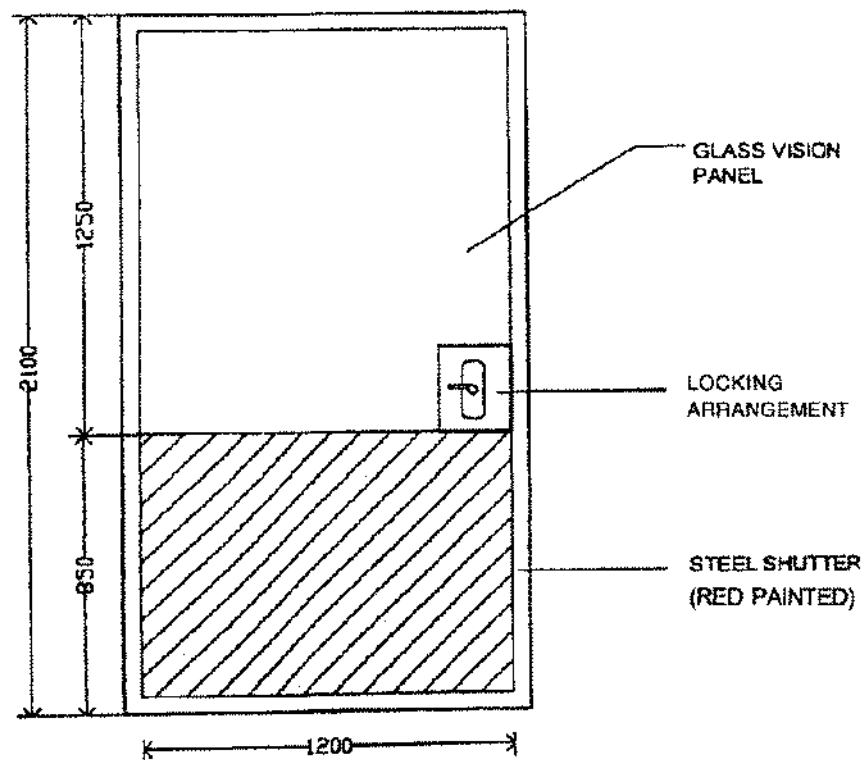
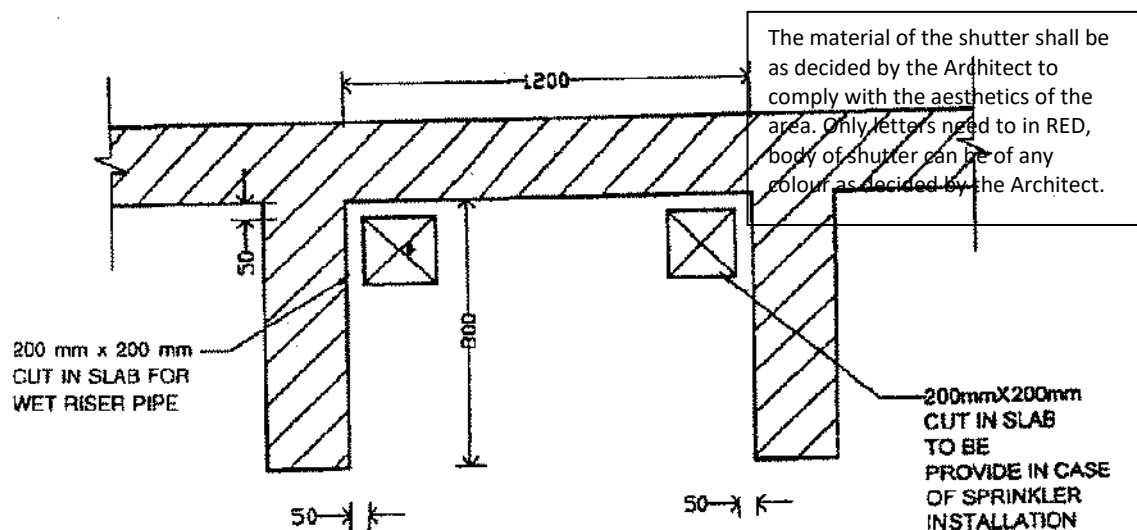


**TYPICAL ARRANGEMENT FOR PROVIDING COMBINED FIRE  
FIGHTING AND DOMESTIC WATER STORAGE TANK**

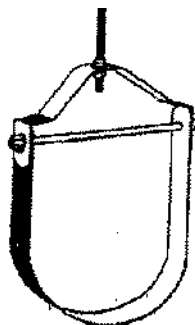
**Fig. 7**



### WET RISER SHAFT DOOR DETAILS



**WET RISER SHAFT**  
**Fig. 8**

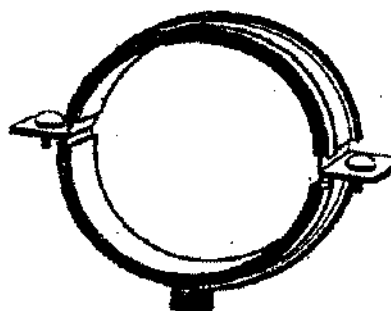


### CLEVIS HANGERS

Heavy duty  
clevis hangers with  
pendulum movement  
to adjust varying heights

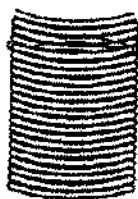


### SPRINKLER HANGERS



### PIPE SUPPORT SPLIT CLAMP

split pipe support  
clamps for vertical,  
horizontal &  
roof hanging  
installation

