



भारतीय विमानपत्तन प्राधिकरण
स्वामी विवेकानन्द हवाई अड्डा, रायपुर

स्वामी विवेकानन्द हवाई अड्डा, रायपुर के पुराने टर्मिनल
बिल्डिंग में गेस्ट रूम का नवीनीकरण का कार्य।

अनुमानित लागत : रुपये 25.10 लाख

समय की अनुमति : 08 माह

ड्राफ्ट
निविदा दस्तावेज

प्रस्तुत कर्ता / अनुमोदन

सहायक महाप्रबंधक (अभि-सि)

**“Renovation of Guest room at OTB,
S.V. Airport, Raipur.”**

TENDER DOCUMENT



**AIRPORTS AUTHORITY OF INDIA
ENGINEERING WING
S.V. AIRPORT RAIPUR**

INDEX

Name of Work: Renovation of Guest room at OTB, S.V. Airport, Raipur.

S. No.	Description	Page No.	
1.	General Guidelines	GG	1-1
2.	E-Notice inviting Tender	ENIT	1-11
3.	Instructions for on line bid submission	ITB	1-8
4.	General Guidelines for Bidders	GGB	1-8
5.	General Conditions of Contract	GCC	1-146
6.	Proforma	PR	1-39
7.	Special Conditions of Contract (Civil Works)	SCC	1-17
8.	Special Conditions of Contract (Electrical Works)	SCC	1-18
9.	Technical Specifications (Civil Works)	TS	1-4
10.	Technical Specifications (Electrical Works)	TS	1-35
11.	List of Approved Makes (Civil Works)	LAM	1-8
12.	List of Approved Makes (Electrical Works)	LAM	1-11
10.	Bill of Quantities / SCHEDULE - ' A '	SOQ	1-11
		TOTAL	317

This Tender Document contains 317 pages as detailed above.

AIRPORTS AUTHORITY OF INDIA
S.V. AIRPORT, RAIPUR

General Guidelines

Name of Work: Renovation of Guest room at OTB, S.V. Airport, Raipur.

First Important Step to Bidder for e-tender:

(CPP e-Procurement portal reference: <https://etenders.gov.in/eprocure/app>)

Bidders have to read the instructions to the bidders given in the e-tender portal of CPP and take immediate steps to:

- a) Register for bid to participate in tendering.
- b) Obtain digital signature well in advance which takes minimum 24 to 30 hours.
- c) Make sure availability of all required software in your PC as instructed under bidder's instruction head of e-procurement portal of CPP.

Correspondence on tender documents:

- a) **Tender Document:**-The prospective bidder shall download the tender documents on-line from CPP's e-Procurement portal and upload digitally signed entire tender document on CPP e-tender portal. Besides, whenever tenderer signatures are earmarked in the tender documents shall put his signature and upload scan copies of the same.
- b) **Amendment to Tender Document:** -At any time, prior to scheduled last date of submission of bids, AAI if it deems appropriate to revise any part of this tender or to issue additional date to clarify the interpretation of provisions of this tender, it may issue addendum/corrigendum to this tender. Any such Addendum/ Corrigendum shall be deemed to be incorporated by this reference into this tender and binding on the bidders. Addendum/Corrigendum will be notified through CPP's Website/Portal only.
- c) **Clarifications of Tender Document:** -Bidder, requiring any clarifications of the tender document, may submit their queries, if any, through provision of CPP's Website/Portal as per the critical dates given on Notice Inviting E-Tender. Replies to queries by AAI will be uploaded through CPP's e-Procurement portal. The bidders are advised to visit CPP's Website/Portal regularly.
- d) No correspondence shall be entertained from the tenderer after opening of tenders, other than asked by AAI for any clarifications if required.

सन्दर्भ: भाविप्रा/रापु/स.म.प्र.(अभि-सि)/अतिथि कक्ष का नवीनीकरण/2026

दिनांक: 30.06.2026

ई-निविदा आमंत्रण सूचना (2 बीओटी - 2 लिफाफा खुला निविदा)

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

निविदा आईडी/TENDER ID: 2026_AAI_28250_1

नोट:

किसी भी विसंगति की स्थिति में अंग्रेजी संस्करण/पाठ मान्य होगा.

In case of any discrepancy the English version/text shall prevail.

1. सहायक महाप्रबंधक (अभियांत्रिकी-सिविल), भारतीय विमानपत्तन प्राधिकरण, स्वामी विवेकानंद हवाई अड्डा रायपुर, दूरभाष क्रमांक 0771-2277590, एक्सटेंशन-505 (बोली प्रबंधक) द्वारा अध्यक्ष, ए.ए.आई. की ओर से पात्र ठेकेदारों से “स्वामी विवेकानन्द हवाई अड्डा, रायपुर के पुराने टर्मिनल बिल्डिंग में गेस्ट रूम का नवीनीकरण का कार्य।” कार्य के लिए ई-टेंडरिंग सीपीपी पोर्टल के माध्यम से आइटम दर/प्रतिशत दर/ईपीसी ई-निविदाएं आमंत्रित की जाती हैं, जिसकी अनुमानित लागत जीएसटी को छोड़कर रुपये 25.10 लाख है और इसे पूरा करने की अवधि 08 (आठ) महीने है।

Item rate/Percentage rate/EPC e-tenders are invited through the e-tendering CPP portal by Assistant General Manager (Engg-C), Airports Authority of India, Swami Vivekananda Airport Raipur, telephone no. 0771-2277590, Ext-505 (Bid Manager) on behalf of Chairman, A.A.I. from the eligible contractors for the work of “Renovation of Guest room at OTB, S.V. Airport, Raipur.” at an estimated cost of Rs. 25.10 Lakhs excluding GST with completion period of 08 (Eight) Months.

निविदा प्रक्रिया सीपीपी-पोर्टल यूआरएल पता <https://etenders.gov.in/eprocure/app> या www.aai.aero पर ऑनलाइन है। संभावित निविदाकर्ता निविदा दस्तावेज को डाउनलोड कर उसका अवलोकन कर सकते हैं।

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

संभावित निविदाकर्ताओं को सलाह दी जाती है कि वे सीपीपी-पोर्टल पर स्वयं को पंजीकृत करें, 'लॉगिन आईडी' और 'पासवर्ड' प्राप्त करें और सीपीपी-पोर्टल <https://etenders.gov.in/eprocure/app> या www.aai.aero पर लॉगइन करने के बाद होम पेज पर उपलब्ध निर्देशों को पढ़ें। उन्हें समानांतर रूप से डिजिटल हस्ताक्षर प्रमाणपत्र (DSC) भी प्राप्त करने होंगे जो उनके आवेदन को जमा करने के लिए आवश्यक है। प्रक्रिया में आमतौर पर 03 दिन का समय लगता है। निविदाकर्ता aai.aero/tender/e-tender/help desk support पथ के माध्यम से AAI हेल्प डेस्क सपोर्ट से मार्गदर्शन भी ले सकते हैं।

Prospective Tenderers are advised to register themselves at CPP-portal, obtain 'Login ID' & 'Password' and go through the instructions available in the Home Page after login to the CPP-portal <https://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) किसी भी तकनीकी संबंधी प्रश्न के लिए कृपया हेल्प डेस्क पर कॉल करें। 24x7 हेल्प डेस्क का विवरण नीचे दिया गया है:-

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

टेलीफोन: 0120-4001002, 0120-4001005, 0120-6277787

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

ई-मेल: support-eproc@nic.in

E-mail: support-eproc@nic.in

निविदाकर्ताओं से अनुरोध है कि वे किसी भी मुद्दे पर ईमेल करते समय कृपया संपर्क विवरण के साथ-साथ पोर्टल का यूआरएल और निविदा आईडी का भी उल्लेख करें।

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.

प्रश्न प्रस्तुत करने से पहले, बोलीदाताओं से अनुरोध है कि वे “Guidelines to Bidders” में दिए गए निर्देशों का पालन करें और अपने कंप्यूटर सिस्टम को “System Settings for CPPP” पोर्टल में निर्दिष्ट अनुशंसित सेटिंग्स के अनुसार कॉन्फ़िगर करें।

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) सीपीपी पोर्टल के कामकाज के संबंध में किसी भी अन्य तकनीकी सहायता के लिए बोलीदाता सभी कार्य दिवसों में निम्नलिखित एएआई हेल्प डेस्क नंबरों पर संपर्क कर सकते हैं।

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

क्र.सं Sl. No.	सहायक व्यक्ति Support Persons	एस्केलेशन मैट्रिक्स Escalation Matrix	ई-मेल पता E-mail Address	संपर्क संख्या Contract Numbers	समय * Timings*
1.	तकनीकी हेल्प डेस्क टीम Technical Help Desk Team	तुरंत सहायता Instant Support	eprochelp@aai.aero	011- 24632950 Ext. 3512	0800-2000 Hrs. (सोमवार-शनिवार) (MON- SAT)
2.	जेई (आइटी) JE (IT)	4 घंटे के बाद After 4 Hrs. of Issue	etendersupport@aai.aero or vaibhav_g@aai.aero	011- 24632950 Ext. 3523	0930-1800 Hrs. (सोमवार-शुक्रवार) (MON -FRI)
3.	वरि. प्रबंधक (आइटी) Sr. Manager (IT)	12 घंटे के बाद After 12 Hrs.	shripatim@aai.aero	011- 24632950 Ext. 3509	0930-1800 Hrs. (सोमवार-शुक्रवार) (MON -FRI)
4.	सं. महाप्रबंधक (आइटी) Jt. GM (IT)	24 घंटे के बाद After 24 Hrs.	Sunil.km@aai.aero	011- 24632950 Ext. 3506	0930-1800 Hrs. (सोमवार-शुक्रवार) (MON -FRI)
5.	महाप्रबंधक (आइटी) General Manager (IT)	03 दिनों के बाद After 03 Days	gmit@aai.aero	011- 24657900	0930-1800 Hrs. (सोमवार-शुक्रवार) (MON -FRI)

* सभी सरकारी राजपत्रित अवकाशों पर हेल्प डेस्क सेवाएं बंद रहेंगी।

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

निविदा प्रसंस्करण शुल्क (processing fee) रु. 1180/- (जीएसटी सहित), जो वापस नहीं होंगे, जिसका भुगतान केवल सीपीपी पोर्टल पर ऑनलाइन करना होगा।

Tender Processing fee of **Rs. 1180/- (i/c GST) Non refundable** will be required to be paid online on CPP portal only.

