



AIRPORTS AUTHORITY OF INDIA
ELECTRICAL ENGINEERING WING
DARBHANGA AIRPORT DARBHANGA-846005

(Tender Id- 2026_AAI_283662)

**Name of work: Development of New Civil Enclave at Darbhanga, Bihar. SH:
SITC OF Motorized Sliding Gate, Boom Barrier, CCTV &
associated E & M works at Darbhanga Airport.**

Estimated Cost : Rs. 2,17,18,530/- (Excluding GST)

Time Allowed : 03 Months

Tender Processing Fee : Rs. 1180/-

EMD Amount : Rs. 6,51,556/-

INDEX

Name of work: Development of New Civil Enclave at Darbhanga, Bihar. SH: SITC OF Motorized Sliding Gate, Boom Barrier, CCTV & associated E & M works at Darbhanga Airport.

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Certified that this tender document contains 278 pages (excluding cover & index pages) only as detailed above

AGM (E-E)
Darbhanga Airport



CRITICAL DATA SHEET

Name of Work:- Development of New Civil Enclave at Darbhanga, Bihar. SH: SITC OF Motorized Sliding Gate, Boom Barrier, CCTV & associated E & M works at Darbhanga Airport.

Tender ID: 2026_AAI_283662

Publishing Date	11.07.2026 [11:00 Hrs.]
Bid Document Download/Sale Start Date	11.07.2026 [11:00 Hrs.]
Clarification Start Date	11.07.2026 [11:00 Hrs.]
Pre-Bid Conference	17.07.2026 [11:00 Hrs.] at O/o AGM(E-E), Darbhanga Airport Project
Clarification End Date	18.07.2026 [11:00 Hrs.]
Bid Submission Start Date	11.07.2026 [11:00 Hrs.]
Bid Submission End Date	03.08.2026 [11:00 Hrs.]
Bid Opening (Envelope-I)	04.08.2026 [11:00 Hrs.]
Bid Opening (Envelope-II)	The date will be intimated through CPP portal.)
Tender Processing Fee (Non-refundable) (Online Only)	Rs.1180/- (i/c GST) Nonrefundable will be required to be paid online through payment gateway provided on CPP Portal. FDR/BG/DD shall not be accepted.
Earnest Money Deposit (EMD) (Online only)	Rs. 6,51,556/- will be required to be paid online through payment gateway provided on CPP Portal. FDR/BG/DD shall not be accepted.

**AIRPORTS AUTHORITY OF INDIA
ENGINEERING (ELECTRICAL) WING**

DARBHANGA AIRPORT

Ref. No.: AAI/ER/DBR/SITC/TROLLEY-GATE/ 26-27

Date: 10.07.2026

NOTICE INVITING e-Tender (2 BOT-2 Envelope Open Tender)
(Tender Id-2026_AAI_283662)

1. Item Rate e-tenders are invited through the e-tendering CPP Portal by Assistant General Manager (Engg. - Electrical), Darbhanga Airport, Darbhanga (Bid Manager), on behalf of Chairman, AAI from eligible contractors for the work of **“Development of New Civil Enclave at Darbhanga, Bihar. SH: SITC OF Motorized Sliding Gate, Boom Barrier, CCTV & associated E & M works at Darbhanga Airport”** at an estimated cost of Rs. 2,17,18,530/- [Excluding GST] with completion period of 03 (Three) months including 01 (One) month considered for rains.

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

Prospective Tenderers are advised to get themselves register at CCP-Portal, obtain ‘Login ID’ and ‘Password’ and go through the instructions available in the Home Page after login in the CCP-Portal <http://etenders.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.

- (i) For any technical related queries please call the Helpdesk. The 24x7 Help Desk details are as below: - Tel: Tel: 0120- 4001 002, 0120-4001 005, 0120-6277 787,
E-mail: Support-eproc@nic.in

International bidders are requested to prefix 91as country code.

Tenderers are requested to kindly 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 tenderer may contact to the following AAI help desk numbers on all working days only between

Sl. No.	Support Persons	Escalation Matrix	E – mail Address	Contract Numbers	Timings*
1	Technical Help Desk Team	Instant Support	eprochelp@aai.aero	011-24632950 Ext. 3512	0800-2000 Hrs. (MON – SAT)
2	JE (IT)	After 4 Hrs. of Issue	etendersupport@aai.aero or vaibhav_g@aai.aero	011-24632950 Ext. 3523	0930-1800 Hrs. (MON – FRI)

3	Sr. Manager (IT)	After 12 Hrs.	shripatim@aai.aero	011-24632950 Ext. 3509	0930-1800 Hrs. (MON – FRI)
4	Jt. GM (IT)	After 24 Hrs.	Sunil.km@aai.aero	011-24632950 Ext. 3506	0930-1800 Hrs. (MON – FRI)
5	General Manager (IT)	After 03 Days	gmit@aai.aero	011-24657900	0930-1800 Hrs. (MON – FRI)

*The help desk services shall remain closed on all Govt. Gazetted Holidays.

Tender processing fee of ₹ 1180/- (i/c GST), non-refundable will be required to be paid online on CPP portal only.

Earnest Money Deposit (EMD) of ₹ 6,51,556.00/- will be required to be paid online through payment gateway provided on CPP portal only.

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

CRITICAL DATA SHEET

Publishing Date	11.07.2026 [11:00 Hrs.]
Bid Document Download/Sale Start Date	11.07.2026 [11:00 Hrs.]
Clarification Start Date	11.07.2026 [11:00 Hrs.]
Pre-Bid Conference	17.07.2026 [11:00 Hrs.] at O/o AGM(E-E), Darbhanga Airport Project
Clarification End Date	18.07.2026 [11:00 Hrs.]
Bid Submission Start Date	11.07.2026 [11:00 Hrs.]
Bid Submission End Date	03.08.2026 [11:00 Hrs.]
Bid Opening (Envelope-I)	04.08.2026 [11:00 Hrs.]
Bid Opening (Envelope-II)	The date will be intimated through CPP portal.)
Tender Processing Fee (Non-refundable) (Online Only)	Rs.1180/- (i/c GST) Nonrefundable will be required to be paid online through payment gateway provided on CPP Portal. FDR/BG/DD shall not be accepted.
Earnest Money Deposit (EMD) (Online only)	Rs. 6,51,556/- will be required to be paid online through payment gateway provided on CPP Portal. FDR/BG/DD shall not be accepted.

Note: i) 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 regard shall be entertained.

- ii) Under no circumstances bid procedure related queries shall be referred to the Independent External Monitors (IEMs).

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. (As per Annexure-1, Page PR-1)
- 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 (As per Annexure-5, Page PR-5) .
- iv) Scanned copy of **Form- A**- details of similar works completed during last seven years supported with completion certificate issued by client. (Page No. PR-6)
- (v) Scanned copy of **Form-B** - Financial Information (Turnover) along with Balance Sheet & Profit and Loss Statement. (Page No. PR-7)
- (vi) Scanned copy of **Form- C** – Net Worth. (Page No. PR-8)
- (vii) 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 work in consultation with the Engineer-In-charge (E-I-C) to achieve the milestones/targets and overall completion within the time period. (Annexure-8, Page No. PR-11)
- (viii) Bidders other than propriety firm shall submit, scanned copy of Authorization Letter/Power of Attorney along with copy of Certificate of Incorporation of the Company under Companies 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 the tender is processed by a person other than proprietor.
- (ix) **PQ Performa** / Check List duly filled (As per Annexure-A, Page no. PQ Checklist 1-4).
- (x) Scanned copy of **EPF** and **ESIC** Registration.
- ~~(xi) Scanned copy of Undertaking for **minimum wages** – **Affidavit** on non judicial stamp paper of **Rs.100/-** has to be attested by First Class Magistrate/Notary Public) for Compliance of Minimum wages. (As per Annexure 2, Page no. PR-2)~~
- (xii) Scanned copy of GST Undertaking on Company's Letter Head (As per Annexure-4, Page no. PR-4)

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

- i) Should have successfully completed or substantially completed three works, each of **Rs. 86,87,412/-** or two works, each of **Rs. 1,08,59,265/-** or one work of **Rs. 1,73,74,824/-** in single contract of similar nature of work "i.e.(i) **SITC Of Motorized Sliding Gate / (ii) Boom Barrier with associated works like Bollard, tyre killer works / (iii) E & M works etc.**" during last seven years 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 shall be provided.

Note:

- A. The Experience Certificates 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.
- B. Experience gained by executing work on back-to-back contract/ Sub-contract basis is acceptable in the following conditions:

- I. 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.
 - II. Payments received by second agency should be reflected in TDS certificates.
- ~~C. Experience gained in composite works for the specialized nature of works (List of Specialized Items/ Jobs/ Works are mentioned at Para 35.3 of AAI Works Manual) 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. (Annexure 9 at Page No. 12)~~
~~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).~~
- D. Substantial completion shall be based on 80(eighty) percent (value wise) or more works completed under the contract. Substantial completion should not be defined in terms of percentage completion, rather it should be based on functional consideration. Certificate for 'substantial completion' of project/work/asset should contain two parts. Part-I shall contain financial value of work done and Part-II shall contain certificate of functional completion of project/work/asset.
 - E. "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).
 - F. 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.
- i) Should have Average Annual Financial Turnover of ₹ 76,88,360/-(including GST) during last three financial years ending 31st March 2025 (FY 2024-25) 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. The Financial Information shall be submitted in the given format – **Form-B**. Tenderers showing continuous losses during the last three years in the balance sheet shall be summarily rejected.
 - ii) The tenderer should have a minimum net worth of **₹ 32,57,780/-** issued by certified Chartered Accountants. The Certificate should be submitted in the given Format **Form- C**.

~~*For Start ups bidders and Sub contractors, for repair works estimated cost of up to Rs. 30 lakhs, the requirements regarding General Construction Experience, Particular construction Experience and Available Bid Capacity may not be insisted upon provided the bidders fulfil other criteria regarding Financial/ Personnel/ Equipment capabilities. However, to avoid overstretching of their resources, no~~

~~such contractors may be allowed to hold more than 2(Two) contracts under relaxed credentials, at any given time.~~

Scanned copy of all the documents of Envelope-I mentioned above shall be submitted on the CPP portal. Tender fee & EMD is required to be submitted online only (**FDR/BG/DD shall not be accepted**) through payment gateway provided on CPP portal on or before date & time mentioned in CRITICAL DATA SHEET. The tenderer, whose Tender processing fee are not found to have received on CPP portal by the date & time mentioned in critical data sheet, then their tenders will be liable to be rejected.

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 tenderers. Tenderers are required to download the BOQ file, open it and complete the blue colored (unprotected) cells with their respective financial quotes and other details (such as name of the tenderer). No other cells should be changed. Once the details have been completed, the tenderer should save it and submit it online, without changing the filename. If the BOQ file is found to be modified by the tenderer, 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: -

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 tenderer shall submit their application only at CPP Portal: <https://etenders.gov.in/eprocure/> app. scanned document.

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

Bidders or their official representatives are invited to attend site visit & pre-bid conference at the O/o AGM (E-E), Darbhanga Airport Project, at the date and time specified in Critical Date Sheet for clarifying issues and clearing doubts, if any, about the specifications/ Terms of Reference and other allied technical/commercial details of the work, services, plant, equipment and machinery etc.

- 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 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 within 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 reserves the right to disallow the working agencies whose performance at ongoing 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. **AAI reserves 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 tenderer 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 up to 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 permitted.
- 11) Purchase preference to Central Public Sector Undertaking shall be applicable as per the directive of Govt. 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., to be given as per the provisions of Public Procurement Policy for MSEs order 2012 with up-to-date amendments, shall be applicable for tenders of supply/services and shall not be extended to construction work. Hence concession to Indian Micro & Small Enterprises (MSEs) is not applicable for this work.
- 13) Tenderers have to submit Unique Document Identification Number (UDIN) generated documents like financial information (Turnover with loss/ profit), Net worth Certificate 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 is applicable. Bidder shall submit scanned copy of 'Self- Certification' on Company's letter head in this regard. (Annexure-6) Pg no. PR-9.

- 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)
Pg no. PR-10

**For an on behalf of Airports Authority of India
(Digitally Signed)
Bid Manager
Assistant General Manager (Engg-Elect),
AAI, Darbhanga Airport, Darbhanga.**

Guidance for Online submission of EMD and Tender Fee

1. Bidder will login to the portal <https://etenders.gov.in/> with valid User ID (i.e. User ID mapped with Digital Signature Certificate) and follow the process of participation to the tender.
2. After Login search the tender in “Search Active Tender” tab with different criteria after that click on “set as favorite” to move on “My Tender”. Then click on “My tender” and view the tender details and click on proceed for Bid Submission
3. For submission of online Tender Fee and EMD, click on Button as “Pay Online”
4. In case of Tender Fee: If the Bidder is exempted from the tender fee payment, then select the option to “YES” other wise “NO” as per below screenshot.

The screenshot shows the 'Government eProcurement System' portal. The left sidebar contains navigation menus for 'User Management', 'Auction Management', and 'Bid Management'. The main content area is titled 'BID SUBMISSION' and shows a form for 'Tender Fee Exemption'. The form includes a text box for details and a question: 'Are you exempted from Tender Fee payment:'. Below the question are two radio buttons: 'Yes' and 'No', with 'No' selected. A 'Next' button is at the bottom right.

5. **In case of EMD:** If Bidder is paying EMD through any of below options, Select the option “Yes” (as per below screenshot) and provide the details and upload copy as a proof.

- Bank Guarantee (BG)/Swift Transfer (ST)
- Exempted from EMD Payment

Note: For submitting “EMD through BG/ST” or “Exemption from EMD payment” bidder must select “Yes” otherwise bidders will not have the option to pay EMD through Bank Guarantee. Once proceeded it is not possible to revert the option.

6. Select option “No”(as per below screenshot) for proceeding for **online EMD Payment**.

The screenshot shows the 'Government eProcurement System' portal. The left sidebar contains navigation menus for 'User Management', 'Auction Management', and 'Bid Management'. The main content area is titled 'BID SUBMISSION' and shows a form for 'EMD Exemption'. The form includes a text box for details and a question: 'Are you submitting EMD through BG/ST or Exempted from EMD payment:'. Below the question are two radio buttons: 'Yes' and 'No', with 'No' selected. A 'Next' button is at the bottom right.

After selecting the option, click on “Next” Button as per above screenshot. Further process to be followed as per subsequent screen.

National Information Centre	Payment Gateway
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STEPS FOR MAKING TENDER PAYMENTS IN ETENDERS SYSTEM VIA SBI BANK GATEWAY

(SBI AND NON SBI ACCOUNT HOLDERS)

Home Page.

Login as a bidder into etenders.gov.in to proceed for payment.



NEC-GrA/NBC	Version 5.09.06	Page 1
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Step 1) Click “Pay Online” when you reach below page while Online Bid Submission

User Management

My Accounts

My Documents

Auction Management

My Auctions

Live Auctions

View Auction History

Bid Management

Search Active Tenders

My Tenders

Clarification

My Active Bids

Bid Opening (Live)

Short fail Documents

Online Payment Status

My Bids History

Short Fail Documents History

Archived Clarification

Tender Status

My Withdrawn Bids

BID MANAGEMENT

My Tenders

2018_LSGD_204397_1

Transaction Message

Organization Chain : NIC||NIC Contracts

Tender Reference Number : PW3/23401/18

Tender ID : 2018_LSGD_204397_1

Tender Title : PW3/23401/18 PRO.NO.604/18-19 DVN.30 VARIOUS LANES INTERLOCKING AND CONCRETING

Bid Process List

S.No	Bid Process	Action
1	Profile	

Bid Payment Details

S.No	Fee Type	Actual Fee	Exempted Fee	Fee To Be Paid	Paid Fee
1	Tender Fee	2500.00 (INR)	0.00	2500.00 (INR)	0.00
2	Emd Fee	37500.00 (INR)	0.00	37500.00 (INR)	0.00

Pay Online

Encrypt&Upload

Version:1.09.06 04-Feb-2018

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Step 2) Click “**Confirm to Pay**” to proceed with the payment gateway, as below

Note: Please ensure that you have availed Tender Fee / EMD Exemption, if eligible. Further, there would not be any provision to change back, under any circumstances.

User Management

My Accounts

My Documents

Auction Management

My Auctions

Live Auctions

View Auction History

Bid Management

Search Active Tenders

My Tenders

Clarification

My Active Bids

Bid Opening (Live)

Short fall Documents

Online Payment Status

My Bids History

Short Fall Documents History

Archived Clarification

Tender Status

My Withdrawn Bids

BID MANAGEMENT

Offline/OnLine Payment Confirmation

Organization Chain : NIC|NIC Contracts

Tender Reference Number : PW3/23401/18

Tender ID : 2018_LSGD_204397_1

Tender Title : PW3/23401/18 PRO.NO.604/18-19 DVN.30 VARIOUS LANES INTERLOCKING AND CONCRETING

Bid Payment Details

S.No	Fee Type	Actual Fee	Exempted Fee	Fee To Be Paid
1	Tender Fee	2128.00 (INR)	0.00	2128.00 (INR)
2	Emd Fee	23100.00 (INR)	0.00	23100.00 (INR)

Portal Alert :

Beyond this stage, you will not be able to edit Fee or Exemption details.

Please confirm that the exemption and amount to be paid are correct.

I hereby confirm that the above payment details are correct.

Back

Confirm to Pay

Version:1.09.06 04-Feb-2018

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Step3) Verify that the Tender fee and EMD shown are correct, as per tender document. Then, select the payment option **SBI MOPS** and Submit, as below.

Note: In case of any mismatch in tender payments, with reference to tender documents, please contact TIA for clarifications.

User Management

My Accounts
My Documents

Auction Management

My Auctions
Live Auctions
View Auction History

Bid Management

Search Active Tenders
My Tenders
Clarification
My Active Bids
Bid Opening (Live)
Short fall Documents
Online Payment Status
My Bids History
Short Fall Documents History
Archived Clarification
Tender Status
My Withdrawn Bids

BID MANAGEMENT

Online Payment Gateway

Organization Chain : NIC|NIC Contracts
Tender Reference Number : PW3/23401/18
Tender ID : 2018_LSGD_204397_1
Tender Title : PW3/23401/18 PRO.NO.604/18-19 DVN.30 VARIOUS LANES INTERLOCKING AND CONCRETING

Fee Type	Actual Fee	Exempted Fee	Fee To be Paid
Tender Fee	2,500	0	2,500
Emd Fee	37,500	0	37,500
Total Fee			40,000

Choose Payment Option

☒ SBI MOPS

Back
Submit

Version:1.09.06 04-Feb-2018
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Step 4) Check and Follow the **Terms and Conditions**, and then **Submit**, as below

The screenshot shows a web application interface for 'BID MANAGEMENT'. On the left is a sidebar menu with categories: User Management (My Accounts, My Documents), Auction Management (My Auctions, Live Auctions, View Auction History), and Bid Management (Search Active Tenders, My Tenders, Clarification, My Active Bids, Bid Opening (Live), Short fall Documents, Online Payment Status, My Bids History, Short Fall Documents History, Archived Clarification, Tender Status, My Withdrawn Bids). The main content area is titled 'OnLine Payment Gateway' and includes a 'Payment Verification' section. It displays the following information:

- Organization Chain : NIC||NIC Contracts
- Tender Reference Number : PW3/23401/18
- Tender ID : 2018_LSGD_204397_1
- Tender Title : PW3/23401/18 PRO.NO.604/18-19 DVN.30 VARIOUS LANES INTERLOCKING AND CONCRETING
- Pay Model : SBI MOPS
- Terms And Conditions.**
 - You are being redirected to the SBI MOPS site.
 - You have to complete the transaction with in the session time which is approximately 15 minutes.
 - Money once transferred towards tender fee shall not be refunded at any point of time. This is applicable even in case you have not completed the tender process.
 - Once payment is successfully completed, you will be automatically redirected back to e-Procurement site.
 - It is the responsibility of the Individual to ensure that the payment is successfully completed and eProcurement system is not responsible for any malfunctions in the Bank payment gateway.
 - please take print screen for bank acknowledgement page.

At the bottom right of the terms section are 'Back' and 'Submit' buttons. The footer of the page indicates 'Version:1.09.06 04-Feb-2018' and '(c) 2008 Tenders NIC, All rights reserved.'

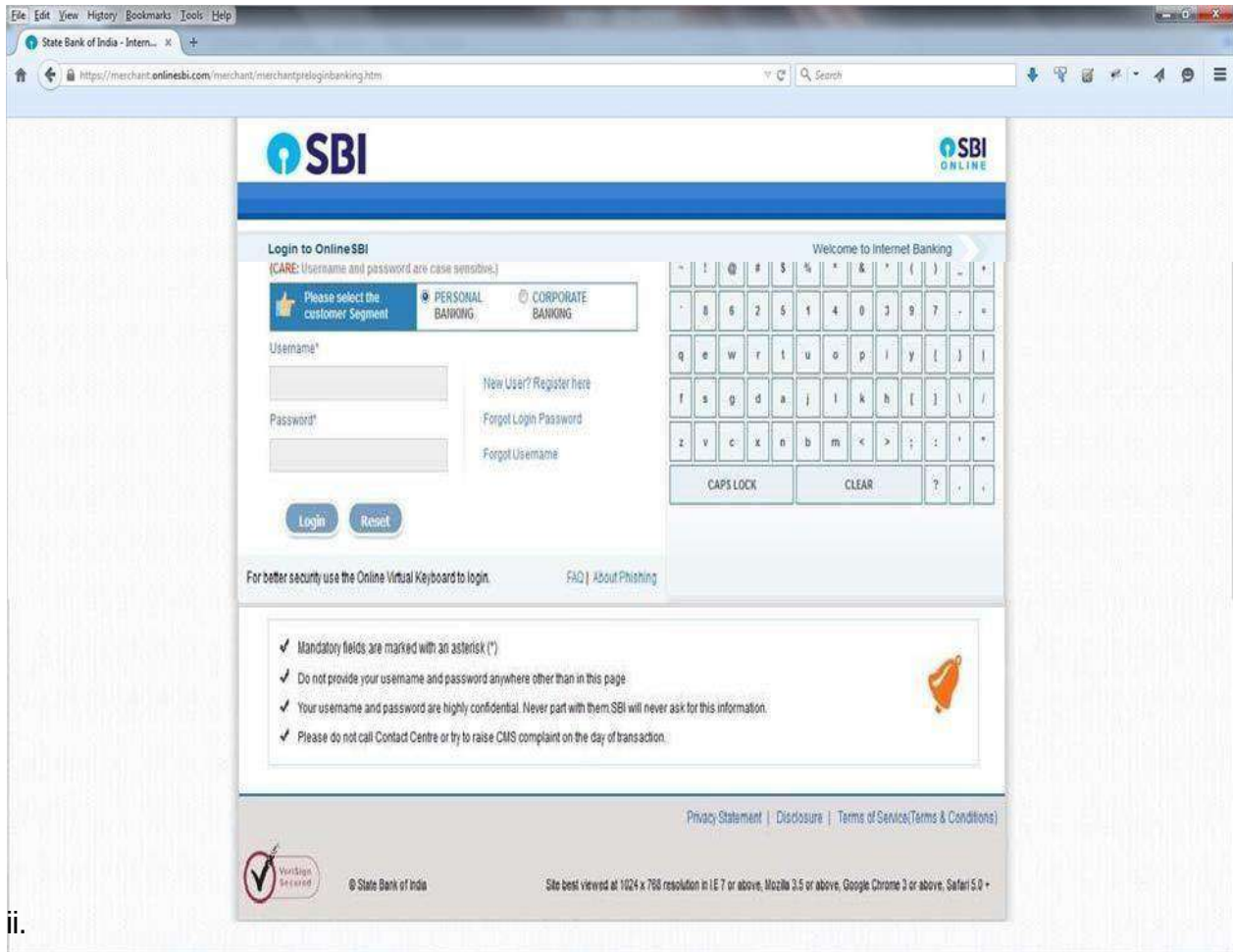
Step 5) Bidders may choose the type of transaction and proceed for payment.

The screenshot shows the 'SBI ONLINE' payment gateway interface. It features the SBI logo and the text 'STATE BANK MULTI OPTION PAYMENT SYSTEM'. A message states: 'Please Select Appropriate Card Type To Avoid Failures (C-Credit Card Options/D For Debit Card)'. The interface is divided into sections: 'Net Banking' with options for 'SBI' (Bank Charges: 11.8) and 'Other Banks' (Bank Charges: 132.5), both with 'Click Here' buttons; 'Card Payments'; and 'Other Payments Modes' with an option for 'NEFT/RTGS' (Bank Charges: 133.0) with a 'Click Here' button. A 'Cancel' button is located at the bottom center. The footer includes '© State Bank of India' and browser compatibility information: 'Site best viewed in I.E. 10 +, Mozilla 30 +, Google Chrome 30 +'.

Step 6) Once the Payment type is selected it navigates to the respective

a) SBI

i. Bidders with SBI account may click **SBI** option to proceed to its Net Banking Page



The screenshot displays the SBI Online Login Page in a web browser. The browser's address bar shows the URL: <https://merchant.onlinesbi.com/merchant/merchantpreloginbanking.htm>. The page features the SBI logo at the top left and the SBI ONLINE logo at the top right. Below the logos, there is a section titled "Login to Online SBI" with a note: "(CARE: Username and password are case sensitive.)". This section includes a "Please select the customer Segment" dropdown menu with options for "PERSONAL BANKING" and "CORPORATE BANKING". Below this, there are input fields for "Username*" and "Password*", each with a "New User? Register here" link and a "Forgot Login Password" or "Forgot Username" link. There are "Login" and "Reset" buttons. To the right of the login fields is a "Welcome to Internet Banking" section with a virtual keyboard and "CAPS LOCK" and "CLEAR" buttons. Below the login section, there is a security notice: "For better security use the Online Virtual Keyboard to login." and links for "FAQ" and "About Phishing". At the bottom, there is a security checklist with four items: "Mandatory fields are marked with an asterisk (*)", "Do not provide your username and password anywhere other than in this page", "Your username and password are highly confidential. Never part with them. SBI will never ask for this information.", and "Please do not call Contact Centre or try to raise CMS complaint on the day of transaction." The footer contains links for "Privacy Statement", "Disclosure", and "Terms of Service/Terms & Conditions", along with the SBI logo, "© State Bank of India", and a note: "Site best viewed at 1024 x 768 resolution in IE 7 or above, Mozilla 3.5 or above, Google Chrome 3 or above, Safari 5.0 +".

ii.

- ii. Bidders may enter SBI Net banking user ID and Password and Click on **Login** to proceed

The screenshot displays the SBI Net banking login interface. At the top, the SBI logo is visible on the left, and 'SBI ONLINE' is on the right. The main heading is 'Login to OnlineSBI'. Below this, a note states '(CARE: Username and password are case sensitive.)'. There are two tabs for 'PERSONAL BANKING' and 'CORPORATE BANKING'. The 'Username*' field is empty, and the 'Password*' field is masked with dots. To the right of the password field are links for 'New User? Register here', 'Forgot Login Password', and 'Forgot Username'. A CAPTCHA grid is present on the right side of the login form. Below the login fields, there is a section with four security instructions, each preceded by a checkmark. At the bottom right of this section is a small orange bell icon. The footer contains links for 'Privacy Statement', 'Disclosure', and 'Terms of Service(Terms & Conditions)'.

https://marchant.onlinesbi.com/... Identified by ... State Bank of India - Intern...

SBI **SBI ONLINE**

Login to OnlineSBI **Welcome to Internet Banking**

(CARE: Username and password are case sensitive.)

Please select the customer Segment

☒ PERSONAL BANKING ☐ CORPORATE BANKING

Username*

Password*

New User? Register here

Forgot Login Password

Forgot Username

CAPTCHA

✓ Mandatory fields are marked with an asterisk (*)

✓ Do not provide your username and password anywhere other than in this page

✓ Your username and password are highly confidential. Never part with them SBI will never ask for this information.

✓ Please do not call Contact Centre or try to raise CMS complaint on the day of transaction.

Privacy Statement | Disclosure | Terms of Service(Terms & Conditions)

iii. Please ensure that your account has sufficient balance, before proceeding further. After checking the same, Click **Confirm** button as below, to transfer payment. After account debit, MOPS gateway will automatically re-direct to the eProcurement System, with the Success transaction.

State Bank of India

STATE BANK OF INDIA (SBI) | https://merchant.onlinesbi.com/merchant/merchantinter.htm

Your previous site visit: 28-Feb-2018 16:08 IST

UP Electronics Corporation | 01-Mar-2018 (13:04 IST) | [Help](#)

You have not performed any UP Electronics Corporation transactions today.

Verify and confirm UP Electronics Corporation transaction details

Debit Account Details

Account No.	Description	Branch
00000020069127225	Savings Account	BESANT NAGAR, CHENNAI

Reference Number: 220957521676

Department ID: UPELCC

EMD Amount: 2

Tender Fee: 1

RISL Fee: 0

Amount: 3

Amount in Words: Three Rupees only

[Confirm](#) [Back](#)

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State Bank of India

STATE BANK OF INDIA (SBI) | https://merchant.onlinesbi.com/merchant/merchantinter.htm

Your previous site visit: 06-Mar-2018 19:03 IST

UP Electronics Corporation | 06-Mar-2018 (19:03 IST) | [Help](#)

Account Details

Reference No.	IGADA20006
Debit Account No.	00000020069127225
Reference Number	220957531332
Amount	INR 2.00
Amount in Words	Two Rupees only
Status	Completed Successfully
Debit Branch	BESANT NAGAR, CHENNAI
Date - Time	06-Mar-2018 13:03 IST

[Click here](#) to return to the UP Electronics Corporation site. Else, you will be automatically redirected to the UP Electronics Corporation site in 10 seconds.

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iv. As in below, you will receive bank response immediately by verifying the payment status, whether **Success** or not. In case, payment was debited from account and further, **Payment Failure** is shown, immediately contact the eProcurement helpdesk, for resolution, before tender closing time.

Click **Next** to go to Bid Preparation details, as in screenshot

The screenshot displays the 'BID MANAGEMENT' section of a web application. On the left is a sidebar menu with categories: 'User Management' (My Accounts, My Documents), 'Auction Management' (My Auctions, Live Auctions, View Auction History), and 'Bid Management' (Search Active Tenders, My Tenders, Clarification, My Active Bids, Short fall Documents, Online Payment Status, My Bids History, Short Fall Documents History, Archived Clarification, Tender Status, My Withdrawn Bids). The 'Online Payment Status' option is selected. The main content area is titled 'Bank Response On Payment Details' and features a yellow success message: 'Your Online transaction has been completed successfully.' Below this, transaction details are listed: Organization Chain: NIC||NIC Contracts, Tender Reference Number: PW3/23401/18, Tender ID: 2018_LSGD_204397_1, and Tender Title: PW3/23401/18 PRO.NO.604/18-19 DVN.30 VARIOUS LANES INTERLOCKING AND CONCRETING. A second section, also titled 'Bank Response On Payment Details', provides further specifics: eProcurement Ref. Number: 220957531332, PRN Number: 220957531332, Bank / UTR Number: IGADAZGG06, Bank Name: SBI Bank, Status: Success, Status Description: Completed successfully, Tender Fee in ₹: 1, EMD Fee in ₹: 1, and Total Fee in ₹: 2. A 'Next' button is located at the bottom right of the main content area.

Bank Response On Payment Details	
Organization Chain :	NIC NIC Contracts
Tender Reference Number :	PW3/23401/18
Tender ID :	2018_LSGD_204397_1
Tender Title :	PW3/23401/18 PRO.NO.604/18-19 DVN.30 VARIOUS LANES INTERLOCKING AND CONCRETING

Bank Response On Payment Details	
eProcurement Ref. Number :	220957531332
PRN Number :	220957531332
Bank / UTR Number :	IGADAZGG06
Bank Name :	SBI Bank
Status :	Success
Status Description :	Completed successfully.
Tender Fee in ₹ :	1
EMD Fee in ₹ :	1
Total Fee in ₹ :	2

BID MANAGEMENT

User Management

- My Accounts
- My Documents

Action Management

- My Actions
- List Auctions
- View Auction History

Bid Management

- Search Active Tenders
- My Tenders
- Clarification
- My Active Bids
- Bid Opening (Live)
- Short Sell Documents
- Online Payment Status
- My Bid History
- Short Sell Documents History
- Archived Clarification
- Tender Status
- My Withdrawn Bids

My Tenders > 2018_ASITH_203918_2 > Transaction Message

Organization Chain : NIC|NIC Contracts
Tender Reference Number : PW3/23401/18
Tender ID : 2018_LSGO_204997_1
Tender Title : PW3/23401/18 PRO.NO.604/18-19 DYN.SD VARIOUS LANES INTERLOCKING AND CONCRETING

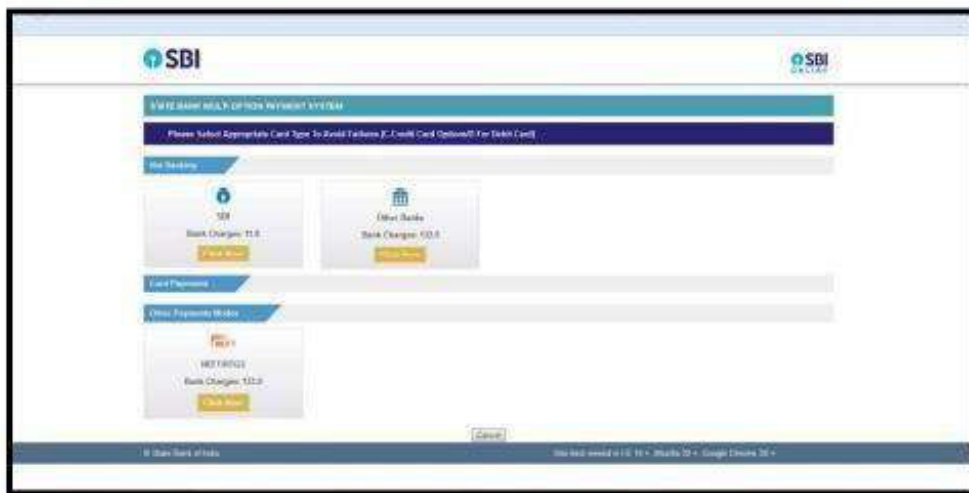
Bid Process List						
S.No	Bid Process	Action				
1	Puffa					

Bid Payment Details						
S.No	Fee Type	Actual Fee	Exempted Fee	Fee To Be Paid	Paid Fee	
1	Tender Fee	1.00 [INR]	0.00	0.00	1.00 [INR]	
2	Bond Fee	2.00 [INR]	0.00	0.00	2.00 [INR]	

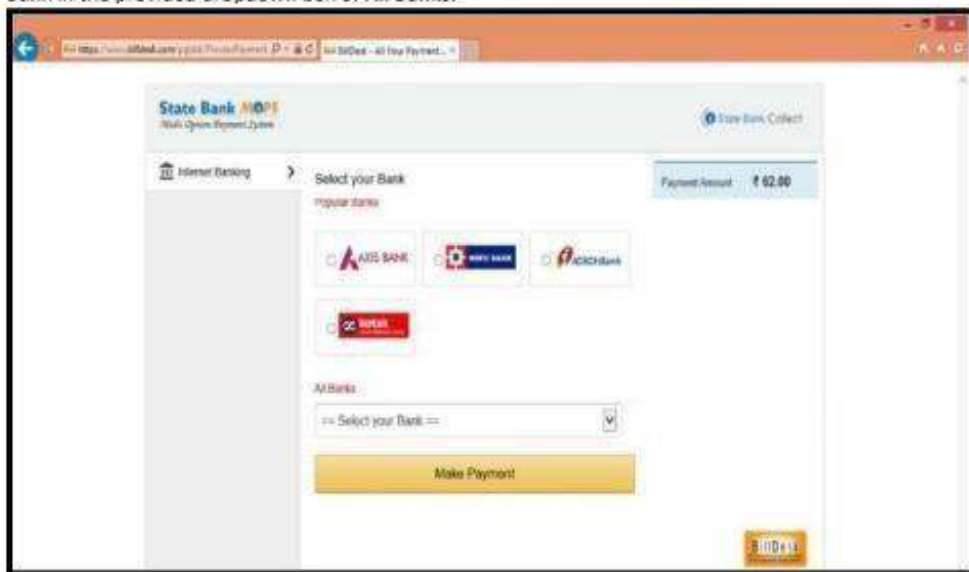
Encrypt&Upload

b) OTHER BANKS :

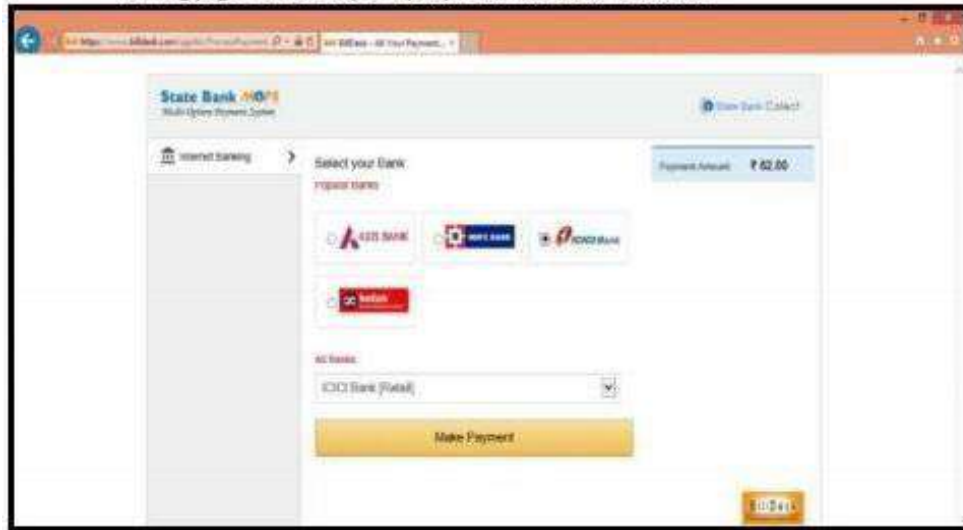
- i. Bidders with other bank account may click **Other Banks** option to proceed to SBI Net Banking Page



You may select the appropriate Bank from selection page. As an example, we are proceeding with ICICI Bank in the provided dropdown box of **All Banks**.



- ii. After selecting ICICI Retail Banking, Click **Make Payment** Button to proceed to its internet banking page. Further steps may depend on the Bank Procedure.



Privilege ICICI Bank

Confirm Details

Details

Pay From

Pay To State Bank of India - IBI Dept (BLI DEPT 9702)

Amount (INR) ₹ 95

Remarks

Please enter these details to authorize the transaction

Debit Card



Please enter the following digits of your Debit Card (This will be on the back of your card) for Account Number: 0880102789

One Time Password

OTP has been generated and sent to your registered Mobile Number

Privilege ICICI Bank

Payment Successful

Your payment of ₹95.00 has been received successfully for State Bank of India - IBI Dept (BLI DEPT 9702)

Your Merchant Reference Number is 90136299234178

Your Transaction Reference Number is 1349563149

We do not wish to pass on your payment contribution to State Bank of India - IBI Dept (BLI DEPT 9702)

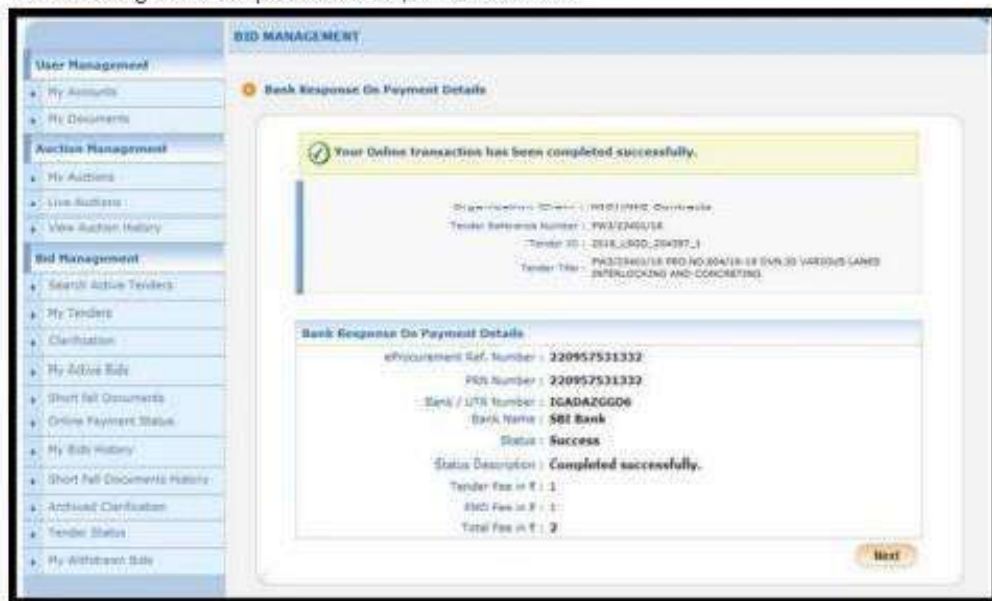
Please Note: For any transaction related queries, please contact the merchant and quote the Merchant Reference Number mentioned above.

- iii. After, successful payment, system will direct you to payment confirmation page.



- iv. As in below, you will receive bank response immediately by verifying the payment status, whether Success or not. In case, payment was debited from account and further, **Payment Failure** is shown, immediately contact the eProcurement helpdesk, for resolution, before tender closing time.

Click **Next** to go to Bid Preparation details, as in screenshot.



v. Please ensure that the **Pay Online** option is not shown after successful payment, as below, for confirmation. From here, you may proceed with **Encrypt and Upload** to upload tender documents, and further submission process.

BID MANAGEMENT

My Tenders > 2018_KSETH_201818_2 > Transaction Message

Organization Chain : NIC||NSC Contracts
Tender Reference Number : FW3/23485/18
Tender ID : 2018_LSGD_204397_1
Tender Title : FW3/23485/18 PRO.NO.SDA/18-19 D/VN.30 VARIOUS LANES INTERLOCKING AND CONCRETING

Bid Process List

S.No	Bid Process	Action
1	Profile	

Bid Payment Details

S.No	Fee Type	Actual Fee	Exempted Fee	Fee To Be Paid	Paid Fee
1	Tender Fee	1.00 (INR)	0.00	0.00	0.00 (INR)
2	Bid Fee	2.00 (INR)	0.00	0.00	2.00 (INR)

Encrypt&Upload

C) NEFT/RTGS

- (i) Bidders may choose the type of transaction and proceed for payment.