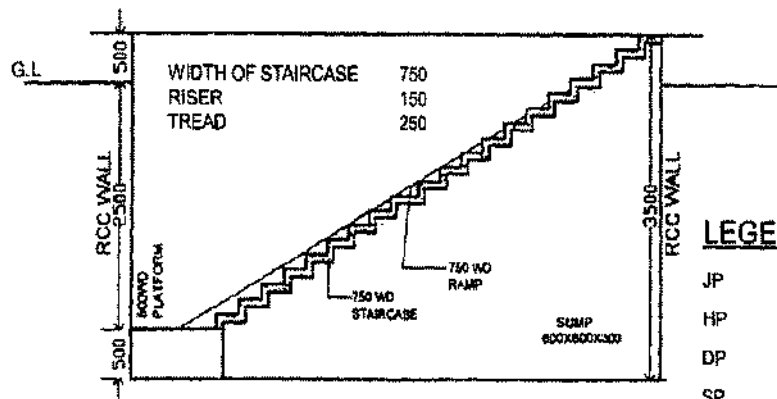


### FULL THREADED RODS

in sizes  
8 mm  
10 mm  
12 mm

## **TYPICAL PIPE SUPPORT**

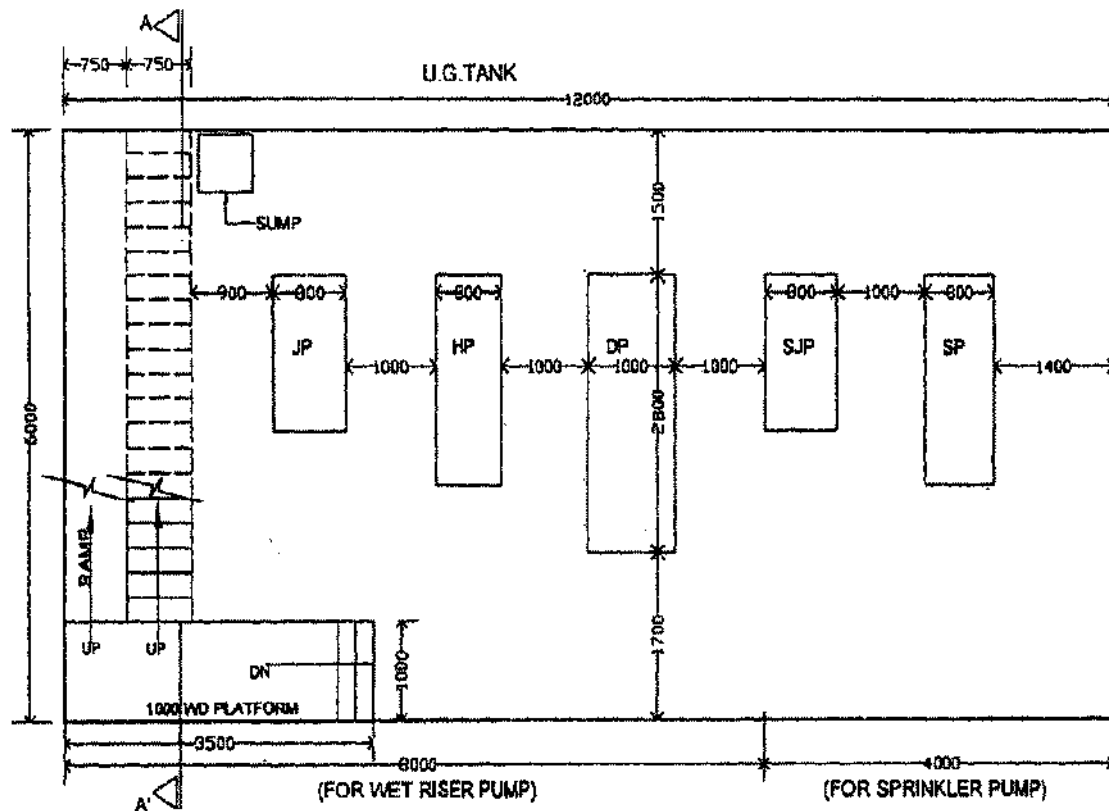
**Fig. 9**



**SECTION THRU AA'**

**LEGENDS**

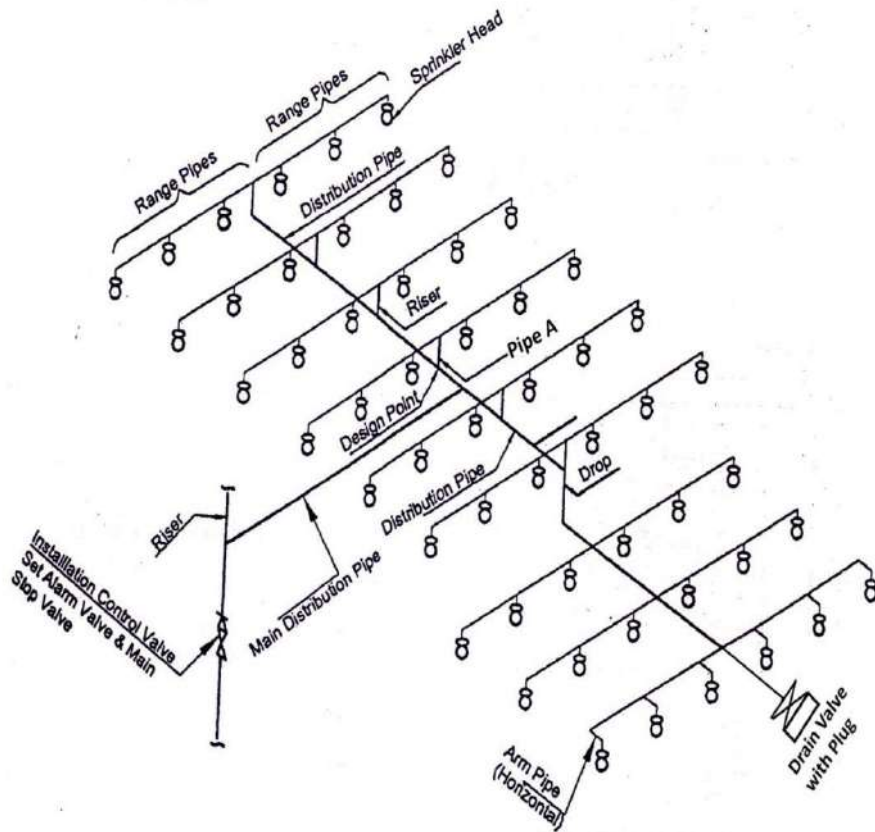
- JP : JOCKY PUMP
- HP : HYDRANT PUMP
- DP : DIESEL PUMP
- SP : SPRINKLER PUMP
- SJP : SPRINKLER JOCKY PUMP



**PLAN**

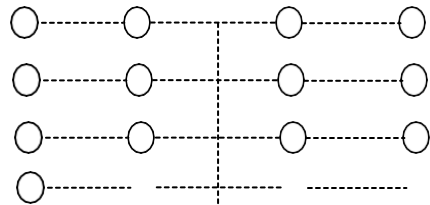
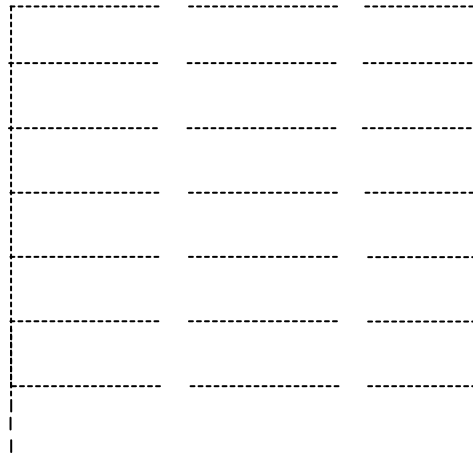
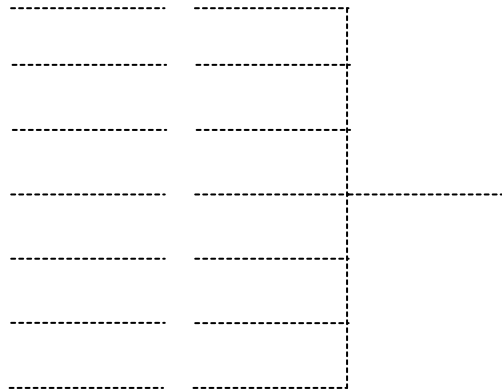
**LAYOUT OF FIRE PUMP HOUSE WITH SPRINKLER PUMP**

**Fig. 10**

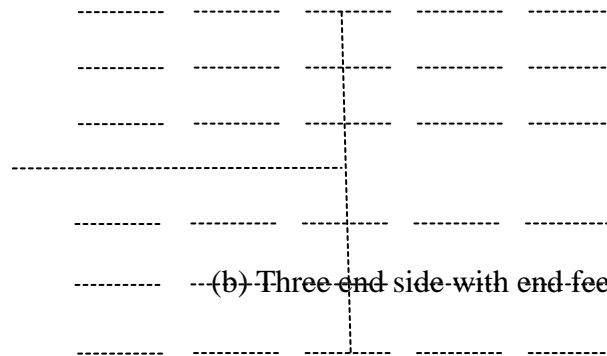


**TYPICAL LAYOUT OF SPRINKLER INSTALLATION**

**Fig. 11**



(a) Two end side with central feed



(b) Three end side with end feed

(c) Two end centre with end feed

(d) Three end centre with central feed

### **TYPICAL LAOUT OF CONNECTION OF SPRINKLERS**

List of Approved Makes		
S. No.	Item	Manufacturer's Name
	<b>FIREFIGHTINGSYSTEM</b>	
1	ELECTRIC DRIVEN MOTOR AND PUMPS	GRUNDFOS/MATHERPLATT/EBARA/WILO/EMU/DP/KIRLOSKAR
2	ELECTRIC DRIVEN MOTOR AND PUMPS(INDIANSTANDARD)	GRUNDFOS/MATHERPLATT/EBARA/WILO/EMU/DP/KIRLOSKAR
3	DIESELENGINE	KIRLOSKAR/ASHOKLEYLAND/CUMMINS
4	G.I.ANDM.S.PIPES	TATA/JINDALHISAR/PRAKASH
5	FIRE HOSE PIPES/RR.L. HOSE PIPE	NEWAGE/CRC/PADMINI/G.TECH/INDIAN RAYON./SUPERME/KARTAR/ATASEE
6	FIRSTAID FIRE HOSE REELWITH BRACKET,DRUM AND NOZZLE	JYOTI/TIGER/PADMINI/NEWAGE/KARTAR/ATASEE
7	G.I.ANDM.S.FITTINGS	R/KS/UNIK/DRP/ZOLOTO
8	C.I.DOUBLE FLANGED SLUICE/GATE VALVE/NON-RETURN VALVES	H.SARKAR/KIRLOSKAR/SANT/LEADER/KALPANA/KARTAR/ZOLOTO
9	SLIM SEAL BUTTERFLY VALVES (PN-1.6)	AUDCO/SANT/C&R/KSB/INTERVALVE/CASTLE/ARROW/KARTAR/ZOLOTO
10	C.I.BODYBUTTERFLYVALVE	AUDCO/SANT/INTERVALVE/CASTLE/ARROW/DANFOSS/KARTAR/ZOLOTO
11	GUN METAL BODY BUTTERFLY VALVE	AUDCO/SANT/INTERVALVE/CASTLE/ARROW/DANFOSS/KARTAR/ZOLOTO
12	ALARMGONG	HDOREQUIVALENT
13	QB.SPRINKLER	TYCO/GRINNEL/KIDDE/CENTRAL/GTECH/ATASEE
14	WRAPPING AND COATING	PYPECOAT/RUSTECH/COALTEK
15	FABRICATED FIRE HOSE CABINET	STEELAGE/NEWAGE/G.TECH/ATASEE
16	BRANCH PIPE/ NOZZLES (GUNMETAL/BRASS/COPPER&BRA	MINMAX/NEWAGE/G.TECH/ATASEE



	SS /ALUMINIUM)	
17	FIRE EXTINGUISHERS	MINIMAX/NEWAGE/G.TECH/ATASEE
18	FIRE BRIGADE CONNECTION	NEWAGE/MINIMAX/G.TECH/SUPEREX/ATASEE
19	SUCTION STRAINER	JATPEE/GRANDPRIT/DASHMESH/KARTAR/ZOLOTO
20	VIBRATION ELIMINATOR CONNECTORS	RESISTOFLEX/KHANWAL/D.WREN
21	SINGLE PHASING PREVENTOR (CURRENTOPERATED)	L&T/SIEMENS/MINILEC
22	FLOWMETER	SCINTIFICEQUIPMENT.(P)LTD.SHALIBANDAHYDRABAD-500263/
23	ELECTRICAL SWITCHGEAR & STARTERS	SIEMENS/L&T/ABB
24	CABLES	SKYTONE/GLOSTER/NICCO/ASIAN/(RPG)UNIVERSAL/POLYCAB/PLAZA
25	FLOW SWITCH	POTTER/SYSTEMSENSOR/JHONSONCONTROL
26	MAIN CONTROL PANEL (POWDER COATED)	TRICOLITE/ADLEC/TRINITRON/VIDYUTCONTORL/CONELEC/ENGINEERING(P)LTD./UNILECLTD./RISHA/ADVANCEPANNEL/ADVANCEGEARS/EQUIVALENT
27	PRESSURE SWITCHES	INDFOSS/SWITZER
28	PRESSURE GAUGE	H.GURU/FIEBIG
29	BATTERY	EXIDE/PRESTOLITE
30	PAINT ENAMEL OF PIPES ETC.	J&N/ASIAN/NEROLAC/BERGER
31	ANNUNCIATION PANEL FOR SPRINKLER SYSTEM	PCD/SAFEWAY/AGNI(INDIA)/AGNI
32	ALARM VALVE & HYDRAULIC ALARM MOTOR WITH COVERING	MATHER&PLATT/HD
33	CONTACTOR	L&T/SIEMENS/SCHNEIDE/GE/ABB
34	THIMBLES / FERRULES (TINNED COPPER)	DOWELOREQUIVALENT
35	CABLEGLANDS	COMMEX/POWER/GRIPWELL
36	POWERCAPACITOR	L&T/CROMPTON/ASIAN/DUCATTI

37	MEASURING METER (DIGITAL)	L&T/SIEMENS/AE/ENERCON
38	DASH FASTENER	HILTI/FISHER
39	PAINT PRIMERS	ASIAN/JENSONNICHOLSON
40	WELDING ELECTRODES	ADVANI/ESAB/VICTOR
41	PIPE HANGERS	CHILLY/GMGR
42	MCB, DBs	MDS/LEGRAND/INDOASIAN(GOLDLINE)HEGER

**\*\*The recommended makes are listed. In case of any other competitive makes/reputed makes, the bidder may submit the same with compliance statement to technical specifications & parameters at the time of pre bid meeting only for final approval from HAFED.**

The Successful Bidder after work award should take approval in written from HAFED for equipment brand& technical specifications before procurement.

