



भारतीय विमानपत्तन प्राधिकरण
AIRPORTS AUTHORITY OF INDIA

निविदा दस्तावेज
TENDER DOCUMENT

कार्य का नाम: एसआईटीसी ऑफ़ डीजी सेट्स एंड रिप्लेसमेंट ऑफ़ ओल्ड एंड कन्वेंशनल एसी यूनिट्स एंड अदर मिसलेनियस वर्क्स एट एसीएस प्रतापगढ़ ।
Name of Work: **SITC of DG Sets and Replacement of old & Conventional AC units and Other Miscellaneous Works at ACS Pratapgarh.**

टेके के नियम एवं शर्तें
मात्रा—अनुसूची
**TERMS AND CONDITIONS OF CONTRACT
CUM SCHEDULE OF QUANTITIES**

अनुक्रमणिका / INDEX

कार्य का नाम: एसआईटीसी ऑफ़ डीजी सेट्स एंड रिप्लेसमेंट ऑफ़ ओल्ड एंड कन्वेंशनल एसी यूनिट्स एंड अदर मिसलेनियस वर्क्स एट एसीएस प्रतापगढ़ ।

Name of Work: SITC of DG Sets and Replacement of old & Conventional AC units and Other Miscellaneous Works at ACS Pratapgarh.

S. No.	Description	Page No.
1	Cover page and Index	CPI 01 -CPI 02
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TOTAL PAGES : 244

The tender document contains 244 pages as details above.

(Signature of Issuing Officer)



**AIRPORTSAUTHORITYOFINDIA
MAHARANAPRATAPAIRPORT,
UDAIPUR-313022**

NOTICE INVITING e-TENDER (2 BOT-2 Envelope Open Tender)

Tender ID:- 2026_AAI_284370_1

1. Item rate e-tenders are invited through the e-tendering CPP portal by AGM (Engg.-Elect.), Airports Authority of India, Operational Offices, Maharana Pratap Airport, Dabok, Udaipur 313022, on behalf of Chairman, A.A.I. from the eligible contractors for the work of **“SITC of DG Sets and Replacement of old & Conventional AC units and Other Miscellaneous Works at ACS Pratapgarh.”** at an estimated cost of **Rs. 24,97,493.00 (excluding GST)** with completion period of **03 (Three) Months**.

The tendering process is online at CPP-portal URL address **<https://etenders.gov.in/eprocure/app>** or **www.aai.aero** Prospective bidders may download and go through the tender document.

Prospective Tenderers are advised to get themselves register at CPP-portal, obtain 'Login ID' & 'Password' and go through the instructions available in the Home Page after log in to the CPP - portal **<https://etender.gov.in/eprocure/app>** or **www.aai.aero**. They should also obtain Digital Signature Certificate (DSC) in parallel which is essentially required for submission of their application. The process normally takes 03 days' time. The tenderer may also take guidance from AAI Help Desk Support through path **[aai.aero/tender/e-tender/help desk support](http://aai.aero/tender/e-tender/help%20desk%20support)**.

- (i) For any technical related queries please call the Helpdesk. The 24x7 Help Desk details are as below: -

Tel: 0120-4001002, 0120-4001005, 0120-6277787.

E-mail:**support-eproc@nic.in**

Tenderers are requested to mention the URL of the portal and Tender ID in the subject while emailing any issue along with the contact details.

Before submitting queries, bidders are requested to follow the instruction given in **“Guidelines to Bidders”** and get their computer system configured according to the recommended settings as specified in the portal at **“System Settings for CPPP”**.

- (ii) For any further technical assistance with regard to functioning of CPP portal the bidder may contact to the following AAI help desk numbers on all working days only between.

Sl. No.	Support Persons	Escalation Matrix	E-mail Address	Contact Numbers	Timings
1	Technical help desk team	Instant Support	eprochelp@aai.aero	011-24632950, Ext-3512 (Six Lines)	<u>08:00 Hrs to 20:00 hrs (Mon-Sat)</u>
2	JE (IT)	After 4 Hrs. of issue	etendersupport@aai.aero vaibhav_g@aai.aero	011-24632950 Ext – 3523	<u>09:30 hrs to 18:00 hrs (Mon-Fri)</u>
3	Sr. Manager (IT)	After 12 Hrs.	shripatim@aai.aero	011-24632950 Ext – 3509	<u>09:30 hrs to 18:00 hrs (Mon-Fri)</u>
4	Jt. GM (IT)	After 24 Hrs.	Sunil_km@aai.aero	011-24632950 Ext 3506	<u>09:30 hrs to 18:00 hrs (Mon-Fri)</u>
5	GM (IT)	After 03 days	gmit@aai.aero	011-24657900	<u>09:30 hrs to 18:00 hrs (Mon-Fri)</u>

Tender processing fee of **Rs. 1180.00 (Rs.1000.00+GST@18%), Non-refundable** will be required to be paid online on CPP portal only.

Earnest Money Deposit (EMD) of **Rs. 74,925.00** will be required to be paid online on CPP portal only.

- Following 2 envelopes shall be submitted through online at CPP-portal by the tenderer as per the following schedule : -

CRITICAL DATA SHEET

Publishing Date	17.07.2026 at 1800 Hrs.
Bid Document Download/Sale Start Date	18.07.2026 from 0930 Hrs.
Clarification Start Date	18.07.2026 from 0930 Hrs.
Clarification End Date	24.07.2026 upto 1800 Hrs.
Bid Submission Start Date	18.07.2026 from 0930 Hrs.
Bid Submission End Date	08.08.2026 upto 1800 Hrs
Bid Opening Date (Envelope-I)	10.08.2026 at 1100 Hrs.
Bid Opening Date (Envelope-II)	17.08.2026 at 1100 Hrs.

Note:1. If the bidder has any query related to the Bid Document of the work, they should use 'Seek Clarification' on CPP portal to seek clarifications. No other means of communication in this regards shall be entertained.

Envelope- I:-(Technical Bid and Pre-qualification):-Bid containing following:

A. Technical Bid containing the following:-

- i) Scanned Copy of Tender Acceptance Letter on Bidder's Letter Head.
(Performa given as Annexure-1 at page PR-6 of Tender Document).
- ii) Scanned Copy of Permanent Account Number (PAN) and GST registration Number.
- iii) Scanned copy of 'Undertaking' regarding Blacklisting/Debarment on Bidder's Letter Head.
(Performa given as Annexure-2 at page PR-7 of Tender Document).
- iv) Scanned copy of Form-A – details of similar works completed during last seven years with completion certificate issued by client.
(Performa given at page PR-1 of Tender Document).
- v) Scanned copy of Form- B – Financial information.
(Performa given at page PR-2 of Tender Document).
- vi) Scanned copy of Form- C – Net Worth.
(Performa given at page PR-3 of Tender Document).
- ~~vii) Scanned copy of Form- D – Financial data
(Performa given at page PR-4 of Tender Document).~~
- ~~viii) Scanned copy of Form- E – Works in hand
(Performa given at page PR-5 of Tender Document).~~
- ix) Bidder shall submit scanned copy of "Undertaking" on Company's Letter Head that I/We will deploy sufficient plant and machinery as per the requirement of the work in consultation with the Engineer-in-Charge (E-I-C) to achieve the mile stones/targets and over all completion within the time period.
(Performa given as Annexure-3 at page PR-8 of Tender Document).
- x) Bidders other than propriety firm shall submit, scan copy of Authorization Letter/Power of Attorney along with copy of certificate of Incorporation of the company under Company Act showing CIN/LLPIN/Name of Directors of the Company & Copy of Board Resolution regarding Authority to assign Power of Attorney.
Proprietary firm shall submit scanned copy of Authorization Letter/Power of Attorney only if tender is processed by a person other than proprietor.
- ~~xi) Scanned copy of affidavit regarding compliance of minimum wages.
(Performa given as Annexure-4 at page PR-9 of Tender Document).~~
- ~~xii) Scanned copy of undertaking regarding GST on Company's Letter Head.
(Performa given as Annexure-5 at page PR-10 of Tender Document).~~

- xiii) Scanned copy of undertaking regarding claim for preference under Make in India Policy. (Performa given as Annexure-6 along with Form-I at page PR-11 to PR-12 of Tender Document).
- xiv) Scanned copy of undertaking regarding restriction under rule 144(xi) of General Finance Rule (GFR) 2017.
(Performa given as Annexure-7 at page PR-13 of Tender Document).
- xv) PQ Performa duly filled.
- xvi) Scanned copy of valid Electrical Contractor license.

B. Qualifying requirements of contractors / tenderers containing the following:-

- i) Should have successfully completed or substantially completed **three works each of Rs. 9,98,997.00 or two works each of Rs. 12,48,747.00 or one work of Rs. 19,97,994.00** in single contract of similar nature of work “**SITC of DG Set**” during last seven years ending on last day of month previous to the one in which tenders are invited.

The details of similar works completed during last seven years in the given format-**Form-A** with supporting documents issued by client.

Note:

1. The experience certificate of works completed pre GST era, Completion amount will be divided by 1.12 (to exclude pre GST taxes) to make it at par with experience certificates of post GST era but excluding GST.
2. ~~The Tenders invited for Annual Rate Contracts for O&M/ AMC/ CMC works, agency having experience of completed AMC contract of more than one year shall be counted for the value of work for a completed one year on pro-rata basis. However, the agency who has completed one year of work in running AMC contract of more than one year, may be counted for the value of work for a completed one year on pro-rata basis.~~
3. Experience gained by executing work on back-to-back contract/ Sub-contract basis is acceptable in the following conditions:
 - (a) Work should be actually executed by the second agency (sub-contractor) with due concurrence of the owner as tripartite agreement/ written approval. It should be backed by valid agreement and experience certificate.
 - (b) Payments received by second agency should be reflected in TDS certificates.

4. Experience gained in composite works for the specialized nature of works were executed by main contractor either by in-house expertise & experience or by engaging the specialized agencies with the approval of main client as per contract conditions. In such cases, main contractor as well as specialized agency both get the experience certificate for the same work from their respective client(s) i.e. main contractor for composite work along with specialized works from owner and specialized agency for specialized work(s) from the main contractor.

In this situation, the experience certificate of either specialized agency or main agency having in-house expertise & experience, who has actually executed the specialized work(s), shall be considered for Technical /Pre-qualifying criteria in similar specialized nature of work(s).

5. Substantial completion shall be based on 80(eighty) percent of awarded cost or more value wise works completed under the contract.

“The value of executed works shall be brought to current costing level by enhancing the actual value of work at simple rate of 7% per annum, calculated from the date of completion to date of bid opening (Cover-I/ Technical bid).

Client certificate for experience should show the nature of work done, the value of work, date of start, date of completion as per agreement, actual date of completion and satisfactory completion of work. **Tenderers showing work experience certificate from non-government/non-PSU organizations should submit copy of tax deduction at sources (TDS) certificate(s) along with a certificate issued by registered Chartered Accountant, clearly specifying the name of work, total payment received against the work and TDS amount for the work.**

- ii) Should have annualized average financial turnover of **Rs. 7,49,248.00** on construction work during last three years ending 31st March of the previous financial year. The Financial Information shall be submitted in the given format – **Form-B**. Tenderer showing continuous losses during the last three years in the balance sheet shall be summarily rejected.
- iii) The tenderer should have a minimum net worth of **Rs. 3,74,624.00** issued by certified Chartered Accountants. The Certificate should be submitted in the given format- **Form-C**.

iv) **Preference to make in India**

Only '**Class-I Local Supplier**' and '**Class-II Local Supplier**', as defined under the "**Public Procurement Policy (Preference to Make In India), order 2017- revision dated 16.09.2020**" or amended upto date, notified by Government of India, Ministry of Commerce and Industry, Department of Promotion of Industrial & Internal Trade (Policy Procurement Section) vide letter No. P- 45021/2/2017- PP (BE-II) dated 16th Sep 2020 or amended upto date shall be eligible to bid in this tender.

'**Class-I local supplier**' and '**Class-II local supplier**' means a supplier or service provider, whose goods, services or works offered for procurement, meets the minimum local content as defined under the Order.

Minimum Local Content: The 'local content' requirement to categorize a supplier as 'Class-I Local Supplier' is minimum 50% and for "Class -II Local Supplier" the 'local content' requirement is minimum 20% as per "**Public Procurement Policy (Preference to Make In India), order 2017- revision dated 16.09.2020**" or amended upto date.

Purchase preference: Purchase preference shall be given to '**Class-I Local Supplier**' over '**Class-II local supplier**' whose quoted price falling within the **margin of purchase preference of 20%** (or as notified by DPIIT) based on non- divisible nature of work in accordance with the provisions of "Public Procurement Policy (Preference to Make In India), order 2017- revision dated 16.09.2020" notified by Government of India, Ministry of Commerce and Industry, Department of Promotion of Industrial & Internal Trade (Policy Procurement Section) vide letter No. P- 45021/2/2017- PP (BE-II) dated 16th Sep 2020 or as amended up to date.

Verification of local content:

- (a) The "**Class-I Local Supplier**" / "**Class -II Local Supplier**" shall be required to indicate percentage of local content and provide self-certification / undertaking that the item offered meets the local content requirement for "**Class-I Local Supplier**" / "**Class -II Local Supplier**" as the case may be. They shall also give details of the location(s) at which the local value addition is made. Bidder shall submit scanned copy of 'Undertaking' on Company's letter head in this regard. The format of undertaking and certificate are given under Annexure-6 along with Form-I at page PR-11 to PR-12 respectively of Tender Document.
- (b) Local Content shall be claimed on the supply part only and shall not be claimed on the services such as Transportation,

Insurance, Installation, Commissioning, Training, Operation & AMC/ CMC/ AICMC etc.

- (c) Local Content shall be calculated as per Govt. of India guidelines.
 - (d) Item wise Local Contents declared under form I of Annexure-6 may vary at the time of actual supply of material. However, the total percentage of local contents shall meet the minimum local content requirement for ***“Class-I Local Supplier”/ “Class -II Local Supplier”*** (as applicable) in accordance with the ***“Public Procurement Policy (Preference to Make In India), order 2017- revision dated 16.09.2020”*** or amended upto date.
 - (e) In case of false declarations, bidder or its successors can be debarred for up to two years for participating in tenders of AAI along with other actions as may be permissible under law.
 - (f) A supplier who has been debarred by any other procuring entity for violation of this order shall not be eligible for participates for the duration of the debarment.
- v) **Requirement of registration under rule 144(xi) of GFR 2017**
- Requirement of registration by the bidder from a country sharing land border with India based on order No. F No. 6/18/2019-PPD dated 23/07/2020 of Government of India, Ministry of Finance, Department of Expenditure (Public procurement Division) with up to date amendments, regarding restriction under Rule 144(xi) of the General Financial Rules (GFR) 2017 shall be applicable.
- Bidder shall submit scanned copy of ‘Undertaking’ on Company’s Letter Head in this regard (Performa given under Annexure-7 at page PR-13). If Undertaking / Certificate submitted by the bidder found to be false, his tender will be immediately terminated and further legal action in accordance with law including forfeiting of Performance Guarantee and / or Security Deposit and debarring in participating in AAI tenders in future shall be initiated.

Envelope- II:-The Financial e-Bid through CPP portal.

All rates shall be quoted in the format provided and no other format is acceptable. If the price bid has been given as a standard BOQ format with the tender document, then the same is to be downloaded and to be filled by all the bidders. Bidders are required to download the BOQ file, open it and complete the blue coloured (unprotected) cells with their respective financial quotes and other details (such as name of the bidder). No other cells should be changed. Once the details have been completed, the bidder

should save it and submit it online, without changing the filename. If the BOQ file is found to be modified by the bidder, the bid will be rejected.

3. Refund of EMD

EMD deposited by all the bidders except the confirmed lowest bidder shall be returned within one week from the date of opening of the financial bid. EMD of the successful bidder shall be returned on receipt of Security Deposit equivalent to EMD amount/ performance bank guarantee.

4. Bid submission:-

The tenderer shall submit their application only at CPP Portal: <https://etenders.gov.in/eprocure/app>. Tenderer/Contractor are advised to follow the instructions provided in the tender document for online submission of bids. Tenderers are required to upload the digitally signed file of scanned documents as per Para 2. Bid documents may be scanned with 100 dpi with black and white option which helps in reducing size of the scanned documents.

Uploading of application in location other than specified above shall not be considered. **Hard copy of application shall not be entertained.**

5. Not more than one tender shall be submitted by one tenderer or tenderers having business relationship. Under no circumstance will father and his son(s) or other close relations who have business relationship with one another (i.e. when one or more partner(s)/director(s) are common) be allowed to tender for the same contract as separate competitors. A breach of this condition will render the tenders of both parties liable to rejection.
6. Tenderer who has downloaded the tender from Central Public Procurement Portal (CPPP) website <http://etenders.gov.in/eprocure/app>, shall not tamper/modify the tender form including downloaded price bid template in any manner. In case if the same is found to be tampered/modified in any manner, tender will be completely rejected and EMD would be forfeited and tenderer is liable to be banned from doing business with AAI.

7. Bids Opening Process is as below: -

Envelope-I (Technical bid and Pre-qualification):

Envelope-I containing documents as per Para 2 (A) and (B) (uploaded by the tenderers) shall be opened on date & time mentioned in CRITICAL DATA SHEET.

If the bidder has any query related to the Bid Document of the work, they should use 'Seek Clarification' on CPP portal to seek clarifications. No other means of communication in this regards shall be entertained.

If any clarification is needed from the tenderer about the deficiency in his uploaded documents in Envelope – I, he will be asked to provide it through CPP portal, if required. The tenderer shall upload the requisite

clarification/documents with in time specified by AAI, failing which it shall be presumed that bidder does not have anything to submit and bid shall be evaluated accordingly.

The intimation regarding acceptance/rejection of their bids will be intimated to the tenderers through CPP portal.

Envelope- II (Financial Bid):

Envelope-II containing financial bid of the tenderers found to be meeting the technical criteria and qualifying requirements shall be opened on date & time mentioned in CRITICAL DATA SHEET. **(In case the date and time for opening of Envelope-II (Financial Bid) is required to be changed, the same shall be intimated through CPP Portal).**

8. AAI reserves the right to accept or reject any or all applications without assigning any reasons. AAI also reserves the right to call off tender process at any stage without assigning any reason.
9. AAI reserve the right to disallow the working agencies whose performance at on-going project(s) is below par and usually poor and has been issued letter of restrain/Temporary or Permanent debarment/black listing by any department of AAI or Central/State Govt. Depts./PSUs/World Bank/ADB etc. **AAI reserve the right to verify the credential submitted by the tenderer at any stage (before or after the award the work). If at any stage, any information/documents submitted by the applicant is found to be incorrect/ false or have some discrepancy which disqualifies the tenderers then AAI shall take the following action:**
 - a) **Forfeit the entire amount of EMD submitted by the tenderer.**
 - b) **The tenderer shall be liable for debarment for a period upto two years from tendering in AAI, including termination of the contract apart from any other appropriate contractual/legal action.**
10. Consortium/JV companies shall not be per mitted.
11. Purchase preference to Central Public Sector Undertaking shall be applicable as per the directive of Government of India prevalent on the date of acceptance.
12. Concessions to Indian Micro & Small Enterprises (MSEs) units registered with DIC/ NSIC/ KVIC/ KVIB/ Directorate of Handicraft and handloom etc. will be given as per the provisions of public procurement policy for MSEs order 2012 amended upto date, shall be applicable for tenders of supply and services only and shall not be extended to construction work. **As the work comes under construction/ original work category, hence concession to Indian Micro and Small Enterprises (MSEs) is not applicable.**

13. Tenderers have to submit Unique Document Identification Number (UDIN) generated documents like Balance Sheet/ Turnover certificate, Working Capital Certificate (works done during last 5 financial years & works in hand), Net worth Certificate, Tax Deduction at Source (TDS) Certificates for Non- Govt. works etc. as per NIT conditions duly certified by CA and having UDIN. The documents submitted by bidders without UDIN shall not be entertained.
14. Department of Promotion of Industry and Internal Trade (DPIIT), Ministry of Commerce and Industry, Government of India, issued Public Procurement (Preference to Make in India), Order 2017 vide OM No. P-45021/2/2017-PP(BE-II) dated 16.09.2020 or amended upto date, is applicable. **This work is non-divisible in nature.**
15. Requirement of registration by the Bidder from a country sharing land border with India based on order No. F No. 6/18/2019-PPD dated 23/07/2020 of Government of India, Ministry of Finance, Department of Expenditure (Public procurement Division) with up to date amendments, regarding restriction under Rule 144(xi) of the General Financial Rules (GFR) 2017 shall be applicable. Bidder shall submit scanned copy of 'Undertaking' on Company's letter head in this regard (Annexure- 7 at page PR-13).

AGM (Engg-E)
AAI, M.P. Airport, Udaipur
For and on behalf of the Chairman, AAI

CHECK LIST

TO BE UPLOADED BY APPLICANTS ALONG WITH TENDER APPLICATION IN ENVELOPE-I

Name of Work: SITC of DG Sets and Replacement of old & Conventional AC units and Other Miscellaneous Works at ACS Pratapgarh.

1	2	3	4
S. No.	Qualifying criterion	Supporting Document must have the following salient information which AAI would like to note	Enclosure Check-list
1.0	General		
1.1	Name and registered office address of the Applicant Contractor / Firm / Joint venture company		Copy enclosed: Yes / No
	Telephone , Fax & E-mail		
1.2	Authorized Signatory (Name & Designation)		Copy enclosed: Yes / No
A	<u>Envelope -I, Technical Bid, Shall contain scanned copy of :</u>		
i)	Undertaking regarding Tender Acceptance Letter(Annexure-1 at page PR-6)		Copy enclosed: Yes / No
ii)	Permanent Account Number (PAN)		Copy enclosed: Yes / No
iii)	GST registration Number		Copy enclosed: Yes / No
iv)	Scanned copy of 'Undertaking' regarding Blacklisting/Debarment on Company's Letter Head.(Annexure-2 page PR-7)		Copy enclosed: Yes / No
v)	Scanned copy of Form-A- details of similar works completed during last seven years with completion certificate issued by client (Performa as per page PR-1).		Copy enclosed: Yes / No
vi)	Scanned copy of Form- B – Financial information (Performa as per page PR-2).		Copy enclosed: Yes / No
vii)	Scanned copy of Form- C – Net Worth (Performa as per page PR-3).		Copy enclosed: Yes / No
viii)	Scanned copy of Form- D – Financial Data (Performa as per page PR-4).		Copy enclosed: Yes / No
ix)	Scanned copy of Form- E – Work in hand (Performa as per page PR-5).		Copy enclosed: Yes / No
x)	Scanned copy of Undertaking regarding Plant and machinery(Annexure-3 page PR-8)		Copy enclosed: Yes / No

xi)	Authorization letter / power of attorney (if any).	Copy enclosed: Yes / No	
xii)	Affidavit on Non-Judicial stamp paper of Rs 100.00 regarding compliance of Minimum Wages (Annexure-4 at page PR-9).	Copy enclosed: Yes / No	
xiii)	GST Undertaking (Annexure-5 at page PR-10)	Copy enclosed: Yes / No	
xiv)	Make in India Policy Undertaking (Annexure-6 along with Form-I at page PR-11 to PR-12)	Copy enclosed: Yes / No	
xv)	Scanned copy of undertaking regarding restriction under rule 144(xi) of GFR 2017. (Annexure-7page PR-13).	Copy enclosed: Yes / No	
xvi)	Dully filled Check List (PQ)	Copy enclosed: Yes / No	
xvii)	Scanned copy of valid Electrical Contractor license	Copy enclosed: Yes / No	
B	Qualifying requirements of contractors / tenderers containing the following		
i)	Experience details: Works experience in Similar nature of works i.e. SITC of DG Set.		
(a)	Should have satisfactorily completed the specified work i.e.	A) Certificate of completion of the Three / Two / One work(s) for meeting eligibility criteria as applicable	
	i) Three works of Rs. 9,98,997.00 each in single contract of similar nature of work during last seven years ending on last date/extended date of submission of bids.	Work No. 1 -Name of work : -Nature of work done: -Value of work: -Date of start: -Date of Completion as per agreement: -Actual Date of Completion : -Satisfactory completion of work: -EOT granted (if any) up to ... with/without levy of compensation.	Copy enclosed: Yes / No
		Work No. 2 -Name of work : -Nature of work done: -Value of work: -Date of start: -Date of Completion as per agreement: -Actual Date of Completion : -Satisfactory completion of work: -EOT granted (if any) up to ... with/without levy of compensation.	Copy enclosed: Yes / No

		Work No. 3 -Name of work : -Nature of work done: -Value of work: -Date of start: -Date of Completion as per agreement: -Actual Date of Completion : -Satisfactory completion of work: -EOT granted (if any) up to ... with/without levy of compensation.	Copy enclosed: Yes / No
	ii) Two works of Rs. 12,48,747.00 each in single contract of similar nature of work during last seven years ending on last date/extended date of submission of bids	Work No. 1 -Name of work : -Nature of work done: -Value of work: -Date of start: -Date of Completion as per agreement: -Actual Date of Completion : -Satisfactory completion of work: -EOT granted (if any) up to ... with/without levy of compensation.	Copy enclosed: Yes / No
		Work No. 2 -Name of work : -Nature of work done: -Value of work: -Date of start: -Date of Completion as per agreement: -Actual Date of Completion : -Satisfactory completion of work: -EOT granted (if any) up to ... with/without levy of compensation.	Copy enclosed: Yes / No
	iii) One work of Rs. 19,97,994.00 each in single contract of similar nature of work during last seven years ending on last date/extended date of submission of bids	Work No. 1 -Name of work : -Nature of work done: -Value of work: -Date of start: -Date of Completion as per agreement: -Actual Date of Completion : -Satisfactory completion of work: -EOT granted (if any) up to..... with/without levy of compensation.	Copy enclosed: Yes / No
(b)	Whether experience from Govt. organizations or private clients?	Govt. Organization / Pvt. Clients. (Tick whichever is applicable). TDS certificate from client to be enclosed.	TDS certificate enclosed: Yes / No

ii)	Annualized average financial turnover of not less Rs. 7,49,248.00 against works executed during last three financial years. As a proof, copy of Abridged Balance Sheet of the firm with profit and loss account shall be submitted along with the application.	Year	Turnover (In Lakhs)	(Necessary detail in this regards to be submitted as PQ Performa (Form-A) Proof of turn over supported with abridged balance sheets and profit & loss account enclosed: YES / NO
		FY 2020-21 / 2021-22		
		FY 2021-22 / 2022-23		
		FY 2022-23 / 2023-24		
		AVERAGE		
iii)	Minimum net worth of Rs. 3,74,624.00 issued by certified Chartered Accountants. (Performa as per Form -C at page PR-3).			Copy enclosed: Yes / No
3.	Any other information			
4.	Remarks			
Place Date: Authorized signatory of the Firm SIGNATURE WITH STAMP				

DECLARATION

I/WE _____ hereby declare that the documents uploaded / enclosed are true and correct. In case any document at any stage found fake / incorrect, my EMD may be forfeited & action as deemed fit by AAI can be taken against me/us.

Place:

Date:

Signature
Authorized Signatory of the contractor/ Firm

FORM “A”

**DETAILS OF SIMILAR WORKS SUCCESSFULLY COMPLETED OR
SUBSTANTIALLY COMPLETED DURING THE LAST SEVEN YEARS ENDING ON
30.06.2026**

Sl. No.	Details of work	W-1	W-2	W-3
i	Name of work/ project and Location			
ii	Name and Address of client			
iii	Awarded Cost of work (in Rs. Lakhs)			
iv	Date of Commence- ment as per contract			
v	Stipulated date of completion			
vi	Actual date of completion			
vii	Completion Cost/ Actual work done			
viii	Whether the work was done on back to back basis Yes/No			

SIGNATURE (S) OF BIDDER (S) (WITH STAMP)

Note: The contractor should give list of only of eligible category works of requisite amount with supporting documents issued from client.

FORM-B

FINANCIAL INFORMATION

Name of the firm/ contractor

1. Financial Analysis – Details to be furnished profit and loss account for the last five years duly certified by the Chartered Accountant as submitted by the applicant to the Income – Tax Department

Fig in lakhs Rs.

Sl. No.	Particulars	Financial Year (Last three years)		
		FY.....	FY.....	FY.....
1.	Turn-Over on Construction Works			
2.	Profit/ (loss) after Taxes (standalone)			

2. Financial arrangements for carrying out the proposed work.

Unique Document Identification Number (UDIN)

SIGNATURE OF CHARTERED
ACCOUNTANT WITH SEAL

SIGNATURE (S) OF BIDDER (S)

Note: The bidder should give information strictly in above format.

FORM - C

FORM FOR CERTIFICATE OF NET WORTH FROM CHARTED ACCOUNTANT

This is to certify that as per the audited balance sheet and profit & loss account during the financial year, the Net Worth of M/S. _____
_____(Name & registered address of Individual/
Firm/Company), as on (the date of certificate) is Rs
_____ after considering all liabilities. It is further certified that Net
Worth of the company has not eroded by more than 30% in the last three years ending on 31st
March (the relevant year*)

Unique Document Identification Number (UDIN)

Signature of Chartered Accountant

.....

Name of Chartered Accountant

.....

Membership of ICAI

Date and Seal

SIGNATURE (S) OF BIDDER (S)

*The relevant year shall be the financial year ending 31st March preceding the calendar year of bid submission or 31st March of the financial year preceding the previous financial year, if the balance sheet of the previous financial year has not been audited.

FORM-D

FINANCIAL DATA

~~(WORK DONE DURING LAST FIVE FINANCIAL YEARS)~~

Name of the Bidder:—

Sl. No.	Description	Financial Data for Last Five Audited Financial years				
		FY	FY	FY	FY	FY
1.	Maximum value of Civil Engineering Works executed in any one year during the last 5 (five) years (updated the completed works to current costing level of enhancing at a simple rate of interest @ 7% per annum.)					

Note:

a. All such documents reflect the financial data of the tenderer or member in case of JV/ Consortium, and not that of sister or parent company.

b. The financial data in above prescribed format shall be certified by Chartered Accountant/ Company Auditor under his signature and stamp in original along with membership no.

Unique Document Identification Number(UDIN).....

Signature of Chartered Accountant with Seal

SIGNATURE (S) OF BIDDER (S)

FORM – E

WORKS IN HAND

(On or after the Bid Submission Start Date i.e.)

Name of the Bidder:—

Name and Brief contract (Clearly indicate the part of the work assigned to the bidder(s))	Name of client with telephone Number and fax number	Contract Value in Rupees (Give only the value of Work assigned to the bidder (s))	Value of balance work yet to be done in Rupee as on(m)....	Value of work to be done in 'T' i.e.(d)..... (Completion Period of the Project) w.e.f.(m)..... (Submission End date). From.....(m)..... To....((m)+(d))....

Unique Document Identification Number(UDIN).....

Signature of Chartered Accountant with Seal

SIGNATURE (S) OF BIDDER (S)

ANNEXURE-1

TENDER ACCEPTANCE LETTER
(To be given on Contractor's Letter Head)

Date:

To,
AGM (Engg.-E),
Airports Authority of India,
Operational Offices,
M. P. Airport, Udaipur.

Sub: Acceptance of Terms & Conditions of Tender.
(Tender ID No.:)

Name of Work:- SITC of DG Sets and Replacement of old & Conventional AC units
and Other Miscellaneous Works at ACS Pratapgarh.

Dear Sir,

1. I/ We have downloaded/ obtained the tender document(s) for the above mentioned 'Tender/Work' from CPP Portal web site(s) namely: <https://etenders.gov.in/eprocure/app> as per advertisement, given in the above mentioned website(s).
2. I/We hereby certify that I/ we have inspected the site and read the entire terms and conditions of the tender documents, corrigendum(s) and reply to query if any made available to me/us which shall form part of the contract agreement and I/we shall abide hereby the terms/ conditions/clauses contained therein.
3. I/We hereby unconditionally accept the tender conditions of AAI's tender documents in its totality/ entirety for the above mentioned work.
4. I/ We declare that I / We have not paid and will not pay any bribe to any officer of AAI for awarding this contract at any stage during its execution or at the time of payment of bills, and further if any officer of AAI asks for bribe / gratification, I will immediately report it to the Appropriate Authority in AAI.
5. I/ We hereby submitted that, I/we paid / submitted the required earnest money as per NIT conditions.
6. I/ We certify that all information/ documents furnished by our Firm is true & correct and in the event at any stage, the information/ documents is found to be incorrect/ untrue or found violated, then we shall be liable for debarment from tendering in AAI without giving any notice or reason therefore or summarily reject the bid or terminate the contract, without prejudice to any other rights or remedy including the forfeiture of the full said earnest money deposit absolutely.

Yours Faithfully

(Signature of the Bidder, with Official Seal)

UNDERTAKING REGARDING DEBARMENT/BLACKLISTING

(To be given on Contractor's Letter Head)

Name of Work:- SITC of DG Sets and Replacement of old & Conventional AC units and Other Miscellaneous Works at ACS Pratapgarh.

(Tender ID No.:)

I/We (name and post of authorized signatory) on behalf of (Name of firm) do here by solemnly affirm and declare as follows;

- (i) Our firm is not restrained/ debarred/ blacklisted by Airports Authority of India (AAI)/ Ministry of Civil Aviation(MoCA)/ Dept. of Expenditure (DoE), Ministry of Finance and the debarment/ blacklisting/ restraintment is not in force as on last date of opening of tender (Envelope-I, normally called as technical bid).
- (ii) None of Proprietor /Partners /Board Members /Directors of M/s..... (Name of firm) has remained Proprietor /Partner /Board Member /Director in any firm which stands debarred /blacklisted /restrained by AAI/ MoCA/ DoE and the debarment/ blacklisting/ restraintment is not in force as on last date of opening of tender (Envelope-I, normally called as technical bid).
- (iii) Our firm understands that if our firm either debarred before the date of opening of tender (first bid, normally called as technical bid, in case of two packet/ two stage bidding) or debarred before the date of contract by AAI/ MoCA/ DoE (Debarment applicable for all Ministries/ Departments), our bid is liable to be rejected at that stage.
- (iv) Our firm understands that at any stage, if above statements are found to be false, our firm shall be liable for debarment from bidding in AAI, apart from any other appropriate contractual legal action including debarment/ blacklisting/ restraintment, termination of the contract etc. as deemed fit.

Date:

Place:

(Signature and name of the authorized signatory of the firm)

ANNEXURE-3

UNDERTAKING

(To be printed on letter head of company/firm)
(TO BE SUBMITTED WITH ENVELOPE-I)

To,
AGM (Engg.-E),
Airports Authority of India,
M. P. Airport, Udaipur.

Sir,

UNDERTAKING FOR T & P

I/we undertake that I/We shall deploy sufficient plant and machinery as per the requirement of the work in consultation with the Engineer-in-Charge to achieve the mile stones/targets and over all completion within the time period.

Yours Faithfully

(Signature of the tenderer)
With rubber stamp

Date:

ANNEXURE-4

AFFIDAVIT FOR ENGAGEMENT OF WORKERS WITH MINIMUM WAGES

(To be printed on Non-judicial stamp paper of Rs.100.00 and duly notarized affidavit)

(TO BE SUBMITTED WITH ENVELOPE-I)

I, _____ (_____),
age _____ years S/o _____ proprietor / Managing
Partner _____ / Managing Director _____ of _____ M/s
_____ having
address _____
do hereby solemnly affirm and state as follows;

I am competent to swear this affidavit on behalf of
_____ (name of the agency) and hereby confirm that I
am fully complying with the legal obligations with regards to payment of
minimum wages as per minimum wages Act – 1948 and deduction of Provident
Fund Authorities as per EPF & MP Act – 1952 and Contract Labour (Regulation
and Abolition) Act, 1970.

Date:

DEPONENT

Place:

Date:

UNDERTAKING

~~(To be printed on letter head of company/firm)~~

~~(TO BE SUBMITTED WITH ENVELOPE-I)~~

~~(Refer Clause 31.6 of GTB)~~

To,

~~AGM(Engg.-E),~~

~~Airports Authority of India,~~

~~M. P. Airport, Udaipur.~~

Sir,

UNDERTAKING FOR GST

~~I/we undertake that~~

- ~~1. I/we are registered under GST and our GSTIN are..... to be filled by bidder)and compliant of GST provision.~~
- ~~2. In case of non-compliance of GST provisions and blockage of any input credit, I/we shall be responsible to indemnify AAI.~~
- ~~3. All input credits have been passed on to AAI by I/we.~~

Yours Faithfully

~~(Signature of the tenderer)~~

~~With rubber stamp~~

Date—:

**UNDERTAKING TO BE SUBMITTED BY AGENCIES WHO WISH TO CLAIM
PREFERENCE UNDER MAKE IN INDIA POLICY**

(To be printed on Company's Letter head)
(TO BE SUBMITTED WITH ENVELOPE-I)

Name of work: SITC of DG Sets and Replacement of old & Conventional AC units and Other
Miscellaneous Works at ACS Pratapgarh.

Name of Contractor / Firm:

Tender ID No.:

I / We have applied for above tender for the work of : “SITC of DG Sets and Replacement of old & Conventional AC units and Other Miscellaneous Works at ACS Pratapgarh. SITC of DG Sets and Replacement of old & Conventional AC units and Other Miscellaneous Works at ACS Pratapgarh.” and hereby undertake that:-

- I / We have gone through the “Make in India Policy” mentioned in the tender document and have understood the provisions available in the policy.
- I / we have quoted the make in India local content not less than 50% of the total quoted amount as per BOQ.
- My “**Local Contents**” for this tender is _____ (specify the percentage of **local contents**) as per details attached under ‘**Proforma Form I**’ and we meet the mandatory minimum Local Content requirement i.e. _____ (specify the percentage of local contents) for '**Class-I local supplier**' as per Government of India, “**Public Procurement Policy (Preference to Make In India), order 2017- revision dated 16.09.2020**” amended upto date to participate in AAI Tender ID No. : _____.
- The details of location(s) at which the local value addition is made are as per **Proforma Form I**).

Signature of the Contractor

Date:

FORM-I**DETAILS OF LOCAL CONTENTS**

(Scanned copy to be submitted by Bidder in Cover-I on letter head of the Company/Firm)

Name of Work: SITC of DG Sets and Replacement of old & Conventional AC units and Other Miscellaneous Works at ACS Pratapgarh.

Tender ID No.: _____

I/we hereby certify that item supplied by us will have the local content as below:-

S.No.	Item	% of Local Content	Details of location(s) at which local value addition is made	Remarks
1				
Total % of Local Contents				

NOTE:-

- (a) Local Content shall be calculated as per Govt. of India guidelines.
- (b) Local Contents declared may vary at the time of actual supply of material. However, the total percentage of local contents shall meet the minimum local content requirement for **“Class-I Local Supplier”** in accordance with the **“Public Procurement Policy (Preference to Make In India), order 2017- revision dated 16.09.2020”** or amended upto date.

Date:

Place:

Signature and name of the authorized signatory of the firm

with Rubber Stamp

Performa for declaration by Bidder for compliance of order on Restriction under Rule 144(xi) of the General Financial Rules (GFRs)-2017

(Scanned copy to be submitted by Bidder in Cover-I on letter head of Company/Firm)

Name of Work : _____

Tender ID : _____

I, the undersigned, _____ (full names), do hereby declare, in my capacity as _____ of M/s _____ (Name of company/Firm) _____ that:

- 1) I am competent to swear this undertaking on behalf of M/s _____ (Name of company/Firm) _____
- 2) I have read the Order(s) on the subject of Restrictions under Rule 144 (xi) of the General Financial Rules (GFRs), 2017 regarding restrictions on procurement from a bidder of a country which shares a land border with India and comply to all the provisions of the Order(s).
- 3) I certify that M/s _____ (Name of company/Firm) _____ is not from such a country / is from such a country, has been registered with the Competent Authority (strike out whichever is not applicable). I hereby certify that this BIDDER fulfills all requirements in this regard and is eligible to be considered [Where applicable, evidence of valid registration with the Competent Authority is attached].
- 4) I understand that the submission of incorrect data and / or if certificate/ declaration given by M/s _____ (Name of company/Firm) _____ is found to be false, this would be a ground for immediate termination and further legal action in accordance with law as per Clause 12 of the Public Procurement Order on Restrictions under Rule 144 (xi) of the General Financial Rules (GFRs), 2017. Signature and name of the authorized signatory of the firm with Rubber Stamp

Signature and name of the authorized signatory of the firm
With Rubber Stamp

Date:

Place:

ANNEXURE-A

**REQUEST LETTER: TRANSMISSION OF BANK GUARANTEE COVER MESSAGE
TO BE SUBMITTED BY APPLICANT TO BG ISSUING BANKS**

(To be printed on letter head of company/firm)
(TO BE SUBMITTED WITH ENVELOPE-I)
(Refer Clause 32 (ii) of GTB)

Date: _____

To,

The Manager,

(Bank),

(Branch)

Sub: Inclusion of unique identifier code of AAI while transmitting BG cover message where beneficiary bank is ICICI Bank (IFSC-ICIC00000007).

Dear Sir/Ma'am,

I/we _____, request you to include unique identifier **AAIUDAIPUR** in field 7037 of the SFMS cover messages IFN COV 760 (for BG issuance) and IFN COV 767 (for BG amendment) while transmitting the same to the beneficiary bank (ICICI Bank- IFSC-ICIC00000007).

Thanking You,

(Tenderer)

ANNEXURE-B

(To be submitted by the bidder on letter head of the company along with BID)

For Refund of EMD, following is to be submitted by the bidders

BENEFICIARY DETAILS FOR RTGS FUNDS TRANSFER

Sr. No.	Particulars	Information Required
1.	Name of the Account Holder i.e. Bidder	
2.	PAN/TAN No. of the Party i.e. Bidder	
3.	Name of the Bank	
4.	Address of the Bank	
5.	Bank Account No.	
6.	Type of the Bank Account	
7.	MICR Code of the Bank	
8.	IFSC Code of the Bank	

Note: In addition to above scanned copy of cancelled cheque may please be provided.

(Beneficiary's i.e. Bidder's Name & Signature)

AIRPORTS AUTHORITY OF INDIA

GENERAL GUIDELINES FOR THE BIDDERS

1. Item rate e-tenders are invited on behalf of the Airports Authority of India for the work as mentioned at **Page No. 130** of GCC. The estimated cost of the work is mentioned at **Page No. 130** of GCC. This estimate, however, is given merely as rough guide.
2. The Tenders shall be in the prescribed Form.
3. The works are required to be completed within the period as mentioned at **Page No. 132** of GCC.
4. Not more than one Tender shall be submitted by a contractor or by a firm of contractors.

No two or more concerns in which an individual is interested, as Proprietor and/or partner shall tender for the execution of the same works. If they do so, all such Tenders shall be liable to be rejected.

5. The Accepting Authority as mentioned at **Page No. 131** of GCC shall be the Accepting Officer hereinafter, referred to as such for the purpose of this contract.
6. Tender document can be downloaded from the NIC CPP e-tendering portal without paying any tender fee. However, to participate in the tender, the Bidders must pay tender fee as mentioned in web NIT (To be submitted online through payment gateway on CPP portal).
7. Bidders are advised to inspect and examine the site and its surroundings and satisfy themselves before submitting their Tenders as to the nature of the ground and sub soil (so far as is practicable), the form and nature of the site, the means of access to the site, the accommodation they may require, working conditions including space for stacking of materials, installation of T&P, rates of various materials to be incorporated in works, conditions affecting accommodation and movement of labours etc. and in general shall themselves obtain all necessary information as to risks, contingencies and other circumstances which may influence or effect their Tender. A bidder shall be deemed to have full knowledge of the site whether he inspects it or not and no extra charges consequent on any misunderstanding or otherwise shall be allowed.
8. Submission of a Tender by a bidder implies that he has read this notice and all other contract documents and has made himself aware of the scope and specifications of the works to be done and of conditions and

rates at which stores, tools and plant, etc. will be issued to him by Airports Authority of India, local conditions, local material rates and other factors bearing on the execution of the works.

9. All rates shall be quoted in the standard BOQ format uploaded in NIC CPP e-tendering portal.
10. In the case of item rate Tenders only rates quoted shall be considered. Any Tender containing percentage below/above the rates quoted is liable to be rejected.
11. Tenders shall be uploaded by the bidder upto the date and time as mentioned at **Page No. 2** of WNIT and shall be opened on the date and time as mentioned at **Page No. 2** of WNIT.
12. Earnest Money of amount as mentioned in web NIT and at **Page No. 130 of GCC** shall be accepted online through payment gateway on CPP portal.
13. **Abnormally Low Bid (ALB):-** An Abnormally Low Bid is one in which the Bid price, in combination with other elements of the Bid, appears so low that it raises material concerns as to the capability of the Bidder to perform the contract at the offered price. Processing of such bid shall be as follows:
 - i) The Bid Manager shall seek written clarifications from the lowest Bidder with approval of Technical Sanctioning authority, including detailed price analyses of its Bid price in relation to scope, schedule, resource mobilization, allocation of risks and responsibilities, and any other requirements of the bids document.
 - ii) If, after evaluating the price analyses, the Tender Accepting Authority determines that the Bidder has substantially failed to demonstrate its capability to deliver the contract at the offered price, then the bid/ proposal may be rejected.
 - iii) Such contracts should be closely monitored that final payments in such cases do not abnormally increases due to extra items. Further, there is no abnormal increase in quantities of the item for which contractors have initially quoted very high rates.
14. Notification of Award of contract will be made in writing to the successful Bidder by the Accepting Authority or his representative. The contract will normally be awarded to the qualified and responsive Bidder offering lowest evaluated bid in conformity with the requirements of the specifications and contract documents and the Accepting Authority shall be the sole judge in this regard. The

Accepting Authority does not bind himself to accept the lowest or any tender or to give any reason for his decision.

- 14.1 A **responsive bidder** is one who submits the financial bid and accepts all the terms and conditions of the tender document.
- 14.2 A **major modification** is one which affects in any way the quality, quantity and period of completion of the work or which limits in any way the responsibilities or liabilities of the Bidder or any right of AAI, as required in the specifications and contract documents. Any modification in the terms and conditions of the Tender which are not acceptable to AAI shall also be treated as a major modification.
- 14.3 A Bidders shall submit a responsive bid, failing which his Tender will be liable to be rejected.
- 14.4 The Accepting Authority reserves to himself the right of accepting the whole or any part of the Tender and Bidders shall be bound to perform the same at his quoted rates.
15. On acceptance of tender earnest money will be treated as part of the security deposit.
16. Airports Authority of India will refund the earnest money to every unsuccessful bidder except as provided in the tender documents to their source account after completion of technical evaluation or financial evaluation as applicable on CPP portal.
17. Canvassing in connection with tenders is strictly prohibited and the tenders submitted by the bidders who resort to canvassing will be liable to rejection.
18. The Bidders shall not be permitted to tender for works in Airports Authority of India Engineering Department, responsible for award and execution of contracts, in which his near relative is posted as Manager Finance & Accounts or Sr. officer or as an engineer in any capacity. He shall also intimate the names of persons who are working with him in any capacity or are subsequently employed by him and who are near relatives to any officer in Airports Authority of India. Any breach of this condition by the contractor would render him liable to be debarred from Tendering for next 2 years.
19. The contractors shall give a list of AAI employees related to him.
20. No Engineer of Gazette rank or other Gazette Officer employed in Engineering or Administrative duties in an Engineering Department of Airports Authority of India/Govt. of India is allowed to work as a

contractor for a period of two years of his retirement from Airports Authority of India/ Government service, without the previous permission of Airports of India/Govt. of India. The contract is liable to be cancelled if either the contractor or any of his employees is found at any time to be such a person who had not obtained the permission of Airports Authority of India/Govt. of India as aforesaid before submission of the Tender or engagement in the contractor's service.

21. The Tender for works shall remain open for acceptance for a period of ninety days from the date of opening of financial bid. If any bidder withdraws his Tender before the said period or makes any modifications in the terms and conditions of the Tender which are not acceptable to the Department, then Airports Authority of India shall without prejudice to any other right or remedy, be at liberty to suspend the bidder for one year and shall not be eligible to bid for AAI tender from date of issue of suspension order.
22. On acceptance of the Tender, the name of the accredited representative(s) of the contractor who would be responsible for taking instructions from the Engineer-in-Charge shall be communicated to the Engineer-in-Charge.
23. If at any stage, any information /documents submitted by the applicant is found to be incorrect/false or have some discrepancy which disqualifies the firm then AAI shall take the following action:
 - a) Forfeit the entire amount of EMD submitted by the firm.
 - b) The agency shall be liable for debarment from tendering in AAI, apart from any other appropriate contractual / legal action.
24. The site for the work may be made available in full or parts as decided by Engineer-In-Charge.
25. Last date and time of submission of e-bids (Cover I & II) is mentioned in critical date sheet of web NIT.
26. **MODE OF SUBMISSION OF TENDERS:**

Three covers shall be submitted through online at e-tendering portal by the bidder as mentioned in web NIT.
27. Tenderer who has downloaded the tender from Central Public Procurement Portal (CPPP) website <http://etenders.gov.in/e-procure/app>, shall not tamper/ modify the tender form including downloaded price bid template in any manner. In case if the same is found to be tampered/ modified in any manner, tender will be

completely rejected and tenderer is liable to be banned from doing business with AAI.

28. Bids Opening Process: -As mentioned in Web NIT.
29. The successful Tender/contractor, on acceptance of his Tender by the Accepting Authority, shall within 15 days from the stipulated date of start of the work sign the contract consisting of Notice Inviting Tenders, General Conditions of Contract, Special/additional condition, General and technical specifications, Tender conditions as issued at the time of invitation of Tender and acceptance thereof with any correspondence leading there to.
30. The Accepting Authority reserves the right to allow the public enterprises purchase preference facilities as admissible under the existing policy on the date of opening of tender.

31. **Queries, Replies and Clarifications:**

- 31.1 If the bidder has any query related to the Tender Document of the work, they should use 'Seek clarification' tab in e-tendering portal to seek clarifications. **No other means of communication in this regards shall be entertained.**
- 31.2 If any clarification is needed by AAI from the bidder about the deficiency in his uploaded documents in Envelope – I& II, they will be asked to provide it through short fall folder in e-tendering portal. The bidder shall upload the requisite clarification/documents within specified time of receipt of such request from AAI, failing which tender will not be considered for the subsequent stages.
- 31.3 All the queries of the bidders pertaining to bid procedure/technical support on CPP portal (URL-<https://etenders.gov.in/eprocure/app>) for submission of tender documents should normally be addressed to AAI Help Desk Support (Details as mentioned in the web-NIT) as below:-

011-24632950, Ext-3512, Ext-3523, 011-24657900

Email address:-eprochelp@aai.aero, etendersupport@aai.aero, sanjeevkumar@aai.aero, snita@aai.aero, gmitchq@aai.aero

In case of query regarding Bid procedure/ technical support on e-tender portal, if the AAI Help Desk is non responsive, the Bid Manager may be contacted at email id pbaleshwar@aai.aero.

All bid procedure related queries be referred to HELP DESK as above and then to Bid Manager only. Please note that no bid procedure related queries should be referred to IEMs.

- 31.4 Once the bidder has submitted the digitally signed file of tender document along with unconditional acceptance as an attachment, he is not permitted to upload any additional file or put any remark(s)/conditions(s) in/along with the Tender Document.

32. PRICES

- 32.1 Rates quoted shall be Indian rupees only and inclusive of all taxes, duties, cess, fee, royalty charges etc. levied under any statute what so ever viz. custom duty in case of imported items, entry tax, taxes levied by local bodies, labour, tools & plants, packing, freight/transportation of items from factory to site, insurance up to site, loading, unloading, hoisting arrangement for installation, fee(s) payable for statutory license/approvals from concern department etc but excluding GST.
- 32.2 Wherever supplies/services involve imports, the same should be identified separately. Basic custom duty and IGST will be paid by AAI by utilizing EPCG license/duty scrip under SEI scheme of GoI and such custom duty amount shall be deducted from the payments made to the contractor.
- 32.3 GST shall be paid to bidder for any taxable supply/services against a valid tax invoice.
- 32.4 The bidder is required to provide Tax type and tax percentage.
- 32.5 The successful bidder shall provide breakup towards material, services and percentage as well as amount of GST applicable, for availing Input Tax Credit (ITC).
- 32.6 Following undertaking is required to be submitted by bidder.
- a) That the bidder is registered under GST and compliant of GST provision.
 - b) In case of non-compliance of GST provisions and blockage of any input credit, the bidder shall be responsible to indemnify AAI.
 - c) That all input credits have been passed on to AAI by the bidder.

33. BG VERIFICATION THROUGH SFMS OF ICICI BANK

- i. The prospective bidders shall submit BG in accordance with the following bank details:

CORPORATE NAME : AIRPORTS AUTHORITY OF INDIA
BANK NAME : ICICI BANK
IFSC CODE : ICIC000007
BG ADVISING MESSAGE : IFN 760COV (BG ISSUE)
IFN 767COV (BG AMEDMENT)
UNIQUE IDENTIFIER CODE : AAIUDAIPUR to be mentioned in
field 7037 of the BG advising
message.

- ii. While submitting the documents to BG issuing bank, the bidder will also submit letter to the issuing bank as per the format provided on Annexure-A at page PR-14 of tender document.
- iii. While submitting the original BG document, the bidder shall ensure to attach the copy of SFMS (Structured Financial Messaging System) BG confirmation message sent by the BG issuing bank to ICICI bank.

Advisory for applicant and its BG issuing Bank Branch: It is to be noted that along with physical BG, AAI have also activated an online facility to view the issued BG cover message transmitted to ICICI Bank through SFMS platform.

- For availability of BG in this platform, it is necessary that BG issuing/amending bank send the BG advice in the form of message format IFN 760COV (BG issuance) / IFN 767COV (BG amendment) via SFMS as provided by RBI.
- Bidder shall notify their bank (BG issuing branch) to update below details at time of submission of BG issuance/amendment request to their respective banks:

BG advising message: IFN 760COV / IFN 767COV via SFMS.

IFSC CODE : ICIC000007

Corporate name: Airports Authority of India

Field number: 7037

Unit identifier number: AAIUDAIPUR

AGM (Engg.-E)
AAI, M.P. Airport, Udaipur
For and on behalf of the Chairman, AAI



GENERAL CONDITIONS OF CONTRACT

AIRPORTS AUTHORITY OF INDIA

AIRPORTS AUTHORITY OF INDIA

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GENERAL GUIDELINES

1. This book of “General Conditions of Contract” is applicable to both types of tenders i. e.” Percentage rate tenders and Item rate tenders”. Accordingly, alternative provisions for conditions Nos. 4, 10 & 12 of the General Rules and Directions are given in this book. The appropriate alternatives will be applicable in specific cases depending on whether this is used for percentage rate tenders or item rate tenders
2. Notice Inviting Tender, Schedules A to F, special conditions/specifications and drawings only will be issued to intending bidders. The standard form will not be issued along with the Tender Documents but the same shall form part of the agreement to be drawn and signed by both parties after acceptance of tender.
3. All blanks are confined to Notice Inviting Tender and Schedules A to F.
4. Authority approving the Notice Inviting Tenders (NIT) shall fill up all the blanks in Notice Inviting Tender and in Schedules B to F before issue of Tender documents.
5. The intending bidders will quote their rates in Schedule A.
6. The proforma for registers and Schedules A to F are only for information and guidance. These are not to be filled in the Standard Form. The Schedules with all blanks, duly filled, shall be separately issued to all intending tenderers.

AIRPORTS AUTHORITY OF INDIA
Item Rate Tender & Contract for Work

Airport : Udaipur

Branch : Engineering

Office of : Sr. Manager (Engg-E)

Tender for the work of “SITC of DG Sets and Replacement of old & Conventional AC units and Other Miscellaneous Works at ACS Pratapgarh.”

- (i) To be submitted/ uploaded upto **(Refer WNIT page No -2)** hours on____in CPPP Portal.
- (ii) To be opened in presence of tenders who may be present on_____*

_____ hrs. in the office of _____

Issued to -----*

Signature of officer issuing documents -----*

Designation -----*

Date of issue -----*

*(ii) Not applicable for e-tendering

TENDER

I/We have read and examined the notice inviting tender, schedule, A, B, C, D, E & F, Specifications applicable, Drawings & Designs, General Rules and Directions, Conditions of Contract, Clauses of contract, Special conditions, Schedule of Rates & other documents and Rules referred to in the conditions of contract and all other contents in the tender document for the work.

I/We hereby tender for the execution of the work specified for the Chairman Airports Authority of India within the time specified in Schedule 'F', viz., schedule of quantities and in accordance in all respects with the referred to in Rule-1 of General Rules and Directions and in Clause 11 of the Conditions of contract and with such material as are provided for, by and in respects in accordance with, such conditions so far as applicable.

We agree to keep the tender open for Ninety (90) days from the date of opening of financial bid in 3/2 bid system and not to make any modifications in its terms and conditions.

I/ We undertake and confirm that for eligibility of similar work(s) has / have not been got executed on back to back basis through another contractor. Further that, if such a violation comes to the notice of AAI, then I/We shall accept the decision of AAI if we are debarred for tendering in AAI in future works. Also , if such a violation comes to the notice of AAI before date of start of work, the Engineer-in-Charge shall be free to forfeit the entire amount of Earnest Money Deposit / Performance Guarantee.

I/ We further undertake and confirm that information/ documents submitted by us are genuine, and if at any stage such documents/ information found false, then we shall be liable for debarment from tendering in AAI, and any other appropriate legal action.



A sum of **Rs. 74,925.00 (Rupees: Seventy Four Thousand Nine Hundred Twenty Five Only)** is here by submitted as online on CPP portal only. ~~If I/we, fail to furnish the prescribed performance bank guarantee within prescribed period, I/we agree that the said Chairman, A.A.I. or his successors in office shall without prejudice to any other right or remedy, be at liberty to take appropriate action as per terms of contract. Further, if I/ we fail to commence work as specified, I/we agree that Chairman, A.A.I. or his successors in office shall without prejudice to any other right or remedy available in law, be at liberty to suspend for one year and shall not eligible to bid for AAI tender from date of issue of suspension order, otherwise the said earnest money shall be retained by AAI towards security deposit to execute all the works referred to in the tender documents upon the terms and conditions contained or referred to therein and to carry out such deviations as may be ordered, upto maximum of the percentage mentioned in Schedule 'F' and those in excess of that limit at the rates to be determined in accordance with the provision contained in Clause 12.2 and 12.3 of the tender form. Further, I/We agree that in case of forfeiture of earnest money or Performance Guarantee or both Earnest Money & Performance Guarantee as aforesaid, I/We shall be debarred for participation in the re-tendering process of the work.~~

I/We hereby declare that I/we shall treat the tender documents drawings and other records connected with the work as secret/confidential documents and shall not communicate information/derived there from to any person other than a person to whom I/we am/are authorised to communicate the same or use the information in any manner prejudicial to the safety of the State.

Date :

Signatures of Contractor :

Witness:

Postal Address

Occupation:

ACCEPTANCE

The above tender (as modified by you as provided in the letters mentioned hereunder) is accepted by competent authority on behalf of the Chairman, Airports Authority of India for sum of Rs. _____ (Rupees _____).

The letters referred to below shall form part of this contract Agreement:-

- (i)
- (ii)
- (iii)

For & on behalf of Chairman, Airports
Authority of India
Signature-----

Designation-----

Date-----



AIRPORTS AUTHORITY OF INDIA

General Rules & Directions

1.	General Rules & Directions	All work proposed for execution by contract are notified in a form of invitation to tender pasted in public places /CPP Portal and signed by the officer inviting tender or by publication in Newspapers and posted on AAI web-site and CPP Portal http://etenders.gov.in and www.aai.aero (for reference only). This form will state the work to be carried out, as well as the date for submitting and opening tenders and the time allowed for carrying out the work, also the amount of earnest money to be deposited with the tender, and the amount of the security deposit and Performance guarantee to be deposited by the successful tenderer and the percentage, if any, to be deducted from bills. Copies of the specifications, designs and drawings and any other documents required in connection with the work signed for the purpose of identification by the officer inviting tender shall also be open for inspection by the contractor at the office of officer inviting tender during office hours.
2.		In the event of the e-tender being submitted by a firm, it must be digitally signed. Such tender will be treated as signed tender. For physical tender it must be signed separately by each partner thereof or in the event of the absence of any partner, it must be signed on his behalf by a person holding a power-of-attorney authorizing him to do so, such power of attorney to be produced with the tender, and it must disclose that the firm is duly registered under the Indian Partnership Act, 1952.
2. (A)		In case of the tender submitted by a Joint Venture / Consortium, a copy of joint venture / consortium agreement in the specified proforma defining the lead partner should be submitted. The lead partner shall sign all the documents in respect of the works. The documents signed by any other person or firm other than the lead partner shall not be entertained.
3.		Receipts for payment made on account of work, when executed by a firm, must also be signed by all the partners, except where contractors are described in their tender as a firm, in which case the receipts must be signed in the name of the firm by one of the partners, or by some other person having due authority to give effectual receipts for the firm. Bank details shall be furnished by the firm through an application duly signed by all partners for payment to the firm through bank transfer.
4.	Applicable for item Rate Tender only .	Any person who submits a tender shall fill up the usual printed form, stating at what rate he is willing to undertake each item of the work. Tenderers, which propose any alteration in the work specified in the said form of invitation to tender, or in the time allowed for carrying out the work, or which contain any other conditions of any sort, including conditional rebates, will be summarily rejected. No single tender shall include more than one work, but contractors who wish to tender for two or more works shall submit separate tender for each. Tender shall have the name and number of the works to which they refer, written on the envelopes. The rate(s) must be quoted in decimal coinage. Amount must be quoted in full Rupees by ignoring 50 paise and considering more than 50 paise as Rupee one. In case the lowest tendered amount (worked out on the basis of quoted rate of Individual items) of two or more contractors is same, then such lowest contractors will be asked to submit revised offer quoting rate of each item of the schedule of quantity for all sub sections/sub heads as the case may be, but the revised quoted rate of each item of schedule of quantity for all sub sections/sub heads should not be higher than their respective original rate quoted already at the time of submission of tender. The lowest tender shall be decided on the basis of revised offer.