SBI

STATE BANK OF INDIA OPTION PAYMENT BY SBI

Please Select Appropriate Card Type To Avoid Failure (C: Credit Card Option) (D: Debit Card)

Bank Transfer

☐ SBI Bank Charges **Click Here**

☐ Other Banks Bank Charges: 50.0 **Click Here**

Card Payments

Other Payment Modes

FAST SERVICE Bank Charges: 50 **Click Here**

Cancel

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- (ii) Please click the check Box to proceed to the payment and click on the Confirm Button.



SBI

Disclaimer Clause

SBI does not have any control over third party websites and accepts no responsibility or liability for any of the material contained on these websites. You will be using such third party websites at your own risk and responsibility and SBI will not be responsible for any loss, damage, costs & charges, direct or indirect incurred by you, arising out of or in connection with your access to the internet website or for any deficiency in the products and services of the third party or for the failure or disruption of the website of the third party.

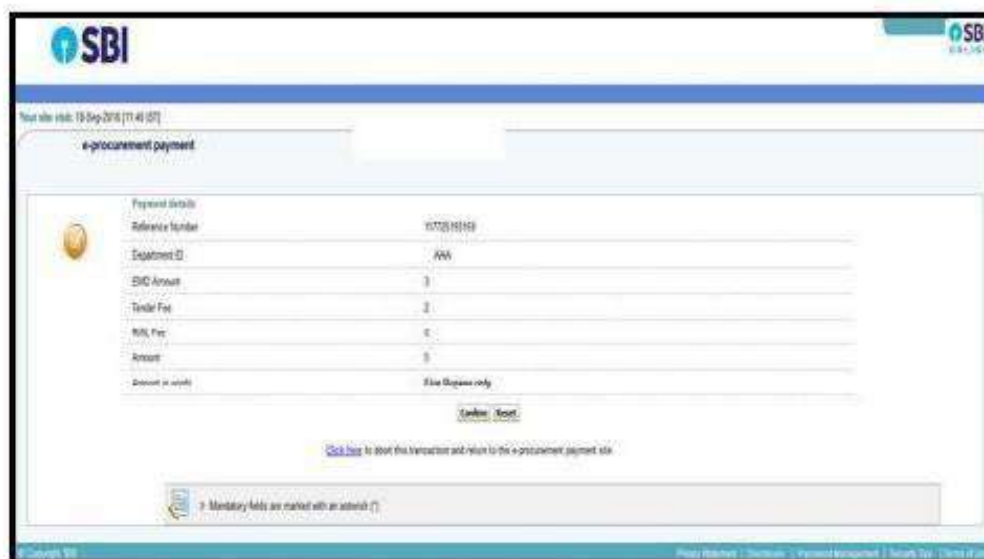
SBI is not in any way liable for the contents or any items uploaded or exchanged, or integrating with an external website or web page. SBI shall not be deemed to endorse, recommend, approve, guarantee, indemnify or introduce any third parties or the services/products they provide on their websites. Please note SBI is only facilitating the online transaction and will not be a party to any contractual arrangements entered into between you and the provider of the external website unless otherwise expressly specified or agreed to by SBI. Such external websites are governed by their respective policies.

☐ I have read and accepted the terms and conditions stated above.
(Click Check box to proceed for payment)

[Continue](#)

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- (iii) Please ensure that your account has sufficient balance, before proceeding further. After checking the same, Click **Confirm** button as below, to transfer payment.



SBI

Your site visit: 19-Sep-2018 (11:41 AM)

e-procurement payment

Payment details	
Reference Number	10702163169
Department ID	AAH
BID Amount	3
Tender Fee	2
MSD Fee	0
Amount	5
Discount or credit	If the Supplier only

[Continue](#) [Reset](#)

[Click here](#) to start this transaction and return to the e-procurement payment site.

 Mandatory fields are marked with an asterisk (*)

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- (iv) Click **Confirm** button as below, to transfer payment.

The screenshot shows the SBI e-grocery payment interface. At the top, it says 'Now pay via: 18-Sep-2019 (11:46:07)'. Below this is the 'e-grocery payment' section. On the left, there's a small SBI logo. The main area displays payment details in a table-like format:

Payment Details	
Payment Number	85722183183
Department ID	AAA
EMV Amount	2
Order Fee	2
BSI Fee	0
Amount	0
Amount in words	Five Rupees only

At the bottom of the payment details section, there is a 'Confirm' button. Below the button, a message states: 'Mandatory bills are mailed with an order.' At the very bottom of the page, there are navigation links: 'Go to Cart', 'View Order', 'Payment Summary', 'Track Order', 'Help', and 'Feedback'.

- (v) The challan is generated after successful transaction.

The screenshot shows the SBI e-grocery payment interface after a successful transaction. It displays a 'Payment Receipt' (challan) for the payment made on 18-Sep-2019 at 11:46:07. The receipt is titled 'e-grocery payment receipt' and includes the following details:

Beneficiary Account Number	12345678901234567890
Beneficiary Name	Mr. X
Beneficiary Address	123 Main Street, New Delhi, India
Beneficiary Phone	9876543210
Beneficiary Email	xyz@abc.com
Payment Number	85722183183
Payment Amount	5.00
Payment Date	18-Sep-2019
Payment Time	11:46:07
Payment Method	Net Banking
Payment Status	Successful

Below the table, there is a section titled 'Payment Receipt' which contains a detailed description of the payment transaction. It states that the payment was made successfully and that the amount of 5.00 rupees was debited from the beneficiary's account. The receipt also includes a note about the mandatory bills being mailed with the order. At the bottom of the receipt, there is a signature line for the SBI representative and a date stamp.

(vi) The Downloaded challan of the e-procurement RTGS/NEFT Remittance Information

e-procurement payment RTGS/NEFT Remittance Information Form	
Beneficiary Details	
Beneficiary Details	
Beneficiary Account Number (to be entered as it appears)	PSEGACPI8923167
Amount	Rs. 5
Amount In Words	Five Rupees only
Beneficiary Bank	State Bank of India
Beneficiary IFSC Code	SBIN0017676
Name and Address	e-procurement payment
Beneficiary Reference No	117725193159
Instructions for remitting Banks: - This form is valid for remittance through non-SBI branches. - Beneficiary account no. is alpha-numeric and case sensitive. It should be entered as it appears above. - Amount to be remitted should not be higher or lesser and should be the same as shown above.	
Note for Bidders: - Bidder should ensure that account no. entered during RTGS/NEFT remittance at any bank counter or Internet banking site is the same as it appears in this remittance form. Bidder should not truncate or add any other detail to the above account number. - No additional information like bidder name, company name, etc. should be entered in the account no. column along with account no. for RTGS/NEFT remittance. - Account to Account transfers or Cash payments are not allowed and are invalid mode of payments. Hence, this remittance form is to be used only for RTGS or NEFT payment. - Bidder should ensure that tender document fees and EMD are remitted as one single transaction and not separate. The remittance should be within the prescribed time and as per the terms and conditions specified in tender. - Please ensure the correctness of details inputted while remittance through RTGS/NEFT. Please also ensure that your banker keys in the Account Number (which is case sensitive) as displayed in this form. SBI and Merchant Bankers should ensure that the account number is correctly inputted. - For RTGS, the purpose of remittance should be relevant for the purpose of tender. Therefore, bidders should ensure that the purpose of remittance is relevant for the purpose of tender before data and time for submission of tender. - Bids for which Payment is received after closing date/time for submission of tender/bid would be rejected.	

Instruction to Tenderer for Online Bid Submission

The bidders are required to submit soft copies of their bids electronically on the CPP Portal, using valid Digital Signature certificates. The instruction given below are meant to assist the bidders in registering on the CPP portal, prepare their bids in accordance with the requirements and submitting their bids online on the CPP Portal.

More information useful for submitting online bids on the CPP Portal may be obtained at: <https://eprocure.gov.in/eprocure/app>.

REGISTRATION

- (i) Bidders are required to enroll on the e-procurement module of the central Public Procurement Portal (URL: <https://eprocure.gov.in/eprocure/app>) by clicking on the link “Online bidder Enrollment” on the CPP Portal which is free of charge.
- (ii) As part of the enrolment process, the bidders will be required to choose a unique username and assign a password their accounts for.
- (iii) Bidders are advised to register their valid email address and mobile numbers as part of the registration process. These would be used for any communication from the CPP Portal.
- (iv) Upon enrolment, the bidders will be required to register their valid Digital Signature (Class II or Class III certificates with signing key usage) issued by any certifying Authority recognized by CCA India (e.g. Sify / nCode / eMudhra etc.) with their profile.
- (v) Only one valid DSC should be registered by a bidder. Please note that the bidders are responsible to ensure that they do not lend their DSC’s to others which may lead to misuse.
- (vi) Bidder then logs in to the site through the secured log-in by entering their user ID / password and the password of the DSC / e-token.

SEARCHING FOR TENDER DOCUMENT

- I) There are various search options built in the CPP portal, to facilitate bidders to search active tenders by several parameters. These parameters could include Tender ID, Organization Name, Location, Date, value, etc. There is also an option of advanced search for tenders, wherein the bidders may combine a number of search parameters such as Organization Name, Form of Contract, Location, Date, Other keywords etc. to search for a tender published on the CPP Portal.
- II) Once the bidders have selected the tenders they are interested in, they may download the required documents / tender schedule. These tenders can be moved to the respective “My tenders” folder. This would enable the CPP portal to intimate the bidders through SMS / e- mail in case there is any corrigendum issued to the tender document.
- III) The bidder should make a note of the unique Tender ID assigned to each tender, in case they want to obtain any clarification / help from the Helpdesk.

PREPARATION OF BIDS

- i) Bidder should consider any corrigendum published on the tender document before submitting their bids.
- ii) Please go through the tender advertisement and the tender document carefully to understand the document to be submitted as part of the bid. Please note the number of covers in which the bid documents have to be submitted, the number of documents- including the names and content of each of the document that need to be submitted. Any deviations from these may lead to rejection of the bid.
- iii) Bidder, in advance should get ready the bid documents to be submitted as indicated in the tender document / schedule and generally, they can be in PDF / XLS / RAR / DWF / JPG formats. Bid documents may be scanned with 100 dpi with black and white option which takes in reducing size of the scanned document.
- iv) To avoid the time and effort required in uploading the same set of standard documents which are required to be submitted as part of every bid, a provision of uploading such standard documents (e.g. PAN card copy, annual reports, auditor certificates etc.) has been provided to the bidders. Bidders can use “My Space” or “Other important Documents” area available to them to upload such document. These documents may be directly submitted from the “My Space” area while submitting a bid, and need not be upload again and again. This lead to a reduction in the time for the bid submission process.

SUBMISSION OF BIDS

- I) Bidder should log into the site well in advance for bid submission so that they can upload the bid in time i.e. on or before the bid submission time. Bidder will be responsible for any delay due to other issues.
- II) The bidder has to digitally sign and upload the required bid documents one by one as indicated in the tender document.
- III) Bidder has to select the payment option as “online” to pay the tender fee / EMD as applicable and enter details of the instrument.
- IV) Bidder should paid the EMD through online, through Payment Gateway on CPP portal on or before the bid submission end date as specified in the Critical Data Sheet of Tender Document. Otherwise the uploaded bid will be rejected.
- V) Bidders are requested to note that they should necessarily submit their financial bids in the format provided and no other format is acceptable. If the price bid has been given as 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 white colored (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.
- VI) The server time (which is displayed on the bidder dashboard) will be considered as the standard time for referencing the deadlines for submission of the bids by the bidders, opening of bids etc. the bidder should follow this time during bid submission.
- VII) All the documents being submitted by the bidders would be encrypted using PKI

encryption techniques to ensure the secrecy of the data. The data entered cannot be viewed by unauthorized persons until the time of bid opening. The confidentiality of the bids is maintained using the secured Socket Layer 128bit encryption technology. Data storage encryption of sensitive fields is done. Any bid documents that is uploaded to the server is subjected to asymmetric encryption using buyers/bid openers public keys. Overall, the uploaded tender documents become readable only after tender opening by the authorized bid openers.

- (a) The uploaded tender documents become readable only after the tender opening by the authorized bid openers. Upon the successful and timely submission of bids (i.e. after clicking “Freeze Bid Submission: in the portal;), the portal will be a successful bid submission message & a bid summary will be displayed with the bid no. and the date & time of submission of the bid with all other relevant details.
- (b) The bid summary has to be printed and kept as an acknowledgement of the submission of the bid. This acknowledgement may be used as entry pass for any bid opening meetings.

ASSISTANCE TO BIDDERS

- (a) Any queries relating to the tender document and the terms and conditions contained therein should be addressed to the Tender Inviting Authority for a tender or relevant contact person indicator in the tender.
- (b) Any queries relating to the process of online bid submission or queries relating to CPP Portal in general may be directed to the 24x7 CPP Portal Helpdesk.

CPPP under GePNIC, help Desk Services

- 1) For any technical related queries please call the helpdesk. The 24x7 help Desk Number 0120-4711508,4001 002,0120-4001 005,0120-6277 787. International Bidders are requested to Prefix 91 as country code. Note- Bidders are requested to kindly mention Tender Id in the subject while in the mail details office issue along with the contract details. For any issues / clarifications relating to the tender published kindly contact respective Tender Inviting Authority
Tel: 0120-4711508,4001 002,0120-4001 005,0120-6277 787
E-mail: support-eproc@nic.in
- 2) For any Policy related matter / clarification please contact Dept of Expenditure, Ministry of Finance. E-Mail: cppp-doe@nic.in
- 3) For any Issues / Clarification relating to the publishing and submission of AAI tender(s)
 - a) In order to facilitate the vendors / Bidders as well as internal users from AAI, help Desk services have been launched between 0800-2000 hours for the CPPP under GePNIC <https://eprocure.gov.in>. The help desk service shall be available on all working days (Except Sunday and Gazetted Holiday) between 0800-2000 hours and shall assist users on issues related to the use of Central Public Procurement portal (CPPP).
 - b) Before submitting queries, bidders are requested to follow the instructions

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”

- 4) In case of any issues faced, the escalation matrix is as mentioned below:

SL NO.	Support Persons	Escalations Matrix	E-mail Address	Contact Number	Timings*
1	Technical Help Desk Team	Instant Support	eprochelp@aai.aero	011-24632950, Ext-3512 (Six Lines)	0800-2000 Hrs. (MON-SAT)
2	Mr. Gamit Vaibhav Manekjibhai JE (IT)	After 4 Hours of Issue	sanjeevkumar@aai.aero or Vaibhav_g@aai.aero	011-24632950, Ext-3505	0930-1800 Hrs. (MON-FRI)
3	Sh. Shripati Mishra, Sr. Manager (IT)	After 12 Hours	shripatim@aai.aero	011-24632950, Ext-3509	0930-1800 Hrs. (Mon-Fri)
4	Sh. Sunil Kumar Jt. GM (IT)	After 24 hours	sunil.km@aai.aero	011-24632950	0930-1800 Hrs. (Mon-Fri)
5	General Manager (IT)	After 03 Days	gmit@aai.aero	011-24657900	0930-1800 Hrs. (Mon-Fri)

***The Helpdesk services shall remain closed on all Govt. Gazetted Holidays.**

- 5) The above-mentioned help desk numbers are intended only for queries related to the technical issues on e-procurement portal and help needed on the operation the portal.

GENERAL GUIDELINES

1. Sealed item rate Tenders are invited through e-tendering portal on behalf of Chairman, Airports Authority of India for the work as mentioned *in Schedule F*. The estimated cost of the work is mentioned at Schedule F. 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 clause 5 in Schedule F*.
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 serial No. 2(VIII) in schedule F* shall be the Accepting Officer hereinafter, referred to as such for the purpose of this contract.

In the event of tender being submitted by a firm, 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 uploaded in Envelope I and it must be disclosed that the firm is duly registered under the Indian partnership ACT 1952.

6. Tender documents consisting of plans, specifications, Schedule(s) of quantities of the various classes of work to be done, the conditions of contract and other necessary documents will be available on e-tender portal. Tender document can be downloaded from the NIC CPP portal /NIC CPP portal link in AAI e-tendering portal. However, to participate in the tender/to submit the tender document, the tenderer must pay tender processing fee as mentioned in **Critical Data Sheet** online mode in NIC CPP e-portal (link also provided at AAI e-tendering portal).
7. Copies of other drawings and documents pertaining to the works signed for the purpose of identification by the Accepting Officer or his accredited representative will be available at NIC CPP Portal in AAI e-tendering portal itself.
8. Tenderers 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 Tenderer 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.

9. Submission of a Tender by a Tenderer 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.
10. All rates shall be quoted online in the NIC CPP e-portal (link also provided at AAI e-tendering portal) only.
11. 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.
12. Tenders shall be received through NIC CPP e-portal (link also provided at AAI e-tendering portal) up to the due date and time as mentioned in e-NIT and shall be opened on the date and time as mentioned in eNIT.
13. EMD as mentioned in the Critical Data sheet shall be submitted ONLINE as on or before the date mentioned in critical datasheet.

Bidders may please refer the same.

On acceptance of the Tender, the earnest money will be treated as part of the security deposit. The EMD of the successful tenderer will be returned if the tenderer furnishes the security deposit. AAI will return the EMD where applicable to every unsuccessful tender except as provided in the tender inviting notice.

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 priced Tender and accepts all terms and conditions of the specifications and contract documents.
 - 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 Tenderer 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 Tenderer 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 return the earnest money where applicable to every unsuccessful Tenderer except as provided in the Tender documents.
17. Canvassing in connection with Tenders is strictly prohibited and the Tenders submitted by the Tenderers who resort to canvassing will be liable to rejection.
18. The Tenderer 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 Gazetted rank or other Gazetted 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 (90) Days** from the date of opening of Tenders (Price Bid). If any Tenderer 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 forfeit the full said earnest money absolutely.
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. A tenderer shall submit the tender which satisfies each and every condition laid down in this notice failing which the Tender will be liable to be rejected. Also if the credential submitted by the firm found to be incorrect or have some discrepancy which disqualifies the firm then the 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. Rates to be quoted, shall be inclusive of all taxes, duties (including custom duty & IGST incase of imported items), cess, fee, royalty charges etc. levied under any statue, freight up to site destination (AAI Darbhanga Airport, Darbhanga), loading, unloading and insurance but **Exclusive of GST** etc. However, if it is applicable for the said work as per prevailing Govt. rules & regulations during contract period, the agency shall have to pay the GST as applicable as per the Govt. rules & same will be reimbursed by AAI on production of necessary documents on actual basis. The quoted rates shall be firm throughout the currency of the contract or extended period of completion. However, if there is any statutory variation in the rate of taxes & duties (applicable) during the period of contract, this may be considered by the Authority, provided sufficient proof/documents are submitted by the successful tenderer. AAI shall not give any C/D or any other forms for concession in tax and hence actual taxes should be indicated and included. EPF & ESI amount as per the prevailing rules & regulation shall be deposited by the contractor /agency to the concerned authorities. **(GST shall be paid to contractor for any taxable supply / services against a valid tax invoice as per terms and conditions of the contract).**
- a) The contractor shall keep necessary books of accounts and other documents for the purpose of this condition as may be necessary an shall allow inspection of the same by a duly authorized representative of Airports Authority of India and / or Engineer-In-Charge and further shall furnish such other information/document as the Engineer-In-Charge may require from time to time.
 - b) The contractor shall, within a period of 30 days of the imposition of any such further tax or levy, pursuant to the Constitution (46th amendment) Act 1982, give a written notice thereof to the Engineer-In-Charge that the same is given pursuant to this condition, together with all necessary information relating thereto.
25. The site for the work is available.
- 25.1 Power of attorney/authorization for signing tender:
- a) Only the Power of Attorney/Authorization holder of the tenderer on whose name the tender has been uploaded shall sign the Tender documents.
 - b) The name and designation of the person or persons of the company who is authorized to sign shall be clearly indicted in the authority letter.
 - c) In the event of the tender submitted by a partnership firm, it must be absence of any partner, it must have signed on his behalf by a person holding Power-of-Attorney authorizing him to do so by the partners. A certified copy of the Power-of-Attorney issued by the company/partnership firm shall be uploaded in Envelope-I along with evidence of registration of partnership firm/ company.

26. MODE OF SUBMISSION OF TENDERS:

- 26.1 Tender for the present work shall be submitted online through NIC CPP e- portal (link also provided at AAI e-tendering portal) in Two Covers Bid System as detailed in e-NIT.

26.2 Envelope -I (Tender processing fee, EMD, Technical Bid and Pre-qualification):

Scanned copy of documents as stipulated in **Para 2 (A, B & C)** in NIT shall be uploaded in **Envelope-I** on the NIC CPP portal. **Tenderer who failed to upload the same by due date & time of bid submission (or by extended date & time of bid submission, if any), his tender application will be summarily rejected.**

26.3 Envelope- II (The Financial e Bid)

The Financial e-Bid shall be submitted online only. Hard copy shall not be entertained. All rates shall be quoted in the format uploaded in the CPP e-portal and no other format is acceptable. The tenderer shall upload the digitally signed **Price Schedule (.xls type file) in Envelope –II (Finance Cover)** as detailed in e-NIT.

Once the contractor has uploaded /submitted the 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.

26.4 In case, the condition 26 above is found violated, the tender shall be rejected.

27. This notice of Tender shall form part of the contract documents. The successful Tenderer/ contractor, on acceptance of his Tender by the Accepting Authority, shall within 10 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 particular specifications. Tender conditions as issued at the time of invitation of Tender and acceptance thereof with any correspondence leading there to.

28. REJECTION OF TENDER: -

- a) Airports Authority of India reserves the right to reject all the tenders or any of the tender or any part of tender without assigning any reason.
- b) AAI reserves the right at its sole discretion not to award any work under this tender. AAI shall not pay any costs or loss incurred by the tenderers in the preparation and submission of any requisite tender or technical proposal or to procure contract for any of the items described herein.
- c) If the tenderer deliberately gives wrong information or suppress any information in his Tender, AAI reserves the right to reject such tender at any stage or to cancel the contract, if awarded, and to forfeit the Earnest Money, absolutely, in addition to any other appropriate/legal action.

- d) Canvassing in any form in connection with the tenders is strictly prohibited and the tenders submitted by firms who resort to canvassing are liable for rejection.
- e) Any deviation in the Tender submission procedure will be considered as non-responsive bid and liable to be rejected.
- f) A Tenderer shall submit a responsive bid, failing which his Tender will be liable to be rejected.
- g) Tender in which any of the particulars and prescribed information are missing or are incomplete, in any respect and/or prescribed conditions are not fulfilled, shall be considered non-responsive and is liable to be rejected.
- h) The tenderer is expected to examine the tender document including all instructions, forms, terms, specifications, drawings, etc. Failure to furnish all information required as per the tender documents or submission of a tender not substantially responsive to the tender document in any respect may result in the rejection of the tender.
- i) A Tenderer shall submit the Tender which satisfies each and every condition laid down in this notice failing which the Tender will be liable to be rejected.
- j) Any tender not accompanied with EMD in the prescribed form will be considered non-responsive and rejected.

29. PURCHASE PREFERENCE TO PUBLIC ENTERPRISES

- 30. The Accepting Authority reserves to himself the right to allow to the public enterprises purchase preference facilities as admissible under the existing policy on the date of opening of tender.
- 31. The AAI reserves the right to ask for submission of sample in respect of material for which the tenderer has quoted his rates before the tender can be considered for acceptance. If the tenderer who is called upon to do so does not submit samples within 7 (Seven) days of written order to do so, AAI shall be at liberty to forfeit 50% of the said earnest money absolutely. Any query related to tender document or problem in e-bidding process should normally be addressed to bid manager as mentioned in General Instruction for Online bid submission in para "Assistance to Bidders" on section GGB of tender document.
- 32. The successful Tender/contractor, on acceptance of his Tender by the Accepting Authority, shall within 30 days from the date of award of 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.
- 33. Once the bidder has submitted the digitally signed documents as per NIT 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 (Except unconditional rebate on quoted rates i.e. header discount (%) if any).

34. **All taxes and duties/ Cess to local/Govt./Statutory Authorities shall be payable by the contractor and Airports Authority of India will not entertain any claim whatsoever in this respect. Construction Employee Welfare Cess will be deducted at the time or making payment running account of bill as per prevailing rates of the respective states. Nothing extra will be paid by AAI in this respect except GST subject to submission of documentary proof.**

ANNEXURE-A**CHECK LIST/PQ Proforma****(TO BE UPLOADED BY THE BIDDER ALONG WITH TENDER APPLICATION)**

Name of Work: Development of New Civil Enclave at Darbhanga, Bihar. SH: SITC OF Motorized Sliding Gate, Boom Barrier, CCTV & associated E & M works at Darbhanga Airport.

S. No.	Particulars	ATTACHMENTS/ ENCLOSURES CHECK LIST (To be uploaded /enclosed)	
1.	Name & registered office Address of the Applicant.		
2.	Name, address, telephone, Fax No., e mail address of the authorized contact person of the agency for further communication.	Name:	
		Address:	
		Ph. No.:	
		Mobile No.:	
		Fax No.:	
		E-Mail ID:	
a)	Tender Fee of amount Rs. 1180/- through payment gateway provided on CPP- Portal		YES/NO
b)	EMD	Rs. 6,51,556/- will be required to be paid online through payment gateway provided on CPP Portal. FDR/BG/DD shall not be accepted.	YES/NO
c)	Tender Acceptance Letter	Format given at Page- PR-1 (Annexure-1), of Tender document as per e-NIT.	Scanned copy of duly signed & stamped Unconditional Acceptance Letter uploaded YES/NO
d)	Details of PAN card	Enclose documentary proof of PAN card	Scanned copy of PAN Card uploaded YES/NO
e)	Details of GST No.	Enclose documentary proof of GST No.	Scanned copy of GST Registration No. uploaded YES/NO
f)	Undertaking regarding compliance of black listing/ debarment on company letter head.	Format given at Page- PR-5 (Annexure-5), of Tender document as per e-NIT.	Scanned copy of undertaking of blacklisting of debarment uploaded. vis/no

g)	Details of ESI & EPF Registration	Enclose documentary proof of ESI & EPF registration	Scanned copy of ESI & EPF registration uploaded YES/NO
h)	Certificate from clients of having satisfactorily completed Three works of ₹ 86,87,412/- each OR Two work of ₹ 1,08,59,265/- each OR One work of ₹ 1,73,74,824/- of similar nature of work i.e.(i) SITC Of Motorized Sliding Gate / (ii) Boom Barrier with associated works like Bollard, tyre killer works / (iii) E & M works etc.” during last seven years ending last day of month previous to the one in which tenders are invited.		Completion Certificates with PO and BOQ / Documents in support of e-NIT Self-attested copy uploaded along with Form-A at Page- PR-6. YES/NO
(i)	Name of client :-		
	Name of work :-		
	Work Order Value: -		
	Completion Value: -		
	Date of Start :-		
	Date of completion as per agreement :-		
	Actual Date of completion of work :-		
(ii)	Name of client :-		
	Name of work :-		
	Work Order Value:-		
	Completion Value: -		
	Date of Start :-		
	Date of completion as per agreement :-		
	Actual Date of completion of work:-		
(iii)	Name of client :-		
	Name of work :-		
	Work Order Value:-		
	Completion Value: -		
	Date of Start :-		
	Date of completion as per agreement :-		
	Actual Date of completion of work:-		

i)	Whether experience from private clients?	Non-Government/ Non PSU organizations as per e- NIT.	Scanned copy of TDS certificates along with a certificate issued by registered Chartered Accountant, specifying the name of work, total payment received against the work and TDS amount for the work uploaded. YES/NO								
j)	Average annual financial turnover details (Abridged Balance Sheet and Profit & Loss Account) equivalent to Indian Rupees in Lakhs during last three financial years minimum ₹ 76,88,360/-.	Abridged Balance Sheet and Profit & Loss account for last three financial year as per e-NIT. To be submitted in the given format – Form-B at Page- PR-7. <table><tr><td>Year</td><td>Turnover (in Rs.)</td></tr><tr><td>2022-23</td><td></td></tr><tr><td>2023-24</td><td></td></tr><tr><td>2024-25</td><td></td></tr></table>	Year	Turnover (in Rs.)	2022-23		2023-24		2024-25		Scanned copy of Annual Report i.e. Abridged Balance Sheet along with Profit & Loss Account for the last three years uploaded. YES/NOs
Year	Turnover (in Rs.)										
2022-23											
2023-24											
2024-25											
k)	Net worth of ₹ 32,57,780/-	To be submitted in the given format – Form-C at Page no. PR-8	Scanned copy of Certificate of Net worth. YES/NO								
l)	‘Undertaking’ on company’s Letter Head for deploying sufficient plant and machinery	Format given at Page- PR- 11 (Annexure-8), of Tender document as per e-NIT.	Signed Scanned copy uploaded YES/NO								
m)	Authorization letter/ Power of Attorney along with copy of certificate of incorporation of Company other than proprietary firm.	Enclose documentary proof as per clause 2A(viii).	Certificate uploaded YES/NO								
n)	Authorization letter/Power of Attorney of proprietary firm.	Enclose documentary proof as per clause 2A(viii).	Documentary proof uploaded YES/NO								
o)	Affidavit regarding compliance of Minimum Wages on Rs. 100 Non Judicial Stamp Paper	Format given at Page- PR- 2 (Annexure- 2), of Tender document as per e- NIT.	Scanned copy of Undertaking uploaded. YES/NO								
p)	‘Undertaking’ regarding GST on Company’s Letter Head	Format given at Page- PR-4 (Annexure-4), of Tender document as per e-NIT.	Signed Scanned copy uploaded YES/NO								
q)	Certificate for ‘substantial completion’ of project/work/asset should contain two parts. Part-I shall contain ‘financial value of the work done’ and Part-II shall contain ‘certificate of functional completion of project/work/asset’.	Substantial completion shall be based on 80 (eighty) percent (value wise) or more works completed under the contract. Substantial completion should not be defined in terms of percentage completion, rather it should be based on functional consideration. Enclose documentary proof as per clause 2B(d).	Scanned copy of Part-I and Part-II uploaded. (if applicable) YES/NO								

r)	Self-Certification on company's letter head under preference to Make in India order	Format given at Page-PR-9 (Annexure-6), of Tender document as per e-NIT.	Signed Scanned copy uploaded YES/NO
s)	Undertaking on company's letter head regarding compliance of order on Restriction under Rule 144(xi) of the General Financial Rules (GFRs)-2017	Format given at Page- PR-10 (Annexure-7), of Tender document as per e-NIT.	Signed Scanned copy uploaded YES/NO
t)	Check List/PQ proforma	Duly filled Check List.	Signed Scanned copy uploaded YES/NO
4.	ENVELOPE-II (Financial Bid)		
a)	Price/Financial e- Bid	To be quoted online through CPP portal http://etenders.gov.in/eprocure/app	

Note: Only the work experience filled by the bidder in this check list at Page no. 'PQQ check list' shall be considered for qualification criteria.

Declaration

I, () hereby declare that the documents submitted / enclosed are true and correct. In case any document at any stage found fake / incorrect, my EMD may be forfeited.

Place:

Date

Signature with stamp Authorized Signatory of the Agency

ANNEXURE-1**TENDER ACCEPTANCE LETTER
(To be given on Contractor's Letter Head)****Date:**

To,
The Assistant General Manager (EE)
Airports Authority of India,
Darbhanga Airport,
Darbhanga – 846005

Sub: Acceptance of Terms & Conditions of Tender.

(Tender ID No. 2026_AAI_283662)

Name of work: Development of New Civil Enclave at Darbhanga, Bihar. SH: SITC OF Motorized Sliding Gate, Boom Barrier, CCTV & associated E & M works at Darbhanga Airport.

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 your 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 by 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 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 are 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 Contractor) With
Rubber Stamp

ANNEXURE-2**AFFIDAVIT OR ENGAGEMENT OF WORKERS WITH MINIMUM WAGES**

(To be printed on Non-Judicial stamp paper of Rs 100 and duly notarized affidavit)

[TO BE SUBMITTED WITH ENVELOP- I]

Name of Work “~~Development of New Civil Enclave at Darbhanga, Bihar. SH: SITC OF Motorized Sliding Gate, Boom Barrier, CCTV & associated E & M works at Darbhanga Airport.~~”

(Tender ID: _____)

I/We _____

-) 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 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.

DEPONENT

Place:

Date:

1. ~~Scanned copy of undertaking shall be submitted in Envelop-1 on company's letter head.~~
2. ~~L-1 bidder has to submit this affidavit attested by a First Class Magistrate / Notary Public on non-judicial stamp paper of Rs. 100/-, before award of work~~

Annexure-3

E PAYMENT FORMAT

To,

Sub:- Request for E-Payment.

Sir,

The following particulars are given for effecting E-Payment in respect of our Claim / Bill.

- i) Name of the Company :
- ii) Address :
- iii) Bank Account No. :
- iv) Bank / Branch Name and Address :
- v) Branch Code. :
- vi) IFSC Code of the Bank :
- vii) Permanent Account No. of the Company :

We also enclosed herewith a cheque duly cancelled of our above Bank A/c.

Thanking you,

Yours faithfully,
()
Authorized Signatory.

Annexure-4

Undertaking for GST (on company's letter head)

Name of Work “Development of New Civil Enclave at Darbhanga, Bihar. SH: SITC OF Motorized Sliding Gate, Boom Barrier, CCTV & associated E & M works at Darbhanga Airport.”

1. I/we..... here by undertake that I/we are registered under GST vide registration no..... and compliant of GST provision.
2. In the case of non compliance of GST provision and blockage of any input credit, I/we shall be responsible to indemnify AAI.
3. That all input credits have been passed on to AAI by the bidder.

Place:

Date:

Signature with stamp

Authorized Signatory of the contractor

UNDERTAKING REGARDING DEBARMENT/BLACKLISTING

Name of Work: - Development of New Civil Enclave at Darbhanga, Bihar. SH: SITC OF Motorized Sliding Gate, Boom Barrier, CCTV & associated E & M works at Darbhanga Airport.

(Tender ID No: - 2026_AAI_283662)

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/retainment 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 Member /Director 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/retainment is not in force as on last date 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/retainment, termination of the contract etc.as deemed fit.

Dated:

[Signature and name of the authorized signatory of the firm] Place:

(Note: - Above undertaking is to be given on company's letter head).

FORM "A"

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

S.	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 commencement 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 turnover on construction works with profit / loss as per figure in balance sheet account for the last three years duly certified by the Chartered Accountant as submitted by the applicant to the Income - Tax Department

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

2. Financial arrangements for carrying out the proposed work.

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

SIGNATURE (S) OF BIDDER (S)

SIGNATURE OF CHARTERED
ACCOUNTANT WITH SEAL

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 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 Rsafter considering all liabilities. It is further certified that Net Worth of the company has not eroded by more than 30 % in 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 2025 (FY 2024-25) 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.

Annexure-6**Self-Certification under preference to Make in India order
Certificate**

In line with Government Public Procurement Order No. P-45021/2/2017-PP (BE-II) dated 16.09.2020 and its amendments, we hereby certify that we M/s _____ are local supplier meeting the requirement of minimum local content i.e., _____% as defined in above orders for the material against IPR Enquiry/Tender

No.....dated..... Details of location at which local value addition will be made as follows:

_____.

We also understand, false declarations will be in breach of the code of integrity under rule 175(1)(i)(h) of the General Financial Rules for which a bidder or its successors can be debarred for up to two years as per Rule 151(iii) of the General Financial Rules along with such other actions as may be permissible under law.

Thanking You

Signature with date:

Name:

Designation:

Official Seal

Annexure-7

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: Development of New Civil Enclave at Darbhanga, Bihar. SH: SITC OF Motorized Sliding Gate, Boom Barrier, CCTV & associated E & M works at Darbhanga Airport.

Tender ID: 2026_AAI_283662

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

Date:

Place:

Annexure-8

UNDERTAKING (regarding sufficient plant & machinery)

(On Company's letter head)

Name of Work: Development of New Civil Enclave at Darbhanga, Bihar. SH: SITC OF Motorized Sliding Gate, Boom Barrier, CCTV & associated E & M works at Darbhanga Airport.

(Tender ID: 2026_AAI_283662)

I/We..... on behalf of M/s.....do hereby solemnly affirm and state that we shall deploy sufficient plant & machinery as per the requirement of work in consultation with the Engineer-in-charge (EIC) to achieve the milestone/targets and overall completion within the time period.

Date:

(Signature of the tenderer)
With rubber stamp



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

~~Percentage Rate Tender~~/Item Rate Tender & Contract for Work

Airport: Darbhanga Airport

Branch: Engineering Electrical

Office of: AGM(E-E)

(A) Tender for the work of: - **"Development of New Civil Enclave at Darbhanga, Bihar. SH: SITC OF Motorized Sliding Gate, Boom Barrier, CCTV & associated E & M works at Darbhanga Airport.**

(i) To be submitted/uploaded up to as mentioned in **CRITICAL DATA SHEET** given at page no. Web NIT-3 & 4, in CPP Portal.

(ii) To be opened in presence of tenders who may be present _____ at _____ hrs. in the office of _____

Issued to ----- *

Signature of officer signing on its ----- *

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. 6,51,556/-** is here by submitted through online payment gateway provided on CPP Portal as earnest money. FDR/BG/DD shall not be accepted. 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 forfeit the said earnest money absolutely, 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.

(* To be deleted which are not applicable)

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/eprocure/app 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 / contract agreement in respect of the work to be executed, the lead partner should be submitted. The lead partner shall generate the documents in respect of the work to be executed and an affidavit of a 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 50% of his earnest money shall be forfeited. 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 forfeiting 50% of EMD 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 words) the total estimated cost given in Schedule of Quantities at Schedule of Rates, he is willing to execute the work. The tender submitted shall be treated as invalid. 1. The contractor does not quote percentage above/below of 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 or 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 of 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 completion of the work, or which contain any other conditions of any sort including additional 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 work 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 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. If 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 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 who 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. Note: Till the time the tie is broken, the above provisions, revised offers from tenders having 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 offers. 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 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 thereupon be given to the contractor who shall thereupon 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 thereupon 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 authorized 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, i. 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. ii. 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. iii. 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. iv. 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). v. 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. vi. 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 the 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 i. The percentage which corresponds with the amount worked out by the bidder shall, unless otherwise proved, be taken as correct. ii. 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. iii. 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 in CPP Portal. 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 / above (in figures as well as in words) for the work. He shall also work out the amount of the rate to be written in figures as well as in words. In case of figures, the word 'Rs' should be written before the figure of rupees and work 'P' after the decimal. 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 of abnormally low quoted bid	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: - 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, schedule, resource mobilization, allocation of risks and responsibilities, and any other requirements of the bids document. - 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. - 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.

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 with the schedule. If the contractor does not comply, the Engineer-in-charge shall also issue a letter to the contractor stating that the contractor has failed to start the work within the stipulated time. The contractor should be encashed 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. vi. 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 on 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. vii. Further, the aforesaid bank guarantees are to be submitted from contractor before the award of work. viii. Accordingly additional Performance Guarantee shall be submitted within 30 days of issue of letter for intent. ix. Further, the award letter shall be issued on receipt of Additional Performance Guarantee and contract agreement shall be signed within 10 days of issue of award letter. x. In case the contractor fails to deposit performance guarantee within the stipulated period tender shall be stands cancelled without any notice. Further, EMD shall be forfeited, and the contractor shall be liable for debarment up to a period of two (02) years. Additional performance security Amount and Treatment- The additional performance security shall be calculated as below- (i) 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; (ii) 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; (iii) 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; (iv) 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; (v) 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. (vi) 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.
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. Rates to be quoted by the parties should be inclusive of all taxes, duties, CESS, fee, royalty charges etc. levied under any statute for all the items but exclusive of GST. 2. However GST, as applicable, shall be paid to the contractor, for any taxable supply / services / construction rendered by the agency to AAI, against a valid GST invoice as per terms and conditions of the contract. 3. In case supplies / services / works involve imports; the same should be identified separately. Basic Custom Duty & IGST will be paid directly by AAI by utilizing EPCG license / Duty Credit Scrip under service Export from India Scheme (SEIS) of Govt. of India.
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 shall submit his financial statement for last 5 years* as well as which he has been engaged in the following for assessing bidding capacity of the bidder: -		
Name of work	Name and particulars of work to be executed	Value of work	Position of work	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 / agreements executed between the competent authority(s) 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 / two contracts and shall be complimentary to one another. Contractor has to sign two agreements, one consisting BOQ for Civil works and another one for SITC and O&M / AMC / AICMC part. Engineer in charge could be common for both the agreements. Separate invoices for the civil / construction works and SITC / O&M / AICMC / AMC works have to be raised by the agency referring to the respective agreements to facilitate AAI to claim input tax credit on such SITC / O&M / AICMC / AMC works as mentioned in Schedule 'F' para 2(v).
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 / bidder 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, shall sign either single or Two agreements, as the case may be, one consisting BOQ for Civil works and another one for SITC and O&M / AMC / AICMC part.
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 up to the date stipulated in Schedule 'F' along with 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, (not withstanding 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 deposit 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 up to 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 (not withstanding and/or without prejudice to any other provisions in the contract agreement) in the event of: a. Failure by the contractor to extend the validity of the Performance Guarantee as described herein above, in which event the Engineer-in-Charge may claim the full amount of the Performance Guarantee. b. Failure by the contractor to pay the Chairman, AAI any amount due, either as agreed by the contractor or determined under any of the Clauses / 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 stand forfeited in full and shall be absolutely at the disposal of the Chairman, AAI.