**Section 7**  
**Bill of Quantities**

**CPC & DRY WAREHOUSE Fire Fighting HAFED MFP**

S.No.	DSR no	Description	Unit	Quantity	Rate (INR)	Amount (INR)
	DSR_AOR 2019	<b>FIRE FIGHTING SYSTEM</b>				
1	1	<b>Fire Pumps and Accessories</b>				
		Supplying, installation, testing and commissioning of Electric driven Main Fire Pump suitable for automatic operation and consisting of following, complete in all respects, as required :				
	a)	Horizontal type, multistage, centrifugal, split casing pump of cast iron body & bronze impeller with stainless steel shaft, mechanical seal conforming to IS 1520.				
	b)	Suitable HP Squirrel cage induction motor, TEFC, synchronous speed 1500 RPM, suitable for operation on 415 volts, 3 phase 50 Hz, AC supply with IP 55 protection for enclosure, horizontal foot mounted type with Class-'F' insulation, conforming to IS-325.				
	c)	M.S. fabricated Common base plate, coupling, coupling guard, foundation bolts etc. as required.				
	d)	Suitable cement concrete foundation duly plastered with anti vibration pads.				
	1.1	2850 lpm at 88 m Head	Set	2	440000	8,80,000.00

		<i>Note: Contractor shall include in his rates for providing pressure switches, pressure guages, wiring, cabling from pressure switch to panel etc. complete as required to operate the system automatic/manual. Pump shall be protected against running dry.</i>				
2	DSR _AOR 2019 / 2	Supplying, Installation, Testing and Commissioning of <b>diesel engine driven main fire pumping set</b> complete in all respect as required suitable for automatic operation and consisting of following:				
		Horizontal type, multistage, centrifugal pump of cast of iron body and bronze impeller with stainless steel shaft, mechanical seal conforming to IS 1520.				
		Suitable HP, 1500 RPM water cooled with radiator, diesel engine conforming to relevant IS standard complete with auto starting mechanism, 12 /24 volts electric starting equipment, diesel tank, exhaust pipe extended upto 10 m outside pump house duly insulated with 50 mm thick glass wool with 1.0 mm thick aluminium sheet cladding, residential silencer, instruments and protection as per standard specification, stop solenoid for auto stop in the event of fault with audio indications, painted with post office red colour etc. as required.				
		M.S fabricated, common base plate, coupling, coupling guard, foundation bolts etc. as required				

		Suitable cement concrete foundation duly plastered and with anti vibration pads.				
	2.1	2850 lpm at 88 m Head	Set	1	683155	6,83,155.00
		<i>Note: Contractor shall include in his rates for providing pressure switches, pressure guages, wiring, cabling from pressure switch to panel etc. complete as required to operate the system automatic/manual. Pump shall be protected against running dry.</i>				
3	DSR _AOR 2019 / 3	Supplying, installation, testing and commissioning of electric driven pressurisation pump suitable for automatic operation and consisting of following, complete in all respects, as required : (Jockey Pump)				
		Horizontal type, multistage, centrifugal pump of cast iron body and bronze impeller with stainless steel shaft, mechanical seal conforming to IS : 1520.				
		Suitable HP squirell cage induction motor TEFC type suitable for operation on 415 volts, 3 phase 50 Hz AC supply with IP 55 class of protection for enclosure, horizontal foot mounted type with Class-'F' insulation, conforming to IS : 325.				
		M.S.fabricated Common base plate, coupling, coupling guard, foundation bolts etc. as required.				
		Suitable cement concrete foundation duly plastered and with anti vibration pads.				
	3.4	300 lpm at 88 m Head	Set	2	165976	3,31,952.00

		<i>Note: Contractor shall include in his rates for providing pressure switches, pressure guages, wiring, cabling from pressure switch to panel etc. complete as required to operate the system automatic/manual. Pump shall be protected against running dry.</i>				
4	DSR _AOR 2019 / 4	Supplying, installation, testing and commissioning of electric driven terrace pump suitable for automatic operation and consisting of following, complete in all respects, as required: (Terrace Pump)				
	a)	Horizontal type, multistage, centrifugal, split casing pump of cast iron body & bronze impeller with stainless steel shaft, mechanical confirming to IS : 1520				
	b)	Suitable HP squirell cage induction motor TEFC type suitable for operation on 415 volts, 3 phase, 50 Hz, AC supply with IP55 class of protection for enclosure, horizontal foot mounted type with Class-'F' insulation, conforming to IS-325.				
	c)	M.S.fabricated common base plate, coupling, coupling guard, foundation bolts etc.as required.				
	d)	Suitable cement concrete foundation duly plastered and with anti vibration pads.				
	4.1	900 lpm at 35 m Head	Set	1	100946	1,00,946.00

		<i>Note: Contractor shall include in his rates for providing pressure switches, pressure guages, wiring, cabling from pressure switch to panel etc. complete as required to operate the system automatic/manual. Pump shall be protected against running dry.</i>				
7		Fabrication, Supplying, Installation, Testing and Commissioning of <b>electrical control panel</b> of cubical construction, floor mounted type, fabricated out of 2mm. Thick CRCA sheet, compartmentalized with hinged lockable doors, dust and vermin proof, powder coated of approved shade after 7 tank treatment process, cable alley, inter-connection, having switchgears and accessories mounting and internal wiring, earth terminals, numbering etc. complete in all respect, suitable for operation on 415 V, 3 phase, 50 Hz. AC supply with enclosure protection class IP 42 as required.				
		<b>COMMON PANEL IN FIRE PUMP HOUSE</b>				
	5.6	<b>INCOMER</b>				
		800 Amps. 50KA TP & N 4P MCCB ICS=100%				
		Voltmeter (0-500 Volts) with selector switch.				
		Ammeter (0-800 Amps.) with selector switch and CT's etc.				
		Set of 3 Phase indicating lamp.				
		Set of AI bus bar 1000 Amps.				
		<b>OUTGOING</b>				
		<b>Main Fire Pump</b>				



		250 Amps. MCCB with suitable HP fully automatic <b>star/delta starter</b> with over load protection, current sensing type single phase prevent or complete with all accessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/Off operation. (Hydrant & Sprinkler pump)				
		<b>Jockey Pump</b>				
		125 Amps. MCB with suitable HP fully automatic star/delta starter with over load protection, current sensing type single phase prevent or complete with all accessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/Off operation.				
		<b>Diesel Engine Control.</b>				
		Control for Diesel Engine comprising:				
		Auto/Manual selector switch & 3 attempt starting device, timers and relays as required, push buttons, start/stop in manual mode.				
		Indication lamp for High/Low Lub. Oil pressure, High Water Temp and Engine ON indication.				
		Battery charger suitable for <b>12 V/24 V DC</b> with boost and trickle selector switch, 0-30 V DC volt meter, 0-20 Amp DC Ammeter.				
		All standard relays and accessories for automatic operation of diesel engine.				

		Designing, Supply, Installation, Testing and commissioning of system controller to control operation of main electric fire pump, diesel pump, Pressurization pump, Terrace pump in sequence as per specification consisting of relays, timers. Sensors, annunciation window for fault indication, complete as per specification	Set	1	575711	5,75,711.00
7	DSR_AOR_2019/22	Providing and fixing <b>Pressure Switch</b> in the MS pipe Line including connection etc. as required.	Each	8	1508	12,064.00
8	DSR_AOR_2019/14	Providing, installation, testing and commissioning of dual plate <b>non-return valve of following sizes</b> confirming to IS: 5312 complete with rubber gasket, GI bolts, nuts, washers etc. as required.				
a	14.1	300 mm dia.	Each	R/O	60243	
b	14.8	200 mm dia	Each	2	29075	58,150.00
c	14.7	150 mm dia.	Each	4	17577	70,308.00
d	14.5	100 mm dia	Each	6	10836	65,016.00
e	14.4	80 mm dia	Each	R/O	7539	
9	DSR_AOR_2019/15	Providing, installation, testing and commissioning of <b>stainless steel Y-strainer fabricated</b> out of 1.6 mm. thick stainless steel sheet with 3 mm. dia holes with stainless steel flange.				
a	15.5	250 mm dia	Each	4	36394	1,45,576.00
b	15.4	200 mm dia.	Each	6	22052	1,32,312.00
c	15.3	150 mm dia.	Each	6	10659	63,954.00
d	15.2	100 mm dia	Each	4	6450	25,800.00

e	15.1	80 mm dia.	Each	R/O	4573	
10	DSR_ AOR_ 2019/ 11	Providing, Fixing , testing and commissioning of butterfly valve of rating PN 1.6 with bronze/gunmetal seat duly ISI marked complete with nuts, bolts, washers, gaskets, conforming to I.S:13095 of following sizes as required.				
a	11.8	250mm dia (gear operated)	Each	4	20163	80,652.00
b	11.7	200mm dia	Each	8	14958	1,19,664.00
c	11.6	150mm dia	Each	4	8699	34,796.00
d	11.5	100mm dia	Each	6	6454	38,724.00
e	11.4	80mm dia	Each	4	4842	19,368.00
11		<b>SPRINKLER SYSTEM</b>				
	DSR_ AOR_ 2019/ 7	Providing, laying, testing & commissioning of ' <b>C' class heavy duty MS Pipe</b> conforming to IS 3589 and 1239 including fittings like elbows, tees, flanges, tapers, nuts bolts, gaskets etc., fixing the pipe on the wall/ceiling with suitable clamps and painting with two or more coats of synthetic enamel paint over one or two coat of primer of required shade complete as required. <b>(For Sprinkler system)</b>				
		200mm dia				
a	7.8	150 mm dia	RM	100	2064	2,06,400.00
b	7.7	100 mm dia	RM	500	1499	7,49,500.00
c	7.6	80 mm dia	RM	100	1122	1,12,200.00
d	7.5	65 mm dia	RM	100	1004	1,00,400.00
e	7.4	50 mm dia	RM	100	787	78,700.00
f	7.3	40 mm dia	RM	100	651	65,100.00
g	7.2	32 mm dia	RM	300	527	1,58,100.00
h	7.1	25 mm dia	RM	3650	471	17,19,150.00