		If the revised tendered amount (worked out on the basis of quoted rate of individual items) of two or more contractors received in revised offer is again found to be equal, then the lowest tender, among such contractors, shall be decided by draw of lots in the presence of Jt. GM (Engg)/ DGM (Engg)/ AGM (Engg)/ Sr Manager (Engg) in-Charge of major and minor component(s) work and the lowest contractors those have quoted equal amount of their tenders. In case of any such lowest contractor in his revised offer quotes rate of any item more than their respective original rate quoted earlier at the time of submission of tender, then such revised offer shall be treated invalid. Such case of revised offer of the lowest contractor or case of refusal to submit revised offer by the lowest contractor shall be treated as withdrawal of his tender before acceptance and shall not be eligible to bid for AAI tenders for one year from date of issue of suspension order. In case all the lowest contractors those have same tendered amount (as a result of their quoted rate of individual items), refuse to submit revised offers, then tenders are to be recalled after Suspension for one year and shall not be eligible to bid for AAI tender from date of issue of suspension order of each lowest contractors. Contractor, whose earnest money is forfeited because of non-submission of revised offer, or quoting higher revised rate(s) of any item(s) than their respective original rate quoted already at the time of submission of his bid shall not be allowed to participate in the retendering process of the work. Note: Till the time software supports the above provisions, revised offers from tenderers forming the tie shall be obtained and procedure prescribed for "Restricted call of tenders" shall be adopted (for e-tenders).
4. (A)	Applicable for Percentage Rate Tender only.	In case of Percentage Rate Tenders, tenderer shall fill up the usual printed form stating at what percentage below/above (in figures as well as in words) the estimated cost given in Schedule of Quantities at Schedule-A, he will be willing to execute the work. The tender submitted shall be treated as invalid if; 1. The contractor does not quote percentage above/below on the total amount of tender or any section/sub-head of the tender. 2. The percentage above/below is not quoted in figures & words both on the total amount of tender or any section/sub-head of the tender. 3. The percentage quoted above/below is different in figures and words on the total amount of tender or any section/sub-head of the tender. Tenders, which propose any alteration in the work specified in the said form of invitation to tender, or in the time allowed for carrying out the work, or which contain any other conditions of any sort including conditional rebates, will be summarily rejected. No single tender shall include more than one work, but contractors who wish to tender for two or more works shall submit separate tender for each. Tender shall have the name and number of the works to which they refer, written on the envelopes. In case the lowest tendered amount (estimated cost + amount worked on the basis of percentage above/below) of two or more bidders is same, such lowest bidders will be asked to submit revised offer in the form of letter mentioning percentage above/ below on estimated cost of tender including all sub sections/sub heads as the case may be, but the revised percentage quoted above/below on tendered cost or on each sub section/ sub head should not be higher than the percentage quoted at the time of submission of tender. The lowest tender shall be decided on the basis of revised offers. In case any of such contractor refuses to submit revised offer, the lot shall be treated as withdrawal of his tender before acceptance and 50% of earnest money shall be forfeited. If the revised tendered amount of two more bidders received in revised offer is again found to be equal, the lowest tender, among such bidders, shall be decided



		by draw of lots in the presence of Jt. GM (Engg)/ DGM (Engg)/ AGM (Engg)/ Sr Manager (Engg) in-Charge of work & the lowest bidders those who have quoted equal amount of their tenders. In case all the lowest bidders those have quoted same tendered amount, refuse to submit revised offers, then tenders are to be recalled after forfeiting 50% of EMD of each bidder. Bidders, whose earnest money is forfeited because of non-submission of revised offer, shall not be allowed to participate in the re-tendering process of the work. Notwithstanding the time software supports the above provisions, revised offers from tenderers forming the tie shall be obtained and procedure prescribed for "Restricted call of tenders" shall be adopted.
4. (B)		In case the lowest tendered amount (estimated cost $\pm$ amount worked on the basis of percentage above/below) of two or more contractor is same, such lowest contractor will be asked to submit sealed revised offer in the form of letter mentioning percentage above/below on estimated cost of tender including all sub section/sub heads as the case may be, but the revised percentage quoted above/below on tendered cost or on each sub section /sub head should not be higher than the percentage quoted at the time of submission of tender. The lowest tender shall be decided on the basis of revised offer. In case any of such contractor refuses to submit revised offer, then it shall be treated as withdrawal of his tender before acceptance and 50% of earnest money shall be forfeited. If the revised tendered amount of two or more contractors received in revised offers is again found to be equal, the lowest tender, among such contractor, shall be decided by draw of lots in the presence of Jt.GM(Engg)/DGM (Engg), AGM (Engg)/Sr. Manager (Engg) in-Charge of major & minor component(s) of work & the lowest bidders those who have quoted same tendered amount of their tenders. In case all the lowest contractors those have quoted same tendered amount, refuse to submit revised offers, then tenders are to be recalled after forfeiting 50% of EMD of each bidder. Bidders, whose earnest money is forfeited because of non submission of revised offer, shall not be allowed to participate in the re-tendering process of the work.
5.		The officer inviting tender or his duly authorized representative, will open tenders in the presence of any intending bidders who may be present at the time, and will enter the amounts of the several tenders in a comparative statement in a suitable form. In the event of a tender being accepted, a receipt for the earnest money shall there upon be given to the contractor who shall there upon for the purpose of identification sign copies of the specifications and other documents mentioned in Rule – I. In the event of a tender being rejected, the earnest money shall there upon be returned to the contractor remitting the same, without any interest.
6.		The officer inviting tenders shall have the right of rejecting all or any of the tenders and will not be bound to accept the lowest or any other tender.
7.		The receipt of an accountant or clerk for any money paid by the bidder towards tender fee will not be considered as any acknowledgement or payment to the officer inviting tender and the bidder shall be responsible for seeing that he procures a receipt signed by the officer inviting tender or a duly authorised cashier.
8.		The memorandum of work tendered for and the schedule of materials to be supplied by the department and their issue-rates, shall be filled and completed in the office of the officer inviting tender before the tender form is issued. If a form is issued to an intending bidder without having been so filled in and incomplete, he shall request the officer to have this done before he completes and delivers his tender.



9.		The bidders shall sign a declaration under the official Secret Act 1923, for maintaining secrecy of the tender documents drawings or other records connected with the work given to them. The unsuccessful bidders shall return all the drawings given to them.
9(A).		Use of correcting fluid anywhere in tender document is not permitted. Such tender is liable for rejection. If there is any correction it should be cut with a straight line and should be initialed and cello tape to be provided on all the rates quoted in case of physical tenders.
10.	Applicable for Item Rate Tender Only.	In the case of Item Rate Tenders, only rates quoted shall be considered. Any tender containing percentage below / above the rates quoted is liable to be rejected. Rates quoted by the bidder in item rate tender in figures and words shall be accurately filled in so that there is no discrepancy in the rates written in figures and words. However, - if a discrepancy is found between rates in figures and in words, then the rates which correspond with the amount worked out by the bidder shall unless otherwise proved be taken as correct. - If the amount of an item is not worked out by the bidder or it does not correspond with the rates written either in figures or in words, then the rates quoted by the contractor in words shall be taken as correct. - Where the rates quoted by the bidder in figures and in words tally, but the amount is not worked out correctly, the rates quoted by the contractor will unless otherwise proved be taken as correct and not the amount. - In event no rate has been quoted for any item(s) leaving space blank both in figure(s) and word(s) or cancelled the quoted rate in figure(s), and word(s) but the amount corresponding to the item(s) is worked out by the bidder and added to the grand total, then rate(s) of the item(s) shall be derived from the amount(s) quoted by the contractor against such item(s). - In event no rate has been quoted for any item(s), leaving space both in figure(s), word(s), and amount blank, it will be presumed that the bidder has included the cost of this/these item(s) in other items and rate for such item(s) will be considered as zero and work will be required to be executed accordingly. Sub para i to iv above shall not be applicable in case of e-tendering.
	Applicable for percentage rate tender only .	In case of percentage Rate Tenders only percentage quoted shall be considered. Any tender containing item rates is liable to be rejected. Percentage quoted by bidder in percentage rate tender shall be accurately filled in figures and words, so that there is no discrepancy. However, if the bidder has worked out the amount of the tender and if any discrepancy is found in the percentage quoted in words and figures, - The percentage which corresponds with the amount worked out by the bidder shall, unless otherwise proved, be taken as correct. - If the amount of the tender is not worked out by the bidder or it does not correspond with the percentage written either in figures or in words, then the percentage quoted by the bidder in words shall be taken as correct. - Where the percentage quoted by the bidder in figures and in words tally but the amount is not worked out correctly, the percentage quoted by the bidder will, unless otherwise proved, be taken as correct and not the amount.
11.		In the case of any tender where unit rate of any item / items appear unrealistic, such tender will be considered as unbalanced and in case the tenderer is unable to provide satisfactory explanation, such a tender is liable to be disqualified and rejected.



12.	Applicable for Item Rate Tender only.	All rates shall be quoted on the tender form. The amount for each item should be worked out and requisite totals given. Special care should be taken to write the rates in figures as well as in words and the amount in figures only, in such a way that interpolation is not possible. The total amount should be written both in figures and in words. In case of figures, the word 'Rs' should be written before the figure of rupees and word 'P' after the decimal figures, e.g. 'Rs. 2.15 P' and in case of words, the word 'Rupees' should precede and the word 'Paise' should be written at the end. Unless the rate is in whole rupees and followed by the word 'only' it should invariably be upto two decimal places. While quoting the rate in schedule of quantities, the word 'only' should be written closely following the amount and it should not be written in the next line.
12(A).	Applicable for percentage rate tender only.	In Percentage Rate Tender, the tenderer shall quote percentage below the base rate (in figures as well as in words) at which he will be willing to execute the work. He shall also work out the total amount of his offer and the same shall be written in figures as well as in words in such a way that no interpolation is possible. In case of figures, the word 'Rs' should be written before the figure of rupees and work 'P' after the decimal figures, e.g. 'Rs. 2.15 P' and in case of words, the word 'Rupees' should precede and the word 'Paise' should be written at the end. (quoting of rates in Paise is not applicable in e-tenders)
13	Acceptance abnormally low quoted bid (Capital & Revenue Expenditure Contract)	An Abnormally Low Bid is one in which the Bid price, in combination with other elements of the Bid, appears so low that it raises material concern as to the capability of the Bidder to perform the contract at the offered price. Processing of such bid shall be as follows: i) The Bid Manager shall seek written clarifications from the lowest Bidder with approval of the tender accepting authority, including detailed price analyses of its Bid price in relation to scope of work, resource mobilization, allocation of risks and responsibilities and any other requirements of the bids document. ii) If, after evaluating the price analyses, the Tender Accepting Authority determines that the Bidder has substantially failed to demonstrate its capability to deliver the contract at the offered price, then the bid/ proposal may be rejected. iii) If the contract is awarded, the contract should be closely monitored that final payments in such cases do not abnormally increase due to extra items. Further, there is no abnormal increase in quantities of the item for which contractors have initially quoted very high rates.
13A		In case the contractor does not carry out the work on ALQ items as per schedule or as per NIT specifications, the Engineer-in-charge shall issue a letter to the contractor to comply its obligations as per NIT. If ALQ items are not executed, Engineer-in-charge shall also give one reminder letter 10 days of 1 st letter and if contractor still does not start work on ALQ items, then bank guarantee i.e. QPBG should be cashed and work should be got executed through another agency at his risk and cost.
14		i. The bidder, whose tender is accepted, will be required to furnish performance guarantee of 5% (Five Percent) of the tendered amount within the period specified in Schedule F. This guarantee shall be in the form of Fixed Deposit Receipts or Guarantee Bonds of any Scheduled Bank but not co-operative or Gramin Bank, in accordance with the prescribed form, provided confirmatory advice is enclosed. ii. The bidder, whose tender is accepted, will also be required to furnish by way of Security Deposit for the fulfillment of his contract, an amount equal to 5% of the contract amount of the work.



		iii. In works where condition of submission of Performance Guarantee is not applicable, the security deposit @ 10% of the tendered value shall be deducted. iv. The Security deposit (under ii & iii above) will be collected by deductions from the running bills of the contractor at the rates mentioned above and the earnest money deposited at the time of tenders, will be treated as a part of the Security Deposit. v. Security deposit will also be accepted in form of Fixed Deposit Receipts / Guarantee Bonds of any Scheduled Bank but not co-operative or Gramin Bank in accordance with the prescribed form, provided confirmatory advice is enclosed.
15.		On acceptance of the tender, the name of the accredited representative(s) of the contractor who would be responsible for taking instructions from the Engineer-in-Charge shall be communicated in writing to the Engineer-in-Charge.
16.		1. All Tendered rates should be inclusive of all taxes etc. except GST. Wherever supplies/services involve imports, the same should be identified separately. Basic Custom Duty will be paid by AAI by utilizing EPCG license/duty scrip under SEI scheme of GOI. GST shall be paid to bidder for any taxable supply/services against a valid Tax Invoice. 2. The bidder is required to provide Tax type and Tax percentage in all bids other than that of civil works. 3. In case of composite works having component of SITC items, such as Electrical & Mechanical Installation, Airport System. Security, IT, Furniture etc should be identified separately with value of goods and services, Tax Rate, amount of Tax so as to enable AAI to claim Input Tax Credit on such items. 4. In case of change in rate of Tax or any provision relating to levy of Tax resulting in increase in burden of Tax on the contractor, the contractor shall be entitled to receive any compensation for such increase in quantum of Tax payable by the contractor. Similarly recovery shall be made from the contractor on account of decrease of rate of Tax or any provision relating to levy of Tax.
17.		The contractor/ bidder shall give a list of AAI employees related to him.
18.		The tender for the work shall not be witnessed by a contractor or contractors/ bidders who himself / themselves has / have tendered or who may and has / have tendered for the same work. Failure to observe this condition would render, tenders of the contractors tendering, as well as witnessing the tender, liable to summary rejection.
19.		The tender for composite work includes, in addition to building work, all other works such as sanitary and water supply installations drainage installation, electrical work, horticulture work, roads and paths etc. The tenderer apart from being a registered contractor (B&R) of appropriate class, must associate himself with agencies of appropriate class which are eligible to tender for sanitary and water supply drainage, electrical and horticulture works in the composite tender.
20.		The contractor/ bidder shall submit list of works completed in last 5 years & all as which are in hand (in progress) in the following form for assessing bidding capacity of the bidders:-

Name of work	Name and particulars of Office where work is being executed	Value of work	Position of works in progress	Remarks
1	2	3	4	5



21		The contractor/bidder shall comply with the provisions of the Apprentices Act 1961, and the rules and orders issued there under from time to time. If he fails to do so, his failure will be a breach of the contract and the Executive Director (Engg.) may in his discretion, without prejudice to any other right or remedy available in law, cancel the contract. The contractor shall also be liable for any pecuniary liability arising on account of any violation by him of the provisions of the said Act.
22		If complete site is available for work, the work shall be completed in the manner specified here in special condition of contract and NIT specifications. Note: In such case para 23 below may be deleted by NIT approving authority
23		If complete site is not available for taking up the work, the same shall be made available in phases. The scope of work covered in each phase, time for completion of work in each phase and methodology of taking over completed work in phased manner has been specified under special conditions of contract. The completion time for each phase shall be applicable as indicated in tender documents. The work shall also be taken over by Engineer-In-Charge in phases. The warranty for the works executed in each phase shall be applied independently w.e.f. date of completion /taking over of individual phase. Note: In such case para 22 above may be deleted by NIT approving authority



CONDITIONS OF CONTRACT

Definitions :

1.		The contract means the documents forming the tender and acceptance thereof and the formal agreement executed between the competent authority on behalf of the Chairman, Airports Authority of India and the Contractor, together with the documents referred to therein including these conditions, the specifications, designs, drawings and instructions issued from time to time by the Engineer-in-Charge and all these documents taken together, shall be deemed to form one contract and shall be complimentary to one another.
2.		In the contract, the following expressions shall, unless the context otherwise requires, have the meanings, hereby respectively assigned to them :-
		i. The expression works or work shall, unless there be something either in the subject or context repugnant to such construction, be construed and taken to mean the works by or by virtue of the contract contracted to be executed whether temporary or permanent, and whether original, altered, substituted or additional. ii. The site shall mean the land / or other places on, into or through which work is to be executed under the contract or any adjacent land, path or street through which work is to be executed under the contract or any adjacent land, path or street which may be allotted or used for the purpose of carrying out the contract. iii. The Contractor/tenderer/bidders shall mean the individual, firm or company whether incorporated or not, Joint Venture / Consortium undertaking the works and shall include the legal personal representative of such individual or the persons constituting such firm or company, or the successors of such firm or company and the permitted assignees of such individual, firm or company. iv. The Chairman means the Chairman Airports Authority of India and his Successors. v. The Engineer-in-Charge means the Engineering Officer who shall supervise and be incharge of the work and who shall sign the contract on behalf of the Chairman, Airports Authority of India as mentioned in Schedule 'F' hereunder. vi. AAI or Airports Authority of India shall mean the Chairman Airports Authority of India. vii. The terms Member (Planning) means the head of Department of Engineering, Airports Authority of India. viii. Accepting Authority shall mean the authority mentioned in Schedule 'F'. ix. Excepted Risk are risks due to riots (other than those on account of contractor's employees), war (whether declared or not) invasion, act of foreign enemies, hostilities, civil war, rebellion revolution, insurrection, terrorism, military or usurped power, any acts of Airports Authority of India, damages from aircraft, acts of God, such as earthquake, lightening and unprecedented floods, and other causes over which the contractor has no control and accepted as such by the Accepting Authority or causes solely due to use or occupation by Airports Authority of India of the part of the works in respect of which a certificate of completion has been issued or a cause solely due to Airports Authority of India's faulty design of works. x. Market Rate shall be the rate as decided by the Engineer-in-Charge on the basis of the prevailing cost of materials and labour at the site where the work is to be executed plus the percentage mentioned in Schedule 'F' to cover, all overheads and profits. Provided that no extra overheads and profits shall be payable on the parts of works assigned to other agency(s) by the contractor as per terms of contract.



		xi. Schedule(s) referred to in these conditions shall mean the relevant schedule(s) annexed to the tender papers or the standard Schedule of Rates of the government mentioned in Schedule 'F' hereunder, with the amendments thereto issued upto the date of receipt of the tender. xii. Department means Airports Authority of India, which invites tender on behalf of Chairman, Airports Authority of India. xiii. Tendered value means the value of the entire work as stipulated in the letter of award.
3.	Scope and Performance	Where the context so requires, words imparting the singular only also include the plural and vice versa. Any reference to masculine gender shall whenever required include feminine gender and vice versa.
4.		Headings and Marginal notes to these General Conditions of Contract shall not be deemed to form part thereof or be taken into consideration in the interpretation or construction thereof or of the contract.
5.		The contractor shall be furnished, free of cost one certified copy of the contract documents except standard specifications, Schedule of Rates and such other printed and published documents, together with all drawings as may be forming part of the tender papers. None of these documents shall be used for any purpose other than that of this contract.
6.	Works to be carried out	The work to be carried out under the Contract shall, except as otherwise provided in these conditions, include all labour, materials, tools, plants, equipment and transport which may be required in preparation of and for and in the full and entire execution and completion of the works. The descriptions given in the Schedule of Quantities (Schedule – A) shall, unless otherwise stated, be held to include wastage on materials, carriage and cartage, carrying and return of empties, hoisting, setting, fitting and fixing in position and all other labours necessary in and for the full and entire execution and completion of the work as aforesaid in accordance with good practice and recognized principles.
7.	Sufficiency of Tender	The Contractor shall be deemed to have satisfied himself before tendering as to the correctness and sufficiency of his tender for the works and of the rates and prices quoted in the Schedule of Quantities, which rates and prices shall, except as otherwise provided, cover all his obligations under the Contract and all matters and things necessary for the proper completion and maintenance of the works.
8.	Discrepancies and Adjustment of Errors	The several documents forming the Contract are to be taken as mutually explanatory of one another, detailed drawings being followed in preference to small scale drawing and figured dimensions in preference to scale and special conditions in preference to General Conditions.
8.1		In the case of discrepancy between the Schedule of Quantities, the Specifications and / or the Drawings, the following order of preference shall be observed :-
		i. Description of Schedule of Quantities. ii. Particular/ technical Specification and Special Condition, if any. iii. Drawings. iv. C P W D Specifications. v. Indian Standard Specifications of B I S./ IRC Code of Practice / ASTM standards. vi. Sound Engineering practice as directed by the Engineer-in-charge, whose decision in this regard shall final and binding on the contractor.
8.2		If there are varying or conflicting provisions made in any one document forming part of the contract, the Accepting Authority shall be the deciding authority with regard to the intention of the document and his decision shall be final and binding on the contractor.
8.3		Any error in description, quantity or rate in Schedule of Quantities or any omission therefrom shall not vitiate the Contract or release the Contractor from



		the execution of the whole or any part of the works comprised therein according to drawings and specifications or from any of his obligations under the contract.
8.4	Payment for similar items with different quoted rates in different subheads of the contract agreement	If the contractor has quoted different rates for the same item appearing in two or more subheads, then the lowest of the rates quoted shall only be considered for payments during execution of work. In case of deviation of quantity of such item, payments shall be made at the lowest quoted rate for quantity executed upto the deviation limit specified in the contract. Beyond the deviation limit the rate shall be derived as per relevant contract provision.
9.	Reverse Auction for purchase tenders	AAI may opt for reverse auction in case of purchase tender if value of supplies put to tender is more than Rs.2Cr.
10.	Signing of Contract	The successful tenderer / contractor, on acceptance of his tender by the Accepting Authority, shall, within 15 days from the stipulated date of start of the work, sign the contract consisting of :
i)		i. The notice inviting tender, all the documents including drawings, if any, forming the tender as issued at the time of invitation of tender and acceptance thereof together with any correspondence leading thereto. ii. Standard AAI Form as mentioned in Schedule 'F' consisting of : a. Various standard clauses with corrections upto the date stipulated in Schedule 'F' alongwith annexures thereto. b. AAI Safety Code. c. Model Rules for the protection of health, sanitary arrangements for workers employed by AAI or its contractors. d. AAI Contractor's Labour Regulations. e. List of Acts and omissions for which fines can be imposed. iii. No payment for the work done will be made unless contract in form of agreement is signed by the contractor.



CLAUSES OF CONTRACT

CLAUSE 1

	Performance Guarantee	This clause is applicable for the works for which the estimated cost put to tender is more than Rs.5 crores.
		i. The contractor shall submit an irrevocable Performance Guarantee of 5% (Five percent) of the Tendered amount in addition to other deposits mentioned elsewhere in the contract for his proper performance of the contract agreement, (notwithstanding and/or without prejudice to any other provisions in the contract) within period specified in Schedule 'F' from the date of issue of award letter. This guarantee shall be in the form of Insurance Surety Bonds, Account Payee Demand Draft, or Bank Guarantee (including e-Bank Guarantee) from any of the Scheduled Commercial Banks (i.e. Indian or Foreign Banks included in the Second Schedule of Reserve Bank of India Act, 1934 excluding Co-Operative/Regional Rural Banks) in accordance with the form annexed hereto. (Appendix-XI).
		ii. Performance guarantee should be furnished within 30 days of issue of award letter. In case the contractor fails to furnish performance guarantee within the stipulated period, no payment will be released to the contractor for the work done in respect of 1 st running account bill. Moreover, interest @10% per annum on performance guarantee amount would be levied (non-refundable) for delayed period of submission.
		iii. The Performance Guarantee shall be initially valid upto the stipulated date of completion plus 180 days beyond that. In case the time for completion of work gets enlarged, the contractor shall get the validity of Performance Guarantee extended to cover such enlarged time for completion of work. After recording of the completion certificate for the work by the competent authority, the performance guarantee shall be returned to the contractor, without any interest. However, in case of contracts involving maintenance of buildings and services / any other work thereafter, 50% of Performance Guarantee shall be retained as Security Deposit as per contract conditions. The same shall be returned on successful completion of commitment year wise proportionately.
		iv. The Engineer-in-Charge shall not make a claim under the performance guarantee except for amounts to which the AAI is entitled under the contract (notwithstanding and/or without prejudice to any other provisions in the contract agreement) in the event of: - Failure by the contractor to extend the validity of the Performance Guarantee as described herein above, in which event the Engineer-in-Charge shall claim the full amount of the Performance Guarantee. - Failure by the contractor to pay the Chairman, AAI any amount due, either as agreed by the contractor or determined under any of the Clause/Conditions of the agreement, within 30 days of the service of notice to this effect by Engineer-in-Charge.
		v. In the event of the contract being determined or rescinded under provision of any of the Clause/Condition of the agreement, the performance guarantee shall be forfeited in full and shall be absolutely at the disposal of the Chairman, AAI.

**CLAUSE 1 A**

	Recovery Security Deposit of	The person/persons whose tender(s) may be accepted (hereinafter called the contractor) shall permit AAI at the time of making any payment to him for work done under the contract to deduct a sum at the rate of 5% of the gross amount of each running and final bill till the sum deducted will amount to security deposit of 5% of the tendered value of the work. Such deductions will be made and held by AAI by way of Security Deposit unless he/they has/have deposited the amount of Security at the rate mentioned above in the form of Bank Guarantee (including e-Bank Guarantee) from any of the Commercial Bank (i.e. Indian or Foreign Banks included in the Second Schedule of Reserve Bank of India Act, 1934 excluding Co-Operative/Regional Rural Banks). In case a Guarantee Bonds of any Bank is furnished by the contractor to the AAI as part of the security deposit and the Bank is unable to make payment against the said Guarantee Bond, the loss caused thereby shall fall on the contractor and the contractor shall forthwith on demand furnish additional security to the AAI to make good the deficit. In works where condition of submission of performance guarantee is not applicable, the security deposit at the rate of 10% (Ten Percent) of gross amount of each running bill shall be deducted instead of 5%, till the sum will amount to security deposit of 10% of the contract value of work. Other conditions shall remain same as stated above. All compensations or the other sums of money payable by the contractor under the terms of this contract may be deducted from, or paid by the sale of a sufficient part of his security deposit or from the interest arising therefrom, or from any sums which may be due to or may become due to the contractor by AAI on any account whatsoever and in the event of his Security Deposit being reduced by reason of any such deductions or sale as aforesaid, the contractor shall within 10 days make good in Fixed Deposit Receipt, Insurance Surety Bonds, Account Payee Demand Draft or Bank Guarantee from any of the Commercial Bank (if deposited for more than 12 months) endorsed in favour of the Airports Authority of India, any sum or sums which may have been deducted from, or raised by sale of his security deposit or any part thereof. The security deposit shall be collected from the running bills and the final bill of the contractor at the rates mentioned above. The security deposit as deducted above can be released against Bank Guarantee issued by any Commercial Bank (i.e. Indian or Foreign Banks included in the Second Schedule of Reserve Bank of India Act, 1934 excluding Co-Operative /Regional Rural Banks), on its accumulations to a minimum of Rs. 5 lakh to the condition amount of such bank guarantee, except last one, shall not be less than Rs. 5 lakh. Note 1: Provided further that the validity of Bank Guarantee shall be in conformity with provisions contained in the clause 17 which shall be extended from time to time depending upon extension of contract under provision of Clause 2 & Clause 5. Note 2: Note 1 above shall be applicable for both clause 1 and 1 A.
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**CLAUSE 1 B**

	Additional Performance Security.	The contractor shall submit an irrevocable additional performance security in the form of an irrevocable Insurance Surety bond, demand draft, bank guarantee issued from Scheduled Commercial Bank (i.e. Indian or Foreign Banks included in the Second Schedule of Reserve Bank of India Act, 1934 excluding Co-Operative /Regional Rural Banks, if the Bid price offered by the selected bidder is lower than 10% of the estimated cost put to tender. This clause shall be binding and enforceable in relation to all works, irrespective of their nature, scope, or value. Additional performance security Amount and Treatment – The additional performance security shall be calculated as below- - Where the bid price is below 10% but not below 20% of the project cost put to bid, the additional performance security percentage shall be incremented by 0.25% for every percentage of bid price below 10% of the project cost put to bid starting at 11% with the additional bid performance security being 0.25% and this additional performance security percentage shall be applied on the bid price; - Where the bid price is below 20% but not below 25% of the project cost put to bid, the additional performance security percentage shall be incremented by 0.50% for every percentage of bid price below 20% of the project cost put to bid starting at 21% with the additional bid performance security being 0.50% and this additional performance security percentage shall be applied on the bid price; - Where the bid price is below 25% but not below 30% of the project cost put to bid, the additional performance security percentage shall be incremented by 0.75% for every percentage of bid price below 25% of the project cost put to bid starting at 26% with the additional bid performance security being 0.75% and this additional performance security percentage shall be applied on the bid price; - Where the bid price is below 30%, the additional performance security percentage shall be incremented by 1% for every percentage of bid price below 30% of the project cost put to bid starting at 31% with the additional bid performance security being 1% and this additional performance security percentage shall be applied on the bid price; - The additional performance security percentage shall be rounded off to the next lower percentage based on whether the decimal point of the percentage of bid price is below 0.5% or next higher percentage based on whether the decimal point of the percentage of bid price is 0.5% or more. - All matters pertaining to validity, extension, claims, forfeiture, and any other conditions in relation to the additional performance security shall be governed by the provisions of Clause 1: Performance Security.
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Clause 2

	Compensation for Delay	If the contractor fails to maintain the required progress in terms of clause 5 or to complete the Work and clear the site on or before the contract or justified extended date of completion as per clause 5(excluding any extension under clause 5.5) as well as any extension granted under clause 12 and 15, he shall, without prejudice to any other right or remedy available under the law to the AAI on account of such breach, pay as compensation the amount calculated at the rates stipulated below as the authority specified in schedule 'F' may decide on the amount of Tendered Value of the work for every completed day/month (as determined) that the progress remains below that specified in Clause 5 or that the work remains incomplete. This will also apply to items or group of items for which a separate period of completion has been specified.
	i) Compensation for delay of work	If the completion of work is delayed due to reasons attributed to contractor, AAI shall be entitled for compensation for delay as detailed below : i. For works costing upto Rs. 10.00 Lac: 1.0% (one percent) of tendered value per week of delay or lesser amount as decided by the competent authority subject to a maximum of 10% of contract value. ii For the works costing more than Rs 10 Lac 0.5% (half percent) of tendered value per week of delay or lesser amount as decided by the competent authority subject to a maximum of 10% of the tendered value.
		Provided always that the total amount of compensation for delay to be paid under this condition shall not exceed 10% of the Tendered Value of work or of the Tendered Value of the Sectional part of work as mentioned in schedule 'F' for which a separate period of completion is originally given. In case no compensation has been decided by the authority in Schedule 'F' during the progress of work, this shall be no waiver of right to levy compensation by the said authority if the work remains incomplete on final justified extended date of completion. If the Engineer in Charge decides to give further extension of time allowing performance of work beyond the justified extended date, the contractor shall be liable to pay compensation for such extended period. If any variation in amount of contract takes place during such extended period beyond justified extended date and the contractor becomes entitled to additional time under clause 12, the net period for such variation shall be accounted for while deciding the period for levy of compensation. However, during such further extended period beyond the justified extended period, if any delay occurs by events under sub clause 5.2, the contractor shall be liable to pay compensation for such delay. Provided that compensation during the progress of work beyond the justified extended date of completion for delay under this clause shall be for non-achievement of sectional completion or part handing over of work on stipulated/justified extended date for such part work or if delay affects any other works/services. This is without prejudice to right of action by Engineer-in-



		Charge under clause 3 for delay in performance and claim of compensation under that clause. In case action under clause 2 has not been finalized and the work has been determined under clause 3, the right of action under this clause shall remain post determination of contract but levy of compensation shall be for days the progress is behind the schedule on date of determination, as assessed by the authority in schedule 'F', after due consideration of justified extension. The compensation for delay, if not decided before the determination of contract, shall be decided after of determination of contract. The amount of compensation may be adjusted or set-off against any sum payable to the Contractor under this or any other contract with AAI. In case, the contractor does not achieve a particular milestone mentioned in schedule F, or the re-scheduled milestone(s) in terms of Clause 5.4, the amount shown against that milestone shall be withheld, to be adjusted against the compensation levied as above. With-holding of this amount on failure to achieve a milestone, shall be automatic without any notice to the contractor. However, if the contractor catches up with the progress of work on the subsequent milestone(s), the withheld amount shall be released. In case the contractor fails to make up for the delay in subsequent milestone(s), amount mentioned against each milestone missed subsequently also shall be withheld. However, no interest, whatsoever, shall be payable on such withheld amount.
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Clause 2A

	Incentive for early completion	In case, the contractor completes the work ahead of stipulated date of completion so provided in 'Schedule F', a bonus @ 1% (one per cent) of the tendered value per month computed on pro-rata basis, shall be payable to the contractor, subject to a maximum limit of 5% (five per cent) of the tendered value. The amount of bonus payable, shall be paid along with final bill after completion of work. Bonus/ Incentive shall be applicable for the contract completed before stipulated dated of completion and shall not be applicable for the contract extended beyond the stipulated period even with justified hindrance and without any action of compensation for delay. This clause shall not be applicable for the works which estimated cost put to tender is less than Rs. 50.00 Cr.
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Clause 2B

	Release of withheld amount against compensation	Withheld amount towards compensation for delay over and above Rs. 50.00 lacs, can be released against Bank Guarantee (on the format given by AAI) or in the form of fixed deposit receipt or guarantee bond in any Schedule Bank but not in co-operative or Gram Bank pending realization or case of extension of time by competent authority as per delegation of powers. Concerned Executive Director (Engg) will authorize such action on receipt of proposal from the Engineer-In-Charge through proper channel.
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Clause 3

	When Contract can be Determined	Subject to other provisions contained in this clause, the Engineer-in-Charge may, without prejudice to his any other rights or remedy against the contractor in respect of any delay, inferior workmanship, any claims for damages and/or any other provisions of this contract or otherwise, and whether the date of completion has or has not elapsed, by notice in writing absolutely determine the contract in any of the following cases:
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		i. If the contractor having been given a notice by the Engineer-in-Charge in writing to rectify, reconstruct or replace any defective work or that the work is being performed in an inefficient or otherwise improper or un-workman like manner shall omit to comply with the requirement of such notice for a period of seven days thereafter. ii. If the contractor has, without reasonable cause, suspended the progress of the work or has failed to proceed with the work with due diligence and continues to do so after a notice in writing of seven days from the Engineer-in-Charge. iii. If the contractor fails to complete the work or section of work with individual date of completion on or before the stipulated or justified extended date on or before such date of completion, and the Engineer in Charge without any prejudice to any other right or remedy under any other provision in the contract has given further reasonable time in a notice given in writing in that behalf as either mutually agreed or in absence of such mutual agreement by his own assessment making such time essence of contract and in the opinion of Engineer in Charge, the contractor will be unable to complete the same or does not complete the same within the period specified. iv. If the contractor persistently neglects to carry out his obligations under the contract and / or commits default in complying with any of the terms and conditions of the contract and does not remedy it or take effective steps to remedy it within 7 days after a notice in writing is given to him in that behalf by the Engineer-in-Charge. v. If the contractor shall offer or give or agree to give to any person in AAI service or to any other person on his behalf any gift or consideration of any kind as an inducement or reward for doing or forbearing to do or for having done or forborne to do any act in relation to the obtaining or execution of this or any other contract for AAI. vi. If the contractor shall enter into a contract with Airports Authority of India in connection with which commission has been paid or agreed to be paid by him or to his knowledge, unless the particulars of any such commission and the terms of payment thereof have been previously disclosed in writing to the Engineer-in-charge. vii. If the contractor shall obtain a contract with AAI as a result of wrong tendering or other non-bonafide methods of competitive tendering or commits any breach of Integrity Pact. viii. If the contractor being an individual, or if a firm, any partner thereof shall at any time be adjudged insolvent or have a receiving order or order for administration of his estate made against him or shall take any proceedings for liquidation or composition (other than a voluntary liquidation for the purpose of amalgamation or reconstruction) under any Insolvency Act for the time being in force or make any conveyance or assignment of his effects or composition or arrangement for the benefit of his creditors or purport so to do, or if any application be made under any Insolvency Act for the time being in force for the sequestration of his estate or if a trust deed be executed by him for benefit of his creditors. ix. If the contractor being a company shall pass a resolution or the court shall make an order that the company shall be wound up or if a receiver or a manager on behalf of a creditor shall be appointed or if circumstances shall arise which entitle the court or the creditor to appoint a receiver or a manager or which entitle the court to make a winding up order. x. If the contractor shall suffer an execution being levied on his goods and allow it to be continued for a period of 21 days. xi. If the contractor assigns (excluding part(s) of work assigned to other
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		agency(s) by the contractor as per terms of contract), transfers, sublets (engagement of labour on a piece-work basis or of labour with materials not to be incorporated in the work, shall not be deemed to be subletting) or otherwise parts with or attempts to assign, transfer, sublet or otherwise parts with the entire works or any portion thereof without the prior written approval of the Engineer-in-Charge. When the contractor has made himself liable for action under any of the cases aforesaid, the Engineer-in-Charge on behalf of the Chairman, AAI shall have powers : a. To determine the contract as aforesaid so far as performance of work by the Contractor of work is concerned (of which determination notice in writing to the contractor under the hand of the Engineer-in-Charge shall be conclusive evidence). Upon such determination, the Earnest Money Deposit, Security Deposit already recovered and Performance Guarantee under the contract shall be liable to be forfeited and shall be absolutely at the disposal of the AAI. b. After giving notice to the contractor to measure up the work of the contractor and to take such whole, or the balance or part thereof, as shall be un-executed out of his hands and to give it to another contractor or any other means to complete the work. The contractor, whose contract is determined as above, shall not be allowed to participate in the tendering process for the balance work. In the event of above courses being adopted by the Engineer-in-Charge, the contractor shall have no claim to compensation for any loss sustained by him by reasons of his having purchased or procured any materials or entered into any engagements or made any advances on account or with a view to the execution of the work or the performance of the contract. And in case action is taken under any of the provision aforesaid, the contractor shall not be entitled to recover or be paid any sum for any work thereof or actually performed under this contract unless and until the Engineer-in-Charge has certified in writing the performance of such work and the value payable in respect thereof and he shall only be entitled to be paid the value so certified.
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CLAUSE 3 A

		In case, the work cannot be started due to reasons not within the control of the contractor within 1/8th of the stipulated time for completion of work or one month whichever is higher, either party may close the contract by giving notice to the other party stating the reasons. In such eventuality, the Earnest Money Deposit and the Performance Guarantee of the contractor shall be refunded within 30 days. Neither party shall claim any compensation for such eventuality. This clause is not applicable for any breach of the contract by either party.
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CLAUSE 3 B:

	Debarment of Contractor	(i) Contractor may be debarred if it is determined under breached the Integrity Pact of clause 41(a) and Code of Integrity of clause 41(b). (ii) Contractor can also be debarred for the reasons like supply of sub-standard material, non-supply of material, abandonment of work, sub-standard quality of work, poor/ unsatisfactory performance. (iii) The period of debarment shall be upto two years.
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CLAUSE 4



	Contractor liable to pay compensation even if action not taken under Clause-3	In any case in which any of the powers conferred upon the Engineer-in-Charge by Clause-3 thereof, shall have become exercisable and the same are not exercised, the non-exercise thereof shall not constitute a waiver of any of the conditions hereof and such powers shall notwithstanding be exercisable in the event of any future case of default by the contractor and the liability of the contractor for compensation shall remain unaffected. In the event of the Engineer-in-Charge putting in force all or any of the powers vested in him under the preceding clause he may, if he so desires after giving a notice in writing to the contractor, take possession of (or at the sole discretion of the Engineer-in-Charge which shall be final and binding on the contractor) use as on hire (the amount of the hire money being also in the final determination of the Engineer-in-Charge) all or any tools, plant, materials and stores, in or upon the works, or the site thereof belonging to the contractor, or procured by the contractor and intended to be used for the execution of the work/ or any part thereof, paying or allowing for the same in account at the contract rates, or, in the case of these not being applicable, at current market rates to be certified by the Engineer-in-Charge, whose certificate thereof shall be final, and binding on the contractor, clerk of the works, foreman or other authorised agent to remove such tools, plant, materials, or stores from the premises (within a time to be specified in such notice) in the event of the contractor failing to comply with any such requisition, the Engineer-in-Charge may remove them at the contractor's expense or sell them by auction or private sale on account of the contractor and his risk in all respects and the certificate of the Engineer-in-Charge as to the expenses of any such removal and the amount of the proceeds and expenses of any such sale shall be final and conclusive against the contractor.
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CLAUSE 5

	Time and Extension for Delay	The time allowed for execution of the Works as specified in the Schedule 'F' or the extended time in accordance with these conditions shall be the essence of the Contract. The execution of the works shall commence from such time period as mentioned in schedule 'F' or from the date of handing over of the site whichever is later. If the Contractor commits default in commencing the execution of the work as aforesaid, AAI shall without prejudice to any other right or remedy available in law, be at liberty to forfeit the earnest money & performance guarantee absolutely.
5.1		After the Contract is awarded, within 15 days, the Contractor shall submit a Time and Progress Chart for each mile stone and get it approved by the Engineer-in-charge. The Chart shall be prepared in direct relation to the time stated in the Contract documents for completion of items of the works. It shall indicate the forecast of the dates of commencement and completion of various trades of sections of the work and may be amended as necessary by agreement between the Engineer-in-Charge and the Contractor within the limitations of time imposed in the contract documents, and further to ensure good progress during the execution of the work, the contractor shall in all cases in which the time allowed for any work, exceeds one month (save for special jobs for which a separate programme has been agreed upon) complete the work as per mile stones given in Schedule 'F'. Project Management shall be done. a. For works costing upto Rs. 5.00 Cr. -- CPM/ PERT Chart b. Works costing more than Rs. 5.00 Cr. -- By using Project Management Software like Primavera / MS Project or any other software with the approval of



		Engineer-in-charge. c. Contractor shall submit monthly progress reports (2 copies) highlighting status of various activities and physical completion of work. PROGRAMME CHART i. The Contractor shall prepare an integrated programme chart in Project Management Software for the execution of work, showing clearly all activities from the start of work to completion, with details of manpower, equipment and machinery required for the fulfillment of the programme within the stipulated period or earlier and submit the same for approval to the Engineer-in- Charge within fifteen days of award of the contract. A recovery of Rs. 2500/- (for works costing upto Rs. 5.00 Crores) / Rs. 5000/- (for works costing more than Rs. 5.00 Crores) shall be made on per day basis in case of delay in submission of the above programme. ii. The programme chart should include the following: - Descriptive note explaining sequence of the various activities. - Network (PERT / CPM / BAR CHART). - Programme for procurement of materials by the contractor. Programme for deployment of machinery / equipment's having adequate capacity, commensurate with the quantum of work to be done within the stipulated period, by the contractor. In addition to above, to achieve the progress of work as per programme, the contractor must bring at site adequate shuttering material required for cement concrete and R.C.C. worksetc. for three floors within one month from the date of start of work till the completion of RCC work as per requirement of work. The contractor shall submit shuttering schedule adequate to complete structure work within laid down physical milestone. iii. If at any time, it appears to the Engineer-in-Charge that the actual progress of work does not conform to the approved programmereferredabove or after rescheduling of milestones, the contractor shall produce a revised programme within 7 (seven) days, showing the modifications to the approved programme to ensure timely completion of the work. The modified schedule of programme shall be approved by the Engineer in Charge. A recovery of Rs. 2500/- (for works costing upto Rs.5.00 Crores) / Rs. 5000/- (for works costing more than Rs.5.00 Crores) shall be made on per day basis in case of delay in submission of the modified programme. iv. The submission for approval by the Engineer-in-Charge of such programme or such particulars shall not relieve the contractor of any of the duties or responsibilities under the contract. This is without prejudice to the right of Engineer-in-Charge to take action against the contractor as per terms and conditions of the agreement. v. The contractor shall submit the progress report using MS Project/Primavera software with base line programme referred above for the work done during previous month to the Engineer-in-charge on or before 5th day of each month failing which a recovery Rs. 2500/- (for works costing upto Rs.5.00 Crores) / Rs. 5000/- (for works costing more than Rs.5.00 Crores) shall be made on per day basis in case of delay in submission of the monthly progress report.
5.2		If the work(s) be delayed by:- Force majeure, or an act of terrorism



		ii. Abnormally bad weather, or iii. Serious loss or damage by fire, or iv. Civil commotion, local commotion of workmen, strike or lockout, affecting any of the trades employed on the work, or v. Delay on the part of other contractors or tradesmen engaged by Engineer-in-Charge for executing work not forming part of the Contract, or vi. Non-availability of stores, which are the responsibility of AAI to supply or vii. Non-availability or break down of tools and Plant to be supplied or supplied by AAI or viii. Any other cause which, in the absolute discretion of the Engineer-in-Charge is beyond the Contractor's control. then upon the happening of any such event causing delay, the contractor shall immediately give notice thereof in writing to the Engineer-in-Charge but shall nevertheless use constantly his best endeavors to prevent or make good the delay and shall do all that may be reasonably required to the satisfaction of the Engineer-in-charge to proceed with the works. The contractor shall also sign the hindrance register at appropriate place for each hindrance.
5.3		Request for rescheduling of Milestones and extension of time, to be eligible for consideration, shall be made by the contractor in writing within fourteen days of the happening of the event causing delay on the prescribed form to the authority indicated in schedule 'F'. The contractor may also, if practicable, indicate in such a request the period for which extension is desired.
5.4		In any such case the Engineer-in-Charge with the approval of authority indicated in Schedule 'F' may give a fair and reasonable extension of time and reschedule the Milestones for completion of work. Such extension or re-scheduling of the milestone shall be communicated to the contractor by the Engineer-in-charge in writing, within 1 month or 4 weeks of the date of receipt of such request respectively. Non-application by the contractor for extension of time/ re-scheduling of milestones shall not be a bar for giving a fair and reasonable extension / re-scheduling of milestones by the Engineer-in-charge with the approval of authority indicated in schedule 'F' and this shall be binding on the contractor.

CLAUSE 6

	Measurements of Work Done	Engineer-in-charge shall, except as otherwise provided, ascertain and determine by measurement, the value in accordance with the contract of work done. All measurement of all items having financial value shall be entered in Measurement Book and/or level field book so that a complete record is obtained of all works performed under the contract. All measurements and levels shall be taken only by the Engineer-in-Charge or his authorised representative and by the contractor or his authorised representative from time to time during the progress of the work and such measurements shall be signed and checked by the Engineer-in-Charge and the contractor or their representatives in token of their acceptance. If the contractor objects to any of the measurements recorded, a note shall be made to that effect with reason and signed by both the parties. If for any reason the contractor or his authorised representative is not available and the work of recording measurements is suspended by the Engineer-in-Charge or his representative, the Engineer-in-Charge and the Department shall not entertain any claim from contractor for any loss or damages on this account. If the contractor or his authorised representative does not remain present at the time of such measurements after the contractor or his authorised representative
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		has been given a notice in writing three (3) days in advance or fails to countersign or to record objection within a week from the date of measurement, then such measurements recorded in his absence by the Engineer-in-Charge or his representative shall be deemed to be accepted by the Contractor. The contractor shall, without extra charge, provide all assistance with every appliance, labour and other things necessary for measurements and recording levels. Except where any general or detailed description of the work expressly shows to the contrary, measurements shall be taken in accordance with the procedure set forth in the specifications notwithstanding any provision in the relevant Standard Method of measurement or any general or local custom. In the case of items which are not covered by specifications, measurements shall be taken in accordance with the relevant standard method of measurement issued by the Bureau of Indian Standards and if for any item such standard is available, then a mutually agreed method shall be followed. The contractor shall give, not less than seven days' notice to the Engineer-in-Charge or his authorised representative of the work, before covering up or otherwise placing beyond the reach of measurement any work in order that the same may be measured and correct dimensions thereof be taken before the same is covered up or placed beyond the reach of measurement and shall not cover up and place beyond reach of measurement any work without consent in writing of the Engineer-in-Charge or his authorised representative of the work who shall within the aforesaid period of seven days inspect the work, and if any work shall be covered up or placed beyond the reach of measurements without such notice having been given or the Engineer-in-Charge's consent being obtained in writing, the same shall be covered at the Contractor's expense, or in default thereof no payment or allowance shall be made for such work or the materials with which the same was executed. Engineer-in-Charge or his authorised representative may cause either themselves or through another officer of the department to check the measurements recorded jointly or otherwise as aforesaid and all provisions stipulated hereabove shall be applicable to such checking of measurements or levels. It is also a term of this contract that recording of measurements of any item of work in the measurement book and/or its payment in the interim, on account or final bill shall not be considered as conclusive evidence as to the sufficiency of any work or material to which it relates nor shall it relieve the contractor from liabilities from any over measurement or defects noticed till completion of the defects liability period.
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Clause 6 A

	Computerized Measurement Book	Computerized measurement is mandatory for works costing more than Rs 5.00 Lacs. However in case of works costing lesser than Rs. 5.00 Lacs Engineer-in-Charge may decide for adopting computerized measurement if required, except as otherwise provided, ascertain and determine by measurement the value of work done in accordance with the contract. All measurements of all items having financial value shall be entered by the contractor and compiled in the shape of the Computerized Measurement Book having pages of A-4 size as per the format of the department so that a complete record is obtained of all the items of works performed under the contract.
		All such measurements and levels recorded by the contractor or his authorized representative from time to time, during the progress of the work, shall be got



		checked by the contractor from the Engineer-in-Charge or his authorized representative as per interval or program fixed in consultation with Engineer-in-Charge or his authorized representative. After the necessary corrections made by the Engineer-in-Charge, the measurement sheets shall be returned to the contractor for incorporating the corrections and for resubmission to the Engineer-in-Charge for the dated signatures by the Engineer-in-Charge and the contractor or their representatives in token of their acceptance. Whenever bill is due for payment, the contractor would initially submit draft computerized measurement sheets and these measurements would be got checked/test checked <i>from</i> the Engineer-in-Charge and/or his authorized representative. The contractor will, thereafter, incorporate such changes as may be done during these checks/test checks in his draft computerized measurements, and submit to the department a computerized measurement book, duly bound, and with its pages machine numbered. The Engineer-in-Charge and/or his authorised representative would thereafter check this MB, and record the necessary certificates for their checks/test checks. The final, fair, computerised measurement book given by the contractor, duly bound, with its pages machine numbered, should be 100% correct, and no cutting or overwriting in the measurements would thereafter be allowed. If at all any error is noticed, the contractor shall have to submit a fresh computerized MB with its pages duly machine numbered and bound, after getting the earlier MB cancelled by the department. Thereafter, the MB shall be taken in the records of Engineer-in-charge, and allotted a number as per the Register of Computerized MBs. This should be done before the corresponding bill is submitted to the Engineer-in-charge for payment. The contractor shall submit two spare copies of such computerized MB's for the purpose of reference and record by the various officers of the department. The contractor shall also submit to the department separately his computerized Abstract of Cost and the bill based on these measurements, duly bound, and its pages machine numbered alongwith two spare copies of the "bill. Thereafter, this bill will be processed by the Engineer-in-charge and allotted a number as per the computerized record in the same way as done for the measurement book meant for measurements. The contractor shall, without extra charge, provide all assistance with every appliance, labour and other things necessary for checking of measurements / levels by the Engineer-in-charge or his representative. Except where any general or detailed description of the work expressly shows to the contrary, measurements shall be taken in accordance with the procedure setforth in the specifications notwithstanding any provision in the relevant Standard Method of measurement or any general of local custom. In the case of item which are not covered by specifications, measurements shall be taken in accordance with the relevant standard method of measurement issued by the Bureau of Indian Standards and if for any item no such standard is available then a mutually agreed method shall be followed. The contractor shall give not less than seven days' notice to the Engineer-in-Charge or his authorized representative of the work before covering up or otherwise placing beyond the reach of checking and / or test checking the measurement of any work in order that the same be checked and / or test checked and correct dimensions thereof be taken before the same is covered up or placed beyond the reach of checking and / or test checking measurement and shall not cover up and place beyond reach of measurement any work without consent in writing of the Engineer-in-charge or his authorized representative of the work who shall within the aforesaid period of seven days inspect the work, and if any work shall be covered up or placed beyond the reach of checking and / or test checking measurements without such notice having been given or the
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		Engineer-in-charge's consent being obtained in writing the same shall be uncovered at the contractor's expense, or in default thereof no payment or allowance shall be made for such work or the materials with which the same was executed.
		Engineer-in-charge or his authorised representative may cause either themselves or through another officer of the department to check the measurements recorded by contractor and all provisions stipulated herein above shall be applicable to such checking of measurements or levels. It is also a term of this contract that checking and/or test checking the measurements of any item of work in the measurement book and/or its payment in the interim, on account of final bill shall not be considered as conclusive evidence as to the sufficiency of any work or material to which it relates nor shall it relieve the contractor from liabilities from any over measurement or defects noticed till completion of the defects liability period.