CLAUSE 1 A

Recovery of Security Deposit	The security deposit will be collected by deductions from the running bills of the contractors at the rate mentioned below and earnest money deposited by successful bidder will be refunded after submission of performance guarantee for the works estimated cost more than 5.00 Cr. or security deposit equivalent to EMD amount for the works estimated cost up to 5.00 Cr. 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 receipts 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 final bill of the contractor at the rates mentioned above. Rate of recovery of security deposit shall be 10% (This shall be in two parts first 5% as performance guarantee which is to be deposited before start of work and secondly 5% as security deposit) of gross amount of each running bill till the total amount of security deposit as mentioned in contract is recovered. 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 subject to the condition that 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 Amount and Treatment -	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 (abnormally low quoted bids). This clause shall be binding and enforceable in relation to all works, irrespective of their nature, scope, or value. A) Further, the aforesaid bank guarantees are to be submitted from contractor before the award of work. B) Accordingly additional Performance Guarantee shall be submitted within 30 days of issue of letter for intent. C) Further, the award letter shall be issued on receipt of Additional Performance Guarantee and contract agreement shall be signed within 10 days of issue of award letter. D) In case the contractor fails to deposit performance guarantee within the stipulated period tender shall be stands cancelled without any notice. Further, EMD shall be forfeited, and the contractor shall be liable for debarment up to a period of two (02) years. The additional performance security shall be calculated as below- (i) 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; (ii) 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; (iii) 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; (iv) 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; (v) 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. (vi) 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 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 per day basis, shall be paid to the contractor, subject to a maximum limit of 5% (five per cent) of the tendered value. The amount of bonus, if payable, shall be paid no-with-out any delay in the completion of work. Bonus/ incentive shall be applicable for the contract awarded before stipulated date of completion and shall not be payable for the contract extended beyond the stipulated date of completion. This clause shall be applicable for the work which estimated cost put to tender is Rs. 50.00 Cr.
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Clause 2B

	Release of withheld amount against compensation for delay.	Withheld amount towards compensation for delay over and above Rs. 50.00 lacs, can be released against Bank Guarantee (on the format given at Appendix-1) or in the form of fixed deposit receipts or guarantee bonds of any Scheduled Bank but not Co-operative or Gramin Bank, pending finalization of 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
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		any of the following cases: 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.
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		xi. If the contractor assigns (excluding part(s) of work assigned to other 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. works etc. 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 programme referred above 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.
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5.2		If the work(s) be delayed by:- - Force majeure, or an act of terrorism - Abnormally bad weather, or - Serious loss or damage by fire, or - Civil commotion, local commotion of workmen, strike or lockout, affecting any of the trades employed on the work, or - Delay on the part of other contractors or tradesmen engaged by Engineer-in-Charge for executing work not forming part of the Contract, or - Non-availability of stores, which are the responsibility of AAI to supply or - Non-availability or break down of tools and Plant to be supplied or supplied by AAI or - 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. All correspondence with the agency and concerned stakeholders during execution of works will be taken into consideration for evaluation of hindrances causing delay, for grant of extension of time by the Competent Authority.
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. A complete record is obtained of all works performed under the contract. All measurements and levels shall be taken by the Engineer-in-Charge or his authorised representative by the contractor or his authorised representative from time to time during the progress of the work and such measurements shall be signed and attested by the Engineer-in-Charge and the contractor or their representative as a token of their acceptance. If the contractor objects to any of the measurements recorded, a note shall be made to that effect with reasons 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-
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		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 represent at the time of such measurements after the contractor or his authorised representative has been given a notice in writing three (3) days in advance, the 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 easy measurement and recording levels. Except where any general or detailed description of 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 practice or 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 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 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 corrected. Measurements 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 inspect the work, and if any work shall be covered up or placed beyond the reach of measurement without such notice having been given to the 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 award shall be made for such work or the materials with which the work is executed. Engineer-in-Charge or his authorised representative may cause either themselves or through an officer of the department to check the measurements recorded jointly or severally by the contractor and the Engineer-in-Charge. All provisions stipulated herein above shall be applicable to such checking of measurements or levels. It is a condition of the contract that recording of measurements of any item of work in the Computerized Measurement Book and/or its payment in the interim, on account of final bill shall be considered as conclusive evidence as to the sufficiency of any work or materials to which it relates nor shall it relieve the contractor from liabilities from any over measurement or defects noticed in the completion or final 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.
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		All such measurements and levels recorded by the contractor or his authorised 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 authorised representative as per interval or program fixed in consultation with Engineer-in-Charge or his authorised 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, computerized 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 along with 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 set forth 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
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		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 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-in-Charge. 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 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
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		specifications. Any such interim payment, or any part thereof shall not in any respect conclude, determine or affect in any way powers of the Engineer-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.
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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
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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 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 realized 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.

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.
		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.

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. - Information as per proforma attached. - An authorization 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	Materials which Authority will supply are shown in Schedule 'B' which also stipulates quantum, place 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 a 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 and schedule quantities of the work. The contractor shall give in writing his requirements 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 if the rates specified in the aforesaid schedule shall be set off or deducted against the materials are consumed in items of work (including normal wastage) for which payment is being made to the contractor, form a sum for which payment is being made to the contractor under the contract otherwise or from the security deposit. At the time of submission of bill the contractor shall certify that balance of materials supplied is available in original good condition. The contractor shall submit along with every running bill (on account or interim bill) material-wise reconciliation statements supported by complete calculations
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	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 reconciliation 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, 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 received with the assistance of the AAI shall remain the absolute property of the Authority and the contractor shall be the trustee of the stores/ materials, and the 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 at other place specified by him as he shall require, but in case it is decided 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 and the stores / materials 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 the day said or credited such price as the Engineer-in-charge shall determine having regard to the condition of the stores / materials. The price for credit to the contractor, however, shall be at the prevailing market rate less 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 or for criminal breach of trust, be liable to Authority for all damages or profits resulting or which in the usual course would have resulted from such breach. Provided that the contractor shall in no case be entitled to any compensation or damages on account of any 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 or 50% thereof or schedule time plus 6 months whichever is more if the completion of work exceeds 12 months, but if a part of the materials have 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 aforesaid period. For the completion of the rest of the work, the contractor shall be entitled 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 such material remaining unused and in perfectly good / original condition at the time of 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 directed 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 and cost submit the samples of materials to be tested or analyzed 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 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 and cost, 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 and cost of testing unless specifically provided for otherwise elsewhere in the contract or specifications. The Engineer-in-charge or his authorized representative shall at all times have access to the works and to all workshops and places where work is being prepared or from where materials 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
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		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 at least 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

(I)	Secured Advance on Nonperishable materials	1. The Contractor, on signing an indenture in the form to be specified by the Engineer-in-charge, 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, non-fragile 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 advance been incorporated in the works. When materials on account of which an 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 this 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 paid 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 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)	Mobilization 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 installments 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 (six) 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 format 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 and likely period of complete recovery.

	Interest on Mobilization 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 Mobilization 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 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 variation of rate in GST 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 is same as cost of work done shall be worked out as below: (a) Gross value of work done up to this quarter: (A) (b) Gross value of work done up to the last quarter: (B) (c) Gross value of work done since previous quarter (C) = (A-B) (d) Full assessed value of Secured Advance fresh 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 Payable in
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		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 deviations/variations 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-(L+X) Provided always that: (a) Where provisions of clause 10C are applicable, provisions of clause 10 CC will not be applicable and; (b) Where provisions of clause 10 CC are applicable, provisions 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	NOT APPLICABLE
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Clause 10CC

	Price Adjustment for works	If the prices of materials (not being materials supplied or services rendered at fixed prices by the Department in accordance with clause 10 & 34 thereof) 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 5 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 labour, when due, shall be worked out based on the following provisions: i. The base date for working out such escalation shall be the last stipulated date of the receipt of tenders including extension, if any. ii. The cost of work on which escalation will be payable shall be reckoned as 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 (A-B)(C) d. — Full assessed value of secured advance (excluding material covered under clause 10CA) fresh paid in this quarter(D) e. — Full assessed value of secured advance (excluding material covered under clause 10CA) recovered in this quarter(E) f. — Full assessed value of secured advance for which escalation is payable in this quarter (D-E)(F) 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 (G-H) (I) j. — Extra items/ deviated quantities of items paid as per clause 12 based (J) on prevailing market rates during this quarter: Then, $M = (C + F + I - J)$ $N = 0.85 M$ k. — Less cost of material supplied by the department as per clause 10 and recovered during the quarter(K) l. — Less cost of services rendered at fixed charges as per Clause 34 and recovered during the quarter(L) Cost of work for which escalation is applicable $W = N - (K + L)$ iii. — Components for materials, (except Bitumen, cement, reinforcement bars, structural steel or others material covered under clause 10CA) labour, P.O.L. 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.
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		iv. 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: a. Adjustment for civil component (except Bitumen, cement, reinforcement bars, structural steel and others material covered under clause 10CA) /electrical component of construction.
	Materials	m. Formula for adjustment in material cost $V_m = \frac{W \times X_m}{100} \times \frac{MI - MI_0}{MI_0}$ V_m = Variation in material cost i.e. increase or decrease in the amount in rupees to be paid or recovered. W = Cost of work done, worked out as indicated in sub para (ii) of Clause 10 CC X_m = Component of 'materials' (except cement, structural steel, reinforcement bars, POL and other materials covered under clause 10 CA) expressed as percent of the total value of work. MI = All India wholesale price index for civil component/ electrical component* of construction material as worked out on the basis of All India Wholesale Price Index for Individual Commodities/ Group Items for the period under consideration as published by the Economic Advisor to Government of India, Ministry of Industry & Commerce and applying weightage to the Individual Commodities/ Group Items (in respect to the 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.) MI₀ = All India wholesale price index for civil component/ electrical component* of construction material as worked out on the basis of All India Wholesale Price Index for Individual Commodities/ Group Items valid on the last stipulated date of receipt of tenders including extensions, if any, as published by the Economic Advisor to Government of India, Ministry of Industry and Commerce and applying weightage to the Individual Commodities/ Group Items. * Note: relevant component only will be applicable

POL	n. Formula for adjustment in POL cost $V_F = W \times \frac{Z}{100} \times \frac{FI - FI_0}{FI_0}$ VF = Variation in cost of Fuel, Oil & Lubricant i.e. increase or decrease in the amount in rupees to be paid or recovered. W = Cost of work done, worked out as indicated in sub para (ii) of Clause 10 CC Z = Component of Fuel, Oil and Lubricant expressed as a percentage of the total value of the work FI = All India wholesale price index for Fuel, Oil and Lubricant for the period under consideration as published by the Economic Advisor to Government of India, Ministry of Industry & Commerce (in respect to the 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 or the prevailing index of the period under consideration, whichever is less, shall be considered) FI₀ = All India wholesale price index for Fuel, Oil and Lubricant valid on the last stipulated date of receipt of tenders including extensions, if any.
	v. The following principles shall be followed while working out the indices mentioned in above Para 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 bills paid during the three calendar months of the said quarter. The dates of preparation of bills as finally entered in the measurement book/date of submission of bill finally by the contractor to the department in case of computerized measurement book 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 tender was accepted) 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 index (MI/FI etc.) relevant to any quarter/ period for which such compensation is paid shall be the arithmetical average of the indices relevant to the three calendar months. If the period up to date of completion after the quarter covered by the last such installment of payment is less than three months, the index MI and FI shall be the average of the indices for the months falling within that period.

	Labour	vi Formula for adjustment in Labour cost The compensation for escalation for labour shall be worked out as per the formula given below: $V_i = W \times \frac{Y}{100} \times \frac{L_i - L_0}{L_0}$ V_i = Variation in labour cost i.e. amount of increase or decrease in rupees to _____ be paid or recovered W = Value of work done, worked out as indicated in sub para (ii) above Y = Component of labour expressed as a percentage of the total value of the work L_i = Minimum wage in rupees of an unskilled adult male mazdoor, fixed under any law, statutory rule or order as applicable on the last date of the quarter previous to the one under consideration (in respect to the justified period extended under the provisions of clause 5 of the contract without any action under Clause 2, the minimum wage prevailing on the last date of quarter previous to the quarter pertaining to 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.) L_0 = Minimum daily wage in rupees of an unskilled adult male mazdoor, fixed under any law, statutory rule or order as on the last stipulated date of receipt of tender including extension if any.
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	vii. — The following principles will be followed while working out the compensation as per sub-para (vi) above: a. — The minimum wage of an unskilled male mazdoor mention ed in sub-para (vi) above 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. b. — The escalation for labour also shall be paid at the same quarterly intervals when escalation due to increase in cost of materials and/ or P.O.L. 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. c. — Irrespective of variations in minimum wages of any category of labour, for the purpose of this clause, the variation in the rate for an unskilled male mazdoor alone shall form the basis for working out the escalation compensation payable on the labour component. viii. — 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 deductible from the cost of work under this contract and in this regard the formula herein before stated under this Clause 10CC shall <i>mutatis mutandis</i> apply, provided that: a. — No such adjustment for the decrease in the price of materials and/or wages of labour aforementioned would be made in case of contracts in which the stipulated period of completion of the work is equal to or less than the time as specified in Schedule F. b. — The Engineer in-charge shall otherwise be entitled to lay down the procedure by which the provision of this sub-clause shall be implemented from time to time and the decision of the Engineer in-charge in this behalf shall be final and binding on the contractor. ix. — Provided always that: a. — Where provisions of clause 10CC are applicable, provisions of clause 10C will not be applicable but provisions of clause 10CA will be applicable. b. — Where provisions of clause 10CC are not applicable, provisions of Clause 10C and 10CA will become applicable. Note: Updated stipulated date of completion (period of completion plus extra time for extra work for compensation under clause 10C, 10CA and 10CC, the factor of 1.25 taken into account for calculating the extra time under clause 12.1 for extra time shall not be considered while calculating the updated stipulated date of completion for this purpose in clause 10C, clause 10CA, and clause 10CC. The date of preparation of bill shall be as finally entered in the measurement book by AM / Mgr / SM / AGM or the date of submission of bill by the contractor to the Department. This shall be the guiding factor to decide the bill relevant to that period in case of computerized billing.
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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 up to 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 authorize 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 meters 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, overhead 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 meters above the ground level.

		vi. 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; i. 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. ii. 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 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.
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		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: - 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 - 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 - Fails to complete the work(s) or items of work with individual dates of 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.
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		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.
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		ii. If the suspension is ordered for reasons (b) and (c) in sub-para (i) above (but not attributed to contractor): a. 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; b. 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. c. 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 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
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		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 Engineering- 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 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
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		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 subcontractors, 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,
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		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 unauthorizedly 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 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.
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		ix. The contractor shall ensure that no amount by by way of commission or otherwise is deducted or recovered 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: - Leave: - 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. - In the case of miscarriage - upto 3 weeks from the date of miscarriage. - Pay: - 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. - In the case of miscarriage – leave pay at the rate of average daily earning
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		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 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 kutchra 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 provide 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 provided. 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 center, 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 anybody 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 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 along with 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
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		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 Provision 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
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		running account payments, if PF / ESI contributions were 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 Constitution to be intimated	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 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	Dispute Resolution Clause All disputes or differences which may arise out of or in connection with or incidental to the Agreement(s) including any dispute or difference regarding the interpretation of terms and conditions of any clause(s) thereof shall be dealt with as provided hereinafter: i. Through Mediation: All dispute(s), at the first instance, shall be referred to the Mediation Committee of Independent Experts (MCIE) or individual mediator for mediation as per AAI Mediation Policy and applicable laws. All cost of mediation, shall be borne equally by the parties. In case either party withdraws from the Mediation or the dispute(s) is not resolved within 120 days of reference to the Mediation, then the aggrieved party may invoke arbitration through sub para (ii) within 30 days from the date of receipt of Partial Settlement Agreement or Failure Report. ii. Adjudication through Arbitration: In case no final settlement has been arrived at between the parties after mediation or partially settled as per sub Para (1) above, the unresolved dispute(s), on invocation by the aggrieved party shall be referred for adjudication by arbitration. a. Arbitration is restricted to disputes with a value of less than Rs. 10 Crores. b. The dispute shall be referred to a Sole Arbitrator to be appointed by Chairman/Member, AAI, after obtaining consent of the other party, as per format annexed at APPENDIX-XVII. Unless the contract has already been repudiated or terminated, the parties shall, in every case, continue to proceed to perform their respective obligations under the agreement. Arbitration proceedings shall be conducted in accordance with the provisions of the Arbitration and Conciliation Act, 1996, as amended from time to time. Fee payable to the Arbitrator(s) shall be as per Schedule-IV of the Arbitration & Conciliation Act, 1996 and shall be borne by both the parties equally. No dispute shall be referred for resolution under this clause through arbitration in matters for which eviction & recovery procedure is Airports Authority of India Act, 1994.
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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 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
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		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 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
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		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 Bankuara, 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 the amount of the work done. ii. The contractor(s) shall make his/their own arrangements for water connection and laying of pipelines from existing main source of supply. iii. The Department shall not guarantee a uninterrupted supply of water and it is incumbent on the contractor (s) to make alternative arrangements for water at his own risk in the event of any temporary break down in the AAI water supply. The progress of his/their work is not held back on account of 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
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		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. 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.
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		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 incharge 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. 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
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		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 of asphaltic materials	i. The contractor undertakes to make arrangement for the supervision of the work by the firm supplying the tar or bitumen used. 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.
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		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 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
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		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) along with 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 License fee payable by Contractor	1. Taxes: a. Rates to be quoted by the parties should be inclusive of all taxes, duties, CESS, fee, royalty charges etc. levied under any statute for all the items but exclusive of GST. b. However GST, as applicable, shall be paid to the contractor, for any taxable supply / services / construction rendered by the agency to AAI, against a valid GST invoice as per terms and conditions of the contract. c. In case supplies /services / works involve imports; the same should be identified separately. Basic Custom Duty & IGST will be paid directly by AAI by utilizing EPCG license/ Duty Credit Scrip under service Export from India Scheme (SEIS) of Govt. of India.
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		2. Royalty: - 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. - This will also be applicable to forest produce. - 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. License fee for land - The contractor shall be liable to pay license fee for the land allotted by AAI for installation of plants, labour camp, cement godown and site office at AAI prevailing rates of license fee for unpaved land at the time of call of tender. - In addition a security deposit at the rate of Rs 500/- per sqm in the form of DD/BG shall also be deposited by the contractor. In case contractor do not deposit security deposit same shall be deducted from Ist Running Account Bill. - Such security deposit shall be released only after allotted land has been fully vacated by the contractor to entire satisfaction of Engineer-in-Charge.
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CLAUSE 38

	Conditions for reimbursement of levy/taxes if levied after receipt of tenders	1. Rates to be quoted by the parties should be inclusive of all taxes, duties, CESS, fee, royalty charges etc. but excluding GST levied under any statute applicable on last stipulated date of receipt of tender including extension if any. No adjustment i.e. increase or decrease shall be made for any variation in the rate of GSI Building and Other Construction Workers Welfare Cess or any tax, levy or Cess applicable on inputs. However, effect of variation, as per Govt. order after the last date of receipt of tender including extension if any, in rates of GST or Building and Other Construction Workers Welfare Cess or imposition or repeal of any other tax, levy or Cess applicable on output of the works contract shall be adjusted on either side, increase or decrease. Provided further that for Building and Other Construction Workers Welfare Cess or any tax (other than GST), levy or Cess varied or imposed after the last date of receipt of tender including extension if any, any increase shall be reimbursed to the contractor only if the contractor necessarily and properly pays such increased amount of taxes / levies / Cess. Provided further that such increase in tax / levy / Cess including GST shall not reimbursed if made in the extended period of contract for which the contractor
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		alone is responsible for delay as determined by authority for extension of time under Clause 5 in Schedule F. 2. 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 authorized 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. 3. The contractor shall, within a period of 30 days of the imposition of any such further tax or levy or Cess, give a written notice thereof to the Engineer-in-charge that the same is given pursuant to the condition, together with all necessary information / documents 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 grandchildren, brothers and sisters, uncles, aunts and cousins and their corresponding in-laws.
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CLAUSE 41

	No any officer in Department of Engineering to work as contractor within one year of retirement	Engineer or any officer employed in engineering or administrative duties in an 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 II along with tender documents. AAI shall appoint Independent External Monitor(s) to oversee effective implementation of Integrity Pact for supply works/ supplies. For this purpose, a panel of Independent External Monitors shall be constituted by the Authority in concurrence with Central Vigilance Commission. i. The Contractor/Supplier shall have to act in accordance with the conditions laid down in the integrity pact. - Signing of Integrity Pact is mandatory for every Bidder/Contractor in this procurement/bid process the signed Integrity Pact to be send to the office of Bid Manager and should reach before the due date mentioned in NIT. - 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 bid and or during any pre-contract or post-contract stage as specified in section 3 of the integrity pact. - Any breach of the aforesaid provisions by the Bidder or any one employed by it or acting in 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. - If contractor commits 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. - 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 a recovery 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. - Authority may initiate appropriate proceedings against the contractor. - Contractor will be liable to pay damages as determined by the Authority. - 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. - If 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 codes which includes i. prohibition of a) making offer, solicitation or acceptance of bribe, reward or 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 behavior 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 impair 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 sub-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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CLAUSE42

	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; a. 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-efficient 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. b. Theoretical quantity of steel reinforcement or structural steel sections shall be taken as the quantity required as per design or as authorized by Engineer in Charge, including authorized 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. c. 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. d. 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 authorized 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. g. 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. h. 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 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 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 AA I'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 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,
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		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 is 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 is 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 equivalent to 150% of premium or premiums as may be 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 after issuing notice to contractor in this regard. Engineer-in-charge shall ensure that all applicable insurances shall be in force without any break as per contract requirement to avoid any losses to AAI on account of non-availability of insurance policies and /or break in insurances policies. xiii. In case contractor takes Contractor All Risk (CAR) Policy in joint name of AAI and Contractor for full tendered value along with 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 responsibilities 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 applicable for each subhead of work independently. 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 meet 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 requirement 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 his 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, 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 accorded 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 later 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 installment 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 levied 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 part rate 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 under (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 the contractor. The detailed conditions of Escrow Account shall be drawn up in consultation with associated bank. ii. Mobilization advance for mobilization 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 utilize 25% (or as decided by TS authority) of each installment of mobilization advance to meet minor expenses like construction of site office, purchase of equipment and other minor works, while release of balance 75% funds shall be regulated by the department. The contractor shall seek prior concurrence of Engineer-in Charge for release of payment to the supplier of material 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. Payment received and credited against each RA Bill, can be utilized 25% directly 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 this proposal to the Engineer-in-Charge/Authority for utilization of funds made available by AAI (75% against each RA bill) a. Name of agency for whom payment is proposed to be released. b. Details of work executed/material supplied by agency to whom he intends to release payment. c. Nature of payment if any, has to be released to the supplier for supply of material for the project only d. Documentary evidence in support of his claim. v. Engineer-in-charge will examine and approve full / part of such payments as per agency releases within maximum of three working days. The terms and conditions of Escrow Account shall be finalized with bank according to contract. Bank shall release payment against such cheques only after written consent of authorized officer of AAI is received. vi. Contractor is 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 assets and liabilities against this Escrow Account shall be left at the disposal of the contractor.
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Note : In case of difference or ambiguity in Hindi and English version anywhere, the English version will prevail.

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 up to 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 defense 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 bore well, the contractor should cap the bore well properly by welding steel plate, cover the bore well with the drilled wet soil and fix thorny shrubs over the soil. This should be done even while repairing the pump;
 - vi. After the bore well 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 at least 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) At least 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 meters 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 readymade 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 sterilized dressings
2. 3 medium size sterilized dressings
3. 3 large size sterilized dressings
4. 3 large sterilized 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 sterilized dressings.
2. 6 medium size sterilized dressings.
3. 6 large size sterilized dressings
4. 6 large size sterilized burn dressings.
5. 6 (15 gms) packets sterilized 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-aidbox.
 - (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 up to 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 up to 50 and one for female workers up to 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 up to 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 meters (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 sq.ft) 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 ayah 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 lime washed 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 sft) 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 authorized 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 authorized 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 authorized 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 authorized 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 authorized 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 authorized 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 authorized 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, authorized 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.

**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.....(Rupeesonly) 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 undertake and agree to identify and keep indemnified AAI from time to time to the extent of Rs..... (Rupeesonly) 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. WeBank, 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 _____
Authorization 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 _____

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)

Date:

To

The Manager
(Bank),
(Branch)

Subject: Inclusion of unique identifier code of AAI while transmitting BG cover message where beneficiary bank is ICICI Bank (IFSC-ICIC0000007)

Dear Sir/Ma'am,

I/we _____, request you to include unique identifier AAIRHQNR in field 7037 of 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-ICIC0000007).

Thanking You,

Signature with Stamp of Authorized representative of the Company/ Firm

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 Senior Manager) (hereinafter called "the Engineer in charge") in the sum of Rs. _____ (Rs. In words _____) for which payment well truly to be made to the said Engineer in charge the bank binds itself, his 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 engineer in charge.
 - 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 award 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 engineer in charge, notice of which extension (s) to the bank is hereby waived. Any demand in respect of this guarantee should reach the bank not later than the above date.

DATE _____ SIGNATURE OF THE BANK

WITNESS _____ SEAL
(SIGNATURE NAME AND ADDRESS)

* 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.....

Sl. No.	Item	Quantities as per Agreement	Frequency as per Specification	No. of Tests Required	Upto date Quantity	No. of Tests Required	No. of Tests actually done	Remarks
1	2	3	4	5	6	7	8	9

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.

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	Se x 3	Father's/ Husband's 4	Date					Remark
				1	2	3	4	5	

FORM B
[See Rule 78(1) (a) (i)]

APPENDIX-VIII

FORMAT FOR WAGE REGISTER

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 _____
From_____To_____(Monthly/Fortnightly/Weekly/Daily/Piece
Rated)

Wage period

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 Installments	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

**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	Descript ion/ nature of work done	No. of days worked	Units of work done	Daily rates of wages/ piece rate	Basic wage s	Dearness Allowanc e	Over- time	Other cash payme nt nt. (indic ate nature)	Total	Deduc tion if any (indic ate nature)	Net amou nt paid	Sig. or thumb impres sion of the work men	Initial contract or his represe ntative
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	2	3	31
									<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>8</u>	<u>0</u>

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 issue

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

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 workmanemployed.....

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

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 between
[hereinafter called the said contractor(s)] for the work (hereinafter "the said agreement") having agreed to production of a irrevocable Bank Guarantee for Rs.
..... (Rupees only) 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) do hereby undertake to pay the amounts due to payable under this Guarantee without any demure, 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.
(Rupeesonly).
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 bond 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 or 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 up to.....unless 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 or 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 _____
Authorization 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 _____

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/Additional 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 amountIssued 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/ Additional 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:

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. Willful 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 behavior
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. Unauthorized use of employer's property of manufacturing or making of unauthorized 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 unauthorized divulgence of business affairs of the employees.
19. Collection or canvassing for the collection of any money within the premises of an establishment unless authorized 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 realized	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 in whose presence employee's explanation was heard	Amount of deduction imposed	No. of installments	Date of recovery		Remark
										First Installment	Last Installment	
1	2	3	4	5	6	7	8	9	10	11	12	13

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,

The Chairman/Member/Regional Executive Director,
Airports Authority of India,

SUB: Request for appointment of arbitrator under Clause _____ of the _____ agreement dated _____ for _____

Sir/Madam,

1. We state that _____ (contractor/agency) was awarded work/ concession of _____ at _____ Airport/ _____ (other location) of Airports Authority of India through Award Letter dated _____
2. Dispute related to _____ arose between us (contractor/agency) and AAI.
3. On _____ (date), dispute was referred to Mediation as per AAI Mediation Policy and any settlement on the following claims/disputes was not reached between the parties:
 - (i)
 - (ii)
 - (iii)
4. A concise statement along with claim in respect of each of such disputes is attached herewith.
5. In view of the above, we invoke arbitration under clause _____ of the _____ agreement between us and AAI and as per proviso to Section-12(5) of the Arbitration & Conciliation Act, 1996, we hereby agree and request the Chairman/Member/Regional Executive Director AAI to appoint arbitrator from AAI's panel of arbitrators.
6. I/ We also give my/ our consent for appointing any of an arbitrator from AAI's approved panel of arbitrators, **as per paragraph-5 above.**

Thanking you,

(_____)

Authorized signatory of

Encl: As above

INTEGRITY PACT

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

“This Pact made this..... day 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 at..... in 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, hereinafter 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 for..... The 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 of 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 is 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 an influence/prejudiced dealings 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 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 the competitors will also abstain from bribing and other corrupt practices and the Authority will commit to prevent corruption, in any form, by its officials by following transparent procedures. The parties hereto hereby agree to enter into this 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 BIDDER, 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 full and 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.

2. 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 it 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 give, 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 competitiveness 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 and 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 / Contractor 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/Contactor commits to refrain from giving any complaint directly or through any other manner without supporting it with full and verifiable facts.
- 2.13 The Bidder/Contactor 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 or to terminate the contract for such reason and to debar the BIDDER from participating in future bidding processes.

3. 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's exclusion from the tender process.
- 3.2 The Bidder/Contractor agrees 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 this Pact by the Contractor, and the same will be submitted to the Authority before doing/ 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 EMD / SD / BG / DRAFT / PAY ORDER ETC I/C WARRANTY PERIOD, PG/BOND, VALIDITY 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.
- ii) 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 could also be utilized to recover the aforesaid sum and interest

- v) To en-cash the advance bank guarantee and performance bond/warranty bond, if 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 minimum period of three years, which may be further extended at the discretion of the Authority.
- 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 decision 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 demur 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), of 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 debarment and proves to the satisfaction of the Authority that he has installed a suitable and effective corruption prevention system and also restored/recouped the damage, if any, caused by him, the Authority may, if thinks fit, revoke the debarment prematurely considering the facts and circumstances of the case, and the documents/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 no 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 a Bidder/ Contractor or Sub- Contractor or of an employee or a representative or an associate of the Bidder, Contractor or Sub- Contractor which constitute 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 or 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 correcting 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 is the 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 / Contractor 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 this Pact comes into force when both the parties have signed it. It expires for the Contractor 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.
- 11.3 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. _____

APPENDIX-XIX

(To be filled by Contractor)
(CLAUSE 47)

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

APPENDIX-XX

INDENTURE FOR SECURED ADVANCES

(Reference Clause 10 B)

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

THIS INDENTURE made the.... .. day of 20 BETWEEN (hereinafter called the Contractor which expression shall where the context so admits or implies be deemed to include his executors' administrators and assigns) of the one part and the CHAIRMAN, AAI (hereinafter called the AAI which expression shall where the context so admits or implies be deemed to include his successors in office and assigns) of the other part.

WHEREAS by an agreement dated.....(hereinafter called the said agreement) the Contractor has agreed AND WHEREAS the Contractor has applied to the AAI that he may be allowed advances on the security of materials absolutely belonging to him and brought by him to the site of the works the subject of the said agreement for use in the construction of such of the works as he has undertaken to execute at rates fixed for the finished work (inclusive of the cost of materials and labour and other charges) AND WHEREAS the AAI has agreed to advance to the Contractor the sum of Rupees.....on the security of materials the quantities and other particulars of which are detailed in Accounts of Secured Advances attached to the Running Account Bill for the said works signed by the Contractor on and the AAI has reserved to himself the option of making any further advance or advances on the security of other materials brought by the Contractor to the site of the said works. Now THIS INDENTURE WITNESSETH that in pursuance of the said agreement and in consideration of the sum of Rupees.....on or before the execution of these presents paid to the Contractor by the AAI (the receipt whereof the Contractor doth hereby acknowledge) and of such further advances (if any) as may be made to him as aforesaid the Contractor doth hereby covenant and agree with the AAI and declare as follows: -

1. That the said sum of Rupees so advanced by the AAI to the Contractor as aforesaid and all or any further sum or sums advanced as aforesaid shall be employed by the Contractor in or towards expediting the execution of the said works and for no other purpose whatsoever.
2. That the materials detailed in the said Account of Secured Advances which have been offered to and accepted by the AAI as security are absolutely the Contractor's own property and free from encumbrances of any kind and the contractor will not make any application for or receive a further advance on the security of materials which are not absolutely his own property and free from encumbrances of any kind and the Contractor indemnifies the AAI against all claims to any materials in respect of which an advance has been made to him as aforesaid.
3. That the materials detailed in the said Account of Secured Advances and all other materials on the security of which any further advance or advances may hereafter be made as aforesaid (hereinafter called the said materials) shall be used by the Contractor solely in the execution of the said works in accordance with the directions of the Engineer-in-Charge of the project (hereinafter called the Engineer-in-Charge) and in the term of the said agreement.
4. That the Contractor shall make at his own cost all necessary and adequate arrangements for the proper watch, safe custody and protection against all risks of the said materials and that until used in construction as aforesaid the said materials shall remain at the site of the said works in the Contractor's custody and on his own responsibility and shall at all times be open to inspection by the Engineer-in-Charge or any officer authorised by him. In the event of the said materials or any part thereof being stolen, destroyed or damaged or becoming deteriorated in a greater degree than is due to reasonable use and wear thereof the Contractor will forthwith replace the same with other materials of like quality or repair and make good the same as required by the Engineer-in-Charge.
5. That the said materials shall not on any account be removed from the site of the said works except with the written permission of the Engineer-in-Charge or an officer authorised by him on that behalf.
6. That the advances shall be repayable in full when or before the Contractor receives payment from the AAI of the price payable to him for the said works under the terms and provisions of the said agreement. Provided

7. that if any intermediate payments are made to the Contractor on account of work done than on the occasion of each such payment the AAI will be at liberty to make a recovery from the Contractor's bill for such payment by deducting there from the value of the said materials then actually used in the construction and in respect of which recovery has not been made previously, the value for this purpose being determined in respect of each description of materials at the rates at which the amounts of the advances made under these presents were calculated.
8. That if the Contractor shall at any time make any default in the performance or observance in any respect of any of the terms and provisions of the said agreement or of these presents the total amount of the advance or advances that may still be owing to the AAI shall immediately on the happening of such default be repayable by the Contractor to the President together with interest thereon at twelve per cent per annum from the date or respective dates of such advance or advances to the date of repayment and with all costs charges, damages and expenses incurred by the President in or for the recovery thereof or the enforcement of this security or otherwise by reason of the default of the Contractor and the Contractor hereby covenants and agrees with the President to repay and pay the same respectively to him accordingly.
9. That the Contractor hereby charges all the said materials with the repayment to the President of the said sum of Rupees and any further sum or sums advanced as aforesaid and all costs charges, damages and expenses payable under these presents PROVIDED ALWAYS and it is hereby agreed and declared that notwithstanding anything in the said agreement and without prejudice to the powers contained therein if and whenever the covenant for payment and repayment herein before contained shall become enforceable and the money owing shall not be paid in accordance therewith the AAI may at any time thereafter adopt all or any of the following courses as he may deem best :-
 - a. Size and utilize the said materials or any part thereof in the completion of the said works on behalf of the Contractor in accordance with the provisions in that behalf contained in the said agreement debiting the Contractor with the actual cost of effecting such completion and the amount due in respect of advances under these presents and crediting the Contractor with the value of work done as if he had carried it out in accordance with the said agreement and at the rates thereby provided. If the balance is against the Contractor, he is to pay same to the MI on demand.
 - a. Remove and sell by public auction the seized materials or any part thereof and out of the moneys arising from the sale retain all the sums aforesaid repayable or payable to the MI under these presents and pay over the surplus (if any) to the Contractor. Deduct all or any part of the moneys owing out of the security deposit or any sum due to the Contractor under the said agreement
10. That except in the event of such default on the part of the Contractor as aforesaid interest on the said advance shall not be payable.
11. That in the event of any conflict between the provisions of these presents and the said agreement the provisions of these presents shall prevail and in the event of any dispute or difference arising over the construction or effect of these presents the settlement of which has not been herein before expressly provided for the same shall be finally resolved as per provisions of clause 25 of the contract.

In witness whereof the said and by the order and under the direction of the MI have hereunto set their respective hands the day and year first above written.

Signed, sealed and delivered by.....the said contractor in the presence of.....

Signature

Witness Name

Address

Signed by

by the order and direction of the MI in the presence of

Signature

Witness Name.....

Format Consent Letter
Dispute Resolution Clause-25 Para 2 ii (b)

To,

The Chairman/Member/Regional Executive Director,
Airports Authority of India,

SUB: Request for appointment of arbitrator under Clause ____ of the ____ agreement dated for

Sir/Madam,

1. We state that _ _ _ _ _ (contractor/agency) was awarded work/ concession of at ---
- - ---'Airport/ (other location) of Airports Authority of India through Award Letter
dated _ _ _ _ _
2. Dispute related to _____ arose between us (contractor/agency) and A AI.
3. On (date), dispute was referred to Mediation as per AAI Mediation Policy and any
settlement on the following claims/disputes was not reached between the parties:
(i)
(ii)
(iii)
4. A concise statement along with claim in respect of each of such disputes is attached
herewith.
5. In view of the above, we invoke arbitration under clause of the _ _ _ _ _ agreement
between us and AAI and as per proviso to Section-12(5) of the Arbitration &
Conciliation Act, 1996, we hereby agree and request the Chairman/Member/Regional
Executive Director AAI to appoint arbitrator from AAI 's panel of arbitrators.
6. I/We also give my/ our consent for appointing any of an arbitrator from AAJ's approved
panel of arbitrators, as per paragraph-5 above.

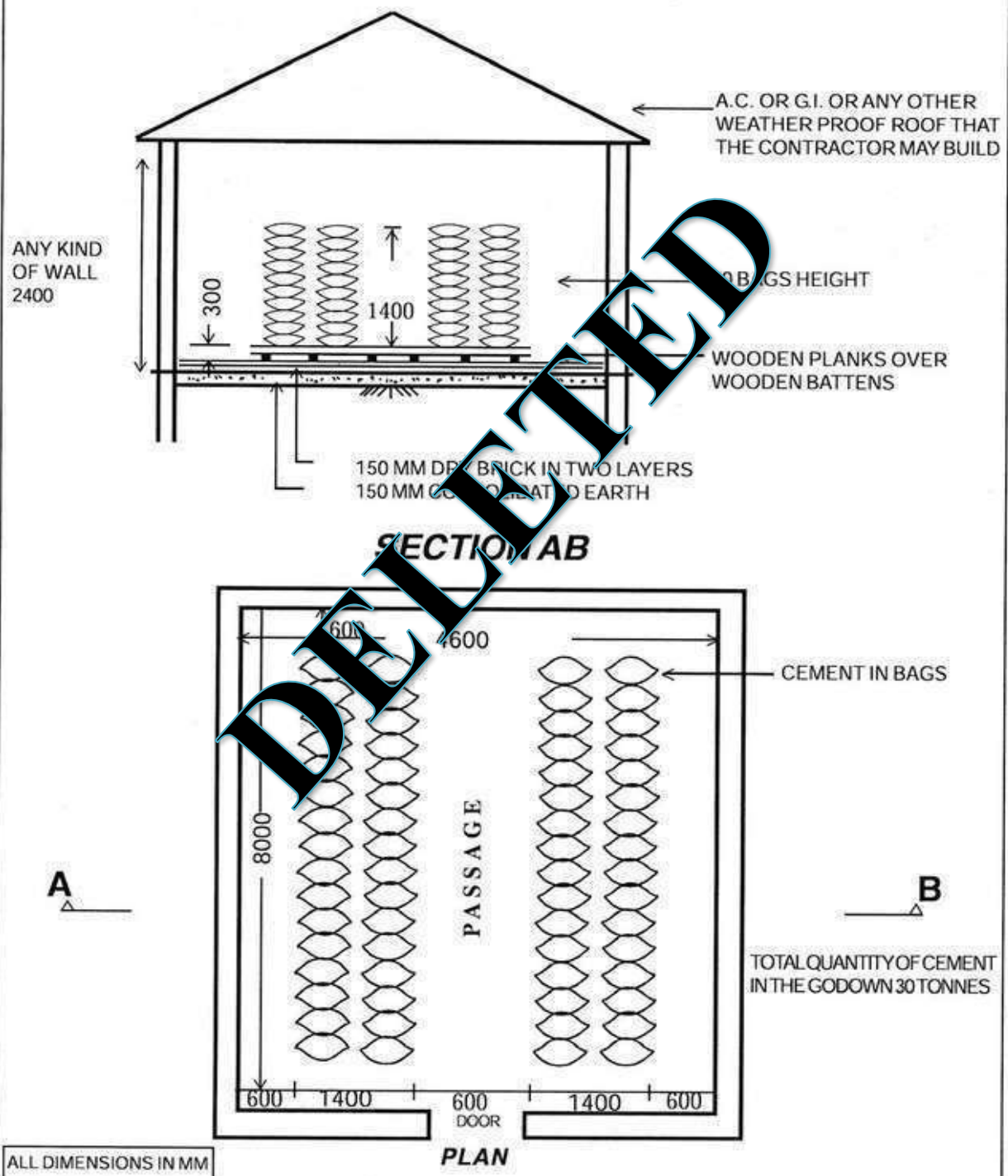
Thanking you,

(_____)

Authorized signatory
of Encl: As above

Address

सीमेन्ट गोदाम का रेखाचित्र / SKETCH OF CEMENT GODOWN



SKETCH OF CEMENT GODOWN

SCHEDULES

SCHEDULE `A`

All rates shall be quoted in the format provided and no other format is acceptable. The price bid has been given as a standard BOQ format at page no. **SOQ** 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 white coloured (unprotected) cells with their respective financial quotes take a print on their company's letter head and other details (such as name of the bidder & stamp of Company). No other cells should be changed. Once the details have been completed, the bidder should save it and submit it online, without changing the File name. if the BOQ file is found to be modified by the bidder, the bid will be rejected.

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
DELETED				

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
DELETED			

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

"Development of New Civil Enclave at Darbhanga, Bihar. SH: SITC OF Motorized Sliding Gate, Boom Barrier, CCTV & associated E & M works at Darbhanga Airport."

Estimated cost of work

Rs. 2,17,18,530/- Excluding GST

- i. Earnest Money
- ii. ~~Performance Guarantee:~~
- iii. Security deposit:

Rs. 6,51,556/-
~~5% of contract value~~
 10% of contract value

SCHEDULE 'F'

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

: AGM (Engg.- Elect.)

2(v) Engineer-in-Charge

: As per AAI's Delegation of Power

2(viii) Accepting Authority

: As per AAI's Delegation of Power.

