KRAFT/RKG
29	Ceiling/Wall/Exhaust fans	Crompton /Almonard /Bajaj/Usha/Orient
30	External lights	Bajaj/ Philips/ Decon/K-Lite/Metal Coat

S. No.	Details of Materials / Equipments	Manufacturer's Name					
1	G.I./M.S pipes.	Jindal Hissar, Tata or equivalent					
2	G.I. pipes fittings.	Unik or equivalent					
3	G.M. / Forged brass valves	Zoloto / Leader or equivalent					
4	Sluice Valves, Non return valve	Kirloskar, Micon, Weir BDK, Advanced or equivalent					
5	Valves	Kartar/Zoloto/Leader /C& R/Advance or equivalent					
6	'Y' strainer	Emerald Enterprises / Zoloto or equivalent					
7	Level Controller & Indicator (Water)	Technika / Minilec or equivalent					
8	Paints	Asian Paints					
9	Pressure Gauge H Guru. Gauges Bourdon, GIC or equivaler						
10	Flexible Rubber Expansion Joint	Kanwal Easyflex, Resistoflex or equivalent					
11	Pumps	Kirloskar, Sam Turbo, KSB, Kishor, Grundfos, Johnson or equivalent					
12	Fire Fighting Equipments	Minimax, Newage or equivalent					
13	Welding Rods	Advani/Victor or equivalent					
14	GI Hangers	Chilly/GMGR or equivalent					
15	Rubber hose pipe	Deep Jyoti or equivalent					
16	Underground Pipe Protection	IWC or equivalent					
17	UPVC/ PVC Pipes	Supreme, Jindal, Jain Pipes, Ori Plast or as Approved or equivalent					
18	HDPE Pipe	Supreme, Jain Pipe, Apollo or equivalent					
19	RCC Pipes	Hindusthan Hume Pipe or equivalent					
20	Ball Valves	Audco, Zoloto or equivalent					
21	Ball Cocks	Audco, Zoloto or equivalent					
22	CI Manhole Cover	Necco or equivalent					
23	PVC Tanks	Sintex or equivalent					
24	Air Valve	Indian, Amatic or equivalent					
25	Ductile Iron Pipes	Electrosteel or equivalent					
26	CPVC Pipes & fittings	Astral, Fowguard, George Fischer or equivalent					

* equivalent makes to be approved by Client/Engineer-in-charge prior to installation

SL.	ITEM	MAKE
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18	INTERLOCK TILES/GRASS PAVER BLOCKS/ KERB STONE	EQUIVALENT
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6	Terminals	Elmex /Technoplast
7	Lugs	Dowells/ Ismal
8	Glands	Gripwell/ Comet
9	Indicating lamps	L &T/ Siemens/Technique
10	Power factor correction relay	Syntron/ Avomec/Sigma
11	Indicating Instruments	Automatic Electric/ Rishab
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QAP for Civil Works, Check Lists & Formats

Pre- Concrete Check List

Structure No. Location Source of Concrete Date & Time of Concrete Grade of Concrete Brand of Cement

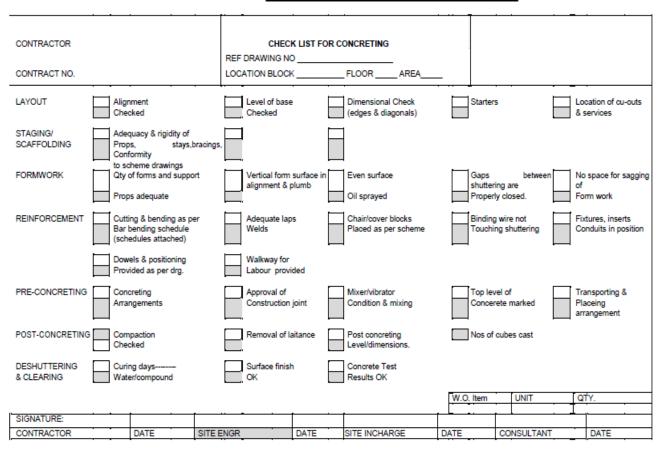
Sr. No	Description	Approved Observations & Remar Yes No		Observations & Remarks
	_	Yes	No	
1	ALIGNMENT / LEVEL CHECK			
2	GENERAL CLEANLINESS			
4	GENERAL CLEANLINESS			
3	FORM WORK			
•	a) Shutters- Smooth & Cleaned Surface			
	b) Application of Mould Oil			
	c) The roads, Supports / Props provided			
4	REINFORCEMENT CHECKING			
	a) Size (as per drawing)			
	b) Spacing (As per drawing)c) Starter Bar			
	d) Lapping of bars			
5	CEMENT			
-	a) Weight of cement per cum	1		
	b) Theoretical cement consumption			
	c) Actual cement consumption			
6	REINFORCEMENT COVER	ļ		
7	WEEP HOLES PROVIDED			
	a) Not Required b) Not Provided			
8	CONSTRUCTION JOINT REQUIRED			
0				
9	EQUIPMENT VERIFICATION			
	a) No of needle vibrators deployed			
10	CONCRETE PLACEMENT			
	ARRANGEMENT			
	A) Using Pump			
	a) Joint / Fixing Checked B) Direct			
	a) Platform placed			
	b) clean chute provided	1		
	c) proper gradient provided	1		
11	CONCRETE VOLUME REQUIRED			
12	NO. OF CUBES CASTED			
12	DELSUDMITTED TO OA/OC			
13	RFI SUBMITTED TO QA/ QC			
14	PROPER ACCESS ROAD PROVIDED			
14		1		
	LIGHTING ARRANGEMENT FOR			
15	NIGHT WORKING			
	a) No of spot lights provided			
16	CURING ARRANGEMENT			
		ļ		
17	SAFETY REQUIREMENTS			

	a) Proper Barricading done		
	b) Cautionary sign boards provided		
	c) Lights & Genset Arrangement for night		
	works		
	d) First Aid Box		
18	MISC		
	a) Supervisors		
	b) Labours		