CLAUSE 7

	Payment on Intermediate Certificate to be regarded as Advances	No payment shall be made for work, estimated to cost Rs. One lac or less till after the whole of the work shall have been completed and certificate of completion given. For works estimated to cost over Rs. One lac, the interim or running account bills shall be submitted by the contractor for the work executed on the basis of such recorded measurements in the format of the Department in triplicate on or before the date of every month fixed for the same by the Engineer-in-Charge. The contractor shall not be entitled to be paid any such interim payment if the gross work done together with net payment/ adjustment of advances for material collected, if any, since the last such payment is less than the amount specified in Schedule 'F', in which case the interim bill shall be prepared on the appointed date of the month after the requisite progress is achieved. Engineer-in-Charge shall arrange to have the bill verified by taking or causing to be taken, where necessary, the requisite measurements of the work. In the event of the failure of the contractor to submit the bills, Engineer-in- Charge shall prepare or cause to be prepared such bills in which event no claims whatsoever due to delays on payment including that of interest shall be payable to the contractor. Payment on account of amount admissible shall be made by the Engineer-in-Charge certifying the sum to which the contractor is considered entitled by way of interim payment at such rates as decided by the Engineer-inCharge. An amount of ad-hoc payment not less than 75% of the net amount of the bill under check, shall be made within 10 working days of submission of the bill by the Contractor to the Engineer-in-Charge or his Authorized Engineer together with the account of the material issued by the department, or dismantled materials, if any. The remaining payment is also to be made after final checking of the bill within 28 working days of submission of bill by the contractor. In case of delay in payment of intermediate bills after 30 days of submission of bill by the contractor, provided the bill submitted by the contractor found to be in order, a simple interest @ prevailing rate of interest of General Provident Fund shall be paid to the contractor from the date of expiry of prescribed time limit. All such interim payments shall be regarded as payment by way of
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		advances against final payment only and shall not preclude the requiring of bad, unsound and imperfect or unskilled work to be rejected, removed, taken away and reconstructed or re-erected. Any certificate given by the Engineer-in-charge relating to the work done or materials delivered forming part of such payment, may be modified or corrected by any subsequent such certificate(s) or by the final certificate and shall not by itself be conclusive evidence that any work or materials to which it relates is are in accordance with the contract and specifications. Any such interim payment, or any part thereof shall not in any respect conclude, determine or affect in any way powers of the Engineering-in-charge under the contract or any of such payments be treated as final settlement and adjustment of accounts or in any way vary or affect the contract. Pending consideration or extension of date of completion, interim payments shall continue to be made as herein provided without prejudice to the right of the department to take action under the terms of this contract for delay in the completion of work, if the extension of date of completion is not granted by the competent authority. The Engineer-in-Charge in his sole discretion on the basis of a certificate from the Asstt Manager / Manager (Engg) to the effect that the work has been completed up to the level in question make interim advance payments without detailed measurements for work done (other than foundations, items to be covered under finishing items) up to lintel level (including sunshade etc.) and slab level, for each floor working out at 75% of the assessed value. The advance payments so allowed shall be adjusted in the subsequent interim bill(s) to be submitted by the contractor within 10 days of the interim payment. In case of delay in submission of bill by the contractor a simple interest @ 10% (percent) per annum on the advance payment made shall be paid to the AAI from the date of expiry of prescribed 10 days.
	Clause 7A	No Running Account Bill shall be paid for the work till the applicable labour licenses, registration with EPFO, ESIC and BOCW Welfare Board, whatever applicable are submitted by the contractor to the Engineer-in-Charge

CLAUSE 8

	Completion Certificate and Completion Plans	Within ten days of the completion of the work, the contractor shall give notice of such completion to the Engineer-in-Charge and within thirty days of the receipt of such notice, the Engineer-in-Charge shall inspect the work and if there is no defect in the work, shall furnish the contractor with a final certificate of completion, otherwise a provisional certificate of physical completion indicating defects (a) to be rectified by the contractor and/or (b) for which payment will be made at reduced rates, shall be issued. But no final certificate of completion shall be issued, nor shall the work be considered to be complete for 'Civil Construction Works' until the contractor shall have removed from the premises on which the work shall be executed all scaffolding, surplus materials, rubbish and all huts and sanitary arrangements required for his/their work people on the site in connection with the execution of the works as shall have been erected or constructed by the contractor(s) and cleaned off the dirt from all wood work, doors, windows, walls, floor or other parts of the building, in, upon, or about which the work is to be executed or of which he may have had possession for the purpose of the execution; thereof, and not until the work shall have been
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		measured by the Engineer-in-charge. If the contractor shall fail to comply with the requirements of this Clause as to removal of scaffolding, surplus materials and rubbish and all huts and sanitary arrangement as aforesaid and cleaning off dirt on or before the date fixed for the completion of work, the Engineer-in-charge may at the expense of the contractor remove such scaffolding, surplus materials and rubbish etc., and dispose of the same as he thinks fit and clean off such dirt as aforesaid, and the contractor shall have no claim in respect of scaffolding or surplus materials as aforesaid except for any sum actually realised by the sale thereof. a. For electrical and mechanical capital works: The contractor shall remove the rubbish from the site. Following conditions must be met before recording completion certificate : Submits completion plan, maintenance manual, manufactures catalogue and gives performance test for system. b. For repair works: The performance of the repaired system has been tested and found satisfactory. c. For AMC work: The system has been tested for its performance/ completeness and taken over by AAI / next agency for operation and maintenance.
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CLAUSE 8 A

	Contractor to keep site clean	When the annual repairs and maintenance of works are carried out, the splashes and droppings from white washing, colour washing, painting etc., on walls, floor, windows etc. shall be removed and the surface cleaned simultaneously with the completion of these items of work in the individual rooms, quarters or premises etc. Where the work is done without waiting for the actual completion of all the other items of work in the contract, in case the contractor fails to comply with the requirements of this clause, the Engineer-in-charge shall have the right to get this work done at the cost of the contractor either departmentally or through any other agency. Before taking such action, the Engineer-in-charge shall give ten days notice in writing to the contractor.
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CLAUSE 8 B

	Completion Plans to be Submitted by the Contractor	The contractor shall submit completion plan as required vide General Specifications for Electrical works (Part-I internal) 2013 and (Part - II External) 1994 or latest available specifications, as applicable within thirty days of the completion of the work. The contractor shall submit completion plan for building works, all services, and obtain occupancy certificate from local bodies on the basis of completion drawings within a period of 30 days from the date of completion. The contractor shall also submit catalogues of all equipment's and maintenance manual for the complete E & M systems. If contractor fails to submit completion plans of all works, he shall be liable to pay compensation @ 0.5% of the tendered value of works costing up to Rs. 5 Crores subject to maximum of Rs. 1.00 Lac and 0.25% for works costing more than Rs. 5 crores subject to maximum of Rs. 1.5.Lac. The decision of Project-in-charge in this regard shall be final and binding on the contractor.
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CLAUSE 9



	Payment of final bill	The corrected final bill shall be submitted by the contractor in the same manner as specified in interim bills within three months of physical completion of the work or within one month of the date of the final certificate of completion furnished by the Engineer-in-charge whichever is earlier. No further claims shall be made by the contractor after submission of the final bill and these shall be deemed to have been waived and extinguished. Payments of those items of the bill in respect of which there is no dispute and for those items which are in dispute on account of quantity and/ or rates shall be paid at approved quantity and/ or rates by the Engineer-in-charge, within three months period reckoned from the date of receipt of the bill by the Engineer in- Charge or his authorized representative, complete with account of materials issued by the Department and dismantled materials. <table border="1"> <thead> <tr> <th>Sl</th><th>Value of work</th><th>Time limit</th></tr> </thead> <tbody> <tr> <td>1</td><td>If the Tendered value of work is up to Rs. 50 lac</td><td>2 months</td></tr> <tr> <td>2</td><td>If the Tendered value of work is more than Rs. 50 lac and up to Rs. 2.5 Crore:</td><td>3 months</td></tr> <tr> <td>3</td><td>If the Tendered value of work exceeds Rs. 2.5 Crore:</td><td>6 months</td></tr> </tbody> </table> If the final bill is submitted by the contractor within the period specified above and payment of final bills is made by the AAI within above prescribed time limit, if delay in payment, a simple interest @ prevailing rate of interest of General Provident Fund shall be paid to the contractor from the date of expiry of prescribed time limit, provided the final bill submitted by the contractor is found to be in order. The Final bill shall be prepared for both L1 & L2 bidders for all tendered items (excluding Extra Items based on market rate) and payment shall be made on the basis of lower of the two.	Sl	Value of work	Time limit	1	If the Tendered value of work is up to Rs. 50 lac	2 months	2	If the Tendered value of work is more than Rs. 50 lac and up to Rs. 2.5 Crore:	3 months	3	If the Tendered value of work exceeds Rs. 2.5 Crore:	6 months
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3	If the Tendered value of work exceeds Rs. 2.5 Crore:	6 months												

CLAUSE 9 A

	Payment of contractor's bills to Banks	Payments due to the contractor and refund of various nature may, if so desired by him and wherever possible in banks be made through electronic payment mechanism instead of direct to him, provided that the contractor furnishes to the Engineer-in- Charge. - Informations as per proforma attached. - An authorisation in the form of a legally valid document such as power of attorney conferring authority on the bank to receive payments and - His own acceptance of the correctness of the amount made out as being due to him by Authority or his signature on the bill or other claim preferred against Authority before settlement by the Engineer-in-charge of the account or claim by payment to the bank. While the receipt given by such banks shall constitute a full and sufficient discharge for the payment, the contractor shall whenever possible present his bills duly receipted and discharged through his bank. Nothing herein contained shall operate to create in favour of the bank any rights or equities vis-à-vis the Airports Authority of India.
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CLAUSE 10



	Materials supplied by Authority	DELETED Materials which Authority will supply are shown in Schedule 'B' which also stipulates quantum, price of issue and rate(s) to be charged in respect thereof. The contractor shall be bound to procure them from the Engineer-in-charge. As soon as the work is awarded, the contractor shall finalise the programme for the completion of work as per clause 5 of this contract and shall give his estimates of materials required on the basis of drawings/ or schedule of quantities of the work. The contractor shall give in writing his requirement to the Engineer-in-charge, which shall be issued to him keeping in view the progress of work as assessed by the Engineer-in- Charge in accordance with the agreed phased programme of work indicating monthly requirements of various materials. The contractor shall place his indent in writing for issue of such materials at least 7 days in advance of his requirement. Such materials shall be supplied for the purpose of the contract only and the value of the materials so supplied at the rates specified in the aforesaid schedule shall be set off or deducted, as and when materials are consumed in items of work (including normal wastage) for which payment is being made to the contractor, form any sum then due or which may therefore become due to the contractor under the contract or otherwise or from the security deposit. At the time of submission of bills, the contractor shall certify that balance of materials supplied is available at site in original good condition. The contractor shall submit alongwith every running bill (on account or interim bill) material-wise reconciliation statements supported by complete calculations reconciling total issue, total consumption and certified balance (diameter/ section-wise in the case of steel) and resulting variations and reasons thereof. Engineer-in-charge shall (whose decision shall be final and binding on the contractor) be within his rights to follow the procedure of recovery in clause 42 at any stage of the work if reconciliation is not found to be satisfactory. The contractor shall bear the cost of getting the material issued, loading, transporting to site, unloading, storing under cover as required, cutting assembling and joining the several parts together as necessary. Notwithstanding anything to the contrary contained in any other clause of the contract and all stores / materials so supplied to the contractor or procured with the assistance of the AAI shall remain the absolute property of Authority and the contractor shall be the trustee of the stores/ materials, and the said stores/ materials shall not be removed/ disposed off from the site of the work on any account and shall be at all times open to inspection by the Engineer-in-charge or his authorised agent. Any such stores/ materials remaining unused shall be returned to the Engineer-in-charge in as good a condition in which they were originally supplied at a place directed by him, at a place of issue or any other place specified by him as he shall require, but in case it is decided not to take back the stores/ materials the contractor shall have no claim for compensation on any account of such stores/ materials so supplied to him as aforesaid and not used by him or for any wastage in or damage to in such stores/ materials. On being required to return the stores/ materials, the contractor shall hand over the stores/ materials on being paid or credited such price as the Engineer-in-charge shall determine, having due regard to the condition of the stores/ materials. The price allowed for credit to the contractor, however, shall be at the prevailing market rate not exceeding the amount charged to him, excluding the storage charge, if any. The decision of the Engineer-in-charge shall be final and conclusive. In the event of breach of the aforesaid condition, the contractor shall in addition to throwing himself open to account for contravention of the terms of the licenses or permit and/ or for criminal breach of trust, be liable to Authority for all advantages or profits resulting or which in the usual course would have resulted to him by reason of such breach. Provided that the contractor shall in no
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		case be entitled to any compensation or damages on account of delay in supply or non-supply thereof all or any such materials and stores provided further that the contractor shall be bound to execute the entire work if the materials are supplied by the Authority within the original scheduled time for completion of the work plus 50% thereof or schedule plus 6 months whichever is more if the time of completion of work exceeds 12 months, but if a part of the materials only has been supplied within the aforesaid period, then the contractor shall be bound to do so much of the work as may be possible with the materials and stores supplied in the said period. For the completion of the rest of the work, the contractor shall be bound to such extension of time as may be determined by the Engineer-in-charge whose decision in this regard shall be final and binding on the contractor. The contractor shall see that only the required quantities of materials are got issued. Any surplus material remaining unused and in perfectly good/ original condition at the completion or determination of the contract shall be returned to the Engineer-in-charge at the stores from which it was issued or at a place selected by him by a notice in writing. The contractor shall not be entitled for loading, transporting, unloading and stacking of such unused material except for the extra lead, if any involved, beyond the original place of issue.
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CLAUSE 10 A

	Materials to be provided by the contractor and Mandatory Tests	1. The contractor shall, at his own expense, provide all materials, required for the works other than those which are stipulated to be supplied by the Authority. 2. The contractor shall, at his own expense and without delay; supply to the Engineer in- charge samples of materials to be used on the work and shall get these approved in advance. All such materials to be provided by the contractor shall be in conformity with the specifications laid down or referred to in the contract. The contractor shall, if requested by the Engineer-in-charge furnish proof, to the satisfaction of the Engineer-in-charge that the materials so comply. The Engineer-in-charge shall within thirty days of supply of samples or within such further period as he may require intimate to the Contractor in writing whether samples are approved by him or not. If samples are not approved, the Contractor shall forthwith arrange to supply to the Engineer-in-charge for his approval, fresh samples complying with the specifications laid down in the contract. When materials are required to be tested in accordance with specifications, approval of the Engineer-in-charge shall be issued after the test results are received. 3. The contractor shall at his risk submit the samples of materials to be tested or analysed and shall not make use of or incorporate in the work any materials represented by the samples until the required tests or analysis have been made and materials finally accepted by the Engineer-in-charge. 4. If any additional tests apart from mandatory tests specified in the contract are required to be carried out at the instance of AAI or any other advisory body, to ensure conformity of the item to the contract specifications, the cost of such tests shall be borne by AAI. In case the material / equipment fails in the above tests, the expenditure incurred by AAI on testing of such material or equipment along with incidental charges borne by AAI (if any) shall be recovered from the dues of the contractor and action shall be taken under Clause 16 and other relevant clauses of the contract. 5. The contractor shall not be eligible for any claim or compensation either
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		arising out of any delay in the work or due to any corrective measures required to be taken on account of and as a result of testing of materials. 6. The contractor shall, at his risk, make all arrangements and shall provide all facilities as the Engineer-in-charge may require for collecting and preparing the required number of samples for such tests at such time and to such place or places as may be directed by the Engineer-in-charge and bear all charges including testing charges. The Engineer-in-charge or his authorised representative shall always have access to the works and to all workshops and places where work is being prepared or from where material manufactured, articles or machinery are being obtained for the works and the contractor shall afford every facility and every assistance in obtaining the right to such access. 7. The Engineer-in-charge shall have full powers to require the removal from the premises of all materials which in his opinion are not in accordance with the specifications and in case of default, the Engineer-in-charge shall be at liberty to employ at the expense of the contractor, other persons to remove the same without being answerable or accountable for any loss or damage that may happen or arise to such materials. The Engineer-in-charge shall also have full powers to require other proper materials to be substituted thereof and in case of default, the Engineer-in-charge may cause the same to be supplied and all costs which may be attracted for such removal and substitution shall be borne by the Contractor. 8. The contractor shall at his own expense, provide a material testing lab at the site for conducting routine field tests. The lab shall be equipped atleast with the testing equipment as specified in Schedule F. 9. Details in respect of all mandatory tests shall be maintained in the desired format and attached with each Running Account Bill.
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CLAUSE 10 B

(1)	Secured Advance on Nonperishable materials	1. The Contractor, on signing an indenture in the form specified in Appendix – XX, shall be entitled to be paid during the progress of the execution of the work upto 75% of the assessed value of any materials which are in the opinion of the Engineer-in-charge nonperishable, nonfragile and noncombustible and are in accordance with the contract and which have been brought on the site in connection therewith and are adequately stored and/ or protected against damage by weather or other causes but which have not at time of assessment been incorporated in the works. When materials on account of which advance has been made under this sub-clause are incorporated in the work, the amount of such advance shall be recovered/ deducted from the next payment made under any of the clause or clauses of the contract. Such secured advance shall also be payable on other items of perishable nature, fragile and combustible with the approval of the Engineer-in-charge provided the contractor provides a comprehensive insurance cover for the full cost of such materials. The decision of the Engineer-in-charge shall be final and binding on the contractor in this matter. No secured advance, shall however, be payable on high-risk materials such as ordinary glass, sand, petrol, diesel etc. The secured advance shall also be payable against items brought at site for use in electrical and mechanical systems. Such secured advance shall be paid on submission of Collateral Bank Guarantee submitted by the vendor against the payment in case equipment/system fails to perform on testing
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		and commissioning. Normally secured advance is paid up to 75% of the assessed value of items but in any case it shall not exceed 80% of cost of items indicated for supply of equipment.
(II)	Mobilisation Advance	Mobilization advances not exceeding 10% of the tendered value may be given, if requested by the contractor in writing within six months of the order to commence the work. Such advance shall be released in two or more instalments to be determined by the Engineer-in-Charge at his sole discretion. The first instalment of such advance shall be released by the Engineer-in-charge to the contractor on a request made by the contractor to the Engineer-in-Charge in this behalf. The second and subsequent instalments shall be released by the Engineer-in-Charge only after the contractor furnishes a proof of the satisfactory utilization of the earlier instalment(s) to the satisfaction of the Engineer-in-Charge. Before any instalment of advance is released, the contractor shall execute Bank Guarantee Bonds not more than 6 in number from commercial Bank for the amount equal to 110% of the amount of advance and valid for the period till recovery of advance. This (Bank Guarantee from commercial Bank on prescribed form for the amount equal to 110% of the balance amount of advance) shall be kept renewed from time to time to cover the balance amount at every period of complete recovery.
	Interest on Mobilisation advance	The mobilization advance bear simple interest at the rate as mentioned in Schedule-F per annum and shall be calculated from the date of payment to the date of recovery, both days inclusive, on the outstanding amount of advance.
	Recovery of Mobilisation advance	Recovery of such sums advanced shall be made by the deduction from the contractor's bills commencing after first ten percent of the gross value of the work is executed and paid, on pro-rata percentage basis to the gross value of the work billed beyond 10% in such a way that the entire advance is recovered by the time eighty percent of the gross value of the contract is executed and paid, together with interest due on the entire outstanding amount up to the date of recovery of the installment. If the circumstances are considered reasonable by the Engineer-in-Charge, the period mentioned for request by the contractor in writing for grant of mobilization advance may be extended at the discretion of the Engineer-in-Charge.

CLAUSE 10 C

	Payment on Account of Increase in Prices/ Wages due to Statutory Order(s)	If after submission of the tender, the price of any material incorporated in the works and/ or wages of labour increases as a direct result of the coming into force of any fresh law or statutory rule or order (but not due to any variation of rates in GST applicable on such materials being considered under this clause) beyond the prices / wages prevailing at the time of last stipulated date for receipt of the tenders including extensions, if any, for the work, during contract period including the justified period extended under the provisions of the Clause 5 of the Contract without any action under Clause 2, then the amount of the contract shall accordingly be varied. If after submission of the tender, the price of any material incorporated in the
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		works and / or wages of labour as prevailing at the time of last stipulated date of receipt of tender including extensions, if any, is decreased as a direct result of the coming into force of any fresh law or statutory rule or order (not due to any changes in GST applicable on such material(s) being considered under this clause). Authority shall in respect of materials incorporated in the works and/ or labour engaged on the execution of the work after the date of coming into force of such law, statutory rule or order be entitled to deduct from the dues of the contractor, such amount as shall be equivalent to the difference between the prices of the materials and/ or wages as prevailed at the time of the last stipulated date for receipt of tenders including extensions if any for the work and the prices of materials and/ or wages of labour on the coming into force of such law, statutory rule or order. This will be applicable for the contract period including the justified period extended under the provisions of clause 5 of the contract without any action under clause 2. Engineer-in-charge shall call books of account and other relevant documents from the contractor to satisfy himself about reasonability of increase in prices of materials and wages. The contractor shall, within a reasonable time of his becoming aware of any alteration in the price of any such materials and/ or wages of labour, give notice thereof to the Engineer-in-charge stating that the same is given pursuant to this condition together with all information relating thereto which he may be in position to supply. For this purpose, the labour component of 85% of the value of the work executed during period under consideration shall not exceed the percentage as specified in Schedule F, and the increase / decrease in labour shall be considered on the minimum daily wages in rupees of any unskilled mazdoor, fixed under any law, statutory rule or order. The cost of work for which escalation applicable(w) is same as cost of work done as worked out below. (a) Gross value of work done upto this quarter (A) (b) Gross value of work done upto the last quarter (B) (c) Gross value of work done since previous quarter (C) = (A-B) (d) Full assessed value of secured advance paid in this quarter (D) (e) Full assessed value of secured advance recovered in this quarter (E) (f) Full assessed value of secured advance for which escalation is payable In this quarter (F) = (D-E) (g) Advance payment made during this quarter (G) (h) Advance payment recovered during this quarter (H) (i) Advance payment for which escalation is payable in this quarter (I) = (G-H) (j) Amount paid based on prevailing market rates due to deviation/variation as per clause 12 during this quarter : (J): Then, $M = (C + F + I - J)$ $N = 0.85 M$ (k) Less cost of services rendered at fixed charges as per Clause 34 and recovered during the quarter (L) (l) Less cost of Engineering Consultancy Services rendered at fixed charges as per BOQ and paid during the quarter (X) Cost of work for which escalation is applicable $W = N - (K + L)$ Provided always that: (a) Where provision of clause 10C are applicable, provision of clause 10CC
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		will not be applicable and; (b) Where provision of clause 10CC are applicable, provision of clause 10C will not be applicable
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CLAUSE 10 CA

Payment due to variation in prices of materials after receipt of tender	If after submission of the tender, the price of materials specified in Schedule-F increases/ decreases beyond the base price(s) as indicated in schedule 'F' for the work, then the amount of the contract shall accordingly be varied and provided further that any such variations shall be effected for stipulated period of contract including the justified period extended under the provisions of clause 5 of the contract without any action under Clause 2. However for work done/ during the justified period extended as above, it will be limited to indices prevailing at the time of updated stipulated date of completion considering the effect of extra work (Extra time to be calculated on pro-rata basis only as cost of extra work X stipulated period/ tendered cost). The increase/ decrease in prices of cement, steel reinforcement, structural steel, Bitumen and POL shall be determined by the Price indices issued by the Director General, CPWD. For other items provided in the Schedule 'F', this shall be determined by the All India Wholesale Price Indices of materials as published by Economic Advisor to Government of India, Ministry of Commerce and Industry. Base price for cement, steel reinforcement, structural steel and POL shall be as issued under authority of Director General, CPWD applicable for Delhi including Noida, Gurgaon, Faridabad and Ghaziabad and for other places as issued under the authority of Zonal Chief Engineer, CPWD and base price of other materials issued by concerned Zonal Chief Engineer and as indicated in Schedule 'F'. In case, price index of a particular material is not issued by Ministry of Commerce and Industry then the price index of nearest similar material as indicated in Schedule 'F' shall be followed. The amount of the contract shall accordingly be varied for all such materials worked out as per the formula given below for individual material: Adjustment for component of individual material. $V = P \times Q \times \frac{CI - CI_0}{CI_0}$ where, V = Variation in material cost i.e. increase or decrease in the amount in rupees to be paid or recovered P = Base price of material as issued under authority of DG, CPWD or concerned Zonal Chief Engineer CPWD and as indicated in Schedule 'F'. For Projects and original works Q = Quantity of material brought at site for bonafide use in the works since previous bill excluding any such quantity consumed in the deviated quantity of items beyond deviation limit and extra/substituted item, paid/to be paid at rates derived on the basis of market rates under clause 12.2
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		For maintenance works Q = Quantity of material brought at site for bonafide use in the works since previous bill including any such quantity consumed in the deviated quantity of items beyond deviation limit paid at agreement rates and extra/substituted item being scheduled items, but excluding nonscheduled extra/substituted item paid/to be paid at market rates under clause 12.2 CI0 = Price index for cement, steel reinforcement bars, structural steel and POL as issued by the DG, CPWD and corresponding to the time of base price of respective material indicated in schedule 'F'. For other items, if any provided in Schedule 'F', All India Wholesale Price Index for the material as published by the Economic Advisor to Government of India, Ministry of Industry and Commerce and corresponding to the time of base price of respective material indicated in Schedule 'F'. CI = Price index for cement, steel reinforcement bars, structural steel and POL as issued under the authority of DG, CPWD for period under consideration. For other items, if any, provided in Schedule 'F' All India Wholesale Price Index for the material for the period under consideration as published by Economic Advisor to Government of India, Ministry of Industry and Commerce.
		Note: - In respect of justified period extended under the provisions of Clause 5 of the contract without any action under clause 2, the index prevailing at the time of updated stipulated date of completion considering the effect of extra work (extra time to be calculated on prorata basis only as cost of extra work X stipulated period/ tendered cost) shall be considered. Provided always that provisions of the preceding Clause 10 C shall not be applicable in respect of materials covered in this Clause. - If during progress of work or at the time of completion of work, it is noticed that any material brought at site is in excess of requirement, then amount of escalation if paid earlier on such excess quantity of material shall be recovered on the basis of cost indices as applied at time of payment of escalation or as prevailing at the time of effecting recovery, whichever is higher. - Cement mentioned wherever in this clause includes cement component used in RMC brought at site from outside approved RMC plants, if any. - The date wise record of ready mix concrete shall be kept in a register and cement consumption for the same shall be calculated accordingly. - If built-up steel items are brought at site from workshop, then the variation shall be paid for structural steel upto the period when the built-up item/finished product is brought at site.



Clause 10CC

	Price adjustment of work	If the prices of materials and/ or wages of labour required for execution of work increase, the contractor shall be compensated for such increase as per provisions detailed below and the amount of the contract shall accordingly be varied, subject to the condition that such compensation for escalation in prices and wages shall be available only for the work done during the stipulated period of the contract including the justified period extended under the provisions of clause 15 of the contract without any action under clause 2. No such compensation shall be payable for a work for which the stipulated period of completion is equal to or less than the time as specified in Schedule 'F'. Such compensation for escalation in the prices of materials and wages, when due, shall be worked out based on the following provisions: - The base date for working out such escalation shall be the last stipulated date of the receipt of tenders including extension, if any. - The cost of work on which escalation will be payable shall be reckoned as below: - Gross value of work done upto this quarter (A) - Gross value of work done upto the last quarter (B) - Gross value of work done since previous quarter (C) = (A-B) - Full assessed value of secured advance fresh paid in this quarter (D) - Full assessed value of secured advance recovered in this quarter (E) - Full assessed value of secured advance for which escalation is payable in this quarter (F) = (D-E) - Advance payment made during this quarter (G) - Advance payment recovered during this quarter (H) - Advance payment for which escalation is payable in this quarter (I) = (G-H) - Amount paid based on prevailing market rates due to deviation/variation as per clause 12 during this quarter (J): Then, $M = (C + F + I - J)$ $N = 0.85 M$ - Less cost of services rendered at fixed charges as per Clause 34 and recovered during the quarter (L) - Less cost of Engineering Consultancy Services rendered at fixed charges as per BCC and paid during the quarter (X). Cost of work on which escalation is applicable $W = N - (K + L + X)$ *Cost of Design & Detailing shall be treated as civil work for EPC contract.
		Components for materials, labour etc. shall be pre-determined for every work and incorporated in the conditions of contract attached to the tender papers included in Schedule F. The decision of the Engineer-in-charge in working out such percentage shall be binding on the contracts. The compensation for escalation for other materials (except Bitumen, cement, reinforcement bars, structural steel or others material covered under clause 10CA) and P.O.L. shall be worked as per the formula (m & n) given below: Adjustment for civil component (except Bitumen, cement,



		reinforcement bars, structural steel and others material covered under clause 10CA) /electrical component of construction. (iii) The following principles shall be followed while working on the payment/recovery on account of variation of prices of materials and/ or wages of labour. (a) The compensation for escalation shall be worked out at quarterly intervals and shall be with respect to the cost of work done as per bill submitted during the three calendar months of the said quarter. The date of submission of bill finally by the contractor to the department shall be the guiding factor to decide the bills relevant to the quarterly interval. The first such payment shall be made at the end of three months after the month (excluding the month in which the work order issued) and thereafter at three months' interval. At the time of completion of the work, the last period for payment might become less than 3 months, depending on the actual date of completion. (b) The indices as defined below (excluding LI) relevant to any quarter/period for which such compensation is to be paid shall be the arithmetical average of the indices relevant to the three calendar months. If the period up to the date of completion after the quarter covered by the last such installment of payment, is less than three months, the indices shall be the average of the indices for the months falling within the period. (c) The minimum wage of an unskilled mazdoor shall be the higher of the wage notified by Government of India Ministry of Labour and that notified by the local administration both relevant to the place of work and the period of reckoning. (d) The escalation for labour also shall be paid at the same quarterly intervals when escalation due to increase in cost of materials is paid under this clause. If such revision of minimum wages take place during any such quarterly intervals, the escalation compensation shall be payable at revised rates only for work done in subsequent quarters. (e) Irrespective of variation in minimum wages of any category of labour, for the purpose of this clause, the variation in the rate for an unskilled mazdoor alone shall form the basis for working out the escalation compensation payable on the labour component. (iv) In the event the price of materials and/ or wages of labour required for execution of the work decrease/s, there shall be a downward adjustment of the cost of work so that such price of materials and/ or wages of labour shall be deducted from the cost of work under this contract and in this regard the formula herein before stated under this Clause 10CC shall mutatis mutandis apply. (v) The contract price shall be adjusted for increase or decrease in rates and prices of labour, cement, steel reinforcement bar, fuel and lubricants and other input materials as per percentage of materials/labour specified in Schedule F and in accordance with the principles, procedures and formulae specified below: (a) Price adjustment for change in cost shall be paid in accordance with the following formula: (i) For Construction $V_w = W * (1/100) * [C_p * (C_r - C_o) / C_o + L_p * (L_r - L_o) / L_o + C_{M_p} * (C_{M_r} - C_{M_o}) / C_{M_o} + E_{M_p} * (E_{M_r} - E_{M_o}) / E_{M_o} + F_p * (F_r - F_o) / F_o + S_p * (S_r - S_o) / S_o + B_p * (B_r - B_o) / B_o]$ (ii) For Maintenance:
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		$V_w = W * (1/100) * [LP * (L_r - L_o)/L_o + CMP * (CM_r - CM_o)/CM_o + EMP * (EM_r - EM_o)/EM_o + Bp * (Br - Bo)/Bo]$ Lubricant valid on the last stipulated date of receipt of (EMr-EMo)/EMo + Bp*(Br- Bo)/Bo] Where, W=cost of work done as per para (ii) above. V_w (Variation of cost of Work) =Increase or decrease in the cost of work done during the period under consideration due to change in the rates for relevant components. Percentage components of materials & labour as specified in the schedule F are defined as under: - Cp- Cement component, Lp - Labour component, CMP- Civil component of other construction materials, EMP- E & M i/c IT and AS component of construction materials Fp-POL (Diesel) component Sp- Reinforcement steel bars/TMT bars/structural steel (including strands and cables) component Bp- Bitumen Component Indices for various components of materials & labour to be used for the purpose of this Clause are defined as under: Co= Wholesale Price Index for Pozzolana Cement published by office of the Economic Adviser, Ministry of Industry & Commerce valid for the month of last date of receipt of tender including extension, if any. C1= Wholesale Price Index for Pozzolana Cement published by office of the Economic Adviser, Ministry of Industry & Commerce for the period under consideration. Lo= Minimum daily wage in rupees of an unskilled adult mazdoor, fixed under any law, statutory rule or order as on the last date of receipt of tender including extension, if any. Lr= Minimum wage in rupees of an unskilled adult mazdoor, fixed under any law, statutory rule or order as applicable on the last date of the quarter previous to the one under consideration. CMo= Price Index for civil components of other construction materials valid for the month of the last date of receipt of tender including extension, if any, as published by AAI. CMr= Price Index for civil components of other construction materials for the period under consideration as published by AAI. EMo= Price Index for E & M components of construction materials valid for the month of the last date of receipt of tender including extension, if any, as published by AAI. EMr= Price Index for E & M components of construction materials for the period under consideration as published by AAI. Fo= Wholesale Price Index of HSD (High Speed Diesel) published by office of the Economic Adviser, Ministry of Industry & Commerce valid for the month of the last date of receipt of tender including extension, if any. Fr= Wholesale Price Index of HSD (High Speed Diesel) published by office of the Economic Adviser, Ministry of Industry & Commerce for the period under consideration. So= Wholesale Price Index of Mild Steel-long products published by office of the Economic Adviser, Ministry of Industry & Commerce valid for the month of the last date of receipt of tender including extension, if any Sp= Wholesale Price Index of Mild Steel-long products published by office of the Economic Adviser, Ministry of Industry & Commerce for the period under consideration.
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		Bo= Wholesale Price Index of Bitumen published by office of the Economic Adviser, Ministry of Industry & Commerce valid for the month of the last date of receipt of tender including extension, if any. Br= Wholesale Price Index of Bitumen published by office of the Economic Adviser, Ministry of Industry & Commerce period under consideration.
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CLAUSE 10 D

	Dismantled Material AAI Property	The contractor shall treat all materials obtained during dismantling of a structure, excavation of the site for a work etc. as property of AAI and such materials shall be disposed off to the best advantage of Authority according to the instructions in writing issued by the Engineer-in-charge.
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CLAUSE 11

	Work to be executed in accordance with specifications, drawings, orders etc.	The contractor shall execute the whole and every part of the work in the most substantial and workmanlike manner both as regards materials and otherwise in every respect in strict accordance with the specifications. The contractor shall also conform exactly, fully and faithfully to the design, drawings and instructions in writing in respect to the work signed by the Engineer in charge and the contractor shall be furnished free of charge one copy of the contract documents together with specifications, designs, drawings and instructions as are not included in the standard specifications of Central Public Works Department specified in Schedule F or in any Bureau of Indian Standard or any other published standard or code or Schedule of Rates or any other printed publication referred to elsewhere in the contract. The contractor shall comply with the provisions of the contract and with the care and diligence execute and maintain the works and provide all labour and materials, tools and plants including for measurements and supervision of all works, structural plans and other things of temporary or permanent nature required for such execution and maintenance in so far as the necessity for providing these, is specified or is reasonably inferred from the contract. The contractor shall take full responsibility for adequacy suitability and safety of all the works and methods of construction.
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CLAUSE 12

	Deviations / variations extent and pricing	The engineer-in-charge shall have power (i) to make alteration in, omissions from, additions to, or substitutions for the original specifications, drawings, designs and instructions that may appear to him to be necessary or advisable during the progress of the work, and (ii) to omit a part of the works in case of non-availability of a portion of the site or for any other reasons and the contractor shall be bound to carry out the works in accordance with any instructions given to him in writing signed by the Engineering- charge and such alterations, omissions, additions or substitutions shall form part of the contract as if originally provided therein and any altered, additional or substituted work which the contractor may be directed to do in the manner specified above as part of the works, shall be carried out by the contractor on the same conditions in all respects including price on which he agreed to do the main work except as hereafter provided.
12.1		The time for completion of the works shall, in the event of any deviations resulting in additional cost over the tendered value being ordered, be extended, if requested by the contractor, as follows: i. In the proportion which the additional cost of the altered, additional or



		substituted work, bears to the original tendered value plus ii. 25% of the time calculated in (i) above or such further additional time as may be considered reasonable by the engineer-in-charge.
12.2	Deviation, Extra Items and Pricing	In the case of extra item(s) (items that are completely new, and in addition to the items contained in the contract) the contractor may within fifteen days of receipt of order or occurrence of the item(s) claim rates, supported by proper analysis, for the work and the Engineer-in-charge shall within Six weeks of the receipt of the claims supported by analysis, after giving consideration to the analysis of the rates submitted by the contractor, determine the rates on the basis of the market rates and the contractor shall be paid in accordance with the rates so determined.
	Deviation, substituted items pricing	In the case of substituted items (items that are taken up with partial substitution or in lieu of items of work in the contract), the rate for the agreement item (to be substituted) and substituted item shall also be determined in the manner as mentioned in the following para. (i) If the market rate for the substituted item so determined is more than the market rate of the agreement item (to be substituted), the rate payable to the contractor for the substituted item shall be the rate for the agreement item (to be substituted) so increased to the extent of the difference between the market rates of substituted item and the agreement item (to be substituted). (ii) If the market rate for the substituted item so determined is less than the market rate of the agreement item (to be substituted), the rate payable to the contractor for the substituted item shall be the rate for the agreement item (to be substituted) so decreased to the extent of the difference between the market rates of substituted item and the agreement item (to be substituted).
	Deviation, Deviated Quantities, Pricing	In the case of contract items, substituted items, contract cum substituted items, which exceed the limits laid down in schedule F, the contractor may within fifteen days of receipt of order or occurrence of the excess, claim revision of the rates, supported by proper analysis for the work in excess of the above mentioned limits, provided that if the rates so claimed are in excess of the rates specified in the schedule of quantities, the Engineer-in-Charge shall within prescribed time limit of receipt of the claims supported by analysis, after giving consideration to the analysis of the rates submitted by the contractor, determine the rates on the basis of the market rates and the contractor shall be paid in accordance with the rates so determined.
12.3		The provisions of the preceding paragraph shall also apply to the decrease in the rates of items for the work in excess of the limits laid down in Schedule F, and the Engineer-in-Charge shall after giving notice to the contractor within one month of occurrence of the excess and after taking into consideration any reply received from him within fifteen days of the receipt of the notice, revise the rates for the work in question within one month of the expiry of the said period of fifteen days having regard to the market rates.
12.4		The contractor shall send to the Engineer-in-Charge once every three months, an upto date account giving complete details of all claims for additional payments to which the contractor may consider himself entitled and of all additional work ordered by the Engineer-in-Charge, which he has executed



		during the preceding quarter failing which the contractor shall be deemed to have waived his right. However, the Executive Director Engineering may authorise consideration of such claims on merits.
12.5		For the purpose of operation of Schedule F, the following works shall be treated as works relating to foundation unless & otherwise defined in the contract: - For Buildings: All works up to 1.2 metres above ground level or up to floor 1 level whichever is lower. - For abutments, piers and well staining: All works up to 1.2 m above the bed level. - For retaining walls, wing walls, compound walls, chimneys, over head reservoirs/tanks and other elevated structures: All works up to 1.2 m above the ground level. - For roads, apron, runway & taxi track all items of excavation, filling GSBC and including treatment of sub-base. - For reservoirs/tanks (other than overhead reservoirs/tanks): All works up to 1.2 metres above the ground level. - For basement: All works up to 1.2 m above ground level or up to floor 1 level whichever is lower.
12.6		Any operation incidental to or necessarily has to be in contemplation of tenderer while filing, tender, or necessary for proper execution of the item included in the Schedule of quantities or in the schedule of rates mentioned above, whether or not, specifically indicated in the description of the item and the relevant specifications, shall be deemed to be included in the rates quoted by the tenderer or the rate given in the said schedule of rates, as the case may be. Nothing extra shall be admissible for such operations.

CLAUSE 13

	Foreclosure of contract due to Abandonment or Reduction in Scope of Work	If at any time after acceptance of the tender or during the progress of work the purpose or object for which the work is being done changes due to any supervening cause and as a result of which the work has to be abandoned or reduced in scope the Engineer-in-Charge shall give notice in writing to that effect to the contractor and the contractor stating the decision as well as the cause for such decision and the contractor shall act accordingly in the matter. The contractor shall have no claim to any payment of compensation or otherwise whatsoever, on account of any profit or advantage which he might have derived from the execution of the works in full but which he did not derive in consequence of the foreclosure of the whole or part of the works. The contractor shall be paid at contract rates, full amount for works executed at site and, in addition, a reasonable amount as certified by the Engineer-in-Charge for the items hereunder mentioned which could not be utilized on the work to the full extent in view of the foreclosure; - Any expenditure incurred on preliminary site work, e.g. temporary access roads, temporary labour huts, staff quarters and site office; storage accommodation and water storage tanks. - AAI shall have the option to take over contractor's materials or any part thereof either brought to site or of which the contractor is legally bound to accept delivery from suppliers (for incorporation in or incidental to the work) provided, however AAI shall be bound to take over the materials or such portions thereof as the contractor does not desire to retain. For
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		materials taken over or to be taken over by AAI, cost of such materials as detailed by Engineer-in- Charge shall be paid. The cost shall, however, take into account purchase price, cost of transportation and deterioration or damage which may have been caused to materials whilst in the custody of the contractor. iii. If any materials supplied by AAI are rendered surplus, the same except normal wastage shall be returned by the contractor to AAI at rates not exceeding those at which these were originally issued, less allowance for any deterioration or damage which may have been caused whilst the materials were in the custody of the contractor. In addition, cost of transporting such materials from site to AAI stores, if so required by AAI, shall be paid. iv. Reasonable compensation for transfer of T & P from site to contractor's permanent stores or to his other works, whichever is less. If T & P are not transported to either of the said places, no cost of transportation shall be payable. v. Reasonable compensation for repatriation of contractor's site staff and imported labour to the extent necessary. The contractor shall, if required by the Engineer- in-Charge, furnish to him, books of account, wage books, time sheets and other relevant documents and evidence as may be necessary to enable him to certify the reasonable amount payable under this condition. The reasonable amount of items on (i), (iv) and (v) above shall not be in excess of 2% of the cost of the work remaining incomplete on the date of closure, i.e. total stipulated cost of the work as per accepted tender less the cost of work actually executed under the contract and less the cost of contractor's materials at site taken over by the AAI as per item (ii) above. Provided always that against any payments due to the contractor on this account or otherwise, the Engineer-in-Charge shall be entitled to recover or be credited with any outstanding balances due from the contractor for advance paid in respect of any tool, plants and materials and any other sums which at the date of termination were recoverable by the AAI from the contractor under the terms of the contract. In the event of action being taken under clause 13 to reduce the scope of work, the contractor may furnish fresh Performance Guarantee on the same conditions, in the same manner and at the same rate for the balance tendered amount and initially valid upto the extended date the completion or stipulated date of completion if no extension has been granted plus 180 days beyond that. Wherever, such a fresh Performance Guarantee is furnished by the contractor, the Engineer in Charge may return the previous Performance Guarantee.
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CLAUSE 14

	Carrying out part Work at risk & cost of contractor	a. If contractor: i. At any time makes default during currency of work or does not execute any part of the work with due diligence and continues to do so even after a notice in writing of 7 days in this respect from the Engineer-in-Charge; or ii. Commits default in complying with any of the terms and conditions of the contract and does not remedy it or takes effective steps to remedy it within 7 days even after a notice in writing is given in that behalf by the Engineer-in-Charge; or iii. Fails to complete the work(s) or items of work with individual dates of
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		completion, on or before the date(s) so determined, and does not complete them within the period specified in the notice given in writing in that behalf by the Engineer-in-Charge. b. The Engineer- in-Charge without invoking action under clause 3 may, without prejudice to any other right or remedy against the contractor which have either accrued or accrue thereafter to AAI, by a notice in writing to take the part work / part incomplete work of any item(s) out of his hands and shall have powers to: - Take possession of the site and any materials, constructional plant, implements, stores, etc., thereon; and/or - Carry out the part work / part incomplete work of any item(s) by any means at the risk and cost of the contractor. c. The Engineer-in-Charge shall determine the amount, if any, is recoverable from the contractor for completion of the part work/ part incomplete work of any item(s) taken out of his hands and executed at the risk and cost of the contractor, the liability of contractor on account of loss or damage suffered by AAI because of action under this clause shall not exceed 10% of the tendered value of the work. d. In determining the amount, credit shall be given to the contractor with the value of work done in all respect in the same manner and at the same rate as if it had been carried out by the original contractor under the terms of his contract, the value of contractor's materials taken over and incorporated in the work and use of plant and machinery belonging to the contractor. The certificate of the Engineer-in-Charge as to the value of work done shall be final and conclusive against the contractor provided always that action under this clause shall only be taken after giving notice in writing to the contractor. Provided also that if the expenses incurred by the department are less than the amount payable to the contractor at his agreement rates, the difference shall not be payable to the contractor. e. Any excess expenditure incurred or to be incurred by AAI in completing the part work/ part incomplete work of any item(s) or the excess loss of damages suffered or may be suffered by AAI as aforesaid after allowing such credit shall without prejudice to any other right or remedy available to AAI in law or per as agreement be recovered from any money due to the contractor on any account, and if such money is insufficient, the contractor shall be called upon in writing and shall be liable to pay the same within 30 days. f. If the contractor fails to pay the required sum within the aforesaid period of 30 days, the Engineer-in-Charge shall have the right to sell any or all of the contractors' unused materials, constructional plant, implements, temporary building at site etc. and adjust the proceeds of sale thereof towards the dues recoverable from the contractor under the contract and if thereafter there remains any balance outstanding, it shall be recovered in accordance with the provisions of the contract/ provisions of law. In the event of above course being adopted by the Engineer-in-Charge, the contractor shall have no claim to compensation for any loss sustained by him by reason of his having purchased or procured any materials or entered into any engagements or made any advance on any account or with a view to the execution of the work or the performance of the contract.
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**CLAUSE 15**

	Suspension of Work	i. The contractor shall, on receipt of the order in writing of the Engineer-in-Charge, (whose decision shall be final and binding on the contractor) suspend the progress of the works or any part thereof for such time and in such manner as the Engineer-in-Charge may consider necessary so as not to cause any damage or injury to the work already done or endanger the safety thereof for any of the following reasons: - on account of any default on the part of the contractor or; - for proper execution of the works or part thereof for reasons other than the default of the contractor; or - for safety of the works or part thereof. The contractor shall, during such suspension, properly protect and secure the works to the extent necessary and carry out the instructions given in that behalf by the Engineer-in-Charge.
		ii. If the suspension is ordered for reasons (b) and (c) in sub-para (i) above (but not attributed to contractor): - the contractor shall be entitled to an extension of time equal to the period of every such suspension PLUS 25% for completion of the item or group of items of work for which a separate period of completion is specified in the contract and of which the suspended work forms a part, and; - If the total period of all such suspensions in respect of an item or group of items or work for which a separate period of completion is specified in the contract exceeds thirty days, the contractor shall, in addition, be entitled to such compensation as the Engineer-in-Charge may consider reasonable in respect of salaries and/or wages paid by the contractor to his employees and labour at site, remaining idle during the period of suspension, adding thereto 2% to cover indirect expenses of the contractor provided the contractor submits his claim supported by details to the Engineer-in-Charge within fifteen days of the expiry of the period of 30 days. - If the works or part thereof is suspended on the orders of the Engineer-in-Charge for more than three months at a time, except when suspension is ordered for reasons (a) in sub-para (i) above, the contractor may after receipt of such order serve a written notice on the Engineer-in-Charge requiring permission within fifteen days from receipt by the Engineer-in-charge of the said notice, to proceed with the work or part thereof in regard to which progress has been suspended and if such permission is not granted within that time, the contractor, if he intends to treat the suspension, where it affects only a part of the works as an omission of such part by AAI or where it affects whole of the works, as an abandonment of the works by AAI, shall within ten days of expiry of such period of 15 days give notice in writing of his intention to the Engineer-in-Charge. In the event of the contractor treating the suspension as an abandonment of the contract by AAI, he shall have no claim to payment of any compensations on account of any profit or advantage which he might have derived from the execution of the work in full but which he could not derive in consequence of the abandonment. He shall, however, be entitled to such compensation, as the Engineer-in-Charge may consider reasonable, in respect of salaries and/or wages paid by him to his employees and labour at site, remaining idle in consequence adding to the total thereof 2% to cover indirect expenses of the contractor provided the contractor submits his claim supported by details to the Engineer-in-



		Charge within 30 days of the expiry of the period of 3 months.
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CLAUSE 15 A

Compensation in case of delay due to late supply of stipulated material by AAI.	The contractor shall not be entitled to claim any compensation from AAI for the losses suffered by him on account of delay by AAI in the supply of materials in Schedule 'B' where such delay is covered by the difficulties relating to supply of wagons, force majeure or any reasonable cause beyond the control of AAI. This clause 15 A will not be applicable for works where no material is stipulated for issue by AAI.
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CLAUSE 16

Action in case Work not done as per Specifications	All works under or in course of execution or executed in pursuance of the contract, shall at all times be open and accessible to the inspection and supervision of the Engineer-in-Charge, his authorize subordinates in charge of the work and all the superior officers, officer of the Quality Assurance Unit of the AAI or any organization engaged by the Department of Quality Assurance and of the Chief technical Examiner's Office, and the contractor shall, at all times, during the usual working hours and at all other times at which reasonable notice of the visit of such officers has been given to the contractor, either himself be present to receive orders and instructions or have a responsible agent duly accredited in writing, present for that purpose. Orders given to the Contractor's agent shall be considered to have the same force as if they had been given to the contractor himself. If it shall appear to the Engineer-in -charge or his authorized subordinates in charge of the work or to the Executive Director-In-charge of quality assurance or his subordinate officers or the officers of the organization engaged by the AAI for quality Assurance or to the Chief Technical Examiner or his subordinate officers, that any work has been executed with unsound, imperfect, or unskillful workmanship, or with materials or articles provided by him for the execution of the work which are unsound or of a quality inferior to that contracted or otherwise not in accordance with the contract, the contractor shall, on demand in writing which shall be made within twelve months (six months in the case of work costing Rs.10 lac and below except road work) of the completion of the work from the Engineer-in-Charge specifying the work, materials or articles complained of notwithstanding that the same may have been passed, certified and paid for forthwith rectify, or remove and reconstruct the work so specified in whole or in part, as the case may require or as the case may be, remove the materials or articles so specified and provide other proper and suitable materials or articles at his own charge and cost. In the event of the failing to do so within a period specified by the Engineer-in-Charge in his demand aforesaid, then the contractor shall be liable to pay compensation at the same rate as under clause 2 of the contract (for non completion of the work in time) for this default. In such case the Engineer-in-Charge may not accept the item of work at the rates applicable under the contract but may accept such items at reduced rates as the authority specified in schedule 'F' may considered reasonable during the preparation of on account bills or final bill if the item is so acceptable without detriment to the safety and utility of the item and the structure or he may reject the work outright without any payment and/or get it and other connected and incidental items rectified, or removed and re-executed at the risk and cost of the
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		contractor. Decision of the Engineer-in-Charge to be conveyed in writing in respect of the same will be final and binding on the contractor.
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CLAUSE 17

	Contractor Liable for Damages, defects during maintenance period	If the contractor or his working people or servants shall break, deface, injure or destroy any part of building in which they may be working, or any building, road, road kerb fence, enclosure, water pipe, cables, drains, electric or telephone post or wires, trees, grass or grassland, or cultivated ground contiguous to the premises on which the work or any part is being executed, or if any damage shall happen to the work while in progress, from any cause whatever or if any defect, shrinkage or other faults appear in the work within twelve months (six months in the case of work costing Rs. Ten lacs and below except road work) after a certificate final or otherwise of its completion shall have been given by the Engineer-in-charge as aforesaid arising out of defect or improper materials or workmanship the contractor shall upon receipt of a notice in writing on that behalf make the same good at his own expense or in default the Engineer-in-charge cause the same to be made good by other workmen and deduct the expense from any sums that may be due or at any time thereafter may become due to the contractor, or from his security deposit or the proceeds of sale thereof or of a sufficient portion thereof. The security deposit of the contractor shall not be refunded before the expiry of twelve months (six months in the case of work costing Rs. Ten lacs and below except road work) after the issue of the certificate final or otherwise, of completion of work, or till the final bill has been prepared and passed whichever is later. Provided that in the case of road work, if in the opinion of the Engineer-in-charge, half of the security deposit is sufficient, to meet all liabilities of the contractor under this contract, half of the security deposit will be refundable after six months and the remaining half after twelve months of the issue of the said certificate of completion or till the final bill has been prepared and passed whichever is later. In case of Maintenance and Operation works of E&M services, the security deposit deducted from contractors shall be refunded within one month from the date of final payment or within one month from the date of completion of the maintenance contract whichever is earlier.
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CLAUSE 18

	Contractor to Supply Tools & Plants etc.	The contractor shall provide at his own cost all materials (except such special materials, if any, as may in accordance with the contract be supplied from the Engineer-in-charge's stores) machinery, tools & plants as specified in Schedule F. in addition to this, appliances, implements, other plants, ladders, cordage, tackle, scaffolding and temporary works required for the proper execution of the work, whether original, altered or substituted and whether included in the specifications or other documents forming part of the contract or referred to in these conditions or not, or which may be necessary for the purpose of satisfying or complying with the requirements of the Engineer-in-charge as to any matter as to which under these conditions he is entitled to be satisfied, or which he is entitled to require together with carriage therefor to and from the work. The contractor shall also supply without charge the requisite number of persons with the means and materials, necessary for the purpose of setting out works, and counting, weighing and assisting the measurement for examination at any time and from time to time of the work or materials. Failing his so doing, the same may be provided by the Engineer-in-charge at the expense of the contractor and
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		the expenses may be deducted, from any money due to the contractor, under this contract or otherwise and/ or from his security deposit or the proceeds of sale thereof, or of a sufficient portions thereof.
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CLAUSE 18 A

	Recovery of Compensation paid to Workmen	In every case in which by virtue of the provisions sub-section(i) of Section 12, of the Workmen's Compensation Act, 1923, AAI is obliged to pay compensation to a workman employed by the contractor, in execution of the works, AAI will recover from the contractor, the amount of the compensation so paid, and, without prejudice to the rights of the AAI under sub-section(2) of Section 12, of the said act, AAI shall be at liberty to recover such amount or any part thereof by deducting it from the security deposit or from any sum due by AAI to the contractor whether under this contract or otherwise. AAI shall not be bound to contest any claim made against it under subsection(1) of Section 12, of the said Act, except on the written request of the contractor and upon his giving to AAI full security for all costs for which AAI might become liable in consequence of contesting such claim.
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CLAUSE 18 B

	Ensuring Payment and Amenities to Workers if Contractor fails	In every case in which by virtue of the provisions of the Contract Labour (Regulation and Abolition) act 1970, and the Contract Labour (Regulation and Abolition) Central Rules, 1971, AAI is obliged to pay any amounts of wages to a workman employed by the contractor in execution of the works, or to incur any expenditure in providing welfare and health amenities required to be provided under the above said Act and the rules under Clause 19H or under the AAI Contractor's Labour Regulations or under the Rules framed by AAI from time to time for the protection of health and sanitary arrangements for workers employed by AAI Contractors, AAI will recover from the contractor the amount of wages so paid or the amount of expenditure so incurred and without prejudice to the rights of the AAI under sub section (2) of Section 20, sub section (4) of Section 21, of the Contract Labour (Regulation and Abolition) Act, 1970, AAI shall be at liberty to recover such amount or any part thereof by deducting it from the security deposit or from any sum due by AAI to the contractor whether under this contract or otherwise AAI shall not be bound to contest any claim made against it under sub section (1) of Section 20, sub section (4) of Section 21, of the said Act, except on the written request of the contractor and upon his giving to the AAI full security for all costs for which AAI might become liable in contesting such claim.
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CLAUSE 19

	Labour laws to be complied by the Contractor	The contractor shall obtain a valid license under the contract labour (R&A) Act, 1970 and the Contract Labour (Regulation and Abolition) Central Rules, 1971, before the commencement of the work, and continue to have a valid license until the completion of the work. The contractor shall also abide by the provisions of the Child Labour (Prohibition and Regulation) Act, 1986. The contractor shall also comply with the provisions of the building and other construction workers (Regulation of Employment & Conditions of Service) Act, 1996 and the building and other Construction Workers Welfare Cess Act, 1996. Any failure to fulfill these requirements shall attract the penal provisions of this contract arising out of the resultant non execution of the work.
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**CLAUSE 19 A**

	No labour below the age of fourteen years shall be employed on the work.
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CLAUSE 19 B

	Payment of wages	Payment of wages: i) The contractor shall pay to labour employed by him either directly or through sub contractors, wages not less than fair wages as defined in the AAI Contractor's Labour Regulation or as per the provisions of the Contract Labour (Regulation and Abolition) act, 1970 and the contract labour (Regulation and Abolition) Central Rules, 1971 wherever applicable. ii) The contractor shall, notwithstanding the provisions of any contract to the contrary, cause to be paid fair wage to labour indirectly engaged on the work, including any labour engaged by his sub contractors in connection with the said work, as if the labour had been immediately employed by him. iii) In respect of all labour directly or indirectly employed in the works for performance of the contractor's part of this contract, the contractor shall comply with or cause to be complied with the Airports Authority of India contractor's Labour Regulations made by AAI from time to time in regard to payment of wages wage period, deductions from wages recovery of wages not paid and deductions unauthorisedly made, maintenance of wage books or wage slips, publication of scale of wages and other terms of employment, inspection and submission of periodical returns and all other matters of the like nature or as per the provisions of the Contract Labour (Regulation and Abolition) Act, 1970 and the Contract Labour (Regulation and Abolition) Central Rules, 1971, wherever applicable. iv. The following deductions shall be permissible to be made by the Engineer-in-Charge. a. The Engineer-in-charge concerned shall have the right to deduct from the moneys due to the contractor or any sum required or estimated to be required for making good the loss suffered by a worker or workers by reason of non fulfillment of the conditions of the contract for the benefit of the workers, non payment of wages or of deductions made from his or their wages which are not justified by their terms of the contract or non observance of the Regulations. b. Under the provision of Minimum Wages (Central) Rule 1950 the contractor is bound to allow to the labours directly or indirectly employed in the works one day rest for 6 days continuous work and pay wages at the same rate as for duty. In the event of default, the Engineer-in-charge shall have the right to deduct the sum or sums not paid on account of wages for weekly holidays to any labours and pay the same to the persons entitled thereto from any money due to the contractor by the Engineer-in-charge concerned. In the case of Union Territory of Delhi, however, as the all inclusive minimum daily wages fixed under Notification of the Delhi Administration No.F.12(162)MWO/DAB/43884-91, dated 31.12.1979 as amended from time to time are inclusive of wages for the weekly day of rest, the question of extra payment for weekly holiday would not arise. v. The contractor shall comply with the provisions of the Payment of wages Act, 1936, Minimum Wages Act, 1948, Employees Liability Act, 1938, Workmen's Compensation Act, 1923, Industrial Disputes Act, 1947, Maternity Benefits Act, 1961, and the Contractor's Labour (Regulation and
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		Abolition) Act 1970, or the modifications thereof or any other laws relating thereto and the rule made thereunder from time to time. vi. The contractor shall indemnify and keep indemnified Authority against payments to be made under and for the observance of the laws aforesaid and the AAI Contractor's Labour Regulations without prejudice to his right to claim indemnity from his sub contractors. vii. The laws aforesaid shall be deemed to be a part of this contract and any breach thereof shall be deemed to be a breach of this contract. viii. Whatever is the minimum wage for the time being, or if the wage payable is higher than such wage, such wage shall be paid by the contractor to the workmen directly without the intervention of Jamadar and that Jamadar shall not be entitled to deduct or recover any amount from the minimum wage payable to the workmen as and by way of commission or otherwise. ix. The contractor shall ensure that no amount by way of commission or otherwise is deducted or recovered by the Jamadar from the wage of workmen.
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CLAUSE 19 C

		In respect of all labour directly or indirectly employed in the work for the performance of the contractor's part of this contract, the contractor shall at his own expense arrange for the safety provisions as per AAI Safety Code framed from time to time and shall at his own expense provide for all facilities in connection therewith. In case the contractor fails to make arrangement and provide necessary facilities as aforesaid, he shall be liable to pay a penalty of Rs. 200/- for each default and in addition, the Engineer-in-charge shall be at liberty to make arrangement and provide facilities as aforesaid and recover the costs incurred in that behalf from the contractor.
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CLAUSE 19 D

		The contractor shall submit by the 4th and 19th of every month, to the Engineer-in-charge a true statement showing in respect of the second half of the preceding month and the first half of the current month respectively: - the number of labourers employed by him on the work, - their working hours, - the wages paid to him, - the accidents that occurred during the said fortnight showing the circumstances under which they happened and the extent of damage and injury caused by them, and - the number of female workers who have been allowed maternity benefit according to Clause 19F and the amount paid to them Failing which the contractor shall be liable to pay to AAI, a sum not exceeding Rs. 200/- for each default or materially incorrect statement. The decision of the Engineer-in-charge shall be final in deducting from any bill due to the contractor; the amount levied as fine and shall be binding on the contractor.
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CLAUSE 19 E

		In respect of all labour directly or indirectly employed in the works for the performance of the contractor's part of this contract, the contractor shall comply with or cause to be complied with all the rules framed by AAI from time to time for the protection of health and sanitary arrangements for workers employed by the AAI and its contractor.
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**CLAUSE 19 F**

		Leave and pay during leave shall be regulated as follows: 1. Leave: i. In the case of delivery - maternity leave not exceeding 8 weeks, 4 weeks upto and including the day of delivery and 4 weeks following that day. ii. In the case of miscarriage - upto 3 weeks from the date of miscarriage. 2. Pay: i. In the case of delivery – leave pay during maternity leave will be at the rate of women's average daily earnings, calculated on total wages earned on the days when full time work was done during a period of three months immediately preceding the date on which she gives notice that she expects to be confined or at the rate of Rupee one only a day whichever is greater. ii. In the case of miscarriage – leave pay at the rate of average daily earning calculated on the total wages earned on the days when full time work was done during a period of three months immediately preceding the date of such miscarriage. 3. Conditions for the grant of Maternity Leave: No maternity leave benefit shall be admissible to a woman unless she has been employed for a total period of not less than six months immediately preceding the date on which she proceeds on leave. 4. The contractor shall maintain a register of Maternity (Benefit) in the Prescribed Form as shown in appendix – III and IV, and the same shall be kept at the place of work.
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CLAUSE 19 G

		In the event of the contractor (s) committing a default or breach of any of the provisions of the Airports Authority of India Contractor's Labour Regulations and Model Rules for the protection of health and sanitary arrangements for the workers as amended from time to time or furnishing any information or submitting or filling any statement under the provisions of the above Regulations and Rules which is materially incorrect, he / they shall, without prejudice to any other liability, pay to the AAI a sum not exceeding Rs.200/- for every default, breach or furnishing, making, submitting, filing such materially incorrect statements and in the event of the contractor(s) defaulting continuously in this respect, the penalty may be enhanced to Rs.200/- per day for each day of default subject to a maximum of 5 per cent of the estimated cost of the work put to tender. The decision of the Engineer-in-Charge shall be final and binding on the parties. Should it appear to the Engineer-in-Charge that the contractor (s) is / are not properly observing and complying with the provision of the AAI Contractor's Labour Regulations and Model Rules and the provisions of the Contract Labour (Regulation and Abolition) Act 1970, and the Contract Labour (R&A) Central Rules 1971, for the protection of health and sanitary arrangements for work – people employed by the contractor(s) (hereinafter referred as “the said Rules”) the Engineer-in-Charge shall have power to give notice in writing to the contractor (s) requiring that the said Rules be complied with and the amenities prescribed therein be provided to the work-people within a reasonable time to be specified in the notice. If the contractor (s) shall fail within the period specified in the notice to comply with and/ observe the said Rules and to provide the
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		amenities to the work-people as aforesaid, the Engineer-in-Charge shall have the power to provide the amenities hereinbefore mentioned at the cost of the contractor (s). The contractor (s) shall erect, make and maintain at his / their own expense and to approved standards all necessary huts and sanitary arrangements required for his / their work –people on the site in connection with the execution of the works, and if the same shall not have been erected or constructed, according to approved standards, the Engineer-in-Charge shall have power to give notice in writing to the contractor (s) requiring that the said huts and sanitary arrangements be remodeled and / or reconstructed according to approved standards, and if the contractor (s) shall fail to remodel or reconstruct such huts and sanitary arrangements according to approved standards within the period specified in the notice, the Engineer-in-Charge shall have the power to remodel or reconstruct such huts and sanitary arrangements according to approved standards at the cost of the contractor (s).
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CLAUSE 19 H

		The contractor (s) shall at his / their own cost provided his / their labour with a sufficient number of huts (hereinafter referred to as the camp) on the following specifications on a suitable plot of land to be approved the Engineer-in-Charge. i. Facility to be provided a. The minimum height of each hut at the eaves level shall be 2.10m (7ft.) and the floor area to be provided will be at the rate of 2.7 sq.m. (30 sq.ft.) for each member of the worker's family staying with the labourer. b. The contractor shall in addition construct suitable cooking places having a minimum area of 1.80m x 1.50m (6' x 5') adjacent to the hut for each family.
		c. The contractor(s) shall also construct temporary latrines and urinals for the use of the labourers each on the scale of not less than four per each one hundred of the total strength, separate latrines and urinals being provided for women. d. The contractor (s) shall construct sufficient number of bathing and washing places one unit for every 25 persons residing in the camp. These bathing and washing places shall be suitably screened. ii. Specifications a. All the huts shall have walls of sun-dried or burnt-bricks laid in mud mortar or other suitable local materials as may be approved by the Engineer-in-Charge in case of sun-dried bricks, the walls should be plastered with mud gobri on both sides. The floor may be kutcha but plastered with mud gobri and shall be at least 15 cm (6") above the surrounding ground. The roofs shall be laid with the thatch or any other materials as may be approved by the Engineer-in-Charge and the contractor shall ensure that throughout the period of their occupation, the roofs remain water – tight. b. The contractor (s) shall provide each hut with proper ventilation. c. All doors, windows and ventilators shall be provided with suitable leaves for security purposes. d. There shall be kept an open space of at least 7.2 m (8 yards) between the rows of huts which may be reduced to 6m (20 ft.) according to the availability of site with the approval of the Engineer-in-Charge. Back to back construction will be allowed. iii. Water Supply The contractor (s) shall provided adequate supply of water for the use of labourers. The provisions shall not be less than two gallons of pure and



		wholesome water per head per day for drinking purposes and three gallons of clean water per head per day for bathing and washing purposes. Where piped water supply is available supply shall be at stand posts and where the supply is from wells or river, tanks which may be of metal or masonry, shall be provide. The contractor (s) shall also at his / their own cost make arrangements for laying pipe lines for water supply to his / their labour camp from the existing mains wherever available and shall pay all fees and charges therefor. iv. The site selected for the camp shall be high ground, removed from jungle. v. Disposal of Excreta: The contractor (s) shall make necessary arrangement for the disposal of excreta from the latrines by trenching or incineration which shall be according to the requirements laid down by the Local Health Authorities. If trenching or incineration is not allowed, the contractor (s) shall make arrangements for the removal of the excreta through the Municipal Committee / authority and inform it about the number of labourers employed so that arrangements may be made by such Committee / authority for the removal of excreta. All charges on this account shall be borne by the contractor and paid direct by him to the Municipality / authority. The contractor shall provide one sweeper for every eight seats in case of dry system. vi. Drainage The contractor (s) shall provide efficient arrangements for draining away sullage water so as to keep the camp neat and tidy. vii. The contractor (s) shall make necessary arrangements for keeping the camp area sufficiently lighted to avoid accidents to the workers. viii. Sanitation The contractor(s) shall make arrangements for conservancy and sanitation in the labour camps according to the rules of the Local Public Health and Medical Authorities.
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CLAUSE 19 I

		The Engineer-in-Charge may require the contractor to dismiss or remove from the site of the work any person or persons in the contractors' employ upon the work who may be incompetent or misconduct himself and the contractor shall forthwith comply with such requirements. In respect of maintenance/repair or renovation works etc. where the labour have an easy access to the individual work premises, the contractor shall issue identity cards to the labourers, whether temporary or permanent and he shall be responsible for any untoward action on the part of such labour. Assistant Manager/Junior Executive will display a list of contractors working in the colony/Blocks on the notice board in the colony and also at the service centre, to apprise the residents about the same.
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CLAUSE 19 J

		It shall be the responsibility of the contractor to see that the building under construction is not occupied by any body unauthorized during construction, and is handed over to the Engineer-in-Charge with vacant possession of complete building. If such building though completed is occupied illegally, then the Engineer-in-Charge shall have the option to refuse to accept the said building/buildings in that position. Any delay in acceptance on this account will be treated as the delay in completion and for such delay, a levy upto 5% of tendered value of work may be imposed by the General Manager Engg. Whose decision shall be final both with regard to the justification and quantum and be binding on the contractor. However, the Executive Director Engg., through a
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		notice may require the contractor to remove the illegal occupation any time on or before construction and delivery.
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CLAUSE 19 K

	Employment of skilled / semiskilled workers	The contractor shall at all stages of work deploy skilled / semi skilled tradesmen who are qualified and possess certificate in particular trade from CPWD Training Institute / Industrial Training Institute/National Institution of Construction Management and research (NICMAR) National Academy of Construction, CIDC or any similar reputed and recognized Institute managed / certified by State / Central Government. The number of such qualified tradesmen shall not be less than 20% of total skilled / semi skilled workers required in each trade at any stage of work. The contractor shall submit number of man days required in respect of each trade, its scheduling and the list of qualified tradesmen alongwith requisite certificate from recognized Institute to Engineer in charge for approval. Notwithstanding such approval, if the tradesmen are found to have inadequate skill to execute the work of respective trade, the contractor shall substitute such tradesmen within two days of written notice from Engineer –in- Charge. Failure on the part of contractor to obtain approval of Engineer-in-Charge or failure to deploy qualified tradesmen will attract a compensation to be paid by contractor at the rate of Rs.100 per such tradesman per day. Decision of Engineer in Charge as to whether particular tradesman possesses requisite skill and amount of compensation in case of default shall be final and binding. Provided always, that the provision of this clause, shall not be applicable for works with estimated cost put to tender being less than Rs.5 crores.
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CLAUSE 19 L

	Contribution of EPF and ESI	The ESI and EPF contributions on the part of employer in respect of this contract shall be paid by the contractor. These contributions on the part of the employer paid by the contractor shall be reimbursed by the Engineer-in-charge to the contractor on actual basis. The verification of deployment of labour will be done through biometric attendance system or any other suitable method by the Engineer in Charge. The applicable and eligible amount of EPF & ESI shall be reimbursed preferably within 7 days but not later than 30 days of submission of documentary proof of payment provided same are in order.
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CLAUSE 19 M

	Compliance of NGT guidelines	The contractor is required to follow latest NGT guidelines at the construction site and any violation of such guidelines will be in his account.
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CLAUSE 20

	Minimum Wages Act to be Complied with	The contractor shall comply with all the provision of the Minimum Wages Act, 1948, and Contract Labour (Regulation and Abolition) Act, 1970 amended from time to time and rules framed thereunder and other labour laws affecting contract labour that may be brought into force from time to time.
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**CLAUSE 20(A)**

	Employees Provident Fund & Miscellaneous Provisions Act, 1952/Jammu & Kashmir Employees Provident Funds (and Miscellaneous Provisions) Act, 1961 and State Insurance (ESI) Act, 1948.	The Contractor shall comply with all the provisions of the Employees Provident Fund & Misc. Provisions Act, 1952/Jammu & Kashmir Employees Provident Funds (and Miscellaneous Provisions) Act, 1961 and ESI Act, 1948, amended from time to time and rules framed thereunder. Some of the provisions are given below: - The contractor shall intimate his PF Account Code No. allotted by Regional PF Commissioner and ESI Registration No. allotted by ESI Corporation after award of work and shall continue to have valid PF Account Code No. and ESI Registration No. till actual completion of the contract. - The contractor shall provide a list of contract Workers engaged for contract work along with their PF Account No. & ESI Registration No. - The contractor by 20th of every month shall provide a monthly statement showing recoveries of contribution and proof of remittance of provident fund contribution to RPFC and ESI contributions to ESI Corporation in respect of Workers engaged in contract work. - The contractor shall provide copies of PF & ESI challans of monthly contributions in respect of contract workers engaged for contract work on month to month basis. AAI reserves the right to withhold minimum amount as detailed under, from the running account payments, if PF / ESI contributions are not paid by the contractor and proof to that effect have not been produced regularly on due dates. To withhold 3% for building work & 1.5% for road/pavement work of the total amount of work done during the period considered.
		ESI & EPF amount paid to the statutory authorities by the contractor shall be reimbursed on actual basis on submission of documentary evidence.