2(x) Percentage on cost
materials & Labour to
cover all overheads &
Profits

: 15%

2(xi) Standard schedule of rates

2(xii) Department

AAI, Engineering Electrical

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	As per Clause 1 (if applicable)

Clause 2

	Authority for fixing compensation under Clause 2	As per AAI's Delegation of Power.
--	--	-----------------------------------

Clause 2A

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

Clause 5

	Number of days from the date of issue of letter of acceptance for reckoning date of start	<u>10</u> days/ As per work order
--	---	-----------------------------------

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

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

Authority to decide:

- i. Extension of time - As per AAI DOP
- ii. Rescheduling of milestone - As per AAI DOP
- iii. Shifting of date of start in case of delay in handing over of site - As per AAI DOP

Clause 6, 6A

Clause applicable – (6 or 6A) : 6A (Computerized Measurement Book)

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.	Rs. 10 Lakh
--	-------------

Clause 10A- Not Applicable

~~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 for site.~~

Clause 10 B(II)

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

Clause 10C: Applicable/ ~~Not Applicable~~

Component of labour expressed as percent of value of work: 25%

Clause 10 CA

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)	DELETED	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. In case base price for cement, reinforcement steel and Bitumen 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		

***Note:**

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

Clause 10 CC

Clause 10CC to be applicable in contract used in RMC brought in by contractor from approved RMC plants, if any, with stipulated period of completion exceeding the period shown in next

Schedule of component of other material

Component of civil (except material covered under clause 10 CA) / Electrical construction materials express as percentage total value of workXm%.

Component of labour, expressed as % of total value of work.....Y.. %.

Component of POL, expressed as % of total value of workZ.. %

Note: Xm.....% should be equal to (100) – (material covered under clause 10 CA i.e. cement, steel and

Other materials specified in clause 10 CA + component of labour + component of POL).

Clause 11

Specification to be followed for execution of work	a) As per latest CPWD Specification/ Indian Electricity Rules, MORTH or other specification as applicable with up to date amendment. b) Technical specification of the Work c) AAI's Specifications. d) As per OEM specifications
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Clause 12

12.2 & 12.3	Deviation limit beyond which clauses 12.2 & 12.3 shall apply for buildings, 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 DoP/ AAI circulars
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Clause 17

Defect Liability Period : Twenty-Four (24) months after the completion of work.

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: Airports Authority of India, New Delhi

Appointment Authority of DRC & Arbitration:- As per DOP

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
1.							
2.							
3.							
4.							

Clause 37

Licence Fee for unpaved land

As per AAI norms.

Clause 41(b)

Integrity Pact applicable

—Yes/No

Clause 42

(i)	Schedule/statement for determining theoretical quantity of cement & bitumen on the basis of Delhi Schedule of Rates	DSR 2023 printed by C.P.W.D with upto-date correction slips till last date of submission of tender, technical specifications BOQ.
(ii)	Variations permissible on theoretical quantities	
a.	Cement for works with estimated cost put in tender not more than Rs.5 lakhs	3% plus/minus
	For works with estimated cost put in tender more than Rs.5 lakhs	2% plus/minus
b.	Steel Reinforcement of specified section for each diameter, section and category	2% plus/minus
c.	Bitumen	2.5% plus only & NIL on minus side
d.	All 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
1.	Cement	Use beyond the permissible variation*
2.	Steel reinforcement	
3.	Structural Sections	
4.	Bitumen issued free	
5.	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

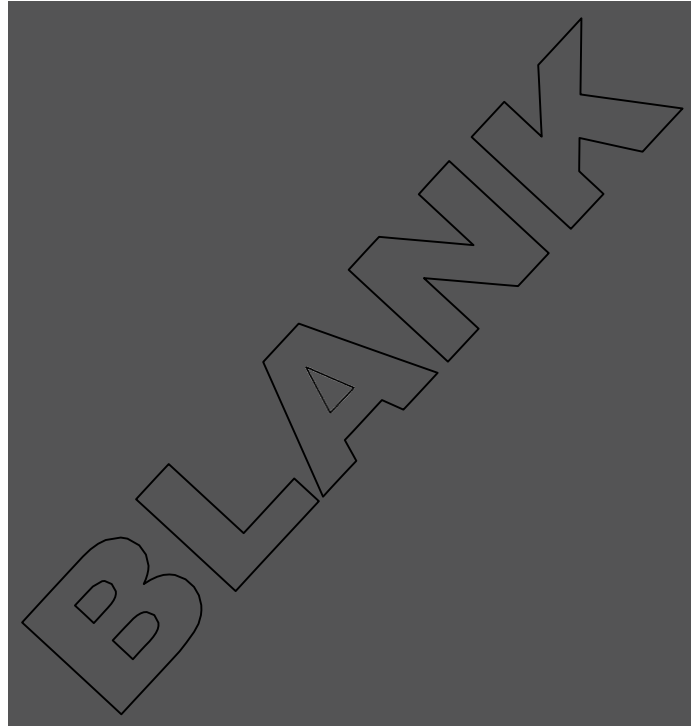
Clause 48

Escrow Account: —Applicable / Not applicable.

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

Sl.No.	Material of surfacing	Quantity	Area
1.	Consolidation of earth subgrade	186	
2.	Consolidation of stones soling 15 cm to 22.5 cm thick	1	Cu.m
3.	Consolidation of brick soling 10 cm to 20 cm thick	2	
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	60	Sq.m
7.	Painting one coat using stone aggregate 12.5mm nominal size		
	(a) @ 1.65 m3 per 100 m2 and paving bitumen A-90 or S-90 @ 2.25 Kg per m2 or		
	(b) @ 1.50 m3 per 100 m2 and bitumen emulsion or S-90 @ 2.25 Kg per m2	930	Sq.m.
8.	Painting two coats using		
	(a) For first coat, stone aggregate 12.5 mm nominal size		
	(i) @ 1.50 m3 per 100 m2 and paving bitumen A-90 or S-90 @ 2 Kg per m2 or		
	(ii) @ 1.35 m3 per 100 m2 and bitumen emulsion or S-90 @ 2 Kg per m2	600	Sq.m. or
	(iii) @ 1.25 m3 per 100 m2 with roadtar @ 2.25 Kg per m2	600	Sq.m.
	(b) For 2nd Coat, stone aggregate 10 mm nominal size 0.9 Cu.m. per 100Sq.m with		
	(i) 1kg of paving bitumen A-90 or S-90 and 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 12.5 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. or		
	(ii) 1.25 kg of bitumen emulsion per Sq.m.	1670	Sq.m.
10.	2 cm premix carpet surfacing using 2.4 m3 of stone aggregate 10 mm nominal size 100% and binder including tack coat, the binder being hot bitumen or bitumen emulsion in specified quantities.	930	Sq.m

11.	2.5 cm premix carpet surfacing using 3 m3 of stone aggregate 10 mm nominal size per 100 m2 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 100m2 and coarse sand 1.9 Cu.m. per 100m2 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 100m2 and coarse sand 2.4 Cu.m. per 100m2 and hot cut back bitumen over a tack coat of hot cut back bitumen.	500 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 100m2 and coarse sand 2.9 Cu.m. per 100m2 and hot cut back bitumen over a tack coat of hot cut back bitumen.	580 Sq.m.
15.	7.5 cm thick bitumen concrete surfacing using stone aggregate 7.5 Cu.m. (60%50 mm nominal size and 40% 40 mm nominal size) per 100m2 and coarse sand 3.65 Cu.m. per 100m2 and hot cut back bitumen over a tack coat of hot cut back bitumen.	230 Sq.m.
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 2.5 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 1.07 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 as specified.	460 Sq.m.
19.	Laying full grouted surface using stone aggregate 50 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 1.8 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 4.10 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.	560 Sq.m.
21.	5cm. thick premix macadam surfacing using stone aggregate 25 mm nominal size 5.10 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 CONDITION
OF CONTRACT – FOR
ELECTRICAL & CIVIL
WORKS***

SPECIAL CONDITIONS OF THE CONTRACT - ELECTRICAL

Name of work: Development of New Civil Enclave at Darbhanga, Bihar. SH: SITC OF Motorized Sliding Gate, Boom Barrier, CCTV & associated E & M works at Darbhanga Airport.

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 provisions in these special conditions shall take precedence.

GENERAL

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

Notwithstanding the sub-division of the document into these separate sections and volume every part of each shall be deemed to be supplementary, to and complementary to every other part and shall be read with into the CONTRACT so far as it may practicable to do so.

Wherever any portion of the General Condition of contract is repugnant to or at variance with any provisions of the Special Conditions of Contract, unless a different intension appears, the provisions of the special conditions of contract shall be deemed to over-ride the provisions of the General Conditions of Contract and shall to the extent of such repugnancy or variations, prevail.

The work shall be carried out as per enclosed specifications and relevant AAI/CPWD/ IS code/ specifications and IE rules amended up to date.

Contractor is advised to visit the site before quoting the rates so that he must be aware of the site conditions. All the works in operational area, working time shall be restricted as per direction of AAI.

SCOPE OF WORK:

The scope of works included in this tender are given in the schedule of work enclosed and cover mainly the SITC of sliding trolley gate & associated works at Civil Airport Darbhanga.

A. SITC Works

Works including but not limited to the following are covered in the scope of work.

- i. Preparation of layout/drawing for trolley gate with related civil and electrical works.
- ii. Supply, installation, testing and commissioning of Trolley Gate, Electrical panels, Feeder pillars.
- iii. Cutting and excavation of road/taxiway etc. & Construction of RCC etc.
- iv. Supply, laying, testing and commissioning of related electrical, controls and communication cabling with other software & hardware.
- v. Site testing and other incidental job for successful commissioning of system.
- vi. Submission of as built drawing.
- vii. Training AAI Engineers/ Staff at Darbhanga Airport.
- viii. Preventive maintenance as per OEM standards during DLP Period.

COMPLETION SCHEDULE

- 1.1 The works shall be executed strictly as per time schedule mentioned in NIT. Contractor shall have to plan his construction program and activities so as to complete the work in the stipulated period by working in **suitable shifts (DAY/NIGHT)** as per availability of site during operation hours. The period of completion given includes the time required for mobilization as well as testing, rectifications, if any, re-testing and completion in all respects to the entire satisfaction of Engineer-in-Charge.
 - 1.2 The contractor shall furnish within 15 days of letter of award Programme chart showing the mile stone and critical path for completion of work within the stipulated time and as preconditions of the contract. The program should clearly include Manpower, Material and Machinery resources proposed to be deployed for achieving the targeted progress, justification for same based on machinery output, the date from which each machinery shall be available at site in working condition etc. complete. The program shall be subject to the approval of engineer-in-Charge who may order changes in the program. The decision of Engineer-in-Charge shall be final and binding in this regard.
 - 1.3 Contractor is expected to mobilize and employ sufficient resources as indicated in the agreed Programme Chart to achieve the progress within the broad frame work of accepted methods of working and safety. In time and progress chart, deployment of machineries, equipment's, apparatus and instruments are to be treated as one of the sections of the work.
 - 1.4 No additional payment shall be made to the contractor for any multiple shift work or other incentive methods contemplated by him in his work schedule even though the time schedule is approved by the Engineer-in-Charge.
 - 1.5 During the currency of the work the contractor is expected to adhere to the time schedule on mile stone and total completion and this adherence will be a part of Contractor's performance under the contract.
 - 1.6 The Engineers-in-Charge can hold the payment till such time; the contractor does not submit Programme Chart. The Contractor will be fully responsible to submit Milestone
 - 1.7 Chart in consultation with Engineer-in-Charge to complete the work within stipulated time.
1. **PERIOD OF CONTRACT:** The period of contract shall be Three (03) Months from the date of start of work for SITC work and DLP of 24 Months.
 2. **ENTRY PASS:** - The work lies in **restricted area of Indian Airforce Darbhanga & AAI**. The Contractor shall apply in writing in advance of issue of necessary entry passes to workmen engaged by him. The office/ airport premises is essential service covered under the maintenance of essential service Act and hence disruption of service rendered will be a statutory offence. The necessary police verification etc. as required for issue of entry passes will be the responsibility of the contractor. All expenditure towards arranging security passes shall be borne by the Agency.
 3. **SECURITY:** The contractor and his employees shall abide by security regulations framed by AAI/BCAS or Police Authorities. Any worker of the contractor, whose presence is found undesirable in AAI premises i/c Operational Area/ restricted area at Civil Airport, Darbhanga shall not be allowed to work. The contractor shall be fully responsible for the working of his staff. "If Contractor or his authorized representative or his employed workers are found violating any of security regulations, suitable action shall be taken by AAI as per prevailing rules."

All men and vehicles shall be permitted to enter the restricted / office area only on possession of the security passes. The contractor shall apply in writing in advance before commencement of work for issue of security passes and shall submit a list of personnel concerned with their address. The contractor shall ensure that his men are deployed only in those area where the security passes issued is valid for. Passes shall be deposited back with Engineer-In-Charge on demand and in any case immediately after completion of work. The contractor or his staff/ workmen shall observe all the rules promulgated from time to time by the concerned authorities. Any person found violating the security rules laid down by the authority will be expelled from the area without any reason whatsoever and contractor shall have no claim on this account.

4. **REGULATIONS AND STANDARDS:** The Equipment/Tools shall conform in all respects to Indian Standard Code of Practice. It shall also be in conformity with the current AAI and CPWD specifications. Wherever this specification calls for a higher standard of material and/or workmanship than those required by any of the above regulations then this specification shall take precedence over the said regulation and standards. Contractor should have valid Electrical license / wiremen license etc. as required and submit same as & when required by AAI.

5. **RATES:**

Prices shall be quoted in INR and shall be inclusive of any taxes, duties, cess, fee and charges etc levied under any statute but excluding Goods & Service Tax (GST). GST shall be paid to contractor for any taxable supply / services / works against a valid tax invoice as per prevailing norms/terms and conditions of the contract.

The other duty levied by Custom Authorities in respect of import of any materials or any other tax on material, labour, services or contract in respect of this work contract including payment to local/Govt./Statutory authorities shall be payable by the contractor and Airports Authority of India will not entertain any claim whatsoever in this respect.

6. **INCOME TAX:** Income Tax deductions shall be made from all payments made to the Contractor as per the rules and regulations in force in accordance with the Income Tax Act, prevailing from time to time.
7. **COMPLETENESS OF TENDER:** All sundry fittings, assemblies, accessories, hardware items, lamp, gaskets, stands, termination lugs for electrical connections as required, and all other sundry items which are useful and necessary for proper assembly and efficient working of the various components of the work shall be deemed to have been included in the tender, whether such items are specifically mentioned in the tender documents or not.
8. **TOOLS FOR HANDLING AND ERECTION:** All tools and tackles required for handling of Equipment and Materials at site of work as well as for their assembly and erection and also necessary test instruments shall be the responsibility of the contractor. All tools shall include necessary test instruments.
9. **SHOP DRAWINGS:** The Contractor shall prepare and submit GFC drawings in 04 hard copies A1 size (colour) to the Engineer-In-Charge for his approval and after approval of drawing by Engineer-In -charge; detailed shop drawings will be submitted to AAI incorporating changes if any in GFC. Drawings shall be prepared to the scale as required for proper explanation and shall indicate the size and location of all Equipment and Accessories herein.

10. WATER

The contractor shall make his own arrangement of suitable water for construction and his staff and work men at his own cost. The testing charges for water shall be borne by the contractor. Wherever AAI's source of water is used by the contractor, 1% (one percent) of gross bill amount (Work Done) shall be deducted from his bills.

11. POWER SUPPLY

The contractor shall make his own arrangement of power supply for construction as well as for general light in his own cost and make necessary payments directly to the Department/Authority concerned. The contractor shall lay necessary wiring and arrange for main switch and meter at his own cost and remove the same on completion /termination of the contract.

In case AAI's electricity source is available near the work site and electricity can be spared to the contractor as per the discretion of Engineer-in-Charge, the contractor may draw electricity from the AAI's source as approved by the Engineer-in-Charge. Necessary meter and connection from the approved source shall be arranged by the contractor. No extra payment towards meter and connection arrangement shall be made by AAI

Wherever AAI's source of electricity is used by the contractor, Charges as fixed by the local electricity Board / Authority / AAI for per unit shall be charged from the Contractor.

12. CONTRACT AGREEMENT

Contractor's tender including the letters of clarifications between the contractor and the AAI prior to the award of contract shall form a part of the contract agreement to the extent they have been accepted by AAI.

13. CONSTRUCTION EQUIPMENT

The contractor shall without prejudice to his overall responsibility to execute and complete the work as per specifications and time schedule deploy adequate equipments and tools and tackles and augment the same as decided by the engineer-in-charge depending on the exigencies of the work so as to suit the construction schedule.

14. LIST OF MACHINERIES TO BE DEPLOYED BY CONSTRUCTION AGENCY

S. No.	Equipment	Description	Capacity
1.	Tippers/ Dumpers	} As per site requirement	
2.	Hydraulic Excavators		
3.	DG Set with light arrangements		

- Note: 1.** Apart from the Tools and Plants quantity shown above, contractor is required to deploy additional T & P if required and directed by Engineer-in-Charge to ensure timely completion of work.
2. In the interest of progress of work, if any deployment of any machinery/ equipment is desired by Engineer-in-Charge then the contractor shall deploy the same as per the direction of Engineer-in-Charge. For such early deployment no claim whatsoever shall be entertained.

15. Equipment's for night working:

In case, it appears, at any stage that the work may not be completed within the stipulated period due to restricted working hours in the day in view of operational reasons, the contractor shall execute the work during the night as and when asked by the Engineer-in- Charge in writing. Nothing extra shall be payable to contractor for working in night time.

For proper execution, the work site shall be properly illuminated and the following arrangement shall be made by the contractor at his own expenses: -

- a) **One No. of DG sets** to give sufficient illumination with halogen lamps and suitable wiring etc. shall be installed at the work site if required. Nothing extra shall be paid in this regard.
- b) Pumps with Gensets to bail out water/mud encountered during excavation of earth i.e. de-watering wherever required.

No Construction equipment shall be supplied by the AAI.

16. SITE ORGANISATION

Subject to the provisions in the tender document and without prejudice to contractors' liabilities and responsibilities to provide adequate qualified and skilled personnel on the work. Contractor shall deploy site organization and augment the same as decided by the engineer-in-charge depending on the exigencies of work. No engineering personnel deployed at site shall be removed from the site without prior approval of the Engineer-in- charge.

17. FIELD LABORATORY AND EQUIPMENTS:

The Agency shall arrange required Tools, equipment's, surveying instruments (Theodolite), CTM and any other apparatus and instruments required to carry out the field Tests as per Instruction of Engineer-In-Charge. Nothing extra shall be payable to contractor on this account.

The Engineer-in-charge may at his discretion, check the test results obtained at contractor laboratory by independent test at an approved laboratory. The cost of such material, transport, cost of testing etc. shall be borne by the contractor.

Engineer-In-charge can get all type of Test done from Approved Laboratory required as per Specifications and frequency. The cost of such material, transport, cost of testing etc. shall be borne by the contractor.

18. DESIGN AND DRAWING

- a) The contractor has to submit the architectural plan, elevation and cross section drawings of foundation/footing as per BOQ item within **30 days of the issue of work order**. The drawing shall be approved by the Engineer in charge. Any revision at any stage suggested by the EIC in the architectural drawing has to be done by the agency and nothing shall be payable extra on this account.
- b) The structural design and drawings shall be as per the relevant BIS Code and sound Engineering practice. The structural design and drawings submitted to the EIC by the contractor **shall be got vetted / approved from IITs/NIT**. No additional cost shall be payable to the contractor for vetting of design & drawings. The contractor shall be fully responsible for soil testing & structural design services performed by him and shall be in accordance with the accepted standards of safety.

19. MIX DESIGN/JOB MIX

The Design Mix cement concrete shall be designed from approved Laboratory/ Govt. Engg. College/IIT/NIT. Nothing extra in this regards shall be payable and same shall be deemed to be included in the quoted rates of the bidder. Bidders are advised to quote their rates accordingly.

20. CLOSING DAY'S WORK

After the closure of day's work, all equipment and stock piled materials must be so placed that after darkness their tops are below a fifty to one ratio from the ends of the basic strips of the runway and twenty to one from sides of useable aircraft traffic areas and must be marked with red flags by day and red lights by night to indicate that they project above the general contour of the aerodrome.

Work shall be closed during VVIP movement and also other exigencies giving prior notice, if directed by the Engineer-in-charge. No compensation shall be entertained on this account from the contractor.

21. MANUFACTURE'S INSTRUCTIONS: Where manufacturers have furnished specific instructions, relating to the materials used in this job, covering points not specifically mentioned in these documents these instructions shall be followed in all cases.

22. INSPECTION, TESTING AND INSPECTION CERTIFICATE: AAI reserves the right to inspect the materials at factory before dispatch. If inspection of equipment at the factory is to be done, 15 days prior information should be given in advance. All arrangements for conducting the inspection /testing at the factory shall be the responsibility of contractor.

The Engineer-In-Charge / his authorized representative shall inspect the material for routine tests before dispatch at the Contractors premises or works and shall have the power at all reasonable time to inspect and examine the materials and workmanship during its manufacture or erection or if the part of works is being manufactured or assembled at other premises or works, the Contractor shall obtain permission for the AAI to inspect as if the works were manufactured or assembled outside the contractor's own works/premises.

The Contractor shall arrange all the materials and labour required for inspection of equipment or for any testing to be carried out at works or at site. The Contractor shall give notice for such inspection/presence for testing to the AAI at least fifteen (15) days in advance.

Not with standing approval of tests or equipment by the AAI, the Contractor shall be required to perform site tests and prove the correctness of ratings and performance of equipment/machinery and materials supplied and installed by him as per the contract specifications and conditions. AAI shall reserve the right to reject any equipment / machinery / material which do not comply with contract specifications.

The contractor shall also have to submit the original TEST CERTIFICATES of the items & material used for the work. However, Engineer In-Charge shall have full powers to require the materials or work to be tested by an independent agency at the contractor's expense to prove their soundness & adequacy.

The travelling and daily allowance of 1st inspection at the factory will be borne by AAI. In case of materials/test is not ready at factory or the test fails during the 1st inspection, the TA/DA of AAI staff for the 2nd/3rd inspection etc. shall be borne by the contractor. Such expenditures shall be recovered from the Bill.

23. SAFETY & AVAILABILITY OF MATERIAL:

- a. The firm/ agency shall submit test certificates, wherever applicable as per CPWD/IS/ manufacturers practice and the department reserves the right to get them independently checked for the material supplied by contractor as required.
- b. All debris due to works shall be removed and site shall be cleared by the contractor as soon as the task is completed. Non-removal of debris from site will attract a penalty of Rs. 500/- per day from the running bill/final bill.
- c. Issue of materials stipulated in the tender will be regulated to the actual needs from time to time. Unused materials shall be returned to the department failing which the recovery will be made at the penal rate i.e. double the market rate. Any damage caused to the materials during transitor under storage will be to the contractor's account.
- d. If there is any requirement of material at site which is not available in AAI store then contractor has to procure from market as per approved makes with EIC permission and close the complaint as soon as possible. Contractor will provide the tax invoice/ bill for the same and the payment for such material will be given along with 15% OH & CP in running / final bill as an extra item.

24. SAFETY MEASURE & RESPONSIBILITIES: It shall be the responsibility of the contractor that all necessary safety measures and precautions are invariably ensured while performance of the contract work and AAI shall not be responsible for any injuries / accidents suffered by contract labour. The workers are required to follow the safety rules while working. The sufficient no. of safety gadgets such as, safety shoes, gumboots, earplugs, helmets, safety belts & HT/LT hand gloves etc. are to be made available to them. The agency is required to provide First Aid Box with all accessories at suitable location during contract period.

25. GUARANTEE: In case of supply of any material, the tenderer shall guarantee the equipment/ material against all defects as per manufacturer. Any defects arising during the guarantee period shall be rectified by the Tenderer at his own expenses to the satisfaction of the E-I-C.

26. AS BUILT DRAWINGS: On completion of work, the contractor shall submit to Engineer-In-Charge, 3 sets of the work completion certificate test report etc. Failing to submit any of the above will attract suitable a penalty.

27. DEFECTS LIABILITY PERIOD: All the equipment and the workmanship shall be guaranteed for 24 months from the date of completion and handover of Installation to AAI. The equipment or component or any other part of installation so found defective within the guarantee period shall be replaced / repaired by the Contractor free of charge to the satisfaction of the Engineer-In-Charge.

28. PENALTY CLAUSE: No total Breakdown is acceptable during DLP. In case of total Breakdown due to negligence of the contractor or his workmen, suitable recovery proposed by Engineer-In-Charge will be final and binding on the contractor. Special care is required in attending the faults for the equipment where no standby is available.

Note:

In any case the total penalty at any point of time on account of any or all the categories put together shall not exceed 10 % of the total contract value per month.

If any equipment damaged due to the negligence of the manpower, the agency shall repair the same and nothing extra shall be paid on this account by the AAI.

Once the total penalty reaches this limit, the contract shall be liable for review / rescind as per the provisions of the contract agreement and the decision of Engineer-In-Charge in this regard shall be final and binding on the contractor

29. CONTRACTOR'S RESPONSIBILITIES

- (i) Contractor should read the items and understand site/work requirement and proceed based on standard engineering practices/market trends, guidance & directions of Engineer-In-Charge.
- (ii) Contractor should supply genuine new materials, equipment etc. Contractor should arrange reliable transportation, watch & ward, tools & plants, instruments. Contractor must follow the statutory/labor/local laws & regulations, norms, guidelines. Contractor should effectively co-ordinate, interact with clients, co-agencies, various depts., their own work force, for taking appropriate actions in time. AAI will closely monitor the work proceedings and give suitable directions to the contractor at suitable time. Wherever essential contractor can always approach the Engineer-In-Charge for proper advice/ decision. To sum up, the objective is to finish the contract successfully.

30. TENDER INFORMATION:-

- (i) The tenderer shall obtain information relating to the equipment being procured at his own expenses and responsibility. The tenderer shall visit the office to familiarize and satisfy himself with actual requirements
- (ii) Information, levels and dimensions given on the tender drawing if any, are for guidance only and the tenderer shall make independent inquiries & verify the same. No extra claim shall be admissible in case of any deviations or incorrectness of the information indicated on the tender drawings.

31. TAXES, DUTIES, PACKING & FORWARDING:-

- (i) The prices quoted shall be inclusive of all taxes, duties, Cess, fees, royalty charges etc. under any statute exclusive of GST (if applicable).
- (ii) Any statutory variation on taxes / duties of finished products, after the date of opening of Tender shall be paid extra on producing proof of payment by the contractor.

32. DISCREPANCIES / MISMATCH IN TENDER SPECIFICATIONS

In the event of any mismatch in the tender specifications, following shall be the order of precedence.

1. BOQ.
2. Technical specifications.
3. Special Condition of Contract (SCC).
4. Tender Drawings
5. General conditions of Contract (GCC).

In case of any discrepancy, the decision of the Engineer-In-Charge shall be final.

33. TERMS OF PAYMENT

The payment will be released by AAI subject to the submission of following Documents by the agency:-

- (i) Purchase invoice.
- (ii) GST Invoice / Bill.
- (iii) Packing list.
- (iv) Delivery Challan.
- (v) Test Certificate to confirm that the materials meets the contract specification a relevant standards in all respects.

A. For Supply, Installation, Testing and Commissioning (including design) items:

- (i) 70% of item rate on pro-rata basis on delivery of materials at site after acceptance by AAI.
- (ii) 20% of item rate on installation.
- (iii) 10% of item rate on Testing and Commissioning & satisfactory completion of work.

B. For Installation, testing and commissioning items:

- (i) 80% of item rate on installation of equipment / cables.
- (ii) 20% of item rate on Testing and Commissioning.

C. For Supply items:

- (i) 90% of item rate on pro-rata basis on delivery of materials at site after acceptance by AAI.
- (ii) 10% of item rate on Testing and Commissioning & satisfactory completion of work. All the above payments terms shall be subject to deducting the Security deposit, which shall be released only after the successful completion of defect liability period.

D. Income Tax, TDS and Labour Cess etc. shall be deducted as per Govt. rules

34. FINAL BILL PAYMENT: -

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 rate of second lowest, the contractor shall be paid lower of the two. Final bill of the successful bidder for SITC work shall be released only after Imparting the training by the bidder to the agency engaged by AAI.

35. DIFFERENCE BETWEEN FIRST LOWEST BIDDER AND SECOND LOWEST BIDDER.

Final bill will be worked out at the accepted tender rates and also with quoted rates of second lowest. The amount of final bill to be paid will be restricted to the lowest of the two.

36. SECURITY DEPOSIT:

Ten percent of the total work done value shall be deducted from the bills of the contractor as security deposit. The security deposit shall be refunded only after satisfactory completion of defects liability period.

37. RESTRICTED WORKING HOURS DUE TO OPERATIONAL REASONS

A tenderer shall plan for timely completion of the work keeping in view the restricted working hours due to operational reasons as stated above and no extra charges consequent on any misunderstanding or otherwise shall be allowed.

- 38. TRAINING FOR OPERATION OF MACHINE** – Operation and Routine Maintenance of Trolley Gates shall be looked after by the agency engaged by AAI immediate after completion of SITC work of Trolley Gates. Successful bidder shall have to impart proper field as well as class room training to the agency engaged by AAI for operation & routine maintenance and on safety procedure of Trolley gates to keep the installation in perfect working condition at the time of commissioning of the system as and when required within the quoted cost of SITC work and nothing extra shall be payable on this account.
- 39. PREVENTIVE MAINTENANCE DURING DLP**- During DLP period, agency is required to done preventive maintenance visit by technician on quarterly basis. Further, agency has to send representative for rectification of breakdown/fault as and when required basis. No payment shall be made in this regard. In case of not visiting the site, a penalty of Rs. 10000/- per quarter will be recovered from SD amount.
- 40. THIRD PARTY INSURANCE**
Before commencing the execution of works, the contractor (but without limiting his obligations and responsibilities) shall insure against all damage, loss or injury which may occur to any property (including that of the employer) or to any person, including any employee of the employer by or arising out of the execution of the work or temporary works or in carrying out of the contract. This insurance cover shall be for the period up to system acceptance by AAI upon issue of completion certificate.
- 41. Bidders are advised to visit the site of work prior to quote their rates for assessment of nature and quantum of work with detailed provisions contained in the NIT documents for the subject work. No claim of whatsoever nature in this regard shall be admissible at a later date.**

OPERATIONAL MAINTENANCE DURING WARRANTY PERIOD / DLP.

- i. During the Warranty and Defects Liability period, contractor shall provide sufficient manpower as an when required basis for preventive & corrective maintenance and its accessories. During the first one (01) Month of Warranty and Defects Liability period, contractor shall deploy one Competent Maintenance Engineer/Technician at site to attend teething problems, hand holding and corrective/breakdown maintenance. Failure to deploy competent Maintenance Engineer/Technician at site during the first one month of Warranty and Defects Liability period shall attract penalty of Rs.1500/- per day for site, which shall be recovered by AAI from contractor's bill for the work. Preventive maintenance shall be carried out on quarterly basis, after successful commissioning of the equipment. Corrective maintenance shall be done, whenever the system goes unserviceable.
- ii. The contractor shall replace any parts, including the supplied software found defective during Warranty period without any charges whatsoever to AAI. The services of the contractor or his principals, if required during this period, for such work shall also be made available without any cost to the Authority.
- iii. Maintenance during warranty period shall include free replacement of any spares of the equipment supplied against this work.
- iv. Any failure (partial or complete) of the system or system related equipment leading to complete failure of the system shall be considered as failure of the system. In this regard the decision of Engineer In-charge, shall be final & binding.
- v. Contractor shall attend the remedial maintenance job immediately on observation/ receipt of complaint. Warranty period of the system, unit wise, shall be extended by one week per week of un-serviceability (part of week to be considered as one week) for each default in case of failure to set right the system to the satisfaction of the AAI Engineer In-Charge within 48 Hrs. of the lodging of complaint by AAI to company.

- vi. The contractor shall replace all the faulty & functionally not acceptable parts/components/ and accessories of all these Systems as applicable, at own cost.
- vii. The contractor shall maintain record of preventive/ breakdown/ corrective maintenance carried out at site and at his premises, and get it countersigned by AAI representative during warranty/defect liability period.
- viii. The contractor shall submit comprehensive performance report, based on preventive/ corrective maintenance to AAI representative and obtain his counter signature.
- ix. Spares: All spares required for repairs and maintenance of the complete system shall be kept with the contractor. All critical spares required during the course of year shall be analyzed and necessary inventory kept at all the times.

IMPORTANT POINTS

- 1. All exposed metal work furnish under these specification except as otherwise specified shall be painted after installation. Painting shall be with 2 or more coats of synthetic enamel or approved brand over a coat of zinc chromate yellow primer.
- 2. While performing electrical repairs and maintenance work in a particular place/zone, the contractor shall make all arrangement not to disturb the power supply feeding power to communication equipment located in that place/zone.
- 3. The contractor shall be responsible for any damage, resulting from his negligence to existing fixtures and will restore, replace or repair any such damage to the complete satisfaction of the Engineer-In-Charge. The decision of Engineer-In- Charge for recovery on this account shall be final & binding on the contractor and such amounts shall be adjusted from his bill. Unused material issued by the department shall be returned to the department in good condition, failing which the recovery decided by the Engineer-In-Charge will be recovered from his bill.
- 4. Loading, unloading and transporting of material issued by AAI shall be agency's responsibility and nothing extra shall be paid on this account. Any loss/damage due to contractor negligence shall be responsibility of contractor.
- 5. Minor civil work for installation of system if required shall be done by the agency and nothing shall be paid extra on this account.
- 6. The rate quoted by the agency will remain same/firm during the extension of contract, if any.
- 7. Testing & commissioning of equipment shall be carried out.

TECHNICAL SPECIFICATIONS – FOR ELECTRICAL & CIVIL WORKS

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TECHNICAL SPECIFICATIONS

A. SCOPE OF WORK:

Scope of work covers design, fabrication, supply, installation, testing and commissioning of Sliding Trolley gate including providing and fixing the track, drives, control panel, LT panel remote control system etc., supply and laying of LT cables & HDPE pipes, SITC of feeder pillar and earthing, SITC of PLC based motorized automation system, SITC of electrically operated boom barrier & associated system, SITC of CCTVs & associated system, UPS & other civil works etc complete as per BOQ. Scope includes supply of all fabrication material required for completion of job.

B. SPECIFICATIONS FOR M.S. SLIDING GATE

M.S. sliding gate shall comply the following:

- i) All the material M. S. Tubes/hollow sections, Channels etc., shall be of ISI marked and as per AAI approved makes.
- ii) Size of the sliding Trolley gate shall be suitable for clear opening of 52 Meters & 5 meter setback at opening end with height 2.90 mtrs and 1.5 meter setback at closing end between both taxiway with height 1.6 mtrs (max.) respectively from finished floor level (height includes height of wheels, gate frame and concertina wire (not exceeding 450 mm) above gate frame). Close clear opening of $2 \times (52 + 5 + 1.5) = 117$ Mtrs having two leaves of 58.5 Meters (52 meter Clear Opening + 5.00 meter Setback + 1.50 meter Setback) at each side. Height of frame shall be 3.20 mtr. for setback 05 mtr. at initial position & also at rear position of gate opening and height 1.6 mtr. for setback 1.5 mtr. at closed position of gate between both taxiway. **Height of support frame structure and movable structure may be reduced due to statutory constraints. The decision of Engineer in charge shall be final and binding to the contractor.**
- iii) The bottom frame of both leaves shall be of M.S. hollow sections of minimum 200x100x5.0 mm and rest all frames including vertical section shall be made of M.S hollow sections (as per AAI approved make) minimum 100x100x3.5 mm as per attached drawing.
- iv) The width of the sliding gate shall be 700 mm.
- v) The maximum distance between two wheels shall be 5.0 mtr. (centre to centre) along each track. MS bottom wheel diameter should be 200 mm (max.) suitable to operate on 40 mm dia solid round bar mounted on MS U-Channel of Size 100mm x 50mm x 5mm and H Beam of size 116mm x 100mm x 6mm.
- vi) Both leaves shall be filled with weld mesh panels made of Galvanized MS wire (Horizontal-Diameter 4 mm, Tensile strength of minimum 550N/sq mm, wire specification as per IS 280 & Wire Galvanizing as per IS 4826) having mesh size 76.2 x 12.7 mm (WxH, +/- 2 mm). The average weld shear strength of 4 welds taken in random not less than 50% of breaking strength of single wire. These weld mesh to filled between all the vertical M.S. hollow sections supports of size 100x100x3.5 mm provided at an interval not more than 2.5 mtr in between bottom frame and the top frame.
- vii) Guide posts with suitable nylon rollers as shown in the drawings shall be provided as per the requirement of system for proper alignment and balancing of gate while moving. **(drawing for fabrication are enclosed along with the tender).**

- viii)** The gate shall be painted with two coats of synthetic enamel paint of approved colour and make after applying one coat of red oxide primer.
- ix)** Track for movement of sliding Trolley gate shall be as per BOQ.
- x)** The gate shall be movable freely and smoothly.
- xi)** The gate shall be moved through a chain gear system or suitable arrangement driven by suitable capacity motor drive.
- xii)** The power supply to the motor shall be fed from the feeder pillar installed near the gate.
- xiii)** Standby motor to be installed for both leaves as per BOQ.

C. AUTOMATION SYSTEM

- i)** Gate shall be provided with suitable capacity motor suitable for operation on 440V $\pm$ 10% 3-phase, 50 HZ AC supply for driving the gate with necessary power transmitting device. The make of the Drive with automation shall be as per AAI approved makes/ as per OEM.
- ii)** Suitable PLC Control panel comprising radio receiver for remote operation of sliding trolley gate and auto diagnosis of safety control shall be provided.
- iii)** The system involves all associated accessories for remote control and operation from ATC Tower (Under IAF Control) of associated Motorized Sliding Gates.
- iv)** System includes complete hardware (relay, module, etc. as required) and software for integration with ALCMS system complete as required so that the ALCMS system shall be suitable for controlling & monitoring (Status) of Motorized Sliding Gate(Fixed Circuits) from remote operation and as per attached Technical Specifications.
- v)** The system shall include to provide all hardware, software, licenses, OFC / CAT-VI / control / Power cabling interconnection, associated accessories as per requirement of site etc. but excluding supply & laying of OFC/Power Cable/Control Cable required to connect ALCMS from CCR hall to ATC & field devices.
- vi)** Suitable arrangement shall be made for sensing and stopping the sliding gate when the gate reaches its extreme position while closing and opening i.e. safety photo cell.
- vii)** Suitable shock-absorbing arrangement shall be made at the extreme ends/ edge of trolley gates to avoid any mechanical damage to the gates/ aircraft while operation.
- viii)** Flashing lights with buzzer suitable for operation on 230-V, Single phase, 50 Hz AC supply shall be provided for signaling the closing/ opening operation of gate i/c electrical wiring for the lights. Supply of suitable size wire/cable, connection etc. are included in scope of work.
- ix)** Suitable mechanism/ arrangement shall be provided for manual operation of gate in case of failure of drive unit/ Power supply.

D. TRACKS FOR SLIDING GATE

- i)** Track for movement of sliding gate shall be made of solid round bar of 40 mm dia mounted on MS U-Channel of Size 100mm x 50mm x 5mm and H Beam of size 116mm x 100mm x 6mm.
- ii)** Track of sliding gates shall be fixed on Taxiway by chase cutting the flexible / hard pavement with chase cutting machine and using suitable compound / concrete / bituminous mix or laying of track may be done during construction of foundation work. The surface of the Taxiway shall be made good after fixing the Track so that no hindrance is posed for the movement of taxiing Aircraft.
- iii)** The track shall be fixed in re-in forced cement concrete as per BOQ.

- E. Opening / Closing operation time of the Sliding trolley gate in no case shall exceed 12 minutes i.e. its both motorized or manual.
- F. Suitable arrangement shall be made to stop the movement / entry of animals below the gate i.e., the gap between gate frame and track.
- G. Suitable arrangement such as jack system shall be made for easy maintenance & replacement of wheels.
- H. Before commencement of work the entire design shall be got approved by the Engineer-In-charge.
- I. The entire design & drawing shall be got duly vetted by Govt. Engg. College/IIT/NIT. Agency should submit each drawings in triplicate set mentioning "Good for construction" after vetting. Nothing extra shall be paid on this account. The decision of the EIC shall be final in this regard.

1. L.T CABLES

1.1 General

L.T. Cables shall be supplied, laid, tested and commissioned in accordance with BOQ, drawings, specifications, relevant Indian Standards specifications and cable manufacturer's instructions. The cable shall be delivered at site in original drums with manufacturer's name clearly written on the drums. The recommendations of the cable manufacturer with regard to jointing and sealing shall be strictly followed.

2.1 Materials

All L.T. Power cables shall be XLPE insulated PVC sheathed type stranded aluminum / copper conductor armoured cable whereas control cable shall be armoured / unarmoured conforming to IS: 7098: 1988 (Part-I) with upto date amendments as specified in SOQ. **The outer sheath shall be FRLS.**

1.1 Inspection

All cables shall be inspected at site and checked for any damage during transit.

4.1 Joints in Cables

The Contractor shall take care to see that the cables received at site are apportioned to various locations in such a manner as to ensure maximum utilization and avoiding of cable joints. This apportioning shall be got approved from Engineer-In-Charge before the cables are cut to lengths.

5.1 Laying of cables

Cables shall be laid directly in ground, hollow sections, masonry ducts, on cable tray, surface of wall / ceiling etc. as indicated on drawings and/or as per the direction of Engineer-In-Charge. Cable laying shall be carried out as per CPWD specifications.

1.5.1 Cables Laying in Ground

Cables shall be laid by skilled experienced workmen using adequate rollers. The cable drums shall be placed on jacks before unwinding the cable. With great care, it shall be unrolled on over wooden rollers placed in trenches at intervals not exceeding 2 meters.

Cables shall be laid at depth of 750 mm below ground level upto 1.1 KV grade and 1200 mm above 1.1 KV grade. A sand cushion of 80mm & 170 mm shall be provided below & above the cable respectively, joint boxes and other accessories. Cables shall not be laid in the same trench or alongside a water main. Width of the

trench shall be 350 mm (minimum) for laying single cable.

For laying of additional cable in the same trench in one tier horizontal formation, the width of the cable trench shall be increased 200 mm for each additional cable and a uniform spacing of 200 mm (center to center) of adjacent cables shall be maintained. Both the cables shall be provided a sand cushion of 80 mm & 170 mm. The protective bricks shall be laid in such a way, a projection of 50 mm over the cables on both sides shall be provided.