Contractor Representative

Consultant Representative

NAME OF PROJECT



CONTRACTOR	CHECK LI	ST FOR MAS	ONRY WORK	· <u> </u>		•
	REF DRAWING					
CONTRACT NO.	LOCATIONBLOCK	FLOOR	AREA	_ [
LAYOUT Alignment & wall Thickness checked '	Brick on ed (top course	-				
SCAFFOLDING Adequacy of props, Stays, platform	Rigidity of I	base	Movement space	App heig	vroach to ght	
PRE-LAYING Working arrangemen & service pr checked	ovisions Bricks	as per n	Mortar grade & mix As specified	Brid moi	ks stened	
LAYING Joint thickness & co Ht. As specified	urse Joint alignm Checked	nent	Vertical joints Properly mortar filled			
Raking of joints Done (if applicable)	Bearing pla Concrete	ster for	from top			
CURING AND Proper curing of cons CLEARING Joint.	st. Scaffolding (if required					
				W.O. Item		QTY.
				w.o. item		witt.
SIGNATURE:	· · ·	<u> </u>				
CONTRACTOR DATE	SITE ENGR	DATE	SITE INCHARGE	DATE	CONSULTANT	DATE

NAME OF PROJECT_____

NAME OF PROJECT_____

CONTRACTOR	• •			ASTERING WORK			
CONTRACT NO.		LOCATION BLOCK					
SCAFFOLDING	Platform	Stability]	Movement space	Approach Height	ı to	
SERVICE	All chasing w Complete	Fixing in pos Using clamp		Patching Nork complete	Fixed in p	vindow frames	Skirting to floors marked
					(E)		
SURFACE PREPARATION	Clearing & ra Surface	king of Roughening Hacking don		Fixing metal/lathe Chicken mesh	Mortar lev Guides m		Surface moistened/ Cement slurry
PLASTERING	Mix & w/p con Checked specification	as per As specified		Groove at joints Provided	Corners 8 at right levels mai	Angles lines &	Surface leveled with At straight edge
FINISHING	Texture	Curing Days	-	Site cleared			
					W.O. Item	UNIT	QTY.
SIGNATURE:	· · · ·	· · · ·				I	
CONTRACTOR	DATE	SITE ENGR	DATE	SITE INCHARGE	DATE	CONSULTANT	DATE

CONTRACTOR	CHECK LIS	ST FOR	LAYING OF EXT	ERNA				
CONTRACT NO.	SEWER							
	REF DRAW	ING NO						
	LOCATION		_					
Excavation Layout	Slope/cutti Specification		Level	·				
Laying /RCC pipes Bed concrete as per Specifications	RCC pipes Requireme		Jointing of pipes					
Boxing	Strata bore Dewatering (wherever							
Manholes Bricks as per specification	ons Mortaraspe specificatio		Plastering					
End of pipes plugged								
Back fillings								
				W.O. Ite	em .	UNIT	QTY.	
SIGNATURE:			[ر ا				
CONTRACTOR DATE SI	TE ENGR	DATE	SITE INCHARGE	DATE		CONSULTANT	:	DATE

NAME OF PROJECT_____

NAME OF PROJECT_____

CONTRACTOR			CHECK	LIST FOR SUB	GRADE					
			LOCATION							
CONTRACT NO.			FLOOR NO.		<u> </u>					
LAYOUT		Inment of center wings		ig of carriag as per drawin						
SUB GRADE		ial cross section	al levels 🗌 Cleani	ng & grubbin	a of	Watering & r	olling as specif	fied (Cross secti	on levels
PREPARATION		orded		tion and top so			oning us speen		recorded after	
PREPARATION			specif	ied						-
FORMATION LEVEL (FILLING)	Dep Lev	oth of filling upto elmt	formation r. forma	layers ion level	upto	Fill material			Spreading, v rolling of lay no.	
	% c	ompajction of so	il Camb	er/slope		Formationero	sssectional			
		octor test)		ed as drawing		levels record				
	—					-				
							W.O. Item		UNIT	QTY.
							W.O. item		VIII	serr.
SIGNATURE:		r	r		r				l	
CONTRACTOR		DATE	SITE ENGR	DATE	SITE INC	LARGE	DATE	00	NSULTANT	DATE
CONTRACTOR		DATE	SHEENOR	DATE	SITE INC	HARGE	DATE	00	NOULIANI	DATE

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			OF MANDATOR	-	
S. No.	Description of Material	Test	Reference of IS Code / Specification for testing	Field / Laboratory test	Frequency of testing
1	Cement	Physical & chemical properties	IS : 4031	Lab	Initial Test-01 test for each brand of cement. Subsequently, 01 test for 200 MT or part thereof for each brand. Cement should be of approved brand and each lot should be accompanied by manufacturer's test certificates
2	Reinforcement steel	Physical & chemical properties	IS :1786	Lab	Initial Test-01 test for each brand and each dia of reinforcement steel , Subsequently - One test for every 35 MT or part thereof. Reinforcement Steel should be of approved brand and each lot should be accompanied by manufacturer's test certificates
3	Water	PH value, chlorides, sulphates, alkalinity test, acidity test, suspended matter, organic matter and inorganic matter	IS:3025	Lab	Initial Test- Source approval at commencement of work and Subsequently- every six months or change of source.
4	Coarse Aggregate - Building works	Gradation Deleterious material Specific Gravity Crushing value impact value 10% fine value	IS 2386 - I IS 2386 - II IS 2386 - III IS 2386 - IV IS 2386 - IV IS 2386 - IV	Field / Lab Field / Lab Field / Lab Field / Lab Field / Lab Field / Lab	Minimum one test for every 50 cum or part thereof.
5	Fine Aggregate- Building works	Organic impurities Silt content Bulking of Sand Gradation	Appendix 'A 'of chapter 3 ,CPWD Specifications Appendix 'C 'of chapter 3 ,CPWD Specifications Appendix 'D 'of chapter 3 ,CPWD Specifications Appendix 'B 'of chapter 3 ,CPWD Specifications	Field / Lab	Minimum one test for every 50 cum or part thereof.