रुपये 75,300 का बयाना राशि जमा (EMD) का भुगतान केवल सीपीपी पोर्टल पर ऑनलाइन करना होगा।

Earnest Money Deposit (EMD) of **₹ 75,300.00** will be required to be paid online on CPP portal only.

2. बोलीदाता द्वारा निम्नलिखित अनुसूची के अनुसार सीपीपी-पोर्टल पर ऑनलाइन माध्यम से निम्नलिखित 2 कवर प्रस्तुत किए जाएंगे:-

Following 2 covers shall be submitted through online at CPP-Portal by the bidder as per the following schedule:-

महत्वपूर्ण डेटा शीट/ CRITICAL DATA SHEET

प्रकाशन की तिथि Publishing Date	02-07-2026, 18:00 बजे
बोली दस्तावेज डाउनलोड/बिक्री प्रारंभ तिथि Bid Document Download/Sale start date	02-07-2026, 18:00 बजे से
स्पष्टीकरण प्रारंभ तिथि Clarification start date	02-07-2026, 18:00 बजे से
स्पष्टीकरण की अंतिम तिथि Clarification end date	23-07-2026, 18:00 बजे तक
बोली जमा करने की प्रारंभ तिथि Bid submission start date	02-07-2026, 18:00 बजे से
बोली जमा करने की अंतिम तिथि Bid submission end date	23-07-2026, 18:00 बजे तक
बोली खोलने की तिथि (लिफाफा- I) Bid opening date (Envelope-I)	27-07-2026, 11:00 बजे
बोली खोलने की तिथि (लिफाफा- II) Bid opening date (Envelope-II)	बाद में सूचित किया जाएगा To be notified later

लिफाफा-I (तकनीकी बोली और पूर्व-योग्यता):- बोली में निम्नलिखित शामिल होंगे :

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

तकनीकी बोली में निम्नलिखित शामिल होंगे:-

A. Technical Bid containing the following: -

- बोलीदाता के लेटर हेड पर निविदा स्वीकृति पत्र की स्कैन की गई प्रति।
Scanned copy of Tender Acceptance Letter on Bidder's Letter Head.
- स्थायी खाता संख्या (पैन) और जीएसटी पंजीकरण संख्या की स्कैन की गई प्रति।
Scanned copy of Permanent Account Number (PAN) and GST Registration Number.
- बोलीदाता के लेटर हेड पर ब्लैकलिस्टिंग/डिबारमेंट के संबंध में 'अंडरटेकिंग' की स्कैन की गई प्रति।
Scanned copy of 'Undertaking' regarding Blacklisting / Debarment on Bidder's Letter head.

- iv) फॉर्म-ए की स्कैन की गई प्रति - पिछले सात वर्षों में पूर्ण किए गए समान कार्यों का विवरण, ग्राहक द्वारा जारी किए गए पूर्णता प्रमाण पत्र के साथ।

Scanned copy of Form-A- details of similar works completed during last seven supported with completion certificate issued by client.

- v) फॉर्म-बी-वित्तीय जानकारी की स्कैन की गई प्रति।

Scanned copy of Form-B - Financial Information.

- vi) फॉर्म-सी-नेट वर्थ की स्कैन की गई प्रति।

Scanned copy of Form-C - Net Worth.

- viii) परिशिष्ट-19 की स्कैन की गई प्रति। सामान्य-निर्माण/इंजीनियरिंग-कार्य-का-न्यूनतम-वार्षिक-मूल्य-आवेदक-ने सामान्य-निर्माण/इंजीनियरिंग-कार्य-का-न्यूनतम-वार्षिक-मूल्य-प्राप्त-कर-लिया-हो (चार्टर्ड-एकाउंटेंट-द्वारा-प्रमाणित, और-जिसका-कम-से-कम-50 (पचास)-प्रतिशत-इंजीनियरिंग (सिविल/इलेक्ट्रिकल/मैकेनिकल, जो-खरीदे-जा-रहे-कार्य-के-लिए-प्रासंगिक-हो)-निर्माण-कार्यों-से-हो, जो-पिछले-वर्ष-की-31 मार्च-को-समाप्त-होने-वाले-पिछले-पांच-(05)-वर्षों-के-दौरान-किसी-भी-वर्ष-में-किया-गया-हो, जिसकी-गणना-संबंधित-अनुबंध-पर-अनुमानित-वार्षिक-निर्माण-व्यय-में-1500 करोड़-रुपये-तक-की-लगत-वाली-परियोजनाओं-के-लिए-2 का-गुणक-और-1500 करोड़-रुपये-से-अधिक-की-लगत-वाली-परियोजनाओं-के-लिए-1.5 का-गुणक-लगाकर-की-गई-हो।

सामान्य-निर्माण/इंजीनियरिंग-कार्यों-का-न्यूनतम-वार्षिक-मूल्य-10 करोड़-रुपये-तक-की-लगत-वाले-कार्यों-के-लिए-माफ-किया-जाता-है (जीएसटी-को-छोड़कर)। सामान्य-निर्माण/इंजीनियरिंग-कार्यों-का-न्यूनतम-वार्षिक-मूल्य-एक (01)-वर्ष-से-कम-और-10 लाख-रुपये-से-अधिक-की-लगत-वाले-कार्यों-के-लिए-निविदा-में-रखी-गई-अनुमानित-लगत (जीएसटी-को-छोड़कर)-के-दोगुने-के-रूप-में-गणना-की-जानी-है। 10 करोड़ (जीएसटी-को-छोड़कर)।

Scanned copy of Annexure-19. Minimum Annual Value of General Construction / Engineering Work: The applicant should have achieved minimum annual value of general construction/ engineering work (as certified by Chartered Accountant, and at least 50 (fifty) percent of which is from Engineering (Civil/ Electrical/ Mechanical as relevant to the work being procured) construction works) carried out in any of the year during last five (05) years, ending 31st March of previous year, calculated by applying a multiplier of 2 for the project costing upto Rs. 1500 Crores and 1.5 for the projects costing more than Rs. 1500 Crores to the projected annual construction expenditure on the subject contract.

The Minimum Annual Value of General Construction / Engineering works is dispensed for works costing up to Rs. 10 Crores (excluding GST).

The Minimum Annual Value of General Construction / Engineering works is to be calculated as twice the estimated cost put to tender (excluding GST) for the works having completion time less than one (01) year and costing more than Rs. 10 Crores (excluding GST).

- viii) बोलीदाता को कंपनी के लेटर हेड पर 'वचनपत्र' की स्कैन की हुई प्रति प्रस्तुत करनी होगी कि मैं/हम समयावधि के भीतर लक्ष्य/उपलब्धियां प्राप्त करने और समग्र रूप से कार्य पूरा करने के लिए प्रभारी अभियंता (ई -आई - सी) के परामर्श से कार्य की आवश्यकता के अनुसार पर्याप्त संयंत्र और मशीनरी तैनात करेंगे।

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.

- ix) प्रॉपराइटी फर्म के अलावा अन्य बोलीदाताओं को प्राधिकार पत्र/पावर ऑफ अटॉर्नी की स्कैन की गई प्रति के साथ कंपनी अधिनियम के तहत कंपनी के निगमन के प्रमाण पत्र की प्रति प्रस्तुत करनी होगी जिसमें कंपनी के सीआईएन/एलएलपीआईएन/निदेशकों का नाम और पावर ऑफ अटॉर्नी सौंपने के लिए प्राधिकरण के संबंध में बोर्ड के प्रस्ताव की प्रति दर्शाई गई हो। प्रॉपराइटी फर्म को प्राधिकार पत्र/पावर ऑफ अटॉर्नी की स्कैन की गई प्रति केवल तभी प्रस्तुत करनी होगी जब निविदा को प्रॉपराइटर के अलावा किसी अन्य व्यक्ति द्वारा प्रोसेस किया जाता है।

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.

- x) ~~विधिवत भरा गया पीक्यू परफॉर्म।~~
~~PQ Performa duly filled.~~

बी. ठेकेदारों/निविदाकर्ताओं की योग्यता संबंधी आवश्यकताओं में निम्नलिखित शामिल हैं:

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

1. पिछले 07 (सात) वर्ष, जो कि निविदा आमंत्रित किए जाने वाले महीने से पहले के महीने के अंतिम दिन को समाप्त हो रहा हो, के दौरान एकल अनुबंध में समान प्रकृति के कार्यों अर्थात् “**भवन निर्माण कार्य/ भवन नवीनीकरण कार्य**” के सफलतापूर्वक या पर्याप्त रूप से तीन कार्य, प्रत्येक रुपये 10.04 लाख की अथवा दो कार्य, प्रत्येक रुपये 12.55 लाख अथवा एक कार्य, रुपये 20.08 लाख की लागत से पूरा किया हो। पिछले सात वर्षों के दौरान पूरे किए गए समान कार्यों का विवरण क्लाइंट द्वारा जारी किए गए सहायक दस्तावेजों के साथ फॉर्म-ए में होना चाहिए।

Should have successfully completed or substantially completed three works, each of **Rs. 10.04 Lakhs** or two works, each of **Rs. 12.55 Lakhs** or one work of **Rs. 20.08 Lakhs** in a single contract of similar nature of works i.e. “**Building Construction Works/ Building Renovation Works**” during last 07 (Seven) years ending on last day of month previous to the one in which tenders are invited. The details of similar works completed during last seven years in the format- **Form-A** with supporting documents issued by client.