12	DSR_ AOR_ 2019/ 21	Providing fixing testing and commissioning of 15 mm size <b>quartzoid bulb type sprinklers</b> , of rating 68 degree C. pendent with required accessories				
a	21.1	Pendent Sprinkler	Each	2204	484	10,66,736.00
13		Providing, fixing, testing and commissioning of butterfly valve PN 1.6 with Bronze/SS seat duly ISI marked complete with Nuts, Bolts, Washers, Gaskets, conforming to IS 13095, of following sizes as required.				
a	11.5	100 mm dia	Each	24	6454	1,54,896.00
b	11.6	150mm dia	Each	6	8699	52,194.00
14	DSR_ AOR_ 2019/ 23	Providing & fixing flow switch in following sizes M.S. pipe including connection etc as required				
	23.1	100 mm Dia	Each	12	7362	88,344.00
	23.2	150 mm. Dia	Each	6	8869	53,214.00
16	DSR_ AOR_ 2019/ 24	Providing and fixing, testing and commissioning of installation <b>control valve of Cast iron body</b> and brass/bronze working parts comprising of water motor alarm, bronze seat clapper and clapper arm, hydraulically driven mechanical gong bell to sound continuous alarm when the Sprinkler system activates, pressure gauges, emergency releases, strainer, pressure switch cock valve complete with drain valve and bypass, test control box, ball valves, MS pipe of required size, flanges, orifice plate, gasket etc. of size as required.				
a	24.3	150 mm dia	Each	6	47898	2,87,388.00

17	DSR_ AOR_ 2019/ 19	Supplying and fixing of fire brigade connection of cast iron body with gun metal male instantaneous inlet couplings complete with cap and chain as reqd. For suitable dia MS pipe connection conforming to IS 904 as required :				
a	19.3	3 way - 150 mm dia M.S. Pipe	Each	6	9302	55,812.00
		<b>HYDRANT SYSTEM</b>				
18	DSR_ AOR_ 2019/ 6	Providing laying, testing & commissioning of 'C' class heavy duty MS Pipe conforming to IS 1239/3589 i/c fittings like elbows, tees, flanges, tapers, nuts bolts, gaskets etc. in ground including welding, excavation & providing cement concrete blocks as supports, anticorrosive treatment with coaltar/asphalt tape as per IS 10221, refilling the trench etc. of following sizes complete as required.				
a	6.1	200 mm. dia (wall thickness = 6.3 mm)	RM	30	3169	95,070.00
b	6.2	150 mm dia	RM	850	2376	20,19,600.00
19	DSR_ AOR_ 2019/ 10	Supplying and fixing Single headed external yard hydrant valve with 1 No. 63 mm dia instantaneous FM Gunmetal/Stainless Steel coupling and cast iron wheel, ISI marked, conforming to IS 5290 (type A) with blank Gunmetal/Stainless Steel cap and chain as required :				
	10.2	Single headed Stainless steel	Each	16	5987	95,792.00
20	DSR_ AOR_ 2019/ 9	Supplying and fixing single headed internal hydrant valve with instantaneous unmetal/Stainless Steel coupling of 63 mm dia with cast iron wheel ISI marked conforming to IS 5290 (Type -A) with blank Gunmetal/Stainless Steel cap and chain as required :				
	9.2	Single headed Stainless steel	Each	28	5987	1,67,636.00

25	DSR_ AOR_ 2019/ 11	Providing, Fixing , testing and commissioning of butterfly valve of rating PN 1.6 with bronze/gunmetal seat duly ISI marked complete with nuts, bolts, washers, gaskets, conforming to I.S:13095 of following sizes as required.				
a	11.7	200 mm dia	Each	2	14958	29,916.00
b	11.6	150 mm dia	Each	8	8699	69,592.00
c	11.5	100 mm dia	Each	2	6454	12,908.00
d	11.4	80 mm dia	Each	44	4842	2,13,048.00
26	DSR_ AOR_ 2019/ 16	Supplying and fixing 63 mm dia, 15 mtr. long <b>RRL hose pipe</b> with 63 mm dia Male and Female SS couplings duly binded with GI wire, rivets etc. coforming to IS 636 (type-A) as required.				
	16.1	Gun Metal	Each	106	5188	5,49,928.00
30	DSR_ AOR_ 2019/ 13	Supplying and fixing orifice plate made out of 6 mm thick stainless steel (Grade 304) with orifice of required size to be fitted between flange & landing valve of external and internal hydrants to reduce pressure at the outlet to the level of 3.5 kg/cm2 complete as required.	Each	28	1291	36,148.00
		<b>DETECTION SYSTEM &amp; FIRE EXTINGUISHERS</b>				
		<b>CONDUIT</b>				
35	DSR_( E&M) _2018 _1201	Supply and laying of 20 SWG MS conduit painted with 2 coats of primer and two coats of red enamel paint, embedded in slab/run on wall/wall chases/on false ceiling etc., with pull wires and necessary conduit accessories.	Rmt	3800	43	1,63,400.00

		<b>OVERHEAD FIRE TANK</b>				
44	HSR/ 30.119	Providing and fixing HDPE WATER STORAGE TANKS of Sintex, Diplast, O.K. Supreme make with covers/lids marked with IS:12701 on roof top of buildings including cost of hoisting and placing in position, making connections with inlet and outlet pipes, providing overflow and scour provisions with suitable plug on scour pipe including cost of nipples, washers, flanges for connections in tanks complete in all respects to the satisfaction of Engineer-in-Charge. <b>5000 ltr. Capacity</b>	Each	5	25908.00	1,29,540.00
		<b>UNDERGROUND FIRE TANK &amp; PUMP ROOM</b>				

45	DSR PAR 2021	Planning, Designing and construction of RCC underground water storage tank and underground pump room for pumps as above, including MH cover & Frame for cleaning, desilting and glass bricks wherever required in the slab for lighting arrangement and inlet/outlet and overflow and special (sluice valves, NRV, Scour, outlet to pumps in pump room etc complete in all respect to the satisfaction of Engineer in charge. Pump room to be as per the requirements of local fire authority with staircase to go down and mummy with door and ventilation as required and contingent works complete in all respects for operation. The volume of pump room to be counted towards the total KL of the pumping station and UGR. Final capacity to be as per Fire Department requirement	KL	400.00	20,000	80,00,000.00
		<b>Total Amount</b>				



**Non- Scheduled items for Dry Warehouse & Core Processing Centre Building**

Sr No		Description	UoM	Qty	Rate (to be filled by the bidders)	Amount
21	NS	80 mm dia. Stand post for hydrant valve	Each	44		
22	NS	Fixed Water Monitor of 63 mm size having nozzle bore of 32 mm	Each	9		
23	NS	100 mm dia. Stand post for Water Monitor	Each	9		
24	NS	Supply of hose cabinet of size 600 mm x 450mm x 300mm made of 3 mm thick powder coated aluminium sheet with 6 mm thick gazed glass doors including necessary locking arrangements suitable to accommodate external hydrant , 2 nos 15 m long hose pipe, 1 no branch pipe with 4 nos MS angle ( 40x40x8) supports grouted in floor and duly powder coated with post office red external and white internal paint complete in all respects for external hydrant as required	Each	53		

15	NS	Providing, Fixing, testing and commissioning modular construction electronic <b>Annunciation panel</b> not less than 1.6 mm thick MS Sheet and powder coated after 7 tank treatment process, dust, damp and vermin proof suitable for receiving message through flow switch having app. 8 zones (6 working & 2 spare for future) consisting of all buzzer, flash indicators, LED type indicationg lamps, audio and visual alarm in case of fault, fire etc, complete in all respect .The Anunciation panel must have provisions for interface with the main fire panel and BMS system as per requirement and instructions of the Engineer-in-Charge.The Anunciation Panel shall be located in the fire control room .(UL/FM approved)	Each	2		
27	NS	Supplying and fixing 63 mm dia SS branch pipe with 20 mm (nominal internal diameter) size SS nozzle conforming to IS 903, suitable for instantaneous connection to inter connect hose pipe coupling as required.	Each	53		
28	NS	Providing, Fixing of standard fireman's axe with heavy insulated rubber handle tested for 20 Kilowatts.	Each	53		
29	NS	Supplying and fixing of SS fire Bridge Suction hose coupling (Draw out Connection) with nut for female coupling as per IS:902-1974 complete with 150mm dia. 1 No C.I Foot valve flanged (to be connected to static water tank)	Each	2		
		<b><u>ADDRESSABLE MULTI SENSOR PHOTOELECTRIC SMOKE &amp; HEAT DETECTOR</u></b>				

31	NS	Supply, Erection, Testing Commissioning of Addressable Multi sensor Photoelectric smoke & Heat detector with multiple sensitivity (adjustable at site) levels, programmable for timed automatic sensitivity selection with base, Junction box and other accessories as required and Detectors shall be UL listed, Heat detector to be combination of fixed temperature/ rate of rise heat detector of Grade I(20 second time instant) with LED indicator. Soft addressable Photothermal type with inbuilt fault isolator /Isolator in base as per NFPA style 7 wiring complete with base as required .	No	506		
		<b>ADDRESSABLE ELECTRONIC HOOTER</b>				
32	NS	Supply, Erection,Testing, Commissioning of Electronic Hooter and strobe giving output of 65db maximum or 5 db above any noise tends to exist. The hooter shall be of wall mounted type. The rate shall include for mounting accessories, etc., complete. As per IS 2189.	No	15		
		<b>ADDRESSABLE MANUAL CALL POINT</b>				
33	NS	Supply, Erection, Testing and Commissioning of Addressable manual call station with necessary break glass hammer with chain and push button. The manual call station shall be of wall mounted with necessary mounting and fixing arrangement and etc., complete. As per IS 2189.	No	32		
		<b>CABLES</b>				
34	N/S	Supply and erection of PVC copper insulated and sheathed 2 core circular flexible wire.				
	a	Size 1.50 sqmm (48/0.20mm)	Rmt	3800		
		<b>CONTROL MODULE</b>				

36	NS	Supplying, laying, testing and commissioning of Analogue Control module for integrated to master panel(If required) shall be capable of providing provision for zone panel	No	4		
		<b>FIRE ALARM PANEL</b>				
37	NS	Supply, Installation, Testing & Commissioning of 16 bit intelligent Addressable Fire Alarm Panel with 12 loops ( each loop accessing at least 120 detectors ) including battery backup. The panel shall be microprocessor based with its own micro controller, memory, communication module and fire device loop, interface cards for intelligent initiating and indicating devices and should also be networkable in peer-to-peer basis with other Addressable Fire Alarm Panels. The Panel shall be able to give pin point location of all Fire/Fault conditions of addressable units via the address codes for each unit. The Panel shall also be able to automatically switch off all Control Switches when ever any Alarm is triggered.	No	1		
		The panel shall have 54 Ah SMF Battery, Keypad operation, L C D unit to indicate Fire / Fault Signal of individual unit, in built printer to log all incoming data etc complete in all respects. operation of speakers. Panel shall have :				