The relative position of the cables, laid in the same trench shall be preserved. At all changes in direction in horizontal and vertical planes, the cables shall be bent smooth with a radius of bent not less than 12 times the diameter of cables. Minimum 3-meter-long loop shall be provided at both end of cable.

Distinguishing marks may be made on the cable ends for identifications of phases. Insulation tapes of appropriate voltage and in red, yellow and blue colours shall be wrapped just below the sockets for phase identifications.

1.5.2 Protection of Cables

The cables shall be protected by bricks laid on the top layer of the sand for the full length of underground cable. Where more than one cables is laid in the same trench, the bricks shall cover all the cables and shall project a minimum of approximately 50mm on either side of the cables. Cable under road crossings and any other places subject to heavy traffic shall be protected by running them through Hume / RCC / HDPE Hollow sections of suitable size.

1.5.3 Excavation & Back Fill

All excavation and back fill required for the installation of the cables shall be carried out by the contractor in accordance with the drawings and requirements laid down elsewhere. Trenches shall be dug true to line and grades. Back fill for trenches shall be filled in layer not exceeding 150 mm. Each layer shall be properly rammed and consolidated before laying the next layer.

The Contractor shall restore all surface, roadways, sidewalks, kerbs wall or the works cut by excavation to their original condition to the satisfaction of the Engineer-In-Charge.

1.5.4 Laying of cables on cable Tray / Surface of Wall / Ceiling

Cable shall be laid on perforated M.S. Cable tray. Cables shall be properly dressed before cable ties / clamps are fixed. Wherever cable tray is not proposed, cables shall be fixed on surface of wall or ceiling slab by suitable MS clamps / saddles. Care shall be taken to avoid crossing of cable.

1.5.5 Cables on Hangers or Racks

The Contractor shall provide and install all iron hangers' racks or racks with die cast cleats with all fixings, rag bolts or girder clamps or other specialist fixing as required.

Where hangers or racks are to be fixed to wall sides, ceiling and other concrete structures, the Contractor shall be responsible for cutting away, fixing and grouting in rag bolts and making good.

The hangers or racks shall be designed to leave at least 25mm clearance between the cables and the face to which it is fixed. Multiple hangers shall have two or more fixing holes. These shall be designed to keep provision of some spare capacity for

future development.

2. CABLES TAGS

Cable tags shall be made out of 2mm thick aluminum sheets of suitable size & tagged with GI wire before entry in to the panel(s) / crossing / manholes. The cable tag shall indicate destination & origin point of cable along with its size.

3. TESTING OF CABLES

Prior to installation, burying of cables, following tests shall be carried out. Insulation test between phases, phase & neutral, phase & earth for each length of cable.

- a. Before laying.
- b. After laying.
- c. After jointing.

On completion of cable laying work, the following tests shall be conducted in the presence of the Engineer-In-Charge.

- a. Insulation Resistance Test (Sectional and overall).
- b. Continuity Resistance Test.
- c. Earth Test.

All tests shall be carried out in accordance with relevant Indian Standard code of practice and Indian Electricity Rules. The Contractor shall provide necessary instruments, equipments and labour for conducting the above tests & shall bear all expenses of conducting such tests.

For Category-I items as per approved make list, Factory inspection is to be done.

4. CABLE TRAY

4.1 PERFORATED TYPE

The cable tray shall be fabricated out of slotted / perforated MS sheets as channel sections, single or double bended. The channel sections shall be supplied in convenient lengths and assembled at site to the desired lengths. These may be galvanized or painted as specified in SOQ.

Typically, the dimensions, fabrication details etc. are shown in CPWD General Specification for Electrical Works Part-II-External-1994 & sizes described in schedule of quantities.

The jointing between the sections shall be made with coupler plates of the same material and thickness as the channel section. Two coupler plates, each of minimum 200mm length, shall be bolted on each of the two sides of the channel section with 8mm dia round headed bolts, nuts and washers. In order to maintain proper earth continuity bond, the paint on the contact surface between the coupler plates and cable tray shall be scraped and removed before the installation.

The maximum permissible uniformly distributed load for various sizes of cable trays and for different supported span are as per Table-IV of CPWD General Specifications of Electrical Work Part-II - 1994. The sizes shall be specified considering the same.

Factory fabricated bends, reducers, tee / cross junctions, etc. shall be provided as per good engineering practice (Details are typically shown in figure-3 of CPWD General specifications of Electrical Work Part-II – 1994). The radius of bends, junctions etc. shall not be less than the minimum permissible radius of bending of the largest size of cable to be carried by the cable tray.

The entire tray (except in the case of galvanized type) and the suspenders shall be painted with two coats of red oxide primer paint after removing the dirt and rust, and finished with two coats of spray paint of approved make synthetic enamel paint.

4.2 LADDER TYPE

Ladder type cable tray shall be fabricated out of double bended channel section longitudinal members with single bended channel section rungs of cross members welded to the base of the longitudinal members at a centre to centre spacing of 250mm. The channel sections shall be supplied in convenient lengths and assembled at side to the desired lengths. These may be galvanized or painted to the desired lengths.

Typically, the dimensions, fabrication details etc. are shown in CPWD General Specification for Electrical Works - Part II -External, 1994 with upto date amendments.

The jointing between the sections shall be made with coupler plates of the same material and thickness as the channel section. Two coupler plates, each of minimum 200mm length, shall be bolted on each of the two sides of the channel section with 8mm dia round headed bolts, nuts and washers. In order to maintain proper earth continuity bond, the paint on the contact surfaces between the coupler plates and cable tray shall be scraped and removed before the installation.

The maximum permissible uniformly distributed load for various sizes of cables trays and for different supported span are as per CPWD General Specification of Electrical Work Part II – 1994 with upto date amendements. The sizes shall be specified considering the same.

The width of the cable tray shall be chosen so as to accommodate all the cable in one tier, plus 25% additional width for future expansion. This additional width shall be minimum 100mm.

Factory fabricated bends, reducers, tee / cross junctions, etc. shall be provided as per good engineering practice. Details are typically shown in figure 3 of CPWD General Specification of Electrical Work Part-II-1994. The radius of bends, junctions etc. shall not be less than the minimum permissible radius of bending of the largest size of cable to be carried by the cable tray.

The entire tray (except in the case of galvanized type) and the suspenders shall be painted with two coats of red oxide primer paint after removing the dirt and rust, and finished with two coats of spray paint of approved make synthetic enamel paint.

The cable tray shall be bonded to the earth Terminal of the switch bonds at both ends.

4.3 INSTALLATION & MEASUREMENT OF CABLE TRAY / LADDER

The cable tray shall be suspended from the ceiling slab with the help of 10mm dia MS rounds or 25mm x 5mm flats at specified spacing as per of CPWD General Specification of Electrical Work Part II -1994 with upto date amendements. Flat type suspenders may be used for channels upto 450 mm width bolted to cable trays. Round suspenders shall be threaded and bolted to the cable trays or to independent support angles 50mm x 50mm x 5mm at the bottom end as specified. These shall be grouted to the ceiling slab at the other end through an effective means, as approved by the Engineer, to take the weight of the cable tray with the cables.

The cable trays shall be measured on unit length basis, along the center line of the cable tray, including bends, reducers, tees, cross joints, etc., and paid for accordingly.

5. TESTING OF INSTALLATION

5.1 Scope

This section describes the details of test to be conducted in the completed internal electrical installation, before commissioning.

5.2 General

5.2.1 Tests

On completion of installation, the following tests shall be carried out: -

- i) Insulation resistance test.
- ii) Polarity test of switch.
- iii) Earth continuity test.
- iv) Earth electrode resistance test.

5.2.2 Witnessing of Tests

Testing shall be carried out for the completed installations, in the presence of and to the satisfaction of the Engineer-In-Charge by the Contractor. All test results shall be recorded and submitted to AAI.

5.3 Insulation Resistance

The tests described below shall be made before the installation is permanently connected to the supply. For these tests large installations may be divided into groups of outlets, each containing not less than 50 outlets. For the purposes of this code the term 'outlet' includes every point and every switch except that a socket outlet, appliance or luminaire incorporating as which is regarded as one outlet. The test voltage for insulation resistance measurement shall be 500 V.

When measured with all fuse links in place, all switches (including, if practicable, the main switch) closed and, all poles or phases of the wiring electrically connected together, the insulation resistance to earth shall be not less than 1 mega ohm.

When measured between all the conductors connected to any one phase or pole of the supply and, in turn, all conductors connected to each other phase or pole the insulation resistance shall be not less than 1 mega ohm. Wherever practicable, so that all parts of the wiring may be tested, all lamps shall be removed and all current-using equipment shall be disconnected and all local switches controlling such lamps or other equipment shall be closed. Where the removal of lamps and/or the disconnection of current-using equipment is impracticable, the local switches controlling such lamps and/or equipment shall be open. Particular attention shall be given to the presence of electronic devices connected in the installation and such devices shall be isolated so that the test voltage does not damage them.

Where equipment is disconnected for the tests prescribed above, and the equipment has exposed conductive parts required by these clauses to be connected to protective conductors, the insulation resistance between the exposed conductive parts and all live parts of the equipment shall be measured separately and shall comply with requirements of the appropriate Indian Standard and the insulation resistance shall not be less than 0.5 mega ohm.

5.4 Polarity Test of Switch

In a two-wire installation, a test shall be made to verify that all the switches in every circuit have been fitted in the same conductor, throughout, and such conductor, shall be labeled or marked for connection to the phase conductor, or to the non-earthed conductors of the supply.

In a three wire or a four-wire installation, a test shall be made to verify that every non-linked single pole switch is fitted in a conductor which is labeled, or marked for connection to one of the phase conductors of the supply.

The installation shall be connected to the supply for testing. The terminals of all switches shall be tested by a test lamp, one lead of which is connected to earth. Glowing of test lamp to its full brilliance, when the switch is in 'ON' position irrespective of appliance in position or not, shall indicate that the switch is connected to the right polarity.

5.5 Testing of Earth Continuity Path

The earth continuity conductor, including metal conduits and metallic envelops of cables in all cases, shall be tested for electric continuity. The electrical resistance of the same along with the earthing lead, but excluding any added resistance, or earth leakage circuit breaker, measured from the connection with the earth electrode to any point in the earth continuity conductor in the completed installation shall not exceed one ohm.

5.6 Measurement of Earth Electrode Resistance

As described in specification of section 'Earthing' above.

5.7 Test Certificate

On completion of an electrical installation or an extension to an installation, a certificate shall be furnished by the Contractor, countersigned by the certificate supervisor under whose direct supervision the installation was carried out. The certificate shall be in the prescribed form in addition to test certificate required by the local Electricity supply authorities.

EARTHING

Scope

This section 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 General Specifications for Electrical works (Part-I-Internal) as amended upto date and in the regulations of the local Electrical Supply Authority shall be referred to.

Application

- i) The electrical distribution system is with earthed neutral (i.e. neutral earthed at the transformer / generator end). In addition to the neutral earthing, provision is made for earthing the metallic body of equipments and non-current carrying metallic components in the substation, as well as in the internal / external electrical installations.
- ii) Earthing requirements are laid down in Indian Electricity Rules, 1956 and Indian Standard Specification IS: 3043:1987 with latest amendment as amended from time to time, and in the Regulations of the Electricity Supply Authority concerned. These shall be complied with.

Materials

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

Earth Electrodes

The earth electrode shall be Plate / Hollow sections earth electrode as specified in SOQ and the materials and size of earth electrodes shall be as specified

Earthing Conductor

The earthing conductor (protective conductor from earth electrode upto 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 earthing conductor shall be as specified. Each equipment shall be connected with two independent earth conductors to earth bar located in respective area. Each earth bar shall be connected to Earth Grid by two independent earth conductors. Earthing Grid shall be directly connected by two independent earth electrodes. Earthing shall be of GI or Copper.

Hardware Items

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

Protective (Earth Continuity / Loop Earthing) Conductor

- i) The material and size of protective conductors shall be as specified.
- ii) Unless otherwise specified, GI conductor should not be ordinarily used as protective conductor within any circuit beyond a Distribution Board downstream.

Location for Earth Electrodes

Normally earth electrodes 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 Engineering-In-Charge.

The location of the earth electrode shall be such that the soil has a reasonable chance of remaining moist as far as possible. Entrances, pavements and roadways, shall be avoided for locating earth electrodes. When more than one electrode (plate / hollow sections) are to be installed, a separation of not less than 2m shall be maintained between adjacent electrodes.

INSTALLATION

ELECTRODES

Hollow sections Electrode

Earthing electrode shall consist of a medium class GI Hollow sections of approved make not less than 40 mm dia and 4.5 meters long. GI Hollow sections electrode shall be cut tapered at the bottom and provided with holes of 12mm dia drilled at not less than 75 mm interval upto 2 meters length from bottom. The electrode shall be buried vertically in the ground as far as practicable below permanent moisture level with its top at not less than 20 cm below ground level. The electrode shall be in one piece and no joints shall be allowed in the electrode. Wherever possible earth electrodes shall be located as near water tap, water drain or a down take hollow sections. Earth electrodes shall not be located in proximity to a metal fence. It shall be kept clear of the building foundations and in no case shall be nearer than 2 meters from the outer face of the wall.

The hollow sections earth electrode shall be kept vertically and surrounded with 150 mm thick layer of charcoal dust and salt mixture upto a height of 2.0 meters from the bottom. At the top of the electrode a funnel with a mesh shall be provided for watering the earth. The main earth conductors shall be connected to the electrode just below the funnel, with proper terminal lugs and check nuts. In locations where the full length of hollow sections electrode is not possible to be installed due to meeting a water table, hard soil or rock, the electrode may be reduced 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. Hollow sections electrodes may also be installed in horizontal formation in such exceptional cases.

Plate Earth Electrode

Earthing shall be provided with GI / copper plate electrode as mentioned in SOQ of following.

- i. GI Plate Electrode. : 600 mm x 600 mm x 6 mm thick
- ii. Copper Plate Electrode. : 600 mm x 600 mm x 3 mm thick

The electrode shall be buried in ground with its faces vertical and not less than Three (3) meters below ground level. 20 mm dia medium class GI hollow sections shall be provided and attached to the electrode. Earth electrode shall not effect the column footing or foundation of the building. In such cases electrode shall be further away from the building.

Watering Arrangement

i) In the case of plate earth electrodes, a watering hollow sections of 20 mm dia. medium class GI hollow sections 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 hollow sections for watering the earth.

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

iii) The watering funnel attachment shall be housed in a masonry enclosure of size not less than 300 mm x 300 mm x 350 mm deep.

MS frame with 6 mm thick MS cover and having ALLEN Key locking arrangement shall be suitably embedded in the masonry enclosure. The top enclosure shall be provided of 50 mm thick PCC.

The details of Plate / Hollow sections earth electrode, a detailed drawing as referred in CPWD specification of Internal EI shall be referred.

Earth Conductor

In the case of plate earth electrodes, the earthing conductor shall be securely terminated on to the plate with two bolts, nuts, check nuts and washers. In the case of hollow sections earth electrodes, wire type earthing conductor shall be secured by using a through bolts, nuts and washers and terminating socket. The earthing conductor from the electrode upto the building shall be protected from mechanical injury by a medium class, 15 mm dia GI hollow sections in the case of wire, and by a minimum of 40 mm dia, medium class GI hollow sections in the case of strip. The protection hollow sections in ground shall be buried at least 30 cm 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.

Earth Bus and Main Earthing Terminal

In all installations, 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.

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.

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 3 phase switchgears thereon.

Earth Resistance

The earth resistance at 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 upto 8 ohms.

Where the above stated earth resistance is not achieved, necessary improvement shall be made by additional provisions, such as additional electrode (s), different type of electrode, or artificial chemical treatment of soil etc., as may be directed by the Engineer-In-Charge.

Marking

- i) Earth bars / terminals at all switch board shall be marked permanently, as 'E'.
- ii) Main earthing terminal shall be marked 'SAFETY EARTH- DO NOT DISCONNECT'.

Measurement of Earth Electrode Resistance

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

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

At the time of test, the test electrode shall be separated from the earthing system. The auxiliary electrodes shall be of 13 mm diameter mild steel rod driven up to 1 m into the ground.

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, hollow sections 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 mid-way between them.

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.

M. V. / L.T. PANELS

1. L.T. PANELS

1.1 General

This section covers the detailed requirements of medium voltage switchboard for 415 volts, 3 phase, 50 Hz, 4 wire system. The LT Panels for **Incomer above 250 A shall be TTA type** as per IEC 61439 -1 & 2 and **Incomer up to 250 A shall be PTTA type** as per IEC 60439.

1.2 Standards and Codes

Updated and current Indian Standard Specifications and Codes of Practice will apply to the equipment and the work covered by the scope of this contract.

Low Voltage switchgear Assemblies		For TTA: IEC 61439-1&2 For PTTA: IEC 60439
Low Voltage switchgear & control gear		For TTA: IEC 61439-1&2 For PTTA: IEC 60439
Part I	General rules	
Part II	Circuit Breakers	
Part III	Switches, disconnectors, switch disconnectors and fuse combination units	
Part IV	Contactors and Motor starters	
Part V	Control circuit devices and switching elements	
Degree of Protection of Enclosures for low voltage switchgear.		IEC60529 / IS 2147 : 1962
Internal arc tests		IEC61641
Voltage Transformer		IS – 3156
Current Transformer		IS - 2705

1.3 Switch Boards

1.3.1 General

The switch board shall be dust & vermin proof and shall be suitable for the climate conditions as specified. The design shall include all provisions for safety of operation and maintenance personnel.

General construction shall employ the principle of compartmentalization and segregation for each circuit. Unless otherwise approved, incomer and bus section panels or sections shall be separate and independent and shall not be mixed with sections required for feeders. Each section of the rear accessible type panel shall have hinged access doors at the rear. The LV switchboards shall be Type Tested as per the standards IEC 61439-1&2. The drawings of the type-tested assemblies shall be made available for inspection.

Switchboards shall have a short circuit level withstand as per Schedule of Quantities and drawings.

The enclosures shall be designed to take care of normal stress as well as abnormal electro-mechanical stress due to short circuit conditions. All covers and doors provided shall offer adequate safety to operating persons and provide ingress protection of IP 42 unless otherwise stated. Ventilating openings and vent outlets, if provided, shall be arranged such that same ingress protection of IP 42 is retained. Suitable pressure relief devices shall be provided to minimize danger to operator during internal fault conditions.

For operator safety IP2 X (touch proof) protection to be available even after opening the feeder compartment door. The compartmentalization to be achieved by using metal separators, use of PVC sheet / Hylem sheets shall not be allowed.

Switchboard shall be form 4B, for form of separation only, metallic covers shall be used and Hylem / PVC sheets shall not be allowed.

In case of TTA Switchboard [For incomer above 250 Amp]

The design should have undergone Internal Arc tests for different types of feeders. Internal arc capacity should be 50KA for 0.3 sec or as per design whichever is higher. Switchboard along with ACBs / MCCBs and connections should have been type tested design as per IEC 61439 1 & 2 for short circuit, temperature rise, protective earth short circuit test and dielectric tests of the ratings required and wire glow test.

Switchboards shall have a short circuit level withstand as per design and technical specifications.

PTTA Switchboard [For incomes below & upto 250 Amp]

All switch board panels having incomer rating upto and including 250 Amp shall be of partially type tested (PTTA) panels.

The outdoor feeder pillars and APFC cum hybrid panels shall also be PTTA type panels irrespective of rating of incomer switchgear.

The PTTA type panels shall have the minimum short circuit level withstand capacity 50KA or as per design, whichever is higher.

1.3.2 Switchboard Configuration

The Switchboard shall be configured with Air Circuit Breakers, MCCB's, MPCB, MCB's and other equipment as called for in the schedule of quantities.

The MCCBs shall be arranged in multi-tier formation. The incoming Air Circuit Breakers shall be arranged in Single tier formation only. Double tier formation to facilitate operation and maintenance may be used for outgoing air circuit breakers only. The Switchboards shall be of adequate size with a provision of 20% spare outgoing feeders with switch gears comprises of all ratings available in the panel to accommodate possible future load.

1.3.3 Constructional Features

The Switchboards shall be metal clad totally enclosed, floor mounted free standing type of modular extensible design suitable for indoor mounting.

Switchboards construction shall employ the principle of compartmentalization and segregation for each circuit.

Incomer and bus section panels or sections shall be separate and independent and shall not be wired with sections required for feeder. The incomer panel shall be suitable for receiving bus trunking or MV cable of size specified.

Switchboards shall be made up of requisite vertical sections, which when coupled together, shall form continuous dead front switchboards.

Switchboard shall be readily extensible on both sides by addition of vertical sections after removal of the end covers.

The switchboards shall be designed for use in high ambient temperature and humid tropical conditions as specified. Ease of inspections, cleaning and repairs while maintaining continuity of operation shall be provided in the design.

Metal based neoprene gaskets between all adjacent units and beneath all covers shall be provided to render the joints dust and vermin proof to provide required degree of protection as stipulated in schedule of quantities. The unused openings within the switchboards shall be closed using suitable grommets.

Special care to be taken to ensure effective earthing of the frame and doors of the switchboards.

Each vertical section shall be provided with a rear or side cable chamber housing the cable end connections and power / control cable terminations. There should be generous availability of space for ease of installation and maintenance with adequate safety for working in one vertical section without coming into contact with any live parts. The design of the switchboard shall allow standard extension chambers if required to accommodate cables.

Switchboard panels and cubicles shall be fabricated with CRCA Sheet Steel of thickness not less than 2.0 mm and shall be folded and braced as necessary to provide a rigid support for all components. The doors and covers shall be fabricated from CRCA sheet steel of thickness as per manufacturer standard.

All panels and covers shall be properly fitted. The holes in the panel shall be correctly positioned.

Switchboard shall be provided with "Danger Notice Plate" conforming to relevant Indian Standards.

1.3.4 Switchboard Dimensional Limitations

The overall height of the switchboard shall be limited to 2400 mm or less as per manufacturer's standards for all the Busbar ratings and type of switchboards.

The height of the operating handle, push buttons etc shall be restricted between 300 mm and 1700 mm from finished floor level.

Other dimensional limits if any are specified separately.

1.3.5 Switchboard Compartmentalization

For compartmentalized switchboards, separate totally enclosed compartments shall be provided for horizontal busbars, vertical busbars, ACBs, MCCBs, and cable alleys.

The main switchboard shall be with Form 4b Construction.

Earthed metal or insulated shutters shall be provided between draw out and fixed portion of the switchgear such that no live parts are accessible with equipment drawn out. Degree of protection within compartments shall be at least IP 2X.

Sheet steel hinged lockable doors for each separate compartment shall be provided and duly interlocked with the breaker in "ON" and "OFF" position.

For all Circuit Breakers separate and adequate compartments shall be provided for accommodating instruments, indicating lamps, control contactors and control MCB etc. These shall be accessible for testing and maintenance without any danger of accidental contact with live parts of the circuit breaker, busbars and connections.

For Some MCCB feeders for critical loads like UPS it may be required to have operation only after opening the door, all other facilities like pad lockable rotary handle to be provided for such feeder. It shall be possible to do this change during execution of order.

Each switchgear cubicles shall be fitted with label in front and back identifying the circuit, switchgear type, rating and duty. All operating device shall be located in front of switchgear only.

A suitable wire way with cover shall be provided to take interconnecting control wiring between vertical sections.

Cable compartments running the height of the switchboard in the case of front access boards shall be provided for incoming and outgoing cables.

Cable compartments shall be of adequate size for easy termination of all incoming and outgoing cables entering from bottom or top. The construction shall include necessary and adequate and proper support shall be provided in cable compartments to support and clamping the cable in the cable alley / cable chamber.

1.3.6 Switchboard Bus Bars

Bus bars shall be made of high conductivity, 99.9% purity, high strength Aluminium of ETP grade Busbars shall be of rectangular cross sections, suitable for full load current for phase bus bars and half / full rated current for neutral bus bar or as stipulated in schedule of quantities. Busbar shall be suitable to withstand the stresses of fault level as per design and technical specification.

The bus bar system may comprise of a system of main horizontal bus bars and auxiliary vertical bus bars run in bus bar alley on either side of switch gear compartments in which the switch gear arranged with front access.

The bus bars shall be supported on non-breakable, non-hygroscopic epoxy resin or glass fibre reinforced polymer insulated supports able to withstand operating temperature of 110 deg C at regular intervals, to withstand the forces arising from a fault level as stipulated in schedule of quantities. The material and the spacing of the Busbar supports should be same as per the type tested assembly. The panels shall be designed for ambient temperature of 40 deg C. The maximum temperature rise above ambient shall not exceed 55 deg C.

Auxiliary buses for control power supply, space heater power supply or any other specified service shall be provided. These buses shall be insulated, adequately supported and sized to suit specific requirement. The material for auxiliary supply bus will be insulated electrolytic copper.

The Busbar support to be supplied by OEM or by approved supplier of OEM. Minimum clearance between phases / live parts shall be as per IS IEC 61439.

Clearances

The minimum clearances to be maintained for enclosed indoor air insulated bus bars for medium voltage applications shall be as per IEC guidelines.

1.3.7 Switchboard Interconnection

All connection and tap offs shall be through adequately sized connectors appropriate for fault level at location. This shall include tap off to feeders and instrument / control transformers.

For unit ratings upto 100 amps, PVC insulated 105 deg withstand, copper conductor wires of adequate size to carry full load current shall be used. The terminations of such interconnections shall be crimped. Solid connections shall be used for all rating of above 100 amps.

All connections, tapings, clamping, shall be made in an approved manner to ensure minimum contact resistance. All connections shall be firmly bolted and clamp with even tension. Before assembly joint surfaces shall be filed or finished to remove burrs, dents and oxides and silvered to maintain good continuity at all joints. All screws, bolts, washers shall be zinc plated. Suitable grade nuts and bolts shall be used for busbar connections.

1.3.8 Draw out Features

Air Circuit Breakers shall be provided in fully draw out type design, unless otherwise stated. All ACBs shall be such that draw out is possible without disconnection of the wires and cables. The power and control circuits shall have self-aligning and self- isolating contacts. Mechanical latches shall be integrated in ACB at service, test and isolated position to ensure that Breaker is firmly latched in respective position. It shall not be possible to move the breaker from the position unless latch is manually operated.

1.3.9 Instrument Accommodation

All voltmeter and ammeter and other instruments shall be flushed mounted Digital type of size 96 mm x 96 mm conforming to class 1.0 or as specified to IS 1248 for accuracy. Instruments and indicating lamps shall not be mounted on the Circuit Breaker Compartment door for which a separate and adequate compartment shall be provided and the

instrumentation shall be accessible for testing and maintenance without danger of accidental contact with live parts of the Switchboard.

For MCCBs, instruments and indicating lamps can be provided on the compartment doors. The current transformers for metering and for protection shall be mounted on the solid copper/aluminium busbars with proper supports.

On all the incomers of switch boards ON/OFF & Trip LED Type indicator lamps shall be provided suitable for operation on AC 230 volts supply. All lamps shall be protected by MCBs.

For Incomer and outgoing feeders (as specified in SOQ) multifunctional meters shall be provided which shall display A, V, PF, Hz, KW, KVA, KVA_r, KWh, KVA_rh, average and maximum values, maximum demand values, THD on current and Voltages. Also add on modules for RS485 / Ethernet port, programmable contacts, analogue output etc to link to BMS / SCADA system.

1.3.10 Wiring

All wiring for relays and meters shall be with PVC insulated copper conductor FR-LSH wires. The wiring shall be coded and labeled with approved ferrules for identification. The minimum size of copper conductor control wires shall be 2.5 sq. mm. Runs of wires shall be neatly bunched and suitably supported and clamped. Means shall be provided for easy identification of wires. Identification ferrules shall have used at both end of wires. All control wires meant for external connections are to be brought out on a terminal board. The cables and control wires shall be suitable for withstanding 105 deg C.

1.3.11 Space Heaters

Anti- condensation heaters shall be fitted in each cubicle together with an ON / OFF isolating switch suitable for electrical operation at $240 \pm 10\%$ volts A.C 50 Hz single phase supply, of sufficient capacity to raise the internal temperature of panel by 5 Deg C. The electrical apparatus so protected shall be designed so that the maximum permitted rise in temperature is not exceeded if the heaters are energized while the switchboard is in operation. As a general rule, the heaters shall be placed at the bottom of the cubicle.

1.3.12 Earthing

Continuous earth bus sized for prospective fault current to be provided with arrangement for connecting to station earth at two points. Hinged doors / frames to be connected to earth through adequately sized flexible braids.

1.3.13 Sheet Steel Treatment and Painting

Sheet steel used in the fabrication of switchboards shall undergo a rigorous cleaning and surface treatment seven tank process comprising of alkaline degreasing, descaling in dilute sulphuric acid and a recognized phosphating process after which a coat of primer paint compactively with the final paint shall be applied over the treated surface. Final paint coat of oven baked powder coating, of minimum 50-micron thickness, of sheet approved by Engineer-in-Charge shall then be provided.

1.3.14 Name Plates and Labels

Suitable engraved white on black name plates and identification labels of metal for all Switchboards and Circuits shall be provided. These shall indicate the feeder number and feeder designation.

1.3.15 Type test reports

Switchboard configurations offered shall be total type tested as per IEC 61439 I & II. Copies of the test reports / certificates shall be submitted by successful tenderers.

1.3.16 Acceptance Tests

Acceptance tests on completed switchboards shall be as follows:

A general visual check shall be carried out. This shall cover measurement of overall dimension, location, number and type of devices, terminal boxes, location and connection of terminals etc.

Checking of bill of materials as per approved drawing.

Checking of operation of various feeders as per approved schematic drawings. Operation check shall be carried out for every control function as per schematic drawings by manually simulating fault conditions and operation of control switches/relays etc.

Checking of interchange-ability of identical feeders.

Insulation resistance test and value measurement on power and control circuits before and after high voltage withstand test.

High voltage test on power and control circuit as per IS 8623.

For equipment bought from other suppliers, certified test reports of tests carried out at the manufacturer's works shall be submitted.

2. SWITCHGEAR

2.1 LT Air Circuit Breakers

2.1.1 General

The circuit breakers shall be of the air break type, robust and compact design suitable for indoor mounting and shall comply with the requirement IEC 60947-1/IS 13947-2 and 2. Rupturing capacity shall be as stipulated in Schedule of quantities. Heat loss per pole shall be low.

The breaker shall comply with the isolation function requirement of IEC 60 947-2/IS 13947-2 section 7.12 to be marked as suitable for isolation / disconnection to facilitate safety of operating personal while the breaker is in use.

The breaker shall provide IP 2X protection between the front panel and internal power circuits to avoid any accidental contact with the live main current carrying path with the frontcover open.

Protective devices, metering, CTs, PTs, push buttons and indicating lamps shall be provided as per schedule of quantities.

ACB shall be type tested & certified for compliance to standards from CPRI, ERDA / NABL accredited lab / any international lab. The circuit breaker shall be suitable for 415 V + 10%, 50Hz supply system. Manufacturer should submit combined sequence test certificate.

2.1.2 Constructional Features

The Circuit Breaker shall be flush front, modular construction, horizontal draw-out pattern, three / four pole as required and fully interlocked. Each Circuit Breaker shall be housed in a separate compartment enclosed on all sides. In case of 4 pole breaker neutral shall be fully rated with adjustable settings from 50% to 100% of I_n .

The Circuit Breaker cradle shall be designed and constructed to permit smooth withdrawal and insertion. The movement shall be free of jerks, easy to operate.

Mechanical Latch to be provided to identify the isolated, test & service position of breaker to prevent over racking.

Main current carrying parts in the breaker shall be silver plated and suitable arcing contacts shall be provided to protect the main contacts which shall be separate from the main contacts and easily replaceable. In addition, Arc chutes shall be provided for each pole, and these shall be suitable for being lifted out for the inspection of the main and the arcing contacts. Self-aligning cluster type isolating contacts shall be provided for the Circuit Breaker, with automatically operated shutters to screen live cluster contacts when the Breaker is withdrawn from the cubicle. Sliding connections including those for the auxiliary contacts and control wiring shall also be of the self aligning type. The fixed portion of the sliding connections shall have easy access for maintenance purposes.

The cubicle for housing the Breaker shall be free standing dead front pattern, fabricated from the best quality sheet steel.

The circuit breakers shall be for continuous rating and service short Circuit Breaking capacity (Ics) shall be as specified in SOQ. Rated Ultimate breaking capacity (Icu) and short Circuit withstand values (Icw) for 1 sec

The ACB shall have double insulation (Class-II) with moving and fixed contacts totally enclosed for enhanced safety and in accessibility to live parts.

The circuit breakers shall be for continuous rating at 40 deg C ambient temperature. The Rated insulation voltage shall be 1000 volts AC & Rated impulse withstand Voltage shall be 12kV for main circuit.

All 4 pole ACBs shall have fully rated Neutral Pole.

The ACB shall be provided with a door interlock i.e. door should not be open when circuit breaker is closed and breaker should not be closed when door is open.

2.1.3 Operating Mechanism

The Circuit Breaker shall be trip free with independent manual spring operated or motor wound spring operated mechanism as specified and with mechanical ON / OFF indication. The operating mechanism shall be such that the circuit breaker is at all times free to open immediately the trip coil is energized. The breaker shall be provided with in built anti pumping mechanism.

The closing time shall be less than or equal to 80 ms to ensure faster closing of the breaker. And tripping time should be less than 70 ms to reduce the let through energy in the event of fault.

The operating handle and mechanical trip push button shall be at the front of and integral with the Circuit Breaker.

There shall be mechanical / electrical indicator on the front panel for 'Ready to close' situation for the breaker by checking all inter locking.

The Circuit Breakers cradle shall be so designed and constructed as to permit smooth withdrawal and insertion of the breaker into it. The movements shall be free from jerks, easy to operate and shall be on steel balls / rollers and not on flat surfaces.

There shall be 3 distinct and separate position of the circuit breaker on the cradle. Racking interlock in Connected / Test / Disconnected Position.

Service Position : Main Isolating contacts and control contacts of the breaker are engaged.

Test Position : Main Isolating contacts are isolated but control contacts are still engaged.

Isolated Position : Both main isolating and control contacts are isolated.

2.1.4 Circuit Breaker Interlocking

Sequence type strain free interlocks shall be provided to ensure the following:

It shall not be possible for the Breaker to be withdrawn from the cubicle when in the "ON" position. To achieve this, suitable mechanism shall be provided to lock the Breaker in the tripped position before the Breaker is isolated.

It shall not be possible for the Breaker to be switched "ON" until it is either in the fully inserted position or, for testing purposes, it is in the fully isolated position.

It shall not be possible for the Circuit Breaker to be plugged in unless it is in the OFF position. The racking shutters should open only when ACB is OFF position

A safety latch shall be provided to ensure that the movement of the Breaker, as it is withdrawn, is checked before it is completely out of the cubicle, thus preventing its accidental fall due to its weight.

Mechanical and electrical anti pumping devices shall be incorporated in the ACB's as required.

2.1.5 Circuit Breaker Auxiliary Contacts

The Circuit Breaker shall have suitable free / minimum 4 NO / NC auxiliary contacts rated at 10 amps 415 volts 50 Hz. These contacts shall be approachable from the front for connecting all external wiring from the front. They shall close before the main contacts when the Circuit Breaker is plugged in and vice versa when the Circuit Breaker is Drawn Out of the cubicle.

Electrical Auxiliaries

All electrical auxiliaries, including the spring charging gear motor shall be installable on site. The auxiliaries shall be placed in a compartment which under normal operating conditions, shall not contain any conducting parts capable of entering into electrical contact with the circuit breaker poles. It shall be possible to connect all auxiliary wiring from the front of the circuit breaker.

2.1.6 Circuit breaker Releases

The breaker should be equipped with microprocessor based release to offer accurate and versatile protection with complete flexibility and shall offer complete over current protection to the electrical system in the following four zones:

- (i) Long time protection.
- (ii) Short time protection with intentional delay.
- (iii) Instantaneous protection.
- (iv) Ground fault protection with instantaneous delay.

The protection release shall have following features and settings:

- a. True RMS Sensing- The release shall sense true RMS value of current to avoid nuisance tripping during starting.
- b. Thermal Memory: The release incorporates thermal memory feature to achieve faster tripping in case of repetitive overloads.
- c. Defined time-current characteristics.
- d. Trip Indication- The release should provide local LED indication/ indication on display for identification of type of fault, without requiring using external power supply.
- e. Self-powered.
- f. The release shall meet the EMI / EMC requirements.
- g. All ACBs shall be provided with Mechanical Operation counter
- h. The setting range of release shall be as follows:

Type of Protection	Setting Range of Release (Pick-Up Current)
Long Time	0.4 to 1.0 times In
Short Time	2 to 10 times In
Instantaneous	2 to 15 times In
Ground Fault	0.3 to 1 time In

All incomer ACBs (except APFC Panels) shall have following additional protections other than mentioned above.

Under and over voltage Under and over frequency

Undercurrent & Phase unbalance Phase sequence reversal Temperature rise protection

The release should provide local indication of actual %age loading at any instant. The release should be able to communicate on MODBUS RTU protocol using inbuilt RS485 port

/ Ethernet and shall be integral part of supply with trip unit. Parameters of the Protection Release should be changeable from Release as well as thru communication network. Release should have LCD / LED for display of power parameters.

Phase currents (running, avg & max)

Release should be able to capture short circuit current on which ACB has tripped. The last ten trips with interrupted current values and alarms shall be stored in memory with the date & time stamping along with type of fault and alarm.

Release should have facility to select different type of IDMT Characteristics. PF Frequency

Maximum Demand (KVA, KW & Kvar) Actual Temperature

All O/G ACBs shall have following functions.

Protection

The ACB protection release shall offer the following protection functions as standard: Long-time (LT) protection with an adjustable current setting and time delay;

Short-time (ST) protection with an adjustable pick-up and time delay; Instantaneous (INST) protection with an adjustable pick-up and an OFF Position.

Earth-fault protection with an adjustable pick-up and time delay shall be provided if indicated on the appended single-line diagram.

The release shall have in built RS485 port for BMS connectivity and breaker control thru PC on MODBUS protocol

Release should be password protected to prevent unauthorized access. Dip switches / Display both are allowed for changing the power parameters settings.

2.1.7 Earthing

The frame of the Circuit Breaker shall be positively earthed when the Circuit Breaker is racked into the cubicle.

3. MOULDED CASE CIRCUIT BREAKERS

3.1 General

The circuit breakers shall comply with the requirement of IEC 60 947 / IS 13947-2: 1993. MCCBs shall be suitable for 3 Phase 415 Volts AC 50 HZ supply. Rated insulation voltage(Ui) 750V AC and rated Impulse voltage 8 KV.

The circuit breaker shall comply with the isolation function requirement of IEC 60 947- 2/ IS 13947-2 section 7.1.2 to be marked as suitable for isolation / disconnection to facilitate safety of operating personnel while the breaker is in use.

The circuit breaker shall provide IP 2X protection for insulation between the front cover and internal power circuits to avoid any accidental contact with the live main current carrying

path with the front cover open.

MCCBs should have $I_{cs}=I_{cu}$ with Minimum fault level as specified in **SOQ** and technical specification subject to minimum 35KA at 415V for TTA and 35KA at 415V for PTTA panels.

3.2 Protection Functions

Microprocessor trip units shall comply with appendix F of IEC 60947-2 standard (measurement of RMS current values, electromagnetic compatibility, etc.).

All MCCBs 100 Amp and below with Thermal Magnetic release shall have fixed Thermal(O/L) & fixed Magnetic (S/C) protection settings.

All MCCBs above 100 Amp and upto 200 Amp with Thermal Magnetic release shall have Variable Thermal (O/L) & Variable Magnetic (S/C) protection settings.

All MCCBs above 200A shall be of Microprocessor Based with adjustable Overload, ShortCircuit and In-Built Earth Fault Protection.

For Motor application, motor duty type MCCBs shall be selected with reference to Type 2 coordination chart provided by the manufacturer.

3.3 Constructional features

The MCCBs shall be made of halogen free high strength heat resisting and flame retardant thermo setting insulating material.

Three phase MCCBs shall have a common handle for simultaneous operation and tripping of all the three phases.

The contact tips shall be made of suitable arc resistant sintered alloy. Terminals shall be of liberal design with adequate clearances

Suitable arc extinguishing devices shall be provided for each contact.

All MCCBs above 63A shall be provided with Silver Plated Copper Spreader Links for enhancing termination capacity.

3.4 Operating mechanism

The operating handle of the MCCBs shall be quick make / break, trip free type.

The operating handle of the MCCBs shall have suitable, ON, OFF and TRIPPED indicators.

The operating handle and mechanical trip push button shall be at the front of and integral with the circuit breaker

MCCBs shall be capable of limiting the fault currents. The maximum thermal $I^2 t$ shall be indicated by the manufacturer.

MCCBs shall comprise of the mechanism designed to trip the circuit breaker in the event of high value short circuit currents.

The electrical endurance of MCCBs shall be more or equal to that specified by IEC 60 947-2 standard.

Manufacturer shall furnish total discrimination chart / curve study for coordination between upstream and downstream devices. The ACB & MCCB's shall be from one manufacturer and shall be from one range. Mix of multiple ranges of MCCB's from one manufacturer is not acceptable

3.5 Circuit Breaker Interlocking

MCCBs shall be provided with following interlocking devices. Handle interlock to prevent unnecessary manipulations of the breaker.

Door interlock to prevent door being opened when the breaker is in ON position Daintier locking device to open the door even if the breaker is in ON position.

3.6 Circuit breaker auxiliaries

The circuit breaker shall be provided with following accessories, if specified in drawings/schedule of quantities

Under voltage trip Alarm switch Auxiliary contact

3.7 Type Test Certificate

The contractor shall submit totally type tested certificate as per IEC 60947-1& 2 from OEM

4. DOCUMENTATION

Following documents shall be submitted for approval of Engineer-in-Charge after award of work:

- a) General arrangement details for each panel.
- b) Copies of type tested design certificates.
- c) Bus bar sizing calculation for various bus bars rating for incomer/outgoings.
- d) Quality assurance plan for the switchboard.

Post Award (for site preparation and before commencement of panel manufacturing)

Following diagrams/data/documents shall be prepared / submitted and got approved by the Engineer-in-charge before commencement of panel manufacture and final two sets on approval.