टिप्पणी/Note:

1. जीएसटी के दौर से पहले पूरे किए गए कार्यों के अनुभव प्रमाण पत्र की पूर्णता राशि को 1.12 से विभाजित किया जाएगा (जीएसटी से पहले के कर को बाहर करने के लिए) ताकि इसे जीएसटी के बाद के दौर के अनुभव प्रमाण पत्रों के बराबर बनाया जा सके परन्तु जीएसटी को छोड़कर।

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.

2. ओ एंड एम/एएमसी/सीएमसी कार्यों के लिए वार्षिक दर अनुबंधों के लिए आमंत्रित निविदाओं में, एक वर्ष से अधिक के एएमसी अनुबंध को पूरा करने का अनुभव रखने वाली एजेंसी को आनुपातिक आधार पर एक वर्ष के लिए पूर्ण किए गए कार्य के मूल्य के लिए गिना जाएगा। हालांकि, जिस एजेंसी ने एक वर्ष से अधिक के एएमसी अनुबंध को चलाने में एक वर्ष का काम पूरा कर लिया है, उसे आनुपातिक आधार पर एक वर्ष के लिए पूर्ण किए गए कार्य के मूल्य के लिए गिना जा सकता है।

The Tenders invited for Annual Rate Contracts for O&M/ AMC/ CMC works; the works experience may be counted for the value of work for a completed one year on pro-rata basis to prequalify agency that has completed one year of AMC but work is still not completed due to longer period of AMC.

3. बैक-टू-बैक संविदा/उप-संविदा के आधार पर कार्य निष्पादित करने से प्राप्त अनुभव निम्नलिखित शर्तों में स्वीकार्य है:

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

- (a) काम वास्तव में दूसरी एजेंसी (उप-ठेकेदार) द्वारा मालिक की त्रिपक्षीय सहमति/लिखित स्वीकृति के साथ निष्पादित किया जाना चाहिए। इसके साथ वैध समझौता और अनुभव प्रमाण पत्र भी होना चाहिए।

Work should be actually executed by the second agency (sub-contractor) with due concurrence of the owner as tripartite agreement/ written approval. It should be backed by valid agreement and experience certificate.

- (b) दूसरी एजेंसी द्वारा प्राप्त भुगतान टीडीएस प्रमाणपत्र में दर्शाया जाना चाहिए।

Payments received by second agency should be reflected in TDS certificates.

4. विशिष्ट प्रकृति के कार्यों (विशिष्ट वस्तुओं/कार्यों/कार्यों की सूची एएआई वर्क्स मैनुअल के पैरा 35.3 में उल्लिखित है) के लिए समग्र कार्यों में प्राप्त अनुभव मुख्य ठेकेदार द्वारा या तो इन-हाउस विशेषज्ञता और अनुभव के द्वारा या संविदा की शर्तों के अनुसार मुख्य ग्राहक के अनुमोदन से विशेष एजेंसियों को शामिल कर निष्पादित किया गया हो। ऐसे मामलों में, मुख्य ठेकेदार और साथ ही विशेष एजेंसी दोनों को अपने संबंधित ग्राहकों से एक ही काम के लिए अनुभव प्रमाण पत्र मिलता है, यानी मालिक से विशेष कार्यों के साथ समग्र काम के लिए मुख्य ठेकेदार को और मुख्य ठेकेदार से विशेष काम के लिए विशेष एजेंसी को। इस स्थिति में, या तो विशेष एजेंसी या मुख्य एजेंसी के अनुभव प्रमाण पत्र, जिसके पास आंतरिक विशेषज्ञता और अनुभव है, जिसने वास्तव में विशेष कार्य निष्पादित किया है, को समान विशेष प्रकृति के कार्य में तकनीकी/पूर्व-योग्यता मानदंडों के लिए विचार किया जाएगा।

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.

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

5. पर्याप्त पूर्णता अनुबंध के तहत पूर्ण किए गए 80 (अस्सी) प्रतिशत (मूल्य के अनुसार) या अधिक कार्यों पर आधारित होगी। पर्याप्त पूर्णता को प्रतिशत पूर्णता के संदर्भ में परिभाषित नहीं किया जाना चाहिए, बल्कि यह कार्यात्मक विचार पर आधारित होना चाहिए। परियोजना/कार्य/परिसंपत्ति के 'पर्याप्त समापन' के प्रमाण पत्र में दो भाग होने चाहिए। भाग-I में 'किए गए कार्य का वित्तीय मूल्य' शामिल होगा और भाग-II में 'परियोजना/कार्य/संपत्ति के कार्यात्मक समापन का प्रमाण पत्र' शामिल होगा।

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'.

"निष्पादित कार्यों का मूल्य, कार्य के वास्तविक मूल्य में 7% प्रति वर्ष की साधारण दर से वृद्धि करके वर्तमान लागत स्तर पर लाया जाएगा, जिसकी गणना पूर्णता की तिथि से बोली खुलने की तिथि (कवर-I/तकनीकी बोली) तक की जाएगी।"

"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)".

अनुभव के लिए क्लाइंट सर्टिफिकेट में किए गए कार्य की प्रकृति, कार्य का मूल्य, काम शुरू होने की तारीख, अनुबंध के अनुसार कार्य पूरा होने की तारीख, कार्य पूरा होने की वास्तविक तारीख और काम का संतोषजनक पूरा होना दर्शाया जाना चाहिए। गैर-सरकारी/गैर-पीएसयू संगठनों से कार्य अनुभव प्रमाण पत्र दिखाने वाले निविदाकर्ताओं को स्रोतों पर कर कटौती (टीडीएस) प्रमाण पत्र की प्रति, पंजीकृत चार्टर्ड

अकाउंटेंट द्वारा जारी प्रमाण पत्र और यूडीआईएन प्रस्तुत करना चाहिए, जिसमें कार्य का नाम, कार्य के लिए प्राप्त कुल भुगतान और कार्य के लिए टीडीएस राशि का स्पष्ट उल्लेख हो।

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 and having UDIN, clearly specifying the name of work, total payment received against the work and TDS amount for the work.**

- ii. पिछले वित्तीय वर्ष से एक वर्ष पहले, 31 मार्च को समाप्त होने वाले पिछले तीन वर्षों के दौरान निर्माण कार्यों पर यूडीआईएन द्वारा उत्पन्न वार्षिक औसत वित्तीय कारोबार रुपये 7.53 लाख होना चाहिए। वित्तीय जानकारी दिए गए प्रारूप - फॉर्म-बी में प्रस्तुत की जाएगी। बैलेंस शीट में पिछले तीन वर्षों के दौरान लगातार घाटा दिखाने वाले निविदाकारों को सरसरी तौर पर खारिज कर दिया जाएगा।

Should have UDIN generated annualized average **financial turnover of Rs. 7.53 Lakhs on construction works** during last three years ending 31st March of one year prior to the previous financial year. 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.

- iii. निविदाकर्ता के पास प्रमाणित चार्टर्ड अकाउंटेंट द्वारा जारी न्यूनतम रुपये 3.77 लाख की शुद्ध संपत्ति होनी चाहिए। प्रमाण पत्र दिए गए प्रारूप- फॉर्म-सी में प्रस्तुत किया जाना चाहिए।

The tenderer should have a minimum net worth of **Rs. 3.77 Lakhs** issued by certified Chartered Accountants. The Certificate should be submitted in the given format- **Form-C**.

* स्टार्ट-अप बोलीदाताओं और उप-ठेकेदारों के लिए, रुपये 30 लाख तक की अनुमानित लागत वाले मरम्मत कार्यों के लिए, सामान्य निर्माण अनुभव, विशेष निर्माण अनुभव और उपलब्ध बोली क्षमता से संबंधित आवश्यकताओं पर जोर नहीं दिया जा सकता है, बशर्ते बोलीदाता वित्तीय/कार्मिक/उपकरण क्षमताओं से संबंधित अन्य मानदंडों को पूरा करते हों। हालाँकि, अपने संसाधनों पर अत्यधिक दबाव से बचने के लिए, ऐसे किसी भी ठेकेदार को किसी भी समय, शिथिल क्रेडेंशियल के तहत 2 (दो) से अधिक अनुबंध रखने की अनुमति नहीं दी जा सकती है।

*For Start-ups bidders and Sub-contractors, for repair works estimated cost of upto 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.