		(a) programming software for the system (b) automatic system test activates (c) detector sensitivity adjustments (d) alarm verification (e) Alpha/numerical display (f) provision to connect to PCs and external printers (g) Support modbus and bacnet protocol.				
		The Panel shall also have Logic hardware and software built into it for initiating specific AHU tripping, time delay operation of hooter and others				
		<b>CARBON DIOXIDE TYPE - 4.5KG</b>				
38	NS	Supplying, laying, testing and commissioning of Carbon-di- oxide type fire extinguisher of 4.5 kgs. Capacity, CO2 gas filled in brand	No	66		
		<b>MECHANICAL FOAM TYPE - 9 LTRS</b>				
39	NS	Supplying, laying, testing and commissioning of Mechanical foam type fire extinguisher of 9 Ltrs. Capacity, with initial filling in brand	No	66		
		<b>ABC POWDER TYPE</b>				
40	NS	Providing and fixing ABC powder type fire extinguishers consisting of welded M.S. cylindrical body automatic modular ABC powder type extinguisher actuated through a sprinkler head mounted on The extinguisher body finished externally with red enamel paint and fixed to ceiling with brackets complete with internal charge. [For Transformer/DG/LT panel room] Capacity 10 Kg	Nos	12		
41	NS	Supply, fixing & Testing of reflective "EXIT" sign based Aluminum, single & double sided, size (12x6 )&( 24 x 12) inch	Nos	38		

		<b>FIRE BUCKET &amp; STAND</b>				
42	NS	Supplying and installing at approved location approved make fire buckets of 20 gauge galvanized steel sheet, standard 9 litre capacity and of round bottom shape, painted white inside and red outside and black on the bottom, inscribed with letters "FIRE" in black and gold. Cost shall be inclusive of providing MS stand duly painted over a coat of primer. (One stand shall be suitable for hanging 5 buckets).	sets	18		
43	NS	High capacity Trolley mounted fire extinguisher set including the MS trolley with wheels complete				
		ISI marked (IS:2878) Extinguisher, Trolley mounted carbon-dioxide type capacity 22.5 Kg. Flat base including valve, discharge hose of not less than 10mm dia 1m long complete in all respects including wheeled trolley, carrying handle and initial fill with CO2 gas				
		ISI marked fire extinguisher Mech. Foam type capacity 50 litres with gunmetal cap and nozzle, trolley mounted and complete in all respects including initial fill	sets	4		
		<b>APPROVALS</b>				
46	NS	Providing NOC/approvals from statutory authorities including preparation of shop drawings, approval drawings, report etc as may be required for approval.	LS	1		
47	NS	Dismantling of road including, soiling and wearing coat, screening and stacking of old serviceable material, complete in all respect.	100 Sqm	5		

48	NS	Restoring the road cut, in level with the existing road surface, including preparation of subgrade laying and relaying of soiling and laying and consolidation of wearing coats of water bound macadam specification, and laying 20 mm thick premix carpet, on top including cost of tack and seal coat, complete in all respects.	100 Sqm	5		
5		<b>Air Vessel for Fire Pump</b>				
	12/NS	Fabrication, Supplying, Installation of flanged end vertical air vessel fabricated from 8mm M.S. plate with dished ends from 10mm M.S. plate, one standard pressure tight manhole, painted inside with bitumasitc or anit-corrosive paint and outside with one coat of primer and two coats of syntheitc enamel paint of approved shade, complete with approved quality of pressure switches, pressure gauge, air release valve with shut off valve and having MS legs grouted in cement concrete, complete with all other required accessories to operate commonly main fire pump & Jockey pump at drop of pressure, automatically at required pressure setting. (To be tested at 25kg/cm2 and to be placed in the plant room)				
		Recommended dia : 450mm				
	NS	Height of shell : 2000mm	Each	3		
6	NS	Supplying and fixing, testing & commissioning of double flanged metal bellows of required size on delivery side of fire pumps complete with nuts, bolts, washers, gaskets, conforming to IS 780 of following sizes as required.				
	NS	80mm dia	Each	2		
	NS	200mm dia	Each	2		

Admin Building Fire Preliminary BOQ						
S.No.	Item ref.	Description	Unit	Qty	Rate (INR)	Amount (INR)
		<b>FIRE FIGHTING SYSTEM</b>				
1	DSR_AOR 2019 / 4	Supplying, installation, testing and commissioning of electric driven terrace pump suitable for automatic operation and consisting of following, complete in all respects, as required: (Terrace Pump)				
	a)	Horizontal type, multistage, centrifugal, split casing pump of cast iron body & bronze impeller with stainless steel shaft, mechanical confirming to IS : 1520				
	b)	Suitable HP squirell cage induction motor TEFC type suitable for operation on 415 volts, 3 phase, 50 Hz, AC supply with IP55 class of protection for enclosure, horizontal foot mounted type with Class-'F' insulation, conforming to IS-325.				
	c)	M.S.fabricated common base plate, coupling, coupling guard, foundation bolts etc.as required.				
	d)	Suitable cement concrete foundation duly plastered and with anti vibration pads.				
	4.2	450 lpm at 35m head	Set	1	85291	85,291.00



		<i>Note: Contractor shall include in his rates for providing pressure switches, pressure gauges, wiring, cabling from pressure switch to panel etc. complete as required to operate the system automatic/manual. Pump shall be protected against running dry.</i>				
4	DSR_AOR_2019/ 22	Providing and fixing <b>Pressure Switch</b> in the MS pipe Line including connection etc. as required.	Each	1	1508	1,508.00
5	DSR_AOR_2019/ 14	Providing, installation, testing and commissioning of dual plate <b>non-return valve of following sizes</b> confirming to IS: 5312 complete with rubber gasket, GI bolts, nuts, washers etc. as required.				
a	14.5	100 mm dia	Each	3	10836	32,508.00
6	DSR_AOR_2019/ 15	Providing, installation, testing and commissioning of <b>stainless steel Y-strainer fabricated</b> out of 1.6 mm. thick stainless steel sheet with 3 mm. dia holes with stainless steel flange.				
a	15.2	100 mm dia	Each	1	6450	6,450.00
7	DSR_AOR_2019/ 11	Providing, Fixing , testing and commissioning of butterfly valve of rating PN 1.6 with bronze/gunmetal seat duly ISI marked complete with nuts, bolts, washers, gaskets, conforming to I.S:13095 of following sizes as required.				
a	11.5	100mm dia	Each	11	6454	70,994.00

8		<b>SPRINKLER SYSTEM</b>				
	DSR_A OR_201 9/ 7	Providing, laying, testing & commissioning of 'C' class heavy duty MS Pipe conforming to IS 3589 and 1239 including fittings like elbows, tees, flanges, tapers, nuts bolts, gaskets etc., fixing the pipe on the wall/ceiling with suitable clamps and painting with two or more coats of synthetic enamel paint over one or two coat of primer of required shade complete as required. <b>(For Sprinkler system)</b>				
a	7.7	100 mm dia	RM	55	1499	82,445.00
9	DSR_A OR_201 9/ 23	Providing & fixing flow switch in following sizes M.S. pipe including connection etc as required				
	23.1	100 mm Dia	Each	2	7362	14,724.00
11	DSR_A OR_201 9/ 19	Supplying and fixing of fire brigade connection of cast iron body with gun metal male instantaneous inlet couplings complete with cap and chain as reqd. For suitable dia MS pipe connection conforming to IS 904 as required :				
a	19.3	3 way - 150 mm dia M.S. Pipe	Each	2	9302	18,604.00
		<b>HYDRANT SYSTEM</b>				
12	DSR_A OR_201 9/ 6	Providing laying, testing & commissioning of 'C' class heavy duty MS Pipe conforming to IS 1239/3589 i/c fittings like elbows, tees, flanges, tapers, nuts bolts, gaskets etc. in ground including welding, excavation & providing cement concrete blocks as supports, anticorrosive treatment with coaltar/asphalt tape as per IS 10221, refilling the trench etc. of following sizes complete as required.				
a	6.1	200 mm. dia (wall thickness = 6.3 mm)	RM	20	3169	63,380.00

13	DSR_A OR_201 9/ 9	Supplying and fixing single headed internal hydrant valve with instantaneous unmetal/Stainless Steel coupling of 63 mm dia with cast iron wheel ISI marked conforming to IS 5290 (Type -A) with blank Gunmetal/Stainless Steel cap and chain as required :				
	9.2	Single headed Stainless steel	Each	4	5987	23,948.00
16	DSR_A OR_201 9/ 11	Providing, Fixing , testing and commissioning of butterfly valve of rating PN 1.6 with bronze/gunmetal seat duly ISI marked complete with nuts, bolts, washers, gaskets, conforming to I.S:13095 of following sizes as required.				
a	11.5	100 mm dia	Each	4	6454	25,816.00
17	DSR_A OR_201 9/ 16	Supplying and fixing 63 mm dia, 15 mtr. long <b>RRL hose pipe</b> with 63 mm dia Male and Female SS couplings duly binded with GI wire, rivets etc. coforming to IS 636 (type-A) as required.				
	16.1	Gun Metal	Each	4	5188	20,752.00
		<b>DETECTION SYSTEM &amp; FIRE EXTINGUISHERS</b>				
		<b><u>ADDRESSABLE MULTI SENSOR PHOTOELECTRIC SMOKE &amp; HEAT DETECTOR</u></b>				
		<b>CABLES</b>				
23	HSR/ 31.9 (i)	Supply and erection of PVC copper insulated and sheathed 2 core circular flexible wire.				

	d	Size 1.50 sqmm (48/0.20mm)	Rmt	450	17	7,749.00
		<b>CONDUIT</b>				
24	DSR_(E &M)_2018_1201	Supply and laying of 20 SWG MS conduit painted with 2 coats of primer and two coats of red enamel paint, embedded in slab/run on wall/wall chases/on false ceiling etc., with pull wires and necessary conduit accessories.	Rmt	450	43	19,350.00
		<b>ABC POWDER TYPE</b>				
		<b>Total Amount</b>				

**Non-Scheduled items for Admin Building:**

Sr. No		Item description	UoM	Qty	Rate (to be filled by the bidders)	Amount
20	NS	Supply, Erection, Testing Commissioning of Addressable Multi sensor Photoelectric smoke & Heat detector with multiple sensitivity (adjustable at site) levels, programmable for timed automatic sensitivity selection with base, Junction box and other accessories as required and Detectors shall be UL listed, Heat detector to be combination of fixed temperature/ rate of rise heat detector of Grade I(20 second time instant) with LED indicator. Soft addressable Photothermal type with inbuilt fault isolator /Isolator in base as per NFPA style 7 wiring complete with base as required .	No	44		