CLUASE 21

	Work not to be sublet. Action in case of insolvency	The contract shall not be assigned or sublet without the written approval of Engineer-in-Charge. And if the contractor shall assign or sublet his contract, or attempt to do so, or become insolvent or commence any insolvency proceedings or make any composition with his creditors or attempt to do so, or if any bribe, gratuity, gift, loan, perquisite, reward or advantage pecuniary or otherwise, shall either directly or indirectly, be given, promised or offered by the contractor, or any of his servants or agent to any public officer or person in the employ of AAI in any way relating to his office or employment, or if any such officer or person shall become in any way directly or indirectly interested in the contract, the Engineers in Charge on behalf of the AAI shall have power to adopt the course specified in Clause 3 hereof in the interest of AAI and in the event of such course being adopted, the consequences specified in the said Clause 3 shall ensue.
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CLUASE 22

		All sums payable by way of compensation under any of these conditions shall be considered as reasonable compensation to be applied to the use of AAI without reference to the actual loss or damage sustained and whether or not any damage shall have been sustained.
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CLAUSE 23

	Changes in firm's	Where the contractor is a partnership firm, the previous approval in writing of the Engineer-in-Charge shall be obtained before any change is made in the
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	Constitution to be intimated	constitution of the firm. Where the contractor is an individual or a Hindu undivided family business concern such approval as aforesaid shall likewise be obtained before the contractor enters into any partnership agreement where under the partnership firm would have the right to carry out the works hereby undertaken by the contractor. If previous approval as aforesaid is not obtained, the contract shall be deemed to have been assigned in contravention of Clause 21 hereof and the same action may be taken and the same consequences shall ensue as provided in the said Clause 21.
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CLAUSE 24

		All works to be executed under the contract shall be executed under the direction and subject to the approval in all respects of the Engineer-in-Charge who shall be entitled to direct at what point or points and in what manner they are to be commenced, and from time to time carried on.
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CLAUSE 25

	Dispute Resolution Mechanism and Arbitration	Except where otherwise provided in the contract, all questions and disputes relating to the meaning of the specifications, design, drawings and instruction here-in before mentioned and as to the quality of workmanship or materials used on the work or as to any other question, claim, right, matter or thing whatsoever, in any way arising out of or relating to the contract, designs, drawings, specifications, estimates, instructions, orders or these conditions or otherwise concerning the work or the execution or failure to execute the same whether arising during the progress of the work or after the cancellation, termination, completion or abandonment thereof shall be dealt with as mentioned hereinafter: i. If the contractor considers any work demanded of him to be out side the requirement of the contract, or disputes any drawing, record or decision given in writing by the Engineer-in-Charge or if the Engineer in Charge considers any act or decision of the contractor on any matter in connection with or arising out of the contract or carrying out of the work, to be unacceptable and is disputed such party shall promptly within 15 days of the arising of the disputes request the Executive Director (Engg.)/Regional Executive Director/Member (Plg) /Chairman, AAI as the case may be, who shall refer the dispute to Dispute Redressal Committee (DRC) within 15 days along with a list of disputes with amounts claimed if any, in respect of each such disputes. The Dispute Redressal Committee (DRC) shall give the opposing party two weeks for written response, and give its decision within a period of 60 days extendable by 30 days by consent of both the parties from the receipt of reference from the Executive Director (Engg.)/Regional Executive Director/Member (Plg) /Chairman, AAI. Provided that no party shall be represented before the Dispute Redressal Committee by an advocate / legal counsel etc. If the Dispute Redressal Committee (DRC) fails to give its decision within aforesaid period or any party is dis-satisfied with the decision of Dispute Redressal Committee (DRC) or expiry of time limit given above, then either party may within a period of 30 days from the receipt of the decision of Dispute Redressal Committee (DRC), give notice to the Executive Director (Engg.)/Regional Executive Director/Member (Plg) /Chairman, AAI as the case may be for appointment of Arbitrator on prescribed proforma as per Appendix-XVII.under intimation to the other party. It is also a term of contract and each party invoking Arbitration must exhaust
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		the aforesaid mechanism of settlement of claims/disputes prior to invoking Arbitration. The Executive Director (Engg.)/Regional Executive Director/Member (Plg) /Chairman, AAI shall in such case appoint the sole arbitrator or one of the three arbitrators as the case may be within 30 days of receipt of such a request and refer such disputes to arbitration. Wherever the Arbitral Tribunal consists of three Arbitrators, the contractor shall appoint one arbitrator within 30 days of making request for arbitration or of receipt of request by Engineer in Charge to Executive Director (Engg.)/Regional Executive Director/Member (Plg) /Chairman, AAI for appointment of arbitrator, as the case may be, and two appointed arbitrators shall appoint the third arbitrator, who shall act as the presiding arbitrator. In the event of : a. A party fails to appoint the second arbitrator, or b. The two appointed arbitrators fail to appoint the Presiding Arbitrator, then Member (Plg)/Chairman, AAI shall appoint the second or Presiding Arbitrator as the case may be. ii Disputes or difference shall be referred for adjudication through arbitration by a Tribunal having Sole Arbitrator where tendered amount is Rs. 300.00 Cr or less. Where tendered value is more than Rs. 300.00 Cr., Tribunal shall consist of three arbitrators as above. The requirements of the arbitration and the conciliation act, 1996 (26 of 1996) and further modified act in 2015 and any further statutory modifications or re-enactment thereof and the rules made thereunder and for the time being in force shall be applicable. It is a term of this contract that the party invoking Arbitration shall give a list of disputes with amounts, claimed, if any, in respect of each such disputes along with the notice for appointment of Arbitrator and giving reference to the decision of the DRC. It is also term of this contract that any member of Arbitration Tribunal shall be a graduate engineer with experience in handling public works, engineering contracts at a level not lower than Chief Engineer. This shall be treated as mandatory qualification to be appointed as Arbitrator. Parties, before or at the time of appointment of Arbitral Tribunal may agree in writing for fast track arbitration as per the Arbitration and Conciliation Act, 1996 (26 of 1996) as amended in 2015. Subject to provision in the Arbitration and Conciliation Act, 1996 (26 of 1996) as amended in 2015 whereby the counter claims if any can be directly filed before the arbitrator without any requirement of reference by the Appointing Authority, the Arbitrator shall adjudicate on only such disputes as are referred to him by the appointing authority and give separate award against each disputes and claim referred to him and in all cases where the total amount of the claims by any party exceed Rs. 1,00,000/-, the Arbitrator shall give reasons for the award. It is also a term of the contract that if any fees are payable to the arbitrator, these shall be paid as per the Act. It is also a term of the contract that the arbitrator shall be deemed to have entered on the reference on the date he issues notice to both the parties calling them to submit their statement of claims and counter statement of claims. The place of the arbitration shall be mentioned in schedule 'F'. In case there is no mention of place of arbitration, the Arbitral Tribunal shall determine the place of arbitration. The venue of the arbitration shall be such place as may be fixed by the Arbitral Tribunal in consultation with both the parties. Failing any
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		such agreement, then the Arbitral Tribunal shall decide the venue.
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CLAUSE 26

	Contractor to indemnify AAI against Patent Rights	The contractor shall fully indemnify and keep indemnified the Chairman AAI against any action, claim or proceeding relating to infringement or use of any patent or design or any alleged patent or design rights and shall pay and royalties which may be payable in respect of any article or part thereof included in the contract. In the event of any claims made under or action brought against AAI in respect of any such matters as aforesaid, the contractor shall be immediately notified thereof and the contractor shall be at liberty, at his own expense, to settle any dispute or to conduct any litigation that may arise there from, provided that the contractor shall not be liable to indemnify the AAI if the infringement of the patent or design or any alleged patent or design right is the direct result of an order passed by the Engineer-in-Charge in this behalf.
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CLAUSE 27

	Lump sum Provisions in Tender	When the estimate on which a tender is made, includes lump sum in respect of parts of the work, the contractor shall be entitled to payment in respect of the items of work involved or the part of the work in question at the same rates as are payable under this contract for such items ,or if the part of work in question is not, in the opinion of the Engineer-in-Charge payable of measurement, the Engineer-in-Charge may at his discretion pay the lump- sum amount entered in the estimate, and the certificate in writing of the Engineer-in-Charge shall be final and conclusive against the contractor with regard to any sum or sums payable to him under the provision of the clause.
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CLAUSE 28

	Action where no specifications are specified	In the case of any class of work for which there is no such specifications as referred to in Clause 11, such work shall be carried out in accordance with the Bureau of Indian Standards Specifications. In case there are no such specifications in Bureau of Indian Standards, the work shall be carried out as per manufacturers' specifications. In case there are no such specifications as required above, the work shall be carried out in all respects in accordance with the instructions and requirements of the Engineer-in-Charge.
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CLAUSE 29

	With-holding and lien in respect of sums due from contractor	i. Whenever any claims for payment of a sum of money arises out of or under the contract or against the contractor, the Engineer-in-Charge or the AAI shall be entitled to withhold and also have a lien to retain such sum or sums in whole or in part from the security, if any deposited by the contractor and for the purpose aforesaid, the Engineer-in-Charge or the AAI shall be entitled to withhold the security deposit if any, furnished as the case may be and also have a lien over the same pending finalization or adjudication of any such claim. In the event of the security being insufficient to cover the claimed amount or amounts or if no security has been taken from the contractor, the Engineer-in-Charge or the AAI shall be entitled to withhold and have lien to retain to the extent of such claimed amount or amounts referred to above from any sum or sums found payable or which may at any time thereafter
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		become payable to the contractor under the same contract or any other contract with the Engineer-in Charge of the AAI or any contracting person through the Engineer-in-Charge pending finalization of adjudication of any such claim. It is an agreed term of the contract that the sum of money or moneys so withheld or retained under the lien referred to above by the Engineer-in-Charge or AAI will be kept withheld or retained as such by the Engineer-in-Charge or AAI till the claim arising out of or under the contract is determined by the arbitrator. (if the contract is governed by the arbitration clause) or by the competent court, as the case may be and that the contractor will have no claim for interest or damages whatsoever on any account in respect of such withholding or retention under the lien referred to above and duly notified as such to the contractor. For the purpose of this clause, where the contractor is a partnership firm or a limited company, the Engineer-in-Charge or the AAI shall be entitled to withhold and also have a lien to retain towards such claimed amount or amounts in whole or in part from any sum found payable to any partner/limited company as the case may be, whether in his individual capacity or otherwise. ii. AAI shall have the right to cause an audit and technical examination of the works and the final bills of the contractor including all supporting vouchers, abstract, etc., to be made after payment of the final bill and if as a result of such audit and technical examination any sum is found to have been overpaid in respect of any work done by contractor under the contract or any work claimed to have been done by the him under the contract and found not to have been executed, the contractor shall be liable to refund the amount of over payment and it shall be lawful for AAI to recover the same from him in the manner prescribed in sub-clause (i) of this clause or in any other manner legally permissible; and if it is found that the contractor was paid less than what was due to him under the contract in respect of any work executed by him under it, the amount of such under payment shall be duly paid by AAI to the contractor, without any interest thereon whatsoever. Provided that the AAI shall not be entitled to recover any sum overpaid, nor the contractor shall be entitled to payment of any sum paid short where such payment has been agreed upon between the Executive Director Engineering / General Manager Engineering on the one hand and the contractor on the other under any term of the contract permitting payment for work after assessment by the Executive Director Engineering / General Manager Engineering.
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CLAUSE 29 A

	Lien in respect of claims in other Contracts	i. Any sum of money due and payable to the contractor (including the security deposit refundable to him) under the contract may be withheld or retained by way of lien by the Engineer-in-Charge or the AAI or any other contracting person or persons through Engineer-in-Charge against any claim of the Engineer-in-Charge or AAI or such other person or persons in respect of payment of a sum of money arising out of or under any other contract made by the contractor with the Engineer-in-Charge or the AAI or with such other person or persons. ii. It is an agreed term of the contract that the sum of money so withheld or retained under this clause by the Engineer-in-Charge or the AAI will be kept withheld or retained as such by the Engineer-in-Charge or the AAI or till his claim arising out of the same contract or any other contract is either mutually settled or determined by the arbitration clause or by the competent court, as the case may be and that the contractor shall have no claim for interest or damages whatsoever on this account or on any other ground in respect of any
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		sum of money withheld or retained under this clause and duly notified as such to the contractor.
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CLAUSE 30

Employment of coal mining or controlled area labour not permissible	i. The contractor shall not employ coal mining or controlled area labour falling under any category whatsoever or in connection with the work or recruit labour from area within a radius of 32 km (20 miles) of the controlled area. Subject as above the contractor shall employ imported labour only i.e., deposit imported labour or labour imported by contractors from area, from which import is permitted. ii. Where ceiling price for imported labour has been fixed by State or Regional Labour Committees not more than that ceiling price shall be paid to the labour by the contractor. iii. The contractor shall immediately remove any labourer who may be pointed out by the Engineer-in-Charge as being a coal mining or controlled area labourer. Failure to do so shall render the contractor liable to pay to AAI a sum calculated at the rate of Rs.10/- per day per labourer. The certificate of the Engineer-in –Charge about the number of coal mining or controlled area labourer and the number of days for which they worked shall be final and binding upon all parties to this contract. iv. It is declared and agreed between the parties that the aforesaid stipulation in this clause is one in which the public are interested within the meaning of the exception in Section 74 of Indian Contract Act, 1872. Explanation :- Controlled area mean the following areas: Districts of Dhanbad, Hazaribagh, Jamtara- Sub-Division under Santhal Pargana Commissionery, District of Bankura, Birbhum, Burdwan, District of Bilaspur. Any other area which may be declared a Controlled Area by or with the approval of the Central Government.
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CLAUSE 31

Unfiltered water supply	The contractor(s) shall make his/their own arrangements for water required for the work and nothing extra will be paid for the same. This will be subject to the following conditions. i. That the water used by the contractor (s) shall be fit for construction purposes to the satisfaction of the Engineer-in-Charge. ii. The Engineer-in-Charge shall make alternative arrangements for supply of water at the risk and cost of contractor (s) if the arrangements made by the contractor (s) for procurement of water are in the opinion of the Engineer-in-Charge, unsatisfactory.
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CLAUSE 31A

Departmental water supply, if available	Water if available may be supplied to the contractor by the department subject to the following conditions:- i. The water charges @1% shall be recovered on gross amount of the work done. ii. The contractor(s) shall make his/their own arrangement of water connection and laying of pipelines from existing main of source of supply. iii. The Department do not guarantee to maintain uninterrupted supply of water and it will be incumbent on the contractor (s) to make alternative arrangements for water at his/their own cost in the event of any temporary
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		break down in the AAI's water main so that the progress of his/their work is not held up for want of water. No claim of damage or refund of water charges will be entertained on account of such break down.
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CLAUSE 32

	Alternate water arrangements	i. Where there is no piped water supply arrangement and the water is taken by the contractor from the wells or hand pump constructed by the AAI, no charge shall be recovered from the contractor or that account. The contractor shall, however, draw water at such hours of the day that it does not interfere with the normal use for which the hand pumps and well are intended. He will also be responsible for all damage and abnormal repairs arising out of his use, the cost of which shall be recoverable from him. The Engineer-in-Charge shall be the final authority to determine the cost recoverable from the contractor on this account and his decision shall be binding on the contractor. ii. The contractor shall be allowed to construct temporary wells in AAI land for taking water for construction purposes only after he has got permission of the Engineer-in-Charge in writing. No charges shall be recovered from the contractor on this account but the contractor shall be required to provide necessary safety arrangements to avoid any accidents or damage to adjacent buildings, roads and service lines. He shall be responsible for any accidents or damage caused due to construction and subsequent maintenance of the wells and shall restore the ground to its original condition after the wells are dismantled on completion of the work.
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CLAUSE 33

	Return of Surplus materials	Notwithstanding anything contained to the contrary in this contract, where any materials for the execution of the contract are procured with the assistance of AAI either by issue from AAI stocks or purchase made under orders or permits or licenses issued by AAI, the contractor shall hold the said materials economically and solely for the purpose of the contract and not dispose of them without the written permission of the AAI and return, if required by the engineer-in-Charge, all surplus or unserviceable materials that may be left with him after the completion of the contract or at its termination for any reason whatsoever on being paid or credited such prices as the Engineer-in-Charge shall determine having due regard to the condition of the materials. The price allowed to the contractor however shall not exceed the amount charged to him excluding the element of storage charges. The decision of the Engineer-in-Charge shall be final and conclusive. In the event of breach of the aforesaid condition, the contractor shall in addition to throwing himself open to action for contravention of the terms of the license or permit and / or for criminal breach of trust, be liable to AAI for all moneys, advantages or profits resulting or which in the usual course would have resulted to him by reason of such breach.
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CLAUSE 34

	Hire of plant & Machinery	i. The Contractor shall arrange at his own expense all tools, plant, machinery and equipment(hereinafter referred to as T&P) required for execution of the work except for the Plant & Machinery listed in Schedule 'C' and stipulated for issue to the contractor. If the contractor requires any item of T&P on hire from the T&P available with the AAI over and above the T&P stipulated for issue, the AAI will, if such item is available, hire it to the contractor at rates to be agreed upon between him and the Engineer-in-charge. In such a case, all the conditions hereunder for issue of T & P shall also be applicable to such T&P as is agreed to be issued.
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		ii. Plant & Machinery when supplied on hire charges shown in Schedule 'C' shall be made over and taken back at the departmental equipment yard / shed shown in Schedule 'C' and the contractor shall bear the cost of carriage from the place of issue to the site of work and back. The contractor shall be responsible to return the plant and machinery with condition in which it was handed over to him, and he shall be responsible for all damage caused to the said plant and machinery at the site of work or elsewhere in operation and otherwise during transit including damage to or loss of plant and for all losses due to his failure to return the same soon after the completion of the work for which it was issued. The Engineer-in-charge shall be the sole judge to determine the liability of the contractor and its extent in this regard and his decision shall be final and binding on the contractor. iii. The plant and machinery as stipulated above will be issued as and when available and if required by the contractor. The contractor shall arrange his programme of work according to the availability of the plant and machinery and no claim, whatsoever, will be entertained from him for any delay in supply by the department. iv. The hire charges shall be recovered at the prescribed rates from and inclusive of the date the plant and machinery made over upto and inclusive of the date of the return in good order even though the same may not have been working for any cause except major breakdown due to no fault of the contractor or faulty use requiring more than three working days continuously (excluding intervening holidays and Sundays) for bringing the plant in order. The contractor shall immediately intimate in writing to the Engineer-in-charge when any plant or machinery gets out of order requiring major repairs as aforesaid. The Engineer-in-charge shall record the date and time of receipt of such intimation in the log sheet of the plant or machinery. Based on this if the breakdown before lunch period or major breakdown will be computed considering half a day's breakdown on the day of complaint. If the breakdown occurs in the post lunch period of major breakdown will be computed starting from the next working day. In case of any dispute under this clause, the decision of the Executive Director (Engg) /General Manager (Engg) shall be final and binding on the contractor. v. The hire charges shown above are for each day of 8 hours (inclusive of the one hour lunch break) or part thereof. vi. Hire charges will include service of operating staff as required and also supply of lubricating oil and stores for cleaning purposes. Power fuel of approved type, firewood, kerosene oil etc. for running the plant and machinery and also the full time chowkidar for guarding the plant and machinery against any loss or damage shall be arranged by the contractor who shall be fully responsible for the safeguard and security of plant and machinery. The contractor shall on or before the supply of plant and machinery sign an agreement indemnifying the Department against any loss or damage caused to the plant and machinery either during transit or at site of work. vii. Ordinarily, no plant and machinery shall work for more than 8 hours a day inclusive of one hour lunch break. In case of an urgent work however, the Engineer-in-charge may, at his discretion, allow the plant and machinery to be worked for more than normal period of 8 hours a day. In that case, the hourly hire charges for overtime to be borne by the contractor shall be 50% more than the normal proportionate hourly charges (1/8th of the daily charges) subject to a minimum of half day's normal charges on any particular day. For working out hire charges for over time, a period of half an hour and above will be charged as one hour and a period of less than half an hour will be ignored.
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		viii. The contractor shall release the plant and machinery every seventh day for periodical servicing and / or wash out which may take about three to four hours or more. Hire charges for full day shall be recovered from the contractor for the day of servicing / wash out irrespective of the period employed in servicing. ix. The plant and machinery once issued to the contractor shall not be returned by him on account of lack of arrangements of labour and materials, etc. on his part, the same will be returned only when they are required for major repairs or when in the opinion of the Engineer-in-charge, the work or a portion of work for which the same was issued is completed. x. Log Book for recording the hours of daily work for each of the plant and machinery supplied to the contractor will be maintained by the Department and will be countersigned by the contractor or his authorised agent daily. In case the contractor contests the correctness of the entries and / or fails to sign the Log Book, the decision of the Engineer-in-charge shall be final and binding on him. Hire charges will be calculated according to the entries in the Log Book and will be binding on the contractor. Recovery on account of hire charges for road rollers shall be made for the minimum number of days worked out on the assumption that a roller can consolidate per day and maximum quantity of materials or area surfacing as noted against each in the annexed statement (see attached annexure). xi. In the case of concrete mixers, the contractors shall arrange to get the hopper cleaned and the drum washed at the close of the work each day or each occasion. (a) In case rollers for consolidation are employed by the contractor himself, log book for such rollers shall be maintained in the same manner as is done in case of departmental rollers, maximum quantity of any items to be consolidated for each roller-day shall also be same as in Annexure to Clause 34(x). For less use of rollers, recovery for the less roller days shall be made at the stipulated issue rate. xii. The contractor shall be responsible to return the plant and machinery in the condition in which it was handed over to him and he shall be responsible for all damage caused to the said plant and machinery at the site of work or elsewhere in operation or otherwise or during transit including damage to or loss of parts, and for all losses due to his failure to return the same soon after the completion of the work for which it was issued. The Engineer-in-charge shall be the sole judge to determine the liability of the contractor and its extent in this regard and his decision shall be final and binding on the contractor. xiii. The contractor will be exempted from levy of any hire charges for the number of days he is called upon in writing by the Engineer-in-charge to suspend execution of the work, provided AAI's plant and machinery in question have, in fact, remained idle with the contractor because of the suspension. xiv. In the event of the contractor not requiring any item of plant and machinery issued by AAI though not stipulated for issue in Schedule 'C' any time after taking delivery at the place of issue, he may return it after two days written notice or at any time without notice if he agrees to pay hire charges for two additional days without, in any way, affecting the right of the Engineer-in-charge to use the said plant and machinery during the said period of two days as he likes including hiring out to a third party.
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CLAUSE 35

	Condition relating to use	i. The contractor undertakes to make arrangement for the supervision of the work by the firm supplying the tar or bitumen used.
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	of asphaltic materials	ii. The contractor shall collect the total quantity of tar or bitumen required for the work as per standard formula, before the process of painting is started and shall hypothecate it to the Engineer-in-Charge. If any bitumen or tar remains unused on completion of the work on account of lesser use of materials in actual execution of for reasons other than authorised changes of specifications and abandonment of portion of work, a corresponding deduction equivalent to the cost of unused materials as determined by the Engineer-in-Charge shall be made and the material return to the contractors. Although the materials are hypothecated to AAI, the contractor undertakes the responsibility for their proper watch, safe custody and protection against all risks. The materials shall not be removed from site of work without the consent of the Engineer-in-Charge in writing. iii. The contractor shall be responsible for rectifying defects noticed within a year from the date of completion of the work and the portion of the security deposit relating asphaltic work shall be refunded after the expiry of this period.
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CLAUSE 36

	Employment of Technical Staff and employees	Contractors Superintendence, Supervision, Technical staff & Employees i. The contractor shall provide all necessary superintendence during execution of the work and all along thereafter as may be necessary for proper fulfilling of the obligations under the contract. The Contractor shall immediately after receiving letter of acceptance of the tender and before commencement of the work, intimate in writing to the Engineer-in-Charge, the name (s), qualifications experience, age, address (s) and other particulars along with certificates, of the principal technical representative to be charge of the work and other technical representative (s) who will be supervising the work. Minimum requirement of such technical representative (s) and their qualifications and experience shall not be lower than specified in schedule 'F'. The Engineer-in-Charge shall within 3 days of receipt of such communication intimate in writing his approval or otherwise of such a representative (s) to the contractor. Any such approval may at any time be withdrawn and in case of such withdrawal, the contractor shall appoint another such representative (s) according to the provisions of this clause. Decision of the tender accepting authority shall be final and binding on the contractor in this respect. Such a principal technical representative and other technical representative (s) shall be appointed by the contractor soon after receipt of the approval from Engineer-in-charge and shall be available at site before start of work. All the provisions applicable to the principal technical representative under the clause will also be applicable to other technical representative(s). The principal technical representative and other technical representative (s) shall be present at the site of work for supervision at all times when any construction activity is in progress and also present himself/themselves, as required to the Engineer-in-Charge and / or his designated representative to take instructions. Instructions given to the principal technical representative or other technical representative (s) shall be deemed to have the same force as if these have been given to the contractor. The Principal Technical Representative and other technical representatives shall be actually available at site fully during all stages of execution work, during recording / checking / test checking of measurements of works whenever so required by the
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		Engineer-in-Charge and shall also note down instructions conveyed by the Engineer-in-Charge or his designated representative (s) in the site order book and shall affix his/their signature in token of noting down the instructions and in token of acceptance of measurements / checked measurements / test checked measurements. The representative (s) shall not look after any other work. Substitutes, duly approved by engineer – in-Charge of the work in similar manner as aforesaid shall be provided in event of absence of any of the representative (s) by more than two days. If the Engineer-in-Charge, whose decision in this respect is final and binding on the contractor, is convinced that no such technical representative (s) is/are effectively appointed or is/are effectively attending or fulfilling the provision of this clause, a recovery (non-refundable) shall be effected from the contractor as specified in Schedule 'F' and the decision of the Engineer-in-Charge as recorded in the site order book and measurement recorded checked/test checked in Measurement Books shall be final and binding on the contractor. Further if the contractor fails to appoint suitable technical Principal technical representative and / or other technical representative (s) and if such appointed persons are not effectively present or are absent by more than two days without duly approved substitute or do not discharge their responsibility satisfactorily, the Engineer-in-Charge shall have full powers to suspend the execution of the work until such date as suitable other technical representative (s) is / are appointed and the contractor shall be held responsible for the delay so caused to the work. The contractor shall submit a certificate of employment of the technical representative (s) (in the form of copy of Form- 16 or CPF deduction issued to the Engineer employed by him) alongwith every running account bill / final bill and shall produce evidence if at any times so required by the Engineer-in-Charge. ii. The contractor shall provide and employ on the site only such technical assistants as are skilled, and experienced in their respective fields and such foremen and supervisory staff as are competent to give proper supervision to the work. The contractor shall provide and employ skilled, semi-skilled and unskilled labour as is necessary for proper and timely execution of the work. The Engineer-in-Charge shall be at liberty to object to and require the contractor to remove from the works any person who in his opinion misconducts himself, or is incompetent or negligent in the performance of his duties or whose employment is otherwise considered by the Engineer-in-Charge to be undesirable. Such person shall not be employed again at works site without the written permission of the Engineer-in-Charge and the persons so removed shall be replaced as soon as possible by competent substitutes. iii. The contractor shall not change his engineer/supervisory staff after approval of the Engineer-In-Charge. If Contractor wants to replace any of his staff due to unavoidable circumstances, he will seek permission of Engineer-In-Charge indicating reasons for such change, qualification and experience of the alternative employee suggested by him. The qualification and experience of the alternative staff shall not be inferior to the person employed earlier.
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CLAUSE 37

	Levy/Taxes/ Royalty/ Land Licence fee payable by	1. Taxes: a. All Tendered rates should be inclusive of all taxes etc. except GST. Wherever supplies/services involve imports, the same should be identified separately. Basic Custom Duty will be paid by AAI by
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	Contractor	utilizing EPCG license/duty scrip under SEI scheme of GOI. GST shall be paid to bidder for any taxable supply/services against a valid Tax Invoice. b. The bidder is required to provide Tax type and Tax percentage in all bids other than that of civil works. c. In case of composite works having component of SITC items, such as Electrical & Mechanical Installation, Airport System. Security, IT, Furniture etc should be identified separately with value of goods and services, Tax Rate, amount of Tax so as to enable AAI to claim Input Tax Credit on such items. d. In case of change in rate of Tax or any provision relating to levy of Tax resulting in increase in burden of Tax on the contractor, the contractor shall be entitled to receive any compensation for such increase in quantum of Tax payable by the contractor. Similarly recovery shall be made from the contractor on account of decrease of rate of Tax or any provision relating to levy of Tax. 2. Royalty: a. The contractor shall at his own expense, provide all materials required for the works other than those which are to be supplied by AAI. The contractor shall deposit royalty and obtain necessary permit for collection of stone, sand, red bajri, kankar etc. from the local authority in the matter and will abide by the notification issued by Central Govt. / State Government / Local State Authorities as applicable from time to time in this regard. The contractor is also bound to allow deduction from his bills any difference in statutory taxes/royalty and penalty proposed by Local State Authorities to AAI till finalization of settlement of all demands in this regard by Central / State Govt. b. This will also be applicable to forest produce. c. If pursuant to or under any law, notification or order any royalty, cess or the like becomes payable by the AAI and does not any time become payable by the contractor to the State Government. Local authorities in respect of any material used by the contractor in the works then in such a case, it shall be lawful to the AAI and it will have the right and be entitled to recover the amount paid in the circumstances as aforesaid from dues of the contractor. 3. Licence fee for land a. Land/space (Paved/ Unpaved/ Covered-AC or Non-AC), to the extent allotted to contractors during execution of work for the purpose of installation of plants, labour camps, cement godown, site office, stacking of materials shall be provided at free of cost upto defect liability period/maintenance period. b. A security deposit at the rate of Rs. 500/- per sqm in the form of DD/BG shall be deposited by the contractor. In case contractor do not deposit security deposit same shall be deducted from Ist Running Account Bill. c. Such security deposit shall be released only after allotted land has been fully vacated by the contractor to entire satisfaction of Engineer-in-Charge. If contractor fails to vacate the allotted land/ space (Paved/ Unpaved/ Covered-AC/ Non-AC after Defect Liability Period/ Maintenance Period of the work shall be charged as per prevailing licence fee of the airport plus 25% penalty over that.
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**CLAUSE 38**

	Conditions for reimbursement of levy/ taxes if levied after receipt of tenders	1. All Tendered rates should be inclusive of all taxes etc. except GST. Wherever supplies/services involve imports, the same should be identified separately. Basic Custom Duty will be paid by AAI by utilizing EPCG license/duty scrip under SEI scheme of GOI. GST shall be paid to bidder for any taxable supply/services against a valid Tax Invoice. 2. The bidder is required to provide Tax type and Tax percentage in all bids other than that of civil works. 3. In case of composite works having component of SITC items, such as Electrical & Mechanical Installation, Airport System. Security, IT, Furniture etc should be identified separately with value of goods and services, Tax Rate, amount of Tax so as to enable AAI to claim Input Tax Credit on such items. 4. In case of change in rate of Tax or any provision relating to levy of Tax resulting in increase in burden of Tax on the contractor, the contractor shall be entitled to receive any compensation for such increase in quantum of Tax payable by the contractor. Similarly recovery shall be made from the contractor on account of decrease of rate of Tax or any provision relating to levy of Tax. 5. The contractor shall keep necessary books of accounts and other documents for the purpose of this condition as may be necessary and shall allow inspection of the same by a duly authorised representative of AAI or the Engineer-in-Charge and further shall furnish such other information / document as the Engineer-in- Charge may require from time to time. 6. The contractor shall, within a period of 30 days of the imposition of any such further tax or levy or cess, give a return notice thereof to the Engineer-in-charge that the same is given pursuant to the condition, together with all necessary information relating thereto.
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CLAUSE 39

	Termination of contract on death of contractor	Without prejudice to any of the rights or remedies under this contract, if the contractor dies, the Engineer-in-charge on behalf of the AAI shall have the option of terminating the contract without compensation to the contractor.
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CLAUSE 40

	If relative working in AAI then the contractor not allowed to tender.	The contractor shall not be permitted to tender for works in AAI wherein his near relative is posted as an Officer responsible for award and execution of work. He shall also intimate the names of persons who are working with him in any capacity or / are subsequently employed by him and who are near relatives to any officer of AAI. Any breach of this condition by the Contractor would render him, the contract liable to be rejected at any stage. NOTE: By the term “near relatives” is meant wife, husband, parents and grand parents, children and grand children, brothers and sisters, uncles, aunts and cousins and their corresponding in-laws.
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CLAUSE 41

	No any officer	Engineer or any officer employed in engineering or administrative duties in an
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	in Department of Engineering to work as contractor within one year of retirement	engineering department of AAI shall not work as a contractor or employee of contractor for a period of one year after his retirement from AAI service without the prior permission of AAI in writing. This contract is liable to be cancelled if either the contractor or any of his employees is found at any time to be such a person who had not obtained the permission of AAI as aforesaid, before submission of the tender or engagement in the contractor's service, as the case may be.
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CLAUSE 41(a)

	Integrity Pact and Independent External Monitor.	Signing of Integrity Pact (As per Appendix XVIII) is mandatory for every bidder/contractor if provided so in Schedule F. All tenderers shall have to submit an undertaking as per Appendix XVIII along with tender documents. AAI shall appoint Independent External Monitor(s) to oversee effective implementation of Integrity Pact for such works/services. For this purpose, a panel of Independent External Monitors shall be constituted by the Authority in concurrence with Central Vigilance Commission (CVC). i. The Contractor/Supplier shall have to act in accordance with the conditions laid down in the integrity pact. a. Signing of Integrity Pact is mandatory for every Bidder/Contractor in this procurement/bid process the signed original is to be sent to the office of Bid Manager and should reach before the due date mentioned in NIT. b. The Bidder/contractor shall commit itself to ensure taking all measures necessary to prevent corrupt practices, unfair means and illegal activities during any stage of job or during any pre-contract or post-contract stage as specified in section 3 of the integrity pact. c. Any breach of the aforesaid provisions by the Bidder or any one employed by it or acting on its behalf (whether with or without the knowledge of the Bidder) shall entitle the authority to take all or any one of the action as specified in section 6 of the integrity pact. ii. In case any violation of above conditions is established, AAI reserves right to take following actions. a. If contractor commits a violation of its commitments and obligations under the Integrity Pact Program during bidding process, he shall be liable for disqualification from tender process and forfeiture of his Earnest Money Deposit/Bid Security. b. In case of violation of the Integrity Pact after award of the contract, Authority is entitled to terminate the contract and shall be entitled to demand and recover from the contractor damages equivalent to 5% of the contract value or the amount equivalent to Security Deposit or Performance Bank Guarantee, whichever is higher. c. Authority may initiate appropriate proceedings against the contractor. d. Contractor will be liable to pay damages as determined by the Authority. e. Contractor against whom an action for violation of its commitments and obligations has been taken earlier, again commits a violation, the Authority is entitled to debar such contractor for future tender/contract processes for a period as deemed fit.
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		f. A violation is considered to have occurred if the Authority is fully satisfied with the available documents and evidence submitted along-with Independent External Monitor's recommendations / suggestions that no reasonable doubt exist in the matter.
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CLAUSE 41(b)

	Code of Integrity	No official of AAI or a bidder shall act in contravention of the code which includes (i) prohibition of (a) making offer, solicitation or acceptance of bribe, reward, gift or any material benefit, either directly or indirectly, in exchange for an unfair advantage in the procurement process or to otherwise influence the procurement process. (b) any omission, or misrepresentation that may mislead or attempt to mislead so that financial or other benefit may be obtained or an obligation avoided. (c) any collusion, bid rigging or anticompetitive behaviour that may impair the transparency, fairness and the progress of the procurement process. (d) improper use of information provided by the procuring entity to the bidder with an intent to gain unfair advantage in the procurement process or for personal gain. (e) any financial or business transactions between the bidder and any official of the procuring entity related to tender or execution process of contract; which can affect the decision of the procuring entity directly or indirectly. (f) any coercion or any threat to injure or harm, directly or indirectly, any party or its property to influence the procurement process. (g) obstruction of any investigation or auditing of a procurement process. (h) making false declaration or providing false information for participation in a tender process or to secure a contract; (ii) disclosure of conflict of interest. (iii) Disclosure by the bidder of any previous transgressions made in respect of the provisions of clause (i) with any entity in any country during the last three years or of being debarred by any other procuring entity.
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**CLAUSE 42**

	Return of material and recovery for excess material issued.	i. After completion of the work and also at any intermediate stage in the event of non-reconciliation of materials issued, consumed and in balance – (see Clause 10), Theoretical quantity of materials issued by the AAI for use in the work shall be calculated on the basis and method given hereunder; - Quantity of cement & bitumen shall be calculated on the basis of quantity of cement & bitumen required for different items of work as shown in the Schedule of Rates mentioned in Schedule 'F'. In case any item is executed for which standard co-efficients for the consumption of cement or bitumen are not available in the above mentioned schedule / statement or cannot be derived from the same shall be calculated on the basis of standard formula to be laid down by the Engineer-in-Charge. - Theoretical quantity of steel reinforcement or structural steel sections shall be taken as the quantity required as per design or as authorised by Engineer-in- Charge, including authorised lappages, chairs etc. plus 3% wastage due to cutting into pieces, such theoretical quantity being determined and compared with the actual issues each diameter-wise, section wise and category wise separately. - Theoretical quantity of G.I. & C.I. or other pipes, conduits, wires and cables pig lead and G.I. / M.S. sheets shall be taken as quantity actually required and measures plus 5% for wastage due to cutting into pieces (except in the case of G.I./M.S. sheets it shall be 10%), such determination & comparison being made diameter-wise & category-wise. - For any other material as per actual requirements. ii. Over the theoretical quantities of materials so computed a variation shall be allowed as specified in Schedule 'F'. The difference in the net quantities of material actually issued to the contractor and the theoretical quantities including such authorised variation, if not returned by the contractor or if not fully reconciled to the satisfaction of the Engineer-in-Charge within fifteen days of the issue of written notice by the Engineer-in-Charge to this effect shall be recovered at the rates specified in Schedule 'F', without prejudice to the provision of the relevant conditions regarding return of materials governing the contract. Decision of Engineer-in-Charge in regard to theoretical quantities of materials, which should have been actually used as per the Annexure of the standard schedule of rates and recovery at rates specified in Schedule 'F' shall be final and binding on the contractor. For non scheduled items, the decision of the Engineer – in - charge regarding theoretical quantities of materials which should have been actually used, shall be final and binding on the contractor. - The said action under this clause is without prejudice to the right of the AAI to take action against the contractor under any other conditions of contract for not doing the work according to the prescribed specifications. - For materials brought by the contractor for use in item of work at site, similar theoretical consumption shall be prepared and submitted to the Engineer-in-Charge for verification. If it is found that material consumed in the work is less than the theoretical consumption after
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		taking into account permissible minus variation, the recovery for corresponding material shall be effected as per rates specified in schedule 'F' under Clause 42.
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CLAUSE 43

	Compensation during warlike situations / act of terrorism	The work (whether fully constructed or not) and all materials, machines, tools and plants scaffolding, temporary buildings and other things connected therewith shall be at the risk of the contractor until the work has been delivered to the Engineer-in-Charge and a certificate from him to that effect obtained. In the event of the work or any materials properly brought to the site for incorporation in the work being damaged or destroyed in consequence of hostilities or warlike operation or act of terrorism, the contractor shall when ordered (in writing) by the Engineer-in-Charge to remove any debris from the site, collect and properly stack or remove in store all serviceable materials salvaged from the damaged work and shall be paid at the contract rates in accordance with the provision of this agreement for the work of clearing the site of debris, stacking or removal of serviceable material and for reconstruction of all works ordered by the Engineer-in-Charge, such payments being in addition to compensation upto the value of the work original executed before being damaged or destroyed and not paid for. In case of works damaged or destroyed but not already measured and paid for, the compensation shall be assessed by the Engineer-in charge upto Rs.5,000/- and by the Executive Director Engg. concerned for a higher amount. The contractor shall be paid for the damages / destruction suffered and for restoring the material at the rate based on analysis of rates tendered for in accordance with the provision of the contract. The certificate of the Engineer-in- Charge regarding the quality and quantity of materials and the purpose for which they were collected shall be final and binding on all parties to this contract. Provided always that no compensation shall be payable for any loss in consequence of hostilities or warlike operation (a) unless the contractor had taken all such precautions against air raid as are deemed necessary by the A.R.P. Officers or the Engineer-in- Charge (b) for any material etc. not on the site of the work or for any tools plant, machinery, scaffolding, temporary building and other things not intended for the work. In the event of the contractor having to carry out reconstruction as aforesaid, he shall be allowed such extension of time for its completion as is considered reasonable by the Engineer – in - charge.
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CLAUSE 44

	Apprentices Act provisions to be complied with	The contractor shall comply with the provisions of the Apprentices Act, 1961 and the rules and orders issued thereunder from time to time. If he fails to do so, his failure will be a breach of the contract and the Executive Director Engg. / General Manager (Engg.) may, in his discretion, cancel the contract. The contractor shall also be liable for any pecuniary liability arising on account of any violation by him of the provisions of the said Act.
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CLAUSE 45

	Release of security deposit	The Security Deposit of the work shall be refunded if no labour complaint has been received from the labour officer till the due date of its payment. If a labour complaint is received during this period, the Engineer-in-Charge shall, after issue of notice in this regard to the contractor, withheld the
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		amount required to settle the complaint from his security deposit and refund the balance amount.
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CLAUSE 46

	Contractor's Liability and Insurance of Works	i. From commencement to completion of the Works, the Contractor shall take full responsibility for the case thereof and for taking precautions to prevent loss or damage and to minimize loss or damage to the greatest extent possible and shall be liable for any damage or loss that may happen to the Works or any part thereof and all AAI's T & P from any cause whatsoever (save and except the Excepted Risks) and shall at his own cost repair and make good the same so that at completion, the Works and all AAI's T & P shall be in good order and condition and in conformity in every respect with the requirements of the Contract and instructions of the Engineer-in-Charge. ii. In the event of any loss or damage to the Works or any Part thereof or to any T & P, to any material or articles at the Site from any of the Excepted Risks the following provisions shall have effect: a. The Contractor shall, as may be directed in writing by the Engineer-in-Charge, remove from the Site any debris and so much of the works as shall have been damaged, taking to AAI's store such AAI's T & P, articles and/or materials as may be directed; b. The contractor shall, as may be directed in writing by the Engineer-in-Charge, proceed with the erection and completion of the Works under and in accordance with the provisions and Conditions of the Contract; and iii. Provided always that the Contractor shall not be entitled to payment under the above provisions in respect of so much loss or damage as has been occasioned by any failure on his part to perform his obligation under the Contract or not taking precautions to prevent loss or damage or minimize the amount of such loss or damage. iv. Without limiting its obligations and responsibilities under other clauses of General Conditions of Contracts ,the contractor at his own cost shall insure ,in the joint name of AAI and the contractor, against all losses or damages from whatever cause, arising (other than the accepted risks) for which he is responsible under the terms of the contract and in such manner that the AAI and the contractor are covered during the period of construction of works and any loss or damage occasioned by the contractor in the course of any operation carried out by them for the purpose of complying with its obligations of defects liability clause hereof; a. All works including temporary works to their full value executed from time to time. b. The construction materials and equipments to their full value brought on to the site by the contractor. v. The Contractor shall indemnify and keep indemnified AAI against all losses and claims for injuries or damage to any persons or any property whatsoever which may arise out of or in consequence of the construction and maintenance of Works and against all claims, demands proceedings, damage costs, charges and expenses whatsoever in respect of or in relation thereto. vi. Before commencing execution of the work, the Contractor shall, without in any way limiting his obligations and responsibilities under this condition, insure at his own cost against any damage, loss or injury which may occur to
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		any AAI property, or to any person for at least the minimum amount of Rs. 1.00 lakh with unlimited number of occurrences (including any employee of AAI) by or arising out of carrying out of the Contract. vii. The contractor shall at all times indemnify AAI against all claims, damages or compensation under the provisions of Payment or Wages Act, 1936, Minimum Wages Act, 1948, Employer's Liability Act, 1938, the Workmen's Compensation Act, 1923, Industrial Disputes Act, 1947 and the Maternity Benefit Act, 1961 or any modifications thereof or any other law relating thereto and rules made there under from time to time or as a consequence of any accident or injury to any workman or other persons in or about the Works, whether in the employment of the Contractor or not, his agents or servants, and also against all costs, charges and expenses of any suit, action or proceedings arising out of such accident or injury and against all sum or sums which may with the consent of the Contractor be paid to compromise or compound any claim. Without limiting his obligations and liabilities as above provided, the Contractor shall insure against all claims, damages or compensation payable under the Workmen's Compensation Act, 1923 or any modification thereof or any other law relating thereto. viii. All insurance mentioned above shall be effected with any subsidiary of the General Insurance Company of India or by a company approved by the Insurance Regulatory Authority of India. ix. The aforesaid insurance policy / policies shall provide that they shall not be cancelled till the Engineer-in-Charge has agreed to their cancellation in writing. x. The Contractor shall prove to the Engineer-in-Charge from time to time that he has taken out all the insurance policies referred to above and has paid the necessary premiums for keeping the policies alive till expiry of the Defects Liability Period. A self-certified copy of such policies are required to be submitted to the Engineer-in-charge. xi. The Contractor shall ensure that similar insurance policies are taken out by his subcontractors (if any) and shall be responsible for any claims or losses to AAI resulting from their failure to obtain adequate insurance protection in connection thereof. The contractor shall produce or cause to be produced by his subcontractor (if any) as the case may be, the relevant policy or policies and premiums receipts as and when required by the Engineer-in-Charge. A self-certified copy of such policies are required to be submitted to the Engineer-in-charge. xii. If the Contractor and/or his subcontractor (if any) shall fail to effect and keep in force the insurance referred to above or any other insurance which he/they may be required to effect under the terms of the Contract then and in any such case AAI may, without being bound to, effect and keep in force any such insurance and pay such premium or premiums as may be necessary for that purpose and from time to time deduct the amount so paid by AAI from any moneys due or which may become due to the Contractor or recover the same as a debt due from the Contractor. xiii. In case contractor takes Contractor All Risk (CAR) Policy in joint name of AAI and Contractor for full tendered value alongwith third party liability (max of 10% of tendered value or as applicable as per Insurance Regulatory Authority of India) then there is no requirement for taking separate insurance by sub contractors. However, workmen compensation policy is required to be taken separately by main contractor and sub contractor for workers employed by them.
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CLAUSE 47



	Composite Contract and Tripartite agreement of main agency	i. The tenders have been called for composite work consisting of civil construction and other associated specialized works. The pre-qualification criteria shall be same for each subhead work included. The agency meeting PQ criteria for the main work shall be considered for execution of composite work. However the agency shall be allowed to execute only those specialized subheads of works for which bidder meets PQ criteria individually. ii. The main contractor shall be permitted to execute only those works (covered under one or more subhead) for which he meets all requirements of pre-qualification including financial, technical and technological requirements specified in the PQ criteria. iii. Main contractor will associate expert agencies for the execution of specialized works under various subheads for which he himself has failed to meet PQ criteria. In such case he will appoint and associate for the execution of each specialized work with the approval of the NIT approving authority. The main contractor shall intimate the names of only those agencies who fully meet the PQ criteria for each specialized work for the acceptance of the department. iv. Main contractor shall not be permitted to change their associate agencies in the course of execution of work. If change of agency is inevitable then a request shall be submitted to the engineer-in-charge in writing giving full justification for change of agency. The proposal should include name of the alternate agency along with his financial, technical capabilities and work experience in the appropriate field. Such change shall be allowed only after receiving approval from the competent authority.
	Composite contract- Tripartite agreement	This clause is applicable for the works for which the estimated cost put to tender is more than Rs.500.00 crores. i. The main contractor shall finalise his rates, terms and conditions and mode of execution of work with specialised agencies for all works covered in various subhead of works on receipt of work order but specifications of preferred makes of materials and performance of system shall remain as specified in tender document. ii. The main contractor shall arrange an agreement between department, main contractor and associated agencies for all subheads on receipt of work order from the engineer-in-charge. Main contractor and expert agency shall be jointly responsible for quality of work and performance of the system. iii. Main contractor shall submit list of associated agency for each specialized work within 1/12th of stipulated completion period or within one month from issue of work order whichever is later along with documentary evidence for financial soundness, technical capabilities and their experience for executing similar specialized works along with his application seeking acceptance for the name of associated agency. Approval / rejection for the name of associated agency shall be decided thereafter by NIT approving authority within a period of 15 days each subhead wise. iv. The main contractor shall submit duly signed tripartite agreement on the format provided by AAI within 2/12th of stipulated completion period or 60 days whichever is earlier for acceptance and signature of department. The extension of time for signing of this agreement shall not be generally permitted. The signing time shall only be extended if handing over of site is delayed due to reasons beyond control of the contractor.
	Conditions of composite contract	i. Main contractor shall be responsible for submission of earnest money. ii. The mobilization advance shall be paid to main contractor as per terms and conditions of contract and indicated under Clause 10 B. The first instalment of mobilization advance shall be corresponding to the value of work which



		shall be executed by the main contractor. The subsequent mobilization advances corresponding to value of work covered in each subhead shall be released on signing of each Tripartite Agreement with expert agency for the same. iii. The security deposit shall be deducted from the running bills of main contractor after adjustment of full earnest money. iv. Main contractor shall be responsible for completion of work as per time schedule indicated in the NIT. The compensation for the delay shall be paid on the main contractor only. v. The coordination meetings called by AAI or its representative shall be attended by associated expert agencies as and when required. Expert agency shall be responsible for technical soundness, quality of work and adherence to tender specifications. The main contractor as well as associated agency shall be responsible for rectification of deficiencies noticed in specialized work.
	Payment Conditions for Composite Contract	i. It will be the responsibility of main contractor to finalize expert agencies for the execution of works covered under all subheads of NIT and get the tripartite agreements signed as per NIT requirement at an early date. The main contractor shall not be paid for value of work covered under second running bill & subsequent bills till all Tripartite Agreements are signed by all agencies concerned. ii. The main contractor must fill the ratio of work which shall govern the ratio of direct payment to the expert agency and to the main contractor for each subhead of work in Schedule F. This ratio may also be indicated in tripartite agreement. Thus direct payment to each expert agency shall be released in the same ratio from the net payment (after all deductions). iii. The running bill for specialized work shall be processed as per terms and conditions of the contract. All deductions like security deposit, income tax and amount for incomplete work or due to any other reason shall be made as per contract conditions from each running bill. In case the ratio as desired in (ii) is not filled by the main contractor AAI will make payment of 75% of the net payable amount to the expert agency directly and balance 25% shall be paid to the main contractor.

Clause 48



	Escrow Account	i. All payments for the works estimated cost more than Rs.500 Cr shall be made only through Escrow Account opened by the contractor. However, for works costing less than Rs.500 Cr., it shall be at the discretion of Technical Sanctioning authority to opt for Escrow account or not. The bank charges for Escrow Account shall be borne by contractor. The detailed conditions of Escrow Account shall be drawn in consultation with authorised bank. ii. Mobilization advance for mobilisation of resources and purchase of plant & machinery shall be credited directly to the escrow account opened for this contract through bank transfer as per terms and condition of contract. The agency shall be able to utilise 25% (or as decided by TS authority) of each instalment of mobilisation advance for minor expenses like construction of site office, purchase of office equipment and other minor works, while release of balance 75% fund shall be regulated by the department. The contractor shall seek prior concurrence of Engineer-in Charge for release of payment to the supplier etc. through Escrow Account by the Bank. Funds against cheque issued by contractor shall be released by Bank on receipt of written consent from Engineer-in Charge. iii. Payments received and credited against each RA Bill, can be utilised 25% by the contractor for minor expenses like salary, stationary, office expenses etc. AAI shall exercise control for release of payment by contractor for balance 75%. iv. The Contractor shall submit his proposal to the Engineer-in-Charge/Authority for utilisation of funds made available by AAI (75% against each RA bill) - Name of agency for whom payment is proposed to be released. - Details of work executed/material supplied by agency to whom he intends to release payment. - Nature of advance payment if any, has to be released to the supplier for supply of material for the project. - Documentary evidence in support of his claim. v. Engineer –in-charge will examine and approve full/part of such payments as per agency's request within maximum of three working days. The terms and condition of Escrow Account shall be finalised with bank according to terms and conditions of contract. Bank shall release payment against such cheques only after written consent of authorised officer of AAI is received. vi. Contractor shall be permitted to close Escrow Account on receipt of final payment for the work/project or on receipt of letter for foreclosure of work by the AAI. All balances and liabilities against this Escrow Account shall be left at the disposal of the contractor.
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AIRPORTS AUTHORITY OF INDIA

SAFETY CODE

1. Suitable Scaffolds should be provided for workmen for all works that cannot safely be done from the ground, or from solid construction except such short period work as can be done safely from ladders. When a ladder is used, an extra mazdoor shall be engaged for holding the ladder and if the ladder is used for carrying materials as well suitable footholds and hand-hold shall be provided on the ladder and the ladder shall be given an inclination not steeper than $\frac{1}{4}$ to 1 ($\frac{1}{4}$ horizontal and 1 vertical).
2. Scaffolding of staging more than 3.6m (12ft.) above the ground or floor, swung or suspended from an overhead support or erected with stationary support shall have a guard rail properly attached or bolted, braced and otherwise secured at least 90 cm. (3ft.) high above the floor or platform of such scaffolding on staging and extending along the entire length of the outside and ends thereof with only such opening as may be necessary for the delivery of materials. Such scaffolding or staging shall be so fastened as to prevent it from swaying from the building or structure.
3. Working platforms, gangways and stairways should be so constructed that they should not sag unduly or unequally, and if the height of the platform or the gangway or the stairway is more than 3.6 m (12ft.) above ground level or floor level, they should be closely boarded, should have adequate width and should be suitably fastened as described in (2) above.
4. Every opening in the floor of a building or in a working platform shall be provided with suitable means to prevent the fall of person or materials by providing suitable fencing or railing whose minimum height shall be 90 cm.(3ft.)
5. Safe means of access shall be provided to all working platforms and other working places. Every ladder shall be securely fixed. No portable single ladder shall be over 9m. (30ft.) in length while the width between side rails in rung ladder shall in no case be less than 29 cm. (11 $\frac{1}{2}$ ") for ladder upto and including 3m. (10ft.) in length. For long ladders, this width should be increased at least $\frac{1}{4}$ " for each additional 30cm. (1 foot) of length. Uniform step spacing of not more than 30cm shall be kept. Adequate precautions shall be taken to prevent danger from electrical equipment. No materials on any of the site or work shall be so stacked or placed as to cause danger or inconvenience to any person or the public. The contractor shall provide all necessary fencing and lights to protect the public from accident and shall be bound to bear the expenses of defence of every suit, action or other proceedings at law that may be brought by any person for injury sustained owing to neglect of the above precautions and to pay any damages and cost which may be awarded in any such suit, action or proceedings to any such person on which may, with the consent of the contractor, be paid to compensate any claim by any such person.
6. a. **Excavation and Trenching** – All trenches 1.2 m. (4ft.) or more in depth, shall at all times be supplied with at least one ladder for each 30m. (100ft.) in length or fraction thereof, Ladder shall extend from bottom of the Trench to at least 90cm (3fts) above the surface of the ground. The side of the trenches which are 1.5 m. (5 ft.) or more in depth shall be stepped back to give suitable slope or securely held by timber bracing, so as to avoid the danger of sides collapsing. The excavated material shall not be placed within 1.5 m. (5 ft.) of the edges of the trench or half of the depth of the trench whichever is more. Cutting shall be done from top to bottom. Under no circumstances, undermining or undercutting shall be done.



b. Safety Measures for digging bore holes : -

- i. If the bore well is successful, it should be safely capped to avoid caving and collapse of the bore well. The failed and the abandoned ones should be completely refilled to avoid caving and collapse;
 - ii. During drilling, Sign boards should be erected near the site with the address of the drilling contractor and the Engineer-in-charge of the work;
 - iii. Suitable fencing should be erected around the well during the drilling and after the installation of the rig on the point of drilling, flags shall be put 50 Mtr all around the point of drilling to avoid entry of people/animals;
 - iv. After drilling the bore well, a cement platform (0.50 Mtr x 0.50 Mtr x 1.20 Mtr) 0.60 Mtr above ground level and 0.60 Mtr below ground level should be constructed around the well casing;
 - v. After the completion of the borewell, the contractor should cap the borewell properly by welding steel plate, cover the borewell with the drilled wet soil and fix thorny shrubs over the soil. This should be done even while repairing the pump;
 - vi. After the borewell is drilled the entire site should be brought to the ground level;
7. Demolition – Before any demolition work is commenced and also during the progress of the work,
- i) All roads and open areas adjacent to the work site shall either be closed or suitably protected.
 - ii) No electric cable or apparatus which is liable to be a source of danger or a cable or apparatus used by the operator shall remain electrically charged.
 - iii) All practical steps shall be taken to prevent danger to persons employed from risk of fire or explosion or flooding. No floor, roof or other part of the building shall be so overloaded with debris or materials as to render it unsafe.
8. All necessary personal safety equipment as considered adequate by the Engineer-in-Charge should be kept available for the use of the person employed on the site and maintained in a condition suitable for immediate use, and the contractor should take adequate steps to ensure proper use of equipment by those concerned. The following safety equipment shall invariably be provided.
- i) Workers employed on mixing asphaltic materials, cement and lime mortars shall be provided with protective footwear and protective goggles.
 - ii) Those engaged in white washing and mixing or stacking of cement bags or any material which is injurious to the eyes, shall be provided with protective goggles.
 - iii) Those engaged in welding works shall be provided with welder's protective eye-shields.
 - iv) Stone breaker shall be provided with protective goggles and protective clothing and seated at sufficiently safe intervals.
 - v) When workers are employed in sewers and manholes, which are in active use, the contractors shall ensure that the manhole covers are opened and ventilated atleast for an hour before the workers are allowed to get into the manholes, and the manholes so opened shall be cordoned off with suitable railing and provided with warning signals or boards to prevent accident to the public. In addition, the contractor shall ensure that the following safety measures are adhered to:-
 - a) Entry for workers into the line shall not be allowed except under supervision of the Sr.Superintendent (Engg.) or any other higher officer.
 - b) Atleast 5 to 6 manholes upstream and downstream should be kept open for at least 2 to 3 hours before any man is allowed to enter into the manhole for working inside.
 - c) Before entry, presence of toxic gases should be tested by inserting wet lead acetate paper which changes colour in the presence of such gases and gives indication of their presence.