6	Coarse	Gradation	IS 2386 – I	Field / Lab	One test for everyday's work.
	Aggregate -	Flakiness and	IS 2386 – I	Field / Lab	Once for each source of supply and
	Road, Pavement works	Elongation Index	10.0006 11	T 1	subsequently on monthly basis.
	WOIKS	Deleterious material	IS 2386 - II	Lab	One test for everyday's work.
		Water Absorption	IS 2386 - III	Lab	Regularly as required subject to a minimum one test a day. This data shall be used for correcting the water demand of mix on a daily basis
		Los Angeles Abrasion Value/Aggregate Impact value	IS 2386 - IV	Lab	Once for each source of supply and subsequently on monthly basis
		Soundness	IS 2386 - V	Lab	Before approving the aggregates and every month subsequently.
		Alkali aggregate reactivity	IS 2386 - VII, IS:456	Lab	Before approving the aggregates and every month subsequently.
7	Fine Aggregate -	Gradation	IS 2386 – I	Field / Lab	One test for everyday's work.
	Road ,Pavement	Deleterious material	IS 2386 - II	Lab	One test for everyday's work.
	works	Water Absorption	IS 2386 - III	Lab	Regularly as required subject to minimum two test per day. This data shall be used for correcting the water demand of mix on a daily basis.
		Silt Content	Appendix 'C' of chapter 3 ,CPWD Specifications	Field	Minimum one test for everyday's work.
8	Slump Test - Building Works		Appendix 'D' of Chapter 4, CPWD Specifications	Field	Minimum one test for every 20 cum of concrete or part thereof
9	Slump Test - Pavement Works		IS 1199	Field	One test per each dumper load at both Batching plant site and paving site initially when work starts. Subsequently, sampling may be done from alternate dumper.
10	Cube Test				
(i)	Reinforced Cement Concrete - Building works	7 days and 28 days Compressive strength	IS 516	Lab	One sample of six cubes for every 50 cum or part thereof
(ii)	Dry Lean Concrete (DLC) - Pavement Work	7 days compressive strength	IS 516	Lab	One sample of five cubes for every 150 cum or part thereof
(iii)	Pavement Quality Concrete (PQC) - Pavement Work	Compressive strength, flexure strength	IS 516	Lab	2 cube set samples and 2 beam set samples per 150 cum or part thereof for each day production.
11	Earthwork				
11		Gradation/clay & sand content	IS 2720 -IV	Lab	
		Atterberg's limit	IS: 2720-V	Lab	2 tests per 3000 cum or part thereof for each source.
		California Bearing Ratio	IS 2720-XVI	Lab	

		Maximum dry density / OMC	IS 2720-VIII	Lab	
		Deleterious content	IS: 2720-XXVII	Lab	
		Free swelling Index	IS: 2720-XXXX	Lab	As and when required by Engineer
		Field density	IS: 2720- XXVIII	Field	 (a) One set of 10 measurements for each layer per 3000 sqm of compacted area for embankment (b) One set of 10 measurements for each layer per 2000 sqm of compacted area of shoulder and sub-grade.
		Moisture content	IS: 2720-II	Field	2 tests per 1000 cum
12	Granular Sub base				
		Gradation	IS 2386- I	Field / Lab	Minimum 01 test per source and additional test after every 1000 cum
		Water absorption	IS 2386- III	Lab	Minimum 01 test per source and additional test as required by Engineer
		Wet Aggregate Impact Value test (if WA >2.0%)	IS 5640	Lab	As required by Engineer
		Aggregate Impact Value	IS 2386- IV	Lab	Minimum 01 test per source and additional test after every 2000 cum
		Atterberg's limit	IS 2720-V	Lab	Minimum 01 test per source and additional test after every 1000 cum
		Maximum dry density /OMC	IS 2720-VIII	Lab	Minimum 01 test per source and additional test as required by Engineer
		Moisture content prior to compaction	IS 2720-II	Field	Minimum 01 test every 400 cum
		Field Density	IS 2720-XXVIII	Field	one test per 2000 Sqm or part thereof
		Deleterious material	IS: 2720-XXVII	Lab	Minimum 01 test per source and additional test as required by Engineer
		CBR	IS 2720-XVI	Lab	Minimum 01 test per source and additional test as required by Engineer
13	Water Bound Mac	adam			
		Gradation	IS 2386- I	Field / Lab	Minimum 01 test per source and additional test after every 500 cum
		Aggregate Impact Value	IS 2386- IV or IS5640	Lab	Minimum 01 test per source and additional test after every 500 cum
		Combined Flakiness and Elongation Indices	IS 2386- I	Lab	Minimum 01 test per source and additional test after every 500 cum
		Atterberg's Limit (Screening, Binding Material)	IS 2720-V	Lab	Minimum 01 test per source and additional test after every 500 cum or part thereof
		Water absorption	IS 2386-III	Lab	Minimum 01 test per source and additional test as required by Engineer
		Sulphur Content, Water Absorption, Chemical Stability, Density for Crushed Slag (if used)	To comply with requirements of Appendix of BS : 1047	Lab	As required by Engineer
			10 000 C M	Lab	As required by Engineer
		Soundness test (if WA >2.0%)	IS 2386-V	Lab	As required by Engineer