- Detailed drawings showing General Arrangement, plans, sections, elevations, foundation details, base plate details with dimensions and critical information.
- Single Line Diagram
- Control & Schematic Diagram
- Bill of Materials/quantities indicating makes, technical specs, quantity etc.
- Data sheets (where applicable)
- Control logic and write up (where applicable)
- Technical leaflets / specifications.
- Characteristic curves of equipment (where applicable)
- Tests offered at factory and testing procedure
- Others documents / drawings as required by AAI

5. COMPLETION PLANS

On completion of work, the contractor shall submit 4 sets of following documents along with soft copy of as built drawings. The drawings shall be Computer aided design drawings (CADD).

- General Arrangement Layout drawings with dimensions, plans, sections, etc.
- Single Line Diagram
- Control & Schematic Diagram
- Bill of Materials/quantities indicating makes, technical specs, quantity etc.
- Data sheets
- Control logic (where applicable)
- Details of Inventory
- Equipment name plate details
- Installation & Maintenance Manuals
- Test certificates (Factory tests, Site tests)
- Guarantee/Warranty certificates (where applicable)

Training:

The agency shall ensure training of AAI personals as decided by AAI at AAI workplace or at his workplace as considered necessary.

On completion of installation, the agency shall supply two sets of well bound handing over manuals duly approved by Engineer-in-charge. Each set shall include:-

- As built drawings
- Do's and don'ts for the maintenance and operating staff.
- Working details of Motorized trolley gate with PLC system.
- Operating manual.
- Extracts of the warrant/DLP
- Details of service center
- The first page of the booklet shall be signed by the agency and AAI Engineer.
- Soft copy of the entire documents.

TECHNICAL SPECIFICATION FOR BOOM BARRIER

1.0 BOOM BARRIER

1.1 General

- i. Boom barriers shall be installed at perimeter road of IAF Darbhanga crossing the Taxiways and as directed by E-I-C.
- ii. The tentative location of boom barrier will be as per Apron Layout. The lengths may slightly vary as per the road layout.
- iii. Boom barrier shall be completely automatic with optical beam sensor. Manual override shall also be provided.
- iv. Barriers shall be designed for intensive duty cycles.
- v. Housing for drives and controller shall be IP-55 rated.
- vi. The operation will be controlled/ monitored from guard room/ control room/ ATC under IAF Darbhanga.
- vii. The system involves all associated accessories for remote control and operation from ATC Tower (Under IAF Control) of associated Boom Barrier system .
- viii. This item include complete hardware (relay, module, etc. as required) and software for integration with ALCMS system complete as required so that the ALCMS system shall be suitable for controlling & monitoring (Status) of all Boom Barriers (Fixed Circuits) from remote operation and as per attached Technical Specifications.
- ix. This item also includes to provide all hardware, software, licenses, OFC / CAT-VI / control / Power cabling interconnection, associated accessories as per requirement of site etc. but excluding supply & laying of OFC/Power Cable/Control Cable required to connect ALCMS from CCR hall to ATC & field devices.

1.2 Technical Data

Minimum Technical Specification of Boom Barrier	
Barrier pole	As per BOQ
Wind resistance	39 m/sec
Barrier drive	As per BOQ
Controller type	PLC / micro controller
Operation time	9-11 sec (approx.)
Manual man override	Personalized released key knob
Reversing on obstacle	Switchable
Power supply	240V +/- 6%, 50Hz, AC, 1 phase
Photo Cell for Obstacle detection	Required to stop on sensing Obstruction
Height of pole above ground height	900 mm. approx.
Controller housing Ingress Protection	IP 55 or better

Weight excluding barrier boom	48kgs $\pm$ 10%
Boom Length (clear opening)	As per site plan
Max boom length	As per BOQ
Boom profile	Octagonal
Rated Power	As per OEM
Opening/closing time	Up to 1.5 to 6 sec speed
Features	Manual release in case of failure
	Boom is of aluminum, light in weight corrosion resistant.
	High efficiency, no overhead adjustment.
	Arm direction is fix either Left or right
	Wireless remote for opening & Closing
	RS485 communication interface
	Used single compression spring
Accessories	2 Channel Loop Detector, Push Button Photocell, Remote, Integrated lighting system & Audio warning facility

Technical Specification- CCTV

➤ GENERAL

1. The offered equipment by the bidder shall be compact, fully solid state, highly reliable and shall use latest state of the art technology.
2. The design and selection of the offered equipment by the bidder shall be consistent with the requirements of long-term trouble-free operation with highest degree of reliability and maintainability.
3. All offered equipment by the bidder shall be manufactured to continuously operate safely without undue heating, vibration, wear, corrosion, electromagnetic interference or any similar problems.
4. The offered equipment by the bidder shall be designed for continuous operation (24-hours a day and 365-days a year). The design life of the equipment shall be a minimum of Five Years.
5. This life shall be achievable through normal and regular maintenance.
6. All types of spares and spare modules of the offered equipment shall be readily available with the bidder during life-time of the equipment, for maintenance, repairs and up keep of the equipment during warranty & CAMC period, if applicable.
7. Offered equipment by the bidder shall undertake and ensure implementation of its offered solution and shall keep its in view the safety and protection of personnel, during normal operation and maintenance or during malfunctioning of any equipment or its sub-component. This shall be ensured as an integrated feature of design, manufacture and installation of offered equipment by bidder.
8. Offered equipment by the bidder shall ensure adequate protection to be
9. The offered equipment shall be constructed on a modular basis, using plug-in type units and components to the extent possible. Parts subject to failure, wear, corrosion or other deteriorations or requiring occasional inspection, adjustment or replacement shall be made accessible and capable of convenient inspection and removal.
10. Input and output termination cables in offered equipment shall be properly labelled to permit ready identification of the incoming/outgoing wiring.
11. All interconnecting cables in offered equipment shall also be appropriately labelled to facilitate convenient interconnection and minimize chances of incorrect connection.
12. All connecting cables required to inter-connect the equipment shall be supplied by the bidder as a part of the offered system. All cables shall be fully assembled, connector pre-terminated and factory tested at the time of supply as part of overall system check.

13. Licenses

All Hardware system/component and Software supplied by bidder shall be licensed, as applicable, in favour of Airports Authority of India and valid for lifetime of the offered system.

14. Mains Power Supply

- 14.1 Complete offered equipment shall operate with an un-interrupted AC power 230 Volts ($\pm 10\%$) single phase 50 Hz $\pm 5\%$. Reliable over & under voltage and over current protection circuits shall be provided in the power supply units of offered solution. The power supply units in complete offered solution shall be self-protecting, and shall protect connected equipment against conducted interference, noise, voltage dips and surges & impulses.
- 14.2 Mains Power Supplies used in offered solution/equipment shall be rugged enough to withstand variation in mains voltage and frequency over a long period of time so that the failures in the equipment due to power supply are minimized.

15. Installation Standards

- 17.1 Installation shall be carried out by technically well qualified and certified personnel as per the requirements.
- 17.2 Contractors shall not outsource any part of the contract to any other vendor/third party contractor without prior permission of AAI.
- 17.3 Liability, if anything, arising out of such third party contracts to any other vendor by contractor shall be to the contractor's account.
- 17.4 AAI shall not be liable on behalf of contractor to any other third party contractor/ Government of India/State/Regulatory Authorities.
- 17.5 Any liabilities arising out of such third party contracts by contractor or its men working at site shall be only to contractor's account and shall be deducted out of its running bills.
- 17.6 Contractor shall submit Police Verification Certificates and obtain necessary Airport Entry Permits, for allowing its men to work at AAI restricted premises.

16. Quality Assurance Standards

The contractor shall use Quality Assurance procedure compliant with Quality Assurance in system design, development, manufacturing, and installation and servicing- ISO 9001 Quality Management and Assurance Standards Part 3 – ISO 9001 Application and Development, Supply and Maintenance of software.

17. Reliability

To ensure high availability and high reliability, the offered equipment design by the bidder and its OEM partner shall employ the most suitable engineering techniques, materials and dependable components, field proven design and rigorous inspection during manufacturing to ensure a very high MTBO (Mean Time between Outage) and MTBF (Mean Time between Failure) of equipment.

18. Environmental Conditions

The offered equipment shall be capable of maintaining its guaranteed performance when operating continuously for 24 hours a day and 365 days a year without any deviation in quality or degradation of system performance and all the parameter detailed in these specifications shall be guaranteed over the following environmental conditions:

- i) Indoor Equipment:
Operating Temperature: 0 degree to + 40 degree Centigrade.
Relative Humidity: 80% up to 35 deg centigrade.
- ii) Outdoor Equipment:
Operating Temperature: -10 degree to + 50 degree Centigrade. Relative Humidity: 90% up to 35 deg. centigrade
- iii) Storage Temperature: -10 to + 60 degree Centigrade

19. CCTV Camera must compliant to NDAA (National Defense Authorization Act).

20. Cameras must not support GBT 28181 Protocol

➤ Supplying Installation Testing and Commissioning of PTZ (Pan,Tilt and Zoom) IP IR Camera having following specifications and features etc :-

a) Core Specifications:

- Type: IP IR Motorized PTZ (Pan, Tilt, Zoom) with Deep-learning Auto-tracking
- Resolution & Frame Rate: 2 MP, 1080p @ 25/30 fps (Main & Sub stream)
- Lens: 32x Optical Zoom, 12x Digital Zoom, 4.3-137 mm Varifocal Lens
- IR Distance: Up to 150 meters or above
- Minimum Illumination: 0.008 Lux (Color), 0 Lux (IR)

b) Performance & Mechanical:

- Image Sensor: 1/2.8" Progressive Scan CMOS
- Wide Dynamic Range: 120 dB or more
- Pan Range: 360° endless
- Tilt Range: As per OEM
- Presets: 300
- Video Compression: H.265 or better

c) Hardware & Interfaces:

- Onboard Storage: Micro SD slot up to 512 GB (min 128 GB card supplied)
- Power: Dual Power (24 VDC & PoE+ 802.3at)
- Alarm I/O: 7 Inputs / 2 Outputs

- Audio I/O: 1 Input / 1 Output
 - Compliance & Protection:
 - Environmental Rating: IP65 or better (Weatherproof), IK10 (Vandal Resistant)
 - Standards: ONVIF (Profile S, G, T), BIS, STQC, CE, FCC, RoHS
 - Cybersecurity: AES 256-bit Encryption, IP/MAC filtering
- **Supply Installation Testing and Commissioning of 2MP Fixed Lens IP IR Outdoor Bullet Camera having following specifications and features etc :-**

a) Core Imaging & Lens:

- **Resolution & Frame Rate:** 2MP (1920 × 1080) @ 25/30 fps
- **Image Sensor:** 1/2.7" or 1/2.8" Progressive Scan CMOS
- **Minimum Illumination:** Color: 0.005-0.01 Lux / 0 Lux with IR
- **Lens:** Motorized Varifocal 2.7-13.5mm or 2.8-12mm
- **IR Distance:** Effective distance upto 50 meter or better

b) Video Processing:

- **Video Compression:** H.265/H.264
- **Wide Dynamic Range:** 120 dB WDR
- **Digital Noise Reduction:** 2D/3D DNR
- **Streaming:** Triple streams configurable

c) Audio & I/O:

- **Audio:** Built-in microphone + Audio I/O for external mic/speaker
- **Alarm:** 1 Input / 1 Output
- **Onboard Storage:** MicroSD slot up to 512GB (128GB card supplied as required)

d) Network & Cybersecurity:

- **Network Protocols:** IPv4/IPv6, HTTP/HTTPS, FTP, SMTP, DHCP, NTP, RTSP, SNMP, SSL/TLS
- **System Compatibility:** ONVIF Profile S/G/T
- **Cybersecurity:** AES-256 encryption, HTTPS, IP/MAC filtering, Digest authentication

e) Power & Environmental:

- **Power Input:** Dual power - 12VDC ±25% & PoE (802.3af)
- **Weatherproof Rating:** IP65 or better
- **Vandal Resistance:** IK10
- **Standards:** CE, FCC, RoHS (BIS/STQC or as per OEM)

➤ **Supplying Installation Testing and Commissioning of following Channel Network Video Recorder (NVR) with camera licenses to record for all channels having specifications and features etc as mentioned below :**

aChannels: 16 IP Channels

OS: Embedded Linux

Bandwidth: ≥ 256 Mbps Incoming

Recording Resolution: Up to 32MP (8K support)

Compression: H.265 / H.264 / MJPEG

Decoding: 8K / 4K supported

Storage: 2 SATA Ports (Up to 20TB per HDD)

Video Output: 1 HDMI + 1 VGA (Dual Display)

Audio: 1 In / 1 Out (Two-way Talk)

Network Port: 1 $\times$ Gigabit Ethernet

USB: 1 $\times$ USB3.0 + 1 $\times$ USB2.0

Serial Ports: 1 $\times$ RS485, 1 $\times$ RS232

Alarm I/O: Minimum 4 In / 1 Out

Recording Modes: Continuous / Motion / Alarm / Panic

Smart Playback & Smart Search

Built-in AI:

2CH Face Recognition

4CH Perimeter Protection

8CH Smart Motion Detection

Face Database $\geq 20,000$ Faces

ANPR Support: Yes (with compatible camera)

Email Alerts: Yes (SMTP supported)

Cloud / DDNS: OEM Cloud, No Public IP required

Certifications: CE / FCC / RoHS / BIS

Power Supply: 12VDC / 100–240VAC

Operating Temp: -5°C to +50°C or as per OEM

- **LED Display** Supplying, Installation, Testing and Commissioning of following size LED display (LED monitor) industrial grade with 3840x2160 resolution or better, USB playback, bluetooth and miracast connectivity, 2X HDMI 2.0, DP 1.2, HDR 10/10+, brightness: 500-nits or better, Video wall mode should be available, contrast ratio: 1200:1, OPS slot, viewing angle (H/V): 170°/ 170°, response time less than 12ms, Display control shall be on monitor screen and programmable with remote (remote shall be supplied with system), Key Board, Optical Mouse, etc. as required.

1. LED Display 42/43 inch or larger

TECHNICAL SPECIFICATIONS- CIVIL WORKS

1.00 PREAMBLE

These technical specifications shall be read in conjunction with the various other documents forming the contract, namely Notice Inviting Tender & Instructions to Tenderers, Conditions of Contract, Special Conditions of Contract, Bill of Quantities and other related documents, together with any addenda thereto issued.

2.00 SCOPE OF WORK

2.01 The work to be carried out under this contract shall consist of various items as per description of works contained in the Bill of Quantities. Any discrepancy between the details given in Bill of Quantities and that provided in Technical Specifications of the corresponding items, the provisions of the Bill of Quantities shall take precedence.

2.02 The item rates quoted by the Contractor shall, unless otherwise specified also include compliance with/supply of the following:-

- a) General works such as setting out, clearance of site before setting out and clearance of works after completion.
- b) A detailed program for the construction and completion of works (using CPM/PERT techniques) including updating of all such activities on the basis of decisions taken at the periodic site review meetings as directed by the Engineer-in-Charge.
- c) Samples of various materials proposed to be used on the work for conducting tests thereon is required as per the provisions of the contract.
- d) Design of mixes as per relevant clauses of the specifications given proportions of ingredients, source of aggregates and binder along with accompanying trial mixes to be submitted to the Engineer-in-Charge for his approval before use on the works.
- e) Setting of field testing laboratory with all required apparatus and staffs for conducting day to day quality control tests.
- f) Any other item of work which is not specifically provided in the Bill of Quantities but which is necessary for complying with the provisions of the contract.

3.00 OBLIGATIONS OF THE CONTRACTOR

3.01 In order to ensure that the contract work is executed strictly in accordance with this Agreement and in time, the Contractor shall have the following obligations at no extra cost to the Engineer-in-Charge in addition to such other obligations and responsibilities as have been specified elsewhere in this Contract.

- i) Provision of adequate number of constructional Plant and machinery for

mechanised system of construction, handling and transportation;

- ii) Provision of special magazine at the site for storage of explosives, if necessary, for which required license shall be obtained from the concerned authorities;
- iii) Fulfill all the Contractor's labour regulations i.e fair wages, display of notices regarding wages, payment of wages, labor records, attendance cards-cum-wage slips, labour welfare etc. as per standard practices and norms applicable at site;

3.02.1 All fossils, gold, silver, oil and other minerals, precious stones, coins, article of value, of antiquity and structures and other remains/things of geological or archaeological interest discovered on the site of the works shall be notified by the Contractor immediately to the Engineer-in-Charge for onward information to the concerned authorities.

3.03 The Contractor shall take all reasonable precaution to prevent his workmen or any other person from removing or damaging any such article(s) or thing(s) and protect the same till the removal as per the instructions of the Engineer-in- Charge.

3.04 Clearance of the site of all rubbish, debris, vats, tanks, materials, temporary structures, plant and machinery, scaffoldings and filling of all pits, excavation and hand over the site in a tidy and cleaned condition.

3.05 Opening up of covered work if instructed by the Engineer, if such covering was done before inspection by the Engineer or without permission/approval from the Engineer-in-Charge.

4.00 GENERAL

4.01 The works will be executed as indicated in the nomenclature of each item and technical specifications as given hereunder as made applicable to this contract.

4.02 In the absence of any definite provision in the technical specifications contained herein, reference may be made to the latest CPWD, MOST, IRC, ICAO Specifications and IS codes, in that order. Wherever these are silent, the construction and completion of the works shall conform to sound engineering practice and in case of any dispute arising out of the interpretation of the above, the decision of the Engineer-in-Charge shall be final and binding on the Contractor.

4.03 In addition, the abbreviations CPWD, IRC, MOST, IS, BS, ASTM, AASHTO shall be considered to have the following meaning:-

CPWD : Central Public Works Department

IRC : Indian Road Congress

MOST : Ministry of Surface & Transport (Road Wing)
Government of India

IS : Indian Standard of the Bureau of Indian Standards.

BS	:	British Standard of the British Standard
ASTM	:	American Standards of the American Society of Testing Materials
AASHTO	:	American Association of State Highway and Transportation Officials.

- 4.04** All the codes of practice, standards and specifications applicable shall be the latest editions with upto date correction slips etc. or as directed by the Engineer-in-Charge.

5.00 TESTING

- 5.01** It is made clear that cost of testing, cost of material for testing, all field apparatus required for sampling and testing as per CPWD/IS codes and manpower incident to such testing will be provided along with necessary transport arrangement to and fro to the approved testing agency or laboratory by the Contractor during the construction phase of the work and defect liability period. The expenditure in this regard shall be borne by the Contractor and nothing extra shall be payable by AAI on this account. Field laboratory with all the required apparatus and staffs shall be established by the Contractor at site of work at his cost for carrying out field tests at stipulated frequencies.

6.00 SAMPLING AND TESTING

- 6.01** The Contractor or his accredited representative shall be present during sampling/testing and signify his concurrence for sampling/ testing carried out by signing the test records. The Contractor shall be liable of all actions consequent to the test and their results as if he himself attended to the tests. The Contractor is duly advised to be present himself for sampling and testing or in the alternative, have fully qualified duly authorized Engineer for this purpose.

7.00 GENERAL LIST OF CODES, STANDARDS AND SPECIFICATIONS ADOPTED IN THE TENDER DOCUMENTS.

- 7.01** The following IRC standards and IS, ASTM, British Standards, Codes and CPWD Specifications have generally been adopted in the tender documents. This list however does not limit the use of any other relevant code or standards by the Engineer-in-Charge solely at his discretion either referred to in the tender documents or not, to achieve the desired quality of work. All the codes practice, standards and specifications applicable shall be the latest edition with all correction slips, etc, or as directed by the Engineer-in-Charge.

NUMBER/DESIGNATION	TITLE
IRC SPECIFICATION	
IRC:10	Recommended Practice for Borrowpits for Road Embankment Constructed by Manual Operation.
IRC:19	Standard Specification and Code Practice for Water Bound Macadam (Second Revision)
IRC:SP 11	Hand Book of Quality Control for Construction of Roads and Runways (First Revision)
INDIAN STANDARDS	
IS: 838	Coarse and fine aggregates from natural sources for concrete.
IS:456	Code of practice for plain and reinforced concrete.
IS:460 (Part I to III)	Testing Sieves
IS:516	Methods of test for strength of concrete.
IS:1124	Method of test for water absorption, apparent specific gravity and porosity of Natural Building Stone.
IS:1199	Methods of sampling and analysis of concrete.
IS:2386	Methods of test for aggregate for concrete :-
(Part-I)	Particle size and shape
(Part-II)	Estimation of deleterious materials and organic impurities.
(Part-III)	Specific gravity, density, voids, absorption and bulking.
(Part-IV)	Mechanical Properties
(Part-V)	Soundness
(Part-VI)	Measuring mortar making properties of fine aggregates.
(Part-VII)	Alkali-Aggregate reactivity.
(Part-VIII)	Petrography Examination
IS: 2720	Methods of tests for soils :
(Part-II)	Determination of water content
(Part-III) (Section-I)	Determination of specific gravity, section I fine grained soils.

(Part-III) (Section-II)	Determination of specific gravity, fine medium and coarse grained soils.
Part-IV	Grain size analysis
Part-V	Determination of liquid and plastic limit.
Part-VII	Determination of water content dry density relation using light compaction.
Part-VIII	Determination of water content dry density relation using heavy compaction.
Part XVI	Laboratory determination of CBR.
Part XXVII	Determination of total soluble sulphate.
Part XXVIII	Determination of dry density of soils in place, by the sand replacement method.
Part XXIX	Determination of dry density of soils in place by core cutter method.
IS:5640	Method of determining the aggregate impact value of soft coarse aggregate.
IS:6241	Method of test for determination of stripping value of road aggregates.
IS:8112	43 grade ordinary Portland Cement.
BS:5212, Part-I, 1990	Two parts polysulphide based sealants.
ASTM/BS STANDARDS/SPECIFICATIONS	
ASTM:D-1559	Test for resistance to plastic flow of bituminous mixtures using Marshall apparatus.
ASTM:D-2172	Extraction quantitative, of bitumen from bituminous paving mixtures.
ASTM:E-11-39	Sieves for testing purpose "Wire Cloth sieve round hole and square" hole plate screen of Sieves.
BS : 410	Test Sieves.

MOST Specification	"Specifications for Road and Bridge Works" fourth revision reprinted in September,2004. Issued by Ministry of Surface Transport (Roads Wing) and published by Indian Roads Congress.
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A. TRACKS FOR SLIDING GATE

- i)** Track of sliding gates shall be fixed by laying of track to be done during construction of foundation work. The surface of the Taxiway shall be made good after fixing the Track so that no hindrance is posed for the movement of taxiing Aircraft.
- ii)** The track shall be fixed in re-inforced cement concrete as per BOQ.

ITEM CODE	ITEMS	PREFERRED MAKES (W.E.F. 10.07.2025)	CATEGORY FOR TEST CERTIFICATION/ INSPECTION
A.	PANEL, SWITCHGEARS AND RELATED ITEMS		
1	LT PANELS (TTA)	MAK / SHIV SHAKTI ENGINEERS / TECHNOCRAFTS / TENCO / KONTACT / ABB / RISHA / MARINE ELECTRICALS / POWERTECH SWITCHGEARS / ULTIMA / RITTAL / URJAYANT / EXCEL CONTROL SYSTEMS / BALAJI ELECTRO CONTROLS PVT LTD / KRUTI / CMKL(CORE METAL) / KEPL(KHOKHAR) / LEGRAND (NOVATEUR) / CONQUERENT / MITSUBISHI / LS POWER / ZENIYA / NEPTUNE / LAURITZ KNUDSEN / C&S / BCH / ADVANCE / TRICOLITE / SCHNEIDER / SUDHIR / EAP / TRISQUARE / MILESTONE / ADLEC / UNILEC / CONSOUL (RR ISPAT) / PEATON/ HAROLD/ SPC ELECTROTECH / SIEMENS	CATEGORY-1
2	LT PANELS / FEEDER PILLAR (PTTA) / BUS TRUNKING	EXPERT ENGINEERS / MAK / APPLICATION CONTROL PANEL / AMBIT / ADLEC / SHIV SHAKTI ENGINEERS / TECHNOCRAFTS / EXCEL CONTROL SYSTEMS / GLOBAL / SUPERTECH CONTROL SYSTEMS / SWITCHGEARS & FABRICATORS / KONTACT / MARINE ELECTRICALS / R.P. CONTROLS / GOURAV EnerGen / TENCO / POWERTECH SWITCHGEARS / HAROLD / BALAJI ELECTRO CONTROLS PVT LTD / URJAYANT / KRUTI / ASES / ITE-GURGAON (INDIAN TRANSFORMERS) / LEGRAND (NOVATEUR) / CONQUERENT / CORONET / RST ELECTRICALS PVT LTD / HPL / C&S / LS POWER / ZENIYA / PRECISION / ABB / EAP / TRICOLITE / SUDHIR / SCHNEIDER / LAURITZ KNUDSEN / NEPTUNE / HENSEL / ADVANCE / KEPL(KHOKHAR) / PEATON / RISHA / TRISQUARE / CMKL (CORE METAL) / SPC ELECTROTECH / BCH / MILESTONE / YOGIJI DIGI (P) LTD / ELINS / EVA / UNILEC / HAROLD / ENGINEERS & ENGINEERS / SIEMENS / ULTIMA / NITYA	CATEGORY-1
3	AIR CIRCUIT BREAKERS	LS ELECTRIC / BCH / MITSUBHISHI / HPL / LAURITZ KNUDSEN / LEGRAND (NOVATEUR) / ABB / C&S / HAVELLS / SCHNEIDER / SIEMENS	CATEGORY-2
4	MOULDED CASE CIRCUIT BREAKERS (MCCB)	LS ELECTRIC / BCH / MITSUBHISHI / LAURITZ KNUDSEN / LEGRAND (NOVATEUR) / ABB / C&S / HAVELLS / INDO ASIAN (NOVATEUR) / HPL / SCHNEIDER / SIEMENS	CATEGORY-2
5	CHANGE OVER SWITCH/ FUSE DISCONNECTOR SWITCH/ SWITCH FUSE UNITS	BENITEC / BCH / INDO ASIAN (NOVATEUR) / SOCOMEC / LAURITZ KNUDSEN / C&S / LEGRAND (NOVATEUR) / HPL / ABB / HAVELLS / SIEMENS / SCHNEIDER	CATEGORY-2
6	METERS / MULTIFUNCTION METERS -ANALOGUE/DIGITAL	ELMEASURE / KRYKARD / SELEC / C&S / ABB / BENITEC / SELEC / C&S / MITSUBHISHI / ABB / NEPTUNE / SOCOMEC / HPL / LAURITZ KNUDSEN / FINDER / SIEMENS / SCHNEIDER / CONSERVE / SECURE	CATEGORY-3
7	SELECTOR SWITCH, PUSH BUTTON SWITCH / EMERGENCY SWITCH	ABB/ TRINITY TOUCH / LAURITZ KNUDSEN / C&S/ BCH/ EATON / TEKNIC / SIEMENS / SCHNEIDER	CATEGORY-3
8	CT's / PT's	GLOBAL / KRUTI / WAGO / CG POWER / SELEC / NEWTEK / ANANT POWER (ADVANCE) / KAPPA	CATEGORY-3
9	PROTECTIVE RELAYS (ALL TYPE)	P2 POWER / WAGO / SELEC / HAVELLS / MITSUBISHI / LAURITZ KNUDSEN / CG POWER / C&S / ABB / SIEMENS	CATEGORY-2
10	CONTACTORS	MITSUBHISHI / HPL / LAURITZ KNUDSEN / C&S / BCH / HAVELLS / ABB / TDK / SIEMENS / LEGRAND (NOVATEUR) / SCHNEIDER	CATEGORY-3
11	TIMERS / TIME SWITCH- ANALOGUE/DIGITAL	HAVELLS / LAURITZ KNUDSEN / SELEC / BCH / ABB / LEGRAND (NOVATEUR) / EATON / FINDER / SIEMENS / SCHNEIDER / C&S	CATEGORY-3
12	LED INDICATION LAMPS	EATON / OLIVE / ABB / LAURITZ KNUDSEN / C&S / BCH / VINAY LED / VAISHNOV / SCHNEIDER	CATEGORY-3

Amir Sponhe
SM(EE)
M/S 9580

Wde

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ITEM CODE	ITEMS	PREFERRED MAKES (W.E.F. 10.07.2025)	CATEGORY FOR TEST CERTIFICATION/ INSPECTION
B. SUBSTATION RELATED ITEMS			
13	TRANSFORMER UP TO 500 KVA (DRY/OIL)	POWERWARE / ITE, GURGAON / ESENNAR / PVJ POWER / TRANSCON / AMES IMPEX / POWER STAR / JAY BEE / RTS / CG POWER / SUDHIR / VOLTAMP / BHARAT BIJLEE / KOTSONS/ SCHNEIDER / KIRLOSKAR	CATEGORY-1
14	TRANSFORMER MORE THAN 500 KVA (DRY/OIL)	POWERWARE / ITE, GURGAON / ESENNAR / PVJ POWER / TRANSCON / AMES IMPEX / POWER STAR / JAY BEE / RTS / CG POWER / SUDHIR / VOLTAMP / KOTSONS/ SCHNEIDER / BHARAT BIJLEE / KIRLOSKAR / SIEMENS	CATEGORY-1
15	H T PANEL	APPLICATION CONTROL PANEL / SHIV SHAKTI ENGINEERS / ITE, GURGAON / TECHNOCRAFTS / TENCO / MARINE ELECTRICALS / PASCAL / KEPL(KHOKHAR) / CONQUERENT / RISHA / CORONET / L.S POWER / ZENIYA / EAP / CG POWER (CFPISL) / TRICOLITE / SUDHIR / LAURITZ KNUDSEN / ABB / TRISQUARE / SCHNEIDER / MILESTONE / EATON / ANANT POWER (ADVANCE) / ADLEG / SIEMENS	CATEGORY-1
16	BUS DUCT-SANDWICH	RISHA / ADVANCE / RR KABEL / LAURITZ KNUDSEN / C&S / LEGRAND (NOVATEUR) / EAE / SCHNEIDER	CATEGORY-2
17	H.T /L.T.TERMINATION & JOINTING KIT.	DENSONS / CABSEAL® (HARI CONSOLIDATED) / COMPAQ / RAYCHEM	CATEGORY-3
18	POWER CABLES ABOVE 1.1 KV	V-MARC / SBEE / SUYOG ELECTRICALS LTD / DICABS / APAR / GEMSCAB / HPL / RR KABEL / SPECIAL CABLES / JMW KABEL / PARAMOUNT / TIRUPATI / KEC / POLYCAB / DYNAMIC / HAVELLS / KEI / UNISTAR / GLOSTER / RAVIN CABLES / NICCO	CATEGORY-1
19	POWER CABLES UP TO AND INCLUDING 1.1 KV	ALLCAB / AURAFLEX / V-MARC / VISHAL / SBEE / POLYCORE / VIN POWER / TORTEK / SUYOG ELECTRICALS LTD / GEMSCAB / RR KABEL / PLAZA / SPECIAL CABLES / KEI / JMW KABEL / POLYCAB / AVOCAB (CHANDRESH) / DYNAMIC / PARAMOUNT / SVARN / RALLISON (LKB) / BCH / TIRUPATI / KEC / GRANDLAY / HPL / GLOSTER / BONTON / HAVELLS / UNISTAR / APAR / RAVIN CABLES / NICCO	CATEGORY-1
20	CONTROL CABLES	GEMSCAB / ALLCAB / AURAFLEX / V-MARC / SBEE / POLYCORE / TORTEK / NICCO / SUYOG ELECTRICALS LTD / RR KABEL / PLAZA / SPECIAL CABLES / JMW KABEL / AVOCAB (CHANDRESH) / PARAMOUNT / SVARN / RALLISON (LKB) / BCH / BONTON / TIRUPATI / KEI / KEC / GRANDLAY/ UNISTAR / NATCAB (KUALITY) / HPL / POLYCAB / DYNAMIC / ALOKE (ANKUR) / HAVELLS / GLOSTER / FINECAB / APAR / BATRA HENLAY/ RAVIN CABLES	CATEGORY-1
21	TELEPHONE CABLE	POLY INFOCOM CABLES PVT LTD / ORBIT / DUCAB / RR KABEL / PLAZA / JMW KABEL / PARAMOUNT / ALOKE (ANKUR) / RALLISON (LKB) / BONTON / TIRUPAT / HAVELLS / KEI / KEC / KVVIS (INDUSTIRAL) / HPL / POLYCAB / NICCO	CATEGORY-2
22	CO- AXIAL/ INSTRUMENTATION/ FIBRE OPTIC/ CAT-6 / CAT-6A CABLES	AURAFLEX / SBEE / TORTEK / SUYOG ELECTRICALS LTD / ORBIT / POLYCORE / POLY INFOCOM CABLES PVT LTD / BATRA HENLAY / GEMSCAB / RR KABEL / PLAZA / SPECIAL CABLES / JMW KABEL / POLYCAB / PARAMOUNT / LEGRAND(NOVATEUR) / SVARN / RALLISON (LKB) / BONTON / HAVELLS / KEI / ROSENBERGER / KEC / GRANDLAY / GLOSTER / SCHNEIDER / APAR	CATEGORY-2
23	GI / SS CABLE MANAGEMENT SYSTEM (CABLE TRAY-PRE-FABRICATED/ PERFORATED / LADDER TYPE / WIRE MESH TYPE, ETC.)	GLOBAL / OBO BETTERMANN / MM ENTERPRISES / GLOBE / BEC / RMCON (RMG) / EXCEL CONTROL SYSTEMS / ADVANCE- ANANT / RMSCO (RAJASTHAN METAL) / SUMIP / CTM / L.S POWER / LEGRAND (NOVATEUR) / INDIANA / MM ENGG / SLOTCO / MEM	CATEGORY-3
24	UNDER FLOOR RACEWAYS & ITS ACCESSORIES	OBO BETTERMANN / BEC / ADVANCE- ANANT / SPC ELECTROTECH / CTM / MM ENTERPRISES	CATEGORY-3
25	CAPACITORS	SELEC / NEPTUNE / LAURITZ KNUDSEN / P2 POWER / LEGRAND (NOVATEUR) / HAVELLS / TDK INDIA / SCHNEIDER	CATEGORY-2

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ITEM CODE	ITEMS	PREFERRED MAKES (W.E.F. 10.07.2025)	CATEGORY FOR TEST CERTIFICATION/ INSPECTION
26	APFC PANEL/ ACTIVE & PASSIVE (HYBRID) PANEL	MAK / APPLICATION CONTROL PANEL / SHIV SHAKTI ENGINEERS / TENCO / RISHA / INPHASE POWER TECHNOLOGIES PVT LTD / GLOBAL / R.P. CONTROLS / ULTIMA / SUPERTech CONTROL SYSTEMS / SWITCHGEARS & FABRICATORS (SGF) / POWERTECH SWITCHGEARS / HAROLD / AB POWER / URJAYANT / SELEC / EAP / CG POWER / P2 POWER / KEPL (KHOKHAR) / ITE-GURGON (INDIAN TRANSFORMERS) / CONQUERENT / BCH / ANANT POWER (ADVANCE) / RISHA / HAVELLS / CORONET / SPC ELECTROTECH / PEATON / L.S POWER / MILESTONE / LAURITZ KNUDSEN / LEGRAND (NOVATEUR) / C&S / NEPTUNE / SCHNEIDER / NEPTUNE / P2 POWER / SELEC / ANANT POWER (ADVANCE) / SCHNEIDER / SPC ELECTROTECH / ADLEC / RST ELECTRICALS PVT LTD / TDK INDIA / TRICOLITE / AMBIT	CATEGORY-1
27	LIGHTENING PROTECTION SYSTEM (LPS) COMPLYING UPDATED IEC / NBC	JEF / OBO BETTERMANN / GROUND ECA3G / NEXPO POWER SOLUTIONS / CAPE / JMV / ABB / DEHN / PHEONIX / TERCEL	CATEGORY-3
28	EARTHING SYSTEM (CHEMICAL)	JEF / OBO BETTERMANN / GROUND ECA3G / TERCEL / BEC / DEHN / ABB / JMV / NEXPO POWER SOLUTIONS / RMSCO (RAJASTHAN METAL) / CAPE / JK CHEMRODE / PROTEC-DHRUVA (DHRUVA) / APS	CATEGORY-3
29	SURGE PROTECTION DEVICES	OBO BETTERMANN / DSS / GROUND ECA3G / TERCEL / WAGO / HAVELLS / ABB / CAPE / LAURITZ KNUDSEN / LEGRAND (NOVATEUR) / DEHN / MERSEN / JMV / PHOENIX CONTACT / PROTEC ALLIED / SECOM / CITEL	CATEGORY-3
30	SCADA (HARDWARE & SOFTWARE, EXCEPT COMPUTER & ACCESSORIES)	LAURITZ KNUDSEN / WAGO / PHOENIX CONTACT / HONEYWELL / SCHNEIDER / SIEMENS	CATEGORY-2
31	SF6 CIRCUIT BREAKER/ VACUUM CIRCUIT BREAKER	EATON / VOLTAMP / LAURITZ KNUDSEN / PASCAL / EATON / CG POWER / ABB / SCHNEIDER / SIEMENS	CATEGORY-2
32	SERVO / AUTOMATIC VOLTAGE STABILIZER	POWERWARE / KRYKARD / FUJI ELECTRIC / PVJ POWER / SELEC / ITE-GURGON (INDIAN TRANSFORMERS) / P2 POWER	CATEGORY-2
33	AUTO TRANSFER SWITCH (ATS)	EATON / HPL / LAURITZ KNUDSEN / LEGRAND (NOVATEUR) / SOCOMEC / HAVELLS / ASCO (SCHNEIDER)	CATEGORY-2
34	COMPACT SUB STATION	PVJ POWER / CORONET / ITE-GURGON (INDIAN TRANSFORMERS) / CONQUERENT / SUDHIR POWER / PEATON / L.S POWER / VOLTAMP / LAURITZ KNUDSEN / ABB / SCHNEIDER	CATEGORY-1
35	EMERGENCY LIGHT - LED (PORTABLE)	LIFE-GUARD / PROLITE	CATEGORY-3
36	CABLES GLANDS	HENSEL / POLYCAB / TRINITY TOUCH / ROXTEC / BRACO / MCI / (METAL/ CRAFT)	CATEGORY-3
37	LUGS & THIMBLES	WAGO / POLYCAB / TRINITY TOUCH	CATEGORY-4
38	SYNTHETIC / PVC INSULATING MATS	CPRi certified for required voltage level	CATEGORY-2
39	INSULATION TAPE (HT / LT)	MODI's / BENLO / ANCHOR	CATEGORY-4
C	DG SETS & RELATED ITEMS		
40	DIESEL ENGINE ABOVE 250 KVA	GREAVES COTTON / BAUDOUIN (SHANDONG) / MAHINDRA POWEROL / PERKINS / CUMMINS / KOEL / CATERPILLAR	CATEGORY-1
41	DIESEL ENGINE UPTO AND INCLUDING 250 KVA	GREAVES COTTON / BAUDOUIN (SHANDONG) / TMTL (TAFE MOTERS) / CUMMINS / MAHINDRA POWEROL / ASHOK LEYLAND / KOEL / CATERPILLAR	CATEGORY-1


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ITEM CODE	ITEMS	PREFERRED MAKES (W.E.F. 10.07.2025)	CATEGORY FOR TEST CERTIFICATION/ INSPECTION
42	ALTERNATOR	TDPS (TD POWER SYSTEM) / KIRLOSKAR / CATERPILLAR / GREAVES COTTON	CATEGORY-1
43	BATTERIES-LED ACID/LI-ION	CLN / EXIDE / AMARON	CATEGORY-3
44	BATTERY CHARGER	SELEC / VERTIV / DELTA	CATEGORY-2
45	UPS - ABOVE 10 KVA	DELTA / ORION / FUJI ELECTRIC / KRYKARD / 3EM / PROSTARM / UNILINE/ TMEIC / POWER ONE / RIELLO / ABB / SOCOMEC / EATON / SCHNEIDER / NUMERIC-LEGRAND/ VERTIV (EMERSON)	CATEGORY-3
46	UPS - UPTO 10 KVA	DELTA / ORION / FUJI ELECTRIC / KRYKARD / PROSTARM / RIELLO / UNILINE / ABB / POWER-ONE / DELTA / SOCOMEC / EATON / SCHNEIDER / NUMERIC-LEGRAND / VERTIV (EMERSON)	CATEGORY-3
D	INTERNAL WIRING RELATED TEAMS		
47	MCB / ISOLATOR / MCBDB / RCCB / RCBO / ELCB	ANCHOR (PANASONIC) / ORIENT ELECTRIC / LAURITZ KNUDSEN / MITSUBISHI / LEGRAND (NOVATEUR) / C&S / HPL / ABB / POLYCAB / HAVELLS / SCHNEIDER / INDO ASIAN (NOVATEUR) / GM / MK HONEYWELL / BCH / EATON	CATEGORY-2
48	MS CONDUIT (ISI MARKED)	VPL / BEC / AKG / STEEL KRAFTS / TRINITY TOUCH / RMCON (RMG STEELS) / SUPER / JPC PIPES	CATEGORY-3
49	PVC CONDUIT (ISI MARKED)	VPL / FUSION / ASTRAL / SKYDA / BEC / NORPACK / MODI's / ANCHOR (PANASONIC) / POLYCAB / TRINITY TOUCH / AKG / GM / JPC PIPES	CATEGORY-3
50	INDUSTRIAL SOCKET IN SHEET STEEL ENCLOSURE WITH MCB/SWITCH	AJMER ELECTROTECH LLP / LAURITZ KNUDSEN / POLYCAB / NEPTUNE-BALS / LEGRAND (NOVATEUR) / C&S / BCH / HAVELLS / HPL / SCHNEIDER	CATEGORY-4
51	INSULATED COPPER WIRE	RAJNIGANDHA / GEMSCAB / ALLCAB / AURAFLEX / V-MARC / SBEE / UNISTAR / POLYCORE / TORTEK / BATRA HENLAY / RR KABEL / AKG / ANCHOR (PANASONIC) / BENTEC / JMW KABEL / POLYCAB / AVOCAB (CHANDRESH) / SVARN / PARAMOUNT / RALLISON (LKB) / HAVELLS / NATCAB (KVALITY) / BONTON / GRANDLAY / GLOSTER / BCH / PLAZA / APAR / GM / PARAGON (ELEKTRON) / FINECAB / ZENIUM	CATEGORY-2
52	SWITCHES/ SOCKETS/ TELEPHONE/ TV/ DATA SOCKET/ BOXES (MODULAR TYPE)	RR KABEL / ANCHOR (PANASONIC) / ORIENT ELECTRIC / INDO ASIAN (NOVATEUR) / C&S / POLYCAB / HPL / LAURITZ KNUDSEN / LEGRAND (NOVATEUR) / HAVELLS / GM / MK HONEYWELL / WESTERN VEGA / ABB	CATEGORY-3
53	SWITCHES/ SOCKETS/ TELEPHONE/ TV/ DATA SOCKET/ BOXES (PIANO TYPE)	ANCHOR (PANASONIC) / BENTEC / HAVELLS / HPL / POLYCAB / MK HONEYWELL / WESTERN VEGA	CATEGORY-3
E	FIRE ALARM EQUIPMENTS		
54	FIRE / SMOKE DETECTOR/ MULTI CRITERIA DETECTOR/ FIRE ALARM PANEL / REPEATER PANEL/ HOOTER / MANUAL CALL POINT / RESPONSE INDICATOR/ FAULT ISOLATOR	NOTOFIRE / VELOX / SCHNEIDER / PANASONIC / EATON / HOCHIKI / RAVEL / SIEMENS / BOSCH / APOLLO / EDWARDS (UTC) / G + M / SCHRACK / HONEYWELL / KIDDE (UTC) / GST (UTC) / TYCO / ASES	CATEGORY-2