- d) Presence of Oxygen should be verified by lowering a detector lamp into the manhole. In case, no Oxygen is found inside the sewer line, workers should be sent only with oxygen kit.
 - e) Safety belt with rope should be provided to the workers. While working inside the manholes, such rope should be handled by two men standing outside to enable him to be pulled out during emergency.
 - f) The area should be barricaded or condoned off by suitable means to avoid mishaps of any kind. Proper warning signs should be displayed for the safety of the public whenever cleaning works are undertaken during night or day.
 - g) No smoking or open flames shall be allowed near the blocked manhole being cleaned.
 - h) The malba obtained on account of cleaning of blocked manholes and sewer lines should be immediately removed to avoid accidents on account of slippery nature of the malba.
 - i) Workers should not be allowed to work inside the manhole continuously. He should be given rest intermittently. The Engineer-in-Charge may decide the time upto which a worker may be allowed to work continuously inside the manhole.
 - j) Gas masks with Oxygen Cylinder should be kept at site for use in emergency.
 - k) Air-blowers should be used for flow of fresh air through the manholes. Whenever called for, portable air blowers are recommended for ventilating the manholes. The Motors for these shall be vapour proof and of totally enclosed type. Non sparking gas engines also could be used but they should be placed at least 2 metres away from the opening and on the leeward side protected from wind so that they will not be a source of friction on any inflammable gas that might be present.
 - l) The workers engaged for cleaning the manholes / sewers should be properly trained before allowing to work in the manhole.
 - m) The workers shall be provided with Gumboots or non sparking shoes bump helmets and gloves non sparking tools safety lights and gas masks and portable air blowers (when necessary). They must be supplied with barrier cream for anointing the limbs before working inside the sewer lines.
 - n) Workmen descending a manhole shall try each ladder stop or rung carefully before putting his full weight on it to guard against insecure fastening due to corrosion of the rung fixed to manhole well.
 - o) If a man has received a physical injury, he should be brought out of the sewer immediately and adequate medical aid should be provided to him.
 - p) The extent to which these precautions are to be taken depend on individual situation but the decision of the Engineer-in-Charge regarding the steps to be taken in this regard in an individual case will be final.
 - (vi) The Contractor shall not employ men and women below the age of 18 years on the work of painting with products containing lead in any form. Wherever men above the age of 18 are employed on the work of lead painting, the following precaution should be taken:-
 - a) No paint containing lead or lead products shall be used except in the form of paste or ready made paint.
 - b) Suitable face masks should be supplied for use by the workers when paint is applied in the form of spray or a surface having lead paint is dry rubbed and scrapped.
 - c) Overall shall be supplied by the contractors to the workmen and adequate facilities shall be provided to enable the working painters to wash during and on the cessation of work.
9. An additional clause (viii)(i) of AAI Safety Code (iv) the Contractor shall not employ women and men below the age of 18 on the work of painting with product containing lead in any form, wherever men above the age of 18 are employed on the work of lead painting, the following principles must be observed for such use:
- i) White lead, sulphate of lead or product containing these pigment, shall not be used in painting operation except in the form of pastes or paint ready for use.
 - ii) Measures shall be taken, wherever required in order to prevent danger arising from the application of a paint in the form of spray.



- iii) Measures shall be taken, wherever practicable, to prevent danger arising out of from dust caused by dry rubbing down and scraping.
 - iv) Adequate facilities shall be provided to enable working painters to wash during and on cessation of work.
 - v) Overall shall be worn by working painters during the whole of working period.
 - vi) Suitable arrangement shall be made to prevent clothing put off during working hours being spoiled by painting materials.
 - vii) Cases of lead poisoning and suspected lead poisoning shall be notified and shall be subsequently verified by medical man appointed by competent authority of AAI.
 - viii) AAI may require, when necessary medical examination of workers.
 - ix) Instructions with regard to special hygienic precautions to be taken in the painting trade shall be distributed to working painters.
10. When the work is done near any place where there is risk of drowning, all necessary equipments should be provided and kept ready for use and all necessary steps taken for prompt rescue of any person in danger and adequate provision, should be made for prompt first aid treatment of all injuries likely to be obtained during the course of the work.
11. Use of hoisting machines and tackle including their attachments, anchorage and supports shall conform to the following standards or conditions:
- i) (a) These shall be of good mechanical construction, sound materials and adequate strength and free from patent defects and shall be kept repaired and in good working order.
 - (b) Every rope used in hoisting or lowering materials or as a means of suspension shall be of durable quality and adequate strength, and free from patent defects.
 - ii) Every crane driver or hoisting appliance operator, shall be properly qualified and no person under the age of 21 years should be in charge of any hoisting machine including any scaffolding winch or give signals to operator.
 - iii) In case of every hoisting machine and of every chain ring hook, shackle swivel and pulley block used in hoisting or as means of suspension, the safe working load shall be ascertained by adequate means. Every hoisting machine and all gear referred to above shall be plainly marked with the safe working load. In case of a hoisting machine having a variable safe working load each safe working load and the condition under which it is applicable shall be clearly indicated. No part of any machine or any gear referred to above in this paragraph shall be loaded beyond the safe working load except for the purpose of testing.
 - iv) In case of departmental machines, the safe working load shall be notified by the Electrical Engineer-in-Charge. As regards contractor's machines the contractors shall notify the safe working load of the machine to the Engineer-in-Charge whenever he brings any machinery to site of work and get it verified by the electrical Engineer concerned.
12. Motors, gearing, transmission, electric wiring and other dangerous parts of hoisting appliances should be provided with efficient safeguards. Hoisting appliances should be provided with such means as will reduce to the minimum the risk of accidental descent of the load. Adequate precautions should be taken to reduce to the minimum the risk of any part of a suspended load becoming accidentally displaced. When workers are employed on electrical installations which are already energized, insulating mats, wearing apparel, such as gloves, sleeves and boots as may be necessary should be provided. The worker should not wear any rings, watches and carry keys or other materials which are good conductors of electricity.
13. All scaffolds, ladders and other safety devices mentioned or described herein shall be maintained in safe condition and no scaffold, ladder or equipment shall be altered or removed while it is in use. Adequate washing facilities should be provided at or near places of work.



14. These safety provisions should be brought to the notice of all concerned by display on a notice board at a prominent place at work spot. The person responsible for compliance of the safety code shall be named therein by the contractor.
15. To ensure effective enforcement of the rules and regulations relating to safety precautions the arrangements made by the contractor shall be open to inspection by the Labour Officer or Engineer-in- Charge of the department or their representatives.
16. Notwithstanding the above clauses from (1) to (15), there is nothing in these to exempt the contractor from the operations of any other Act or Rules in force in the Republic of India.



MODEL RULES FOR THE PROTECTION OF HEALTH AND SANITARY ARRANGEMENTS FOR WORKERS EMPLOYED BY AAI OR ITS CONTRACTORS

1. APPLICATION

These rules shall apply to all buildings and construction works in charge of AAI in which twenty or more workers are ordinarily employed or are proposed to be employed in any day during the period during which the contract work is in progress.

2. DEFINITION

Work place means a place where twenty or more workers are ordinarily employed in connection with construction work on any day during the period during which the contract work is in progress.

3. FIRST-AID FACILITIES

- (i) At every work place, there shall be provided and maintained, so as to be easily accessible during working hours, first-aid boxes at the rate of not less than one box for 150 contract labour or part thereof ordinarily employed.
- (ii) The first-aid box shall be distinctly marked with a red cross on white back ground and shall contain the following equipment.
 - (a) For work places in which the number of contract labour employed does not exceed 50 Each first –aid box shall contain the following equipments:
 1. 6 small sterilised dressings
 2. 3 medium size sterilised dressings
 3. 3 large size sterilised dressings
 4. 3 large sterilised burn dressings
 5. 1 (30 ml) bottle containing a two per cent alcoholic solution of iodine.
 6. 1 (30 ml) bottle containing salvolatile having the dose and mode of administration indicated on the label.
 7. 1 snakebite lancet.
 8. 1 (30 gms) bottle of potassium permanganate crystals.
 9. 1 pair scissors.
 10. 1 copy of the first-aid leaflet issued by the Director General, Factory Advice Service and Labour Institute, Government of India.
 11. 1 bottle containing 100 tablets (each of 5 gms) of aspirin.
 12. Ointment for burns.
 13. A bottle of suitable surgical antiseptic solution.
 - (b) For work places in which the number of contract labour exceed 50. Each first-aid box shall contain the following equipments.
 1. 12 small sterilised dressings.
 2. 6 medium size sterilised dressings.
 3. 6 large size sterilised dressings
 4. 6 large size sterilised burn dressings.
 5. 6 (15 gms) packets sterilised cotton wool.
 6. 1 (60 ml). Bottle containing two per cent alcoholic solution iodine.
 7. 1 (60 ml) bottle containing salvolatile having the dose and mode of administration indicated on the label.
 8. 1 roll of adhesive plaster.
 9. 1 snake bite lancet.
 10. 1 (30 gms) bottle of potassium permanganate crystals.
 11. 1 pair scissors.
 12. 1 copy of the first-aid leaflet issued by the Director General Factory Advice Service and Labour Institute / Government of India.
 13. A bottle containing 100 tablets (each of 5 gms) of aspirin.



14. Ointment for burns.
 15. A bottle of suitable surgical antiseptic solution.
- (iii) Adequate arrangements shall be made for immediate recoupment of the equipment when necessary.
 - (iv) Nothing except the prescribed contents shall be kept in the First-aid box.
 - (v) The first-aid box shall be kept in charge of a responsible person who shall always be readily available during the working hours of the work place.
 - (vi) a person in charge of the First-aid box shall be a person trained in First-aid treatment in the work places where the number of contract labour employed is 150 or more.
 - (vii) In work places where the number of contract labour employed is 500 or more and hospital facilities are not available within easy distance from the works. First-aid posts shall be established and run by a trained compounder. The compounder shall be on duty and shall be available at all hours when the workers are at work.
 - (viii) Where work places are situated in places which are not towns or cities, a suitable motor transport shall be kept readily available to carry injured person or person suddenly taken ill to the nearest hospital.

4. DRINKING WATER

- i) In every work place, there shall be provided and maintained at suitable places, easily accessible to labour, a sufficient supply of cold water fit for drinking.
- ii) Where drinking water is obtained from an intermittent public water supply, each work place shall be provided with storage where such drinking water shall be stored.
- iii) Every water supply or storage shall be at a distance of not less than 50 feet from any latrine drain or other source of pollution. Where water has to be drawn from an existing well which is within such proximity of latrine, drain or any other source of pollution, the well shall be properly chlorinated before water is drawn from it for drinking. All such wells shall be entirely closed in and be provided with a trap door which shall be dust and waterproof.
- iv) A reliable pump shall be fitted to each covered well, the trap door shall be kept locked and opened only for cleaning or inspection which shall be done at least once a month.

5. WASHING FACILITIES

- i) In every work place adequate and suitable facilities for washing shall be provided and maintained for the use of contract labour employed therein.
- ii) Separate and adequate cleaning facilities shall be provided for the use of male and female workers.
- iii) Such facilities shall be conveniently accessible and shall be kept in clean and hygienic condition.

6. LATRINES AND URINALS

- i) Latrines shall be provided in every work place on the following scale namely:
 - a) Where female are employed, there shall be at least one latrine for every 25 females.
 - b) Where males are employed, there shall be at least one latrine for every 25 males.
- ii) Provided that, where the number of males or females exceeds 100, it shall be sufficient if there is one latrine for 25 males or females as the case may be upto the first 100, and one for every 50 thereafter.
- iii) Every latrine shall be under cover and so partitioned off as to secure privacy, and shall have a proper door and fastenings.



- iv) Construction of latrines: The inside walls shall be constructed of masonry or some suitable heat-resisting nonabsorbent materials and shall be cement washed inside and outside at least once a year, Latrines shall not be of a standard lower than borehole system.
- v) (a) Where workers of both sexes are employed, there shall be displayed outside each block of latrine and urinal, a notice in the language understood by the majority of the workers "For Men only" or "For Women Only" as the case may be.
(b) The notice shall also bear the figure of a man or of a woman, as the case may be.
- vi) There shall be at least one urinal for male workers upto 50 and one for female workers upto fifty employed at a time, provided that where the number of male or female workmen, as the case may be exceeds 500, it shall be sufficient if there is one urinal for every 50 males or females upto the first 500 and one for every 100 or part thereafter.
- vii) (a) The latrines and urinals shall be adequately lighted and shall be maintained in a clean and sanitary condition at all times.
(b) Latrines and urinals other than those connected with a flush sewage system shall comply with the requirements of the Public Health Authorities.
- viii) Water shall be provided by means of tap or otherwise so as to be conveniently accessible in or near the latrines and urinals.
- ix) Disposal of excreta: Unless otherwise arranged for by the local sanitary authority, arrangements for proper disposal of excreta by incineration at the work place shall be made by means of a suitable incinerator. Alternately excreta may be disposed of by putting a layer of night soil at the bottom of a pucca tank prepared for the purpose and covering it with a 15 cm. Layer of waste or refuse and then covering it with a layer of earth for a fortnight (when it will turn to manure).
- x) The contractor shall at his own expense, carry out all instructions issued to him by the Engineer-in-Charge to effect proper disposal of night soil and other conservancy work in respect of the contractor's workmen or employees on the site. The contractor shall be responsible for payment of any charges which may be levied by Municipal or Cantonment Authority for execution of such on his behalf.

7. **PROVISION OF SHELTER DURING REST**

At every place there shall be provided, free of cost, four suitable sheds, two for meals and the other two for rest separately for the use of men and women labour. The height of each shelter shall not be less than 3 metres (10 ft) from the floor level to the lowest part of the roof. These shall be kept clean and the space provided shall be on the basis of 0.6 sq.m. (6 sft) per head. Provided that the Engineer-in-Charge may permit subject to his satisfaction, a portion of the building under construction or other alternative accommodation to be used for the purpose.

8. **CRECHES**

- i) At every work place, at which 20 or more women workers are ordinarily employed, there shall be provided two rooms of reasonable dimensions for the use of their children under the age of six years. One room shall be used as a play room for the children and the other as their bedroom. The rooms shall be constructed with specifications as per clause 19 H (ii) a,b& c.
- ii) The rooms shall be provided with suitable and sufficient openings for light and ventilation. There shall be adequate provision of sweepers to keep the places clean.
- iii) The contractor shall supply adequate number of toys and games in the play room and sufficient number of cots and beddings in the bed room.
- iv) The contractor shall provide one ayaa to look after the children in the crèche when the number of women workers does not exceed 50 and two when the number of women workers exceed 50.
- v) The use of the rooms earmarked as crèches shall be restricted to children, their attendants and mothers of the children.



9. CANTEENS

- i) In every work place where the work regarding the employment of contractor labour is likely to continue for six months and where in contract labour numbering one hundred or more are ordinarily employed, an adequate canteen shall be provided by the contractor for the use of such contract labour.
- ii) The canteen shall be maintained by the contractor in an efficient manner.
- iii) The canteen shall consist of at least a dining hall, kitchen, storeroom, pantry and washing places separately for workers and utensils.
- iv) The canteen shall be sufficiently lighted at all times when any person has access to it.
- v) The floor shall be made of smooth and impervious materials and inside walls shall be limewashed or colour washed at least once in each year. Provided that the inside walls of the kitchen shall be lime washed every four months.
- vi) The premises of the canteen shall be maintained in a clean and sanitary condition.
- vii) Waste water shall be carried away in suitable covered drains and shall not be allowed to accumulate so as to cause a nuisance.
- viii) Suitable arrangements shall be made for the collection and disposal of garbage.
- ix) The dining hall shall accommodate at a time 30 per cent of the contract labour working at a time.
- x) The floor area of the dining hall, excluding the area occupied by the service counter and any furniture except tables and chairs shall not be less than one square metre (10 sq ft) per diner to be accommodated as prescribed in sub-Rule (ix).
- xi) (a) A portion of the dining hall and service counter shall be partitioned off and reserved for women workers in proportion to their number. (b) Washing places for women shall be separate and screened to secure privacy.
- xii) Sufficient tables stools, chairs or benches shall be available for the number of diners to be accommodated as prescribed in Sub-Rule (ix).
- xiii) (a) 1. There shall be provided and maintained sufficient utensils crockery, furniture and any other equipment necessary for the efficient running of the canteen.
2. The furniture utensils and other equipment shall be maintained in a clean and hygienic condition.
(b) 1. Suitable clean clothes for the employees serving in the canteen shall be provided and maintained.
2. A service counter, if provided, shall have top of smooth and impervious material.
3. Suitable facilities including an adequate supply of hot water shall be provided for the cleaning of utensils and equipments.
- xiv) The food stuffs and other items to be served in the canteen shall be in conformity with the normal habits of the contract labour.
- xv) The charges for food stuffs, beverages and any other items served in the canteen shall be based on 'No Profit, No loss' and shall be conspicuously displayed in the canteen.
- xvi) In arriving at the price of foodstuffs, and other article served in the canteen, the following items shall not be taken into consideration as expenditure namely :-
 - a) The rent of land and building.
 - b) The depreciation and maintenance charges for the building and equipments provided for the canteen.
 - c) The cost of purchase, repairs and replacement of equipments including furniture, crockery, cutlery and utensils.
 - d) The water charges and other charges incurred for lighting and ventilation.
 - e) The interest and amounts spent on the provision and maintenance of equipments provided for the canteen.
- xvii) The accounts pertaining to the canteen shall be audited once every 12 months by registered accountants and auditors.



10. ANTI-MALARIAL PRECAUTIONS

The contractor shall at his own expense, conform to all anti-malarial instructions given to him by the Engineer-in-Charge including the filling up of any borrow pits which may have been dug by him.

11. The above rules shall be incorporated in the contracts and in notices inviting tenders and shall form an integral part of the contracts.

12. AMENDMENTS

AAI may, from time to time, add to or amend these rules and issue directions - it may consider necessary for the purpose of removing any difficulty which may arise in the administration thereof.



AIRPORTS AUTHORITY OF INDIA Contractor's Labour Regulations

1. SHORT TITLE

These regulations may be called the AAI Contractors Labour Regulations.

2. DEFINITIONS

(i) **Workman** means any person employed by AAI or its contractor directly or indirectly through a subcontractor with or without the knowledge of the AAI to do any skilled, semiskilled or unskilled manual, supervisory, technical or clerical work for hire or reward, whether the terms of employment are expressed or implied but does not include any person:-

- a) Who is employed mainly in a managerial or administrative capacity: or
- b) Who, being employed in a supervisory capacity draws wages exceeding five hundred rupees per mensem or exercises either by the nature of the duties attached to the office or by reason of powers vested in him, functions mainly of managerial nature : or
- c) Who is an out worker, that is to say, person to whom any article or materials are given out by or on behalf of the principal employers to be made up cleaned, washed, altered, ornamental finished, repaired adopted or otherwise processed for sale for the purpose of the trade or business of the principal employers and the process is to be carried out either in the home of the out worker or in some other premises, not being premises under the control and management of the principal employer. No person below the age of 14 years shall be employed to act as a workman.

(ii) **Fair Wages** means wages whether for time or piece work fixed and notified under the provisions of the Minimum Wages Act from time to time.

(iii) **Contractors** shall include every person who undertakes to produce a given result other than a mere supply of goods or articles of manufacture through contract labour or who supplies contract labour for any work and includes a subcontractor.

(iv) **Wages** shall have the same meaning as defined in the Payment of Wages Act.

3. i) Normally working hours of an adult employee should not exceed 9 hours a day. The working day shall be so arranged that inclusive of interval for rest, if any, it shall not spread over more than 12 hours on any day.
- ii) When an adult worker is made to work for more than 9 hours on any day or for more than 48 hours in any week, he shall be paid over time for the extra hours put in by him at double the ordinary rate of wages.
- iii) a) Every worker shall be given a weekly holiday normally on a Sunday, in accordance with the provisions of the Minimum Wages (Central) Rules 1960 as amended from time to time irrespective of whether such worker is governed by the Minimum Wages Act or not.
- b) Where the minimum wages prescribed by the Central/State Government under the Minimum Wages Act are not inclusive of the wages for the weekly day of rest, the worker shall be entitled to rest day wages at the rate applicable to the next preceding day, provided he has worked under the same contractor for a continuous period of not less than 6 days.
- c) Where a contractor is permitted by the Engineer-in-Charge to allow a worker to work on a normal weekly holiday, he shall grant a substituted holiday to him for the whole day on one of the five days immediately before or after the normal weekly holiday and pay wages to such worker for the work performed on the normal weekly holiday at overtime rate.

4. DISPLAY OF NOTICE REGARDING WAGES ETC.

The contractor shall before he commences his work on contract, display and correctly maintain and continue to display and correctly maintain in a clear and legible condition in conspicuous places on the work, notices in English and in the local Indian languages spoken by the majority of the workers giving the minimum rates of wages fixed under Minimum Wages Act, the actual wages being paid, the hours of work for which such wage are earned, wages periods, dates of payments of wages and other relevant information as per Appendix 'VIII'.



5. PAYMENT OF WAGES

- (i) The contractor shall fix wage periods in respect of which wages shall be payable.
- (ii) No wage period shall exceed one month.
- (iii) The wages of every person employed as contract labour in an establishment or by a contractor where less than one thousand such persons are employed shall be paid before the expiry of seventh day and in other cases before the expiry of tenth day after the last day of the wage period in respect of which the wages are payable.
- (iv) Where the employment of any worker is terminated by or on behalf of the contractor the wages earned by him shall be paid before the expiry of the second working day from the date on which his employment is terminated.
- (v) All payment of wages shall be made on a working day at the work premises and during the working time and on a date notified in advance and in case the work is completed before the expiry of the wage period, final payment shall be made within 48 hours of the last working day.
- (vi) Wages due to every worker shall be paid to him direct or to other person authorised by him in this behalf.
- (vii) All wages shall be paid in current coin or currency or in both.
- (viii) Wages shall be paid without any deductions of any kind except those specified by the Central Government by general or special order in this behalf or permissible under the Payment of Wages Act 1956.
- (ix) A notice showing the wages period and the place and time of disbursement of wages shall be displayed at the place of work and a copy sent by the contractor to the Engineer-in-Charge under acknowledgement.
- (x) It shall be the duty of the contractor to ensure the disbursement of wages in the presence of the Senior Superintendent Engg or authorised representative of the Engineer-in-Charge who will be required to be present at the place and time of disbursement of wages by the contractor to workmen.
- (xi) The contractor shall obtain from Engineer in charge or the authorised representative of the Engineer-in-Charge a certificate under his signature at the end of the entries in the "Register of Wages" or the "Wage-cum-Muster Roll" as the case may be in the following form:
 "Certified that the amount shown in column No. has been paid to the workman concerned in my presence onat....."

Note: In case of payment of wages paid through bank, the contractor shall submit a copy of bank statement for relevant period duly signed by him.

6. FINES AND DEDUCTIONS WHICH MAY BE MADE FROM WAGES

- (i) The wages of a worker shall be paid to him without any deduction of any kind except the following:
 - a) Fines
 - b) Deductions for absence from duty i.e. from the place or the places where by the terms of his employment he is required to work. The amount of deduction shall be in proportion to the period for which he was absent.
 - c) Deduction for damage to or loss of goods expressly entrusted to the employed person for custody, or for loss of money or any other deduction which he is required to account, where such damage or loss is directly attributable to his neglect or default.
 - d) Deduction for recovery of advances or for adjustment of overpayment of wages, advances granted shall be entered in a register.
 - e) Any other deduction which the Central Government may from time to time allow.
- (ii) No fines should be imposed on any worker save in respect of such acts and omissions on his part as have been approved of by the Chief Labour Commissioner.
Note: An approved list of Acts and Omissions for which fines can be imposed is enclosed at Appendix-XII.



- (iii) No fine shall be imposed on a worker and no deduction for damage or loss shall be made from his wages until the worker has been given an opportunity of showing cause against such fines or deductions.
- (iv) The total amount of fine which may be imposed in any one wage period on a worker shall not exceed an amount equal to three paise in a rupee of the total wages, payable to him in respect of that wage period.
- (v) No fine imposed on any worker shall be recovered from him by installment, or after the expiry of sixty days from the date on which it was imposed.
- (vi) Every fine shall be deemed to have been imposed on the day of the act or omission in respect of which it was imposed.

7. LABOUR RECORDS

- (i) The contractor shall maintain a Register of persons employed on work on contract in Form XIII of the CL(R&A) Central Rules 1971 (Appendix VI)
- (ii) The contractor shall maintain a Muster Roll register in respect of all workmen employed by him on the work under Contract in Form XVI of the CL (R&A) Rules 1971 (Appendix VII).
- (iii) The contractor shall maintain a Wage Register in respect of all workmen employed by him on the work under contract in Form XVII of the CL (R&A) Rules 1971 (Appendix VIII)
- (iv) **Register of accident** - The contractor shall maintain a register of accidents in such form as may be convenient at the work place but the same shall include the following particulars :
 - (a) Full particulars of the labourers who met with accident.
 - (b) Rate of Wages
 - (c) Sex
 - (d) Age
 - (e) Nature of accident and cause of accident
 - (f) Time and date of accident
 - (g) Date and time when admitted in Hospital
 - (h) Date of discharge from the Hospital
 - (i) Period of treatment and result of treatment
 - (j) Percentage of loss of earning capacity and disability as assessed by Medical officer
 - (k) Claim required to be paid under Workmen's Compensation Act.
 - (l) Date of payment of compensation
 - (m) Amount paid with details of the person to whom the same was paid
 - (n) Authority by whom the compensation was assessed.
 - (o) Remarks
- (v) The contractor shall maintain a **Register of Fines** in the Form XII of the CL(R&A) Rules 1971 (Appendix-XIII).
The contractor shall display in a good condition and in a conspicuous place of work the approved list of acts and omissions for which fines can be imposed (Appendix-XII)
- (vi) The contractor shall maintain a **Register of deductions for damage or loss** in Form XX of the CL (R&A) Rules 1971 (Appendix-XIV)
- (vii) The contractor shall maintain a **Register of Advances** in Form XXIII of the CL (R&A) Rules 1971 (Appendix-XV)
- (viii) The contractor shall maintain a **Register of Overtime** in Form XXIII of the CL (R&A) Rules 1971 (Appendix-XVI).

8. ATTENDANCE CARD-CUM-WAGE SLIP

- (i) The contractor shall issue an **Attendance card-cum-wage** slip to each workman employed by him in the specimen form at (Appendix-IX)
- (ii) The card shall be valid for each wage period.
- (iii) The contractor shall mark the attendance of each workman on the card twice each day, once at the commencement of the day and again after the rest interval, before he actually starts work.
- (iv) The card shall remain in possession of the worker during the wage period under reference.



- (v) The contractor shall complete the wage slip portion on the reverse of the card at least a day prior to the disbursement of wages in respect of the wage period under reference.
- (vi) The contractor shall obtain the signature or thumb impression of the worker on the wage slip at the time of disbursement of wages and retain the card with himself.

9. EMPLOYMENT CARD

The contractor shall issue an **Employment Card** in Form XIV of the CL (R&A) Central Rules 1971 to each worker within three days of the employment of the worker (Appendix-X).

10. SERVICE CERTIFICATE

On termination of employment for any reason whatsoever the contractor shall issue to the workman whose services have been terminated, a **Service certificate** in Form XV of the CL(R&A) Central Rules 1971.

11. PRESERVATION OF LABOUR RECORDS

All records required to be maintained under Regulations Nos. 6 & 7 shall be preserved in original for a period of three years from the date of last entries made in them and shall be made available for inspection by the Engineer-in-Charge or Labour Officer or any other officers authorised by the Ministry of Urban Development in this behalf.

12. POWER OF LABOUR OFFICER TO MAKE INVESTIGATIONS OR ENQUIRY

The Labour Officer or any person authorised by Central Government on their behalf shall have power to make enquiries with a view to ascertaining and enforcing due and proper observance of Fair Wage Clauses and the Provisions of these Regulations. He shall investigate into any complaint regarding the default made by the contractor or subcontractor in regard to such provision.

13. REPORT OF LABOUR OFFICER

The Labour Officer or other persons authorised as aforesaid shall submit a report of result of his investigation or enquiry to the Engineer-in-Charge concerned indicating the extent, if any, to which the default has been committed with a note that necessary deductions from the contractor's bill be made and the wages and other dues be paid to the labourers concerned. In case an appeal is made by the contractor under Clause 13 of these regulations, actual payment to labourers will be made by the Engineer-in-Charge after G.M. Engg. has given his decision on such appeal.

(i) Engineer-in-Charge shall arrange payments to the labour concerned within 45 days from the receipt of the report from the Labour Officer or the G.M. Engineer as the case may be.

14. APPEAL AGAINST THE DECISION OF LABOUR OFFICER

Any person aggrieved by the decision and recommendations of the Labour Officer or other person so authorised may appeal against such decision to the Engineer-in-Charge concerned within 30 days from the date of decision, but subject to such appeal, the decision of the officer shall be final and binding upon the contractor.

15. PROHIBITION REGARDING REPRESENTATION THROUGH LAWYER

- (i) A workman shall be entitled to be represented in any investigation or enquiry under these regulations by :
 - a) An officer of a registered trade union of which he is a member.
 - b) An officer of a federation of trade unions to which the trade union referred to in Clause (a) is affiliated.



- c) Where the employer is not a member of any registered trade union, by an officer of a registered trade union, connected with the industry in which the worker is employed or by any other workman employed in the industry in which the worker is employed.
- (ii) An employer shall be entitled to be represented in any investigation or enquiry under these regulations by :
 - a) An officer of an association of employers of which he is a member.
 - b) An officer of a federation of associations of employers to which association referred to in Clause(a) is affiliated.
 - c) Where the employers is not a member of any association of employers, by an officer of association of employer connected with the industry in which the employer is engaged or by any other employer, engaged in the industry in which the employer is engaged.
- (iii) No party shall be entitled to be represented by a legal practitioner in any investigation or enquiry under these regulations.

16. INSPECTION OF BOOKS AND SLIPS

The contractor shall allow inspection of all the prescribed labour records to any of his workers or to his agent at a convenient time and place after due notice is received or to the Labour Officer or any other person, authorised by the Central Government on his behalf .

17. SUBMISSION OF RETURNS

The contractor shall submit periodical returns as may be specified from time to time.

18. AMENDMENTS

The Central Government/AAI may from time to time add to or amend the regulations and on any question as to the application/interpretation or effect of those regulations the decision of the General Manager (Engg.) concerned shall be final.

**APPENDIX-I**

**FORM OF BANK GUARANTEE IN LIEU OF SECURITY DEPOSIT & AMOUNT
WITHHELD AGAINST COMPENSATION FOR DELAY IN INDIVIDUAL CONTRACT
(on Non-Judicial Stamp Paper of Rs.100/-)**

[Refer Clause 1A and 2B]

To
The Airports Authority of India

.....
.....

1. In consideration of the Airport Authority of India having its head office at New Delhi [hereinafter called the “AAI” which expression shall unless repugnant to the subject or context include its administrator, successors and assigns) having agreed under the terms and condition of Contract Agreement No.dated.....made between.....and AAI in connection with the work of(hereinafter called the said contract) to accept Deed of Guarantee as herein provided for Rs.....(Rupees.....only) from a Nationalized Bank in lieu of the Security deposit to be made by the contractor or lieu of the amount withheld towards compensation for delay pending final extension of time to be made from the contractors contained in the said Contractor. We, the.....bank (hereinafter referred to as “the said Bank” and having our registered office atdo hereby under take and agree to identify and keep indemnified AAI from time to time to the extent of Rs.....(Rupees.....only) against any loss or damage, cost,, charges and expenses caused to or suffered by or that may be caused to or suffered by AAI by reason of any breach or breaches by the said Contractor of any of the terms and condition contained in the said contract and to unconditionally pay the amount claimed by AAI on demand and without demur to the extent aforesaid.

2. We Bank, further agree that AAI shall be the sole judge of and as to whether the said Contractor has committed any breach or breaches of any of the terms and conditions of the said contract and the extent of loss, damage, costs, charges and expenses caused to or suffered by or that may be caused to or suffered by AAI on account thereof and the decision of AAI that the said Contractor has committed such breach and breaches and as to the amount or amounts of loss, damage, costs, charges and expenses caused to or suffered of that may be caused to or suffered by AAI from time to time shall be final and binding on us.

3. We, the said Bank, further agree that the Guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said contracts and till all the dues of AAI under the said contract or by virtue of any of the terms and conditions governing the said contract including compensation for delay if any as decided by AAI, have been fully paid and its claims satisfied or discharged and till the Accepting Authority of the contract certifies that the terms and condition and accordingly Contract have been fully and properly carried out by the said contractor and accordingly discharges this guarantee subject, however that AAI shall have no claim under this Guarantee after 90(Ninety) days from the date of expiry of the defects Liabilities periods or Final /Extension of Time grated by AAI as provided available in agreements clause no.....as provided in the said Contract, i.e.....(date) or from the date of cancellation of the said contract, as the case may be, unless a notice of the claim under this Guarantee has been served on the Bank before the expiry of the period in which case the same shall be enforceable against the Bank notwithstanding the fact, that the same is enforced after the expiry of the said period.



4. AAI shall have the fullest liberty without affecting in any way the liability of the bank under this Guarantee or Indemnity from time to time to vary any of the terms and conditions of the said contract or to extend time of performance by the said Contractor or to postpone for any time and from time to time any of the powers exercisable by it against the said Contractor and either to enforce or forbear from enforcing any of terms and conditions governing the said contract or securities available to AAI and the said Bank shall not be released from its liability under these present by any exercise by AAI of any liberty with reference to the matters aforesaid or by reason of time being given to the said contractor or any other forbearance, act or omission on the part by AAI or any indulgence by AAI to the said Contractor or any other matter or thing whatsoever which under the law relating to sureties would but for this provision have the effect of so releasing the Bank from its such liability.
5. It shall not be necessary for AAI to proceed against the contractor before proceeding against the Bank and the Guarantee herein contained shall be enforceable against the Bank, notwithstanding any security which AAI may have obtained or obtain from the Contractor at the time when proceedings are taken against the Bank hereunder be outstanding or unrealized.
6. We, the said Bank, lastly undertake not to revoke this Guarantee during its currency except with the previous consent of AAI in writing and agree that any charge in the Constitution of the said Contract or the said Bank shall not discharge our liability hereunder.

In presence of

Dated this _____ Day of _____

WITNESS

1.

2.

For and on behalf of (The Bank)
 Signature _____
 Name & Designation _____
 Authorisation No. _____
 Name & Place _____
 Bank's Seal _____

The above Guarantee is accepted by Airports Authority of India.

For and on behalf of Airports Authority of India

Signature _____

Name _____

Designation _____

Dated _____

**APPENDIX-1A****FORM OF BANK GUARANTEE AGAINST EARNEST MONEY DEPOSIT**

WHEREAS, contractor _____ (Name of contractor) (hereinafter called "the contractor") has submitted his tender dated _____ (date) for the construction of "_____" (name of work) (hereinafter called "the TENDER").

KNOW ALL PEOPLE by these presents that we _____ (name of bank) having our registered office at _____ (hereinafter called "the bank") are bound unto _____ (Name of Sr. Manager (Engg.-E), Airports Authority of India, M.P. Airport, Udaipur) (hereinafter called "the Bid Manager/ Engineer-in-Charge/ AAI's Authorised representative" as the case may be which expression shall unless repugnant to the subject or contract includes its administrators, successor and assigns) in the sum of Rs. _____ (Rs. In words _____) for which payment well truly to be made to the said "Bid Manager/ Engineer-in-charge/ AAI's Authorised representative" the bank binds itself, its successors and assigns by these presents.

SEALED with the Common Seal of the Bank this _____ day of _____ 20 ____.

THE CONDITIONS of this obligation are:

- (1) If after tender opening the Contractor withdraws, his tender during the period of validity of tender (including extended validity of tender) specified in the form of Tender.
- (2) If the contractor having been notified of the acceptance of his tender by the "Bid Manager/ Engineer-in-charge/ AAI's Authorised representative".
 - a) Fails or refuses to execute the form of Agreement in accordance with the instructions to contractor, if required –
OR
 - b) Fails or refuses to furnish the performance guarantee, in accordance with the provisions of tender document and instructions to contractor,
OR
 - c) Fails or refuses to start the work, in accordance with the provisions of the contract and instructions to contractor,
OR
 - d) Fails or refuses to submit fresh bank guarantee of an equal amount of this bank guarantee against security deposit after _____ of contract.

We undertake to pay to the engineer-in-charge either up to the above amount or part thereof upon receipt of his first return demand, without the engineer-in-charge having to substantiate his demand, provided that in his demand the engineer-in-charge will note that the amount claimed by him is due to him owing to the concurrence of one or any of the above conditions, specifying the occurred condition or conditions.

This guarantee will remain in force up to and including the date* _____ after the deadline for submission of tender as such deadline is stated in the instructions to contractor or as it may be extended by the "Bid Manager/ Engineer-in-charge/ AAI's Authorised representative", 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
(SIGNATURE NAME AND ADDRESS)

SEAL

* Date to be worked out on the basis of validity period of 6 months from last date of receipt of tender.



APPENDIX-II

PROFORMA FOR MANDATORY TESTS TO BE ATTACHED WITH RUNNING ACCOUNT BILLS

Name of work:.....

Name of Contractor.....

Contract Agreement No. and Date.....

R/A Bill No.....

[illegible]

Note: If the number of tests done are less than required, then reasons shall be recorded.

Signature of Sudt. (Engg)

Signature of Engineer-in-Charge.

Signature of Manager / AM (Engg)

**APPENDIX-III****REGISTER OF MATERNITY BENEFITS (Clause 19 F)**

Name and address of the contractor.....

Name and location of the work.....

Name of the employee	Father's/husband's name	Nature of employment	Period of actual employment	Date on which notice of confinement given
1	2	3	4	5

Date on which maternity leave commenced and ended

Date of delivery/miscarriage	<u>In case of delivery</u>		<u>In case of delivery</u>	
	Commenced	Ended	Commenced	Ended
6	7	8	9	10

Leave Pay paid to the employee

<u>In case of delivery</u>		<u>In case of miscarriage</u>		Remark
Rate of leave pay	Amount paid	Rate of leave pay	Amount paid	
11	12	13	14	15



APPENDIX-IV

SPECIMEN FORM OF THE REGISTER, REGARDING MATERNITY BENEFIT ADMISSION TO THE CONTRACTOR'S LABOUR IN AIRPORTS AUTHORITY OF INDIA WORKS (CLAUSE 19F)

Name and address of the contractor -----

Name and location of the work -----

- 1) Name of the woman and her husband's name
- 2) Designation
- 3) Date of appointment
- 4) Date with months and years in which she is employed.
- 5) Date of discharge/dismissal, if any
- 6) Date of production of certificates in respect of pregnancy.
- 7) Date on which the woman informs about the expected delivery.
- 8) Date of delivery/miscarriage/death.
- 9) Date of production of certificate in respect of delivery/miscarriage.
- 10) Date with the amount of maternity/death benefit paid in advance of expected delivery
- 11) Date with amount of subsequent payment of maternity benefit
- 12) Name of the person nominated by the woman to receive the payment of the maternity benefit after the death.
- 13) If the woman dies, the date of her death, the name of the person to whom maternity benefit amount was paid, the month thereof and the date in the register.
- 14) Signature of the contractor authenticating entries in the register.
- 15) Remarks column for the use of Inspection Officer.

**APPENDIX-V****Labour Board**

Name of work

Name of Contractor-----

-----Address of Contractor -----

Name and address of A. A. I. Division -----

Name of A. A. I. Labour Officer -----

Address of A. A. I. Labour Officer -----

Name of A.A.I Labour Officer-----

Sl.No.	Category	Minimum wage fixed	Actual wage paid	Number present	Remark
--------	----------	-----------------------	---------------------	-------------------	--------

Weekly holiday -----

Wage period -----

Date of payment of wages -----

Working hours -----

Rest interval-----

Form-XIII
[See rule 2(1)]
[Part-A: For all Establishments]
Register of Workmen Employed by Contractor

APPENDIX-VI

Name and address of contractor.....

Name and address of establishment which contractor is carried on.....

Name and location of work.....

Name and address of Principal Employer.....

Name of the Establishment-----**Name of Owner**-----**LIN**-----

Sl. No.	Employee Code	Name	Surname	Gender	Father's/Spouse Name	Date of Birth#	Nationality	Education Level	Date of Joining	Designation
1	2	3	4	5	6	7	8	9	10	11

Category Address *(HS/S/SS/US)	Type of Employment	Mobile	UAN	PAN	ESIC IP	LWF	AADHAAR	Bank A/c Number	Bank	Branch (IFSC)	Present Address	Permanent
12	13	14	15	16	17	18	19	20	21	22	23	24

Servie Book No.	Date of Exit	Reason for Exit	Mark of Identification	Photo	Specimen Signature/Thumb Impression	Remarks
25	26	27	28	29	30	31

***(Highly Skilled/Skilled/Semi Skilled/Un Skilled)**

#Note: In case the age is between 14 to 18 years, mention the nature of work, daily hours of work and Intervals of rest in the remarks Column.

**APPENDIX-VII**

Form-XVI
[See Rule 78 (1) (a) (i)]

Muster Roll

Name and address of contractor.....

Name and address of establishment which contractor is carried on.....

Name and location of work.....

Name and address of Principal Employer.....

For the month of fortnight.....

Sl. 1	Name of work Man 2	Sex 3	Father's/ Husband's 4	Date					Remark
				1	2	3	4	5	

FORM B
[See Rule 78 (1) (a) (i)]
FORMAT FOR WAGE REGISTER

APPENDIX-VIII

Name and address of contractor.....

Name and address of establishment which contractor is carried on.....

Name and location of work.....

Name and address of Principal Employer.....For the month of fortnight.....

Rate of Minimum Wages and since the date.....				
	Highly Skilled	Skilled	Semi-Skilled	Un Skilled
Minimum Basic				
DA				
Overtime				

Name of the Establishment _____ **Name of Owner** _____ **LIN** _____ **Wage period**

From _____ **To** _____ **(Monthly/Fortnightly/Weekly/Daily/Piece Rated)**

Sl. No. in Employee register	Name	Rate of Wage	No. of Days worked	Overtime hours worked	Basic	Special Basic	DA	Payments Overtime	HRA	Others	Total
1	2	3	4	5	6	7	8	9	10	11	12



Deduction								Net Payment	Employer Share PF Welfare Found
PF	ESIC	Society	Income Tax	Insurance	Others	Recoveries	Total		
13	14	15	16	17	18	19	20	21	22

Receipt by Employee/Bank Transaction ID	Date of Payment	Remarks
23	24	25

FORM C

FORMAT OF REGISTER OF LOAN/ RECOVERIES

Name of Establishment _____ **LIN** _____

Sl. Number In Employee register	Name	Recovery Type (Damage/loss/fine/advance/loans)	Particulars	Date of damage/Loss*	Amount
1	2	3	4	5	6

Whether show cause issued*	Explanation heard in presence of*	Number of Instalments	First Month/Year	Last Month/Year	Date of Complete Recovery	Remarks
7	8	9	10	11	12	13

*Applicable only in case of damage/loss/fine

Form-XVII [See Rule 78 (2) (a)]

Register of wages

Name and address of contractor.....

Name and address of establishment which contractor is carried on.....

Name and location of work.....

Name and address of Principal Employer.....For the month of fortnight.....

							Amount of wages								
S. No	Name of workman	Serial no in the register of workman	Description/ nature of work done	No. of days worked	Units of work done	Daily rates of wages piece rate	Basic wage	Dearness Allowance	Over-time	Other cash payment. (indicate nature)	Total	Deduction if any (indicate nature)	Net amount paid	Sig. or thumb impression of the work men	Initial contract or his representative
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

APPENDIX-VIIIA

WAGE CARD

Wages Card No.....

Name and Address of Contractor.....Date of issue.....

Name and location of work.....Designation.....

Name of workman.....Month/Fortnight.....

Rate of Wages.....

	1	2	3	4	5	6	7	8	9	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	3	31	
										0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	8	0

Morning

Rate

Evening

Amount

Initial

Received from.....the sum of Rs.....on account of my wages

Signature

The Wage Card is valid for one month from the date of iss



19/Form-XIX
78 (2)
[See rule 78 (1) (b)]

APPENDIX-IX

Wages Slip

Name and address of contractor.....

Name and Father's/Husband name of workman.....

Name and location of work.....

For the week/Fortnight/Month ending.....

1. No. of days worked.....

2. No. of units worked in case of piece rate workers.....

3. Rate of daily wages/piece rate.....

4. Amount of overtime wages.....

5. Gross wages payable.....

6. Deduction, if any.....

7. Net amount of wages paid.....

Initials of the contractor or his representative



APPENDIX-X

14/Form-XIV
[See rule 76]
Employment Card

Name and address of contractor.....

Name and address of establishment under which is carried.....

Name of work and location of work.....

Name and address of Principal Employee.....

1. Name of the workman.....

2. SI. No. in the register of workman employed.....

3. Nature of employment/designation.....

4. Wage rate (with particulars of unit in case of piece work).....

5. Wage period.....

6. Tenure of employment.....

7. Remark.....

Signature of Contractor

**APPENDIX-XI**

**FORM OF PERFORMANCE SECURITY (GUARANTEE)
Bank Guarantee Bond
(On Non-Judicial Stamp Paper of Rs100/-)**

1. In consideration of the Chairman, AAI (hereinafter called "AAI") having offered to accept the terms and conditions of the proposed agreement
[hereinafter called the said contractor(s)] for the work (hereinafter "the said agreement") having agreed to production of a irrevocable Bank Guarantee for Rs. (Rupeesonly) as a security / guarantee from the contractor(s) for compliance of his obligations in accordance with the terms and conditions in the said agreement.
We (Indicate the name of the Bank) (hereinafter referred to as "the Bank") hereby undertake to pay to the Chairman, AAI an amount not exceeding Rs. (Rupees only) on demand by AAI.
2. We (Indicate the name of the Bank) hereby undertake to pay the amounts due to payable under this Guarantee without any demur, merely on a demand from AAI stating that the amount claimed is required to meet the recoveries due or likely to be due from the said contractor(s). Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs. (Rupees only).
3. We, the said Bank, further undertake to pay the Chairman, AAI any money so demanded notwithstanding any dispute or disputes raised by the contractor(s) in any suit or proceeding pending before any court or tribunal relating thereto, our liability under this present being absolute and unequivocal.

The payment so made by us under this bank shall be a valid discharge of our liability for payment there under and the contractor(s) shall have no claim against us for making such payment.
4. We..... (Indicate the name of bank) further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said agreement and that it shall continue to be enforceable till all the dues of AAI under or by virtue of the said agreement have been fully paid and its claims satisfied or discharged or till Engineer-In-Charge on behalf of AAI certified that the terms and conditions of the said agreement have been fully and properly carried out by the said contractor(s) and accordingly discharges this guarantee.
5. We..... (Indicate the name of the bank) further agree with AAI that AAI shall have the fullest liberty without our consent and without effecting in any manner our obligations hereunder to vary any of terms and conditions of the said agreement or to extend time of performance by the said contractor(s) from time to time or to postpone for any time or from time to time any of the powers exercisable by AAI against in the said contractor(s) and to forebear and enforce any of the terms and conditions relating to the said agreement and we shall not be relieved from our liability by reason of any such variation, or extensions being



granted to the said contractor(s) or for any forbearance, act of omission on the part of AAI or any indulgence by the AAI to the said contractor(s) or by any such matter or thing whatsoever which under the law relating to securities would, but for this provision, have effect of so relieving us.

6. This guarantee will not be discharged due to the change in the constitution of the Bank of the contractor(s).
7. We..... (Indicate the name of the bank) lastly undertake not to revoke this guarantee except with the previous consent of AAI in writing.
8. This guarantee shall be valid upto and extended on demand by AAI. Notwithstanding anything mentioned above, our liability against this guarantee is restricted to Rs. (Rupees only) and unless a claim in writing is lodged within six months of the date of expiry of the extended date of expiry of this guarantee all our liabilities under this guarantee shall stand discharged.

In presence of

Dated this _____ Day of _____

Witness

- 1.
- 2.

For and on behalf of (The Bank)

Signature _____

Name & Designation _____

Authorisation No. _____

Name & Place _____

Bank's Seal _____

The above guarantee is accepted by Airports Authority of India. For and on behalf of Airports Authority of India

Signature _____

Designation _____

Dated _____

Note : * Date of validity should be schedule date of completion + Six months.



APPENDIX-XI-A

Format for Letter of undertaking from the Depositor to Bank

(To be submitted along with Security Deposit / Earnest Money / Performance Guarantee to
Airports Authority of India)

(To be submitted in the Letter head of the firm)

The Branch Manager,
.....Bank,
.....

Sub: - My / Our Bank Guarantee bearing No.....dated for amount..... Issued in
favour of Airport Authority of India A/c.....

Sir,

The subject Bank Guarantee is obtained from your bank for the purpose of **Security Deposit / Earnest Money / Performance Guarantee** on account of contract awarded / to be awarded by M/s Airports Authority of India to me / us.

I hereby authorized the Airport Authority of India in whose favour the deposit is made to close the subject Bank Guarantee before maturity/ on maturity toward adjustment of dues without any reference /consent /notice from me / our side and the bank is fully discharged by making the payment to Airport Authority of India.

Signature of the Depositor

Place:

Date:

APPENDIX-XII



LIST OF ACTS AND OMISSIONS FOR WHICH FINES CAN BE IMPOSED

In accordance with rule 7(v) of the AAI Contractor's Labour Regulations to be displayed prominently at the site of work both in English and local Language.

1. Wilful insubordination or disobedience, whether alone or in combination with other.
2. Theft fraud or dishonesty in connection with the contractors beside a business or property of AAI.
3. Taking or giving bribes or any illegal gratifications
4. Habitual late attendance.
5. Drunkenness lighting, riotous or disorderly or indifferent behaviour
6. Habitual negligence.
7. Smoking near or around the area where combustible or other materials are locked
8. Habitual Indiscipline
9. Causing damage to work in the progress or to property of the AAI or of the contractor.
10. Sleeping on duty.
11. Malingering or slowing down work.
12. Giving of false information regarding name, age, father's name, etc.
13. Habitual loss of wage cards supplied by the employer's
14. Unauthorised use of employer's property of manufacturing or making of unauthorised particles at the work place
15. Bad workmanship in construction and maintenance by skilled workers which is not approved by the Department and for which the contractors are compelled to undertake rectifications.
16. Making false complaints and/or misleading statements.
17. Engaging on trade within the premises of the establishments.
18. Any unauthorised divulgence of business affairs of the employees.
19. Collection or canvassing for the collection of any money within the premises of an establishment unless authorised by the employer.



20. Holding meeting inside the premises without previous sanction of the employers.
21. Threatening or intimidating any workman or employer during the working hours within the premises.

APPENDIX-XIII

Form-XVII

[See Rule 78 (2) (d)]

Register of Fines

Name and address of contractor.....

Name and address of establishment which contractor is carried on.....

Name and location of work.....

Name and address of Principal Employer.....

Sl. No.	Name of workman	Father's/Husband's Name	Designation nature of employment	Act or action for which fine imposed	Date of Offence	Whether workman showed cause against fine	Name of person in whose presence employee's explanation was heard	Wage period and wages payable	Amount of the imposed	Date on which fine realised	Remarks
1	2	3	4	5	6	7	8	9	10	11	12

APPENDIX-XIV

Form-XVII
[See Rule 78 (2) (d)]
Register of Deduction for Damage or Loss

Name and address of contractor.....

Name and address of establishment under which contract is carried on.....

Name and location of work.....

Name and address of Principal Employer.....

Sl. No.	Name of workman	Father's Husband's Name	Designation /nature of employment	Particular of Damages or Loss	Date of damages or loss	Whether workman showed cause against deduction	Name of person whose presence employee's explanation was heard	Amount of deduction imposed	No. of installments	Date of recovery		Remark
										First Instalment	Last Instalment	
1	2	3	4	5	6	7	8	9	10	11	12	13

APPENDIX-XV

Form-XXII
[See Rule 78 (2) (d)]
Register of Advances

Name and address of contractor.....

Name and address of establishment under which contract is carried on.....

Name and location of work.....

Name and address of Principal Employer.....

Sl. No.	Name of workman	Father's Husband's Name	Designation /nature of employment	Wage period and wages payable	Date and amount of advance paid	Purpose for which advance paid	Number of installment by which advance to be repaid	Date and amount of each installment repaid	Date on which last installment was repaid	Remark
1	2	3	4	5	6	7	8	9	10	11

APPENDIX-XVI

Form-XXIII [See Rule 78 (2) (e)]

Register of Overtime

Name and address of contractor.....

Name and address of establishment under which contract is carried on.....

Name and location of work.....

Name and address of Principal Employer.....

S. No	Name of workmen	Father's/ Husbands Name	Sex	Designation/ nature of employment	Date on which overtime worked	Total overtime worked at project in case of piece rate	Normal rate of wages	Overtime rate of wages	Overtime earning	Rate on which overtime paid	Remarks
1	2	3	4	5	6	7	8	9	10	11	12



NOTICE FOR APPOINTMENT OF ARBITRATOR
[Refer Clause 25]

To

.....
.....
.....

Dear Sir,

In terms of clause 25 of the agreement, particular of which are given below, I/we hereby give notice to you to appoint an arbitrator for settlement of disputes mentioned below:

1. Name of applicant
2. Whether applicant is Individual/Prop. Firm /Partnership Firm/Ltd. Co.
3. Full address of the applicant.
4. Name of the work and contract number in which arbitrator sought.
5. Name of the office which entered into contract.
6. Contract amount in the work.
7. Date of contract.
8. Date of initiation of work.
9. Stipulated date of completion of work.
10. Actual date of completion of work (if completed).
11. Total number of claim made.
12. Total amount claimed.
13. Date of intimation of final bill (if work is completed).
14. Date of payment of final bill (if work is completed).
15. Amount of final bill (if work is completed).
16. Date of request made to ED for decision.
17. Date of receipt of ED's decision.
18. Date of appeal.
19. Date of receipt of decision on our appeal.

Specimen signature of the applicant
(Only the person/authority who
Signed the contract should sign)

I/We certify that the information given above is true to the best of my/our knowledge. I/We enclose following documents.

1. Statement of claims with amount of claims.
- 2.
- 3.
- 4.

Yours faithfully

(Signature)

Copy to:

1. The Engineer-in-charge,
.....

APPENDIX -XVIII**INTEGRITY PACT**

The integrity pact shall be signed by both the parties in the following format

“This Pact made thisday of between Airports Authority of India, a body corporate constituted by the Central Government under the Airports Authority of India Act, 1994 and having its Corporate Office at Rajiv Gandhi Bhawan, New Delhi, and offices atin India, hereinafter called the Authority (which term shall unless excluded by or is repugnant to the context, be deemed to include its Chairman, or Member, Executive Directors, Airport Directors, officers or any of them specified by the Chairman in this behalf, and shall also include its successors and assigns) of the one part

AND

.....represented by of the other part, hereafter called the “Bidder/Contractor” (which term shall unless excluded by or is repugnant to the context be deemed to include its heirs, representatives, successors and assigns of the Bidder/ Contractor)

WHEREAS the Authority intends to award, under laid down organizational procedures, tender/ contract forThe Authority, while discharging its functions on business principles, values proper compliance with all relevant laws and regulations, and the principles of natural justice, ethics, equity, fairness and transparency in its relations with the Bidders/ Contractors.

WHEREAS the Authority is desirous to make its business mechanism more transparent, thus to ensure strict adherence to the aforesaid objectives/goals, the Authority hereby adopts the instrument developed by the renowned international non-governmental organization “Transparency International” (T I) headquartered in Berlin (Germany). The Authority will appoint an Independent External Monitor (IEM) who will monitor the tender process and the execution of the contract for compliance with the principles mentioned above.

AND WHEREAS the Bidder submitting a tender to the Authority for In response to the NIT (Notice Inviting Tender) dated Contractor is signing the contract for execution ofNOW, therefore, To avoid all forms of corruption by following a system that is fair, transparent and free from any influence/prejudiced dealing prior to, during and subsequent to the currency of the contract to be entered into with a view to Enabling the Authority to obtain the desired said stores/equipment/execution of works at a competitive price in conformity with the defined specifications by avoiding the high cost and the distortionary impact of corruption on public procurement, and Enabling Authority to abstain from bribing or indulging in any corrupt practice in order to secure the contract by providing assurance to them that their competitors will also abstain from bribing and other corrupt practices and the Authority will commit to prevent corruption, in any form, by its official following transparent procedures. The parties hereto hereby agree to enter into the Integrity Pact and agree as follows:



1. Commitments of the Authority;

- 1.1 The Authority undertakes that no official of the Authority, connected directly or indirectly with the contract, will demand, take a promise for or accept, directly or through intermediaries, any bribe, consideration, gift, reward, favour or any material or immaterial benefit or any other advantage from the BIDDERS, either for themselves or for any person, organization or third party related to the contract in exchange for an advantage in the bidding process, bid evaluation, contracting or implementation process related to the contract.
- 1.2 The Authority will, during the pre-contact stage, treat all BIDDERS alike, and will provide to all BIDDERS the same information and will not provide any such information to any particular BIDDER which could afford an advantage to that particular BIDDER in comparison to other BIDDERS.
- 1.3 All the officials of the Authority will report to the appropriate authority office any attempted or completed breaches of the above commitments as well as any substantial suspicion of such a breach.
- 1.4 In case any such preceding misconduct on the part of such official(s) is reported by the BIDDER to the Authority with fully verifiable facts and the same is prima facie found to be correct by the Authority, necessary disciplinary proceedings, or any other action as deemed fit, including criminal proceedings may be initiated by the Authority and such a person shall be debarred from further dealings related to the contract process. In such a case while an enquiry is being conducted by the Authority the proceedings under the contract would not be stalled.

1. Commitments of Bidders/Contractor.

The Bidder/Contractor commits itself to take all measures necessary to prevent corrupt practice, unfair means and illegal activities during any stage of its bid or during any pre-contract or post-contract stage in order to secure the contract or in furtherance to secure the contract and in particular commit itself to the following.