	Macadam				additional test after every 500 cum
		Water Absorption	IS 2386-III	Lab	Minimum 01 test per source and additional test as required by Engineer
		Soundness (if WA > 2.0%)	IS 2386-V	Lab	As required by Engineer
		Atterberg's limit of portion of aggregate passing 425 micron sieve	IS 2720 - V	Lab	Minimum 01 test per source and additional test after every 500 cum or part thereof
		Aggregate Impact value	IS 2386- IV or IS 5640	Lab	Minimum 01 test per source and additional test after every 500 cum
		Maximum Dry Density / OMC Combined Flakiness	IS 2720 - VIII IS 2386 – I	Lab Lab	Minimum01testpersourceandadditional test as required by EngineerMinimum01testpersourceand
		and Elongation Indices	13 2300 - 1	Lab	additional test after every 500 cum
		Moisture content	IS 2720-II	Field	Minimum 03 tests per day
		Field Density	IS 2720 – XXVIII	Field	One set of three test per 2000 sqm or part thereof
15	Prime /Tack Coat				
		Quality of Binder	IS 73, IS 217, IS 8887	Lab	No. of samples per lot and tests as per IS 73, IS 217, IS 8887as applicable
		Binder Temperature for Application	As per MORTH specifications	Field	At regular close interval
		Rate of Spread of Binder	As per MORTH specifications	Field	Minimum 03 tests per day
16	Dense Bituminous	 5 Macadam / Bituminou	us Concrete		
		Mix grading	IS 2386- I	Lab	One set for individual constituent and mixed aggregates from dryer for each 400 tonnes of mix subject to a minimum of two tests per day per plant
		Plasticity Index	IS 2720-V	Lab	One test for each source and whenever there is change in the quality of aggregate.
		water absorption	IS 2386-III	Lab	One test for each source and whenever there is change in the quality of aggregate.
		Soundness (if WA>2%)	IS 2386-V	Lab	One test for each source and whenever there is change in the quality of aggregate
		Impact value / Abrasion value	IS 2386-IV	Lab	One test per 350 cum of aggregates for each source and whenever there is change in the quality of aggregates
		Combined flakiness and elongation Indices	IS 2386- I	Lab	One test per 350 cum of aggregates for each source and whenever there is change in the quality of aggregates
		Stripping value	IS 6241	Lab	Initially one set of 3 aggregate representative specimen and then for each change in quality of aggregate
		Stability and Void Analysis of Mix	ASTM: D-1559	Lab	Three tests for stability, flow value, density and void contents for each 400 tonnes of mix subject to minimum of

		Tensile test	IS 1608	Lab	Minimum one test for every 8 tonne or
22	Steel Tubular pipe	s			
		Bend Test			part thereof per source and also manufacturer's test certificates for each consignment should be accompanied.
21	Structural Steel (other than PEB)	Tensile strength	IS 1599	Lab	Minimum one test for every 20 tonnes or
		Specific Gravity	IS 1122		part thereof
		Moisture	IS 1124	Lab	Minimum one test for every 100 sqm or
20	Granite	<u> </u>	I	1	1
		Specific Gravity	IS 1122		
		Hardness test	Mho's Scale		L
		Moisture absorption	IS 1124	Lab	Minimum one test for every 100 sqm or part thereof
19	Marble	1	1	1	
		Durability	IS 1126	1	
		Resistance to wear	IS 1706		
		Transverse Strength	IS 1121 - II		100 cum or part thereof
18	Stone work	Water absorption	IS 1124	Lab	Minimum one test for every 200 sqm /
10	Stone work				
		Efflorescence		Lab	_
		Water Absorption	Specifications	Lab	_
		Compressive strength	Chapter 6 of CPWD	Lab	-
		Dimension	Appendix A, B, C & D of	Lab	Minimum one test for every 50000 bricks or part thereof
17	Brick work / brick	tiles / sewer brick/Bu	rnt clay perforated	l building Bri	cks
		time of laying and compaction			
		Temp Control at the	1220	Field	and tests as per IS 73 At regular interval
		Quality of Binder	IS 1201 to IS 1220	Lab	number of samples per lot (as in IS 73) and tasts as pag IS 73
		Field Density	Appendix 5 IRC: SP 11 Appendix 5	Field	One test per 700 sqm
		Binder Content	IRC: SP 11 Appendix 5	Field	Minimum 2 tests per day
		test (if retained Coating <95%) / Moisture Susceptibility Mix			there is change in quality or source of coarse or fine aggregate

		Bend Test	IS 2329		part thereof per source and also manufacturer's test certificates for each
		Flattening Test	IS 2328		consignment should be accompanied.
23	M 50 Grade Cem	ent Concrete Paver Blo	ocks		
(i)	M-50 Grade Pre- Cast Concrete Paving Blocks	Compressive Strength	As per Technical Specifications	Field / Lab	 a) 16 paving blocks for everyday production. If, however, the average strength of the first 04 blocks tested is not less than 54 N/sqm, the sample shall be deemed to comply and the remaining 12 blocks from the sample need not be tested. b) If blocks are procured from outside and not manufactured at project site 01(one) test of 16 blocks per 10,000 nos. paving blocks or part thereof
		Dimensions	As per Technical Specifications	Field / Lab	a)16 paving blocks for everyday production b) If blocks are procured from outside and not manufactured at project site 01(one) test of 16 paving blocks per 10,000 nos. paving blocks or part thereof
(ii)	Sand for Bedding	Laver			
(11)	Sund for Detuning	Percentage of Deleterious material	IS 2386	Lab	Minimum one test for every 50 cum or part thereof
		Particle Size Distribution	As per Technical specification	Field / Lab	
		Silt Content	As per Appendix 'C' of Chapter 3 of CPWD Specifications	Field	
		Moisture Content	IS 2720	Field	
(iii)	Sand for Joint Filling	Particle Size Distribution	As per Technical specification	Field / Lab	Minimum one test for every 50 cum or part thereof
Note:-	For items not cove	ered above may be dea	•	echnical specifi	ications in the contract.