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ITEM CODE	ITEMS	PREFERRED MAKES (W.E.F. 10.07.2025)	CATEGORY FOR TEST CERTIFICATION/ INSPECTION
55	FIRE SURVIVAL CABLE	GEMSCAB / SBEE / FRTEK / BATRA HENLAY / RR KABEL / SEPCIAL CABLES / SVARN / JMW KABEL / POLYCAB / ALOKE (ANKUR) / RALLISON (LKB) / KEC / GRANDLAY / RAVEL / GLOSTER / KEI / BONTON / BOSCH / WREXHAM / FUSION POLYMER	CATEGORY-2
56	FIRE SIGNAGES	ASES / LIFEGUARD (UNITED FIRE) / EATON / FIRE SHIELD / BOSCH / RAVEL / DELITE / AUTOGLO (PROLITE)	CATEGORY-3
57	ASPIRATION SYSTEM	SHOOTFIRE (VIMAL FIRE) / HOCHIKI / BOSCH / RAVEL	CATEGORY-2
F	LED LIGHT FIXTURE AND FANS		
58	LIGHT FIXTURE WITH LED - INDOOR	PYROTECH / GOLDWYN LED / KI KALINGIA / GM / NESSA / PLUS LIGHT TECH / LEGERO / MAGIK / LIGHTBOOK / LEKSA LIGHTING / R R KABEL (RR/ AARAYSTORM) / PANASONIC / EVEREADY / INSTAPOWER / POLYCAB / SURYA / HALONIX / HAVELLS / SIGNIFY / JAQUAR (JAQUAR LIGHTING) / HPL / BAJAJ / WIPRO / ORIENT / CROMPTON / REGENT	CATEGORY-2
59	LIGHT FIXTURE WITH LED - OUTDOOR/FACADE	PYROTECH / GOLDWYN LED / KI KALINGIA / GM / NESSA / PLUS LIGHT TECH / MAGIK / LIGHTBOOK / LEKSA LIGHTING / R R KABEL (RR/ AARAYSTORM) / PANASONIC / HPL / BENTEC (BENLO) / EVEREADY/ POLYCAB / K-LITE / SURYA / TRANSRAIL / HALONIX / HAVELLS / JAQUAR (JAQUAR LIGHTING) / SIGNIFY / INSTAPOWER / BAJAJ / WIPRO / ORIENT / CROMPTON / REGENT	CATEGORY-2
60	LINEAR LED/ CUSTOMISED/ DECORATIVE LED LIGHT FIXTURE	PYROTECH / GOLDWYN LED / KI KALINGIA / GM / LIGHT FORMS / PLUS LIGHT TECH / LEGERO / MAGIK / WMEL / FORUS / HUBLIT / LIGHTBOOK / PANASONIC / POLYCAB / R R KABEL (RR/ AARAYSTORM) / EVEREADY / SURYA / HALONIX / HAVELLS / HPL / SIGNIFY / BAJAJ / WIPRO / ORIENT / CROMPTON / REGENT	CATEGORY-2
61	AVIATION WARNING /OBSTRUCTION LIGHT	PYROTECH / FORUS / KI KALINGIA / HARYANA GENERAL INDUSTRIES / VSTP / K-LITE / SURYA / TRANSRAIL / HPL / INSTAPOWER / BAJAJ / WIPRO / CROMPTON /	CATEGORY-3
62	CEILING/ WALL / EXHAUST/ PEDESTAL FAN (CONVENTIONAL / BLDC)	ORIENT ELECTRIC / RR KABEL / ANCHOR (PANASONIC) / POLYCAB / HALONIX / HAVELLS / ALMONARD / USHA / KHAITAN	CATEGORY-3
63	HVLS FANS	MARUT AIR / RR KABEL / RITE HITE	CATEGORY-3
G	AIRCONDITIONING AND FIRE FIGHTING ACCESSORIES		
64	G I / M S PIPE (ISI MARKED)	VPL / ITL / BEC / APL APOLLO / PRAKASH SURYA / JINDAL STAR / TATA / SAIL / HIRA PIPES (RR ISPAT) /	CATEGORY-2
65	MANUAL VALVE - BUTTERFLY/ SLUICE / CHECK / NRV / FOOT/GATE / GLOBE	LEHRY / SANT / VENUS / NEWAGE FIRE / CASTLE / ZOLOTO / VTM (VA VALVES) / EMERALD / ADVANCE VALVES / DIVINE / C&R	CATEGORY-2
66	MOTORISED VALVE - BALANCING / MODULATING / PICB / DELTA T / CONTROL / MIXING	SANT / VTM (VA VALVES) / CASTLE / DANFOSS / ZOLOTO / ANERGY	CATEGORY-2
67	SUCTION / POT / Y- STRAINER	VENUS / CASTLE / ZOLOTO / ANERGY / SANT / VTM (VA VALVES) / EMERALD	CATEGORY-2
68	FLEXIBLE CONNECTION FOR SPRINKLER / SPRINKLER	LIFEGUARD (UNITED FIRE) / FIRE SHIELD / NEWAGE / EXFLAME / HD / SAFEFIRE	CATEGORY-2
69	FIRE HYDRANT LANDING VALVES/ INSTALLATION VALVE/ FIRE BRIGADE CONNECTION.	SHOOTFIRE (VIMAL) / LIFEGUARD (UNITED FIRE) / ZOLOTO / KALPEX (KALPATARU) / NEWAGE / EXFLAME / SAFEFIRE / HD / FIRE SHIELD	CATEGORY-2

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ITEM CODE	ITEMS	PREFERRED MAKES (W.E.F. 10.07.2025)	CATEGORY FOR TEST CERTIFICATION/ INSPECTION
70	FIRE HOSE PIPES/ FIRST AID HOSE REEL/ BRANCH PIPE / NOZZLE / COUPLINGS	SHOOTFIRE (VIMAL) / LIFEGUARD (UNITED FIRE) / KALPEX (KALPATARU) / NEWAGE / FIRE SHIELD / EXFLAME / SAFEFIRE	CATEGORY-2
71	FIRE EXTINGUISHERS	DSS / KANEX / SHOOTFIRE (VIMAL) / LIFEGUARD (UNITED FIRE) / CEASEFIRE / SAFEFIRE / AFS (ADVANCED) / KALPEX (KALPATARU) / EXFLAME / SUPREMEX / FIRE SHIELD / MINIMAX / SAFEX	CATEGORY-2
72	GAS BASED FIRE SUPPRESSION SYSTEM	SYNERGY & SYNERGY PLUS / FIRECEASE / FIRETREX / VIVINA / ASES / CEASEFIRE / SHOOTFIRE (VIMAL) / LIFEGUARD (UNITED FIRE) / KALPEX(KALPATARU) / FOAMTECH / SUPREMEX / SIEMENS / FIRETREX (SVS)	CATEGORY-2
73	KITCHENHOOD GAS BASED SUPPRESSION SYSTEM	SYNERGY / FIRECEASE / FIRETREX / VIVINA / SHOOTFIRE (VIMAL) / UNITED / FOAMTECH / CEASEFIRE / KALPATARU /	CATEGORY-2
74	HIGH/LOW PRESSURE WATER MIST BASED FIRE SUPPRESSION SYSTEM	SYNEAQUAMIST / FIRETREX / SHOOTFIRE	CATEGORY-2
75	FLOW SWITCH/PRESSURE SWITCH	OMICRON / ANERGY / DANFOSS / EMERALD / SWIZER	CATEGORY-3
76	FIREMAN AXE	LIFEGUARD (UNITED FIRE) / NEWAGE / FIRE SHIELD / ADVANCE	CATEGORY-3
77	DIESEL ENGINE DRIVEN PUMP FOR FIRE FIGHTING	TMTL (TAFE MOTERS) / KSB / WILO / GRUNDFOS / KIRLOSKAR / ASHOK LEYLAND / CATERPILLAR / MAHINDRA POWEROL	CATEGORY-2
78	PUMPS -VERTICAL/ HORIZONTAL / SUBMERSIBLE	HAVELLS / WILO / GRUNDFOS / ANDRITZ / KSB / KIRLOSKAR / XYLEM / AQUA_ANS / MATHER & PLATT / CROMPTON	CATEGORY-2
79	MOTORS	LHP / ROTOMOTIVE / KSB / HAVELLS / TMEIC / GRUNDFOS / BCH / KIRLOSKAR / BHARAT BIJLEE / ALSTOM / SIEMENS / CROMPTON	CATEGORY-2
80	MOTOR STARTER	BENTEC / KSB / HAVELLS / L.S POWER / GRUNDFOS / PHOENIX / C&S / BCH / SCHNEIDER / EATON / MOTOVARIO / SIEMENS / SCHNEIDER	CATEGORY-2
81	SINGLE PHASE PREVENTER / OVER LOAD PROTECTION/HIGH VOLTAGE/LOW VOLTAGE/EARTH FAULT PROTECTION	C&S / LAURITZ KNUDSEN / SELEC / SIEMENS	CATEGORY-3
82	G I SHEETS	JSW STEEL / TATA / HSL / SAIL	CATEGORY-2
83	GRILLS /DIFFUSERS	PRECISE / ASAWA INSULATION / MAPRO (AIR FLOW) / CRYSTAL / TRISTAR	CATEGORY-3
84	INSULATION MATERIAL - ROCK WOOL/ GLASS WOOL	ENSAVE / ROCK INSUL / AEROLAM / SUNROCK (THERMOCARE ROCK WOOL) / INSUFLEX (THE SUPREME) / LIONROCK / POLYBOND / EPACK / TWIGA INSUL	CATEGORY-3
85	INSULATION MATERIAL - XLPE/EPDM/ NITRILE RUBBER	AEROFOAM / PARAMOUNT / SAFARI / AEROLAM / INSUFLEX (THE SUPREME) / EPACK / SUNROCK (THERMOCARE ROCK WOOL) / INSUFLEX (THE SUPREME) / LIONROCK / POLYBOND / TWIGA INSUL	CATEGORY-3

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ITEM CODE	ITEMS	PREFERRED MAKES (W.E.F. 10.07.2025)	CATEGORY FOR TEST CERTIFICATION/ INSPECTION
86	PRE-INSULATED DUCT	ASAWA INSULATION / MECHEASY	CATEGORY-3
87	PRE-FABRICATED GI DUCT	ASAWA INSULATION / WAD / DUCTOFAB / WAVES / ZECO / ADVANCE VENTILATION	CATEGORY-3
88	FIRE DAMPERS	MAPRO (AIR FLOW) / GREENHECK / TRISTAR / RUSKIN / CARRIER	CATEGORY-2
89	AIR CURTAINS	EURONICS / MITZVAH / TECHNOCRATS / DOLPHY	CATEGORY-2
90	MODULATING MOTOR/FIRE DAMPER MOTOR	LHP / ANERGY / HONEYWELL / GRUNDFOS / BALEMO / SIEMENS	CATEGORY-2
91	AIR FILTERS (MERV/ESP/HEPA) FOR HVAC SYSTEM	MECHMAARK / ADITYA / O2 CURE / WAVES / HUMIDIN / INTELLIGREEN	CATEGORY-3
92	THERMOSTATS / HUMIDISTATS	OMICRON / ANERGY / FINDER / DANFOSS / HONEYWELL	CATEGORY-3
93	THERMOMETERS/ PRESSURE GAUGE	OMICRON / ANERGY / EMERALD / FIEBIG	CATEGORY-3
94	INTEGRATED BUILDING MANAGEMENT SYSTEM ((IBMS)/BMS/ SCADA SYSTEM (HARDWARE* & SOFTWARE, EXCEPT COMPUTER & ACCESSORIES)	SCHNEIDER / ENLITE / PANASONIC / WAGO / PHOENIX / SIEMENS / AZBIL / LAURITZ KNUDSEN / TRIDIYM (* includes all hardware of BMS)	CATEGORY-3
95	FIELD DEVICES (FOR IBMS/BMS/SCADA)	SELEC / OMICRON	CATEGORY-3
96	VFD DRIVE	YASKAWA / SELEC / FUJI / TMEIC / LAURITZ KNUDSEN / DANFOSS / SCHNEIDER / SIEMENS	CATEGORY-3
H	AC PLANTS, AC UNITS & EQUIPMENTS		
97	AIR-CONDITIONER UNITS - SPLIT / WINDOW / CASSETTE/ TOWER	HAVELLS / HITACHI (JOHNSON) / LG / BLUE STAR / DAIKIN/ VOLTAS / SAMSUNG / HAIER / O GENERAL / PANASONIC / CARRIER	CATEGORY-2
98	PRECISION AIR CONDITIONING (PAC)	CLIMAVENTA / SWEGON BLUE BOX / SIDWAL	CATEGORY-3
99	PACKAGED AIRCONDITIONER	DAIKIN / HITACHI (JOHNSON) / VOLTAS / LG / SIDWAL / CARRIER / DAIKIN / BLUE STAR	CATEGORY-2
100	CHILLERS	KIRLOSKAR / DAIKIN / CARRIER / VOLTAS / BLUE STAR / LG / CLIMAVENETA / TRANE / YORK / SWEGON BLUE BOX / DUNHAMBUSH	CATEGORY-1
101	AIR HANDLING UNITS (AHU)	CRYSTAL / CITIZEN / WAVES / EDGETECH / CARRIER / ZECO / HUMIDIN / TRISTAR	CATEGORY-1
102	FAN COIL UNIT (FCU)	WAVES / CRYSTAL / ZECO / CITIZEN / EDGETECH / CARRIER / DAIKIN / TRISTAR / YORK	CATEGORY-2
103	VRV/ VRF HVAC UNIT	LG / HITACHI (JOHNSON) / SAMSUNG / DAIKIN / VOLTAS / HAIER / CARRIER / BLUE STAR	CATEGORY-2

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ITEM CODE	ITEMS	PREFERRED MAKES (W.E.F. 10.07.2025)	CATEGORY FOR TEST CERTIFICATION/ INSPECTION
104	COOLING TOWER UP TO 200 TR.	DELTA / BELL COOLING TOWERS / MIHIR / PAHARPUR	CATEGORY-2
105	COOLING TOWER ABOVE 200 TR.	DELTA / BELL COOLING TOWERS / MIHIR / PAHARPUR	CATEGORY-2
106	EXPANSION TANK	ANERGY	CATEGORY-3
107	AIR & DIRT SEPARATOR	ANERGY	CATEGORY-3
108	FAN - AXIAL FLOW / INLINE / VENTILATION / PROPELLER / PLUG	DYNAIR-MAICO / DUSTECH / KRUGER / WAVES / HUMIDIN / WOLTER / AIR FLOW / RR KABEL / CRYSTAL / GREENHECK	CATEGORY-2
109	R O SYSTEM /WATER SOFTENING PLANT	SURYA RO / DELTA / WAE / VENZA (MGROW)	CATEGORY-3
110	WATER COOLER	CLIMATROL / VOLTAS / ORIENT ELECTRIC / SIDWAL	CATEGORY-3
111	WATER DISPENSER	WAE / VENZA (MGROW) / VOLTAS	CATEGORY-3
112	DRINKING WATER FOUNTAIN	WAE / VENZA (MGROW) / OASIS	CATEGORY-3
I	PA SYSTEM & RELATED ITEMS		
113	AMPLIFIERS	ATEIS / SCHRACK / HEINRICH / BOSCH / HONEYWELL / OPTIMUS / BOSE	CATEGORY-2
114	ANNOUNCEMENT MICROPHONES /CAR CALL CONSOLES	ATEIS / SCHRACK / HEINRICH / BOSCH / HONEYWELL / OPTIMUS / BOSE	CATEGORY-2
115	CONTROLLERS	ATEIS / SCHRACK / BOSCH / HEINRICH / HONEYWELL / OPTIMUS	CATEGORY-3
116	SPEAKER	ATEIS / SCHRACK / HEINRICH / BOSCH / NOTIFIRE / OPTIMUS / BOSE	CATEGORY-3
117	DIGITAL CALL STATION / WORK STATION	AVTRON / ATEIS / HEINRICH / BOSCH / OPTIMUS	CATEGORY-3
118	EQUIPMENT RACK	HEINRICH / BOSCH / PRESIDENT / ORDEIN	CATEGORY-3
119	DVD/DVR /MP3 PLAYER	TYCO / HEINRICH / BOSCH / HONEYWELL / SIEMENS / OPTIMUS	CATEGORY-2
120	CABLE FOR MICROPHONE / SPEAKER	RR KABEL / JMW KABEL / POLYCAB / BONTON / BOSCH / HPL / KVV (INDUSTRIAL)	CATEGORY-2
121	DIGITAL LINE ARRAY SPEAKER	ATEIS / HEINRICH / BOSCH / BOSE / OPTIMUS	CATEGORY-2
122	CCTV CAMERA	AVTRON / TYCO ILLUSTRATE / HEINRICH / SIEMENS / BOSCH / HONEYWELL / ULTRAK / PELCO	CATEGORY-2
123	MONITOR /DISPLAY-LCD / LED / PLASMA	LG / PANASONIC / SAMSUNG / SONY	CATEGORY-2
124	COMPUTER /LAPTOP (FOR IBMS/BMS/SCADA)	HP / DELL / LENOVO / IBM	CATEGORY-4
125	COMPUTER ACCESSORIES (KEY BOARD/MOUSE)	HP / DELL / LENOVO / IBM	CATEGORY-4

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ITEM CODE	ITEMS	PREFERRED MAKES (W.E.F. 10.07.2025)	CATEGORY FOR TEST CERTIFICATION/ INSPECTION
J	SOLAR PLANT & ACCESSORIES		
126	SOLAR INVERTER/ POWER CONDITIONING UNIT	SELEC / HAVELLS/ POWER ONE	CATEGORY-2
127	SOLAR MODULES	SWELECT / HAVELLS/ JAKSON	CATEGORY-2
128	DC CABLES	GEMSCAB / APAR / RR KABEL / SPECIAL CABLES / JMW KABEL / POLYCAB / HAVELLS / RALLISON (LKB) / KEC / HPL / GLOSTER / KEI / BONTON	CATEGORY-2
K	MISCELLANEOUS & OTHER MECHANICAL ITEMS		
129	HAND DRIER	TECHNOCRATS / EURONICS / DOLPHY / ANAND AUTOMATIC SYSTEM	CATEGORY-3
130	DOUBLE WALL CORRUGATED HDPE PIPE/PLAIN HDPE PIPE	VPL / GANGOTRI / ASTRAL / CPE / BEC PLAST / KESHAV KRIPA / VALENS / TIRUPATI PLASTOMATIC / GEMINI / HIMALYAN / MANGALAM	CATEGORY-3
131	AUTOMATIC SLIDING DOOR	HOUSYS / GEZE / NEPTUNE / S. ADITYA / DORMAKABA / TECHNOCRATS / AUTOINGRESS	CATEGORY-3
132	ELEVATOR	ORBIS / SCHINDLER / FUJITEC / INFRA / TRIO ELEVATOR / OMEGA ELEVATOR / ESCON / JOHNSON LIFTS / ECE / KONE / TKE / OTIS	CATEGORY-1
133	ESCALATOR /TRAVELATOR	ORBIS / SCHINDLER / TRIO ELEVATOR / OMEGA ELEVATOR / JOHNSON LIFTS / KONE / TKE / OTIS	CATEGORY-1
134	BOLLARD	HOUSYS / AVIANS / SWARAJ / S. ADITYA / TECHNOCRATS / EURONICS / NEPTUNE / BROSIS / FAAC	CATEGORY-3
135	BOOM BARRIER	HOUSYS / AVIANS / SWARAJ / S. ADITYA / DORMAKABA / TECHNOCRATS / BROSIS / NEPTUNE / AUTOINGRESS / FAAC / SPEEDGATZ	CATEGORY-3
136	TROLLEY GATE	AVIANS / SWARAJ / S. ADITYA / TECHNOCRATS / DELITE / AUTOINGRESS / LOTUS	CATEGORY-3
137	TYRE KILLER/SPIKE BARRIER	HOUSYS / SWARAJ / S. ADITYA / TECHNOCRATS / NEPTUNE / BROSIS / FAAC / SPEEDGATZ	CATEGORY-3
138	UNDER VEHICLE SCANNING SYSTEM	HOUSYS	CATEGORY-3
139	EXTERNAL LIGHTING POLES/ DECORATIVE LIGHT POLE	SUBHAM / AMBIKA POLES / LYSAGHTPOLE™ / VAKRANGEE / VSTP / UTKARSH / RMSCO (RAJASTHAN METAL) / SKIPPER / BP PROJECTS / K-LITE / TRANSRAIL / PRAKASH SURYA (SURYA ROSHNI) / SUMIP / SIGNIFY / BAJAJ / WIPRO / CROMPTON / ORIENT ELECTRIC	CATEGORY-3
140	HIGH MAST	SUBHAM / AMBIKA POLES / VAKRANGEE / VSTP / LYSAGHTPOLE™ / UTKARSH / SKIPPER/ BP PROJECTS / K-LITE / PRAKASH SURYA (SURYA ROSHNI) / TRANSRAIL / SIGNIFY / BAJAJ / WIPRO / ORIENT ELECTRIC / CROMPTON	CATEGORY-3
141	ALUMINIUM LADDERS / HYDRAULIC LADDERS	DELITE	CATEGORY-2
142	BOOM /SCISSOR/SPIDER/VERTICAL LIFT	MLIFT	CATEGORY-2
143	DASH FASTENERS	HILTI / FISCHER	CATEGORY-4
144	GEAR BOX	MGM VARVEL / iMAK	CATEGORY-3
145	GEARED MOTOR	LHP / LENZE / ROTOMOTIVE / MGM VARVEL / iMAK	CATEGORY-3
146	WEATHERPROOF JUNCTIONBOX	TRINITY TOUCH / SPELSBERG (CAPE) / RITTAL	CATEGORY-3

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ITEM CODE	ITEMS	PREFERRED MAKES (W.E.F. 10.07.2025)	CATEGORY FOR TEST CERTIFICATION/ INSPECTION
147	EV CHARGERS	P2 POWER / E-FUEL / AXONIFY TECH SYSTEMS PRIVATE LIMITED	CATEGORY-1
L	GROUND LIGHTING ITEMS		
148	PAPI (NON-LED)	AMA / VARDHMAN / NASU SYSTEM	CATEGORY-1
149	LAMP (HALOGEN)	YOUYANG	CATEGORY-3
150	AGL FITTING (LED)	VARDHMAN / AMA	CATEGORY-1
151	AGL FITTING (NON-LED)	VARDHMAN / AMA	CATEGORY-1
152	ALCMS / ILCMS	VARDHMAN	CATEGORY-1
153	ISOLATING TRANSFORMER	TRIO / CTC (CREATIVE TRADING) / VARDHMAN / AMA / BILDAL / ELECTROMACH / YOUYANG	CATEGORY-1
154	CONSTANT CURRENT REGULATOR (CCR)	VARDHMAN / AMA / HONEYWELL / YOUYANG / NASU SYSTEM	CATEGORY-1
155	5 KV GRADE AFL CABLE - UNSHIELDED / SHIELDED	GEMSCAB / APAR / RR KABEL / ALOKE (ANKUR) / RALLISON (LKB) / JRD / KEI / GLOSTER	CATEGORY-1
156	1.1 KV GRADE SECONDARY LEAD FOR AFL CABLE	GEMSCAB / APAR / RR KABEL / AMA / ELECTROMACH / ALOKE (ANKUR) / RALLISON (LKB) / JRD	CATEGORY-2
157	PLUGS / RECEPTACLE / CONNECTOR	CTC (CREATIVE TRADING) / ELECTROMACH / ALOKE (ANKUR) / VARDHMAN / NEPTUNE / AMA / BILDAL / YOUYANG	CATEGORY-2

Note: This is mere enlistment as preferred make and is subject to the compliance of Technical Specification mentioned in tender.

CATEGORY REQUIREMENT OF TEST CERTIFICATE/ INSPECTION

CATEGORY-1:

- Type test certificate for similar item done. If not one of the items offered is to be type tested.
- OEMs routine test certificate.
- Acceptance test to be conducted in the presence of AAI representative at OEMs factory.

CATEGORY-2:

- Type test for similar done. If not, one of the items offered is to be type tested.
- OEMs routine test certificate.
- Visual and functional check by PMC / Engineering Consultant representative (AAI official incase of non avialibility of PMC/ Engineering Consultant) at AAI airport site.

CATEGORY-3:

- OEM/ Dealer/ Contractor routine test certificate.
- Visual and functional check by PMC / Engineering Consultant representative (AAI official incase of non avialibility of PMC/ Engineering Consultant) at AAI airport site.

CATEGORY-4:

- Visual and functional check by PMC / Engineering Consultant representative (AAI official incase of non avialibility of PMC/ Engineering Consultant) at AAI airport site.

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Subject: Preferred make list of Electrical Engg. items for use in AAI works-reg.

Existing Provision				Amended Provision			
1. Refer Sr. No.3 i.e. Special Approvals and Additions para 3 - <i>"For maintenance works with less than three enlisted makes, additional makes or brands may be considered, with the approval of the General Manager (Engg.) on a station-to-station basis".</i>				1. Refer Sr. No.3 i.e. Special Approvals and Additions para 3 - <i>"For maintenance/capital works, items with less than three enlisted makes, additional makes or brands may be considered, with the approval of the General Manager (Engg.) on a station-to-station basis" for RHQ schemes and of the concerned ED Engg. For CHQ schemes.</i>			
2. Annexure A1, Item code L-148 to 152 shall be read as below-				2. Annexure A1, Item code L-148 to 152 shall be read as below-			
Sr. No.	Items	PREFERRED MAKES (W.E.F. 10.07.2025)	Category For Test Certification/ Inspection	Sr. No.	Items	PREFERRED MAKES	Category For Test Certification/ Inspection
148	PAPI (NON-LED)	AMA / VARDHMAN / NASU SYSTEM	CATEGORY -1	148	PAPI (NON-LED)	AMA / VARDHMAN / FAA CERTIFIED / FAA COMPLIANCE (FOR INDEGENOUS MANUFACTURER) SUBJECT TO FULFILLING THE REQUIREMENT OF ICAO/DGCA-CAR AND APPROVAL AS PER SR NO.-3, PARA NO.-3 OF TC 03/2025	CATEGORY-1
149	LAMP (HALOGEN)	YOUYANG	CATEGORY -3	149	LAMP (HALOGEN)	YOUYANG / PHILIPS / OSRAM / NARVA / AS RECOMMENDED BY OEM	CATEGORY-3
150	AGL FITTING (LED)	VARDHMAN / AMA	CATEGORY -1	150(a)	AGL FITTING (LED)-ELEVATED	VARDHMAN / AMA / FAA CERTIFIED / FAA COMPLIANCE (FOR INDEGENOUS MANUFACTURER) SUBJECT TO FULFILLING THE REQUIREMENT	CATEGORY-1
151	AGL FITTING (NON-LED)	VARDHMAN / AMA	CATEGORY -1				
152	ALCMS / ILCMS	VARDHMAN	CATEGORY -1				

		OF ICAO/DGCA-CAR AND APPROVAL AS PER SR NO.-3, PARA NO.-3 OF TC 03/2025	
150(b)	AGL FITTING (LED)-INSET	FAA CERTIFIED / FAA COMPLIANCE (FOR INDEGENOUS MANUFACTURER) SUBJECT TO FULFILLING THE REQUIREMENT OF ICAO/DGCA-CAR AND APPROVAL AS PER SR NO.-3, PARA NO.-3 OF TC 03/2025	CATEGORY-1
151(a)	AGL FITTING (NON-LED)-ELEVATED	VARDHMAN / AMA FAA CERTIFIED / FAA COMPLIANCE (FOR INDEGENOUS MANUFACTURER) SUBJECT TO FULFILLING THE REQUIREMENT OF ICAO/DGCA-CAR AND APPROVAL AS PER SR NO.-3, PARA NO.-3 OF TC 03/2025	CATEGORY-1
151(b)	AGL FITTING (NON-LED)-INSET	FAA CERTIFIED / FAA COMPLIANCE (FOR INDEGENOUS MANUFACTURER) SUBJECT TO FULFILLING THE REQUIREMENT OF ICAO/DGCA-CAR AND APPROVAL AS PER SR NO.-3, PARA NO.-3 OF TC 03/2025	CATEGORY-1
152	ALCMS / ILCMS	VARDHMAN FAA CERTIFIED / FAA COMPLIANCE (FOR INDEGENOUS MANUFACTURER) SUBJECT TO FULFILLING THE REQUIREMENT OF ICAO/DGCA-CAR AND APPROVAL AS PER SR NO.-3, PARA NO.-3 OF TC 03/2025	CATEGORY-1

LIST OF APPROVED MAKES (CIVIL)

LIST OF APPROVED MANUFACTURERS AND BRAND NAMES FOR BROUGHT OUT ITEM AND OTHER MATERIALS (CIVIL)

Annexure-'A'	
LIST OF PREFERRED MAKES FOR USE IN AAI WORKS	
1.	Brand names of materials to be used are listed here and indicative only. Mere inclusion of brand name in this list does not guarantee for use in work unless specification of brand meets technical specifications of product as stipulated in tender document. The specifications of the products as mentioned in this tender document shall take preference over the make list. The contractor will be required to provide items/material as per the specifications indicated in tender document.
2.	The following list of preferred makes is exhaustive. However, additional manufacturers or brands may be considered for any specified product or item, depending on market availability, delivery timelines, and proven satisfactory performance in similar projects or works-preferably where such a make or product has been used in quantities constituting at least eighty percent (80%) of the estimated or proposed requirement for the relevant project or work. To establish performance, completion certificates, performance certificates and purchase orders accompanied by tax invoices will be considered, provided that the products comply with the technical specifications stipulated in the tender document."
3.	In case, Model no. of any product as mentioned in tender document is discontinued by manufacturer (documentary evidence from manufacturer is must to establish this), then contractor is bound to provide latest model of same manufacturer subject to meeting the technical specification without any financial implication.
4.	The tenderers shall quote his rates on the basis of the price for the best quality product of the brand/make stipulated for the item of work in the list of preferred make/specifications. The agency shall submit at least three brands from the list given below along with the rates (having price variation within 10%) and specifications for the approval of Engineer-in-Charge before placing order. EIC shall approve any of the two brands.

S. No.	Item Name	Brands / makes / Manufacturers
1.	CEMENT	ACC Ltd. / Ultra Tech / Shree Cement Ltd. / Ambuja / Jaypee / Century / J.K.Laxmi (JK Lakshmi Cement Ltd.) / JK Cement / Nuvoco / Dalmia Cement (Bharat) Ltd. / Birla A1 (Orient cement Ltd.) / Star Cement / PENNA / Max Cement / Ramco Cement / Chettinad Cement / Wonder (Wonder Cement Limited) / JSW Cement / Zuari Cement / Prism Cement
2.	TMT REINFORCEMENT STEEL	SAIL / RINL (VIZAG Steel) / TATA TISCON (TATA Steel Limited) / JSW Steel Ltd. / JSPL / Shyam Steel Industries Ltd. / ESL Steel Ltd. / Shyam Metalics & Energy Ltd. / Shri Bajrang Power & Ispat Ltd. / Rashmi Metaliks Limited / SRMB Srijan Private Limited / MS Agarwal Foundries Private Limited / Real Ispat and Power Limited / Jai Balaji

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S. No.	Item Name	Brands / makes / Manufacturers
		Industries Limited / Maithan Steel & Power Limited / Shree Nakoda Ispat Limited
3.	STRUCTURAL STEEL-MS TUBULAR SECTIONS (CIRCULAR, SQUARE, RECTANGULAR) FOR COLUMNS, TRUSS, MS PIPES, FLATS, ANGLES, BEAMS, CHANNELS, STRIPS ETC.	SAIL / RINL (VIZAG Steel) / TATA Structura (TATA Steel Limited) / JSW Steel Ltd. / JSPL / APL Apollo Tubes Ltd. / Shyam Metalics & Energy Ltd. / Surya Roshni Ltd.
		Nezone Tubes Ltd. / Utkarsh India Ltd. / Hi-Tech Pipes Ltd. For works costing up to 15 Cr works
4.	VITRIFIED / CERAMIC TILES	Prism Johnson Limited (H&R Johnson (India) Ltd.) / NITCO Tiles Ltd. / Orient Bell Ltd. / Oracle Granito Ltd. / Kajaria Ceramics Ltd. / RAK Ceramics (RAK Ceramics Ltd.) / AGL(Asian Granito India Ltd.) / Oasis Vitrified Tiles(Oasis Vitrified Pvt. Ltd.) / Varmora Granito Pvt. Ltd. / Qutone Ceramic Pvt. Ltd. / Ambani Vitrified Pvt. Ltd. / Simpolo Vitrified Pvt. Ltd. / Pavit Ceramics Pvt. Ltd. / Aparna Enterprises Ltd. / SUNHEAART CERAMIK(Sunshine Tiles Company Pvt. Ltd)
5.	ALUMINIUM STANDING SEAM ROOFING SYSTEM	KALZIP (Kalzip India Pvt. Ltd.) / Kingspan (Kingspan Jindal Pvt. Ltd) / BEMO(Bemo System GmbH) / New Look Furnishers For roofing work upto 15,000 sqm.
6.	METAL CEILING TILE / BAFFLE CEILING	Hunter Douglas India Pvt. Ltd. / Durlum India Pvt. Ltd. / Saint Gobain Gyproc India Ltd. / Knauf Ceiling Solutions(India) Pvt. Ltd.(Formerly Armstrong World Industries (India) Pvt. Ltd.) / USG Knauf (Knauf India Pvt. Ltd.) / Dexune(Dexune Marketing Pvt Ltd.) / Ceiflo Technologies Pvt. Ltd./ New Age FalseCeiling Pvt. Ltd.
7.	GALVALUME/ STEEL SHEET ROOFING (TOP & BOTTOM) OVER MS TRUCTURE	Tata Bluescope Steel Ltd. / Jindal Steel (Jindal India Ltd.) / JSW Steel Coated Products Limited / APL Apollo Building Products Private Limited / Colorshine Coated Pvt. Ltd.
8.	ALUMINIUM COMPOSITE PANELS (ACP)	Alucobond (3A Composite India Pvt. Ltd.) / Alstrong Enterprises India Pvt. Ltd. / Aludecor Lamination Pvt. Ltd / EUROBOND(Euro Panel Product Ltd.) / Alstone(Alstone International) / VIVA(Viva Composite Panel Pvt Ltd.) / Alutech(Alutech Industries) / VIRGO(Virgo Laminates Ltd.) / Alutuff(Ashoka foam multiplast Pvt. Ltd.) / Alexia Panels / Timexbond Industries Pvt. Ltd.
9.	HONEYCOMB COMPOSITE PANELS (HCP)	Alucobond(3A Composite India Pvt. Ltd.) / Aludecor Lamination Pvt. Ltd / EUROBOND (Euro Panel Product Ltd.)/ Alstone(Alstone International) / VIVA(Viva

S. No.	Item Name	Brands / makes / Manufacturers
		Composite Panel Pvt Ltd.) / Alutuff (Ashoka foam multiplast Pvt. Ltd.)
10.	ZINC COMPOSITE PANELS (ZCP)	Aludecor Lamination Pvt.Ltd / Alstone (Alstone International) / VIVA (Viva Composite Panel Pvt Ltd.) / EUROBOND(Euro Panel Product Ltd.)
11.	ALUMINIUM EXTRUSIONS / STRUCTURAL MEMBERS	Hindalco Industries Ltd. / Jindal Aluminium Ltd. / Boruka (Bhoruka Extrusions Pvt. Ltd.) / NALCO
12.	FLOAT GLASS / HIGH PERFORMANCE GLASS / GLASS MIRROR	Saint Gobain Glass India Ltd. / AIS Glass Solution Ltd / Pilkington / (Guardian Sun Guard /Modi Guard) (Gujarat Guardian Limited) / Sisecam Flat Glass India Pvt. Ltd. / Gold Plus Glass Industry Ltd. / TPRS Enterprises Pvt. Ltd. / Atul Ltd.
13.	UPVC DOORS & WINDOW	Aparna venster /Okotech (Aparna Enterprises Ltd.) / Fenesta (Fenesta Building Systems) / Aluplast / NCL Veka Ltd. / Window Magic India Pvt. Ltd. / Rajshri Plastiwood
14.	WOOD POLYMER COMPOSITE(WPC)	ECOBORD (Alstone Industries Pvt. Ltd.) / Rajshri Plastiwood (Div. of Rajshri Productions Pvt. Ltd.) / KAKA Industries Ltd.
15.	ADMIXTURES / WATER PROOFING COMPOUND/ ACRYLIC CEMENTITIOUS COATING/ LIQUID MEMBRANE (POLYURETHANE & POLYUREA)/ HDPE & SELF ADHESIVE MEMBRANE	Pidilite Industries Ltd. / FOSROC Chemicals (India) Pvt. Ltd. / CICO Technologies Ltd. / Sika India Pvt. Ltd. / BASF India Ltd. / MC-Bauchemie (MC-Bauchemie India Pvt. Ltd.) / Ardex Endura (India) Pvt. Ltd. / STP Ltd. / Choksey Chemicals Pvt. Ltd. / MYK Laticrete (MYK Laticrete Pvt. Ltd. / Mapei (Mapei Construction Products Pvt. Ltd) / Chryso India Pvt. Ltd. / Maruti Bitumen Pvt. Ltd. / Penetron India Pvt. Ltd. / Supreme Bituchem India Pvt. Ltd. / Asian Paints Ltd. / IWL India Ltd. / TP Buildtech Pvt. Ltd. / MYK Arment Pvt. Ltd. / Technicol India Pvt. Ltd. / Saint-Gobain India Pvt. Ltd. / Ferrous Crete(India) Pvt. Ltd. / Fair Mate Chemicals Pvt. Ltd. / Berger Paints India Ltd. / Yahska Polymers Pvt Ltd / Hindcon Chemicals Ltd / Buildtech Products India Private Limited / Kryton Buildmat Co. Pvt. Ltd. / Kunal Conchem Pvt Ltd / Bostik India Private Limited / M.K Petro Products India Private Limited / Prism Johnson Limited / Boxer Construction Chemicals / Ado Additives Technologies Limited / Sunanda Speciality Coatings Pvt Ltd / Tikitar Danosa(India) Pvt Ltd
16.	BIPOLAR CORROSION INHIBITOR ADMIXTURE	STP Ltd. / Sika India Pvt. Ltd. / BASF India Ltd. / Chryso India Pvt. Ltd. / Supreme Bituchem India Pvt. Ltd. / Sunanda Speciality Coatings Pvt Ltd / Conchem Labs LLP / Fosroc Chemicals (India) Private Limited
17.	REINFORCEMENT COUPLER	Dextra / G-Tech / HI-Tech Engineering Solutions / Sanfeild (India) Ltd. / Tata Steel Limited