- iv. प्रति सामान्य निर्माण/इंजीनियरिंग कार्य का न्यूनतम वार्षिक मूल्य आबेदक ने सामान्य निर्माण/इंजीनियरिंग कार्य का न्यूनतम वार्षिक मूल्य प्राप्त कर लिया हो (चार्टर्ड एकाउंटेंट द्वारा प्रमाणित, और जिसका कम से कम 50 (पचास) प्रतिशत इंजीनियरिंग (सिविल/इलेक्ट्रिकल/मैकेनिकल, जो खरीदे जा रहे कार्य के लिए प्रासंगिक हो) निर्माण कार्यों से हो, जो पिछले वर्ष की 31 मार्च को समाप्त होने वाले पिछले पांच (05) वर्षों के दौरान किसी भी वर्ष में किया गया हो, जिसकी गणना संबंधित अनुबंध पर अनुमानित वार्षिक निर्माण व्यय में 1500 करोड़ रुपये तक की लागत वाली परियोजनाओं के लिए 2 का गुणक और 1500 करोड़ रुपये से अधिक की लागत वाली परियोजनाओं के लिए 1.5 का गुणक लगाकर की गई हो।

सामान्य निर्माण/इंजीनियरिंग कार्यों का न्यूनतम वार्षिक मूल्य 10 करोड़ रुपये तक की लागत वाले कार्यों के लिए माफ किया जाता है (जीएसटी को छोड़कर)। सामान्य निर्माण/इंजीनियरिंग कार्यों का न्यूनतम वार्षिक मूल्य एक (01) वर्ष से कम और 10 लाख रुपये से अधिक की लागत वाले कार्यों के लिए निविदा में रखी गई अनुमानित लागत (जीएसटी को छोड़कर) के दो गुने के रूप में गणना की जानी है। 10 करोड़ (जीएसटी को छोड़कर)।

~~Minimum Annual Value of General Construction / Engineering Work: The applicant should have achieved minimum annual value of general construction/ engineering work (as certified by Chartered Accountant, and at least 50 (fifty) percent of which is from Engineering (Civil/ Electrical/ Mechanical as relevant to the work being procured) construction works) carried out in any of the year during last five (05) years, ending 31st March of previous year, calculated by applying a multiplier of 2 for the project costing upto Rs. 1500 Crores and 1.5 for the projects costing more than Rs. 1500 Crores to the projected annual construction expenditure on the subject contract.~~

~~The Minimum Annual Value of General Construction / Engineering works is dispensed for works costing up to Rs. 10 Crores (excluding GST).~~

~~The Minimum Annual Value of General Construction / Engineering works is to be calculated as twice the estimated cost put to tender (excluding GST) for the works having completion time less than one (01) year and costing more than Rs. 10 Crores (excluding GST).~~

लिफाफा-II: - सीपीपी पोर्टल के माध्यम से वित्तीय ई-बोली।

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

सभी दरें दिए गए प्रारूप में उद्धृत की जानी चाहिए तथा कोई अन्य प्रारूप स्वीकार्य नहीं है। यदि निविदा दस्तावेज के साथ मूल्य बोली मानक BOQ प्रारूप के रूप में दी गई है, तो उसे डाउनलोड किया जाना चाहिए तथा सभी निविदाकर्ताओं द्वारा भरा जाना चाहिए। निविदाकर्ताओं को BOQ फ़ाइल डाउनलोड करनी होगी, उसे खोलना होगा तथा नीले रंग के (असुरक्षित) सेल को अपने संबंधित वित्तीय उद्धरणों तथा अन्य विवरणों (जैसे निविदाकर्ता का नाम) के साथ भरना होगा। अन्य सेल में कोई परिवर्तन नहीं किया जाना चाहिए। विवरण पूर्ण हो जाने के पश्चात, निविदाकर्ता को इसे सहेजना चाहिए तथा फ़ाइल का नाम बदले बिना इसे ऑनलाइन सबमिट करना चाहिए। यदि निविदाकर्ता द्वारा BOQ फ़ाइल में कोई संशोधन किया गया पाया जाता है, तो बोली अस्वीकृत कर दी जाएगी।

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 coloured (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 file name. If the BOQ file is found to be modified by the tenderer, the bid will be rejected.

3. ईएमडी की वापसी /Refund of EMD

सबसे कम बोली लगाने वाले को छोड़कर सभी बोलीदाताओं द्वारा जमा की गई ईएमडी वित्तीय बोली खुलने की तिथि से एक सप्ताह के भीतर वापस कर दी जाएगी। सफल बोलीदाता की ईएमडी ईएमडी राशि/प्रदर्शन बैंक गारंटी के बराबर सुरक्षा जमा प्राप्त होने पर वापस कर दी जाएगी।

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. बोली जमा करना/Bid Submission: -

निविदाकर्ता को अपना आवेदन केवल CPP पोर्टल: <https://etenders.gov.in/eprocure/app> पर ही जमा करना होगा।

निविदाकर्ता/ठेकेदार को बोलियों को ऑनलाइन जमा करने के लिए निविदा दस्तावेज में दिए गए निर्देशों का पालन करने की सलाह दी जाती है। निविदाकर्ताओं को पैरा 2 के अनुसार स्कैन किए गए दस्तावेज की डिजिटल रूप से हस्ताक्षरित फ़ाइल अपलोड करनी होगी। बोली दस्तावेज को 100 डीपीआई के साथ ब्लैक एंड

व्हाइट विकल्प के साथ स्कैन किया जा सकता है, जो स्कैन किए गए दस्तावेज़ के आकार को कम करने में मदद करता है।

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

ऊपर निर्दिष्ट स्थान के अलावा अन्य स्थान पर आवेदन अपलोड करने पर इस पर विचार नहीं किया जाएगा। आवेदन की हार्ड कॉपी स्वीकार नहीं की जाएगी।

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

5. व्यावसायिक संबंध रखने वाले एक निविदाकर्ता या निविदाकर्ताओं द्वारा एक से अधिक निविदा प्रस्तुत नहीं की जाएगी। किसी भी परिस्थिति में पिता और उसके बेटे या अन्य करीबी रिश्तेदार जिनका एक दूसरे के साथ व्यावसायिक संबंध है (यानी जब एक या अधिक भागीदार/निदेशक समान हों) को अलग-अलग प्रतिस्पर्धियों के रूप में एक ही अनुबंध के लिए निविदा देने की अनुमति नहीं दी जाएगी। इस शर्त का उल्लंघन करने पर दोनों पक्षों की निविदाएं अस्वीकार कर दी जाएंगी।

Not more than one tender shall be submitted by one tenderer or tenderers having business relationship. Under no circumstances 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. जिस निविदाकर्ता ने सेंट्रल पब्लिक प्रोक्योरमेंट पोर्टल (CPPP) की वेबसाइट <http://etenders.gov.in/eprocure/app> से निविदा डाउनलोड की है, वह डाउनलोड किए गए मूल्य बोली टेम्पलेट सहित निविदा फॉर्म में किसी भी तरह से छेड़छाड़/संशोधन नहीं करेगा। यदि किसी भी तरह से छेड़छाड़/संशोधन पाया जाता है, तो निविदा पूरी तरह से खारिज कर दी जाएगी और ईएमडी जब्त कर ली जाएगी तथा निविदाकर्ता को एएआई के साथ व्यापार करने से प्रतिबंधित किया जा सकता है।

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. बोली खोलने की प्रक्रिया निम्नानुसार है: -

Bids Opening Process is as below: -

लिफाफा-I (तकनीकी बोली एवं पूर्व-योग्यता):

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

पैरा 2 (ए) और (बी) (निविदाकर्ताओं द्वारा अपलोड) के अनुसार दस्तावेजों वाले लिफाफा-I को क्रिटिकल डेटा शीट में उल्लिखित तारीख और समय पर खोला जाएगा।

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.

यदि बोलीदाता को कार्य के बोली दस्तावेज से संबंधित कोई प्रश्न है, तो उन्हें स्पष्टीकरण प्राप्त करने के लिए सीपीपी पोर्टल पर 'seek clarification' का उपयोग करना चाहिए। इस संबंध में संचार के किसी अन्य माध्यम पर विचार नहीं किया जाएगा।

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.

यदि निविदाकर्ता से लिफाफे-I में अपलोड किए गए दस्तावेजों में किसी कमी के बारे में कोई स्पष्टीकरण चाहिए, तो उसे सीपीपी पोर्टल के माध्यम से इसे उपलब्ध कराने के लिए कहा जाएगा। निविदाकर्ता को एएआई द्वारा निर्दिष्ट समय के भीतर अपेक्षित स्पष्टीकरण/दस्तावेज अपलोड करने होंगे, ऐसा न करने पर यह माना जाएगा कि बोलीकर्ता के पास प्रस्तुत करने के लिए कुछ नहीं है और बोली का मूल्यांकन तदनुसार किया जाएगा।

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.

उनकी बोलियों की स्वीकृति/अस्वीकृति की सूचना निविदाकर्ताओं को सीपीपी पोर्टल के माध्यम से दी जाएगी।
The intimation regarding acceptance /rejection of their bids will be intimated to the tenderers through CPP portal.

लिफाफा-II (वित्तीय बोली) :

Envelope – II (Financial Bid) :

तकनीकी मानदंडों और अर्हता आवश्यकताओं को पूरा करने वाले निविदाकर्ताओं की वित्तीय बोली वाला लिफाफा-II क्रिटिकल डेटा शीट में उल्लिखित दिनांक और समय पर खोला जाएगा। (यदि लिफाफा-II (वित्तीय बोली) खोलने की तिथि और समय में परिवर्तन करना आवश्यक हो, तो इसकी सूचना सीपीपी पोर्टल के माध्यम से दी जाएगी)।

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. एएआई बिना कोई कारण बताए किसी भी या सभी आवेदनों को स्वीकार या अस्वीकार करने का अधिकार सुरक्षित रखता है। एएआई बिना कोई कारण बताए किसी भी स्तर पर निविदा प्रक्रिया को रद्द करने का अधिकार भी सुरक्षित रखता है।

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. एएआई उन कार्य एजेंसियों को अस्वीकृत करने का अधिकार सुरक्षित रखता है, जिनका चालू परियोजनाओं में प्रदर्शन औसत से कम और आमतौर पर खराब है और जिन्हें एएआई या केंद्र/राज्य सरकार के किसी भी विभाग/सार्वजनिक क्षेत्र के उपक्रमों/विश्व बैंक/एडीबी आदि द्वारा निषेधाज्ञा/अस्थायी/स्थायी निषेध/ब्लैक लिस्ट करने का पत्र जारी किया गया है। एएआई किसी भी स्तर पर (कार्य दिए जाने से पहले या बाद में) निविदाकर्ता द्वारा प्रस्तुत किए गए क्रेडेंशियल को सत्यापित करने का अधिकार सुरक्षित रखता है। यदि किसी भी स्तर पर, आवेदक द्वारा प्रस्तुत कोई भी जानकारी/दस्तावेज गलत/झूठे पाए जाते हैं या उनमें कुछ विसंगति है जो फर्म को अयोग्य ठहराती है, तो एएआई निम्नलिखित कार्रवाई करेगा।

AAI reserves the right to disallow the working agencies whose performances at ongoing project(s) is below par and usually poor and has been issued letter of restrain / Temporary / Permanent debarment /black listing by any department of AAI or Central / State Govt. Depts./

PSUs/World Bank/ ADB etc. 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 are found to be incorrect / false or have some discrepancy which disqualifies the firm then AAI shall take the following action.