		1. Site Or	der Book			
Date	Instructions issued on the Inspection of work with Signature and designation	Contractor / contractor's representative acknowledgement with Signature, Name & Date	Compliance report by contractor / contractor's representative with Signature, Name & date	Final remarks of site Engineer with Signature, designation & date		
2	3 4		5	6		

2. Hindrance Register

Sl. No.	Nature of Hindrance	Date of Occurrence	Date of clearance	Period	Over lapping period if any	Weight age of hindrance	Net effective days of hindrance	Remarks and references	Sign. of Site Engineer with date	Contractor / contractor's representative Signature with Name & date
1	2	3	4	5	6	7	8	9	10	11

3.	Drawing	Register
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SI. No	Drg. No. and revision no. if any	Date of receipt	Details of DRG	Date of Issue to Contractor	Acknowledgement of contractor	Signature of Site Engineer with date
1	2	3	4	5	6	7

4 Cement Register

SI. N o.	Date of Recei pt	Source of Receipt	Bill/ Challa n no.	Manufactu re Test Certificate reference	Quanti ty Receiv ed (bags)	Progressive Total of Receipts (Bags)	Date of Issue	Qty. Issued (Bags)	Qty. Returned at the end of the Day (Bags)	Net Qty issued (Bags	Progressiv e Total of issue (Bags)

5 Steel Register

SI. No	Date of Receipt	Source of Receipt & Ch. No. /Bill No.	Qty Received (MT)	Cum Qty Received (MT)	Date of Issue	Qty issued (MT)	Cumulative qty issued (MT)	Balance at the end of the Day (MT)	Iter wo wh cor

Sl. N o.	Da te	Weig ht of samp le in gms	Size of Siev es	Weig ht retain ed on each Sieve	%age of weigh t retain ed	Cumula tive %age of weight Retaine d	%Ag e of weig ht passi ng	Specifi ed %age of weight Passin g	Sign. Of contrac tor with date	Sign. Of Site Engin eer with date	Remarks/a ction taken
1	2	3	4	5	6	7	8	9	10	11	12

6. Sieve Analysis of Stone Aggregate Nominal Size

Note: Size of Sieve should be as per CPWD manual/BIS specification

7. Silt Contents of Fine Sand/Coarse Sand

Sl. N o.	Dat e	Sourc e of materi al	Heig ht of Silt after Setti ng (V-1)	Heig ht of sand after setti ng (V-2)	%age Silt Content V1/V2x1 00	Acceptabi lity as per specificati on	Sign. Of Site Engine er with date	Sign. Of contract or with date	Locati on where sand used	Remarks/ac tion taken
1	2	3	4	5	6	7	8	9	10	11

8. Slump Test

SI. N o.	Date of Testi ng	Item of work and locati on	Vibrato rs used Yes / No	Quanti ty of water added per bag of cement (Liters)	Height of specim en after remova l of mould in (mm)	Slum p (mm)	Acceptabil ity of result or action taken	Sign. Of Site Engine er with date	Sign. of contract or with date	Remar ks
1	2	3	4	5	6	7	8	9	10	11

SI. No.	Date of Collection	Grade of Mix	Mark of Specimen	7	7 days	s Test R	esult	2	8 day	s Test R	lesult	Required specified strength	Approx. qty represented by	Item of work from where the	Sign. Of Site Engineer with date	Contractor / contractor's representative Signature with Name 8. doto
				Date of Testing	Load in KN	Compressive strength (KN / mm2)	Average compressive strength (KN / mm2)	Date of Testing	Load in KN	Compressive strength(KN / mm2)	Average compressive strength (KN / mm2)					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17

9. Cube Test

10. Density Test by Core Cutter Method

SI. No	Location (C.H.) / Area Represented by the Test	Core Cutter Nos.	Weight of Core Cutter + Weight of Soil (in gram) (W1)	Weight of Empty Core cutter (in gram) (W2)	Weight of Wet Soil (in gram) W= W1- W2	Volume of Core Cutter (in CC) V	Bulk Density (gram/cc) W3= W/V	Moisture Content of compaction layers (M)	Dry Density gram/cc $W4 = W3/(1+M)$	Degree of compaction W4/W5	Acceptability limit	Sign. of Site Engineer with date	Contractor / contractor's representative Signature with Name & date
1	2	3	4	5	6	7	8	9	10	11	12	13	14

MDD as per lab test W5.....

11. Test for Thickness and Density of the Compacted Layer (By Sand Replacement Method) for Asphalt Concrete / Bitumen Macadam / CC Pavement Lab Test Density in gms/CC

SI. No	Date of Test	Qty. represented by the test	Location of holes	Thickness of Layer		Weight of materials removed from the carpet Hole	Initial weight of sand taken in Cylinder	Weight of sand filling in cone of cylinder	Weight of sand remaining in cylinder	Predetermined bulk density of sand	Density = $\frac{A.d.}{(W1+W2)}$ W-	Remarks / Acceptability	Sign. Of Site Engineer	Contractor / contractor's representative Signature with Name & date	Action Taken
				Individual (mm)	Average (mm)	A gm	W gm	WI gm	W2 gm	d gm/CC	gm/CC				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

329

SI. No	Date of Test	Qty. represented by the test	Location of holes	Thickness of Layer (mm)		Wt. of Material from the hole	Moisture Content %age	Initial weight of sand taken in the Cylinder before filling in hole in gms	Wt. of sand after filling in hole in gms	Wt. of sand in hole & cone in gms	Wt. of sand in cone in gms	Wt. of sand in hole in gms	Volume of hole in CC	Bulk Density in gms/CC	Dry Density in gms/CC	Degree of compaction	Remarks / Acceptability	Sign. Of Site Engineer with date	Contractor / contractor's representative Signature with Name & date	Action Taken
				Individual	Average	(W) gms	(X)	(W1)	(W2)	(W3)= W1-W2	(W4)	W5 = (W3-W4)	(W7)= W5/W6	(W8)=W/W7	(W9)= W8/Y	W9/W10 x100	W9/W10 x100			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21