- 2.1 The Bidder/Contractor will not offer, directly or through intermediaries, any bribe, gift, consideration, reward, favour, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of the Authority, connected directly or indirectly with the bidding process, or to any person, organization or third party related to the contract in exchange for any advantage in the bidding, evaluation, contracting and implementation of the contract.
- 2.2 The Bidder/Contractor further undertakes that it has not given, offered or promised to any official, directly or indirectly any bribe, gift, consideration, reward, favour, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of the Authority or otherwise in procuring the Contract or forbearing to do or having done any act in relation to the obtaining or execution of the contract or any other contract with the Authority for showing or forbearing to show favour or disfavour to any person in relation to the contract or any other contract with the Authority.



- 2.3 The Bidder / Contactor has not entered and will not enter with other bidders into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specification, certifications, subsidiary contracts, submission or non-submission of bids or any actions to restrict competition or to introduce cartelization in the bidding process.
- 2.4 The Bidder/Contractor shall, when presenting his bid, disclose the name and address of agents and representatives and Indian BIDDERS shall disclose their foreign principals or associates.
- 2.5 The Bidder/Contractor shall when presenting his bid disclose any and all the payments he has made or, is committed to or intends to make to agents/brokers or any other intermediary, in connection with this bid/contract.
- 2.6 The Bidder/Contractor further confirms and declares to the Authority that the BIDDER is the original manufacturer/integrator/ authorized government sponsored export entity of the stores and has not engaged any individual or firm or company whether Indian or foreign to intercede, facilitate or in any way to recommend to the Authority or any of its functionaries, whether officially or unofficially to the award of the contract to the BIDDER, nor has any amount been paid, promised or intended to be paid to any such individual, firm or company in respect of any such intercession, facilitation or recommendation.
- 2.7 The Bidder/Contractor, either while presenting the bid or during pre-contract negotiations or before signing the contract, shall disclose any payments he has made or has committed to or intends to make to officials of the Authority or their family members, agents, brokers or any other intermediaries in connection with the contract and the details of services agreed upon for such payments.
- 2.8 The Bidder/Contractor will not collude with other parties interested in the contract to impair the transparency, fairness and progress of the bidding process, bid evaluation, contracting and implementation of the contract.
- 2.9 The Bidder/Contractor will not accept any advantage in exchange for any corrupt practice, unfair means or any illegal activities.
- 2.10 The Bidder / Contactor shall not use improperly, for purposes of competition or personal gain, or pass on to others, any information provided by the Authority as part of the business relationship, regarding plans, technical proposals and business details, including information contained in any electronic data carrier. The Bidder / Contactor also undertakes to exercise due and adequate care lest any such information is divulged.
- 2.11 The Bidder/Contractor will inform to the Independent External Monitor.
- i) If he receives demand for an illegal/undue payment/benefit.
 - ii) If he comes to know of any unethical or illegal payment/benefit.
 - iii) If he makes any payment to any Authority's associate(s)



- 2.12 The Bidder/Contractor commit to refrain from giving any complaint directly or through any other manner without supporting it with full and verifiable facts.
- 2.13 The Bidder/Contractor shall not instigate or cause to instigate any third person to commit any of the actions mentioned above.
- 2.14 If the Bidder/Contractor or any employee of the Bidder/Contractor or any person acting on behalf of the Bidder/ Contractor, either directly or indirectly, is a relative of any of the officers of the Authority, or alternatively if any relative of an officer of the Authority has financial interest/stake in the Bidder's/Contractor's firm, the same shall be disclosed by the Bidder/Contractor at the time filing of tender. The term 'relative' for this purpose would be as defined in Section 6 of the Companies Act 1956.
- 2.15 The Bidder/Contractor shall not lend to or borrow any money from or enter into any monetary dealings or transactions, directly or indirectly, with any employee of the Authority.
- 2.16 That if the Bidder/ Contractor, during tender process or before the award of the contract or during execution of the contract work has committed a transgression in violation of section 2 or in any other form such as to put his reliability or credibility as Bidder/Contractor into question, the Authority is entitled to disqualify him from the tender process and to terminate the contract for such reason and to debar the BIDDER from participating in future bidding processes.
- 2. Previous Transgression**
- 3.1 The Bidder/Contractor declares that no previous transgression occurred in the last three years immediately before signing of this Integrity Pact, with any other company in any country in respect of any corrupt practices envisaged hereunder or with any Public Sector Enterprise in India or any Government Department in India that could justify Bidders' exclusion from the tender process.
- 3.2 The Bidder/Contractor declares that if it makes incorrect statement on this subject, he can be disqualified from the tender process or the contract, if already awarded, can be terminated for such reason and he may be considered for debarment for future tender/contract processes.
- 3.3 That the Bidder/Contractor undertakes to get this Pact signed by the subcontractor (s) and associate(s) whose value of the work contribution exceeds Rs 0.5 Cr. (Rupees zero point five Cr.) and to submit the same to the Authority along-with the tender document/ contract before contract signing.
- 3.4. That sub-contractor(s)/ associate(s) engaged by the Contractor, with the approval of the Authority after signing of the contract, and whose value of the work contribution exceeds Rs 0.5 Cr. (Rupees Zero point five Cr.) will be required to sign the Pact by the Contractor, and the same will be submitted to the Authority before signing/ performing any act/ function by such subcontractor(s) / associate(s) in relation to the contract/ work.



3.5 That the Authority will disqualify from the tender process all Bidder(s) who don't sign this Pact or violate its provisions or fails to get this Pact signed in terms of policy of authority

3.6 That if the Contractor(s) does/ do not sign this Pact or violate its provisions or fails to get this Pact signed in terms of policy of authority. Authority will terminate the contract and initiate appropriate action against such Contractor(s).

4. Earnest Money, Security Deposit, Bank Guarantee, Draft, Pay order or any other mode and its validity i/c Warranty Period, Performance Guarantee/Bond.

While submitting bid, the BIDDER shall deposit an EM/BG/DRAFT/PAY ORDER ETC I/C WARRANTY PERIOD, PG/BOND, SECURITY etc. , which is as per terms and conditions and details given in NIT / tender documents sold to the Bidders.

5. Sanctions for Violations/Disqualification from tender process and exclusion from future Contacts.

5.1 Any breach of the aforesaid provisions by the BIDDER or any one employed by it or acting on its behalf (whether with or without the knowledge of the BIDDER) shall entitle the Authority to take all or any one of the following actions, wherever required:

- i) To immediately call off the pre contract negotiations without assigning any reason or giving any compensation to the BIDDER. However, the proceedings with the other BIDDER(s) would continue.
- ii) To immediately cancel the contract, if already signed, without giving any compensation to the BIDDER.
- iii) If the Authority has disqualified / debarred the Bidder from the tender process prior to the award under section 2 or 3 or 4, the Authority is entitled to forfeit the earnest money deposited/bid security.
- iv) To recover all sums already paid by the Authority, and in case of an Indian BIDDER with interest thereon at 2% higher than the prevailing Prime Lending Rate of State Bank of India, while in case of a BIDDER from a country other than India with interest thereon at 2% higher than the LIBOR. If any outstanding payment is due to the BIDDER from the Authority in connection with any other contract or any other stores, such outstanding payment should also be utilized to recover the aforesaid sum and interest.
- v) To encash the advance bank guarantee and performance bond/warranty bond furnished by the BIDDER, in order to recover the payments, already made by the BUYER, along with interest.
- vi) To cancel all or any other Contracts with the BIDDER. The BIDDER shall be liable to pay compensation for any loss or damage to the Authority resulting from such cancellation/rescission and the Authority shall be



entitled to deduct the amount so payable from the money(s) due to the BIDDER.

- vii) To debar the BIDDER from participating in future bidding processes for a period upto two years..
- viii) To recover all sums paid in violation of this Pact by BIDDER(s) to any middleman or agent or broker with a view to securing the contract.
- ix) In case where irrevocable Letters of Credit have been received in respect of any contract signed by the Authority with the BIDDER the same shall not be opened.
- x) Forfeiture of Performance Bond in case of a default by the BUYER to forfeit the same without assigning any reason for imposing sanction for violation of this Pact.
- xi) That if the Authority have terminated the contract under section 2 or 3 or 4 or if the Authority is entitled to terminate the contract under section 2 or 3 or 4, the Authority shall be entitled to demand and recover from the contractor damages equivalent to 5% of the contract value or the amount equivalent to security deposit or performance bank guarantee, whichever is higher.
- xii) That the Bidder / Contractor agrees and undertakes to pay the said amount without protest or delay subject only to condition that if the Bidder/Contractor can prove and establish to the satisfaction of the Authority that the disqualification / debarment of the bidder from the tender process or the termination of the contract after award of the contract has caused no damage to the Authority.

5.2 The Authority will be entitled to take all or any of the actions mentioned at para 5.1 above.

5.3 (i) to (xii) of this pact also on the Commission by the BIDDER or any one employed by it or acting on its behalf (whether with or without the knowledge of the BIDDER) an offence as defined in Chapter IX of the Indian Penal code, 1860 or Prevention of Corruption Act, 1988 or any other statute enacted for prevention of corruption.

5.4 That if the Bidder/Contractor applies to the Authority for premature revocation of the default and proves to the satisfaction of the Authority that he has installed a suitable and effective corruption prevention system and also restored/recouped the damages, if any, caused by him, the Authority may, if thinks fit, revoke the default prematurely considering the facts and circumstances of the case, and the arguments/evidence adduced by the Bidder/Contractor for first time default.



- 5.5 That a transgression is considered to have occurred if the Authority is fully satisfied with the available documents and evidence submitted along with Independent External Monitor's recommendations/suggestions that reasonable doubt is possible in the matter.
- 5.6 The decision of the Authority to the effect that a breach of the provisions of this Pact has been committed by the BIDDER shall be final and conclusive on the BIDDER. However, the BIDDER can approach the Independent External Monitor(s) appointed for the purpose of this Pact.
- 6. Allegations against Bidders/Contractors/ Sub-Contractors/ Associates:**
- That if the Authority receives any information of conduct of Bidder/ Contractor or Sub- Contractor or of an employee or a representative or an associate of the Bidder, Contractor or Sub- Contractor which comes under corruption, or if the Authority has substantive suspicion in this regard the Authority will inform the Vigilance Department for appropriate action.
- 7. Independent External Monitor(s),**
- 7.1. That the Authority has appointed competent and credible Independent External Monitor(s) for this Pact.
- 7.2 The task of the Monitor(s) is to review independently and objectively, whether and to what extent the parties comply with the obligations under this Pact. He will also enquire into any complaint alleging transgression of any provision of this Pact made by the Bidder, Contractor or Authority.
- 7.3. That the Monitor(s) is not subject to any instructions by the representatives of the parties and would perform his functions neutrally and independently. He will report to the Chairperson of the Board of the Authority.
- 7.4 That the Bidder / Contractor accepts that the Monitor(s) has the right to access without restriction to all project documentation of the Authority including that provided by the Bidder/ Contractor. The Bidder/Contractor will also grant the Monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his project documentation including minutes of meeting. The same is applicable to Sub - Contractors and Associates. The Monitor is under obligation to treat the information and documents of the Authority and Bidder/ Contractor / Sub-Contractors/ Associates with confidentiality.
- 7.5. That as soon as the Monitor notices, or believes to notice, a violation of this Pact, he will so inform the management of the Authority and request the management to discontinue to heal the violation, or to take other relevant action. The Monitor(s) can in this regard submit his recommendations/ suggestions. Beyond this, the Monitor(s) has no right to demand from the parties that they act in a specific manner, refrain from action or tolerate action.
- 7.6 That the Authority will provide to the Monitor(s) sufficient information about all meetings among the parties related to the project provided such meetings could have an impact on the contractual relations between the Authority and the Contractor / Bidder. The parties offer to the Monitor(s) the option to participate in such meetings.



7.7 That the Monitor(s) will submit a written report to the Chairperson of the Board of the Authority within 2 weeks from the date of reference or intimation to him by the Authority and, should the occasion arise, submit proposals for dealing with problematic situations.

7.8 That if the Monitor(s) has reported to the Chairperson of the Board a substantiated suspicion of an offence under relevant Anti- Corruption Laws of India and the Chairperson has not, within reasonable time, taken visible action to proceed against such offence or reported it to the Vigilance Department, the Monitor may also transmit this information directly to the Central Vigilance Commissioner, Government of India.

7.9 The word 'Monitor' would include singular and plural.

8. Facilitation of Investigation.

In case of any allegation of violation of any provisions of this Pact or payment of commission, the Authority or its agencies shall be entitled to examine all the documents including the Books of Accounts of the BIDDER and the BIDDER shall provide necessary information and documents in English and shall extend all possible help for the purpose of such Examination.

9. Law and Place of Jurisdiction.

That this Pact is subject to provisions under Indian Law. The place of performance and jurisdiction shall be Corporate Headquarter /the Regional Headquarter / office of the Authority as applicable.

10. Other Legal Actions

10.1 That the changes and supplements as well as termination notice need to be made in writing.

10.2 That if the Bidder / Consortium are a partnership or a consortium, this Pact must be signed by all the partners and consortium members or their authorized representatives.

11. Pact duration (validity)

11.1 That the Pact comes into force when both the parties have signed it. It expires for the Bidder for 12 months after the final payment under the respective contract, and for all other Bidders 3 months after the contract is awarded.

11.2 That if any claim is made / lodged during this period, the same shall be binding and continue to be valid despite the lapse of this Pact as specified herein before, unless it is discharged/determined by Chairman of the Authority.

That should one or several provisions of this Pact turn out to be invalid; the remainder of this Pact shall remain valid. In this case, the parties will strive to come to an agreement to their original intentions.

12. Company Code of Conduct

Bidders are also advised to have a company code of conduct (clearly rejecting the use of bribes and other unethical behaviour) and a compliance program for the implementation of the code of conduct throughout the company.

13. The parties hereby sign this Integrity Pact at _____ on _____

Buyer

Name of the Officer

Designation

Deptt./Ministry/PSU

Witness

1. _____

2. _____

Bidder

CHIEF EXECUTIVE OFFICER

Witness

1. _____

2. _____

(To be filled by Contractor)
(CLAUSE-47)

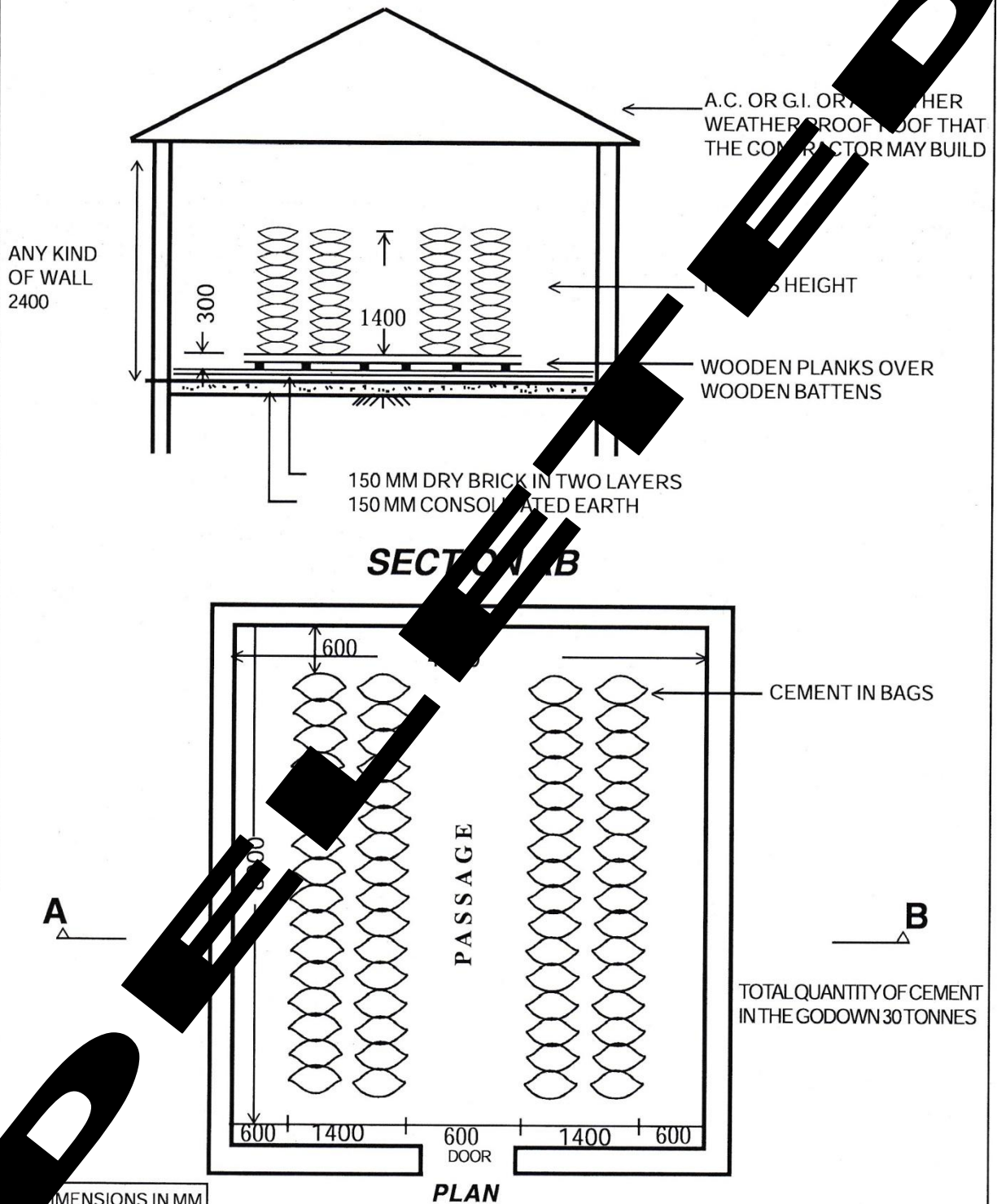
Ratio of direct payment to the specialized agency in case of composite contract : ...% of the net payment to be made to Specialized agency

Sl.	Sub-head	Nature of work	% of the net payment to be made to Specialized agency
1	Sub-head I		

Note:

1. NIT approving authority must ensure that all sub-heads of works are covered in above table. The bidder must indicate percentage payable to specialized agency in case of all sub-heads.
2. If % is not filled in by the contractor against one or more subhead in this schedule, then 75% of the net payment admissible as per AAI for the subhead under consideration shall be paid directly to specialized agency in case of composite contract.

सीमेन्ट गोदाम का रेखाचित्र / SKETCH OF CEMENT GODOWN



SKETCH OF CEMENT GODOWN



SCHEDULES

SCHEDULE 'A'

All rates shall be quoted in the format provided on CPP portal and no other format is acceptable. The price bid has been given with the tender document.

SCHEDULE 'B'

Schedule of materials to be issued to the contractor.

Sl. No.	Description of Item	Quantity	Rates in figures & words at which the material will be charged to the contractor	Place of Issue
1	2	3	4	5
NOT APPLICABLE				

**SCHEDULE `C`**

Tools and plants to be hired to the contractor.

Sl.No.	Description	Hire charges per day	Place of Issue
1	2	3	4

SCHEDULE `D`

Extra schedule for specific requirements/ documents for the work, if any. – **Not Applicable**

SCHEDULE `E`

Reference to General Condition of contract

Name of work: SITC of DG Sets and Replacement of old & Conventional AC units and Other Miscellaneous Works at ACS Pratapgarh.

Estimated cost of work **Rs 24,97,493.00 (excluding GST)**

- i Earnest Money **Rs. 74,925.00**
(Rupees: Seventy Four Thousand Nine Hundred Twenty Five Only)
- ii Performance Guarantee: Not applicable
- iii Security deposit: 10% of contract value

SCHEDULE `F`

A.A.I.

C.....I.....O.....

GCC-131



GENERAL RULES & DIRECTION

Officer inviting tender : **AGM (Engg.-Elect.)**

Maximum percentage for quantity of items of work to be executed beyond which rates are to be determined in accordance with Clauses 12.2 & 12.3	See below
--	-----------

Definitions:

Office inviting tender	:	Airports Authority of India O/o AGM (Engg.-Elect.) Operational Offices, M. P. Airport, Dabok Udaipur - 313 022
2(v) Engineer-in-Charge	:	As per AAI's DOP
2(viii) Accepting Authority	:	As per AAI's DOP
2(x) Percentage on cost materials & Labour to cover all overheads & Profits	:	15%
2(xi) Standard schedule of rates	:	NA
2(xii) Department	:	AAI, Engineering.

Clause 1

(i)	Time allowed for submission of Performance Guarantee from the date of issue of letter of acceptance	Not applicable
(ii)	Maximum allowable period of extension	Not applicable

Clause 2

	Authority for fixing compensation under Clause 2	As per AAI's DOP
--	--	-------------------------

Clause 2A

	Whether Clause 2A shall be applicable	No
--	---------------------------------------	-----------



	Number of days from the date of issue of letter of acceptance for reckoning date of start	10 days
--	---	----------------

Mile Stone(s) as per table given below:

Sl.No.	Description of Milestones (Physical)	Time allowed in days (from date of start)	Amount to be withheld in case of non achievement of milestone
AS PER GCC CLAUSE 5 AND SPECIAL CONDITIONS OF CONTRACT			

Time allowed for execution of work. : **Three (03) months**

Authority to decide:

i.Extension of time : **Engineer-in-Charge**
 ii.Rescheduling of milestone : **Engineer-in-Charge**
 iii.Shifting of date of start in case of delay in handing over of site : **Engineer-in-Charge**

Clause 6, 6A

Clause applicable – (6 or 6A) : **6A (Computerized Billing)**

Clause 7

Gross work to be done together with net payment/adjustment of advances for material collected, if any since the last such payment for being eligible to interim payment.	Minimum Rs.5.00 Lakhs
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Clause 10A

Testing equipment to be provided by the contractor at site lab

All the Testing equipments required for conducting test for building/ pavement works as per CPWD, Morth, IRC and AAI specifications as applicable.

Clause 10 B(II)

Whether Clause 10B(II) shall be applicable	No
Interest on Mobilization Advance	 per Annum

Clause 10 C:

Component of labour expressed as percent of value of work : **Not applicable**

Clause 10 CA Not applicable

Materials covered under this clause	Nearest Material (other than cement*, reinforcement bars, structural steel & Bitumen) for which All India Wholesale Price index is to be followed	Base price and its corresponding period of all the materials covered under clause 10CA
1. Cement (OPC/ PPC)		Base price for cement and reinforcement steel to be determined as issued under authority of DG (Works). CPWD or concerned Zonal Chief Engineer, CPWD as on last date of receipt of tender including extension if any. In case base price for cement, reinforcement bars and structural steel as to be issued by CPWD is not available concerned ED (Engg) empowered to determine the same.
2. Reinforcement steel bars (TMT)		
3. Structural Steel		
4. Bitumen		Base price for bitumen shall be taken as basic price + excise duty issued at nearest delivery point of Govt. Refinery at the time of last date of receipt of tender including extension if any.

***Note:**

- Includes cement component used in RMC brought at site from outside approved RMC plants, if any.
- ~~Base price and its corresponding period of all the materials covered under clause 10CA is to be mentioned at the time of approval of NIT. In case of recall of tenders, the base price may be modified by adopting latest base price and its corresponding period.~~

Clause 10 CC Not applicable

Clause 10CC to be applicable in contracts with stipulated period of completion exceeding the period shown in next column	18 Months
--	------------------

A. For Construction work:

S. No.	Relevant component of material/Labour for price escalation	*Percentage against total value of work
1.	Cement component	
2.	Labour component	
3.	Civil Component of other Construction Materials	
4.	E&M (Electrical and Mechanical i/c IT & Airport system) component of Construction Materials	
5.	POL (Diesel) component	



6.	Reinforcement steel bars/ TMT bars/ structural steels (including strands and cables) component	
7.	Bitumen component	
	Total	100%

*% of components to be decided by NIT approving authority for particular tender.

B. For operation & maintenance period:

S. No.	Relevant component of material/Labour for price escalation	*Percentage against total value of work
1.	Labour component	
2.	Civil Component of other Construction Materials	
3.	E&M (Electrical and Mechanical i/c IT & Airport system) component of Construction Materials	
4.	Bitumen component	
	Total	100%

*% of components to be decided by NIT approving authority for particular tender.

Clause 11

Specification to be followed for execution of work	a) AAI Technical Specification b) CPWD Specifications and IS standards. c) Manufacturer's Specification.
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Clause 12

12.2 & 12.3	Deviation limit beyond which clauses 12.2 & 12.3 shall apply for building, pavements and all other works above foundation level.	15% (Fifteen Percent)
12.5	Deviation limit beyond which clauses 12.2 & 12.3 shall apply for foundation work	100% (Hundred Percent)
	Overall Deviation i/c extra items, if any.	30% (Thirty Percent)

**Clause 16**

Competent Authority for deciding reduced rates	As per AAI's DOP/Works Manual
--	--------------------------------------

Clause 18**Mandatory machinery, tools & plants to be deployed by the contractor at site:**

~~To be provided as per NIT and other Machinery required for timely completion of work.~~

Clause 25

Place of Arbitration : Delhi

Clause 36(1)**Requirement of Technical Representative(s) and recovery rate**

Sl. No.	Minimum Qualification of Technical Representative	Discipline	Designation (Principal Technical representative)	Minimum Experience	Number	Rate at which recovery shall be made from the contractor in the event of not fulfilling provision of clause 36	
						Figures Rs.	Words
AS PER GCC & SCC OF CONTRACT							

- a. Assistant Engineers retired from Government services that are holding Diploma will be treated at par with Graduate Engineers.
- b. Diploma holder with minimum 10 year relevant experience with a reputed construction company can be treated at par with Graduate Engineer for the purpose of such deployment subject to the condition that such diploma holder should not exceed 50% of requirement of degree engineers

Clause 37

Licence Fee for unpaved land **Deleted**

Clause 41(b)

Integrity Pact applicable **Not Applicable**

Clause 42

(i)	Schedule/statement for determining theoretical quantity of cement & bitumen on the basis of Delhi Schedule of Rates	DSR 2016 printed by C.P.W.D with up-to-date correction slips till the date of submission of tender, technical specification (SSO)
(ii)	Variations permissible on theoretical quantities	
a.	Cement for works with estimated cost put to tender not more than Rs.5 lakhs.	3% plus/minus
	For works with estimated cost put to tender more than Rs.5 lakhs	2% plus/minus
b.	Steel Reinforcement and structural steel section for each diameter, section and category	2% plus/minus
c.	Cement	2.5% plus only & NIL on minus side
d.	Other materials	

RECOVERY RATES FOR QUANTITIES BEYOND PERMISSIBLE VARIATION

Sl. No.	Description of items	Rates in figures and words at which recovery shall be made from the contractor	
		Excess beyond permissible variation	Rate beyond the permissible variation*
1.	Cement		
2.	Steel reinforcement		
3.	Structural Steel section		
4.	Bitumen issued at stipulated fixed price		

* Provided work is considered technically sound. Otherwise work has to be re-executed as per direction of Engineer-in-charge

Clause 48

Escrow Account : Not applicable.

Annexure to clause 34 (x)

Annexure to clause 34 (x) showing quantities of materials for areas of surfacing to be completed for working out minimum period for which hire charges of road roller are to be recovered

Sl.No.	Material of surfacing	Quantity or area
1.	Consolidation of earth subgrade	Sq.m
2.	Consolidation of stones soling 15 cm to 22.5 cm thick	Cu.m
3.	Consolidation of brick soling 10 cm to 20 cm thick	230 Cu.m
4.	Consolidation of wearing coat of stone ballast 7.5 cm to 11.5 cm thick	30 Cu.m
5.	Consolidation of wearing coat of brick ballast 10 cm thick	60 Cu.m
6.	Spreading and consolidation of red bajri 6mm	1860 Sq.m
7.	Painting one coat using stone aggregate 12.5mm nominal size	
	(a) @ 1.65 m ³ per 100 m ² and paving bitumen A-90 or S-90 @ 2.25 Kg per m ² or	
	(b) @ 1.50 m ³ per 100 m ² and bitumen emulsion or Road tar @ 2.25 Kg per m ²	930 Sq.m.
8.	Painting two coats using	
	(a) For first coat, stone aggregate 12.5 mm nominal size	
	(i) @ 1.50 m ³ per 100 m ² and paving bitumen A-90 or S-90 @ 2.25 Kg per m ² or	
	(ii) @ 1.35 m ³ per 100 m ² and bitumen emulsion @ 2 Kg per m ²	600 Sq.m.
	(iii) @ 1.25 m ³ per 100 m ² with roadtar @ 2.25 Kg per m ²	600 Sq.m.
	(b) For 2nd Coat, stone aggregate 10 mm nominal size 0.9 Cu.m. per 100 Sq.m with	
	(i) 1kg of paving bitumen A-90 or S-90 or bitumen emulsion per Sq.m. or	
	(ii) 1.25 Kg. of road tar, per Sq.m.	600 Sq.m.
9.	Re-painting with stone aggregate 10 mm nominal size 0.9 Cu.m. per 100 Sq.m. with	
	(i) 1kg of paving bitumen A-90 or S-90 per Sq.m. ;k or	
	(ii) 1.25 kg of bitumen emulsion per Sq.m.	1670 Sq.m.
10.	2 cm premix carpet surfacing using 2.4 m ³ of stone aggregate 10 mm nominal size per 100 m ² and binder including tack coat, the binder being hot cut back bitumen or bitumen emulsion in specified quantities.	930 Sq.m
11.	2.5 cm premix carpet surfacing using 2.4 m ³ of stone aggregate 10 mm nominal size per 100 m ² and binder including tack coat, the binder being hot cut back bitumen or bitumen emulsion in specified quantities.	930 Sq.m
12.	4 cm thick bitumen concrete surfacing using stone aggregate 3.8 Cu.m. (60% 20mm nominal size and 40% 12.5 mm nominal size) per 100m ² and coarse sand 1.9 Cu.m. per 100m ² and hot cut back bitumen over a tack coat of hot cut back bitumen.	460 Sq.m.
13.	5 cm thick bitumen concrete surfacing using stone aggregate 4.8 Cu.m. (60% 25 mm nominal size and 40% 20 mm nominal size) per 100m ² and coarse sand 2.4 Cu.m. per 100m ² and hot cut back bitumen over a tack coat of hot cut back bitumen.	370 Sq.m.
14.	6 cm thick bitumen concrete surfacing using stone aggregate 5.8 Cu.m. (60% 40 mm nominal size and 40% 25 mm nominal size) per 100m ² and coarse sand 2.9 Cu.m. per 100m ² and hot cut back bitumen over a tack coat of hot cut back bitumen.	280 Sq.m.
15.	7.5 cm thick bitumen concrete surfacing using stone aggregate 7.3 Cu.m. (60% 50 mm nominal size and 40% 40 mm nominal size) per 100m ² and coarse sand 3.65 Cu.m. per 100m ² and hot cut back bitumen over a tack coat	230 Sq.m.



	of hot cut back bitumen.	
16.	2.5 cm bitumastic sheet using stone aggregate 1.65 Cu.m. (60% 12.5 mm nominal size 40% 10 mm nominal size) per 100 Sq.m. and coarse sand 1.65 Cu.m. per 100 Sq.m. and hot cut back bitumen over a tack coat of hot cut back bitumen.	750 Sq.m.
17.	4 cm bitumastic sheet, using stone aggregate 2.6 Cu.m. (60% 12.5 mm nominal size, 40% 10 mm nominal size) per 100 Sq.m. and coarse sand 2.6 Cu.m. per 100 Sq.m. and hot cut back bitumen over a tack coat of hot cut back bitumen.	560 Sq.m.
18.	Laying full grouted surface using stone aggregate 40 mm nominal size 6.10 Cu.m. per 100 Sq.m. with binder, binding with 20 mm to 12.5 mm nominal size stone grit. 1.83 Cu.m. per 100 Sq.m. and seal coat of binder and stone grit 10 mm nominal size, 1.07Cu.m. per 100 Sq.m., the binder being hot bitumen or tar as specified.	460 Sq.m.
19.	Laying full grouted surface using stone aggregate 40 mm nominal size 9.14 Cu.m. per 100 Sq.m. with binder, binding with stone grit 20 mm to 12.5 mm nominal size 1.83 Cu.m. per 100 Sq.m. and seal coat of binder and stone grit 10 mm nominal size, 1.07Cu.m. per 100 Sq.m., the binder being hot bitumen or tar,	370 Sq.m.
20.	4cm. thick premix macadam surfacing using stone aggregate 25 mm nominal size 4.57 Cu.m. per 100 Sq.m. and hot bitumin binding with stone aggregate 12.5 mm nominal size 1.52 Cu.m. per 100 Sq.m. and seal coat of hot bitumen and stone aggregate 10 mm nominal size 1.07 Cu.m. per 100 Sq.m.	560 Sq.m.
21.	5cm. thick premix macadam surfacing using stone aggregate 25 mm nominal size 6.10 Cu.m. per 100 Sq.m. and hot bitumin binding with stone aggregate 12.5 mm nominal size 1.52 Cu.m. per 100 Sq.m. and seal coat of hot bitumen and stone aggregate 10 mm nominal size 1.07 Cu.m. per 100 Sq.m.	460 Sq.m.

SPECIAL CONDITIONS OF CONTRACT

These special conditions of contract shall be read in conjunction with Airports Authority of India General conditions of contract, if there are any provisions in the special conditions of contract which are at variance with the provisions of general conditions of contract, the provision in these special conditions shall take precedence.

1. SCOPE OF WORK

In general, the works to be performed under this contract shall comprise of the following.

- i) SITC of 30 KVA DG Set
- ii) Earthing And Electrical related works
- iii) SITC of Split type Air Conditioners with 5 star rating per category as per BEE (latest) and as per the Technical Specification of Split Type Air-Conditioners.
- iv) SITC of 10 KVA Single phase automatic voltage stabilizer and 50 LPH RO.

2. COMPLETENESS OF TENDER

All sundry fittings, assemblies, accessories, hardware items, incidental jobs connected with installation & commissioning which are useful and necessary for total completion of work shall be deemed to have been included in the tender whether such items are specifically mentioned in the tender documents or not.

3. SPECIFICATIONS AND STANDARDS

All electrical works shall be carried out in accordance with the provisions of the following;

- i) Indian Electricity Act, 2003 and Indian Electricity Rules, 1956 amended to date,
- ii) National Electrical Code of India 2023 as amended upto date and National Building Code-2016 as amended upto date.
- iii) CPWD General Specifications for Electrical works, Part-I: Internal, 2023 as amended/revised upto date
- iv) CPWD General Specifications for Electrical works, Part-II: External, 2023 as amended/revised upto date
- v) General Specifications for Electrical works PART-VII DG Sets 2013 amended/revised upto date & sound engineering practices as per approval of Engineer-in-charge.

4. SITE

The site of work is located at ACS Pratapgarh.

5. INSPECTION OF SITE

The Contractor shall visit the site before tendering and get acquainted with the conditions at site. The Contractor shall be deemed to have included in his tendered rates, allowances for all preliminary work connected with the work and all other conditions that affect the work.

6. PRICES

- The rate quoted shall be inclusive of all taxes, Excise & Custom duties but excluding GST. ~~Wherever supplies/services involve imports, the same should be identified separately. Basic custom duty will be paid by AAI by utilizing EPCG license/duty scrip under SEI scheme of GOI.~~ GST shall be paid to bidder for any taxable supply /service against a valid Tax invoice. However, Taxes/duties

exemptions including certificates of any sort, if available may be dealt with the concerned Deptt. of Govt. of India by the bidder. AAI will not be responsible for providing any tax exemptions certificates to the bidder.

- AAI does not give any concessional forms/certificates/permits towards any taxes, duties & other levies etc.

The contractor shall send the goods to consignee i.e Airports Authority of India, Bhopal Airport, Bhopal in a fully packed condition as per requirement of components / equipment and fully insured.

The contractor shall be solely responsible to ensure the following.

- a) Sound packing of equipment / components
- b) Shipment of the items by the due date as per schedule.
- c) Insurance
- d) Forwarding and transshipment of equipment / components up to the destination.
- e) Insurance of inland transshipment.
- f) Receipt of equipment at site and safe custody till they are installed, tested and commissioned and taken over by AAI.
- g) Execution, installation, testing and commissioning of the installation as specified in the tender.

Handing over of installation to the authorized representative of AAI.

7. BILL OF QUANTITIES (BOQ)

The quantities given in the tender BOQ are tentative and shall vary as per the site/ AAI requirements. Only required items & quantities are to be supplied/ installed. Contractor shall take detailed site measurements, before placing purchase order/taking procurement action. Contractor shall monitor the requirements of various items and shall report to AAI Engineer in charge with regard to deviations in the existing items and requirement of additional/ extra items, if any, for taking necessary action.

8. MAKES

Make of various items shall be as per the Preferred make list. Where makes have not been indicated in the list, they shall be of ISI marked/ reputed brands and got to be approved by Engineer-in-charge, AAI before incorporating in the works.

Sample or makes, as applicable, of the items for manufacturing/ supply/ use in the work irrespective of appearing in the approved list shall be got approved from Engineer- in-charge before incorporating in the works.

9. NEW MATERIALS

All equipment, materials used in the work shall be brand new and free from manufacturing defects. All the materials required for this work should confirm to relevant IS specifications. The copies of Purchase Vouchers & Gate Passes should be produced along with the materials. The type test certificates, routine test certificates and acceptance test certificates are also to be submitted.

10. REPLACEMENT OF DEFECTIVE/ DAMAGED ITEMS

All defective/damaged items shall be replaced with the good ones.

11. TOOLS & PLANTS

- a) All the tools & plants required for executing this work shall be arranged by the contractor.

12. MAN POWER

Authorized, experienced, competent work force shall be deployed with competent supervision. For all works involving installation, testing, commissioning of electrical systems/ facilities/electrical control panels/ switchgears/ electrical cabling/ jointing etc. persons working on such system must possess valid appropriate electrical wireman/ electrician/ supervisor licence as applicable/ competency certificate issued by the appropriate licensing authority of Central/ State Govt.

13. REVIEW MEETINGS/ SITE INSPECTIONS

As and when required, contractor shall attend the review meetings and take necessary actions with regard to the pending works, targets, co-ordination with other agencies.

Senior/ competent officials/ engineers shall be deputed who can take decisions and implement from the contractor side to take stock of the situation, do the needful and also make regular site inspections.

14. PRIOR APPROVAL OF DESPATCH SCHEDULE

Dispatch schedules are to be informed and got approved, from Engineer in charge, before dispatch of materials

15. REQUIREMENT OF CERTIFICATION

- a) Type test certificate for similar item done. If not, one of the items offered is to be type tested.
- b) OEM routine test certificate.
- c) Visual and functional check by AAI official at AAI Airport site.

16. PACKING/ TRANSPORTATION/ HANDLING

Professional packing shall be made. Equipment/ materials are to be properly packed with appropriate packing materials & means. Special care shall be taken for fragile items. Item description, quantity, code, instructions etc. to be marked for easy identification.

The equipment/ materials has to be transported by appropriate transport mode like Road/ Rail/ Air transport etc. up to the site/ destination.

Due care to be taken for loading, handling, unloading, shifting, lifting, jacking etc. by suitable means like Cranes, Fork lifts, Chain pulley blocks, mechanized means etc. and experienced man power.

Relevant documents shall be accompanied with the items.

17. SECURITY NORMS/GUIDELINES

Contractor shall obtain necessary entry pass/ token/ identity card for work force from AAI/BCAS/CISF/CRPF etc who is in charge of security matters. It is the responsibility of the Contractor to fulfil all the relevant formalities viz police verification, photographs, addresses and keeping in safe custody etc and bear the fee, if any.

18. DRAWING / DOCUMENTS

All required drawings/documents/technical information required during various stages of works should be submitted.

The detailed execution drawings are to be prepared by the contractor as per the relevant IS / IE specifications. Drawings provided by AAI, if any, shall at all times be properly correlated before execution. In case of any discrepancy, the same should be brought to the notice of AAI immediately. However, the discrepancy in the item given in the Schedule of Quantities appended with the tender drawings relating to the relevant item, the former shall prevail unless and otherwise given in writing by AAI.

All drawings submitted by the vendor/equipment supplier shall be in sufficient detail to indicate the type, size, arrangement, weight, breakdown for packing and shipment, the external connections, fixing arrangements required, the dimensions required for installation and interconnections with other equipment and materials, clearances and spaces required between various portions of equipment and any other information specifically requested.

Contractor shall submit the required documents which include Purchase documents/bills/invoices, challans, all types of test certificates/reports, ISI documents, dispatch documents, guarantee/warranty certificates, completion certificate/reports, instruction manuals, computer aided detailed drawings with dimensions, layouts, GA, plans, elevations, sections, bill of materials, single line diagrams, control & schematic diagrams, inventories/equipment details, data sheets, fault level calculations, characteristic curves, write up etc as applicable.

19. ELECTRIC SUPPLY

AAI will not be responsible for supply of electric power to the contractor for execution of work. The contractor shall make his own arrangement for temporary connections required, if any, and make necessary payment to the departments concerned. No amount shall be payable by AAI on this account. However, AAI can provide electrical connection, if feasible at site during execution of work on chargeable basis. The required energy meter and cable shall be provided by the contractor.

20. POWER SUPPLY OF COMMISSIONING THE SYSTEM

AAI will provide 3 phase, 415V, 50Hz AC power supply free of cost for commissioning of the system.

21. TESTING AND MEASURING EQUIPMENTS

Equipment for measurement of work and testing the installation shall be procured by the Contractor for their use at their own cost. The same shall also be made available to AAI without any charges to AAI

22. STATUTORY LAWS/RULES/APPROVALS/LICENCE

The contractor/agency shall abide by the relevant statutory rules, laws, and guidelines and arrange for the approvals, if any required. They include adhering to labour laws, abiding local electricity rules etc.

23. BYE-LAWS

The contractor shall comply with all bye-laws and regulations of local and statutory authorities having jurisdiction over the works and shall be responsible for obtaining

prior approval, if any, and payment of all fees and other charges, giving and receiving of all necessary notices and keeping AAI informed of the said compliance with the bye-laws, payments made, notices issued and received.

The Contractor shall indemnify AAI against all claims in respect of royalties, patent rights, design trademarks of name or other protected rights in respect of any plant, machine, work or materials used for or in connection with the work or temporary works and from and against all claims, demands proceedings, costs, charges and expenses whatsoever in respect of or in relation thereto. The Contractor shall defend all actions arising from such claims and shall himself and every sort that may be legally incurred in respect thereof.

The Electrical works shall be carried out as per state electrical inspectorate standards/specifications /guidelines and the contractor shall get the approval and safety certificate from the inspectorate after the completion of work and before energisation.

The Contractor shall comply with proper and legal orders and directions of local or public authority or municipality and abide by their rules and regulations and pay all fees and incidental charges which may be liable during the contract period.

24. SAFETY

Only properly tested and marked material handling equipment shall be used.

All supporting arrangements and fixing details shall be checked periodically and necessary rectifying actions are to be taken in order to ensure safe handling of loads during different operations.

All plant and machinery of the contractor shall observe the safety regulations needed for working in a project where other contractors /sub-contractors /agencies might also be working, so as not to interfere with the work of the other contractors or foul with their constructions.

The Contractor shall take all precautions to avoid accidents by exhibiting necessary boards day and night, speed limit borders, red flags, red lights and providing barriers. They shall be responsible for all damages and accidents caused due to negligence on his part. No hindrances shall be caused to traffic during execution of work.

25. COMPENSATION

No payment /compensation will be made to the Contractor for damage caused by rains, floods, cyclones, earthquakes, subversion, riots or other natural calamities during the execution of the Works. The damage caused to work shall be made good by the Contractor at his own cost and no claim on this account shall be entertained.

The rates quoted by the Contractor for all items except those where specific provisions indicated in the schedule of quantities shall include all leads, lifts and nothing extra shall be paid on this account.

The Contractor shall adjust his labour, staff, plant, machinery etc. according to the requirement of work from time to time with particular regard to approved phases of work and no claim shall be entertained on account of idle labour, plant, machinery, etc., due to any reason whatsoever.

The Contractor shall clear the site thoroughly of all scaffolding materials, wastage and rubbish etc., left out of his work and dress the site around the area to the satisfaction of AAI upon completion of the work and before release of

payment of the last running bill. The payment of final bill will be subject to the compliance of this condition by the contractor.

26. INSURANCE FOR STAFF

The Contractor shall also take insurance for all his staff working at site against injury, loss of life etc., and no claims of compensation to the staff /workers will be entertained by AAI in this regard. The Contractor shall indemnify AAI against all such claims.

27. COMPENSATION FOR DELAY

If the contractor fails to complete the work and clear the site for any particular phase on or before the stipulated completion time of that respective stage or extended period of completion, he shall, without prejudice to any other right or remedy of AAI on account of such breach, pay as agreed a compensation of the amount calculated on the basis of General Conditions of Contract.

The Contractor shall maintain in perfect condition all works executed till the completion of the entire works allotted to him. When, phased handing-over is contemplated, the provisions mentioned above will apply to each phase.

28. TESTING

The various tests as indicated in the CPWD specifications or BIS and equipment specification, as considered necessary by the Engineer-in-Charge shall be carried out in the laboratory as approved by the Engineer-in-Charge. The contractor shall bear the entire cost of samples, testing charges, carriage and any other incidental expenditure incurred, thereon. The result shall be final and binding on the contractor.

29. SITE TESTS/ PERFORMANCE TESTS

Necessary site tests/ performance tests shall be conducted on the equipment to ascertain the functional / design/ site requirements. Reports shall be prepared recording the various values, parameters, observations, settings made etc. In case of unsatisfactory results, the same shall be replaced/ rectified as per the requirement.

30. GUARANTEE / WARRANTY

All installations shall be guaranteed to be free from defective workmanship or materials for a period of **12 months** from the date of handing over. The Contractor at his own cost shall rectify any defect /replace material that may appear during the period.

The Contractor shall hold himself fully responsible for reinstallation or replace free of cost to AAI during the defect liability period as stipulated hereunder.

- a) Any defective material supplied by the Contractor or defective Workmanship of the Contractor.
- b) Any material supplied by AAI which is proved to be damaged or destroyed as a result of defective workmanship by the Contractor.

31. SECURITY DEPOSIT:

The successful bidder has to provide security deposit @ 10 % of contract value. The security deposit for the work shall be released only after successful completion of defect liability period of 12 months from the date of handing over the site.

32. HANDING OVER/ CERTIFIED DATE OF COMPLETION

Up on the satisfactory commissioning of the entire system, the system shall be observed for 15 days. After this satisfactory trial period, the work shall be handed over officially and completion date recorded by Engineer-in-charge with all the prescribed formalities for handing over.

This date shall be reckoned, as the certified date of completion and the defects liability period shall commence from this date.

Until the handing over of the installation, the responsibility lies with the contractor for safety, upkeep etc.

33. HANDING OVER THE SITE

The site shall be handed over in phases contractor shall plan the work as per the phasing decided by AAI and no claim will be entertained for not handing over the entire area in one stretch. In case there are small patches which could not be handed over due to legal and technical reason, this will not be considered as obstructions and no claim will be entertained for delays for such reasons.

34. CO-ORDINATION

The contractor shall co-operate and co-ordinate with all other agencies working in the same project, compare plans, specifications and the time schedules and so arrange his work so that there will be no interference during execution of the work. The contractor shall forward to AAI all correspondence and drawings exchanged. Failure to do so will render the contractor responsible for subsequent change found necessary and its cost. However, the contractor shall arrange necessary facilities to execute the work simultaneously with other agencies. No claim on this account shall be entertained by AAI.

35. PHASING OF WORKS

The work has to be carried out in phases as approved by AAI from time to time so that the total project work can progress smoothly with least obstruction to the operations and also works of other contractors / agencies.

36. STRUCTURAL ALTERATIONS TO BUILDINGS

No structural member in the building shall be damaged / altered, without prior approval from AAI.

37. STORAGE OF MATERIALS

The contractor shall provide proper and adequate storage facilities to protect all the materials and equipment against damage from any cause whatsoever. The watch & ward of the stores, equipment & materials shall be the responsibility of the contractor till the completion, commissioning and handing over to AAI. Necessary store rooms should be constructed by the contractor. The land required for stores will be provided by AAI free of cost.

38. SITE FOR PLANTS / EQUIPMENT, STACKING OF MATERIALS AND LABOUR.

The contractor shall stack materials at the site of work strictly as per instructions of AAI keeping in view the safety and smooth progress of the project. Nothing extra shall be payable for any extra lead involved in stacking the materials at a reasonable distance away from the work place.

39. SITE MAINTENANCE DURING CONSTRUCTION

The contractors shall time to time clear and remove all rubbish and obstructions from the site and the work area shall be kept clear and unobstructed at all times. Nothing extra shall be paid on this account.

40. CONFORMITY TO CEA ACT, CEA RULES AND REGULATIONS

All electrical works shall be carried out in accordance with the provisions of CEA rules amended up-to date, the State Electrical Inspectorate, Indian Electricity Act, Govt. body requirements, and technical specifications.

The works shall also conform to relevant Indian Standard Codes of Practice (COP)/CPWD specifications amended up to date for the type of work involved.

In all electrical works, relevant safety codes of practices shall be followed.

It is the responsibility of agency to obtain CEA Approval and nothing extra shall be paid in this account.

41. PAYMENT TERMS

AAI shall pay to the contractor in the manner specified below

(A) FOR SITC ITEMS

- i) 70% of the items on pro rata basis on supply at site, testing and approval by AAI.
- ii) 20% of the items on prorata basis on installation at site and approval by AAI.
- iii) 10% of the items on final testing, commissioning and handing over of the system.

(B) FOR SUPPLY ITEMS

- i) 80% of the items on pro rata basis on supply at site, testing and approval by AAI.
- ii) 20% of the items on commissioning and handing over to AAI.

(C) For purely Installation Items: -

- i) 80% against Installation of item at site.
- ii) 20% on Commissioning & Handing over.

- (D) All the above payments shall be subject to withheld of Security Deposit, Deduction of Income Tax & Labour Cess, etc. as per contract and statutory requirements.

42. REDUCED RATE PAYMENT

All works have to be carried out strictly as per standard contract specification and the drawings applicable to the contract. Any work found below specification and not as per the drawing is liable to be rejected. However, if any work is below specification but is technically acceptable as per the discretion of Engineer-in-Charge, the same work will be considered for acceptance and will be paid at a reduced rate at the sole discretion of Engineer-in-Charge, and his decision will be final in this respect and no claim of the contractor shall be entertained in this regard at any stage. The decision of the Engineer-in-Charge, regarding rejection or acceptance of substandard work and its reduced rate payable shall be beyond the purview of the Arbitration under clause 25 of this contract.

- 43. The total amount of final bill worked out at the accepted tender rates, if found to be more than the amount worked out at the quoted rates of second lowest, the contractor shall be paid lower of the two.**

TECHNICAL SPECIFICATIONS OF CONTRACT

Technical Specifications of Contract shall be read in conjunction with General Conditions of Contract, Special conditions of contract, Drawing and any other documents forming part of this contract wherever the context so requires.

Wherever any portion of the SCC & General Condition of Contract is repugnant to or at variance with any provisions of the Technical Specification of Contract (TSC), unless a different intension appears, the provisions of the TSC shall be deemed to over-ride the provisions of the SCC & General conditions of contract and shall to the extent of such repugnancy or variations, prevail.

Wherever applicable, the contractor may be asked to submit the copy of technical compliance sheet including Technical Specification required as per the agreement and the provision available or being made by the contractor or OEM for the compliance of the same in Tabular format along with all the supporting documents/drawings etc. This compliance sheet shall be duly attested by the OEM & submitted for seeking approval from the competent authority.

SECTION 1 - DG SET

- 1.1 Scope** - These General Specifications cover the equipment and materials for the DG Sets, their testing and /or inspection as may be necessary before their dispatch from their respective works, their delivery at site, all preparatory works, assembling, installation and adjustments commissioning, final testing, putting into operation and handing over of the complete system.
- 1.2 General Specifications**
 - 1.2.1 The Diesel Generator set shall consist of AC alternator coupled with suitable BHP capacity engine with all accessories and controls such as starting device lubricating arrangements speed control, cooling arrangement, exhausting arrangement automatic control and safety devices, protection gear instrumentation etc. as required and specified here in after.
 - 1.2.2 The capacity of diesel Engine and alternator shall be as specified in SOQ/BOQ
 - 1.2.3 The DG set shall be capable of safe, proper and continuous operation at all loads. Vibration, noise mechanical and thermal stresses shall be properly taken care of in the design of the equipment.
 - 1.2.4 The DG set shall be CPCB IV compliant and shall meet the norms laid down for emission limits and noise limits by CPCB ministry of Environment and Forest vide Notification dated 3RD November 2022 and including the latest revised rule in this regard.
- 1.3 Unless otherwise mentioned in the tender documents, the following works shall be done by the contractor and therefore, their cost shall be deemed to be included in their tendered cost-whether specifically indicated in the schedule of work or not:
 - (i) Foundations for equipment including vibration springs/ pads,

- (ii) Making good all damages caused to the existing structure during installation and restoring the same to their original finish.
- (iii) Minor civil works necessary for installation of equipment, foundation trench for fuel line & cable, making of opening in walls or in floors and restoring them to their original condition/ finish and necessary grouting etc. as required.
- (iv) All supports for exhaust & fuel pipes, anti-vibration pads etc. as are necessary.
- (v) All electrical work and neutral earthing, body earthing, required for engine & alternator, main board/ control panels, and control wiring including loop earthing, if specified in Schedule of Work.
- (vi) All pipes and cable connections.
- (vii) Painting of all exposed metal surfaces of equipment and components with appropriate colour.
- (viii) POL i.e., HSD oil for diesel engine for testing & commissioning for 05 hours including 1 hr of 10% overloading at OEA/ OEM works shall be arranged by the contractor. POL i.e., HSD oil for trial run of 4 Hrs. at site at available load shall be arranged by the department.

1.4 MACHINERY FOR ERECTION:

All tools and tackles required for unloading / handling of equipment and materials at site, their assembly, erection and commissioning shall be the responsibility of the contractor.

1.5 INSPECTION AND TESTING

- (i) The successful tenderer will arrange staff/fuel/POL for test run at his cost at OEM's works.
- (ii) For testing, following procedure will be followed: All major items / equipment i.e., engine & alternator in assembled condition, associated electrical control panels etc. shall be offered for inspection and testing at factory/ manufacturers works. The successful tenderer shall give a notice of minimum two weeks for carrying out such tests. The Engineer-in-charge / or his authorized representative shall witness such inspection & testing at mutually agreed date. The cost of the representative's visit to the factory will be as per AAI's standard conditions.
- (iii) The department also reserves the right to inspect the fabrication job at factory and the successful tenderer has to make arrangements for the same.
- (iv) During factory testing, DG set will be tested on load of unity power factor for the rated KW rating. During testing, each of the D.G. sets covered under scope of work, shall be operated for a period of 5 hours including one hour on 80% load then 3 hours at 100% load followed by 1 hour at 10% overload. During testing all controls/ operations safeties will be checked and proper record will be maintained. Any defect/ abnormality noticed during testing shall be rectified. The testing will be declared successful only when no abnormality / failure is noticed during the testing. The DG set will be cleared for dispatch to site only

when the testing is declared successful by authorized representative / Engineer-in-Charge.

Copies of all documents of routine and type test certificates of the equipment, carried out at the manufacturer's premises shall be furnished to the Engineer-in-charge and consignee.

After completion of the installation work in all respects, the contractor shall offer the DG sets for site testing, Testing shall be carried out as per Clause mentioned above.

1.6 Statutory Clearances

Approval / clearance of the complete installation shall be obtained by the contractor from Local Bodies/ Central Electricity Authority (CEA)/ other licensing authorities wherever required. However, application shall be made by Department and any statutory fee, as applicable, shall be paid by Department directly to the govt. authorities concerned.

1.7 Drawings for Approval on award of the work

The contractor shall prepare & submit three sets of following drawing duly attested by the OEM and get them approved from the Engineer-in-charge before the start of the work. The approval of drawings however does not absolve the contractor not to supply the equipment/ materials as per agreement, if there is any contradiction between the approved drawings and agreement.

- (a) Lay out drawings of the equipment to be installed including control cables, fuel/ lube oil pipes, exhaust pipes and supports/ structure for exhaust piping, including its foundation, chimney and bus ducts / cable trays.
- (b) Drawings including section, showing the details of erection of entire equipment.
- (c) Electrical wiring diagrams from engine-alternator set to Electrical control panel/AMF Panel, Electrical control panel/AMF panel to essential LT board including the sizes and capacities of the various electrical/ control cables and equipment.
- (d) Dimensioned drawings of Acoustic enclosure/ Engine-Alternator set.
- (e) Drawings showing details of supports for pipes, chimney/exhaust etc.
- (f) Any other drawings relevant to the work.

1.8 DIESEL ENGINE

Scope: This section covers Design, Manufacture, supply, installation, testing, commissioning and handing over of diesel engine with standard components including exhaust piping etc. and other associated equipment as per SOQ.

1.9 Engine Rating

The engine shall be of standard design of the original manufacture. It should be of 4 stroke cycles, air cooled radiator type, turbo charged after/inter cooled (as per manufacturer's standard), diesel engine developing suitable BHP (considering de-rating factor if any) for giving a power rating as per IS 8528-Part-

1 of 30 KVA at the load terminals of alternator at 1500 RPM at ambient temperature of 40 deg C for height at approx. 425 Meter AMSL.

The engine shall be capable for delivering specified Prime Power rating at variable loads for PF of 0.8 lag with 10% overload available in excess of specified output for one hour in every 12 hours. The average load factor of the engine over period of 24 hours shall be 0.85 (85%) for prime power output.

The engine shall conform to IS:10000/ISO 3046/BS:649/BS 5514 amended up to date.

- 1.10 Necessary certificate indicating the compliance of the above capacity requirement for the engine model so selected along with compliance of Noise and Emission norms as per latest CPCB guidelines for DG set capacity required as per SOQ, shall be furnished from the manufactures by successful tender.

The diesel Engine shall meet the emission limits as specified by ministry of Environment and Forest vide Notification/CPCB norms with latest up to date amendment and manufacturer shall furnish certificate to the fact required and issued by an approved agency of CPCB.

The Engine shall be de-rated in accordance with standard for the difference as per the climatic condition of site of installation.

Design of the equipment should take this condition into account. The equipment shall be given tropical and anticorrosion treatment.

The standard constructional features of manufactures in respect of Diesel Engine are acceptable provided they meet all functional, technical, protective requirements subject to the approval of the Engineer-in-Charge of the work.

- 1.11 The engine shall be fitted with following accessories subject to the design of the manufacturer:
- a) Dynamically balanced fly-wheel.
 - b) Necessary flexible coupling and guard for alternator and engine (applicable only for double bearing alternator).
 - c) Air cleaner (Dry/ oil bath type) as per manufacturer standard.
 - d) Integrated/Base frame fuel tank of minimum 100 litres capacity or OEM standard capacity suitable for minimum 8 hours operation at 75% load capacity fabricated from 3 mm thick M.S sheet with inlet, outlet connections air vent tap, drain plug and level indicator (gauge) M.S fuel piping from tank to engine with valves, unions, reducers, flexible hose connection and floor mounting pedestals, twin fuel filter and fuel injectors. The location of the tank shall depend on standard manufacturer's design.
 - e) Dry exhaust manifold with suitable exhaust residential grade silencer to reduce the noise level.
 - f) Suitable self-starter for 12/24 V DC or as per standard manufacturer's design, along with required batteries.

- g) Battery charging alternator unit and voltage regulator, suitable for starting batteries, battery racks with interconnecting leads and terminals.
- i) Necessary gear driven oil pump for lubricating oil, priming of engine bearing as well as fuel systems as per manufacture recommendation.
- j) Naturally aspirated/turbo charger (as per manufacturer standard)
- k) Lubrication oil cooler.
- l) Lubrication oil filters with replaceable elements.
- m) Crank case heater as per manufacturer recommendations.
- n) Fuel injection: engine shall have suitable fuel injection system in order to achieve low fuel consumption.
- o) Fuel Control solenoid
- p) Fuel pump with engine speed adjustment.
- q) Microprocessor based Engine control & Indication panel fitted and having digital display for following (as per manufacturer's standard):
 - Start/ stop key/switch.
 - Lube oil pressure indication
 - Water temperature indication
 - RPM indication
 - Engine Hours indication
 - Battery charging indication
 - Low lube oil trip indication
 - High water temperature indication
 - Over speed indication.
- r) All moving parts of the engine shall be mechanically guarded in such a manner that a human finger cannot touch any moving part.
- s) Radiator
- t) Any other item not included /specified but is a standard design of the manufacturer.