18	NS	Supplying and fixing 63 mm dia SS branch pipe with 20 mm (nominal internal diameter) size SS nozzle conforming to IS 903, suitable for instantaneous connection to inter connect hose pipe coupling as required.	Each	4		
19	NS	Providing, Fixing of standard fireman's axe with heavy insulated rubber handle tested for 20 Kilowatts.	Each	4		
14	NS	80 mm dia. Stand post for hydrant valve	Each	4		
15	NS	Supply of hose cabinet of size 600 mm x 450mm x 300mm made of 3 mm thick powder coated aluminium sheet with 6 mm thick glazed glass doors including necessary locking arrangements suitable to accommodate external hydrant , 2 nos 15 m long hose pipe, 1 no branch pipe with 4 nos MS angle ( 40x40x8) supports grouted in floor and duly powder coated with post office red external and white internal paint complete in all respects for external hydrant as required	Each	4		

10	NS	Providing, Fixing, testing and commissioning modular construction electronic <b>Annunciation panel</b> not less than 1.6 mm thick MS Sheet and powder coated after 7 tank treatment process, dust, damp and vermin proof suitable for receiving message through flow switch having app. 8 zones (6 working & 2 spare for future) consisting of all buzzer, flash indicators, LED type indicationg lamps,audio and visual alarm in case of fault, fire etc, complete in all respect .The Anunciation panel must have provisions for interface with the main fire panel and BMS system as per requirement and instructions of the Engineer-in-Charge.The Anunciation Panel shall be located in the fire control room .(UL/FM approved)	Each	1		
2		<b>Air Vessel for Fire Pump</b>				
	12/NS	Fabrication, Supplying, Installation of flanged end vertical air vessel fabricated from 8mm M.S. plate with dished ends from 10mm M.S. plate, one standard pressure tight manhole, painted inside with bitumasitc or anit-corrosive paint and outside with one coat of primer and two coats of syntheitc enamel paint of approved shade, complete with approved quality of pressure switches, pressure gauge, air release valve with shut off valve and having MS legs grouted in cement concrete, complete with all other required accessories to operate commonly main fire pump & Jockey pump at drop of pressure, automatically at required pressure setting. (To be tested at 25kg/cm2 and to be placed in the plant room)				
	NS	Recommended dia : 300mm	Each	1		
		Height of shell : 1500mm				

3	NS	Supplying and fixing, testing & commissioning of double flanged metal bellows of required size on delivery side of fire pumps complete with nuts, bolts, washers, gaskets, conforming to IS 780 of following sizes as required.				
	NS	80mm dia	Each	1		
33	N/s	Providing and fixing HDPE WATER STORAGE TANKS of Sintex, Diplast, O.K. Supreme make with covers/lids marked with IS:12701 on roof top of buildings including cost of hoisting and placing in position, making connections with inlet and outlet pipes, providing overflow and scour provisions with suitable plug on scour pipe including cost of nipples, washers, flanges for connections in tanks complete in all respects to the satisfaction of Engineer-in-Charge. <b>5000 ltr. Capacity</b>	Each	2		
32	NS	High capacity Trolley mounted fire extinguisher set including the MS trolley with wheels complete				
		ISI marked (IS:2878) Extinguisher, Trolley mounted carbon-dioxide type capacity 22.5 Kg. Flat base including valve, discharge hose of not less than 10mm dia 1m long complete in all respects including wheeled trolley, carrying handle and initial fill with CO2 gas				
		ISI marked fire extinguisher Mech. Foam type capacity 50 litres with gunmetal cap and nozzle, trolley mounted and complete in all respects including initial fill	sets	1		
29	NS	Providing and fixing ABC powder type fire extinguishers consisting of welded M.S. cylindrical body automatic modular ABC powder type extinguisher actuated through a sprinkler head mounted on The extinguisher body finished externally with red enamel paint and fixed to	Nos	11		

		ceiling with brackets complete with internal charge. [For Transformer/DG/LT panel room] Capacity 10 Kg				
30	NS	Supply, fixing & Testing of reflective "EXIT" sign based aluminium, single & double sided, size (12x6 )&( 24 x 12) inch	Nos	6		
		FIRE BUCKET & STAND				
31	NS	Supplying and installing at approved location approved make fire buckets of 20 gauge galvanized steel sheet, standard 9 litre capacity and of round bottom shape, painted white inside and red outside and black on the bottom, inscribed with letters "FIRE" in black and gold. Cost shall be inclusive of providing MS stand duly painted over a coat of primer. (One stand shall be suitable for hanging 5 buckets).	sets	3		
		FIRE ALARM PANEL				
26	NS	Supply, Installation, Testing & Commissioning of 16 bit intelligent Addressable Fire Alarm Panel with 12 loops ( each loop accessing at least 120 detectors ) including battery backup. The panel shall be microprocessor based with its own micro controller, memory, communication module and fire device loop, interface cards for intelligent initiating and indicating devices and should also be networkable in peer-to-peer basis with other Addressable Fire Alarm Panels. The Panel shall be able to give pin point location of all Fire/Fault conditions of addressable units via the address codes for each unit. The Panel shall also be able to automatically switch off all Control Switches when ever any Alarm is triggered.	No	1		



		The panel shall have 54 Ah SMF Battery, Keypad operation, L C D unit to indicate Fire / Fault Signal of individual unit, in built printer to log all incoming data etc complete in all respects. operation of speakers. Panel shall have :				
		(a) programming software for the system (b) automatic system test activates (c) detector sensitivity adjustments (d) alarm verification (e) Alpha/numerical display (f) provision to connect to PCs and external printers (g) Support modbus and bacnet protocol.				
		The Panel shall also have Logic hardware and software built into it for initiating specific AHU tripping, time delay operation of hooter and others				
		CARBON DIOXIDE TYPE - 4.5KG				
27	NS	Supplying, laying, testing and commissioning of Carbon-di- oxide type fire extinguisher of 4.5 kgs. Capacity, CO2 gas filled in brand	No	11		
		MECHANICAL FOAM TYPE - 9 LTRS				
28	NS	Supplying, laying, testing and commissioning of Mechanical foam type fire extinguisher of 9 Ltrs. Capacity, with initial filling in brand	No	11		
		CONTROL MODULE				
25	NS	Supplying, laying, testing and commissioning of Analogue Control module for integrated to master panel(If required) shall be capable of providing provision for zone panel	No	1		
		<b>ADDRESSABLE MANUAL CALL POINT</b>				

22	NS	Supply, Erection, Testing and Commissioning of Addressable manual call station with necessary break glass hammer with chain and push button. The manual call station shall be of wall mounted with necessary mounting and fixing arrangement and etc., complete. As per IS 2189.	No	2		
		<b>ADDRESSABLE ELECTRONIC HOOTER</b>				
21	NS	Supply, Erection, Testing, Commissioning of Electronic Hooter and strobe giving output of 65db maximum or 5 db above any noise tends to exist. The hooter shall be of wall mounted type. The rate shall include for mounting accessories, etc., complete. As per IS 2189.	No	6		

## **Section-8 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 are 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.

**Authorized Signatory with official seal**

## 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	2018-2019	2019-2020	2020-21
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

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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.

**Authorized Signatory with official seal**

## SCHEDULE - 3

### ELIGIBILITY CRITERIA DOCUMENT

Assessed Available Bid capacity

The applicant must fulfill 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.

$$\text{WBC} = 2AN - B$$

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.

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## 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 of Employer / Client	Name, Location, Nature & Description of Work	Contract Price in Indian Rs.	% of Participation of the Company	Contractual Date of Commencement	Contractual Date of completion of Work	Actual Date of Start of Work	Actual Date of Completion of work	Reasons for Delay in Completion, if any	Value of work completed till the last date of submission of bid 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.

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**SCHEDULE – 5**  
**ELIGIBILITY CRITERIA DOCUMENT**  
**LIST OF CURRENT PROJECTS**

<b>PROJECT TITLE</b>	<b>WORKS INVOLVED</b>	<b>HAFED</b>	<b>CONTRACT VALUE</b>	<b>DATE OF COMMENCEMENT OF WORKS</b>	<b>DUE DATE OF COMPLETION</b>	<b>%AGEWISE COMPLETION</b>	<b>EXPECTEDDATE OF COMPLETION</b>

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

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## SCHEDULE – 6

### ELIGIBILITY CRITERIA DOCUMENT

#### INFORMATION REGARDING CURRENT LITIGATION OR ABANDONMENT OF WORK BY APPLICANT

<b>i)</b>	a) Is the applicant currently involved in any arbitration/litigation to the contract works.	<b>Yes / No</b>
	b) If yes, give details	
<b>ii)</b>	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	<b>Yes / No</b>
	b) If yes, give details	
<b>iii)</b>	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.	<b>Yes / No</b>
	b) If yes, give details	
<b>iv)</b>	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	Award for or against applicant	Name of HAFED, cause of litigation and matter of dispute	Current value of disputed amount	Actual awarded amount
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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”.

**Authorized Signatory with official seal**

**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 presents that We \_\_\_\_\_ [*name of bank*] of having our registered office at \_\_\_\_\_ (hereinafter called "the Bank") are \_\_\_\_\_ bound \_\_\_\_\_ unto \_\_\_\_\_ (hereinafter called "the Employer") in the sum of Rs. \_\_\_\_\_<sup>1</sup> (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**

- ☐ 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 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.



## BANK GUARANTEE FOR ADVANCE PAYMENT

To

\_\_\_\_\_ [name of Employer]  
\_\_\_\_\_ [address of Employer]  
\_\_\_\_\_ [name of Contractor]  
\_\_\_\_\_ [name of Contract]

Gentlemen:

In accordance with the provisions of the Conditions of Contract, sub-clause 51.1 ("Advance Payment") of the above mentioned Contract, \_\_\_\_\_

[Name and address of Contractor] (Hereinafter called "the Contractor") shall deposit with \_\_\_\_\_ [name of Employer] a bank guarantee to guarantee his proper and faithful performance under the said Clause of the Contract in an amount of \_\_\_\_\_ [amount of Guarantee]\* \_\_\_\_\_ [in words].