12. Density Test Register for Soil ---- By Sand Replacement Method Unit Wt. of Standard Sand in grams/CC (W6) = Lab Test MDD in gms/CC (W10) =

SI. No	Date of collection of sample	Date of testing	Wt. (in Kg)	No. of Specimen	Size in cm/Area in cm2	Compressive Strength obtained for individual bricks in Kg. per Cm2	Average Strength in Kg/Cm2	Specified Compressive Strength in Kg/Cm2	Acceptability	Sign. Of Site Engineer with date	Contractor / contractor's representative Signature with Name & date	Action Taken / Remark
1	2	3	4	5	6	7	8	9	10	11	12	13

13. Test of the Brick / Brick Tiles for Compressive Strength

14 Inspection Register

	me	designation	nd specific iction to be	e	ge Defects taken to Site Order Book/lette r written		5	result
SI. No	Date and time	Officer's Name and designation	Items inspected and specific defects noticed & action to be taken	Signature	Site Order Book Page no. / letter no.	Date	Sign. of Site Engineer / PMC	Final action / result

Bill Performa

Name of work :

LOI No.

Name of Contractor :

Date of Start :

Date of Preparation of Bill :

S N	Item No.	Descript ion of Items	Unit	Qty as per Agt.	Rate as per Agt.	Qty as per Pre. Bill	Qty as per this Bill	Cumul ative Qty.	Amt. as per Previou s Bill	Amt. as per this Bill	Cumulat ive Amount
1											
2											
3											
4											
5											
						Tota	al of Schedu	le A			
							ancement o @				
						Grand '	Total of Sch	edule A			

		<u>(</u>	Juality Assurance Plan	
S.N.	Material	Test to be carried out	Contractor Role	SMFPIL Role
1	100 mm thick Poly urethane foam(PUF) or as per any thickness designed by bidder conforming to industrial standards	Physical & Lab Test	 To be procured from approved make Submission of OEM's Test Certificate for each Lot One Lab Test for every 2000 Sq. Mtr The tests to be conducted are enlisted in Annexure A 	 Review of OEM's Test Certificate Review of Lab Test Report
2	100mm Bare PUF Slabs or as per any thickness designed by bidder conforming to industrial standards	Physical & Lab Test	 To be procured from approved make Submission of OEM's Test Certificate for each Lot One Lab Test for every 2000 Sq. Mtr The tests to be conducted are enlisted in Annexure A 	 Review of OEM's Test Certificate Review of Lab Test Report
3	All other PUF panels of varied thickness as applicable and design considerations conforming to industrial standards	Physical & Lab Test	 To be procured from approved make Submission of OEM's Test Certificate for each Lot One Lab Test for every 2000 Sq. Mtr The tests to be conducted are enlisted in Annexure A 	 Review of OEM's Test Certificate Review of Lab Test Report
4	PUF doors	Physical Inspection at site OEM's Test Report	 To be procured from approved make Submission of OEM's Test Certificate and technical compliance sheet to the tender technical specifications 	• Review of OEM's Test Certificate
5	Overhead sectional door	Physical Inspection at site OEM's Test Report	 To be procured from approved make Submission of OEM's Test Certificate and technical compliance sheet to the tender technical specifications 	• Review of OEM's Test Certificate

6	Dock leveler	Physical Inspection at site OEM's Test Report	 To be procured from approved make Submission of OEM's Test Certificate and technical compliance sheet to the tender technical specifications Load testing at site during commissioning confirming to loads as per tender technical specifications. 	 Review of OEM's Test Certificate Review of site test report
7	Dock seals retractable type	Physical Inspection at site OEM's Test Report	 To be procured from approved make Submission of OEM's Test Certificate and technical compliance sheet to the tender technical specifications 	• Review of OEM's Test Certificate
8	Racking and material handling equipment and pallets and storage bins/crates etc.	Physical Inspection at site OEM's Test Report	 To be procured from approved make Submission of OEM's Test Certificate The Reach truck/stackers and racking storage system should be tested for load carrying capacity at the highest level of loading confirming to the loading parameters as per tender specifications during commissioning. The battery accessories (as applicable) for all material handling equipments and all standbys should be tested as on then in the commissioning. 	 Review of OEM's Test Certificate Review of site test report
9	Sorting Grading Machinery and All Refrigeration equipment's, Accessories & Controls	Physical Inspection at site OEM's Test Report	 To be procured from approved make Submission of OEM's Test Certificate Commissioning certificate to be submitted as given in Annexure-B 	 Review of OEM's Test Certificate Review of Commissioning Certificate

10	Electrical Panel & Accessories	Physical Inspection at site	• To be procured from approved make	Review of OEM's Test Certificate
		OEM's Test Report	 Submission of OEM's Test Certificate 	

Annexure A-

As per tender documents all mentioned below parameters for OEM Test certificate and Lab test are required to confirm all parameters in line for PUF panels:

- 1-Density Test
- 2-Thickness of GI Sheet
- 3-Thickness of PUF
- 4-Epoxy Primer on both sides (thickness)
- 5- Polyester Top Coat (thickness)
- 6- Zinc Coating
- 7- Thermal Conductivity
- 8- Yield Strength of GI sheet
- 9- Tensile Strength of GI sheet

Annexure B-

All refrigeration machinery and equipments shall be tested for COP (Coefficient of performance) at the time of commissioning for 3 times as per the pull down time of chambers or on a shift basis as applicable. These tests shall cover for all compressors, evaporator (all indoor units), condenser, Water chillers etc including all accessories.