1.12 **Engine Instrument Panel**

Engine shall be supplied with microprocessor based fully integrated generating set monitoring, metering along with AVR/DVR to facilitate discreet control of speed and voltage. It should be equipped with starting control including integrated fuel ramping to limit the black smoke frequency with optimized cold weather starting. The indicating panel should have communication network facility to facilitate remote hooking on a common network. Engine instrument panel should be equipped with digital alarm and status to monitor and display the following parameters of engine and generator.

1.12.1 Engine Indicators

Tachometer, running hours counter, starting attempts counter, lube oil pressure low (for idle and rated speed), lube oil temperature high, coolant temperature high, exhaust gas temperature high, over speed indication, low lube oil trip indication.

1.12.2 Electrical indicators

3 phase currents, 3 phase voltage, frequency, KWH meter, active power, reactive power, power factor, battery charging indication, battery voltmeter.

1.12.3 Signal alarms

Control panel fault, 24 V dc fault, failure to start, Fuel Day tank level low, battery low voltage

1.12.4 Operating mode selector switch (stop, auto, manual, reset), start/stop push buttons/key, emergency stop push button, fault reset push button.

1.13 Governor

Electronic Governor of class G3 as per relevant norms. Governor shall be a self-contained unit capable of monitoring speed.

1.14 Frequency Variation

The engine speed shall be so maintained that frequency variation at constant load including no load shall remain within a band of 1% of rated frequency.

1.15 Fuel Oil System

The manufacturer shall furnish a 3 mm thick mild steel calibrated day tank of suitable capacity as per OEM recommendation. The day tank shall be suitably located outside the acoustic enclosure and shall be complete with gauge glasses, filling, draining, vent connection, suitable pedestal supports with brass float valve and level switch for low- & high-level alarm.

The fuel oil system shall be provided with suction fuel filter with replaceable element.

The fuel oil system shall be equipped with engine driven fuel pump, which will draw the fuel oil from the day tank via filters and shall be as per the engine manufacturer design.

Fuel injection system shall be designed so as to achieve safe knock free performance with low fuel consumption & low exhaust emission levels. Exhaust emission levels shall be tested and it should fulfill the requirements of latest **CPCB emission levels- CPCB IV+.**

1.16 Lubricating Oil System

It shall be so designed that when the engine starts after a long shut down lubrication failure does not occur. Necessary priming pump for the lube oil circuit as per recommendation of manufacturer shall be installed, to keep bearings

primed. This pump shall be normally automatically operative on AC/DC supply available with the set.

1.17 Starting system

This shall comprise of necessary set of heavy-duty batteries 12V/24V DC (as per manufacturer standard) and suitable starter motors and axial type gear to match with the toothed ring on the fly wheel. A timer in the control panel to protect the starter motor from excessively long cranking runs shall be suitably integrated with the engine protection system and shall be included within the scope of the work. Battery capacity shall be suitable for meeting the needs of starting system (as three attempts starting), as well as the requirements of control panel, indications and auxiliaries such as priming pump as applicable etc. The scope shall cover all cabling, terminals, including initial charging etc. The system shall be capable of starting and taking the load by the DG set within 15 seconds, even in winter condition with an ambient temperature down to 0⁰ C.

The engine should be provided with battery charging alternator suitable for charging the batteries provided for cranking.

1.18 Battery charger

The battery charger shall be suitable to charge required numbers of batteries at 12/24 volts complete with, transformer, rectifier, charge rate selector switch, indicating ammeter & voltmeter etc. connections between the battery charger & batteries shall be provided with suitable copper leads with lugs etc.

1.19 Piping Work

All pipe lines, fittings and accessories requirements inside the room / enclosure and outside for exhaust piping shall be provided by the contractor. This shall include necessary flexible pieces in the exhaust, fuel, lube oil and water lines as are necessary in view of the vibration isolation requirement in the installation. Piping of adequate size used for lube oil shall be made of the material as per manufacturer standard. However, C class M.S. pipes for the exhaust and fuel oil lines shall be used.

The pipe work shall be inclusive of all fittings and accessories required such as bends, reducers, elbows, flanges, flexible connections, necessary hardware etc. the installation shall cover clamps, supports, hangers etc as are necessary for completing the work. However, the work shall be sectionalized with flanged connections as are necessary for easy isolation for purposes for maintenance of unit as approved by Engineer-in-charge.

1.20 Common bed plate

Engine and alternator shall be coupled by means of flexoplate / flexible coupling as per manufacturer standard design and both units shall be mounted on a common bed plate together with all auxiliaries to ensure perfect alignment of engine and alternator with minimum vibrations. The bed plate shall be suitable for installation on suitable anti-vibration mounting system.

1.21 Exhaust System

1.21.1 **Exhaust piping:** All M.S. pipes for exhaust lines shall be conforming to relevant IS. The runs forming part of factory assembly on the engine flexible connections up to exhaust silencer shall be exclusive of exhaust piping item. The work includes necessary cladding of exhaust pipe work using 50 mm thick glass wool / mineral wool / rock wool, density not less than 120 kg / m³ and aluminum cladding (0.60mm thick) for the complete portion. The exhaust pipe work includes necessary supports, foundation etc. to avoid any load & stress on turbo charger / exhaust piping. The exhaust pipe support structure shall be got approved by engineer-in-charge before execution.

Exhaust piping up to silencer and additional piping as per relevant norms and OEM is in the scope of contractor for new DG sets. Nothing extra shall be paid in this regard.

- a) Exhaust system should create minimum back pressure.
- b) Number of bends should be kept minimum and smooth bends should be used to minimize back pressure.
- c) Pipe sleeve of larger dia should be used while passing the pipe through concrete wall & gap should be filled with 'felt lining.
- d) Exhaust piping inside the Acoustic Enclosure/ Gen set room should be lagged with asbestos rope along with aluminum sheet cladding to avoid heat input to the room.
- e) Exhaust flexible shall have its free length when it is installed. For bigger engines two flexible bellows can be used.
- f) For engine upto 500 KVA only one bellow is required. However, if exhaust pipe length is more than 7 m, then additional bellow/provision for expansion should be provided.
- g) Class 'B' MS pipes and long bend/elbows should be used.
- h) The exhaust outlet should be in the direction of prevailing winds and should not allow exhaust gases to enter air inlet / windows etc.
- i) When tail end is horizontal, 45 Degree downward cut should be given at the end of pipe to avoid rain water entry into exhaust piping.
- j) When tail end is vertical, there should be rain trap to avoid rain water entry. If rain cap is used, the distance between exhaust pipe and rain cap should be higher than diameter of pipe. Horizontal run of exhaust piping should slope downwards away from engine to the condensate trap. Silencer should be installed with drain plug at bottom.

1.21.2 **Optimum silencer location:** Location of the silencer in exhaust system has very definite influence on both reduction of noise and back pressure imposed on the system. The preferred silencer locations are given in the table below, where L is length of the total exhaust system measured from exhaust manifold in meters. Please note that locating the silencer as per optimum silencer location is not

mandatory. For high rise buildings, suitable arrangements may have to be provided in consultation with acoustic engineer.

Optimum Location of Silencer (In meters):

Location	In-line engine	'V' Engine
Best	2L/5	(4L - 1.5)/5
Second best	4L/5	(2L - 4.5)/5
Worst Location of Silencer	L/5 or 3L/5 of at tail end of Exhaust piping	(3L -10)/5 or at the tail end of exhaust piping

1.21.3 **Exhaust stack height:** In order to dispose exhaust above building height, minimum exhaust stack height should be as follows:

For DG set up to 1000 KVA:

$$H = h + 0.2 \times \sqrt{\text{KVA}}$$

Where, H = height of exhaust stack

h = height of building

Cost of Exhaust stack height and its support are included in the respective DG set items. Actual stack height shall be submitted through OEM and got approved by EIC during execution.

1.21.4 Care should be taken to ensure that no carbon particle emitted due to exhaust leakage enters and deposited in alternator windings and on open connections.

1.21.5 **Support of Exhaust Piping**

Exhaust piping should be supported in such manner that load of exhaust piping is not exerted to turbocharger (as per OEM recommendation and to the satisfaction of EIC).

1.22 **Air System**

It is preferable to provide vacuum indicator with all engines to indicate choked filter. Maximum air intake restrictions with clean and choked filters should be within prescribed limit as per OEM/ manufacturer recommendation for the particular model of the engine. Gen sets should be supplied with medium duty / heavy duty air cleaners as required. (Heavy duty air cleaner should be used for installations in dusty or polluted surroundings).

1.23 **Cooling System**

1.23.1 System should be designed for ambient temperature of minimum 50 Deg C.

1.23.2 Coolant should be used mixed with additive (in suitable proportion) as per recommendation of OEM / Manufacturer for various engine models.

1.23.3 Radiator fan flow should be free from any obstruction.

1.24 Safety Measures

All equipment shall incorporate suitable safety provisions to ensure safety of the operating personnel as per manufacturer's standard practice.

1.25 MOUNTING.

The DG set shall be mounted on Anti vibration mounting (AVM) pads. The diesel tank shall be mounted appropriately.

1.26 OTHER ANCILLIARY EQUIPMENTS

1.26.1 FUEL TANK

The engine shall be provided with day service fuel tank of capacity minimum 110 litres. (as per manufacturer standard)

Day service tank shall be fabricated out of 3 mm thick MS sheet. The tank of capacity shall be with all accessories such as oil level indicator inlet pipe connection and outlet pipe connection valves, drain pipe with plug, trough to collect spill over oil air vent pipe, man hole with cover interconnections between tank and painting. The tank shall be provided with suitable calibration scale. No separate payment shall be made on A/C of fuel piping/valves etc. from fuel service tank to DG set irrespective of the length.

1.26.2 FUEL OIL TRANSFER PUMP.

One number of hand driven semi-rotary type oil transfer pump shall be provided. The pump should be suitable for transfer of fuel oil from barrel to day service tank with 10 meters long nylon pipe of suitable diameter.

1.26.3 12 VOLTS DC BATTERIES.

Required numbers of 12V batteries (12V/24V battery bank) for DG set shall be supplied and installed to cater the engine starting system, fuel solenoid etc of DG set. Besides this supply to all the components (Annunciation, controls, indication etc, which requires 12/24V DC supply) mounted in AMF panel shall also be catered from this battery bank.

The batteries shall be of standard lead acid SMF batteries and its capacity shall be minimum 150AH (or as per OEM standard). The battery cell shall confirm to IS:1651 amended up to date. The batteries required to meet the DG System requirement shall be provided by the agency free of cost.

1.27 Foundation Genset with Acoustic enclosure

The foundation drawings as recommended by DG set manufacturer shall be submitted to AAI for prior approval well in advance for finalizing the location & layout of the installation of DG set at site.

For DG set installed outside in open area, a PCC (1:2:4, M-20 grade) foundation of weight 2.5 times the operating weight of the Genset with enclosure or as recommended by Genset Manufacturer, is required to be provided and is included in scope of work for SITC of GENSET. 300 mm of this foundation height should be above the ground level or as recommended by manufacturer. The length and breadth of foundation should be at least 250 mm more on all sides

than the size of enclosure. Genset should be mounted on AVM inside the enclosure. **Design of the foundation as recommended by the OEM shall be submitted by the contractor before execution of work.**

Rated PF.	:	0.8 (lag)
Rated voltage	:	415 volts
Rated frequency	:	50 Hz
No. of phases	:	3
Enclosure	:	SPDP
Degree of protection	:	IP - 23
Ventilation	:	Self-ventilated air cooled
Ambient temperature	:	40° C
Insulation class	:	F/H
Temperature Rise	:	Within class F/H limits at rated load
Voltage regulation	:	+/- 1%
Voltage variation	:	+/- 5%
Overload duration/ capacity	:	10% for one hour in every 12 hours of continuous use.
Frequency variation	:	As defined by the Engine Governor (+/- 1%)
Excitation	:	Self-excited
Type of AVR	:	Electronic/Digital Voltage Regulator
Type of bearing and lubrication arrangement	:	Anti-friction bearings with grease lubrication
Standard	:	IS - 4722 & IEC: 34 as amended up to date.

1.28 ALTERNATOR

Scope: This section covers technical requirement of the alternator.

1.28.1 General

Alternators shall be suitable for continuous operation at 1500 RPM, generating 415+/-5% volts at 0.8 p.f (lag).50Hz, 3 phases, 4 wire system. The suitable for tropical climate and shall generally conform to BS.2613 & IS:4722. Alternator shall

be of salient pole, revolving field type and shall be brush less type, self-excited & self-regulated through a solid state AVR.

- 1.28.2 The alternator shall be self-excited, screen protected, self-regulated, brushless alternator, horizontal foot mounted in Double bearing construction/manufacturer standard suitable for the following,
- 1.28.3 **Excitation:** The alternator shall be brushless type and shall be self/ separately excited; self-regulated having static excitation facility. The exciter unit should be mounted on the control panel or on the alternator assembly. The rectifier shall be suitable for operation at high ambient temperature at site.
- 1.28.4 **Automatic Voltage Regulators (AVR):** In order to maintain output terminal voltage constant within the regulation limits i.e., +/- 1%, Automatic voltage regulator unit shall be provided as per standard practice of manufacturer.
- 1.28.5 **Fault tripping:** In the event of any fault e.g., over voltage / high bearing temperature/ high winding temperature or an external fault, the AVR shall remove the excitation voltage to the alternator. An emergency trip shall also be provided.
- 1.28.6 **Standards:** The alternator shall be in accordance with the following standards as are applicable.
- i) IS 4722/BS 2613:1970. The performance of rotating electrical machine.
 - ii) IS: 4889/BS: 269 rules for method of declaring efficiency of electrical machine.
- 1.28.7 **Performance:** Voltage dip shall not exceed 20% of the rated voltage for any step load or transient load as per ISO: 8528 (Part I). The winding shall not develop hot spots exceeding safe limits due to imbalance of 20% between any two phases from no load to full load.

The generator shall preferably be capable of withstanding a current equal to 1.5 times the rated current for a period of not more than 15 seconds as required vide clause 14.1.1 of IS 4722:1992.

The performance characteristics of the alternator shall be as below.

- a) Efficiency at full load 0.8 P.F.
 - (i) Above 62.5KVA / up to 250 KVA – not less than 90%.
 - (ii) Above 250 KVA – not less than 93.5%
 - b) Total distortion factor – Less than 3%
 - c) 10% overload - One hour in every 12 hrs of continuous use
50% overload – 15 seconds.
- 1.29 **Terminal boxes:** Terminal boxes shall be suitable for U. G. cables. The terminal box shall be suitable to withstand the mechanical and thermal stresses developed due to any short circuit at the terminals.

Terminals shall be housed in a suitable box / enclosure for receiving required no of Aluminum conductor power cables of suitable size as per OEM's recommendations and 02 nos. earthing strips of size 25 X 5 mm copper for neutral

terminals. If required, suitable additional cable termination box with extended terminal links shall be provided by the agency free of cost for easy termination of cable.

- 1.30 **Earth Terminals:** 2 Nos. earth terminals on opposite side with vibration proof connections, non-ferrous hardware etc. with galvanized plate and passivated washer of minimum size 12mm dia. Hole shall be provided.
- 1.31 **Space Heaters:** Alternators of capacity more than 500 KVA shall be provided with suitable space heaters to maintain the winding temperature automatically such that it does not absorb moisture during long idle periods. The heater terminals shall be brought to a separate terminal box suitable for 230 V AC supply and a permanent caution notice shall be displayed.
- 1.32 The standard constructional features of manufacturers in respect of Alternator are acceptable provided they meet all functional, technical, protective requirement subject to the approval of the Engineer-in-charge of the work.

1.33 **ACOUSTIC ENCLOSURE**

Scope: The section deals with Technical Specifications of Acoustic enclosure.

1.33.1 **General**

The enclosure shall be of compact sleek design conforming to international standard to provide insertion loss of 25 DBA as per the requirement of central pollution control board norms. The enclosure shall be fabricated using high grade cold rolled cold annealed (CRCA) sheet & steel members. High density sound absorption material shall be used to reduce the sound level. Sound level shall not be more than 75 db(A) at a distance of one meter away from the set and DG set supplier shall give an integral acoustic enclosure and the acoustic enclosure shall have approval from anyone of the agencies as listed/approved by CPCB. The enclosure shall be surface treated and power coating painted to make it weather proof and suitable for outdoor application. The enclosure shall be provided with durable industrial locking system with doors duly gasketed.

1.33.2 **Acoustic Insulation**

High density resin bonded rock wool shall be provided on all sides includes door, roof and walls to absorb noise. The insulation shall be covered with fire proof acoustic material, light resin rock wool and shall be supported by perforated sheet. Sound attenuators/downstream silencers shall be provided at all openings for air inlet/outlet to facility free air flow but to absorb sound resulting in extremely low noise level. Detachable partitions shall be provided inside the enclosure to attain further noise attenuation of the engine.

- 1.33.3 As per CPCB norms, restriction has been imposed for new DG sets up to 1000 KVA for noise level. Therefore, in terms of these norms, acoustic enclosure should be type tested at the specified climatic conditions through one of the authorized laboratories.

1.33.4 **Installation**

Acoustic enclosures are supplied with built in Anti Vibration Mountings (AVMs). As such Genset can be installed directly on the leveled surface.

1.33.5 Exhaust piping outlet should not be turned towards windows / ventilator of home or occupied building. Provision of rain cap should be ensured.

1.33.6 The acoustic enclosure placement should be such that there is no restriction in front of air inlet and outlet from canopy.

1.33.6.1 Service Accessibility

1.33.6.2 Genset / Engine control panel should be visible from outside the enclosure.

1.33.6.3 Routine / periodical check on engine / alternator (filter replacement and tappet setting etc.) should be possible without dismantling acoustic enclosure.

1.33.6.4 For major repairs / overhaul, it may be required to dismantle the acoustic enclosure.

1.33.6.5 Sufficient space should be available around the Generator set for inspection and service.

1.33.6.6 General Design Guidelines

1.33.6.7 To avoid re-circulation of hot air, durable sealing between radiator and canopy is must.

1.33.6.8 Ventilation fans are must of the Gen sets cooled by heat-exchanger / cooling tower system.

1.33.6.9 Exhaust piping inside the enclosure must be lagged (except bellow).

1.33.6.10 Temperature rise inside the enclosure should not be more than 5⁰ C for maximum ambient above 45⁰ C and it should be below 10⁰ C for ambient below 45⁰ C.

1.33.6.11 There should be provision for oil, coolant drain and fill. Fuel tank should have provision for cleaning.

1.33.6.12 The enclosure should be designed to meet the total air requirement for the DG set at full load at site conditions as recommended by the engine manufacturer.

1.33.7 Specifications for Acoustic Enclosure

1.33.7.1 The acoustic enclosure shall be designed and manufactured confirming to relevant standards suitable for outdoor installation exposed to weather conditions, and to limit overall noise level to 75 dB (A) at a distance of 1 mtr from the enclosure as per latest CPCB norms under free filed conditions.

1.33.7.2 The construction should be such that it prevents entry of rain water splashing into the enclosure and allows free & quick flow of rain water to the ground in the event of heavy rain. The detailed construction shall confirm to the details as under:

1.33.7.3 The enclosure shall be fabricated out of the CRCA sheet of thickness not less than 1.6mm on the outside cover with inside cover having not less than 0.6 mm thick performed powder coated CRCA sheet.

- 1.33.7.4 The hinged doors shall be made from not less than 16 SWG (1.6mm) thick CRCA sheet and will be made air tight with neoprene rubber gasket and heavy-duty locks.
- 1.33.7.5 All sheet metal parts should be processed through 7-tank process.
- 1.33.7.6 The enclosure should be powder coated.
- 1.33.7.7 The enclosure should accommodate the daily service fuel tank of the D.G. Set to make the system compact. There should be provision of fuel gauge, which should show the level of the fuel even when the DG Set is not running. The gauge should be calibrated. The fuel tank should be filled from the outside as in automobiles and should be with a lockable cap.
- 1.33.7.8 The batteries should be accommodated in the enclosure in battery rack.
- 1.33.7.9 The canopy should be provided with high enclosure temperature safety device.
- 1.33.7.10 The acoustic lining should be made up of high-quality insulation material i.e., glass/ mineral wool of minimum 50mm thickness upto 500KVA capacity and 100mm above 500KVA capacity and 75Kg/cubic meter to 100 Kg/ cubic meter for sound absorption as per standard design of manufacturer's to reduce the sound level as per CPCB norms. The insulation material shall be covered with fine glass fiber cloth and would be supported by perforated M.S. sheet duly powder coated.
- 1.33.7.11 The enclosure shall be provided with suitable size and no. of hinged type doors along the length of the enclosure on each side for easy access inside the acoustic enclosure for inspection, operation and maintenance purpose. Sufficient space will be provided inside the enclosure on all sides of the D.G. set for inspection, easy maintenance and repairs.
- 1.33.7.12 The canopy should be as compact as possible with good aesthetic look.
- 1.33.7.13 The complete enclosure shall be of modular construction.
- 1.33.7.14 The forced ventilation shall be as per manufacturer design using either engine radiator fan or additional blower fan (s). If the acoustic enclosure is to be provided with forced ventilation then suitable size of axial flow fan (with motor and auto start arrangement) and suitable size axial flow exhaust fan to take the hot air from the enclosure complete with necessary motors and auto start arrangement should be provided. The forced ventilation arrangement should be provided with auto stop arrangement to stop after 5 minutes of the stopping of D.G. Set.
- 1.33.7.15 The acoustic enclosure should be suitable for cable connection / connection through bus-trunking. Such arrangements on acoustic enclosure should be water proof and dust-proof conforming to IP-65 protection.
- 1.33.7.16 The inside of enclosure should be provided with at least two LED tube lights controlled by a 5A switch for adequate lighting during servicing etc. of the DG set. The power supply to this luminaire should be from the load side of the AMF panel so that it may remain energized under all conditions.

1.34 Noise Suppressor.

A suitably designed residential type noise suppressor shall be provided to minimize the exhaust noise of the engine. Hospital type noise suppressor shall be placed outside the acoustic enclosure.

1.35 Exhaust system.

1.35.1 The exhaust gas shall be taken out through a specially designed flexible pipes to prevent any back pressure on the engine.

i) Exhaust Silencer piping:

The exhaust silencer piping system shall be of heavy-duty MS pipes conforming to class B. Suitable length of flexible piping shall be used for connecting the exhaust piping to the engine as per the recommendations of the manufacturers. MS screwed flanges and bends shall be used as per site requirement.

Exhaust pipe inside the building shall be provided with asbestos rope and suitably bonded with asbestos cloth. There will be aluminum sheet cladding over the top of asbestos cloth.

ii) Oil Piping: Oil piping shall be of MS with required globe valves.

1.36 Thermal Insulation

The exhaust system and noise suppressor shall be provided with thermal insulation by using glass wool & covering it with Aluminum sheet to prevent it from transmitting excess heat on the engine, make it safe for the operator and enhance aesthetics.

1.37 Air Circulation & Ventilation System.

A suitable forced air circulation and ventilation system shall be designed to maintain safe operating temperatures inside the enclosure. This forced ventilation system will be provided through axial flow blowers meeting the requirement of air required for burning of fuel as well as cooling of engine.

1.38 Painting

Enclosure shall be painted with weather proof, acid proof, heat resistant power coated paint shade as approved by the Engineer-in-Charge after pretreatment for degreasing, de-rusting, pickling, phosphate and passivation.

1.39 TESTING

The contractor shall give notice well in advance to the AAI Engineer-in-charge before commencement of any site testing. All material like consumable stores, oil grease, lubricating oil etc., required for the trials testing and commissioning shall be arranged by the contractor.

The following test shall be conducted on DG set.

1.39.1 FACTORY TESTS

- a. All routine tests as per BS: 5514 for Engine.
- b. All routine tests as per BS: 2613 or IS: 4722 for alternator.

- c. Load test, fuel consumption test.
- d. Speed, No-load voltage and full load voltage regulations.
- e. Frequency at no-load, half load and full load.
- f. Load test at 80% load (1 Hr.) 100% load (3 hr.) 110 % load (1 Hr.)

These tests shall be conducted, as per the requirements of and the original test certificates shall be furnished.

In addition, the firm shall give certificate of type tests done for engine and alternator of similar capacity.

1.39.2 SITE TESTS

After the erection, wiring and earthing of DG set, the following tests shall be conducted.

- (i) Insulation resistance of the generator
- (ii) Speed, no-load voltage and full load voltage regulations.
- (iii) Frequency at no-load, half load and full load. And
- (iv) Other functional tests of DG set at site.
- (v) Also load test has to be carried out at site at least for four (04) hours. The readings shall be observed with calibrated meters. Only one meter shall be used for the test. The readings shall be properly tabulated submitted in triplicate. Non performance of the load test shall attract a deduction @ Rs. 1,00,000.00 per DG set from Final Bill. The arrangement of staff, necessary load (if not available at site) for trial run/ running in period will be made by the successful tenderer and nothing extra shall be payable for the same. However, diesel shall be provided by Department.

1.39.3 TESTING OF CONTROLS

All the safety controls and devices of the DG set shall be tested for correct calibration and operation. The results of the tests shall be tabulated and submitted in triplicate.

1.40 TRIALS

1.40.1 PRELIMINARY TRIALS

1.40.2 After completion of erection for generating sets and before carrying out main trials, preliminary trials shall be conducted in the presence of the AAI.

1.40.3 Engineer-in-charge and such trials shall include the checking and adjustments of all instrument relays, timers, interlocks and meters. Crankshaft alignment shall be checked when the engine is cold, insulation resistance of stator, rotor and exciter windings reading recorded.

1.40.4 Main Trials

AMF panel and engine control panel shall be tested for automatic operation by injecting proper current & voltage by a separate source. The satisfactory working of automatic operation shall be tested & necessary adjustments shall be done for relays in the presence of the engineer-In-Charge and the results shall be recorded.

Starting time of sets shall be tested at least five times with the sufficient time interval to allow for cold start. On completion of tests, inspection doors shall be removed & running gears inspected & alignment has to be checked. Any further reasonable trial as suggested by the Engineer-in-charge shall be carried out with no extra charges. The contractor shall provide all instruments, materials & labour required for carrying out the trials. The contractor shall provide test sheets of trials. Test sheets of trials shall be forwarded in quadruplicate to AAI engineer-in-charge. The successful bidder has to submit a list of recommended spares to AAI for purchasing the same. A set of tools & tackles as per list furnished has to be supplied along with each set.

- 1.41 Any civil work required for ITC of the DG shall be in the scope of the agency and nothing extra shall be payable for the same (except as in SOQ).

1.42 **WARRANTY**

The supplied DG sets shall be under warranty for a period of 24 months or 5000 running hours whichever is earlier from the date of handing over of DG sets to AAI for operation. During the warranty period, the OEM shall be responsible for any major/minor fault occurring in the DG set. Only the consumables like B-check/C-check spares shall be on payable basis which may be procured separately. The monthly preventive maintenance checks may be carried out separately as per site requirement.

The relevant warranty certificate from the OEM or his authorized representative shall be submitted by the contractor before final bill failing which an amount of Rs. 1,00,000/- shall be withheld and released after completion of 02 years from the date of commissioning subject to satisfactory working of the DG set.

SECTION 2 - EARTHING

2.1 SCOPE

This chapter covers the essential requirements of earthing system components and their installation. For details not covered in these specifications, IS Code of Practice on Earthing (IS: 3043-1987) & CPWD specifications shall be referred.

2.2 Application

The electrical distribution system is with earthed neutral (i.e., neutral earthed at the Transformer/Generator). In addition to the neutral earthing, provision is made for earthing the metallic body of equipment and non-current carrying metallic components in the sub-station, as well as in the internal/external electrical installations.

Earthing systems are also required for lightning protection, computer installations etc. for functional reasons.

Earthing requirements are laid down in Indian Electricity rules, 1956 as amended from time to time and in the Regulations of the Electricity Supply Authority concerned. these shall be complied with.

2.3 Materials

The material of earth electrode and earth conductor shall be as specified in BOQ.

2.4 Earth Electrodes

a) The type of earth electrodes shall be any of the following

Plate/Pipe earth electrode as specified in BOQ.

b) Electrode materials and dimensions

The materials and minimum sizes of earth electrodes shall be as specified.

2.5 Earthing Conductor

The earthing conductor (protective conductor from earth electrode up to the main earthing terminal/earth bus, as the case may be) shall be of the same material as the electrode, viz. GI or copper and in the form of wire or strip as specified. The size of the earthing conductor shall be as specified.

2.6 Hardware Items

All hardware items used for connecting the earthing conductor with the electrode shall be of GI pipe and GI plate earth electrodes, and forged tinned brass in case of copper plate electrodes.

2.7 LOCATION OF EARTH ELECTRODES

Normally an earth electrode shall not be located closer than 1.5 m from any building. Care shall be taken to see that the excavation for earth electrode does not affect the foundation of the building in such cases electrodes may be located further away from the building, with the prior approval of the Engineer-in-charge.

The location of the Earth electrode will be such that the soil has a reasonable chance of remaining moist as far as possible. Entrances, pavements and roadways should be avoided for locating earth electrodes.

2.8 Installation

a. Electrodes

b. Various types of Electrodes

1. Pipe Electrode shall be buried in the ground vertically with its top at not less than 20 cm below the ground level. the installation shall be carried out as shown in drawing.
2. In locations where the full length of pipe electrode is not possible to be installed due to meeting a water table, hard soil or rock, the electrode may be reduce length, provided the required earth resistance result is achieved with or without additional electrodes, or any alternative method of earthing may be adopted, with the prior approval of the Engineer-in-charge. Pipe electrodes may also be installed in horizontal formation in such exceptional cases.
3. Plate electrodes shall be buried in ground with the faces vertical, and its top not less than 3 m below the ground level. The installation shall be carried out as shown in the drawing.

4. When more than one electrode (plate/pipe) is to be installed, a separation of not less than 2 m shall be maintained between two adjacent electrodes.

2.9 Artificial treatment of soil

When artificial treatment of soil is to be resorted to, the electrode shall be surrounded by charcoal/coke and salt and as indicated in enclosed drawings. In such cases, excavation for earth electrodes shall be increased as per the dimensions indicated in these figures.

2.10 Watering arrangement

In the case of plate earth electrodes, a watering pipe of 20mm dia. medium class G.I. a pipe shall be provided and attached to the electrodes as shown in the drawing and a funnel with mesh shall be provided on the top of this pipe for watering the earth.

In the case of pipe electrodes, a 40mm x 20mm reducer shall be used for fixing the funnel with mesh.

The watering funnel attachment shall be housed in a masonry enclosure of size not less than 30cm x 30cm x 30 cm.

A cast iron/MS frame with MS cover of 6 mm thick, and having locking arrangement shall be suitably embedded in masonry enclosure.

2.11 Earthing conductor (Main earthing lead)

In the case of plate earth electrodes, the earthing conductor shall be securely terminated onto the plate with two bolts, nuts, check nuts and washers.

In the case of pipe earth electrodes, wire type earthing conductors shall be secured as indicated in drawing using a through bolt, nuts and washers and terminating socket.

The earthing conductor from the electrode up to the building shall be protected from mechanical injury by a medium class. 15mm dia. GI pipe in the class of wire, and by a minimum of 40 mm dia. medium class GI pipe in the case of strip. The protection pipe in ground shall be buried at least 30cm deep (to be increased to 60 cm in case of road crossing and pavements). The portion within the building shall be fixed on walls.

The earthing conductor shall be securely connected at the other end to the earth stud/earth bar provided on the switch board by:

Soldered or preferably crimped lug, bolt, nut and washer in the case of wire, and Bolt, nut and washer in case of strip conductor.

2.12 Earth bus and main earthing terminal

In all installations, the main earthing terminal shall be provided at the main switchboard. This may be in the form of earth stud or single earth bar depending on the type of the Switchboard.

A ring earth bus if available in the substation building, switch room and various panels shall be connected to that earth ring.

Following conductors shall be terminated on to the main earthing terminal

- a) Earth connection from electric supply company (where provided)
- b) Earthing conductor from electrode
- c) Protective conductors
- d) Equi-potential bonding conductors.

2.13 Protective (Loop earthing/ earth continuity) conductor

Earth terminal of every switchboard in the distribution system shall be bonded to the earth bar/ terminal of the upstream switchboard by protective conductors.

Two protective conductors shall be provided for a switchboard carrying a 3-phase switchgear thereon.

2.14 Earth Resistance

The earth resistance of each electrode shall be measured. No earth electrode shall have a greater ohmic resistance than 5 ohms as measured by an approved earth testing apparatus. In rocky soil the resistance may be up to 8 ohms.

Where the above stated earth resistance is not achieved, necessary improvement shall be made by additional provisions, such as additional electrode(s) of different types of electrodes, or artificial chemical treatment of soil etc., as may be directed by the Engineer-in-charge at additional cost as per the provisions of the contract.

2.15 Marking

Earth bars/terminals at all switch boards shall be marked permanently, as "E". Main earthing terminal shall be marked "SAFETY EARTH- DO NOT DISCONNECT".

2.16 Measurement Of Earth Electrode Resistance

- a. Two auxiliary earth electrodes, besides the test electrode, are placed at suitable distance from the test electrode. A measured current is passed between the electrode 'A' to be tested and an auxiliary current electrode 'C' and the potential difference between the electrode 'A' and auxiliary potential 'B' is measured. The resistance of the test electrode 'a' is then given by

$$R = V/I$$

Where, R- Resistance of the test electrode in ohms

V- Reading of the voltmeter in volts

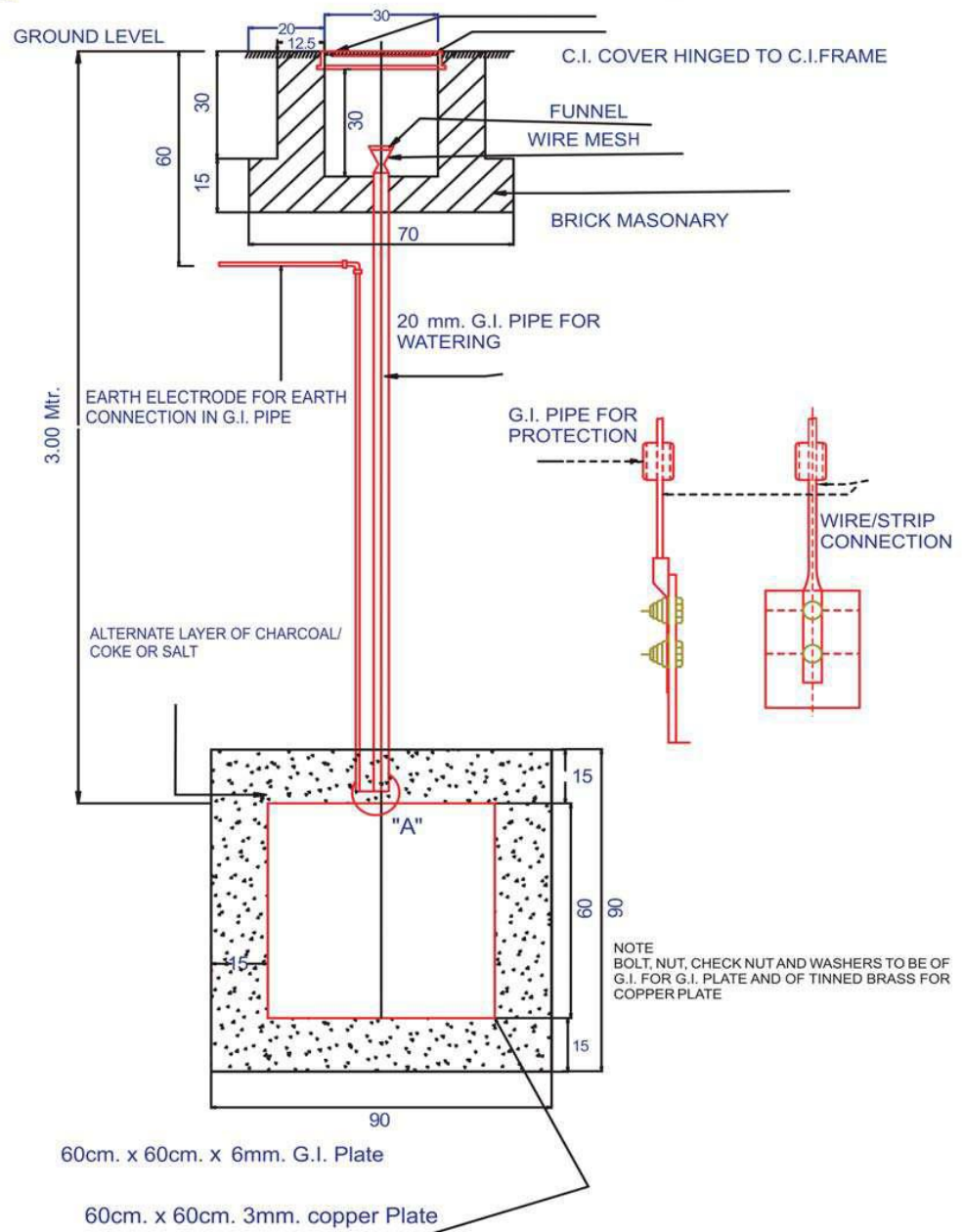
I- Reading of the ammeter in amps

- b. Stray currents flowing in the soil may produce serious errors in the measurement of earth resistance. To eliminate this, a hand driven generator is used.

If the frequency of the supply of hand driven generators coincides with the frequency of stray current, there will be wandering of the instrument pointer. An increase or decrease of generator speed will cause this to disappear.

- c. At the time of test, the test electrode shall be separated from the earthing system.
- d. The auxiliary electrodes shall be of 13mm diameter mild steel rod driven up to 1 m into the ground.
- e. All the three electrodes shall be so placed that they are independent of the resistance area of each other. If the test electrode is in the form of a rod, pipe or plate, the auxiliary current electrode C shall be placed at least 30m away from it and the auxiliary potential electrode 'B' shall be placed midway between them.
- f. Unless three consecutive readings of test electrode resistance agree, the test shall be repeated by increasing the distance between electrodes A and C up to 50m, and each time placing the electrode B mid-way between them.
- g. On these principles, "Megger Earth Tester" containing a direct reading ohm-meter, a hand driven generator and auxiliary electrodes are manufactured for direct reading of earth resistance of electrodes.

NOT TO SCALE

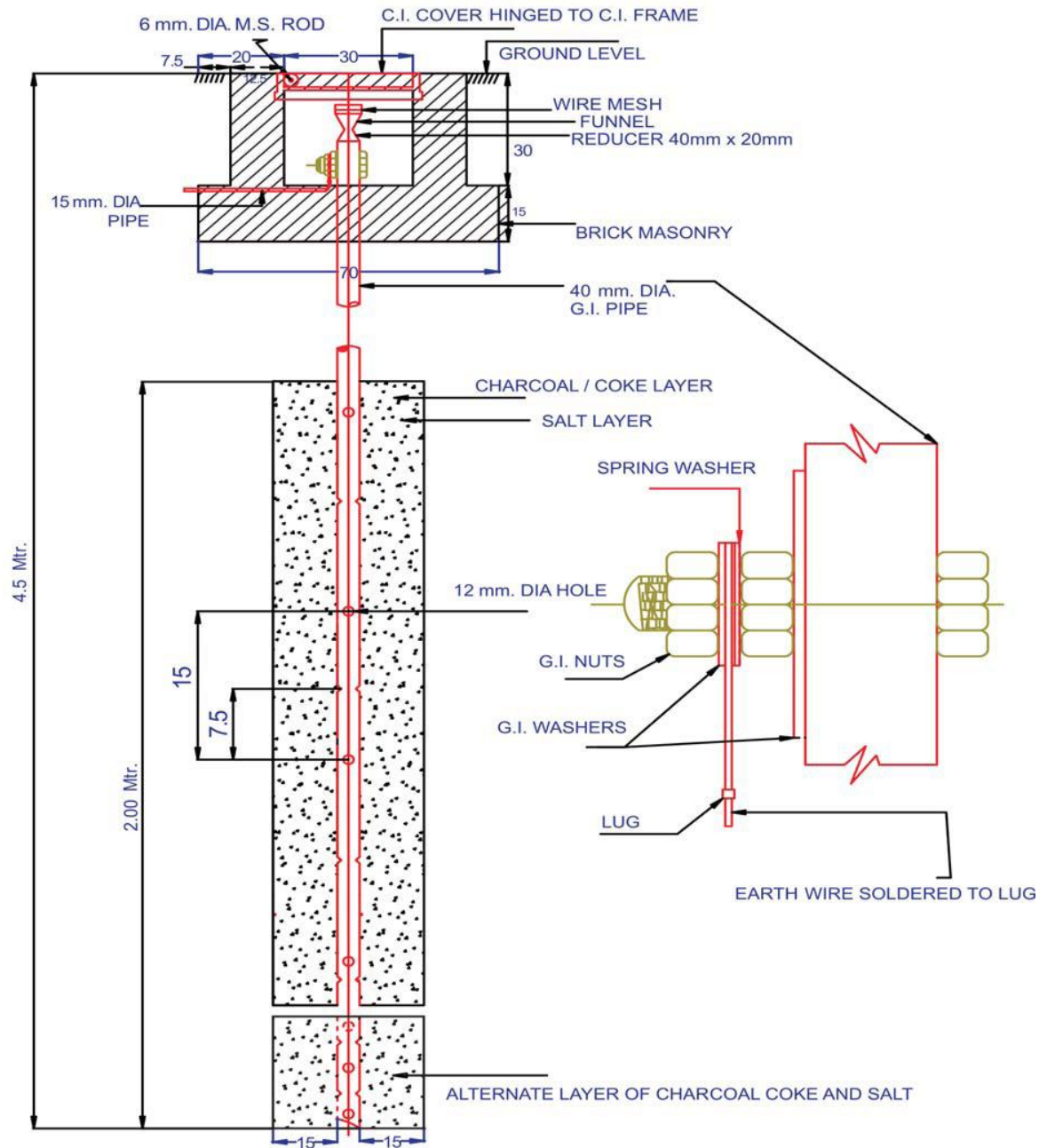


CPWD

PLATE EARTHING

NOT TO SCALE

METHOD OF PIPE EARTHING



ALL DIMENSIONS ARE IN CM (OTHER DIMENSIONS SHOWN)

CPWD

AMF PANEL FOR 30 KVA DG SET

GENERAL

The AMF panel shall be floor mounted, dust and vermin proof, fabricated from 14 SWG CRCA sheet steel and powder coated.

The panel shall be suitable for automatic operation of the DG set.

Main Components

The panel shall comprise:

1. Two Nos. 4 Pole MCCBs, 63 Amp, 25 kA breaking capacity.
2. Two Nos. 4 Pole AC3 duty contactors, 63 Amp rating.
3. Mechanical interlocking.
4. Electrical interlocking.
5. Copper busbars with heat shrink sleeves.
6. Multifunction digital energy meter.
7. CTs of suitable ratio.
8. Reverse power relay.
9. Automatic mains failure relay.
10. Auto/Manual/Test/OFF selector switch.
11. Start push button.
12. Stop push button.
13. Reset push button.
14. Emergency stop push button.
15. LED indication lamps.
16. Automatic battery charger.
17. Control MCBs and fuses.
18. Control relays and timers.

Metering

The multifunction meter shall indicate:

1. Voltage
2. Current
3. Frequency
4. kW
5. kVA
6. Power Factor
7. kWh

Protection Features

The panel shall provide protection against:

1. Over Voltage
2. Under Voltage
3. Over Frequency
4. Under Frequency
5. Phase Failure
6. Phase Reversal
7. Overload
8. Short Circuit
9. Reverse Power
10. DG Fail to Start
11. Battery Charger Failure

Communication

The panel shall have:

- 1.RS485 Communication
- 2.Modbus Protocol
- 3.BMS Integration Facility
- 4.Event Logging

Testing

Routine tests shall include:

- 1.Insulation Resistance Test
- 2.Functional Test
- 3.Protection Test
- 4.AMF Operation Test
- 5.Auto Start Test
- 6.Auto Transfer Test
- 7.Load Transfer Test

Complete commissioning and handing over shall be included.

5.0 TECHNICAL SPECIFICATIONS FOR 5 STAR INVERTER SPLIT AIR CONDITIONERS**Scope**

The scope of work shall include supply, installation, testing and commissioning of 5 Star BEE rated Hi-Wall Split Inverter Air Conditioners complete with indoor unit, outdoor unit, refrigerant piping, insulation, drain piping, power wiring, control wiring, mounting arrangements and all accessories required for satisfactory operation.

The installation shall conform to CPWD General Specifications for HVAC Works, NBC 2016, IS 1391, IS 10028 and latest BEE guidelines.

Indoor units shall be mounted on OEM supplied mounting plates.

The units include pre-filter, fan section and DX coil section. The housing of units shall be light weight powder coated galvanized steel. Units shall have external casing of ABS Plastic for supply and return air.

i) Wall Mounted Units

- (a) Wall mounted units must be compact & stylish design that does not detract from the décor of the room.
- (b) Each indoor unit must have electronic expansion valve operated by microprocessor thermostat based temperature control to deliver cooling/ heating as per the heat load of the room.
- (c) The unit must have provision of adding drain pump kit if required & specified. The drain pump must be suitable to lift drain to 1000 mm from the bottom of the unit.
- (d) The sound pressure level of unit at the highest operating level shall not exceed 46 dB(A).
- (e) Refrigerant control in the indoor unit shall be through Electronic Expansion Valve.

ii) Installation

- (a) The units shall be mounted on ribbed rubber pads for vibration isolation. The contractor shall supply the required charge of refrigerant, lubricant and other consumables, for commissioning and testing of the equipment.
- (b) All the equipment shall be thoroughly tested and checked for leaks. All safety controls shall be suitably set and a record of all setting shall be furnished to the project supervisor.
- (c) Providing and fixing M.S. structural support for condensing unit with vibration isolator pad in-between support and structure and vibration isolation suspender and pads for evaporating units shall be in scope of contractor.

iii) Painting

Shop coats of paint that have become marred during transportation or erection shall be cleaned off with mineral spirits, wire brushed and spot primed over the affected areas, then coated with enamel paint to match the finish over the adjoining shop- painted surfaces.

iv) Condensate Drain Piping

All pipes to be used for condensate drain shall be CPVC pipe conforming to IS: 15778 & all joints should be Gluing or solvent cementing or as per manufacturer recommendation.

v) Refrigerant Piping and fittings:

- (a) All refrigerant pipes shall be as per following table. All refrigerant fittings shall be type 'L' hard drawn copper tubes and wrought copper fitting suitable for connection with silver solder.

- (b) All joints/ y-joints in copper piping shall be swaged joints using low temperature brazing and/ or silver solder. Before jointing any copper pipe or fittings, its interior shall be thoroughly cleaned by passing a clean cloth via wire or cable through its entire length. The piping shall be continuously kept clean of dirt etc. while construction of the joints. Subsequently, it shall be thoroughly blown out using nitrogen.
- (c) Refrigerant lines shall be sized to limit pressure drop between evaporator and condensing unit to less than 0.2 kg per Sq.cm.
- (d) After the refrigerant piping installation has been completed the refrigerant piping system shall be pressure tested using, Freon mixed with nitrogen at a pressure of 20 Kg per Sq. cm. (High side) and 10 Kg per Sq. cm (Low side). Pressure shall be maintained on the system for 24 hours.
- (e) The system shall then be evacuated to a minimum vacuum of 70 cm. of mercury and held for 24 hours, during which time; change in vacuum shall not exceed 12 cm of mercury.
- (f) All refrigerant piping shall be installed strictly as per the instructions and recommendations of air conditioning equipment manufacturers.

Indoor Unit

The indoor unit shall be wall mounted type comprising:

- 1.Evaporator coil.
- 2.Cross flow fan.
- 3.Washable air filter.
- 4.PM2.5 filter.
- 5.Electronic expansion valve.
- 6.Wireless remote control.
- 7.LCD display.
- 8.Auto restart feature.

Indoor unit casing shall be made of high impact ABS plastic.

Maximum sound level shall not exceed 45 dB(A).

Outdoor Unit

The outdoor unit shall comprise:

- 1.Rotary/Twin Rotary Inverter Compressor.
- 2.Copper Condenser Coil.
- 3.Condenser Fan.
- 4.Inverter Drive.
- 5.Refrigerant Controls.

Outdoor unit shall be suitable for outdoor installation and shall be weatherproof.

Refrigerant

The refrigerant shall be:

R-32 (Low Global Warming Potential Refrigerant)

The refrigerant shall comply with latest environmental regulations.

Performance

1. Rated Capacity : 1.5 TR

Cooling Capacity : Minimum 5.0 kW

ISEER : Minimum 5.2

2. Cooling at 43°C Ambient : 100%

3. Operating Ambient Range : Up to 52°C

4. Stabilizer Free Operation : 130–290 Volts

Refrigerant Piping

Copper refrigerant piping shall be:

1. Type L hard drawn copper.

2. Suitable for R32 refrigerant.

3. Complete with fittings and brazed joints.

Insulation shall be:

1. Closed cell elastomeric nitrile rubber.

2. Minimum thickness 13 mm.

3. Fire retardant type.

Nitrogen purging shall be carried out during brazing.

Vacuumization shall be done before charging refrigerant.

Drain Piping

Drain piping shall be:

1. CPVC/PVC pipe.

2. Properly supported.

3. Adequate slope maintained.

4. Leak proof.

Mounting Arrangement

Outdoor units shall be mounted on:

Heavy duty hot dip galvanized MS brackets.

Anti vibration pads.

Details of refrigerant pipe and Insulation

Sr. No.	Outside dia. of pipe	Soft/ Hard drawn	Copper Tube thickness	Insulation thickness
1	6.4 mm	Soft	1.2 mm	19 mm
2	9.5 mm	Soft	1.2 mm	19mm
3	12.7 mm	Soft	1.2 mm	19mm
4	15.86 mm	Soft	1.2 mm	19mm
5	19 mm	Hard	1.2 mm	19mm
6	22.2 mm	Hard	1.2 mm	19mm
7	25.4 mm	Hard	1.2 mm	19mm
8	28.58 mm	Hard	1.2 mm	19mm
9	31.8 mm	Hard	1.62 mm	19mm
10	34.9 mm	Hard	1.62 mm	19mm
11	38.1 mm	Hard	1.62 mm	19mm
12	41.27 mm	Hard	1.62 mm	19mm

Technical Specification for 1.5 TR High Wall Split AC

1	Star Rating	Unit	5 Star
2	Power Supply		1ph / 50Hz / 230V
3	Rated Cooling Capacity Full / Half (min ~ max)	Kw	5.2 / 2.64 (1.58 ~ 5.75)
		Btu/h	18000 / 9000 (5390 ~ 19620)
4	Cooling capacity @ 43°C	%	100%
5	Rated Power Consumption Full / Half (min ~ max)	W	1325 / 460 (267 ~ 1639)
6	Rated Annual Power Consumption	Kw/h	785.67
7	Rated ISEER	Wh/wh	≥ 5.2
8	Voltage Range (Stabilizer Inside)	V	130 ~ 285
9	Operating Current	A	6.1
	Indoor Unit (IDU)		
10	Panel Colour		White
11	Air Flow Rate (H/HM/M/ML/L)	Feet ³ /min(cfm)	593 (min)
		M ³ /min(cfm)	16.8 (min)
12	Moisture Removal	Ltrs / hr (litres/hours)	1.8 (min)
13	Operation sound (H/HM/M/ML/L/SL)	dBA	48/46/43/41/38/32
	Outdoor Unit (ODU)		
14	Compressor Type		Inverter Technology
15	Refrigerant		R-410 a/R32
16	Operating Ambient Temperature Range Cooling (min ~ max)		20-54
	Additional Features to be included		
17	Timer / Cordless Remote		Yes
18	Vertical Swing		Yes
19	Air Cleaning Filter		Yes
20	Anti - Corrosion Treatment for coil		Yes

Testing

The following tests shall be carried out:

1. Insulation resistance test.
2. Refrigerant leakage test.
3. Pressure test.
4. Vacuum test.
5. Functional test.
6. Cooling performance test.

Warranty

1. Complete Unit : 1 Year
2. PCB : Minimum 5 Years
3. Compressor : Minimum 5 Years

6.0 TECHNICAL SPECIFICATIONS FOR 10 KVA SERVO CONTROLLED AUTOMATIC VOLTAGE REGULATOR**Scope**

The work shall include supply, installation, testing and commissioning of Servo Controlled Automatic Voltage Regulator suitable for stabilizing incoming voltage and providing constant output voltage to connected loads.

Applicable Standards

The AVR shall conform to:

1. IS 9815
2. IS 2026
3. IS 1180
4. CPWD Specifications

Technical Parameters

1. Capacity : 10 KVA
2. Phase : Single Phase
3. Input Voltage : 170 – 270 Volts
4. Output Voltage : 230 Volts $\pm 1\%$
5. Frequency : 50 Hz
6. Efficiency : Minimum 98%

Construction

The AVR shall comprise:

- 1.Copper wound buck boost transformer.
- 2.Variable transformer.
- 3.Servo motor.
- 4.Microprocessor based controller.
- 5.Air cooled construction.

Metering

Digital display shall indicate:

- 1.Input Voltage
- 2.Output Voltage
- 3.Output Current

Protection Features

The AVR shall provide:

- 1.Over Voltage Protection.
- 2.Under Voltage Protection.
- 3.Overload Protection.
- 4.Short Circuit Protection.
- 5.Surge Protection.
- 6.MCCB Protection.

Enclosure

The enclosure shall be:

- 1.CRCA sheet steel.
- 2.Powder coated.
- 3.Floor mounted.
- 4.IP-21 minimum protection.

Testing

The following tests shall be carried out:

- 1.Ratio test.
- 2.Voltage regulation test.
- 3.Load test.
- 4.Insulation resistance test.
- 5.Functional test.

7.0 TECHNICAL SPECIFICATIONS FOR 50 LPH COMMERCIAL RO WATER PURIFIER

Scope

The scope shall include SITC of 50 LPH fully automatic commercial RO water purification system complete with pre-treatment, RO membranes, UV sterilization, storage tank, pumps, piping and accessories.

The treated water shall conform to IS 10500 latest requirements.

Raw Water Characteristics

The RO system shall be suitable for:

- 1.TDS up to 3000 ppm.
- 2.Turbidity up to 10 NTU.
- 3.pH range 6.5 to 8.5.

System Components

The system shall comprise:

Pretreatment

1. Sand Filter.
2. Activated Carbon Filter.
3. Micron Cartridge Filter.

RO Section

1. High Pressure Pump.
2. RO Membrane Housing.
3. Thin Film Composite RO Membranes.

Capacity

- 1.Production Capacity : 50 LPH.
- 2.Recovery : Minimum 50%.
- 3.TDS Rejection : Minimum 90%.

Pumps

The RO system shall be provided with:

- 1.Feed Pump.
- 2.High Pressure Pump.

Pump casing shall be SS304.

Membranes

Membranes shall be:

- 1.Thin Film Composite Type.
- 2.Food Grade.
- 3.NSF Certified.

Instrumentation

The system shall have:

1. Inlet Pressure Gauge.
2. Outlet Pressure Gauge.
3. TDS Meter.
4. Flow Meter.
5. Low Pressure Switch.
6. High Pressure Switch.