We, the \_\_\_\_\_ [bank of financial institution], as instructed by the Contractor, agree unconditionally and irrevocably to guarantee as primary obligator and not as Surety merely, the payment to \_\_\_\_\_ [name of Employer] on his first demand without whatsoever right of obligation on our part and without his first claim to the Contractor, in the amount not exceeding \_\_\_\_\_ [amount of guarantee]\* \_\_\_\_\_ [in words].

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 \_\_\_\_\_ [name of Employer] and the contractor, shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition or modification.

The guarantee shall remain valid and in full effect from the date of the advance payment under the Contract until \_\_\_\_\_ [name of Employer] receives full repayment of the same amount from the Contractor.

Yours truly,

Signature and Seal: \_\_\_\_\_  
Name of Bank/Financial Institution: \_\_\_\_\_  
Address: \_\_\_\_\_  
Date: \_\_\_\_\_

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\* An amount shall be inserted by the Bank of Financial Institution the amount of the Advance Payment, and denominated in Indian Rupees.

**INDENTURE FOR SECURED ADVANCES  
FORM 31**

(for use in cases in which the contract is for finished work and the contractor has entered into an agreement for the execution of a certain specified quantity of work in a given time)

This indenture made the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_ BETWEEN \_\_\_\_\_ (hereinafter called the contractor which expression shall where the context so admits or implies be deemed to include his executors, administrators and assigns) or the one part and the Employer of the other part.

Whereas by an agreement dated \_\_\_\_\_ (hereinafter called the said agreement) the contractor has agreed.

AND WHEREAS the contractor has applied to the Employer that he may be allowed advanced on the security of materials absolutely belonging to him and brought by him to the site of the works the subject of the said agreement for use in the construction of such of the works as he has undertaken to executive at rates fixed for the finished work (inclusive of the cost of materials and labour and other charges.)

AND WHEREAS the Employer has agreed to advance to the Contractor the sum of Rupees \_\_\_\_\_ on the security of materials the quantities and other particulars of which are detailed in Accounts of Secured Advances attached to the Running Account bill for the said works signed by the Contractor on \_\_\_\_\_ and the Employer has reserved to himself the option of making any further advance or advances on the security of other materials brought by the Contractor to the site of the said works.

Now THIS INDENTURE WITNESSETH that in pursuance of the said agreement and in consideration of the sum of Rupees \_\_\_\_\_ on or before the execution of these presents paid to the Contractor by the Employer (the receipt where of the Contractor doth hereby acknowledge) and of such further advances (if any) as may be made to him as a for said the Contractor doth hereby covenant and agree with the President and declare as follows:

- (1) That the said sum of Rupees \_\_\_\_\_ - so advanced by the Employer to the Contractor as aforesaid and all or any further sum of sums advanced as aforesaid shall be employed by the Contractor in or towards expending the execution of the said works and for no other purpose whatsoever.
- (2) That the materials details in the said Account of Secured Advances which have been offered to and accepted by the Employer as security are absolutely the Contractor's own propriety and free from encumbrances of any kind and the contractor will not make any application for or receive a further advance on the security of materials which are not absolutely his own property and free from encumbrances of any kind and the Contractor indemnified the Employer against all claims to any materials in respect of which an advance has be made to him as aforesaid.
- (3) That the materials detailed in the said account of Secured Advances and all other materials on the security of which any further advance or advances may hereafter be made as aforesaid (Hereafter

called the said materials) shall be used by the Contractor solely in the execution of the said works in accordance with the directions of the Engineer.

- (4) That the Contractor shall make at his own cost all necessary and adequate arrangements for the proper watch, safe custody and protection against all risks of the said materials and that until used in construction as aforesaid the said materials shall remain at the site of the said works in the Contractor's custody and on his own officer authorized by him. In the event of the said materials or any part thereof being stolen, being stolen, destroyed or damaged or becoming deteriorated in a greater degree than is due to reasonable use and wear thereof the Contractor will forthwith replace the same with other materials of like quality of repair and make good the same required by the Engineer.
- (5) That the said materials shall not be any account be removed from the site of the said works except with the written permission of the Engineer or an officer authorized by him on that behalf.
- (6) That the advances shall be repayable in full when or before the Contractor receives payment from the Employer of the price payable to him for the said works under the terms and provisions of the said agreement. Provided that if any intermediate payments are made to the Contractor on account of work done than on the occasion of each such payment the Employer will be at liberty to make a recovery from the contractor's bill for such payment by deducting there from the value of the said materials than actually used in the construction and in respect of which recovery has not been made previously, the value of this purpose being determined in respect of each description of materials at the rates at which the amounts if the advances made under these presents were calculated.
- (7) That if the Contractor shall at any time make any default in the performance or observance in any respect of any of the terms and provisions of the said agreement or of these presents the total amount of the advance or advances that may still be owing of the Employer shall immediately on the happening of such default be repayable by the Contractor to the Employer together with interest thereon at twelve percent per annum from the date of repayment and with all costs, charges, damages and expenses incurred by the **Employer** in or for the recovery thereof or the enforcement of this security or otherwise by reason of the default of the Contractor and the Contractor hereby covenants and agrees with the **Employer** to reply and pay the same respectively to him accordingly.
- (8) That the Contractor hereby charges all the said materials with the repayment to the Employer of the said sum of Rupees \_\_\_\_\_ and any further sum of sums advanced as aforesaid and all costs, charges, damages and payable under these presents

PROVIDED ALWAYS and it is hereby agreed and declared that notwithstanding anything in the said agreement and without prejudice to the power contained therein if and whenever the covenant and the money owing shall not be paid in accordance there with the **Employer** may at any time thereafter adopt all of any of the following courses as he may deem best:

- (a) Seize and utilize the said materials or any thereof in the completion of the said works on behalf of the contractor in accordance with the provisions in that behalf contained in the said agreement and the amount due to the contractor with the value of work done as if he had carried it out in accordance with the said agreement and at the rates thereby provided. If the balance is against the contractor, he is to pay same to the **Employer** on demand.

- (b) Remove and sell by public auction the sized materials or any part thereof and out of the moneys arising from the sale retain all the sums aforesaid repayable or payable to the **Employer** under these presents and pay over the surplus (if any) to the Contractor.
- (9) That except in the event of such default on the part of the contractor as aforesaid interest on the said advance shall not be payable.
- (10) That in the event of any conflict between the provisions of these presents and the said agreement the provisions of these presents shall prevail and in the event of any dispute of difference arising over the construction or effect of these presents the settlement of which has not been here-in-before expressly provided for the same shall be referred to the Employer whose decision shall be final and the provision of the Indian Arbitration Act for the time being in force shall apply to any such reference.

**FORMAT FOR POWER OF ATTORNEY FOR SIGNING OF APPLICATION**

**(Applicable for all bidders including JV)**

*(On Stamp paper of relevant value)*

POWER OF ATTORNEY Know all men by these presents, we (name and address of the registered office) do hereby constitute, appoint and authorize Mr. / Ms. (name and address of residence) who is presently employed with us and holding the position of as our attorney, to do in our name and on our behalf, all such acts, deeds and things necessary in connection with or incidental to our bid for the project envisaging Bid for \_\_\_\_\_ at HAFED Mega Food Park, Rohtak including signing and submission of all documents and providing information / responses to HAFED, representing us in all matters before HAFED, and generally dealing with HAFED in all matters in connection with our bid for the said Project.

We hereby agree to ratify all acts, deeds and things lawfully done by our said attorney pursuant to this Power of Attorney and that all acts, deeds and things done by our aforesaid attorney shall and shall always be deemed to have been done by us.

Dated this the Day of ....., ..... For \_\_\_\_\_

(Signature)

(Name, Title and Address)

Signing on behalf of the Bidder/ Lead Member in case of Consortium

Accepted ..... (Signature)

(Name, Title and Address of the Attorney)

### Agreement Form

#### Agreement

This agreement, made the \_\_\_\_\_ day of \_\_\_\_\_ between \_\_\_\_\_ (name and address of Employer) [hereinafter called “the Employer”] and \_\_\_\_\_ (name and address of Contractor) hereinafter called “the Contractor” of the other part.

Whereas the Employer is desirous that the Contractor execute

\_\_\_\_\_ (name and identification number of Contract) (Hereinafter called “the Works”) and the Employer has accepted the Bid by the Contractor for the execution and completion of such Works and the remedying of any defects therein, at a cost of \_\_\_\_\_ Rs.

NOW THIS AGREEMENT WITNESSTH as follows:

1. In this Agreement, words and expression shall have the same meanings as are respectively assigned to tem in the conditions of contract hereinafter referred to and they shall be deemed to form and be read and construed as part of this Agreement.
2. In consideration of the payments to be made by the Employer to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the Employer to execute and complete the Works and remedy any defects therein conformity in all aspects with the provisions of the contract.
3. The Employer hereby covenants to pay the Contractor in consideration of the execution and completion of the Works and the remedying the defects wherein Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.
4. The following documents shall be deemed to form and be ready and construed as part of this Agreement viz.
  - i) Letter of Acceptance
  - ii) Notice to proceed with the works;
  - iii) Contractor’s Bid
  - iv) Condition of Contract : General and Special
  - v) Contract Data
  - vi) Additional condition
  - vii) Drawings
  - viii) Bill of Quantities and
  - ix) Any other documents listed in the Contract Data as forming part of the Contract.

In witnessed whereof the parties there to have caused this Agreement to be executed the day and year first before written.

The Common Seal of \_\_\_\_\_ was hereunto affixed in the presence of:

Signed,            Sealed            and            Delivered            by            the            said

\_\_\_\_\_

in the presence of :

Binding Signature of Employer \_\_\_\_\_

Binding Signature of Contractor \_\_\_\_\_

Witnesses of Employer	Witnesses of Contractor
1	1
2	2





## SECTION – 9

### FORM FOR PRICE BID

I/We hereby tender for the execution of the works for the Haryana State Cooperative Supply and Marketing Federation Limited (here in after referred to as HAFED) specified in the underwritten memorandum within the time specified in such memorandum.

Single percentage rates are to be quoted in the box specified below in figures as well as in words above/below applicable on Lump cost mentioned as Estimated cost in Tender documents.

We quote our rates _____ <div style="text-align: center;">(in figures)</div> above/below which will be applicable on the LS Amount provided in DNIT	We quote our rates _____ <div style="text-align: center;">(in words)</div> above/below which will be applicable on the LS Amount provided in DNIT
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And in accordance, in all respects, with the specifications drawings and instructions in writing referred to in Section 1 to 7 of this document and with such materials as are provided by the Implementing Agency in all other respect in accordance with such conditions so far as applicable.).