- a) निविदाकर्ता द्वारा जमा की गई ईएमडी की पूरी राशि जब्त कर ली जाएगी।
Forfeit the entire amount of EMD submitted by the tenderer.
 - b) निविदाकर्ता को एएआई में निविदा देने से दो वर्ष तक के लिए प्रतिबंधित किया जा सकता है, जिसमें किसी अन्य उचित संविदात्मक/कानूनी कार्रवाई के अलावा अनुबंध की समाप्ति भी शामिल है।
The tenderer shall be liable for debarment for a period upto two years from tendering in AAI, including termination of the contract apart from any other appropriate contractual/legal action.
10. कंसोर्टियम/संयुक्त उद्यम कंपनियों को अनुमति नहीं दी जाएगी।
Consortium/Joint Ventures companies shall not be permitted.
 11. केन्द्रीय सार्वजनिक क्षेत्र उपक्रम को क्रय वरीयता स्वीकृति की तिथि को लागू भारत सरकार के निर्देशानुसार लागू होगी।
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. ~~डीआईसी/एनएसआईसी/केबीआईसी/हस्तशिल्प एवं हथकरघा निदेशालय आदि के साथ पंजीकृत भारतीय सूक्ष्म एवं लघु उद्यम (एमएसई) इकाइयों को एमएसई आदेश 2012 के लिए सार्वजनिक खरीद नीति के प्रावधानों के अनुसार दी जाने वाली रियायत, अद्यतन संशोधनों के साथ, आपूर्ति/सेवाओं की निविदाओं के लिए लागू होगी और निर्माण कार्य तक विस्तारित नहीं की जाएगी।~~
~~Concession to Indian, Micro & Small Enterprises (MSEs) units registered with DIC/NSIC/KVIC/Directorate of Handicraft and Handloom etc., to be given as per the provision 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.~~
 13. निविदाकर्ताओं को एनआईटी शर्तों के अनुसार विशिष्ट दस्तावेज पहचान संख्या (यूडीआईएन) से उत्पन्न दस्तावेज जैसे वित्तीय जानकारी (हानि/लाभ के साथ कारोबार), नेट वर्थ सर्टिफिकेट आदि प्रस्तुत करने होंगे, जो सीए द्वारा विधिवत प्रमाणित हों और यूडीआईएन युक्त हों। बोलीदाताओं द्वारा यूडीआईएन के बिना प्रस्तुत किए गए दस्तावेजों पर विचार नहीं किया जाएगा।
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. उद्योग संवर्धन और आंतरिक व्यापार विभाग (डीपीआईआईटी), वाणिज्य और उद्योग मंत्रालय, भारत सरकार, द्वारा जारी सार्वजनिक खरीद (मेक इन इंडिया को वरीयता), आदेश 2017, कार्यालय ज्ञापन संख्या पी-45021/2/2017-पीपी(बीई-II) दिनांक 16.09.2020 लागू है।
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.
 15. भारत सरकार, वित्त मंत्रालय, व्यय विभाग (सार्वजनिक खरीद प्रभाग) के दिनांक 23/07/2020 के आदेश संख्या फा. संख्या 6/18/2019-पीपीडी के आधार पर भारत के साथ भूमि सीमा साझा करने वाले देश से बोलीदाता द्वारा पंजीकरण की आवश्यकता, सामान्य वित्तीय नियम (जीएफआर) 2017 के नियम 144 (xi) के तहत प्रतिबंध

के संबंध में नवीनतम संशोधनों के साथ लागू होगी। बोलीदाता को इस संबंध में कंपनी के लेटर हेड पर 'अंडरटेकिंग' की स्कैन की गई प्रति प्रस्तुत करनी होगी। (अनुलग्नक - एलबीएस).

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- LBS)

सहा- महाप्रबंधक (अभि-सि)
भारतीय विमानपत्तन प्राधिकरण,
स्वामी विवेकानन्द हवाई अड्डा, रायपुर
(कृते भा.वि.प्रा. अध्यक्ष एवं उनकी ओर से)

Instructions for Online Bid Submission

Annexure-AA

The bidders are required to submit soft copies of their bids electronically on the CPP Portal, using valid Digital Signature Certificates. The instructions 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: <http://etenders.gov.in/eprocure/app>.

REGISTRATION

- 1) Bidders are required to enroll on the e-Procurement module of the Central Public Procurement Portal (URL: <http://etenders.gov.in/eprocure/app>) by clicking on the link “**Online bidder Enrollment**” on the CPP Portal which is free of charge.
- 2) As part of the enrolment process, the bidders will be required to choose a unique username and assign a password for their accounts.
- 3) 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.
- 4) Upon enrolment, the bidders will be required to register their valid Digital Signature Certificate (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.
- 5) 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.
- 6) 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 DOCUMENTS

- 1) 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.



- 2) Once the bidders have selected the tenders they are interested in, they may download the required documents / tender schedules. 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.
- 3) 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

- 1) Bidder should take into account any corrigendum published on the tender document before submitting their bids.
- 2) Please go through the tender advertisement and the tender document carefully to understand the documents required to be submitted as part of the bid. Please note the number of Envelopes 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.
- 3) 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 helps in reducing size of the scanned document.
- 4) To avoid the time and effort required in uploading the same set of standard documents which are required to be submitted as a 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 documents. These documents may be directly submitted from the "My Space" area while submitting a bid, and need not be uploaded again and again. This will lead to a reduction in the time required for bid submission process.

SUBMISSION OF BIDS

- 1) 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.
- 2) The bidder has to digitally sign and upload the required bid documents one by one as indicated in the tender document.
- 3) Bidder has to select the payment option as "online" to pay the tender fee / EMD as applicable and enter details of the instrument.
- 4) Bidder should prepare the EMD as per the instructions specified in the tender document. The original should be posted/couriered/given in person to the concerned official, latest by the last date of bid submission or as specified in the tender documents, the details of BG/any other accepted instrument physically sent should tally with the details available in the scanned copy and the data entered during bid submission time, otherwise the uploaded bid will be rejected.



- 5) 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 a standard BOQ format with the tender document, then the same is to be downloaded and to be filled by all the bidders. Bidders are required to download the BOQ file, open it and complete the white coloured (unprotected) cells with their respective financial quotes and other details (such as name of the bidder). No other cells should be changed. Once the details have been completed, the bidder should save it and submit it online, without changing the filename. If the BOQ file is found to be modified by the bidder, the bid will be rejected.
- 6) The server time (which is displayed on the bidders' 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 bidders should follow this time during bid submission.
- 7) 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 128 bit encryption technology. Data storage encryption of sensitive fields is done. Any bid document that is uploaded to the server is subjected to symmetric encryption using a system generated symmetric key. Further this key is subjected to asymmetric encryption using buyers/bid opener's public keys. Overall, the uploaded tender documents become readable only after the tender opening by the authorized bid openers.
- 8) The uploaded tender documents become readable only after the tender opening by the authorized bid openers.
- 9) Upon the successful and timely submission of bids (ie after Clicking "Freeze Bid Submission" in the portal), the portal will give 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.
- 10) The bid summary has to be printed and kept as an acknowledgement of the submission of the bid. This acknowledgement may be used as an entry pass for any bid opening meetings.

ASSISTANCE TO BIDDERS

- 1) 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 the relevant contact person indicated in the tender.
- 2) 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.

Standard Operating Procedure
for
Online payment, refund and settlement of EMD and Tender Fee through CPP Portal

e-Tendering brings in economy, efficiency and transparency in the procurement of goods, works and services. CVC are inclined to force implementation of e-Tendering in all Govt. departments & PSUs. Online payment gateway for payment, refund and settlement of EMD and Tender Fee is part of the implementation of e-Tendering system i.e. CPPP <https://etenders.gov.in> .

Stakeholders:

1. **Tender Floating Department:** Airports Authority of India (AAI)
2. **The Technical Service Providers (TSP)** - NIC to facilitate CPP Portal with entire back end process and providing technical support to the Government Dept.
3. **Bank** - AAI has authorized State Bank of India as nodal bank provides payment gateway services and receives Tender fees and Earnest Money Deposits (EMDs) from various bidders participating in e-Tendering/ e-procurement process, holds the amount in Current/Savings Bank account till the time of finalization of tendering process. Bank will settle the Tender Fee of all bidders, Bank will refund EMD to unsuccessful bidders and the EMD of L 1 bidder will remain in the pooling account and after AOC completion on the portal, the L 1 bidders EMD amount will be refunded to their source account. This will be happened as per instruction received from TIA through online portal. Customized MIS will be provided to the Tender Floating Department i.e. AAI.
4. **The Bidders** - The bidders are organizations/corporate/individuals who apply for the tender floated by the tender floating department and participate in the tendering process. Bidders are directly involved in making the use of this e-System for making payments and getting refunds into their accounts.