S. No.	Item Name	Brands / makes / Manufacturers
18.	HARDWARE FITTING	Dormakaba India Pvt. Ltd. / Q-Railing India Pvt. Ltd. (Formerly D-Line) / Hafele India Pvt. Ltd. / GEZE GmbH / Linco Technology Pvt. Ltd. / Assa Abloy / Kich Architectural Products Pvt. Ltd. / Godrej & Boyce / LGF Sysmac India Pvt. Ltd. / Rinox Kaufmann Ltd. / Ozone India Pvt. Ltd. / Everite / Define / Hardwyn(Hardwyn India Ltd.) / Arkay / Dorset Industries Pvt. Ltd. / Prayag Polymers Pvt. Ltd. / Hettich India Pvt. Ltd. / Ozone Overseas Pvt. Ltd.
19.	STEEL/WOOD FIRE RESISTANT SHUTTER	Navair Ltd. / Pormat International Ltd. / Shakti Hormann Pvt. Ltd. / Sukri Paints & Chemicals / Iclean / Signum Fire Protection / Pacific(Pacific Fire Controls Pvt. Ltd.) / ASES Security Pvt. Ltd.
20.	LAMINATES/ LAMINATED PARTICLE BOARD/ PRELAMINATED BOARD/ MDF/ PLY BOARD/FLUSH DOORS/ COMPACT LAMINATE TOILET CUBICAL/ URINAL PARTITIONS	Greenlam Industries Ltd. / Merino Industries Ltd. / Century Plyboard (I) Ltd. / Nationl Ply / Archidply(Archidply Industries Limited) / Kitply Industries / Novapan / Duro / Mayur Doors / Greenply / ASIS / Greenpanel Industries Limited / Punjab Plywood Industries / Stylam Industries Ltd. / Bobrick Washroom Equipment Inc. / Dormakaba India Pvt. Ltd. / Trespa / T-Line(Inner Space) / Samrat Plywood Limited / Jain Doors Pvt Ltd / Jain Wood Industries / Arjwoodmart Private Limited / Virgo Laminates Ltd
21.	FASTENERS/ANCHOR FASTENERS	Hilti(Hilti (India) Pvt. Ltd.) / Fischer / BOSCH / Fasteners India / Mungo / Rawl Plug / Konzept Steel Private Limited / Axel India / AFT (Anchorite Fixing Technology)
22.	WOODEN LAMINATED FLOORING/ VINYL FLOORING / RUBBER FLOORING	Pergo Ltd. / Action Tesa / Unitex / Knauf Ceiling Solutions(India) Pvt. Ltd.(Formerly Armstrong World Industries (India) Pvt. Ltd.) / Epitome / Scheit / Responsive Industries Ltd. / Greenlam Industries Ltd. / Greenpanel Industries Ltd.
23.	EPOXY/PU FLOORING	STP Ltd. / Sika India Pvt. Ltd. / BASF India Ltd. / FOSROC Chemicals (India) Pvt. Ltd. / Tremco CPG (India) Pvt. Ltd. / Cipy Polyurethanes Pvt. Ltd / NITCO Tiles Corp. / Maruti Bitumen Pvt. Ltd. / Supreme Bituchem India Pvt. Ltd. / Chryso India Pvt. Ltd. / Saint-Gobain India Pvt. Ltd. / Bostik India Pvt Ltd. / Asian Paints Ltd. / Pidilite Industries Ltd. / Berger Paints India Ltd. / MYK Arment Pvt. Ltd. / Hygie Profile India Pvt Ltd / Sunanda Speciality Coatings Pvt Ltd
24.	TILE JOINT FILLER, TILE/AAC BLOCK/ STONE FIXING ADHESIVE/ SOLID EPOXY GROUT	Ardex Endura (India) Pvt. Ltd. / Ferrouscrete India Pvt.Ltd / MYK Laticrete (MYK Laticrete Pvt. Ltd.) / Pidilite Industries Ltd. / FOSROC Chemicals (India) Pvt. Ltd. / BASF India Ltd. / Fairmate(Fair Mate Chemicals Pvt.Ltd.) / STP Ltd. / Home Pride Adhesive Pvt. Ltd. / Saint-Gobain India Pvt. Ltd. / Berger Paints India Ltd. / Somany Ceramics Ltd. / Ultratech Cement Ltd / Kerakoll India

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S. No.	Item Name	Brands / makes / Manufacturers
25.	FLOOR HARDENER	STP Ltd. / Sika India Pvt. Ltd. / BASF India Ltd. / Pidilite Industries Ltd. / FOSROC Chemicals (India) Pvt. Ltd. / Ironite / Mapei (Mapei Construction Products Pvt. Ltd.) / Chryso India Pvt. Ltd. / Supreme Bituchem India Pvt. Ltd. / Saint-Gobain India Pvt. Ltd. / MYK Arment Pvt. Ltd.
26.	POLYCARBONATE SHEET	Lexan/Sabic (GE Plastic) / Dan Pal / Polygal India Pvt. Ltd. / Gallina India Pvt. Ltd. / Coxwell Domes (Coxwell Domes Engineers Pvt. Ltd.) / Tufite / DPI Daylighting Pvt Ltd.
27.	CALCIUM SILICATE /MINERAL FIBER FALSE CEILING TILES/GYPSUM FALSE CEILING BOARDS/ GYPSUM PARTITION BOARDS	Saint Gobain Gyproc India Pvt. Ltd. / Llyod Insulation India Ltd. / Knauf Ceiling Solutions(India) Pvt. Ltd.(Formerly Armstrong World Industries (India) Pvt.Ltd./Knauf AMF India Pvt. Ltd.) / (Aerolite Ceiling System/Andhra Polymers Pvt. Ltd.) / USG Knauf (Knauf India Pvt Ltd.) / Hilux(Ramco Industries Ltd) / Gridline / Everest / Dexune (Dexune Marketing Pvt Ltd.) / Vans Gypsum / New Age FalseCeiling Pvt. Ltd.
28.	FIBER CEMENT BOARD/ CEMENT BOARD	Bison (NCL Industries Ltd.) / Hicem(Ramco Industries Ltd.) / Everest (Everest Industries Ltd.) / Visaka Industries Ltd.
29.	PAINTS FOR STEEL STRUCTURE (EPOXY PAINTS)/ PU PAINTS WATER PROOF CEMENT PAINTS/ PRIMER/DISTEMPER / TEXTURE FINISH PAINT/ SYNTHETIC ENAMEL PAINT/ FIRE RETARDANT PAINT	JSW-Akzo Nobel India / Jenson & Nicholson / Oikos India Pvt.Ltd. / Asian Paints Ltd. / Berger Paints India Ltd. / Nerolac / Acro Paints Ltd. / Snowcem India Ltd. / Shalimar (Shalimar Paints Ltd.) / Jotun / Grauer & Weil (India) Ltd. / STP Ltd. / Hempel Paints India Pvt. Ltd. / Anupam Enterprises / Dooall Corpro India Pvt Ltd / Nippon Paint India Private Limited / FOSROC Chemicals (India) Private Limited
30.	WALL PUTTY	J.K.Cement / Toyo Ferrouscrete India Pvt. Ltd. / Birla White / Dalmia Magic Premium Skim Coat(Dalmia Cement (Bharat) Ltd.) / Asian Paints Ltd. / NCL Buildtek Pvt. Ltd. / Ferrous Crete(India) Pvt. Ltd. / Saint-Gobain India Pvt. Ltd. / Nippon Paint India Private Limited
31.	EXPANSION JOINT FILLER BOARD/ JOINT COVERS	Vexcolt International Ltd. (U.K) / Construction Specialities (USA) / The Supreme Industries Ltd. / STP Ltd. / Dupont / Sanfeild / Hercules / Z-Tech / DECG International / M.M.Systems / Kantaflex-Balco / Kantaflex (India) Pvt. Ltd. / Mapei(Mapei Construction Products Pvt. Ltd.) / Migua / Insuboard / Soprema / Supreme Bituchem India Pvt. Ltd. / Pinnacle Solutions / VR Engineers
32.	GLASS GRID FOR BITUMINOUS WORKS	Saint Gobain ADFORS / Maccaferri Environmental Solutions Pvt. Ltd. / Techfab Industries Ltd. / Giridhar Techfab Pvt. Ltd. / Terrain Infratech / Flexituff International Ltd. / Supreme Non-Woven Ind. Pvt. Ltd. / Polyon Textiles Private Limited

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S. No.	Item Name	Brands / makes / Manufacturers
33.	RUNWAY MARKING PAINT (WATER BASED)	Nerolac / Berger Paints(Berger Paints India. Ltd.) / Asian Paints Ltd. / ITS Coating Pvt.Ltd. / Supreme Bituchem India Pvt. Ltd. / STP Ltd.
34.	SANITARY WARE/ FIXTURE/ FITTINGS/ SS SINK / SPECIALLY- ABLED FITTING	Kohler Co. (USA) / Jaquar and Company Pvt. Ltd. / American Standard / (HINDWARE / QUEO) (Hindware limited) / (PARRYWARE / ROCA) (Roca Bathroom Products Pvt. Ltd.) / Grohe AG (Germany) / Franke (Switzerland) / Bobrick Washroom Equipment Inc. / Duravit / Marc / H&R Johnson (India) Ltd/Prism Johnsons Ltd. / (CERA/Senator)(Cera Sanitaryware Ltd.) / Somany Ceramics Ltd. / Dolphy India Pvt. Ltd. / Rak Ceramics India Pvt. Ltd / Nirali (Jyoti Kitchen Industries Pvt. Ltd.) / Jayna / Pressalit Ltd. / Hindustan / Aqua Plumbings Pvt Ltd / Astral Ltd Euronics (Euronics Industries Pvt.Ltd.) (Except SS Napkin and Soap Dispenser)
35.	G.I. PIPE FITTINGS	Unik / Zoloto Malleables / Leader Valves Ltd. / Surya / R-Brand / KS / SS
36.	SOIL WASTE & VENT PIPES & FITTINGS AND WATER SUPPLY PIPES-SAND CAST IRON S&S/ CENTRIFUGALLY CAST (SPUN) S&S/ HUBLESS CENTRIFUGALLY CAST SPUN IRON PIPES/ CENTRIFUGALLY (SPUN) CI PIPES CLASS 'LA' DUCTILE IRON PIPE/ CI MANHOLE COVERS & CI GRATING	NECO(Jayaswal Neco Industries Ltd.) / BIC (Bengal Iron Corporation) / RIF / Electrosteel Steels casting Ltd. / SKF / Kapilansh Dhatu Udyog(P) Ltd. / Saint Gobain / HEPCO(Binay Udyog Pvt Ltd.) / Raj Pattern Makers & Founders Pvt. Ltd.
37.	STRUCTURAL/ WEATHER SEALANT FOR STRUCTURAL GLAZING/ACP	Wacker / Dow corning / G.E. Plastics / Pidilite Industries Ltd. / FOSROC Chemicals (India) Pvt. Ltd. / BASF India Ltd. / STP Ltd. / Rawl Plug / Choksey Chemicals Pvt. Ltd. / Supreme Bituchem India Pvt. Ltd. / Maruti Bitumen Pvt. Ltd. / Sika India Pvt. Ltd. / Alstone Industries Pvt. Ltd.
38.	POLY SULPHIDE / POLYURETHANE SEALANT FOR JOINTS	FOSROC Chemicals (India) Pvt. Ltd. / Choksey Chemicals Pvt. Ltd. / Pidilite Industries Ltd. / Sika India Pvt. Ltd. / Dow corning / MYK Laticrete (MYK Laticrete Pvt. Ltd.) / Tuffseal / Wacker / G.E. / STP Ltd. / BASF India Ltd. / Maruti Bitumen Pvt. Ltd. / Chryso India Pvt. Ltd. / Supreme Bituchem India Pvt. Ltd. / Bostik India Pvt Ltd / MYK

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S. No.	Item Name	Brands / makes / Manufacturers
		Arment Pvt. Ltd. / McCoy Soudal Sealants Adhesives & Foams Pvt. Ltd.
39.	MODULAR S.S. /GLASS RAILING	Dormakaba India Pvt. Ltd. / Jindal Lifestyle Ltd. / GEZE GmbH / Q-Railing India Pvt. Ltd. (Formerly D-Line) / Linx Technologies Pvt. Ltd. / Kich Architectural Products Pvt. Ltd. / Ozone India Pvt. Ltd. / Assa Abloy / Rinox Kaufmann Ltd. / Maruti Architectural Products Pvt Ltd
40.	SOLID ACRYLIC SURFACE BOARDS	Dupont / LG-Himacs (LX Hausys India Pvt. Ltd) / Hanex / GMGR India (Samsung Staron) / Neonnex / Durlax Top Surface Limited
41.	TENSILE FABRIC	Mehler Technologies (Low & Bonar India Pvt. Ltd.) /Serge Ferrari India Pvt. Ltd. / Sattler PRO-TEX.
42.	AUTOCLAVED AERATED CEMENT (AAC) BLOCKS	Magicrete Building Solutions Pvt. Ltd. / Finecrete Eco-Blocks Pvt. Ltd. / Aerocon / Bilt Technologies / JK / Instablock / Max Blocks / RS Green Infra (India) Pvt. Ltd. / Siporex / Kataria Ecotech. Pvt. Ltd. / Krrish White Bricks LLP / Jindal AIR / NCL Buildtek Pvt. Ltd. / Renaatus Procon Private Limited Remark: Apart from these makes, locally available makes may be explored meeting technical specifications.
43.	AUTOMATIC REVOLVING / SWING DOOR	Dormakaba India Pvt. Ltd. / Hafele India Pvt. Ltd. / GEZE GmbH / Gilgen Door System AG / Linx Technology Pvt. Ltd. / Assa Abloy / Autoingers
44.	WALKWAYS/FALL PROTECTION SYSTEM / ROOF HATCH	WULMET / Latchways / Capital Safety / Honeywell / Checkmate / Karam Safety Pvt. Ltd. / Kingspan Jindal Pvt. Ltd./ NYSTROM / BABENKO / BILCO
45.	GYPSUM PLASTER/ POLYMER MODIFIED SELF CURING MORTAR	Ferrous Crete(India) Pvt. Ltd. / Ultra Tech / Saint Gobain Gyproc India Ltd. / Dow Construction Chemicals / BASF India Ltd. / Asian Paints Ltd. / Saint-Gobain India Pvt. Ltd. / Dudhi Industries Private Limited
46.	CURING COMPOUND (RESIN BASED & WAX BASED)	FOSROC Chemicals (India) Pvt. Ltd. / Sika India Pvt. Ltd. / BASF India Ltd. / Supreme Bituchem India Pvt. Ltd. / CICO Technologies Ltd. / STP Ltd. / Berger Paints India Ltd. / Yahska Polymers Pvt Ltd / Akarsh Specialities
47.	DECORATIVE FILMS/ SAFETY FILMS	3M / Avery Dennison / Deck
48.	STEEL NANO COAT	Four Solutions Pvt. Ltd. / Meta-Chem Paints & Adhesives Pvt. Ltd. / Advanced Lab
49.	GEOTEXTILE PRODUCTS / SOIL	TechFab India Industries Ltd. / Strata Geosystems (India) Pvt. Ltd. / Suntech Geotextile Pvt. Ltd. / Maccaferri Environmental Solutions

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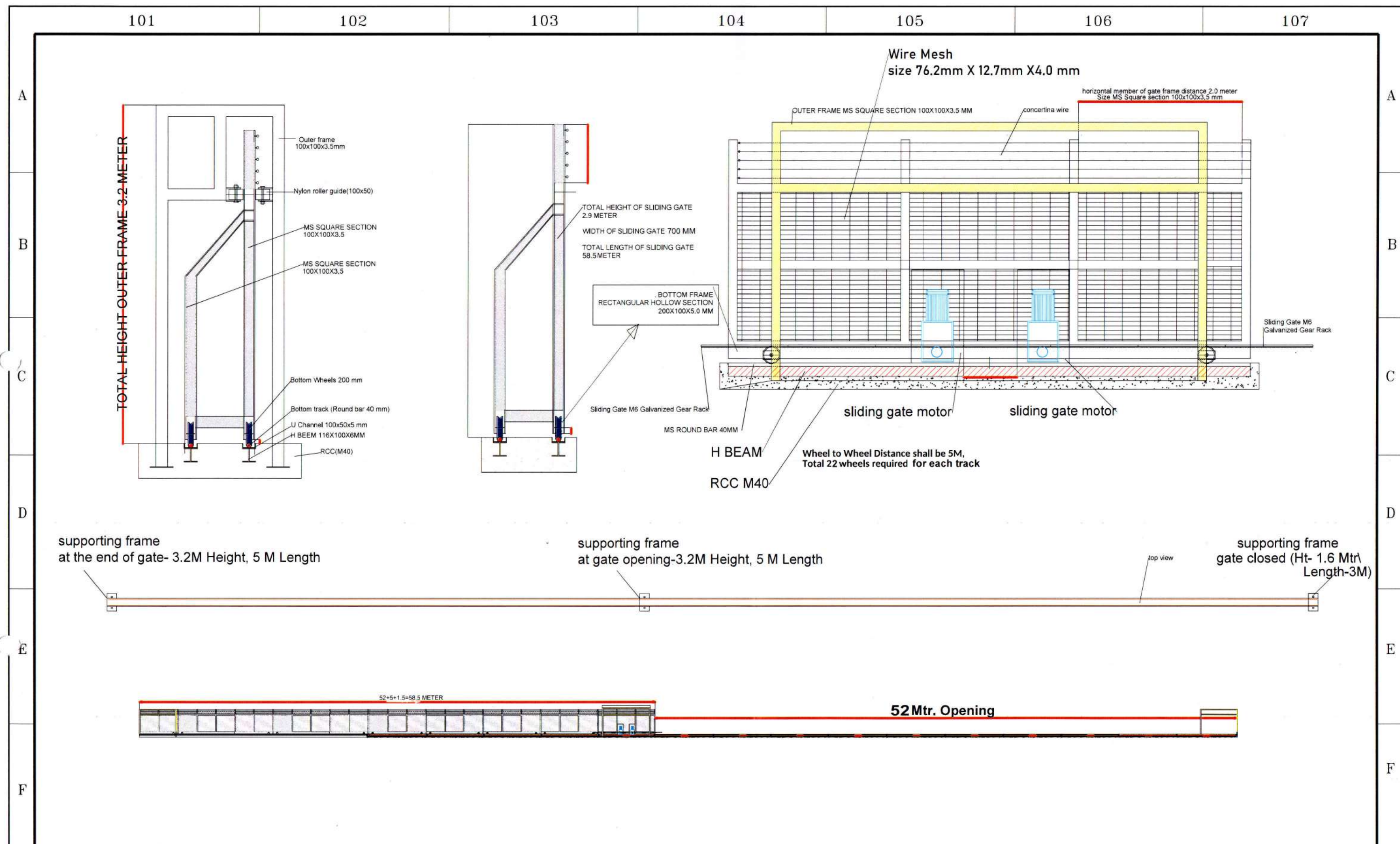
S. No.	Item Name	Brands / makes / Manufacturers
	REINFORCEMENT GEOSYNTHETICS	
50.	UPVC/CPVC/SWR PVC PIPES & FITTINGS	The Supreme Industries Ltd. / Finolex Industries Ltd / Savoir Faire Manufacturing Co. Pvt. Ltd. / AKG Extrusions Pvt Ltd. / Surya Roshni / Astral / Prince / Ori-plast / Ashirvad / Vectus / Prayag(Prayag Polymers Pvt. Ltd.) / Balco / Texmo Pipes and Products Ltd. / HIL Limited / Vishal Pipes Limited
51.	ROCKWOOL / GLASSWOOL INSULATION	UP Twiga / Roxul-Rockwool / Rockloyd / Saint Gobain India Pvt Ltd. (Formerly Rockwool India) / Lloyd Insulations India Ltd. / Polybond Insulation Pvt. Ltd. / Hi-Tec Rock Fibre Private Limited / Thermocare Rock Wool (India) Pvt. Ltd.
52.	G.I. PIPE	Tata Steel Ltd. / Jindal Pipes Ltd. / Surya Roshni (Surya Roshni Ltd.) / APL Apollo Tubes Ltd. / Zenith / Utkarsh India Ltd. / Nezone Tubes Ltd. / Hi-Tech Pipes Ltd. / Jotindra Steel & Tubes Ltd. / Ravindra Tubes Private Limited / Dadu Pipes Pvt. Ltd / Vishal Pipes Limited / Chetna Steel Tubes Private Limited
53.	SLUICE VALVE/PRESSURE REDUCING VALVE/ NON-RETURN VALVE (CI/GUN METAL)	Sant Valves Pvt. Ltd. / Zoloto / Audco(L& T) / Castle / Leader Valves Ltd. / Kartar / Honeywell / IVC
54.	HDPE PIPES	Geberit / Saint Gobain / Savior Faire Manufacturing Co. Ltd. / Jain Irrigation / Ori-plast / East - Hooghly Agro Plantation Pvt. Ltd. / Aaram Plastics Private Limited / Shree Narayani Pipe Mfg Co / Vishal Pipes Limited / Prince Pipes And Fittings Limited / Vishal Heavy Engineering Private Limited / Sangir Plastics Pvt. Ltd.

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REV.	1-	2-	3-	4-	5-
Date					
Drawn					
Checked		--			
Approved					

DWG-1

DRAWING

TITLE

CLIENT

CONSULTANT

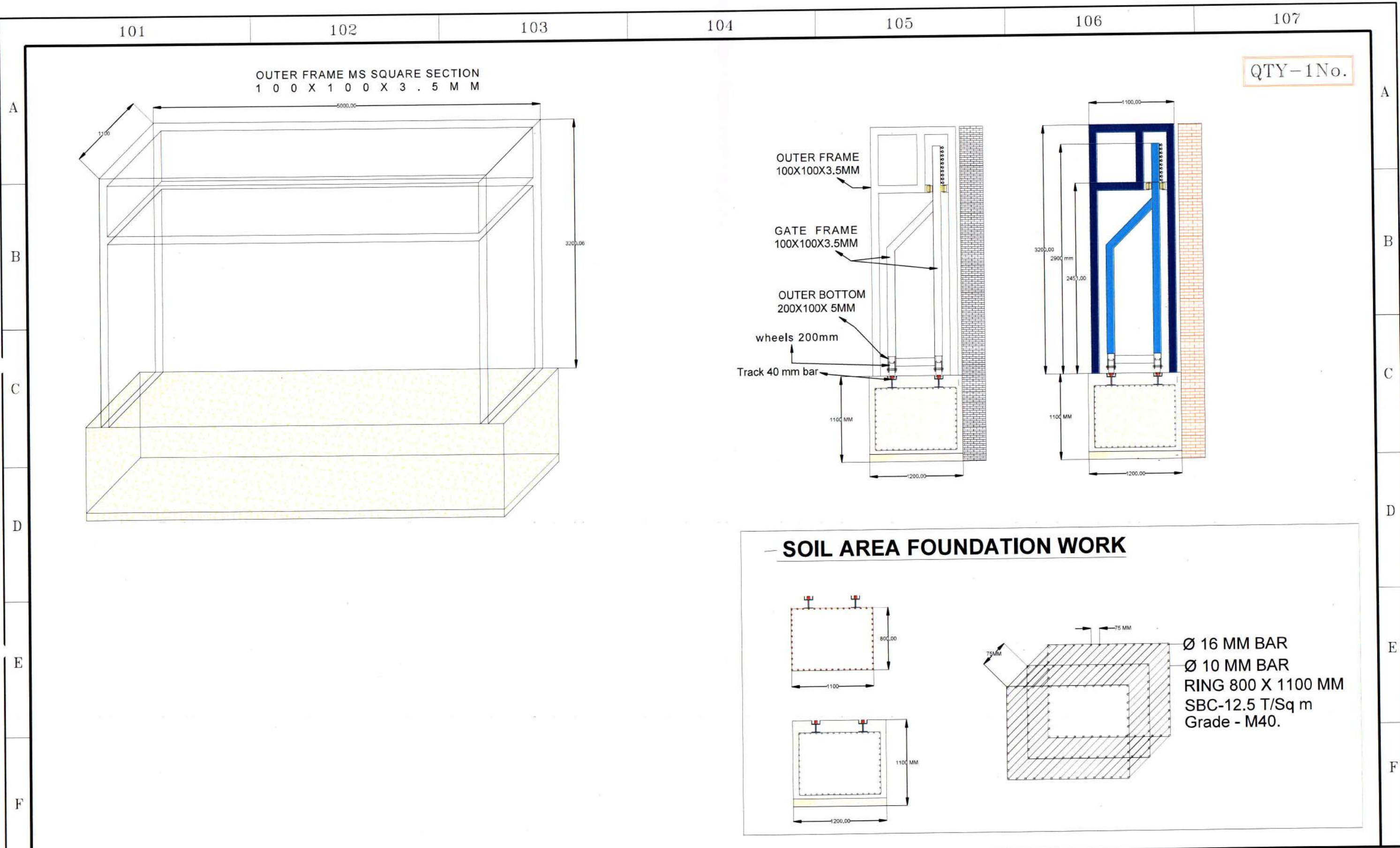
PROJECT

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REV.	1-	2-	3-	4-	5-
Date					
Drawn	G.A.				
Checked	--				
Approved	M.A.				

**OUTER FRAME AND FOUNDATION
52 METER OPNING TROLLEY GATE**

TITLE	
CLIENT	--
CONSULTANT	--
PROJECT	--

DWG-2

Item Rate BoQ

Tender Inviting Authority: AGM (E-E), AAI, Darbhanga Airport

Name of Work: Development of New Civil Enclave at Darbhanga, Bihar. SH: SITC OF Motorized Sliding Gate, Boom Barrier, CCTV & associated E & M works at Darbhanga Airport

Contract No: 2026_AAI_283662

Name of the Bidder/ Bidding Firm / Company :						
PRICE SCHEDULE (This BOQ template must not be modified/replaced by the bidder and the same should be uploaded after filling the relevent 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	BASIC RATE in Figures To be entered by the Bidder Rs. P	TOTAL AMOUNT Without Taxes	TOTAL AMOUNT In Words
1	2	4	5	13	53	55
1	SH-I: SITC OF TROLLEY GATES Design, fabrication, supply, installation ,testing and commissioning of Centrally/ Symmetrical/ asymmetrical Sliding type M.S.Trolly Gate by carrying out following fabrication works complete as required. The scope also includes supply of all material required. (Civil work is not included) The M.S material used shall be as per respective IS codes, ISI marked and as per the preferred makes. The gate shall have clear opening of 52 Meters & 5 meter(approx.) setback at opening end with height 2.90 mtrs and 1.5 meter setback at closing end with height 1.6 mtr respectively from finished floor level (height includes height of wheels, gate frame and concertina wire (not exceeding 450 mm) above gate frame). The Horizontal Base Frame shall be made of MS hollow sections of Size 200mm x 100mm x 5mm thick & Vertical frames shall be made of MS hollow sections of size 100 mm x 100 mm x 3.5 mm thick with side supports of suitable MS hollow sections of size 100 mm x 100 mm x 3.5 mm thick at both ends (height of frame shall be 3.20 mtr. for setback 05 mtr. at initial position and also at rear position of gate opening & height 1.6 mtr. for setback 1.5 mtr.at closed position of gate) and on top for concertina Wire, Weld mesh panels made of Galvanized MS wire to be provided (Mesh wire - Diameter 4.0 mm, Tensile Strength of minimum 550 N/sq.mm, Wire specification as per IS 280 & Wire Galvanising as per IS 4826) having mesh size 76.2 mm X 12.7 mm (WxH, +/- 2 mm). The average weld shear strength of 4 welds taken in random not less than 50% of breaking strength of the smallest wire. Suitable shock absorption system to be included at end post. The gate shall be provided with suitable wheels for less noise operation. The bearings used shall be of reputed make or as recommended by the OEM. The overall dia of wheels shall not exceed 200 mm dia. A suitable support structure of not less than 4 meters to be provisioned at the beginning of gate and similar appropriate structure to be provisioned at the end of gate (while open completely) to provide support to moving part of gate with minimum friction. Painting of gate with approved colour & make of synthetic enamel paint by applying 2 coats and one coat of red oxide Primer complete as required. (all material as per AAI list of preferred make). NOTE:- 1. The successful bidder has to submit the detailed drawing of structure, it's tentative weight and only after approval from AAI bidder will start the fabrication. 2. As per attached drawing.					
1.01	Trolley gate and size of each is 58.50 Meters (52 meter Clear Opening + 5.00 meter Setback + 1.50 meter Setback)	2.00	Job		0.00	INR Zero Only
1.02	MS bottom wheel suitable for item no. 2.00 {10 Set (pair) per trolley gate}	22.00	Set		0.00	INR Zero Only
2	Providing & Fixing solid round bar of size 40 mm dia in MS U channel of size 100 mm X 50 mm X 5 mm complete as required suitable for item no. 1.01 as required in the existing Taxiway/ concrete base etc complete as required.	400.00	Mtr		0.00	INR Zero Only

3	Supply, installation testing and commissioning of PLC based 5 HP (minimum) Motorized automation system suitable for operation of sliding gate having approx. weight up to 10000 kg (of one leaf) as per enclosed particular specifications. The drive shall be suitable for operation on single phase / 3 phase power supply system (230/415 + -10 % volts) and suitable to drive the required load smoothly complete as required as per enclosed particular specifications. Foundation/ Frame work for installation of motor , starter panel with safety devices / Relays is also included in the scope. Four no. LED based flash light with buzzer shall be installed over the gate. Radium reflector to be provided in each gate written as "STOP" with suitable nos (not less than 8 nos) and Sizes of font not less than 300 mm complete as required. (PLC based 5 HP (minimum) Motorized automation system shall be 02 nos. working + 02 Nos. Stand By) (As per AAI approved make) Provision of radio receiver for auto diagnosis of all safety controls - 1 Nos. and Radio transmitter (Remote control unit) (Suitable frequency) - 2 nos. for remote operation complete etc as required. The system involves all associated accessories for remote control and operation from ATC Tower (Under IAF Control) of associated Motorized Sliding Gates. This item include complete hardware (relay, module, etc. as required) and software modification of existing ALCMS for its integration complete as required so that the ALCMS system shall be suitable for controlling & monitoring(Status) of Motorized Sliding Gate(Fixed Circuits) from remote operation and as per attached Technical Specifications. This item also includes to provide all hardware, software, licences, OFC / CAT-VI / control / Power cabling interconnection, associated accessories as per requirement of site etc. but excluding supply & laying of OFC/Power Cable/Control Cable required to connect ALCMS from CCR hall to ATC & field devices.	4.00	Job		0.00	INR Zero Only
4	Design, manufacture, supply, installation, testing and commissioning of outdoor type double door feeder pillar, made of 14 SWG CRCA sheet steel, totally enclosed, standing on a MS Angle frame suitably fixed on floor foundation, dust and vermin proof, powder coated painting, suitable for operation on 3 phase and neutral, 415 V, 50 Hz AC system with busbars/connecting copper cable link. The panel shall be fabricated with hinged centre opening type double doors (fabricated out of 14 SWG CRCA sheet steel) on front side with locking arrangement, suitable angle/ channels frame in the bottom, legs for grouting in foundation, openable cable protection covers at bottom portion, painting etc, entire panel shall have a common GI earth bus bar of size as per IS 3043 subject to minimum 40mm x 5mm at the rear with 2 Nos. earth stud, solid/ flexible connections from main earth bus bar to switchgears with required size of Cooper conductors/ bus bars and control wiring with 1.5/2.5 sqmm FRLS PVC insulated copper conductor as applicable including supply & installation of following items and as per specifications : Incoming : 01 Nos., 63 Amp., 4 Pole, MCCB having (Ics=100%Icu, 25 kA) with overload, short-circuit, and earth fault protection. CT's of ratio 100/5 Amps.-1 Set (1 Set of 3 Nos.) with Class-2 SPD Digital Ammeter with selector switch - 1 set, Digital Voltmeter with selector switch- 1 set 3 Nos. Phase indication LED Lamps with 2 Amp. MCBs, 1 Nos. red ON indication LED Lamps with 2 Amp.MCBs 1 Nos. green OFF indication LED Lamps with 2 Amp. MCBs Outgoings : 4 pole, AC3 duty Contactor 50A rating, with 2NO+2NC auxiliary contact (along with all required hard ware for successful operation i.e. Relays, control wiring etc are included in this item) and 2 Nos. Start PB & 2 No. Stop PB.	2.00	Job		0.00	INR Zero Only
5	Supply of 4C x 35 sq. mm LT Power cable of 1.1 KV Grade aluminium conductor XLPE insulated PVC sheathed armoured cable confirming to IS:7098 part -I 1988 with up to date amendment as required.	300.00	Mtr.		0.00	INR Zero Only
6	Supply of 4C x 10 sq. mm LT Power cable of 1.1 KV Grade aluminium conductor XLPE insulated PVC sheathed armoured cable confirming to IS:7098 part -I 1988 with up to date amendment as required.	240.00	Mtr.		0.00	Zero Only
7	Supplying and laying of 63 mm OD HDPE pipe as per IS:4984:2016, of rating PE 100, PN 8, ISI marked along with all accessories like socket, bend, couplers etc. complete with fitting and cutting, jointing etc.direct in ground (75 cm below ground level) including excavation and refilling the trench but excluding sand cushioning and protective covering etc. , complete as required.	500.00	Mtr.		0.00	Zero Only
8	Laying of one number PVC insulated & PVC sheathed power cable of 1.1 KV grade of size not exceeding 35 Sq.mm. in the existing RCC Hume/ Stoneware / GI pipe/ DWC HDPE Pipe etc as required.	540.00	Mtr.		0.00	Zero Only
9	Supply and making end termination with brass compression gland and aluminium thimbles for PVC insulated and PVC sheathed aluminium conductor cable of 1.1 KV grade of 4 core, 35 Sq. mm sizes as required.	8.00	Set		0.00	Zero Only
10	Supply and making end termination with brass compression gland and aluminium thimbles for PVC insulated and PVC sheathed aluminium conductor cable of 1.1 KV grade of 4 core, 10 Sq. mm sizes as required.	8.00	Set		0.00	Zero Only
11	Earthing with G.I. earth pipe 4.5 metre long, 40 mm dia including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe etc. with charcoal/ coke and salt as required.	4.00	Set		0.00	Zero Only

12	Providing and laying earth connection from earth electrode with 6 SWG dia GI Wire in 15 mm dia G.I. pipe from earth electrode including connection with G.I. thimble excavation and re-filling as required.	20.00	Mtr.		0.00	Zero Only
13	Providing and fixing 6 SWG dia G.I. wire on surface or in recess for loop earthing as required.	100.00	Mtr.		0.00	Zero Only
14	Supply and laying including termination of Armoured Single-Mode Optic fibre cable (6-core) in existing pipe/masonry open duct/trench/open surface/raceway/cable tray as required.	700.00	Mtr.		0.00	Zero Only
15	Earthing with copper earth plate 600mm x 600mm x 3.0mm thick including accessories and providing masonry enclosure with cover plate having locking arrangement and watering pipe etc. Including charcoal and salt complete as required.	8.00	Set		0.00	Zero Only
16	Providing and fixing 25mm x 5mm copper strip in 40mm dia G.I. pipe from earth electrode including connection with brass nut, bolt, spring, washer excavation and re-filling etc. as required.	100.00	Meter		0.00	Zero Only
17	Providing and fixing 25mm x 5mm copper strip on surface/in recess/existing pipe for connections etc. as required.	120.00	Meter		0.00	Zero Only
18	Supply installation, testing & commissioning of complete electrically operated boom barrier system (as per preferred make list of tender documents) suitable for 5.0 meter wide road (Approx Nominal length) comprising of following: (i) Drive mechanism: Consisting of suitable size reversible motor, oil filled and sealed type composite gear drive unit, with internal locking feature, circuit controller for auto off in fully raised & lowered position with limit switches, arrangement for manual operation at the time of power failure, control gear with contactor, MCB, electronic surveillance circuit to automatically trip the motor in case of fault, terminals etc. to be operated on Single phase, 50 Hz AC supply. (ii) Aluminium boom : Single Arm suitable for 5 meter road wide road, fabricated from aluminium sheet die pressed to form tapering. Boom is to be painted with alternate Red & White strips and provided with a reflective "STOP" sign in the centre & bands of reflective tape for night warning -- 01 No. for each (iii) spring-loaded counter balance. (iv) MS boom stand. (v) Push button control unit. (vi) Photo cell for obstacle detection. (vii) Rolling for radio frequency base remote control unit. (viii) Necessary power supply and control cabling up to 10 meters with protective covering. (ix) Foundation work for drive unit as per manufacture requirement. (x) Control unit with push buttons (Open, stop, close) - 02 No.Set (xi) Integrated lighting system & Audio warning facility (xii) The system involves all associated accessories for remote control and operation from ATC Tower (Under IAF Control) of associated Boom Barrier system. This item include complete hardware (relay, module, etc. as required) and software for integration with ALCMS system complete as required so that the ALCMS system shall be suitable for controlling & monitoring (Status) of all Boom Barriers (Fixed Circuits) from remote operation and as per attached Technical Specifications.	4.00	Job		0.00	Zero Only
19	Supply of 12 core, 2.5 sq.mm XLPE insulated PVC sheathed copper conductor armoured control cable of 1.1KV grade conforming to IS 7098, Part-I, 1988 with up to date amendments complete as required.	300.00	Mtr.		0.00	Zero Only
20	Supply of 50 mm dia OD ISI marked HDPE pipe as per IS:4984:2016, of rating PE 100, PN 8 complete as required	250.00	Mtr.		0.00	Zero Only
21	Laying of One numbers 12 C x 2.5 sqmm Cable through existing HDPE pipe complete as required.	650.00	Mtr.		0.00	Zero Only
22	Supply & Fixing of full round type prefabricated RCC joint chamber with diameter of 85cm and height of 100cm and thickness of 7.5cm, round top cover with diameter of 100cm and thickness of 5cm etc complete as required as per approved by EIC.	8.00	Each		0.00	Zero Only
23	Laying of 01 No. up to 50 mm dia size HDPE pipe through trenchless technology (HDD) up to a depth of approx. 3 meter to 5 meter as per specification as required.	250.00	Mtr.		0.00	Zero Only
24	SITC of 2 Megapixel Outdoor Colour Dome PTZ Camera as per list of preferred make list including SITC of outdoor type GI Pole of approx. 6meter height with minor civil work for pole foundation including earth connection etc as per technical specification complete as required and as approved by E-I-C.	4.00	Each		0.00	Zero Only
25	SITC of 2 Megapixel Varifocal Outdoor Fixed Bullet IR Colour Camera as per list of preferred make list including SITC of outdoor type GI Pole of approx. 6meter height with minor civil work for pole foundation including earth connection etc as per technical specification complete as required and as approved by E-I-C.	4.00	Each		0.00	Zero Only

26	Supplying, Installation, Testing and Commissioning of 16 Channel Network Video Recorder (NVR) having display split Main screen: 1/4/8/9/16, 2nd screen: 1/4/8/9/16 along with SITC of suitable network rack with camera licenses to record for all channels of NVR and to provide a live view, storage and simultaneously Multi-channel playback of all IP, IR camera or more and must be ONVIF with minimum support of 256Mbps Incoming Bandwidth. NVR should support H.265 or better, MJPEG, MPEG4 support, 1 channel Input, 1 channel Output, RCA for Two-way Talk, Intelligent auto power on when power resumes after power outage, minimum 2 SATA Slots with 20TB capacity/ Slot with Connectivity Interface of 1 Nos. x 10/100/1000 Mbps Ethernet Ports, 1x RS485, 1x RS232 & Backup Interface having 2 Nos x USB port (1x USB3.0, 1xUSB2.0), Video Output Ports: 1x HDMI and 1 VGA & other features as per technical specifications complete as required. The item also includes usable storage capacity in the NVR having minimum 10TB or higher storage capacity as required to record minimum 30days backup data for each camera.	2.00	Job		0.00	Zero Only
27	SITC of 42/43 inch display/monitor as per approved make list with all required software as per technical specification complete as required and as approved by E-I-C.	2.00	Each		0.00	Zero Only
28	SITC of media converter for interconnection of OFC & CAT-VI cable as per technical specification complete as required.	16.00	Each		0.00	Zero Only
29	Supply and laying of CAT-VI Cable in existing pipe/trench/open surface/raceway/cable tray complete as required and as approved by E-I-C	100.00	Mtr.		0.00	Zero Only
30	SITC of suitable computer/workstation with UPS including computer table and chair etc, complete hardware and software for CCTV monitoring & control, interconnecting cables (OFC/CAT-6/Control), switches, terminations, splicing etc. as per technical specification complete as required .	1.00	Job		0.00	Zero Only
31	Supply Installation ,Testing and Commissioning of 3 KVA UPS System working on single phase 50 Hz and delivering output single phase, 50 Hz , High Efficiency , having SMF Batteries to support minimum 30 minutes back up, THD less than 3%, Power Factor not less than 0.90, having transfer time of 0 m sec, up along with all required accessories interconnecting links and related items etc as per site requirement for making the UPS Operational and meeting the standard of IEC and as per specification complete as required.	1.00	Job		0.00	Zero Only
32	SH-II: Civil Works Earth work in excavation by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, for all lift, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m. All kinds of soil.	540.00	Cum		0.00	Zero Only
33	Providing and laying in position cement concrete of specified grade excluding the cost of cantering and shuttering - All work up to plinth level : 1:4:8 (1 Cement : 4 coarse sand (zone-III) : 8 graded stone aggregate 40 mm nominal size).	50.00	Cum		0.00	Zero Only
34	Cantering and shuttering including strutting, propping etc. and removal of form for a) Foundations, footing, base of columns etc. for mass concrete.	600.00	Sqm		0.00	Zero Only
35	Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete up to plinth level. a) Thermo-Mechanically Treated bars of grade Fe-500D or more.	32500.00	Kg		0.00	Zero Only
36	Providing and laying in position ready mixed or site batched design mix cement concrete for reinforced cement concrete work; using coarse aggregate and fine aggregate derived from natural sources, Portland Pozzolana / Ordinary Portland /Portland Slag cement, admixtures in recommended proportions as per IS: 9103 to accelerate / retard setting of concrete, to improve durability and workability without impairing strength; including pumping of concrete to site of laying, curing, carriage for all leads; but excluding the cost of cantering, shuttering, finishing and reinforcement as per direction of the engineer-in-charge; for the following grades of concrete. Note: Extra cement up to 10% of the minimum specified cement content in design mix shall be payable separately. In case the cement content in design mix is more than 110% of the specified minimum cement content, the contractor shall have discretion to either re-design the mix or bear the cost of extra cement. All works up to plinth level a) Concrete of M40 grade with minimum cement content of 390 kg/cum	330.00	Cum		0.00	Zero Only
37	Add for using extra cement in the items of design mix over and above the specified cement content therein.	100.00	Quintal		0.00	Zero Only
38	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level in all shapes and sizes in :	5.00	Cum		0.00	Zero Only
39	12 mm cement plaster of mix : 1:4 (1 cement: 4 coarse sand)	20.00	Sqm		0.00	Zero Only
40	Finishing walls with Acrylic Smooth exterior paint of required shade : Two or more coat applied @ 1.67 ltr/10 sqm over and including priming coat of exterior primer applied @ 0.90 litre/10 sqm	30.00	Sqm		0.00	Zero Only

41	Demolishing cement concrete manually/ by mechanical means including disposal of material within 50 metres lead as per direction of Engineer - in - charge. a) Nominal concrete 1:3:6 or richer mix (including equivalent design mix)	15.00	Cum		0.00	Zero Only
42	Providing Engineering Consultancy Services for structural design RCC work of both motorized sliding gate including submission of detailed drawings, working / shop drawings. Structural design shall be got approved / vetted from a Government Engineering College / NIT / IIT before execution of work. Shop / working drawings may be got approved from Engineer-in-charge before execution of work. All design shall be done as per applicable relevant latest CPWD/ IS Codes/ICAO requirement. Any other details / design related to consultancy work which are essential for successful execution of works etc. shall also be provided complete as per direction and satisfaction of Engineer-in-Charge. Cost of approval / vetting from Govt. Engineering College / NIT / IIT is covered under this item.	1.00	Job		0.00	Zero Only
Total in Figures					0.00	INR Zero Only
Quoted Rate in Words		INR Zero Only				