FORMATS

SCHEDULE – 1

ELIGIBILITY CRITERIA DOCUMENT

1.	Name of Company/Firm	
	Registered Address	
	Website & Email Address	
	Telephone Number	
	Fax Number	
2.	Description of the company giving detail of activities	
3.	Number of years of experience as a General Contractor	
4.	Number of years of experience as a Sub-Contractor	
5.	Names of members of Board of Directors	
6.	Names of principals who sign documents on behalf of the company	
7.	Attach a Company organization chart	
8.	Previous names of the company with the dates of changes (if any)	
9.	Previous partners with dates of changes(if any)	
10	State if a member of any contractor's association/organization.	
11.	In which field of SITC/Engineering do you claim specialization & Interest.	

Encl.:

1) Attach attested copies of original documents:

a) Applicant's legal status.

b) Principal place of business.

c) The place of Incorporation (for applicants who are Corporation), the place of registration and nationality of the owners (for applicants who a rein partnerships or individually owned firms).

2) Power of attorney or authority to sign duly attested by Magistrate 1st Class.

3) Latest brochures and technical literatures.

SCHEDULE – 2 ELIGIBILITY CRITERIA DOCUMENT

FINACIAL CAPABILITY

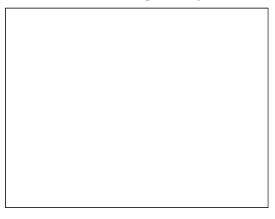
a) Summary of assets and liabilities on basis of the audited financial statements of the last three financial years.

ITEM	DESCRIPTION	2016-2017	2017-2018	2018-2020
1.	Total Assets			
2.	Current Assets			
3.	Total Liabilities			
4.	Current liabilities			
5.	Net worth (1-3)			
6.	Working Capital (2-4)			
7.	Annual Turn over			
8.	Services related turn over			
9.	Profit before taxes			
10.	Profit after Taxes			

Note:

- a) Attach attested copies of the audited financial statements of the last three financial years.
- b) Details of services related turnover

Name and Address of the Bank providing Credit line



c) Specify proposed sources of financing to meet the cash flow demands of the project, net of current commitments:

SOURCE OF FINANCING	AMOUNT
1.	
2.	
3.	
4.	

Firms owned by individuals, partnerships, may submit their balance sheets certified by the registered Chartered Accountant, and supported by copies of tax returns, if audits are not required by the laws of their countries of origin.

NOTE: (The following information is mandatory)

- i) The average annual financial turnover during the last 3 years ending 31st March of previous financial year should clearly be indicated.
- ii) The applicant should have positive net worth. This will be judged from audited balance sheet of the last financial year ending on a date not prior to 24 months from the due date of submission of this document.

SCHEDULE - 3 ELIGIBILITY CRITERIA DOCUMENT

Assessed Available Bid capacity

The applicant must fulfil the criteria of...

Working Bid Capacity> Total estimated cost of work(s) at the time of bidding. Contractors should calculate the bid capacity as per given formula.

WBC = 2AN - B

A=	Average Annual Turnover of the bidder for last three financial years from similar nature of projects
B=	Value of the existing commitments and ongoing works of the bidder (lead member of the Consortium) to be completed during next 6 months (period of completion of works as per bid)
N=	No. of years prescribed for completion of works for which bids are invited i.e. 0.5 in this case.

SECHUDLE – 4 ELIGIBILITY CRITERIA DOCUMENT

WORK EXPERIENCE

LIST OF RELEVANT PROJECTS OF VALUE OF PACKAGE (FOR WHICH PREQUALIFICATION IS SOUGHT), COMPLETED/STILL CONTINUING, DURING THE LAST TEN YEARS

Name	Name,	Contr	% of	Contract	Contract	Actua	Actual	Reasons	Value of
of	Locatio	act	Partici	ual Date	ual	1	Date	for	work
Emplo	n,	Price	pation	of	Date of	Date	of	Delay in	completed
yer /	Nature	in	of the	Commen	completi	of	Complet	Complet	till the last
Client	&	Indian	Compa	cement	on of	Start	ion of	ion, if	date of
	Descript	Rs.	ny		Work	of	work	any	submission
	ion of		-			Work		-	of bid
	Work								supported
									with
									certificate
									from
									employer/
									client

Note :-

1. Certificates from the employers are to be attached in respect of the information furnished.

2. Attach photographs of completed Projects.

3. Attach additional photo copied pages, if required.

4. Works to be listed separately as per the similarity.

5. Attach performance certificates as per the value of work as defined in this document. There should not be an unsatisfactory performance of the applicant.

SCHEDULE – 5 ELIGIBILITY CRITERIA DOCUMENT

LIST OF CURRENT PROJECTS

PROJECT TITLE	WORKS INVOLVED	VALUE	DATE OF COMMENCEMENT OF WORKS		EXPECTEDDATE OF COMPLETION

Note :- Works to be listed separately as per the similarity.

SCHEDULE – 6

ELIGIBILITY CRITERIA DOCUMENT

INFORMATION REGARDING CURRENT LITIGATION OR ABANDONMENT OF WORK BY APPLICANT

i)	a) Is the applicant currently involved in any arbitration/litigation to the contract works.	Yes / No
	b) If yes, give details	
ii)	a) Has the applicant or any of its constituent partners been debarred/expelled by any agency in India during the last 5 years due to any reason	Yes / No
	b) If yes, give details	
iii)	a) Has the applicant or any of its constituent partners failed to complete any contract work in India during the last 5 years due to any reason.	Yes / No
	b) If yes, give details	
iv)	Applicant shall submit an affidavit with an undertaking that the applicant / associates have not been blacklisted by any Govt. Agency / State Government/ Central Government offices if any of the State in India.	

Note:- If any information in this schedule is found to be incorrect or concealed, participation of applicant will be summarily rejected at any time. The applicant is supposed to fill-up the correct details of arbitration/litigation during last five years with their outcome.