Control Features

The RO system shall have:

1. Auto Start/Stop.
2. Dry Run Protection.
3. Low Water Cut-off.
4. Overflow Protection.

Piping

All interconnecting piping shall be:

1. Food Grade.
2. UPVC/SS304 as applicable.
3. Corrosion resistant.

LIST OF PREFERRED MAKES FOR ELECTRICAL ITEMS

विद्युत वस्तुओं के लिए अधिमान्य रूपों (प्रीफर्ड मेक्स) की सूची

Annexure- A

अनुलग्नक-ए

SR. NO.	ITEMS	PREFERRED MAKES (W.E.F. 22.09.2023)	CATEGORY FOR TEST CERTIFICATION/ INSPECTION
A. PANEL, SWITCHGEARS AND RELATED ITEMS			
1	LT PANELS (TTA)	URJAYANT/ KRUTI / CMKL(CORE METAL) / KEPL(KHOKHAR) / LEGRAND (NOVATEUR) / CONQUERENT / MITSUBISHI / LS POWER / ZENIYA / NEPTUNE / L&T / C&S / BCH / ADVANCE / TRICOLITE / RISHA / SCHNEIDER / SUDHIR / EAP / TRISQUARE / MILESTONE / ABB / ADLEC / SIEMENS / MePOWER / RITTAL/ STERLING GENERATORS / NITYA / GE POWER (SPECTRA) / UNILEC /GODREJ / INCOTECH / CONSOUL (RR ISPAT) / PEATON/ HAROLD/ SPC ELECTROTECH	CATEGORY-1
2	LT PANELS / FEEDER PILLAR (PTTA) / BUS TRUNKING	URJAYANT / KRUTI / ASES / ITE-GURGAON (INDIAN TRANSFORMERS) / LEGRAND (NOVATEUR) / CONQUERENT/ CORONET/ RST/ TENCO/ HPL/ L.S POWER/ ZENIYA/ PRECISION/ ABB / EAP/ TRICOLITE / SUDHIR/ L&T / C&S / NEPTUNE / SCHNEIDER/ HENSEL / ADVANCE / KEPL(KHOKHAR) / PEATON / RISHA / TRISQUARE/ CMKL (CORE METAL) / SPC ELECTROTECH / BCH / MILESTONE / ADLEC/ SIEMENS/ MePOWER/ STERLING GENERATORS/ GODREJ/ PYROTECH/ DIGIDRIVES/ AMBIT/ ELINS/ EVA /GE POWER (SPECTRA) / UNILEC / INCOTECH /HAROLD /NITYA /ENGINEERS & ENGINEERS	CATEGORY-1
3	AIR CIRCUIT BREAKERS	BCH/ MITSUBHISHI/ HPL/ L&T/ LEGRAND (NOVATEUR) / ABB/ C&S/ HAVELLS/ SIEMENS/ CHINT/ GE POWER / SCHNEIDER	CATEGORY-2
4	MOULDED CASE CIRCUIT BREAKERS (MCCB)	BCH / MITSUBHISHI / L&T/ LEGRAND (NOVATEUR) / ABB / C&S / HAVELLS / INDO ASIAN (NOVATEUR) / HPL / SIEMENS / ANDREW YULE / BENLO/ CHINT / GE POWER / STANDARD / SCHNEIDER	CATEGORY-2
5	CHANGE OVER SWITCH/ FUSE DISCONNECTOR SWITCH/ SWITCH FUSE UNITS	BENTEC/ BCH/ INDO ASIAN (NOVATEUR) / SOCOMEC / L&T / LEGRAND (NOVATEUR) / C&S / HPL / ABB / HAVELLS / SIEMENS / BENLO / HH ELCON / GE POWER / STANDARD / SCHNEIDER	CATEGORY-2
6	METERS-ANALOGUE	SELEC/ C&S/ ABB	CATEGORY-3
7	METERS-Multifunctional - DIGITAL	BENTEC / SELEC / C&S / MITSUBHISHI / ABB / NEPTUNE / SOCOMEC / HPL / L&T / MEGGER / RISHABH/ SIEMENS/ SCHNEIDER/ BENLO/ AE/ MECO/ IMP/ UNIVERSAL/ TRINITY TOUCH / BHEL/ ELMEASURE/ CONSERVE/ HPK/ HAVELLS/ SIMCO/ JAIPUR METERS / INDIA METER/ MOTWANI/ SECURE/ SUNCO/ FINDER	CATEGORY-3
8	SELECTOR SWITCH, PUSH BUTTON SWITCH / EMERGENCY SWITCH	ABB/ TRINITY TOUCH / L&T/ C&S/ BCH/ EATON/ SIEMENS / HENSEL/ HAGER/ KAY CEE/ GE POWER/ SCHNEIDER/ ROCKWELL(ALLEN BRADLEY)/ TEKNIC	CATEGORY-4
9	CT's / PT's	KRUTI/ WAGO/ CG POWER / SELEC/ NEWTEK / ANANT POWER (ADVANCE) / MEGAWIN / HAGER/ AE/ UNIVERSAL/ KAYCEE/ IMP/ C&S/ L&T/ MECO/ KAPCO/ CROMPTON GREAVES/ PRAGATI/ INSTRANS / KAPPA	CATEGORY-3
10	PROTECTIVE RELAYS (ALL TYPE)	WAGO / SELEC / HAVELLS / MITSUBISHI / L&T/ CG POWER / C&S / ABB / SIEMENS / MEGAWIN / EASUN	CATEGORY-2
11	CONTACTORS	MITSUBHISHI / HPL / L&T / C&S / BCH / HAVELLS / ABB / TDK / LEGRAND (NOVATEUR) / SIEMENS / ANDREW YULE / SCHNEIDER / CHINT / GE POWER / TC	CATEGORY-3
12	TIMERS / TIME SWITCH- ANALOGUE	HAVELLS / L&T / SELEC / BCH / ABB / LEGRAND (NOVATEUR) / C&S / SIEMENS / HAGER / INDO ASIAN (NOVATEUR) / SCHNEIDER / ADVANI ORLIKON / GE/ FINDER	CATEGORY-3
13	TIMERS / TIME SWITCH- DIGITAL	EATON / HAVELLS / L&T / SELEC / ABB / LEGRAND (NOVATEUR) / FINDER / C&S / SIEMENS	CATEGORY-3
14	LED INDICATION LAMPS	EATON / OLIVE / ABB / L&T / C&S / BCH / HAGER / AE / VINAY LED / EASUN / CONCORD / KAY CEE / SIEMENS / VAISHNOV / SCHNEIDER / ROCKWELL (ALLEN BRADLEY) / PREFIFINE	CATEGORY-3
B. SUBSTATION RELATED ITEMS			
15	TRANSFORMER UP TO 500 KVA (DRY/OIL)	POWER STAR / JAY BEE / RTS / CG POWER / SUDHIR / VOLTAMP / ABB / ANDREW YULE / KIRLOSKAR / INDO TECH / BHARAT BIJLEE / TELK / BHEL / KOTSONS/ SCHNEIDER	CATEGORY-1
16	TRANSFORMER MORE THAN 500 KVA (DRY/OIL)	POWER STAR / JAY BEE / RTS / CG POWER / SUDHIR / VOLTAMP / ABB / ANDREW YULE / KIRLOSKAR/ SIEMENS / BHARAT BIJLEE / BHEL / KOTSONS / SCHNEIDER	CATEGORY-1

SR. NO.	ITEMS	PREFERRED MAKES (W.E.F. 22.09.2023)	CATEGORY FOR TEST CERTIFICATION/ INSPECTION
17	H T PANEL	PASCAL/ KEPL(KHOKHAR) / CONQUERENT / RISHA / CORONET/ L.S POWER/ ZENIYA/ EAP/ CG POWER (CFPISL) / TRICOLITE / SUDHIR / L&T / ABB / TRISQUARE / SCHNEIDER / MILESTONE / EATON / ANANT POWER (ADVANCE) / ADLEC / C&S / NITYA / PSI / ANDREW YULE / MEGAWIN / MEPOWER / STERLING GENERATORS / MEI / SOUTHERN SWITCH GEARS / BIECO LAWRIE / NGEF / JYOTI / KIRLOSKER / SIE / SIEMENS / BHEL	CATEGORY-1
18	BUS DUCT-SANDWICH	ADVANCE / RR KABEL / L&T / C&S / LEGRAND (NOVATEUR) / EAP / EAE / GODREJ / MOELLAR (IMPORTED) / HONIKOWN (IMPORTED) / GE POWER / SCHNEIDER	CATEGORY-2
19	H.T /L.T.TERMINATION & JOINTING KIT.	CABSEAL® (HARI CONSOLIDATED) / COMPAQ / ANDREW YULE / RAY CHEM / M-SEAL / CAB SEAL / DENSON / MAHINDRA / BIRLA-3M	CATEGORY-3
20	POWER CABLES ABOVE 1.1 KV	RR KABEL / SPECIAL CABLES / JMW KABEL / PARAMOUNT / TIRUPATI / KEC / HPL / POLYCAB / DYNAMIC / HAVELLS / KEI / UNIVERSAL / GLOSTER / CRYSTAL / WORLD CAB / RHINO / CMI / UNICAB / AVOCAB (CHANDRESH) / GEMSCAB / CCI (BANGLORE) / RPG (ASIAN) (MUMBAI) / TORRENT (NADIAD) / NICCO (Shyam nagar, WB) / ICL (Rajpura) / FINOLEX (Pune)/ INDUSTRIAL CABLES (Rajpura)/ RAVIN CABLES	CATEGORY- 2
21	POWER CABLES UP TO AND INCLUDING 1.1 KV	RR KABEL / PLAZA / SPECIAL CABLES / JMW KABEL/ POLYCAB / AVOCAB (CHANDRESH) / DYNAMIC / PARAMOUNT / SVARN/ RALLISON (LKB) / BCH / TIRUPATI / KEC / GRANDLAY / HPL / GLOSTER / BONTON / HAVELLS / KEI / UNIVERSAL / CRYSTAL / WORLD CAB / DELTON / RHINO / CMI / UNICAB / GEMSCAB / CORDS / CCI / NICCO / RPG / INDUSTRIAL CABLES / TORRENT / HINDUSTAN VIDYUT PRODUCT LTD / FINOLEX / EKTA / SKYTONE / RAVIN CABLES	CATEGORY- 2
22	CONTROL CABLES	RR KABEL / PLAZA/ SPECIAL CABLES / JMW KABEL / AVOCAB (CHANDRESH) / PARAMOUNT / SVARN / RALLISON (LKB) / BCH / BONTON / TIRUPATI / KEI / KEC / GRANDLAY/ UNIVERSAL / NATCAB (KVALITY) / HPL / POLYCAB / DYNAMIC / ALOKE (ANKUR) / HAVELLS / GLOSTER / CRYSTAL/ WORLD CAB/ DELTON/ TAMRA / FINECAB / RHINO / CMI / UNICAB / GEMSCAB / BATRA / CORDS / NICCO / RPG / TORRENT / FINOLEX / HINDUSTAN VIDYUT PRODUCT LTD / LAPP / EKTA / SKYTONE / RAVIN CABLES	CATEGORY- 2
23	TELEPHONE CABLE	RR KABEL / PLAZA / JMW KABEL / PARAMOUNT / ALOKE (ANKUR) / RALLISON (LKB) / BONTON / TIRUPATI / HAVELLS / KEI / KEC / KVV'S (INDUSTIRAL) / HPL/ POLYCAB / DELTON / CMI / SKYTONE / NATIONAL / NICCO	CATEGORY-2
24	CO- AXIAL/ INSTRUMENTATION/ FIBRE OPTIC/ CAT-6 / CAT-6A CABLES	RR KABEL / PLAZA/ SPECIAL CABLES / JMW KABEL / POLYCAB / PARAMOUNT / LEGRAND (NOVATEUR) / SVARN / RALLISON (LKB) / BONTON / HAVELLS / KEI / ROSENBERGER / KEC / GRANDLAY / GLOSTER / DELTON / RHINO / CMI / UNICAB / AVOCAB (CHANDRESH) / GEMSCAB / CORDS / SCHNEIDER / BHANSALI / SKYTONE / RPG / UNIVERSAL / UNIFLEX / AMP / AVAYA / METRO / SKYLINE / DELTON	CATEGORY-2
25	CABLE MANAGEMENT SYSTEM (CABLE TRAY - PRE FABRICATED / PERFORATED / LADDER TYPE / WIRE MESH TYPE, ETC.)	RMSCO (RAJASTHAN METAL) / RMCON (RMG) / SUMIP / CTM / L.S POWER / LEGRAND (NOVATEUR) / MEM / L&T / RR ISPAT / RATAN'S / STERLING DURO / OBO BETTERMANN / PILCO / INDIANA / VENUS / STEELITE / SADHANA ENGG. / TECHNAD ENG / MM ENGG / POWER CAB / NEPTUNE / RICO STEEL / PROAB ENGG / SLOTCO / BEC	CATEGORY-3
26	UNDER FLOOR RACEWAYS & ITS ACCESSORIES	ADVANCE- ANANT / SPC ELECTROTECH / MM ENTERPRISES / CTM	CATEGORY-3
27	CAPACITORS	NEPTUNE / L&T / P2 POWER / LEGRAND (NOVATEUR) / HAVELLS / TDK INDIA / SHREEM / ABB / SCHNEIDER / GE POWER / VOLTAS / BHEL / KHATAU ZANKAR / USHA / MATRIX	CATEGORY-2
28	APFC PANEL	AB POWER / URJAYANT / P2 POWER / KEPL (KHOKHAR) / SELEC / CG POWER / ITE- GURGON (INDIAN TRANSFORMERS) / CONQUERENT / BCH / ANANT POWER (ADVANCE) / RISHA / HAVELLS / CORONET / SPC ELECTROTECH / RST/ PEATON / L.S POWER / MILESTONE / EAP / L&T / LEGRAND (NOVATEUR) / C&S / NEPTUNE / SCHNEIDER / TRICOLITE / SHREEM / ADLEC / EPCOS / AMBIT	CATEGORY-1
29	ACTIVE & PASSIVE (HYBRID) PANEL	NEPTUNE / L&T / P2 POWER / SELEC / ANANT POWER (ADVANCE) / SCHNEIDER / SPC ELECTROTECH / RST ELECTRICALS / TDK INDIA	CATEGORY-1
30	LIGHTENING PROTECTION SYSTEM (LPS) COMPLYING UPDATED IEC / NBC	CAPE / JMV / ABB / DEHN / PHEONIX / TERCEL / ERICO / INDELEC / DUVAL MASSIAN / FRANKLIN	CATEGORY-3

SR. NO.	ITEMS	PREFERRED MAKES (W.E.F. 22.09.2023)	CATEGORY FOR TEST CERTIFICATION/ INSPECTION
31	EARTHING SYSTEM (CHEMICAL)	RMSCO (RAJASTHAN METAL) / DEHN / ABB / JMV / CAPE / RATAN'S / APS / OBO BETTERMANN / PROTEC-DHRUVA (DHRUVA)	CATEGORY-3
32	SURGE PROTECTION DEVICES	WAGO / HAVELLS / ABB / L&T / LEGRAND (NOVATEUR) / DEHN / MERSEN / JMV / PHOENIX CONTACT / TERCEL / CAPE / OBO BETTERMANN / ALLIED / PROTEC / SECOM / ITE / CITEL	CATEGORY-3
33	SCADA (HARDWARE & SOFTWARE, EXCEPT COMPUTER & ACCESSORIES)	L&T / WAGO / PHOENIX CONTACT / ABB / SIEMENS / ALLEN BRADLEY / GE FANUC / JOHNSON CONTROLS / LANDIS & STAFA / HONEYWELL / SCHNEIDER	CATEGORY-2
34	SF6 CIRCUIT BREAKER	EATON / VOLTAMP / L&T / ABB / C&S / BHEL / CROMPTON GREAVES / KIRLOSKER / SIEMENS / SCHNEIDER	CATEGORY-2
35	VACUUM CIRCUIT BREAKER	PASCAL / EATON / CG POWER / L&T / ABB / SCHNEIDER / C&S / ANDREW YULE / MEGAWIN / CHINT / SIEMENS	CATEGORY-2
36	SERVO / AUTOMATIC VOLTAGE STABILIZER	SELEC / ITE-GURGON (INDIAN TRANSFORMERS) / P2 POWER / CONSUL NEOWATT / ANDREW YULE	CATEGORY-2
37	AUTO TRANSFER SWITCH (ATS)	EATON / HPL / L&T / LEGRAND (NOVATEUR) / SOCOMEC / HAVELLS / HAGER / ASCO (SCHNEIDER)	CATEGORY-2
38	COMPACT SUB STATION	ITE-GURGON (INDIAN TRANSFORMERS) / CONQUERENT / SUDHIR POWER / PEATON / L.S POWER / VOLTAMP / L&T / ABB / C&S / SCHNEIDER	CATEGORY-1
39	EMERGENCY LIGHT - LED (PORTABLE)	UNITED FIRE (LIFEGUARD) / OLIVE EXPORTS (OLIVE LED) / ABB / PROLITE / BPL/ SANYO	CATEGORY-3
40	CABLES GLANDS	HENSEL / POLYCARB / TRINITY TOUCH / ROXTEC / COMET / DOWELL / ELECTROMAC / SIEMENS / BRACO / HMI / MCI / (METAL/ CRAFT)	CATEGORY-3
41	LUGS & THIMBLES	WAGO / POLYCARB / TRINITY TOUCH / DOWELLS / JOHNSONS / COMET	CATEGORY-4
42	SYNTHETIC / PVC INSULATING MATS	CPRI CERTIFIED FOR REQUIRED VOLTAGE LEVEL	CATEGORY-2
43	INSULATION TAPE (HT / LT)	BENLO / ANCHOR / BCH	CATEGORY-4
C	DG SETS & RELATED ITEMS		
44	DIESEL ENGINE ABOVE 250 KVA	BAUDOUIN STERLING (SHANDONG) / MAHINDRA POWEROL / PERKINS/ CUMMINS / KOEL / CATERPILLAR / GREAVES COTTON / MTU / VOLVO PENTA	CATEGORY-1
45	DIESEL ENGINE UPTO AND INCLUDING 250 KVA	BAUDOUIN STERLING (SHANDONG) / TMTL (TAFE MOTORS) / MAHINDRA POWEROL / ASHOK LEYLAND / CUMMINS / KEOL / CATERPILLAR / GREAVES COTTON / MTU / VOLVO PENTA	CATEGORY-1
46	ALTERNATOR	TDPS (TD POWER SYSTEM) / KIRLOSKAR / LEROY-SOMER / CROMPTON GREAVES / JYOTI / NGEF / KEL / STAMFORD (CUMMINS GENERATOR)	CATEGORY-1
47	BATTERIES - LEAD ACID	KIRLOSKAR / EXIDE / AMCO / PRESTOLITE / AMARON / GENPRO / STANDARD / FURUKAWA / LUCAS / HBL NIFE	CATEGORY-3
48	BATTERY CHARGER	SELEC / VERTIV / DELTA	CATEGORY-2
49	UPS - ABOVE 10 KVA	PROSTARM / NUMERIC-LEGRAND / UNILINE/ TMEIC / POWER ONE / RIELLO / ABB / MIRCOTEK / SOCOMEC / GREEN / AUTOMETERS / CONSUL NEOWATT / VERTIV (EMERSON) / APC / DBPOWER / EATON / SCHNEIDER	CATEGORY-3
50	UPS - UPTO 10 KVA	PROSTARM / NUMERIC-LEGRAND / RIELLO / UNILINE / ABB / POWER-ONE / DELTA / MIRCOTEK / SOCOMEC / GREEN / VRTIV (EMERSON) / DBPOWER / APC / EATON / SCHNEIDER	CATEGORY-3

SR. NO.	ITEMS	PREFERRED MAKES (W.E.F. 22.09.2023)	CATEGORY FOR TEST CERTIFICATION/ INSPECTION
D	INTERNAL WIRING RELATED TEAMS		
51	MCB / ISOLATOR / MCBDB / RCCB / RCBO / ELCB/ MPCB	ANCHOR (PANASONIC) / ORIENT ELECTRIC / L&T / LEGRAND (NOVATEUR) / C&S / HPL / ABB / MITSUBISHI / POLYCAB / HAVELLS / INDO ASIAN (NOVATEUR) / BENLO / GM / MK HONEYWELL / HAGER / STANDARD / SIEMENS / GE / BCH / EATON / SCHNEIDER	CATEGORY-2
52	MS CONDUIT	STEEL KRAFTS / TRINITY TOUCH / RMCON (RMG STEELS) / SUPER / JPC PIPES / BEC	CATEGORY-3
53	PVC CONDUIT	ANCHOR (PANASONIC) / POLYCAB / TRINITY TOUCH / AKG / ANCHOR / GM / JPC PIPES / POLYPACK / PRECISION / MIHIR / BEC	CATEGORY-3
54	INDUSTRIAL SOCKET IN SHEET STEEL ENCLOSURE WITH MCB	L&T / POLYCAB / NEPTUNE-BALS / LEGRAND (NOVATEUR) / C&S / BCH / HAVELLS / HAGER / INDO-ASIAN / CROMPTON / HPL / SCHNEIDER	CATEGORY-4
55	INSULATED COPPER WIRE	RR KABEL / AKG / ANCHOR (PANASONIC) / BENTEC / JMW KABEL / POLYCAB / AVOCAB (CHANDRESH) / SVARN / RALLISON (LKB) / HAVELLS / NATCAB (KWALITY) / PARAMOUNT / BONTON / GRANDLAY / GLOSTER / BCH / PLAZA / CMI / MESCAB / ALOKE (ANKUR) / GOLD MEDAL / APAR / GM / BATRA HENLAY / ZENIUM / BHANSALI / PARAGON / GALAXY CONCAB / SKYLINE / V GUARD / FINOLEX / HAVELLS / INDO ASIAN / CRYSTAL / POLYCAB / KDK EVERSHINE / FINECAB / CAPCAB / STANDARD	CATEGORY-2
56	SWITCHES/ SOCKETS/ TELEPHONE/ TV/ DATA SOCKET/ BOXES (MODULAR TYPE)	RR KABEL / ANCHOR (PANASONIC) / ORIENT ELECTRIC / INDO ASIAN (NOVATEUR) / C&S / POLYCAB / HPL / L&T / LEGRAND (NOVATEUR) / HAVELLS / BENLO / SIMON / GOLD MEDAL / GM / MK HONEYWELL / BCH / HAGER / SSKAY / NORTH WEST / CLIPSAL / WESTERN VEGA / ABB	CATEGORY-3
57	SWITCHES/ SOCKETS/ TELEPHONE/ TV/ DATA SOCKET/ BOXES (PIANO TYPE)	ANCHOR (PANASONIC) / BENTEC / HAVELLS / HPL / POLYCAB / BENLO / SIMON / GOLD MEDAL / GM / MK HONEYWELL / BCH / HAGER / SSKAY / NORTH WEST / CLIPSAL / WESTERN VEGA	CATEGORY-3
E	FIRE ALARM EQUIPMENTS		
58	FIRE / SMOKE DETECTOR	EATON / HOCHIKI / RAVEL / SIEMENS / BOSCH / APOLLO / EDWARDS (UTC) / G + M/ SCHRACK / HONEYWELL / KIDDE (UTC) / GST (UTC) / SYSTEM SENSOR / MORLEY IAS / NOTOFIRE / TYCO	CATEGORY-2
59	MULTI CRITERIA DETECTOR	SIEMENS / EATON / HOCHIKI / BOSCH/ APOLLO / RAVEL	CATEGORY-2
60	FIRE ALARM PANEL / REPEATER PANEL	SIEMENS / EATON / HOCHIKI / BOSCH / APOLLO / RAVEL / AUTRONICA(UTC) / EDWARDS(UTC) / HONEYWELL / KIDDE (UTC) / GST (UTC) / SYSTEM SENSOR / MORLEY IAS / GROUP4 / MATHER & PLATT / MINIMAX	CATEGORY-2
61	HOOTER / MANUAL CALL POINT / RESPONSE INDICATOR	ASES / EATON / HOCHIKI / RAVEL / BOSCH / APOLLO / EDWARDS (UTC) / HONEYWELL / GST (UTC) / MORLEY IAS / SYSTEM SENSOR / GROUP4 / MINIMAX	CATEGORY-2
62	PA SYSTEM FOR FIRE ALARM SYSTEM	ASES / RAVEL / SIEMENS / G + M SCHRACK / BOSCH / APOLLO / HONEYWELL / AHUJA / PHILIPS / MOTWANE / TYCO-FIRECLASS	CATEGORY-3
63	FIRE SURVIVAL CABLE	RR KABEL / SEPCIAL CABLES / JMW KABEL / POLYCAB / SVARN / ALOKE (ANKUR) / RALLISON (LKB) / KEC / GRANDLAY / RAVEL / GLOSTER / KEI / BONTON / BOSCH / CMI / BATRA HENLAY / WREXHAM / FUSION POLYMER	CATEGORY-2
64	FIRE SIGNAGES	ASES / LIFE GUARD (UNITED FIRE) / EATON / FIRE SHIELD / BOSCH / RAVEL / DELITE / AUTOGLO (PROLITE)	CATEGORY-3
65	ASPIRATION SYSTEM	SHOOTFIRE (VIMAL FIRE) / HOCHIKI / BOSCH / RAVEL	CATEGORY-2
66	FAULT ISOLATOR	ASES / HOCHIKI / BOSCH / APOLLO / RAVEL	CATEGORY-3

SR. NO.	ITEMS	PREFERRED MAKES (W.E.F. 22.09.2023)	CATEGORY FOR TEST CERTIFICATION/ INSPECTION
F	LED LIGHT FIXTURE AND FANS		
67	LIGHT FIXTURE WITH LED - INDOOR	R R KABEL (RR/ AARAYSTORM) / PANASONIC / EVEREADY / POLYCAB / SURYA / HALONIX / HAVELLS / JAQUAR (JAQUAR LIGHTING) / HPL / SIGNIFY / BAJAJ / WIPRO / ORIENT / CROMPTON	CATEGORY-2
68	LIGHT FIXTURE WITH LED – OUTDOOR	R R KABEL (RR/ AARAYSTORM) / PANASONIC / BENTEC (BENLO)/ EVEREADY/ POLYCAB / K-LITE / SURYA / TRANSRAIL/ HALONIX / HAVELLS / JAQUAR (JAQUAR LIGHTING) / HPL / SIGNIFY / INSTAPOWER / BAJAJ / WIPRO / ORIENT / CROMPTON	CATEGORY-2
69	LIGHT FIXTURE WITH LED – FAÇADE	PANASONIC / EVEREADY / POLYCAB / K-LITE / SURYA / TRANSRAIL / HALONIX / HAVELLS / JAQUAR (JAQUAR LIGHTING) / HPL / SIGNIFY / INSTAPOWER / BAJAJ / WIPRO / ORIENT	CATEGORY-2
70	LINEAR LED	R R KABEL (RR/ AARAYSTORM) / PANASONIC / EVEREADY / POLYCAB / SURYA / HALONIX / HAVELLS / HPL / SIGNIFY / BAJAJ / WIPRO / ORIENT/ CROMPTON	CATEGORY-2
71	LIGHT FIXTURE (NON - LED)	SURYA / HAVELLS / BAJAJ / WIPRO / CROMPTON	CATEGORY-2
72	AVIATION WARNING /OBSTRUCTION LIGHT	K-LITE / SURYA / TRANSRAIL / HPL / INSTAPOWER / BAJAJ / WIPRO / CROMPTON	CATEGORY-3
73	CEILING/ WALL / EXHAUST / PEDESTAL FAN (CONVENTIONAL)	ORIENT ELECTRIC / RR KABEL / ANCHOR (PANASONIC) / POLYCAB / HALONIX / HAVELLS / GEC / POLAR / USHA / CROMPTON / BAJAJ / KHAITAN / ALMONARD	CATEGORY-2
74	CEILING/ WALL / EXHAUST / PEDESTAL FAN (BLDC)	ORIENT ELECTRIC / RR KABEL/ ANCHOR (PANASONIC) / POLYCAB / HALONIX / HAVELLS	CATEGORY-2
G	AIRCONDITIONING AND FIRE FIGHTING ACCESSORIES		
75	G I / M S PIPE	APL APOLLO / PRAKASH SURYA / ITL-INDUS / JCO PIPE / JINDAL STAR / TATA / HSL / SAIL / BEC / HIRA PIPES (RR ISPAT)	CATEGORY-2
76	VALVE - BUTTERFLY/ SLUICE / CHECK / NRV / FOOT/ GATE / GLOBE / MANUAL	VA / SANT / VENUS / NEWAGE FIRE / CASTLE / ZOLOTO / CRANE / JOHNSON CONTROL / DANFOSS / VTM / EMERALD / ADVANCE / KIRLOSKAR / LEADER / KILBURN / AUDCO / SARKAR / DIVINE / C&R	CATEGORY-2
77	VALVE - BALANCING / MODULATING / PICB / DELTA T / CONTROL / MIXING / MOTORISED	SANT / VA/ CASTLE/ DANFOSS/ ZOLOTO/ ANERGY	CATEGORY-2
78	SUCTION / POT / Y- STRAINER	VA / VENUS / CASTLE / ZOLOTO / ANERGY / SANT / VTM / EMERALD / LEADER	CATEGORY-2
79	FLEXIBLE CONNECTION FOR SPRINKLER / SPRINKLER	LIFEGUARD (UNITED FIRE) / FIRE SHIELD / NEWAGE / EXFLAME / HD / SAFEFIRE / AQUAMIST / SPRAY SAFE	CATEGORY-2
80	FIRE HYDRANT LANDING VALVES/ FIRE BRIGADE CONNECTION.	SHOOTFIRE (VIMAL) / LIFEGUARD (UNITED FIRE) / ZOLOTO / KALPEX (KALPATARU) / NEWAGE/ EXFLAME / SWASTIK / SAFEFIRE / VENUS / MINIMAX / SAFEX / VIJAY / SAFE GUARD / FIRE SHIELD	CATEGORY-2
81	INSTALLATION VALVE (ISI MARKED)	NEWAGE / ZOLOTO / HD / LIFE-GUARD (UNITED FIRE) / SPRAY SAFE	CATEGORY-3
82	FIRE HOSE PIPES/ FIRST AID HOSE REEL	SHOOTFIRE (VIMAL) / LIFEGUARD (UNITED FIRE) / KALPEX (KALPATARU) / NEWAGE/ FIRE SHIELD / EXFLAME / SWASTIK / SAFEFIRE / CHEMGUARD / SKUM/ MINIMAX / SAFEX	CATEGORY-2
83	BRANCH PIPE / NOZZLE / COUPLINGS	SHOOTFIRE (VIMAL) / LIFEGUARD (UNITED FIRE) / KALPEX (KALPATARU) / NEWAGE/ FIRE SHIELD / EXFLAME / SWASTIK / SAFEFIRE / ANSUL / GRINELL / VENUS / MINIMAX / SAFEX	CATEGORY-2
84	FIRE EXTINGUISHERS	SHOOTFIRE (VIMAL) / LIFEGUARD (UNITED FIRE) / CEASEFIRE / AFS (ADVANCED) / KALPEX (KALPATARU) / EXFLAME / SUPREMEX / SWASTIK / SAFEFIRE / ANSUL / SKUM / CHEMGUARD / MINIMAX / SAFEX / SAFEGUARD / KANEX (KANADIA FYR) / FIRE SHIELD	CATEGORY-2

SR. NO.	ITEMS	PREFERRED MAKES (W.E.F. 22.09.2023)	CATEGORY FOR TEST CERTIFICATION/ INSPECTION
85	HEAT DETECTION TUBE GAS SUPPRESSION SYSTEM	VIVINA / ASES / SHOOTFIRE (VIMAL) / LIFEGUARD (UNITED FIRE) / CEASEFIRE / KALPEX (KALPATARU) / FOAMTECH / SUPREMEX / ANSUL / LPG / HYGGOOD / FIRETREX (SVS)	CATEGORY-2
86	TOTAL FLOODING GAS SUPPRESSION SYSTEM	VIVINA / SIEMENS / SHOOTFIRE (VIMAL) / LIFEGUARD (UNITED FIRE) / CEASEFIRE / KALPEX (KALPATARU) / FOAMTECH	CATEGORY-2
87	KITCHENHOOD GAS SUPPRESSION SYSTEM	VIVINA / SHOOTFIRE (VIMAL) / UNITED / FOAMTECH / CEASEFIRE / KALPATARU	CATEGORY-2
88	FLOW SWITCH	ANERGY	CATEGORY-3
89	FIREMAN AXE	LIFEGUARD (UNITED FIRE) / NEWAGE / FIRE SHIELD / ADVANCE	CATEGORY-3
90	DIESEL ENGINE DRIVEN PUMP FOR FIRE FIGHTING	TMTL (TAFE MOTERS) / KSB / WILO / GRUNDFOS / KIRLOSKAR / MAHINDRA POWEROL / CATERPILLAR / ASHOK LEYLAND	CATEGORY-2
91	PUMPS -VERTICAL/ HORIZONTAL / SUBMERSIBLE	HAVELLS / WILO / GRUNDFOS / ANDRITZ / KSB / KIRLOSKAR / XYLEM / AQUA_ANS / BEACONS / MATHER & PLATT / CROMPTON / WASP / JYOTI / BE / VOLTAS / GREAVES / AMRUT / PEC / SUGUNA / CALAMA	CATEGORY-2
92	MOTORS	ROTOMOTIVE / KSB / HAVELLS / TMEIC / GRUNDFOS / BCH / KIRLOSKAR / BHARAT BIJLEE / ALSTOM / SIEMENS / JYOTI / ABB / CROMPTON / NGEF	CATEGORY-2
93	MOTOR STARTER	BENTEC / KSB / HAVELLS / L.S POWER / GRUNDFOS / PHOENIX / C&S / BCH / ABB / SIEMENS / SCHNEIDER / L&T / BENLO / EATON / VIDHYUT CONTROL / MOTOVARIO / CUTLER HAMMER / GE POWER / ABS	CATEGORY-2
94	SINGLE PHASE PREVENTER / OVER LOAD PROTECTION	C&S / L&T / SELEC / BCH / HAGER / GE POWER / SIEMENS / MINILEC / ABB	CATEGORY-3
95	PRESSURE SWITCH	DANFOSS/ EMERALD/ SWIZER	CATEGORY-2
96	G I SHEETS	JSW STEEL / RUSKIN TITUS / JINDAL / TATA / HSL / SAIL	CATEGORY-2
97	GRILLS /DIFFUSERS	MAPRO (AIR FLOW) / RUSKIN TITUS / CARYAIRE / GREENHECK / CRYSTAL / TRISTAR / CONAIRE / AIRMSTER / VINAYAGA / CORPORATION / AJANTA / RAVI STAR	CATEGORY-3
98	INSULATION MATERIAL - ROCK WOOL/ GLASS WOOL / NITRILE RUBBER	SUNROCK (THERMOCARE ROCK WOOL) / INSUFLEX (THE SUPREME) / LIONROCK / POLYBOND / EPACK / TWIGA INSUL / ARMAFLEX / ALP AEROFLEX / K-FLEX/ LLOYDS / PARAMOUNT / PILKINGTON / BEARDSSELL	CATEGORY-3
99	INSULATION MATERIAL - XLPE/EPDM	AEROLAM / INSUFLEX (THE SUPREME) / TROCELLEN / ALP AEROFLEX / INSUFLEX / K-FLEX / PARAMOUNT	CATEGORY-3
100	PRE-FABRICATED GI DUCT	DUCTOFAB / WAVES / ZECO / REFROTECH / ADVANCE VENTILATION	CATEGORY-3
101	FIRE DAMPERS	MAPRO (AIR FLOW) / RUSKIN / CARYAIRE / TRISTAR / CONAIRE / GREENHECK	CATEGORY-2
102	AIR CURTAINS.	EURONICS / MITZVAH / TECHNOCRATS / DOLPHY / ALMONARD / BECON / TECHNOMECH / RUSSEL / AERODYNAMICS	CATEGORY-2
103	MODULATING MOTOR	ANERGY / SIEMENS / GRUNDFOS / CONAIRE / HONEYWELL / JOHNSON / STEFA CONTROL / RAPID COOL	CATEGORY-2
104	Refrigerant VALVE & FITTINGS	BRASMATIC / SANT	CATEGORY-2
105	FILTERS (MERV)	ZECO / USHA FILTERS / DYNA / KIRLOSKAR / PUROMATIC / PURAFILL / THERMODYNE / PURE AIR	CATEGORY-3
106	FILTERS (ESP)	WAVES / ZECO / USHA FILTERS / HUMIDIN / PUROMATIC	CATEGORY-3
107	THERMOSTAT	ANERGY/ FINDER/ DANFOSS/ HONEYWELL/ JOHNSON/ LANDIS & STEAEFA/ PENN/ INDFOSS/ ESCORTS/ DASSPASS/ SWIZER	CATEGORY-3

SR. NO.	ITEMS	PREFERRED MAKES (W.E.F. 22.09.2023)	CATEGORY FOR TEST CERTIFICATION/ INSPECTION
108	THERMOSTATS / HUMIDISTATS	ANERGY/ DANFOSS	CATEGORY-3
109	THERMOMETERS	WIKA/ EMERALD/ JASPIN/ FIEBIG/ GURU	CATEGORY-3
110	PRESSURE GAUGE	ANERGY / H.GURU/ FIEBIG/ JASPIN/ BESTOBELL/ GENERAL INSTRUMENTS	CATEGORY-3
111	BUILDING MANAGEMENT SYSTEM (BMS) (HARDWARE & SOFTWARE, EXCEPT COMPUTER & ACCESSORIES)	WAGO/ SCHNEIDER/ PHOENIX/ SIEMENS/ L&T/ JOHNSON/ DELTA(LOYTEC)/ TRANE/ TRIDIYM/ AZBIL/ HONEYWELL	CATEGORY-3
112	VFD DRIVE	YASKAWA / SELEC / FUJI / TMEIC/ L&T/ DANFOSS/ DELTA/ BHARAT BIJLEE/ GRUNDFOS/ MITSUBISHI/ SCHNEIDER/ ABB/ ALAN BRADLEY/ SIEMENS	CATEGORY-3
113	FIRE DAMPER MOTORS	BALEMO/ JUVANTO/ SIEMENS	CATEGORY-2
114	PUMP SYSTEM WITH INTEGRATED CONTROL PANEL	KSB/ KIRLOSKAR	CATEGORY-2
115	FLEXIBLE DUCT CONNECTOR	MAPRO (AIR FLOW)	CATEGORY-3
116	DUCT DAMPER / VOLUME CONTROL DAMPER	MAPRO (AIR FLOW)	CATEGORY-3
117	PASSIVE FIRE STOP	HILTI	CATEGORY-3
H	AC PLANTS, AC UNITS & EQUIPMENTS		
118	AIR-CONDITIONER UNITS - SPLIT / WINDOW / CASSETTE/ TOWER	HAVELLS/ HITACHI (JOHNSON) / LG / BLUE STAR/ DAIKIN/ VOLTAS/ SAMSUNG/ CARRIER/ HAIER/ MITSUBISHI	CATEGORY-2
119	PRECISION AIR CONDITIONING (PAC)	STULZ/ CLIMAVENTA/ SWEGON BLUE BOX/ VERTIV / SIDWAL	CATEGORY-3
120	PACKAGED AIRCONDITIONER	DAIKIN / HITACHI (JOHNSON) / VOLTAS/ TRANE / CARRIER/ LG/ DAIKIN/ BLUESTAR / SIDWAL	CATEGORY-2
121	CHILLERS FOR HVAC	KIRLOSKAR/ DAIKIN/ CARRIER/ VOLTAS/ BLUE STAR/ TRANE/ LG/ YORK/ CLIVET/ CLIMAVENETA/ DUNHAMBUSH/ CRISTOPIA	CATEGORY-1
122	AIR HANDLING UNITS (AHU)	CRYSTAL/ CITIZEN/ WAVES / EDGETECH/ CARRIER/ ZECO/ STULZ/ TRANE/ TRISTAR / HUMIDIN	CATEGORY-1
123	FAN COIL UNIT (FCU)	WAVES/ CRYSTAL/ ZECO/ CITIZEN/ EDGETECH/ CARRIER/ DAIKIN/ TRANE/ YORK/ CARYAIRE/ TRISTAR	CATEGORY-2
124	VRV/ VRF HVAC UNIT	LG / HITACHI (JOHNSON) / SAMSUNG / DAIKIN / VOLTAS / CARRIER / HAIER / TRANE / BLUE STAR/ TOSHIBA	CATEGORY-2
125	COOLING TOWER UP TO 200 TR.	BELL COOLING TOWERS/ MIHIR/ PAHARPUR/ ADVANCE/ SOUTHERN COOLING TOWERS	CATEGORY-2
126	COOLING TOWER ABOVE 200 TR.	BELL COOLING TOWERS/ MIHIR/ PAHARPUR/ ADVANCE	CATEGORY-2
127	EXPANSION TANK	ANERGY	CATEGORY-3
128	AIR & DIRT SEPARATOR	ANERGY	CATEGORY-3
129	TEST POINT	ANERGY	CATEGORY-3

SR. NO.	ITEMS	PREFERRED MAKES (W.E.F. 22.09.2023)	CATEGORY FOR* TEST CERTIFICATION/ INSPECTION
130	FAN - AXIAL FLOW / INLINE / VENTILATION / PROPELLER / PLUG / CENTRIFUGAL	WAVES/ HUMIDIN / WOLTER / AIR FLOW / RR KABEL / CRYSTAL / ELTA / NICOTRA/ CARYAIRE / GEC/ ALMONARD/ KHAITAN/ ACCEL/ CROMPTON / GREENHECK	CATEGORY-2
131	R O SYSTEM /WATER SOFTENING PLANT	WAE / VENZA (MGROW) / ZERO B	CATEGORY-3
132	WATER COOLER	CLIMATROL/ VOLTAS/ ORIENT ELECTRIC/ ZERO B/ SIDWAL	CATEGORY-3
133	WATER DISPENSER	WAE / VENZA (MGROW) / VOLTAS	CATEGORY-3
134	DRINKING WATER FOUNTAIN	WAE / VENZA (MGROW) / OASIS	CATEGORY-3
I	PA SYSTEM & RELATED ITEMS		
135	AMPLIFIERS	SCHRACK/ HEINRICH/ BOSCH/ YAMAHA/ NEXO/ HONEYWELL/ BOSE	CATEGORY-2
136	ANNOUNCEMENT MICROPHONES /CAR CALL CONSOLES	SCHRACK/ HEINRICH/ BOSCH/ YAMAHA/ NEXO/ HONEYWELL/ BOSE	CATEGORY-2
137	CONTROLLERS	SCHRACK/ BOSCH/ HEINRICH/ YAMAHA/ NEXO/ HONEYWELL	CATEGORY-3
138	SPEAKER	SCHRACK/ HEINRICH/ BOSCH/ YAMAHA/ NEXO/ HONEYWELL/ APOLLO/ EDWARDS (UTC) / SIEMENS/ NOTIFIRE/ BOSE	CATEGORY-3
139	DIGITAL CALL STATION / WORK STATION	HEINRICH/ BOSCH	CATEGORY-3
140	EQUIPMENT RACK	HEINRICH/ BOSCH	CATEGORY-3
141	DVD PLAYER	HEINRICH/ BOSCH	CATEGORY-2
142	CABLE FOR MICROPHONE / SPEAKER	RR KABEL/ JMW KABEL / POLYCAB/ BONTON/ BOSCH / HPL / KVVS (INDUSTRIAL)	CATEGORY-2
143	DIGITAL LINE ARRAY SPEAKER	HEINRICH/ BOSCH	CATEGORY-2
144	CCTV CAMERA	HEINRICH/ SIEMENS/ BOSCH/ TYCO-ILLUSTRA/ HONEYWELL/ ULTRAK/ PELCO	CATEGORY-2
145	DVR	HEINRICH/ BOSCH/ TYCO-ILLUSTRA/ HONEYWELL/ ULTRAK/ PELCO / SIEMENS	CATEGORY-2
146	MONITOR-LCD / LED / PLASMA	SAMSUNG/ LG/ SONY/ JVC/ PANASONIC/ BOSCH/ ULTRAK/ PELCO	CATEGORY-2
147	COMPUTER ACCESSORIES	HP/ DELL/ WIPRO/ IBM	CATEGORY-2
J	SOLAR PLANT & ACCESSORIES		
148	SOLAR INVERTER/ POWER CONDITIONING UNIT	SELEC / HAVELLS/ POWER ONE/ DELTA	CATEGORY-2
149	SOLAR MODULES	SWELECT / HAVELLS/ JAKSON / HHV SOLAR TECHNOLOGIES (HHV ST)/	CATEGORY-2
150	DC CABLES	RR KABEL/ SPECIAL CABLES/ JMW/ POLYCAB/ RALLISON (LKB) / HAVELLS/ KEC/ HPL/ GLOSTER/ KEI/ BONTON / CMI/ ALOKE (ANKUR) / APAR/ BHANSALI	CATEGORY-2
151	ALL IN ONE SOLAR STREET LIGHT	BAJAJ / WIPRO / ORIENT	CATEGORY-2

SR. NO.	ITEMS	PREFERRED MAKES (W.E.F. 22.09.2023)	CATEGORY FOR TEST CERTIFICATION/ INSPECTION
K	MISCELLANEOUS & OTHER MECHANICAL ITEMS		
152	HAND DRIER	TECHNOCRATS/ EURONICS / DOLPHY / ANAND AUTOMATIC SYSTEM / KOPAL	CATEGORY-3
153	DOUBLE WALL CORRUGATED HDPE PIPE	KESHAV KRIPA/ TIRUPATI PLASTOMATIC / NARAYANI POLYPIPES / GEMINI / GANGOTRI / HIMALYAN	CATEGORY-3
154	PLAIN HDPE PIPE	KESHAV KRIPA/ NARAYANI/ VALENS / MANGALAM / BEC	CATEGORY-3
155	AUTOMATIC SLIDING DOOR	NEPTUNE/ S. ADITYA/ DORMAKABA/ TECHNOCRATS/ AUTOINGRESS / GODREJ	CATEGORY-3
156	ELEVATOR	TRIO ELEVATOR/ OMEGA ELEVATOR/ ESCON / JOHNSON LIFTS / ECE	CATEGORY-1
157	ESCALATOR	TRIO ELEVATOR/ OMEGA ELEVATOR/ JOHNSON LIFTS	CATEGORY-1
158	BOLLARD	AVIANS / SWARAJ / S. ADITYA/ TECHNOCRATS/ EURONICS/ NEPTUNE / BROSIS	CATEGORY-3
159	BOOM BARRIER	AVIANS / SWARAJ / S. ADITYA/ DORMAKABA/ TECHNOCRATS/ BROSIS / NEPTUNE / AUTOINGRESS	CATEGORY-3
160	TROLLEY GATE	AVIANS / SWARAJ/ S. ADITYA/ TECHNOCRATS/ DELITE/ AUTOINGRESS	CATEGORY-3
161	TYRE KILLER	SWARAJ / S. ADITYA/ TECHNOCRATS / NEPTUNE / BROSIS	CATEGORY-3
162	EXTERNAL LIGHTING POLES	UTKARSH / RMSCO (RAJASTHAN METAL) / SKIPPER / BP PROJECTS/ K-LITE/ PRAKASH SURYA (SURYA ROSHNI) / TRANSRAIL/ SUMIP / SIGNIFY/ BAJAJ / WIPRO / ORIENT ELECTRIC/ CROMPTON	CATEGORY-3
163	DECORATIVE POLE	UTKARSH / SKIPPER/ BP PROJECTS/ K-LITE/ PRAKASH SURYA (SURYA ROSHNI) / TRANSRAIL/ SIGNIFY/ BAJAJ/ WIPRO/ ORIENT ELECTRIC/ CROMPTON	CATEGORY-3
164	HIGH MAST	UTKARSH/ SKIPPER/ BP PROJECTS/ K-LITE/ PRAKASH SURYA (SURYA ROSHNI) / TRANSRAIL/ SIGNIFY/ BAJAJ/ WIPRO/ ORIENT ELECTRIC/ CROMPTON	CATEGORY-3
165	ALUMINIUM LADDERS / HYDRAULIC LADDERS	DELITE / SUMER/ PARAS/ VARDHMAN	CATEGORY-2
166	DASH FASTENERS	HILTI / MUNGO	CATEGORY-4
167	GEAR BOX	MGM VARVEL / iMAK	CATEGORY-3
168	GEARED MOTOR	ROTOMOTIVE / MGM VARVEL / iMAK	CATEGORY-3
L	GROUND LIGHTING ITEMS		
169	PAPI	VARDHMAN / AMA	CATEGORY-1
170	LAMP (T-14, T-10, SPHERICAL)	JS LAMPS/ KOILITE/ PHILIPS	CATEGORY-3
171	LAMP (HALOGEN)	OSRAM / SIGNIFY (PHILIPS) / YOUYANG	CATEGORY-3
172	ISOLATING TRANSFORMER	CTC (CREATIVE TRADING) / VARDHMAN/ AMA/ BILDAL/ ELECTROMACH/ THORN/ DMAN-OY/ CECELEC/ ADB/ YOUYANG	CATEGORY-1
173	CONSTANT CURRENT REGULATOR (CCR)	AMA/ HONEYWELL/ HIND RECTIFIER/ THORN/ IDMAN-OY/ CECELEC / ADB/ YOUYANG/ NASU SYSTEM	CATEGORY-1

SR. NO.	ITEMS	PREFERRED MAKES (W.E.F. 22.09.2023)	CATEGORY FOR TEST CERTIFICATION/ INSPECTION
174	5 KV GRADE AFL CABLE - UNSHIELDED	RR KABEL/ ALOKE (ANKUR) / RALLISON (LKB) / JRD / KEI/ GLOSTER / ALOKE (ANKUR) / BHANSALI	CATEGORY-1
175	1.1 KV GRADE SECONDARY LEAD FOR AFL CABLE	RR KABEL/ AMA/ ELECTROMACH/ ALOKE (ANKUR) / RALLISON (LKB) / JRD	CATEGORY-2
176	PLUGS / RECEPTACLE / CONNECTOR	CTC (CREATIVE TRADING) / ELECTROMACH / ALOKE (ANKUR) / VARDHMAN/ NEPTUNE/ AMA/ BILDAL/ BCH/ VASANTH/ YOUYANG	CATEGORY-2
177	5 KV GRADE AFL CABLE - SHIELDED	RR KABEL/ ALOKE (ANKUR) / JRD	CATEGORY-1

CATEGORY REQUIREMENT OF TEST CERTIFICATE/ INSPECTION

CATEGORY-1:

- a) Type test certificate for similar item done. If not one of the items offered is to be type tested.
- b) OEMs routine test certificate.
- c) Acceptance test to be conducted in the presence of AAI representative at OEMs factory.

CATEGORY-2:

- a) Type test for similar item done. If not, one of the items offered is to be type tested.
- b) OEMs routine test certificate.
- c) Visual and functional check by AAI official at AAI airport site.

CATEGORY-3:

- a) OEM/ Dealer/ Contractor routine test certificate.
- b) Visual and functional check by AAI official at AAI airport site.

CATEGORY-4:

- a) Visual and functional check by AAI official at AAI airport site.

Item Rate BOQ

Tender Inviting Authority: AGM (Engg.-Elect.), AAI, M.P. Airport, Udaipur						
Name of Work: SITC of DG Sets and Replacement of old & Conventional AC units and Other Miscellaneous Works at ACS Pratapgarh.						
Contract No: AAI/UDR/ENGG(E)/2026-27/PG/DG/AC						
Name of the Bidder/ Bidding Firm / Company :						
<u>PRICE SCHEDULE</u>						
(This BOQ template must not be modified/replaced by the bidder and the same should be uploaded after filling the relevant columns, else the bidder is liable to be rejected for this tender. Bidders are allowed to enter the Bidder Name and Values only)						
NUMBER #	TEXT #	NUMBER #	TEXT #	NUMBER #	NUMBER #	TEXT #
Sl. No.	Item Description	Quantity	Units	RATE (excluding GST) In Figures To be entered by the Bidder	TOTAL AMOUNT including all Taxes but excluding GST	TOTAL AMOUNT In Words
1	2	3	4	5	6	7
1	Supplying, Installation, Testing & Commissioning of 'Silent Type Diesel Generating set as per CPCB IV + or better norms along with having Prime Power Rating of 30 KVA , 415 volts at 1500 RPM, 0.8 lagging power factor at 415 V suitable for 50 Hz, 3 phase system & for 0.85 Load Factor, including testing at factory and site with fuel, load for test and other necessary arrangements Complete as per CPWD specifications, should have QR code which should contain drawing, test report OEM manual, Geo- Tag of manufacturing location, rating plate as per relevant IS Code etc. and consisting of the followings:					

NUMBER # Sl. No.	TEXT # Item Description	NUMBER # Quantity	TEXT # Units	NUMBER # RATE (excluding GST) In Figures To be entered by the Bidder	NUMBER # TOTAL AMOUNT including all Taxes but excluding GST	TEXT # TOTAL AMOUNT In Words
1	2	3	4	5	6	7
1.1	(A) Diesel Engine: Tourbo charged Diesel engine 4 stroke water cooled, multi cylinder, dynamically balanced fly wheel, electric start of suitable BHP at 1500 RPM suitable for above output of alternator at 40 °C, 50% RH & at 1000 Meter MSL , capable of taking 10% over loading for one hour after 12 hours of continuous operation. The engine will be with Electronic governor, Dry type Air filter with service indicator, first filling of engine fuel (after commissioning) lubricating Oil, Coolant and other consumables complete with all the required accessories, the Electronic governor shall be as per ISO 8528.The engine shall comply to the latest CPCB norms (CPCB IV + or better) and Conforming to BS 5514, BS 649, IS 10000, IS 10002, IS 13018 and as per CPWD specifications. (B) Engine mounted Instrument Panel fitted with and having digital display for following: (i) Start-stop switch with key (ii) Water temperature indication (iii) Lubrication oil pressure indication (iv) Lubrication oil temperature indication (v) Battery charging indication and Voltage indication (vi) RPM indication(vii) Over speed indication (viii) Low lubricantion Oil trip indication(ix) Engine Running Hours indication (x) Fuel Level.					

NUMBER #	TEXT #	NUMBER #	TEXT #	NUMBER #	NUMBER #	TEXT #
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1	2	3	4	5	6	7
1.2	(C) Alternator: Synchronous alternator rated at 30 KVA, 415 volts at 1500 RPM, 3 phase 50 Hz, AC supply with 0.8 lagging power factor at 40 Degree C, 50% RH & at 1000 Meter MSL. The alternator shall be having Screen Protected Drip Proof (SPDP) enclosure IP23, brushless, continuous duty, dynamically balanced rotor, capable of taking 10% over loading for one hour after 12 hours of continuous operation, self cooled, self-excited and self-regulated through AVR conforming to IS13364(Part 2)/IS: 4722/BS 2613 suitable for tropical conditions and with class- H insulation. (D) Base Frame & Foundation: Both the engine and alternator shall be mounted on suitable base frame made of MS channel with necessary reinforcement and vibration isolation arrangement as per recommendations of manufacturer. (E) FUEL TANK :Daily service fuel tank of suitable liters capacity as per CPWD Specifications, fabricated out of 3 mm thick M.S. sheet complete with all standard accessories and fuel piping between fuel tank and diesel engine with MS class 'C' pipes of suitable dia. Complete with valves, level indications & accessories as required as per specifications. (F) Exhaust System: Dry exhaust manifold with hospital type exhaust silencer and catalytic convertor.					

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1	2	3	4	5	6	7
1.3	(G) Starting System:12V/24V DC starting system comprising of starter motors: voltage regulator and arrangement for initial excitation complete with suitable numbers of batteries and charger as required as per specifications. The battery shall be housed inside the acoustic enclosure of DG Set. (H) Acoustic and weather proof enclosure with arrangement for fresh air intake for cooling of the engine & alternator, extraction, discharging hot air in to the atmosphere and the temperature rise inside the enclosure, noise level outside enclosure. The acoustic enclosure should be suitable for cable connection/connection through bus-trunking. Such arrangements on acoustic enclosure should be water proof & dust-proof conforming to IP-65 protection. The enclosure shall be as per CPCB IV + or better norms etc. and as per CPWD specifications.					
1.4	30 KVA	2	No.		0.00	INR Zero Only

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1	2	3	4	5	6	7
2	Providing, installing, testing and commissioning of floor mounted, dust and vermin proof Automatic Mains Failure (AMF) panel for 30 KVA DG Set, fabricated out of 14 SWG CRCA MS sheet, powder coated, complete with gland plate, earthing studs, internal wiring, suitable supports and accessories, comprising of the following: 1. 2 Nos. 4 Pole 63 Amp MCCBs having minimum 25/36 kA breaking capacity, one for mains incomer and one for DG incomer. 2. 2 Nos. 4 Pole 63 Amp AC-3 duty power contactors, one each for mains and DG supply, complete with electrical interlocking arrangement to prevent parallel operation. 3. Copper busbars with heat shrinkable sleeves. 4. Microprocessor based AMF controller for automatic start/stop of DG set, automatic load transfer and restoration, fault monitoring and shutdown. 5. Multifunction digital energy meter for indication of voltage (L-L & L-N), current, frequency, kW, kVA, power factor and kWh complete with 3 Nos. CTs of 75/5A ratio, class-1 accuracy. 6. LED indication lamps for mains available, DG ON, load on mains and load on DG. 7. Auto/Manual/Test/OFF selector switch. 8. Push buttons for start, stop, reset and emergency stop operations.	2	Each		0.00	INR Zero Only

NUMBER #	TEXT #	NUMBER #	TEXT #	NUMBER #	NUMBER #	TEXT #
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1	2	3	4	5	6	7
2.1	9. Reverse power relay. 10. Suitable relays, timers, control wiring, control MCBs/fuses and accessories required for automatic operation of DG set. 11. Protection system for over/under voltage, over/under frequency, overload, short circuit, phase failure/reversal, DG fail to start/stop and battery charger failure conditions. 12. Audio visual annunciation for high engine temperature, low lube oil pressure, engine over speed, overload and DG fail to start conditions. 13. Mains failure timer, DG start delay timer, load transfer delay timer, restoration timer and engine cool down timer. 14. RS485/Modbus communication facility with provision for BMS integration and event logging. 15. Complete internal wiring, ferruling, cable termination, interconnection with DG set and LT panel, testing, commissioning and all accessories required for satisfactory operation complete as required.					

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1	2	3	4	5	6	7
3	Dismantling & shifting of existing silent type Cummins make 25 KVA DG set assembly including dismantling of canopy (enclosure), cable terminations, batteries, earth strips, silencer , exhaust piping, insulation, cladding of exhaust piping, MS support structure of exhaust pipe etc. using suitable machinery, cutting as required & shifting to new location i.e. Store (approx distance within 200 mtr) by using sufficient size Hydra Machines i/c loading and unloading at designated place with all the required suitable tools/machinery, without any damages to component & equipment as required. The dismantling is to be done in such a way so the same equipments can be installed at New Location for proper utilization.	2	Job		0.00	INR Zero Only
4	Excavation in hard rock not exceeding 3 meters in width, and lift upto 3 meters, including getting out the excavated soil and disposal of excavated soil as directed within a lead of 50 meters.	20	Cum		0.00	INR Zero Only
5	Earthing with G.I. earth plate 600 mm X 600 mm X 6 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 Meter long etc. with charcoal/ coke and salt and refilling with soft soil etc. complete as required. (Excluding Excavation)	4	Each		0.00	INR Zero Only

NUMBER #	TEXT #	NUMBER #	TEXT #	NUMBER #	NUMBER #	TEXT #
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1	2	3	4	5	6	7
6	Earthing with copper earth plate 600 mm X 600 mm X 3 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 Meter long etc. with charcoal/ coke and salt and refilling with soft soil etc. complete as required. (Excluding Excavation)	4	Set		0.00	INR Zero Only
7	Providing and fixing 25 mm X 5 mm G.I. strip in 40 mm dia G.I. pipe from earth electrode including connection with G.I. nut, bolt, spring, washer excavation and re-filling etc. as required.	20	Meter		0.00	INR Zero Only
8	Providing and fixing 25 mm X 5 mm copper strip on surface or in recess for connections etc. as required.	30	Meter		0.00	INR Zero Only
9	Providing and fixing 25 mm X 5 mm G.I. strip on surface or in recess for connections etc. as required.	30	Meter		0.00	INR Zero Only
10	Providing and fixing 25 mm X 5 mm copper strip in 40 mm dia G.I. pipe from earth electrode including connection with brass nut, bolt, spring, washer excavation and re-filling etc. as required.	20	Meter		0.00	INR Zero Only

NUMBER #	TEXT #	NUMBER #	TEXT #	NUMBER #	NUMBER #	TEXT #
Sl. No.	Item Description	Quantity	Units	RATE (excluding GST) In Figures To be entered by the Bidder	TOTAL AMOUNT including all Taxes but excluding GST	TOTAL AMOUNT In Words
1	2	3	4	5	6	7
11	Supply and making end termination with brass compression glade and aluminium lugs for PVC insulated and PVC sheathed/XLPE AI. Conductor cable of 1.1 KV grade of size 3.5 X 50 Sqmm as required	12	Set		0.00	INR Zero Only
12	Supply and fixing exhaust gas piping of 80mm dia. Welded black MS, B class pipe conforming to IS: 3589 cut to required lengths and installed with necessary bends, supports and clamps, insulation of exhaust system with mineral wool/ Rockwool density not less than 48 kg per Cu.mtr. & thickness 50 mm with thick wire mesh & aluminum cladding etc., as required as per specifications.	12	Meter		0.00	INR Zero Only
13	Supply of Power/Control Copper Cables, Stranded Copper, XLPE Insulated, cores laid up, PVC Innersheathed, Armoured, extruded PVC Type ST2 Outer Sheathed, 650/1100 V grade as per IS 7098 Part-I 1988.					
13.1	12 C X 1.5 Sq.mm.	20	Meter		0.00	INR Zero Only

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1	2	3	4	5	6	7
14	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following on existing cable tray as required.					
14.1	Up to 35 Sq. mm (clamped with 1 mm thick saddle).	20	Meter		0.00	INR Zero Only
15	Supply of 5 Star BEE Rated Air Cooled Hi-Wall Split Inverter Type Air Conditioner of 1.5 TR capacity, complete with indoor unit, outdoor unit, wireless remote control, suitable for operation on 180-260 volts, 50 Hz, single phase supply, capable of cooling, dehumidification and air circulation, fitted with rotary/scroll compressor and suitable for operation up to 50°C ambient temperature, delivering rated capacity up to 42°C. The unit shall comply with IS 1391 (Part-II):2023 and relevant IS/IEC standards for compressor, motor, capacitor, temperature control and associated components, with minimum 5 years OEM warranty on compressor and PCB.	6	Each		0.00	INR Zero Only

NUMBER #	TEXT #	NUMBER #	TEXT #	NUMBER #	NUMBER #	TEXT #
Sl. No.	Item Description	Quantity	Units	RATE (excluding GST) In Figures To be entered by the Bidder	TOTAL AMOUNT including all Taxes but excluding GST	TOTAL AMOUNT In Words
1	2	3	4	5	6	7
16	ITC of 1.5 TR Split airconditioners including surface/concealed copper refrigerant piping with closed cell elastomeric nitrile rubber insulation up to 3 metre, copper power cable up to 3.5 metre, drain pipe, R-32 refrigerant as per site requirement between condenser and evaporator unit etc. as required related civil works and including first charge of refrigerant & providing & fixing of Iron stand for outdoor unit etc. complete as required.	6	Each		0.00	INR Zero Only
17	SITC of extra length of copper pipe for quantity in excess of 3 metres which is already taken in item no.16 (suction & discharge together) as per design of OEM between condenser and evaporator unit enclosing in with nitrile rubber insulation including wrapping in white vinyl tape etc. as required	30	Meter		0.00	INR Zero Only
18	SITC of extra length of drain pipe for quantity in excess of 3 metres from evaporator to a suitable location as per design of OEM etc as required.	30	Meter		0.00	INR Zero Only

NUMBER #	TEXT #	NUMBER #	TEXT #	NUMBER #	NUMBER #	TEXT #
Sl. No.	Item Description	Quantity	Units	RATE (excluding GST) In Figures To be entered by the Bidder	TOTAL AMOUNT including all Taxes but excluding GST	TOTAL AMOUNT In Words
1	2	3	4	5	6	7
19	Supply and fixing of cyclic timers for 1.5 Tr Split Air conditioners for single phase 230 volt, 50Hz AC supply.	3	Each		0.00	INR Zero Only
20	SITC of voltage stablizer for Inverter type AC units with operating AC voltage range of 160V to 280V with low/high voltage cut off, fail safe protection, built - in thermal overload protection etc. complete as required. (Make: Vguard model : i4 Dura 2040 Stabilizer or equivalent)	6	Each		0.00	INR Zero Only
21	Dismantling of existing old 1.5 TR Split AC Units alongwith refrigerant piping ,mounting arrangements with all accessories, fitting etc. i/c shifting of the dismantled AC units to AAI store complete as required as per the direction of EIC.	6	Job		0.00	INR Zero Only
22	SITC of Floor Mounted self contained, storage type drinking water cooler suitable for operation on 230V, 50 Hz AC supply confirming to IS 1475 (Part 1): 2001 with amendment and having nominal cooling capacities of 40 Litre / Hour at ambient temperature of 35 C complete with hermitically sealed compressors of reputed brand, thermostat, fan motor, PUF insulated water storage tank of capacity - 80 Litre made of stainless steel body (SS-304) etc. complete as required.	2	Each		0.00	INR Zero Only

NUMBER #	TEXT #	NUMBER #	TEXT #	NUMBER #	NUMBER #	TEXT #
Sl. No.	Item Description	Quantity	Units	RATE (excluding GST) In Figures To be entered by the Bidder	TOTAL AMOUNT including all Taxes but excluding GST	TOTAL AMOUNT In Words
1	2	3	4	5	6	7
23	SITC of 50 LPH capacity Reverse Osmosis (RO) system having 50 LPH flow rate with sediment filter , activated carbon filter,micron filters, pressure pump etc. complete with high & low pressure safety, pre-piped, pre-wired and housed in a well-designed cabin modeled mild steel epoxy painted or P U coated / stainless steel skid i/c attachment with existing water cooler complete as required.	1	Each		0.00	INR Zero Only
24	SITC of 10 KVA, Single-Phase Automatic Voltage Stabilizer (AVR) with the following Capacity: 10 KVA, Cooling: Air-cooled , Input Voltage Range: 140V- 270V, Output Voltage: Stable 230V ±1%, Technology: Servo-controlled with Overload, short circuit and surge protection, Digital display , MS (CRCA) Powder Coated Sheet Steel Cabinet, Servo motor-controlled variable transformer, Ventilated with fans complete as required.	2	Each		0.00	INR Zero Only
Total in Figures					0.00	INR Zero Only
Quoted Rate in Words		INR Zero Only				