Enter both the rates in figures as well as in words, only in the space provided above. In the event of variation of rate in figures and words, the lower value only shall be considered. Only single percentage on all items of DNIT/BOQ is to be entered. In case more than one percentage is entered, the tender will liable to be rejected.

### MEMORANDUM

(a)	General Description	Planning, Design, Supply, Installation, Testing, Commissioning, Trial Run (3 Months) & obtaining NOC of Firefighting works complete in all respect on turnkey basis at HAFED Mega Food Park, IMT Rohtak, Rohtak, Haryana
(b)	Estimated Cost	Rs. 263.98 Lakhs
(c)	Earnest Money	Rs. 5.27 Lakhs
(d)	Security to be deducted	5% of all bills (including earnest money)
(e)	Time allowed for completion of capital work	04 (Four) Months

Signature of Contractor

If, this tender is accepted, I/We hereby agree to abide by and fulfill all the terms and provisions of the said conditions of contract annexed hereto so far as applicable or in default thereof forfeit to and pay to the Federation or its successors in office the sums of money mentioned in the said conditions.

The Bank Guarantee of Rs. \_\_\_\_\_ lakhs is being submitted as EMD for this Bid, the full value of which is to be absolutely forfeited by the Federation or its successors in office without prejudice to any other rights or remedies of the said Federation or its successors in office, if I/We fail to commence the works

specified in the above memorandum or otherwise the Bank Guarantee of Rs. \_\_\_\_\_ Lakhs shall be retained by the Federation on account of the security deposit. Should I/We withdraw or modify the tender within the period of bid validity, my/our earnest money will stand forfeited to the said Federation.

(Signature of the Contractor)

### **Price schedule**

(To be filled by the technical qualified bidders and submitted in hard copy in sealed envelope to HAFED on the date of financial bid opening. It may be noted that the bidders who will not submit the required price schedule break-up of the financial proposal in sealed envelope at the time of opening of online financial bids as mentioned above, their online commercial/ financial price bid will not be opened and such bidders shall be considered as technically disqualified)

Planning, Design, Supply, Installation, Testing, Commissioning, Trial Run (3 Months) & obtaining NOC of Firefighting works complete in all respect on turnkey basis at HAFED Mega Food Park, IMT Rohtak, Rohtak, Haryana

<b>Sr. No</b>	<b>Item description</b>	<b>Rate</b>	<b>Quantity</b>	<b>Unit of measurement</b>	<b>Amount</b>

**Signed by authorized signatory**

PS: The item-wise description, quantity, unit of measurement (UoM) and rates of each & every Non-Scheduled (NS) and market rate (MR) as detailed in Section-7: Bill of Quantities shall be submitted in hard copy in sealed envelope to HAFED on the date of financial bid opening. It may be noted that the bidders who will not submit the required price schedule break-up of the financial proposal in sealed envelope at the time of opening of online financial bids as mentioned above, their online commercial/ financial price bid will not be opened and such bidders shall be considered as technically disqualified.

**Deviation Statement Forms Technical Deviation Statement**  
**(TO BE SUBMITTED AND ATTACHED IN TECHNICAL BID)**

**Format A: Technical Deviation Statement**

- (1) The following are the particulars of deviations from the requirements of the tender specifications:

CLAUSE REFERENCE	DEVIATION	JUSTIFICATION	REMARKS

The technical specifications furnished in the bidding document shall prevail over those of any other document forming a part of our bid, except only to the extent of deviations furnished in this statement.

Dated:

Signature and seal of the  
Manufacturer /  
Bidder

NOTE:

- Where there is no deviation, the statement should be returned duly signed with an endorsement indication "**NO DEVIATIONS**"

**FORMAT-B: Bidding Terms Deviation Statement Form**

- (2) The following are the particulars of deviations from the requirements of the bidding conditions / terms:

CLAUSE REFERENCE	DEVIATION	JUSTIFICATION	REMARKS

Dated:  
the

Signature and seal of

Manufacturer /  
Bidder

NOTE:

- (1) Where there is no deviation, the statement should be returned duly signed with an endorsement indication "**NO DEVIATIONS**"

## **SECTION- 10 Drawings**



3. ALL WIRING/FIXING/INSTALLATION TO BE AS PER THE NORMS & MANUFACTURERS SPECIFICATIONS

**Client:** HARYANA STATE CO-OPERATIVE SUPPLY AND MARKETING FEDERATION LIMITED (HSAFED).



**Drawing Title**  
CPC BUILDING SMOKE DUCT LAYOUT  
(SCHEMATIC)

DESIGNED BY:	DWG NO.: L-FS-PRO-IT-01-FR-01
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DRAWN BY:	Date: 26-06-2020
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Checked By:	Approved By:
ARCHITECT	shy mardian





PRODUCED BY AUTOMOBILE CATALYTIC PRODUCT

AUTHOR:

**FIRE 1**

[illegible][illegible]

PARK, ROHTAK.

MARKETING FEDERATION LIMITED (M/FED).



Development Initiative Limited

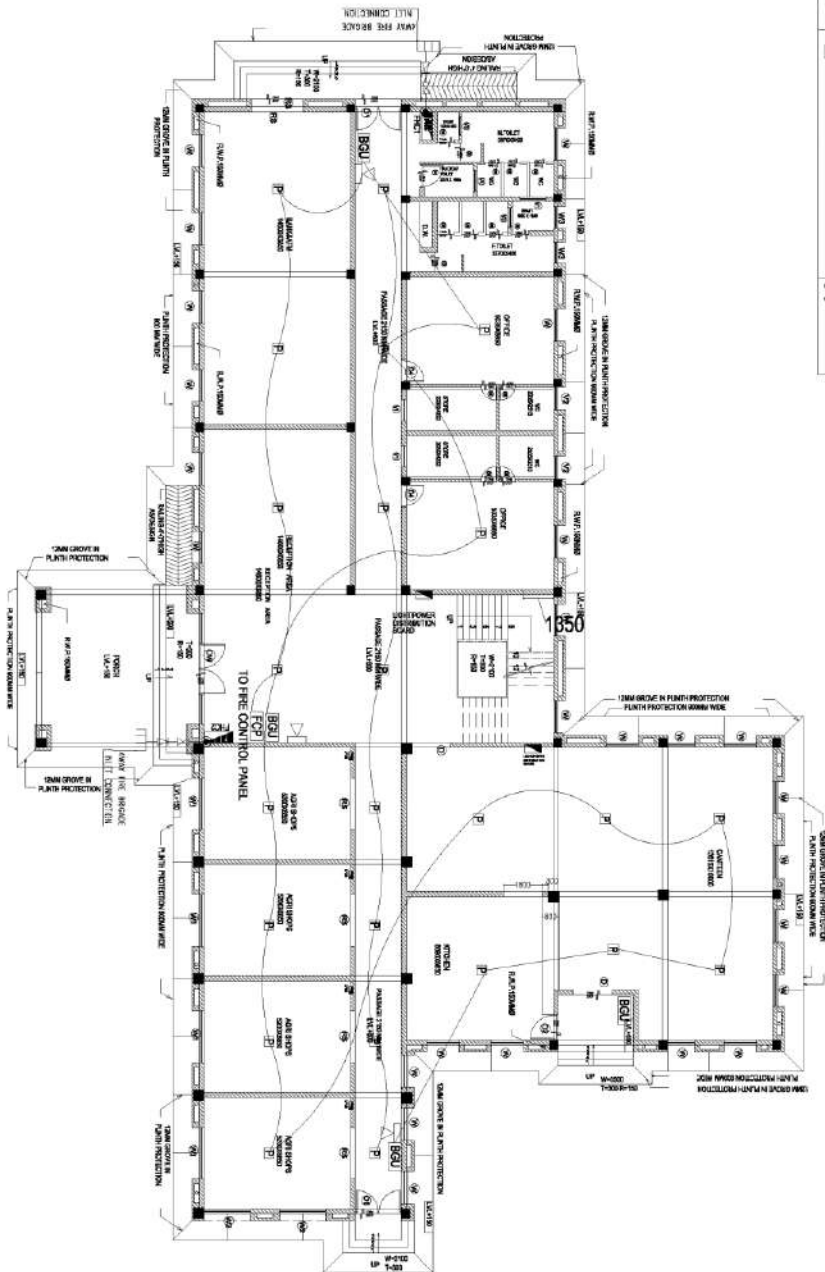
Drawing Title

PEB-VENDOR

DESIGNED BY:	DWG NO. L/ARCH/01/01/04
DRAWN BY:	Date: 26-06-2020
Checked By:	Approved By:
ARCHITECT	 GOVT. OF KARNATAKA DEPT. OF ARCHITECTURE BANGALORE



LEGEND		
1	P	MULTI SMOKE & HEAT DETECTION
2	BSU	BREAK GLASS UNIT
3	EXIT	EXIT SIGN BOARD
4	FCP	FIRE CONTROL PANEL
5	✓	HOOTER POINT (STHICAL HOOTER)



- IMPORTANT NOTES:
1. ROUTE AT SITE TO BE APPROVED
  2. NO PIPES TO BE EMBEDDED UNDER FLOOR
  3. ALL JOINTS TO BE TESTED AS PER SPECIFICATIONS, BEFORE COVERING
  4. THESE DRAWINGS ARE INDICATIVE ONLY, THE FIRE VENDOR MUST PROVIDE A DETAILED SPECIFICATION BY LOCAL FIRE AUTHORITIES
  5. ALL FIRE REQUIREMENTS TO BE AS PER THE FIRE PRECAUTIONS/ REQUIREMENTS OF THE FIRE AUTHORITY
  6. ALL WIRING/HANGING/INSTALLATION TO BE AS PER THE SPECIFICATIONS TO BE FURNISHED BY THE VENDOR

Project Name :  
HAFED MEGA FOOD  
PARK, ROHTAK

Client :  
HAFED STATE CO-OPERATIVE SUPPLY AND MARKETING FEDERATION LIMITED (HAFED)



prepared by :



ALIST Clusters

Drawing Title  
ADMIN BUILDING SMOKE SENSOR LAYOUT  
GROUND FLOOR SCHEMATIC DWG

DESIGNED BY:	DND NO. 2, DURGAMCHERU
DRAWN BY:	DND NO. 2, DURGAMCHERU
Checked By:	25-05-2020
APPROVED BY:	
ARCHITECT	



**The layout is for indicative purpose. The bidders are advised to propose their own design fulfilling the capacity and government norms.**