Details of dispute	Year		Name of HAFED, cause of litigation and	value of	Actual awarded amount
		uppnount	matter of dispute	amount	uniount

Signature with Seal of the Company (Name of the Authorized Signatory) Title / Designation

SCHEDULE – 7 ELIGIBILITY CRITERIA DOCUMENT AFFIDAVIT

- 1. I, the undersigned duly authorized on behalf of company/firm/do hereby certify that all the statements made in the required attachments are true and correct to the best of my knowledge.
- 2. The undersigned hereby authorize(s) and request(s) any bank, person, firm or Corporation to furnish pertinent information deemed necessary and requested by the HAFED to verify this statement or regarding my(our)competence and general reputation.
- 3. The undersigned understands and agrees that further qualifying information may be requested and agrees to furnish any such information at the request of the HAFED.

(Signed by an Authorized Officer of the Firm)

Name and Title of Officer

Name of the Firm

Date

Encl.: Requisite Power of Attorney duly attested by Magistrate - 1st Class.

SCHEDULE – 8 ELIGIBILITY CRITERIA DOCUMENT

ADDITIONAL INFORMATION

Following additional information supported with attested copies, may be supplied along with your application:

1. Registration of company, partnership deed, Article of Association, Registration under Labour Law, Registration under GST etc

2. EPF No., PAN No. etc.

3. Details of available site testing equipments.

4. Details of possession of Electrical License from Chief Electrical Inspector of the State for execution of High Tension line network.

Please add any further information, which you consider to be relevant to the evaluation of your application. If you wish to attach other documents please list below, otherwise state "not applicable".

Format of Bank Guarantee for Bid Security (BANK GUARANTEE ON NON-JUDICIAL STAMP PAPER OF Rs.100)

BID SECURITY (BANK GUARANTEE)

WHEREAS, _____ [name of Bidder] (hereinafter called "the Bidder") has submitted his Bid dated _____ [date] for the (insert the name of the works) (hereinafter called "the Bid").

KNOW ALL PEOPLE by these prese	[name of bank] of		
having our registered office at		(hereinafter called "the Bank")
are	bound	unt	0
		(hereinafter	
called "the Employer") in the sum	of Rs	¹ (Rupees	_

_____) for which payment well and truly to be made to the said Employer the Bank binds itself, his successors and assigns by these presents.

SEALED with the Common Seal of the said Bank this _____ day of _____ 2018. THE CONDITIONS of this obligation are:

(1) If after Bid opening the Bidder withdraws his bid during the period of Bid validity specified in the Form of Bid; or

(2) If the Bidder having been notified of the acceptance of his bid by the Employer during the period of Bid validity:

(a) fails or refuses to execute the Form of Agreement in accordance with the Instructions to Bidders, if required; or

(b) fails or refuses to furnish the Performance Security, in accordance with the Instruction to Bidders; or

(c) does not accept the correction of the Bid Price pursuant;

we undertake to pay to the Employer up to the above amount upon receipt of his first written demand, without any protest or demur or any objection, whatsoever on our part and without any first claim or reference to the Contractor, without the Employer having to substantiate his demand, provided that in his demand the Employer will note that the amount claimed by him is due to him owing to the occurrence of one or any of the three conditions, specifying the occurred condition or conditions.

This Guarantee will remain in force up to and including the date ______ days after the deadline for submission of Bids as such deadline is stated in the Instructions to Bidders or as it may be extended by the Employer, notice of which extension(s) to the Bank is hereby waived. Any demand in respect of this guarantee should reach the Bank not later than the above date.

DATE	SIGNATURE OF THE BANK
WITNESS	SEAL

[signature, name, and address]

The Bidder should insert the amount of the guarantee in words and figures denominated in Indian Rupees. This figure should be the same as shown in Section 1 (II).

Instruction for furnishing Bank Guarantee

 \Box The Bank Guarantee by Bidders will be given on non-judicial stamp paper as per stamp duty applicable at the place where the tender has emanated. The non-judicial stamp paper should be in name of the issuing bank.

□ This bank guarantee/ all further communication relating to the bank guarantee should be forwarded to HAFED Office, Panchkula only.

□ The full address along with the Telex/Fax No. and email address of the issuing bank to be mentioned.

PERFORMANCE BANK GUARANTEE

To [name of Employer] ______[address of Employer]

WHEREAS ______ [name and address of Contractor] (hereafter called "the contractor") has undertaken, in pursuance of Contract No. ______ dated _____ to execute ______ [name of Contract and brief description of Works] (hereinafter called "the Contract").

AND WHEREAS it has been stipulated by you in the said Contract that the Contractor shall furnish you with a Bank Guarantee by a recognized bank for the sum specified therein as security for compliance with his obligation in accordance with the Contract;

AND WHEREAS we have agreed to give the Contractor such a Bank Guarantee:

NOW THEREFORE we hereby affirm that we are the Guarantor and responsible to you on behalf of the Contractor, up to a total of ______ [amount of guarantee]* ______ (in words), such sum being payable in the types and proportions of currencies in which the Contract Price is Payable, and we undertake to pay you, upon your first written demand and without cavil or argument, any sum or sums within the limits of ______ [amount of guarantee] as aforesaid without your needing to prove or to show grounds or reasons for your demand for the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the contractor bef

We hereby waive the necessity of your demanding the said debt from the contractor before presenting us with the demand.

We further agree that no change or addition to or other modification of the terms of the Contract or of the Works to be performed there under or of any of the Contract documents which may be made between you and the Contractor shall in any way release us from any liability under this guarantee, and we waive notice of any such change, addition or modification.

The Bank guarantee for performance security shall remain in force as given in the Bid Document shall be valid up to 3 months beyond the expiry of the Defects Liability Period.

Signature and Seal of the guarantor
Name of Bank
Address
Date

* An amount shall be inserted by the Guarantor, representing the percentage of the Contract Price specified in the Contract including additional security for unbalanced Bids, if any and denominated in Indian Rupees.