Eligibility (Prerequisite for e-Tendering)

1. Tender Inviting Authorities (TIA) & the bidders should enroll on CPP Portal <https://etenders.gov.in> to carry out the procurement activities.
2. Portal login will be through two factor authentication i.e. User id & password followed by the login through DSC.
 - TIA must have Digital Signature Certificate (DSC) with Signing and Encipherment feature
 - Bidders must have DSC with Signing feature

Bank Account Details

- a. Common Pooling A/C for EMD and Tender Fee Collection
- b. Tender Fee Settlement A/c for Settlement of Non-refundable Tender Fee amounts
- c. Forfeited EMD Settlement A/c for Settlement of forfeited EMD amounts

Payment gateway for End to End Procedures:

1. **Collection Process:**
 - a. **Online collection of EMD and Tender Fee:** As per current provision in the portal, TIA will allow the option of **Online Mode** for collection of EMD and Tender Fee while publishing tender, so that the bidders can deposit these fees through **Net Banking** (SBI and Other Banks) and **NEFT/RTGS**.

- b. **Collection of EMD through Bank Guarantee(BG):** During the tender creation TIA will allow the option of “**EMD through BG or EMD Exemption**” so that bidders will be able to upload the copy of BG or Exemption certificate as per tender terms and condition.

***Note:** Keeping in the view of running tender status, the portal currently has both online and offline payment options for next few days, after which the offline mode will be disabled.*

2. During the collection process the amount will be debited from the bidder account and credited to the collection pooling account of the AAI.
3. Till the tender opening all the collected amount will be residing in the collection pooling account of AAI.

4. Refund and Settlement process:

- a. **Step-I:** After opening the tender, bid submitted successfully along with the online payment, the tender fee settled to 'Tender Fee Settlement Account' and EMD amount will remain in 'Pooling Account'.
- b. **Step-II: On Technical Evaluation:** After submission of technical evaluation report on the CPP portal, the 'EMD of Technically Qualified bidders will remain in the pooling account' and EMD amount of rejected bidders will be refunded to their source account.
- c. **Step-III: On Financial Evaluation:** After submission of financial evaluation report on the CPP portal, the 'EMD of L1 bidder will remain in the pooling account' and EMD amount of rejected bidders will be refunded to their source account.
- d. **Step-IV: EMD Refund of L1:** After AOC completion on the portal, the L1 bidders EMD amount will be refunded to their source account and for this Bid managers are advised to complete the AOC process:
- Only after receiving the PBG and its confirmation from the bank.
- or**
- Adjustment of Security Deposit (SD) as per NIT Condition.

5. In the case of "Cancellation of tender" before opening and "Re-Tender":

- All the submitted amount will be refunded to the bidders.

6. In the case of "Cancellation of tender" after opening and "Re-Tender":

- The tender fee has already settled to the AAI's tender fee settlement account at the EoD of tender opening.
- Now only EMD residing in the collection pooling account, the EMD will be refunded to the bidders.

7. In case of 'Withdraw of bid' by the vendor:

- Procurement system allows the bidder to withdraw till the bid submission closing date, assume that the bidder has paid the amount and withdrawn the bid, eProcurement system will initiate the refund of EMD on the day of tender opening.

8. In case of Revocation Corrigendum:

- If TIA publishes revocation corrigendum to accept the rejected bidder than TIA must ask EMD again via offline mode before publishing the revocation corrigendum because EMD amount has already been refunded or refund initiated to the rejected bidders A/c.

9. Procedure for Forfeiture of EMD through CPP Portal:

Forfeiture activity can be performed at the time of rejection of the bidder.

Step I: Rejected the bidder during the Technical or Financial Evaluation process.

Step II: On the same day, use the menu “Forfeiture Menu” to forfeit the EMD.

Step III: Select the tender and then the bidder to forfeit the EMD

Step IV: At the end of the day System will settle the Forfeited EMD to “Forfeited EMD Settlement A/c”

Note: *Forfeiture of EMD will have to be claimed on same day of rejection otherwise it will not be available in the system because at the end of the day CPPP will initiate refund to the rejected bidders.*

10. Following procedures are attached on subsequent pages:

- a. Procedure to allow the online **Payment Option** in CPP Portal by TIA
- b. Procedure for checking the **Payment Status** by TIA
- c. Procedure for **Online Collection** of EMD and Tender Fee from Bidders



CPP under GePNIC, Help Desk Services

- 1) For any technical related queries please call the Helpdesk. The 24 x 7 Help Desk Number 0120-4711508, 0120-4001002, 0120-4001005 and 0120-6277787.

E-Mail: support-eproc@nic.in

International bidders are requested to prefix 91 as country code.

Note- Bidders 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. For any issues/ clarifications relating to the tender(s) published kindly contact the respective Tender Inviting Authority.

- 2) For any Policy related matter / Clarifications Please contact Dept of Expenditure, Ministry of Finance.

E-Mail: cpp-doe@nic.in

- 3) For any technical Issues / Clarifications 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 CPP under GePNIC <https://eprocure.gov.in>. The help desk services 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 (CPP).
- 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 CPP”.

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

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 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 issues on e-procurement portal and help needed on the operation of the portal. For queries related to the tenders published on the portal, bidders are advised to contact concerned Bid Manager of AAI

NOTICE INVITING TENDER

GENERAL GUIDELINES FOR THE BIDDERS

1. Item rate e-tenders are invited on behalf of the Airports Authority of India for the work as mentioned at **Page No.139** of **GCC**. The estimated cost of the work is mentioned at **Page No. 139** of **GCC**. This estimate, however, is given merely as rough guide.
2. The Tenders shall be in the prescribed Form.
3. The works are required to be completed within the period as mentioned at **Page No. 141** of **GCC**.
4. Not more than one Tender shall be submitted by a contractor or by a firm of contractors.
No two or more concerns in which an individual is interested, as Proprietor and/or partner shall tender for the execution of the same works. If they do so, all such Tenders shall be liable to be rejected.
5. The Accepting Authority as mentioned at **Page No.140** of **GCC** shall be the Accepting Officer hereinafter, referred to as such for the purpose of this contract.
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 open for inspection in the office of the **Assistant General Manager (Engg—Civil), O/o Airport Director, S.V. Airport, Raipur-492015**, between hours of 11.00 am & 4.00 pm every day except Saturday, Sunday and public holidays. **Tender document can be downloaded from the NIC CPP e-procurement portal** without paying any tender fees. However, to participate in the tender, the Bidders must pay tender fee through Online as mentioned in ENIT.
7. Bidders are advised to inspect and examine the site and its surroundings and satisfy themselves before submitting their Tenders as to the nature of the ground and sub soil (so far as is practicable), the form and nature of the site, the means of access to the site, the accommodation they may require, working conditions including space for stacking of materials, installation of T&P, rates of various materials to be incorporated in works, conditions affecting accommodation and movement of labours etc. and in general shall themselves obtain all necessary information as to risks, contingencies and other circumstances which may influence or affect their Tender. A bidder shall be deemed to have full knowledge of the site whether he inspects it or not and no extra charges consequent on any misunderstanding or otherwise shall be allowed.
8. Submission of a Tender by a 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.
9. All rates shall be quoted in the format provided and no other format is acceptable. If the price bid has been given as a standard BOQ format with the tender document, then the same is to be downloaded and to be filled by all the bidders. Bidders are required to download the BOQ file, open it and complete the blue coloured (Unprotected) cells with their respective financial quotes and other details (Such as name of the bidder). No other cells should be changed. Once the details have been completed, the bidder should save it and submit it online, without changing the filename. If the BOQ file is found to be modified by the bidder, the bid will be rejected.

10. In the case of item rate Tenders only rates quoted shall be considered. Any Tender containing percentage below/above the rates quoted is liable to be rejected.
11. Tenders shall be received through NIC CPP e-tender portal upto the date and time as mentioned at **Page no 3 of ENIT** and shall be opened on the date and time as mentioned mentioned therein.
12. Earnest Money of stipulated amount as mentioned at Page No. 137 of GCC in the form of BG from any Schedule bank of India preferably from nationalized bank but not from cooperative/Gramin bank in favour of Airports Authority of India payable at Raipur.
13. 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.
- 13.1A **responsive bidder** is one who submits priced Tender and accepts all terms and conditions of the specifications and contract documents.
- 13.2A **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.
- 13.3A Tenderer shall submit a responsive bid, failing which his Tender will be liable to be rejected.
- 13.4The 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.
14. On acceptance of Tender earnest money will be treated as part of the security deposit.
15. Airports Authority of India will return the earnest money where applicable to every unsuccessful bidder except as provided in the Tender documents.
16. Canvassing in connection with Tenders is strictly prohibited and the Tenders submitted by the Tenderers who resort to canvassing will be liable to rejection.
17. The Tender for works shall remain open for acceptance for a period of **ninety days** from the date of opening of financial bid of tenders. If any Tenderer withdraw his Tender before the said period or makes any modifications in the terms and conditions of the Tender which are not acceptable to the AAI, then Airports Authority of India shall without prejudice to any other right or remedy, be at liberty to take action against tenderer.
18. 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.
19. 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 in any name / style, apart from any other appropriate contractual / legal action.
20. a) All tendered rates shall be inclusive of all taxes and levies payable under respective statutes (Excluding **GST**). However, pursuant to the Constitution (46th Amendment Act. 1982, if any further tax or levy is imposed by Statute, after the last stipulated date for the receipt of tender including extensions if any and the contractor thereupon necessarily and properly pays such taxes / levies, the contractor shall be reimbursed the amount so paid, provided such payments, if any, is not, in the opinion of the Engineer-In-Charge (whose decision shall be final and binding on the contractor) attributable to delay in execution of work within the control of the contractor.
- b) In case of change in rate of Tax or any provision relating to levy of Tax after the last stipulated date for the receipt of tender including extensions if any resulting in increase in burden of Tax on the contractor, the contractor shall be entitled to receive any compensation for such increase in quantum of Tax payable by the contractor. Similarly, recovery shall be made from the contractor on account of decrease of rate of Tax or any provision relating to levy of Tax.
- c) 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 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.
- d) 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.
21. The Tender for composite works includes in addition to building work all other works such as sanitary and water supply installations, electrical work, horticulture work, roads and paths etc. The Tenderer apart from being a registered contractor of appropriate class, must associates himself with agencies of appropriate class which are eligible to tender for sanitary and water supply installations, electrical work, horticulture work, roads and paths etc in a composite Tender.
22. The site for the work may be made available in parts as decided by Engineer- in-charge. Agencies are advised to visit site in detail before submission of the bid.

23. **MODE OF SUBMISSION OF TENDERS:**

23.1 **Following 2 Envelopes shall be submitted through online at e-portal by the bidder.**

Last date and time of submission of bids (Envelope I & II) is date & time mentioned in CRITICAL DATA SHEET at page ENIT-2.

Envelope-I Containing scanned copies of EMD and Unconditional Acceptance of AAI's Tender Conditions and Qualifying requirements of Contractors/ firms:-

Date of opening of Envelope-I shall be opened on date & time mentioned in CRITICAL DATA SHEET at page ENIT-2.

If any clarification is needed from the bidder about the deficiency in his uploaded documents in Envelope-I, he will be asked to provide it through “Shortfall of Documents” option in NIC CPP e-tendering portal. The bidder shall upload the requisite clarification/documents within time specified by AAI, failing which tender will be liable for rejection.

Envelope-II Financial e- Bid through e-portal.

The financial bids of the contractors / firms found to be meeting the qualifying requirements, fulfilling criteria of technical bid shall only be opened and date of opening of Envelope-II shall be opened on date & time mentioned in CRITICAL DATA SHEET at page ENIT-2. (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).

23.2 Rates to be quoted in the “**Item**” Section only.

23.3 Once the contractor has uploaded the digitally signed file of tender document along with unconditional acceptance as an attachment, he is not permitted to upload any additional file or put any remark(s)/ conditions(s) in / along with the Tender Document (Except unconditional rebate on quoted rates. **Unconditional rebate** i.e. header discount (%) **if any is to be put in “Bid Invitation Information Price component” Section only.**

23.4 In case, the condition 23.1 to 23.3 above is found violated, the tender shall be rejected.

24. Queries, Replies and Clarifications:

If the bidder has any query related to the Tender Document of the work they should use ‘Query/ Reply’ tab in e-tendering portal to seek clarifications. No other means of communication in this regards shall be entertained.

25. 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 15-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 particular specifications, Tender conditions as issued at the time of invitation of Tender and acceptance thereof with any correspondence leading thereto.

26. PURCHASE PREFERENCE TO PUBLIC ENTERPRISES

The Accepting Authority reserves to him the right to allow to the public enterprises purchase preference facilities as admissible under the existing policy on the date of acceptance of tender.

27. Implementation of Integrity Pact

~~27.1 Signing of Integrity Pact is mandatory for every bidder participating in this tender and the contract who is awarded the work. The Pact signed on each page by the person authorized by the bidder / sub — contractor / associate to sign the bid for submission or the person authorized to sign the contract on behalf of successful bidder. The scanned copy of the same shall be uploaded by the bidder (along with unconditional acceptance as per Annexure 1 of tender document in “Technical Bid /Attachments section of e- tendering portal) in Envelope — I shall be enclosed with the agreement by the contractor.~~

~~27.2 All sub — contractors / associates whose contribution in the project is Rs. 0.50 Crores (Rupees Fifty Laes) or above shall sign Integrity Pact with the Authority after the work is awarded to the successful bidder. All bidders shall inform their sub — Contractors / associates accordingly.~~

~~27.3 The External Independent Monitor (EIM) for this work shall be Shri M.P. Juneja & Dr. Anup K. Pujari. All correspondences to them regarding implementation of Integrity Pact Shall be addressed to:-~~

~~Sh.M.P.Juneja, _____ Dr. Anup K.Pujari,~~

GUIDELINES ON DEBARMENT OF FIRMS FROM BIDDING IN AAI

1. Definitions

- 1.1 **Firm:** The term 'firm' or 'bidder' has the same meaning for the purpose of these Guidelines, which includes an individual or person, a company, a cooperative society, a Hindu undivided family and an association or body of persons, whether incorporated or not, engaged in trade or business.
- 1.2 **Allied firm:** All concerns which come within the sphere of effective influence of the debarred firms shall be treated as allied firms. In determining this, the following factors may be taken into consideration:
- a. Whether the management is common;
 - b. Majority interest in the management is held by the partners or directors of banned/ suspended firm;
 - c. Substantial or majority shares are owned by the banned/ suspended firm and by virtue of this it has a controlling voice.
 - d. Directly or indirectly controls, or is controlled by or is under common control with another bidder.
 - e. All successor firms will also be considered as allied firms.
- 1.3 The terms "banning of firm", 'suspension', 'Black-Listing' etc. convey the same meaning as of "Debarment".

2. Debarment by AAI

- 2.1 A bidder or any of its successors may be debarred from participating in any procurement process for a period not exceeding two years.
- 2.2 Firms will be debarred if it is determined that the bidder has breached the code of integrity as per Rule 175 of GFRs 2017.
- 2.3 A bidder can also be debarred for any actions or omissions by the bidder other than violation of Code of Integrity/ Integrity Pact, for the reasons like supply of sub-standard material, non-supply of material, abandonment of works, substandard quality of Works, poor/ unsatisfactory performance etc.
- 2.4 Before issuing the debarment order against a firm it must be ensured that reasonable opportunity has been given to the concerned firm to represent against such debarment (including personal hearing, if requested by firm).
- 2.5 Chairman, AAI with recommendation of WAB for CHQ schemes and concerned Regional Executive Director/ APD Gr.-I with recommendation of RAC for other schemes shall be the competent authority to debar the firms.
- 2.6 Revocation of debarment order before the period of debarment is over, can also be issued by AAI, if there is adequate justification for the same. Ordinarily, the revocation of the order

before expiry of the debarred period should be done with the approval of competent authority as mentioned in para-2.5 above.

2.7 Concerned Dte(s) shall ensure that the names/ list of debarred firms shall be published/ displayed on AAI website immediately whenever the firm is debarred. Similarly, whenever the period of debarment is over or the debarment is revoked, the names of such firms shall be removed/ dispublished from AAI website.

2.8 Debarment is an executive function and should not be allocated to Vigilance Department.

3. Debarment across All Ministries/ Departments

3.1 Where a AAI is of the view that business dealings with a particular firm should be banned across all the Ministries/ Departments by debarring the firm from taking part in any bidding procedure floated by the Central Government Ministries/Departments, AAI should after obtaining the approval of the Secretary MoCA, forward to DoE a self-contained note setting out all the facts of the case and the justification for the proposed debarment, along with all the relevant papers and documents. DoE will issue the necessary orders after satisfying itself that proposed debarment across all the Ministries/ Departments is in accordance with Rule 151 of GFRs, 2017. This scrutiny is intended to ensure uniformity of treatment in all cases.

3.2 The firm will remain in suspension mode (i.e. debarred) during the interim period till the final decision taken by DoE, only in the AAI.

3.3 AAI, before forwarding the proposal to DoE it must be ensure that reasonable opportunity has been given to the concerned firm to represent against such debarment (including personal hearing, if requested by firm).

3.4 No contract of any kind whatsoever shall be placed on the debarred firm, including its allied firms by AAI and any of its attached/ subordinate offices, after the issue of a debarment Order.

3.5 List of such debarred firms by DoE can be referred on Central Public Procurement Portal.

4. Revocation of Orders

4.1 An Order for debarment passed shall be deemed to have been automatically revoked on the expiry of that specified period and it will not be necessary to issue a specific formal order of revocation.

4.2 A debarment Order may be revoked before the expiry of the order, by the competent authority, if it is of the opinion that the disability already suffered is adequate in the circumstances of the case or for any other reason.

5. Other Provisions

5.1 No contract of any kind whatsoever shall be placed to debarred firm including its allied firms after the issue of a debarment Order by the AAI/ MoCA/ DoE. Bids from only such firms shall be considered for placement of contract, which are neither debarred on the date of opening of tender (first bid, normally called as technical bid, in case of two packet/ two stage bidding) nor

debarred on the date of contract. Even in the cases of risk purchase, no contract should be placed on such debarred firms.

5.2 If case, any debar firms has submitted the bid, the same will be ignored. In case such firm is lowest (L-1), next lowest firm shall be considered as L-1. Bid security submitted by such debarred firms shall be returned to them.

5.3 Contracts concluded before the issue of the debarment Order shall, not be affected by the debarment Orders.

5.4 The Debarment shall be automatically extended to all its allied firms. In case of joint venture/ consortium is debarred all partners will also stand debarred for the period specified in Debarment Order. The names of partners should be clearly specified in the "Debarment Order".

5.5 Debarment in any manner does not impact any other contractual or other legal rights of the procuring entities.

5.6 The period of debarment shall start from the date of issue of debarment order.

5.7 The Order of debarment will indicate the reason(s) in brief that lead to debarment of the firm.

5.8 Ordinarily, the period of debarment should not be less than six months.

In case of shortage of suppliers in a particular group, such debarments may also hurt the interest of procuring entities. In such cases, endeavor should be to pragmatically analyze the circumstances, try to reform the supplier and may get a written commitment from the supplier that its performance will improve.



GENERAL CONDITIONS OF CONTRACT

AIRPORTS AUTHORITY OF INDIA



AIRPORTS AUTHORITY OF INDIA

INDEX

Sl. No.	Details of Pages	Page No.
1.	General Guidelines	2
2.	Tender forms	3
i)	General Rules and Directions.	5
ii)	Conditions of contract	12
iii)	Clauses of contract	15
iv)	A A I Safety code	78
v)	Model Rules	83
vi)	A A I contractor's labour Regulations	88
vii)	Various Formats to be maintained (Appendix I to XX)	93
viii)	Sketch of Cement Go down	129
3.	Proforma of Schedules A to F	130
4.	Errata on AAI GCC 2017	140



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 : Raipur

Branch: Engineering

Office of: AGM (Engg. (Civil), S.V. Airport

(A) Tender for the work of:- Renovation of Guest room at OTB, S.V. Airport, Raipur. (Civil & Electrical Works)

(i) To be submitted/uploaded up to (As per ENIT – 3) hours on in NIC CPP Portal.

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

Issued to _____ *

Signature of officer issuing documents _____ *

Designation _____ *

Date of issue _____ *

*(ii) Not applicable for e-tendering

TENDER

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

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

We agree to keep the tender open for Ninety (90) days from the date of opening of financial bid in 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 1,00,500/- (Rupees One Lakh Five Hundred only)** is here by submitted as online through generated receipt against EMD/ ~~BG against EMD~~ (Refer ENIT- page no. 2). 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, action taken 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 /NIC CPP Portal and signed by the officer inviting tender or by publication in Newspapers and posted on AAI web-site and NIC CPP Portal http://etenders.gov.in and www.aai.aero_(for reference only). This form will state the work to be carried out, as well as the date for submitting and opening tenders and the time allowed for carrying out the work, also the amount of earnest money to be deposited with the tender, and the amount of the security deposit and Performance guarantee to be deposited by the successful tenderer and the percentage, if any, to be deducted from bills. Copies of the specifications, designs and drawings and any other documents required in connection with the work signed for the purpose of identification by the officer inviting tender shall also be open for inspection by the contractor at the office of officer inviting tender during office hours.
2.		In the event of the e-tender being submitted by a firm, it must be digitally signed. Such tender will be treated as signed tender. For physical tender it must be signed separately by each partner thereof or in the event of the absence of any partner, it must be signed on his behalf by a person holding a power-of-attorney authorizing him to do so, such power of attorney to be produced with the tender, and it must disclose that the firm is duly registered under the Indian Partnership Act, 1952.
2. (A)		In case of the tender submitted by a Joint Venture / Consortium, a copy of joint venture / consortium agreement in the specified proforma defining the lead partner should be submitted. The lead partner shall sign all the documents in respect of the works. The documents signed by any other person or firm other than the lead partner shall not be entertained.
3.		Receipts for payment made on account of work, when executed by a firm, must also be signed by all the partners, except where contractors are described in their tender as a firm, in which case the receipts must be signed in the name of the firm by one of the partners, or by some other person having due authority to give effectual receipts for the firm. Bank details shall be furnished by the firm through an application duly signed by all partners for payment to the firm through bank transfer.
4.	Applicable for item Rate Tender only.	Any person who submits a tender shall fill up the usual printed form, stating at what rate he is willing to undertake each item of the work. Tenderers, which propose any alteration in the work specified in the said form of invitation to tender, or in the time allowed for carrying out the work, or which contain any other conditions of any sort, including conditional rebates, will be summarily rejected. No single tender shall include more than one work, but contractors who wish to tender for two or more works shall submit separate tender for each. Tender shall have the name and number of the works to which they refer, written on the envelopes. The rate(s) must be quoted in decimal coinage. Amount must be quoted in full Rupees by ignoring 50 paise and considering more than 50 paise as Rupee one. In case the lowest tendered amount (worked out on the basis of quoted rate of Individual items) of two or more contractors is same, then such lowest contractors will be asked to submit revised offer quoting rate of each item of the schedule of quantity for all sub sections/sub heads as the case may be, but the revised quoted rate of each item of schedule of quantity for all subsections / subheads 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, who refused to submit revised offer, or quoting higher revised rate(s) of any item(s) than their respective original rate quoted already at the time of submission of his bid shall not be allowed to participate in the retendering process of the work. Note: Till the time software supports the above provisions, revised offers from tenderers forming the tie shall be obtained and procedure prescribed for “Restricted call of tenders” shall be adopted (for e-tenders).
4. (A)	Applicable for Percentage Rate Tender only.	In case of Percentage Rate Tenders, tenderer shall fill up the usual printed form, stating at what percentage below/above (in figures as well as in words) the total estimated cost given in Schedule of Quantities at Schedule-A, he will be willing to execute the work. The tender submitted shall be treated as invalid if; 1. The contractor does not quote percentage above/below on the total amount of tender or any section/sub-head of the tender. 2. The percentage above / below is not quoted in figures & words both on the total amount of tender or any section / sub-head of the tender. 3. The percentage quoted above/below is different in figures and words on the total amount of tender or any section / sub-head of the tender. Tenders, which propose any variation in the work specified in the printed form of invitation to tender, or the time allowed for carrying out the work, or which contain any other conditions of any sort including conditions of 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 specify the name and number of the works to which they refer, written on the envelopes. In case the lowest tendered amount (estimated cost + amount worked on the basis of percentage above/below) of two or more bidders is same, such lowest bidders will be asked to submit revised offer in the form of letter mentioning percentage above/ below estimated cost of tender including all sub sections/sub heads as the case may be, with the revised percentage quoted above / below on tendered cost or 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 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 offer, 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 of work supports the above provisions, revised offers from tenderers for the same 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 or more contractors received in revised offers is again found to be equal, the lowest tender, among such contractor, shall be decided by draw of lots in the presence of Jt.GM (Engg)/DGM (Engg), AGM (Engg)/Sr. Manager (Engg) in-Charge of major & minor component(s) of work & the lowest bidders those who have quoted same tendered amount of their tenders. In case all the lowest contractors those have quoted same tendered amount, refuse to submit revised offers, then tenders are to be recalled after forfeiting 50% of EMD of each bidder. Bidders whose earnest money is forfeited because of non submission of revised offer, shall not be allowed to participate in the re-tendering process of the work.
5.		The officer inviting tender or his duly authorized representative, will open tenders in the presence of any intending bidders who may be present at the time, and will enter the amounts of the several tenders in a comparative statement in a suitable form. In the event of a tender being accepted, a receipt for the earnest money shall there upon be given to the contractor who shall 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 initialled and call to be provided on all the rates quoted in case of physical tenders.
10.	Applicable for Item Rate Tender Only.	In the case of Item Rate Tenders, only rates quoted shall be considered. Any tender containing percentage below / above the rates quoted is liable to be rejected. Rates quoted by the bidder in item rate tender in figures and words shall be accurately filled in so that there is no discrepancy in the rates written in figures and words. However, - If a discrepancy is found between rates in figures and in words, then the rates which correspond with the amount worked out by the bidder shall unless otherwise proved be taken as correct. - If the amount of an item is not worked out by the bidder or it does not correspond with the rates written either in figures or in words, then the rates quoted by the contractor in words shall be taken as correct. - Where the rates quoted by the bidder in figures and in words tally, but the amount is not worked out correctly, the rates quoted by the contractor will unless otherwise proved be taken as correct and not the amount. - In event no rate has been quoted for any item(s) leaving space blank both in figure(s) and word(s) or cancelled the quoted rate in figure(s), and word(s) but the amount corresponding to the item(s) is worked out by the bidder and added to the grand total, then rate(s) of the item(s) shall be derived from the amount(s) quoted by the contractor against such item(s). - In event no rate has been quoted for any item(s), leaving space both in figure(s), word(s), and amount blank, it will be presumed that the bidder has included the cost of this/these item(s) in other items and rate for such item(s) will be considered as zero and work will be required to be executed accordingly. - Sub Para i to iv above shall not be applicable in case of e-tendering.
	Applicable for percentage rate tender only.	In case of percentage Rate Tenders only percentage quoted shall be considered. Any tender containing item rates is liable to be rejected. Percentage quoted by 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 in the tender and if any discrepancy is found in the percentage quoted in words and figures, - The percentage which corresponds with the amount worked out by the bidder shall, unless otherwise proved, be taken as correct. - If the amount in the tender is not worked out by the bidder or it does not correspond with the percentage written either in figures or in words, then the percentage quoted by the bidder in words shall be taken as correct. - Where the percentage quoted by the bidder in figures and in words tally but the amount is not worked out correctly, the percentage quoted by the bidder will, unless otherwise proved, be taken as correct and not the amount.
11.		In the case of any tender where unit rate of any item / items appear unrealistic, such tender will be considered as unbalanced and in case the tenderer is unable to provide satisfactory explanation, such a tender is liable to be disqualified and rejected.
12.	Applicable for Item Rate Tender only.	All rates shall be quoted on the tender form. The amount for each item should be worked out and requisite totals given. Special care should be taken to write the rates in figures as well as in word sand the amount in figures only, in such away 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 in variably be up to 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) at which he will be willing to execute the work. He shall also work out the total amount of his offer and the same should be written in figures as well as in words in such a way that no interpolation is possible. In case of figures, the word 'Rs' should be written before the figure of rupees and work 'P' after the decimal figures, e.g. 'Rs. 2.15 P' and in case of words, the word 'Rupees' should precede and the word 'Paise' should be written at the end. (quoting of rates in Paise is not applicable in e-tenders)
13	Acceptance of abnormally low quoted bid (Capital & Revenue Expenditure Contract)	An Abnormally Low Bid is one in which the Bid price, in combination with other elements of the Bid, appears so low that it raises material concerns as to the capability of the Bidder to perform the contract at the offered price. Processing of such bid shall be as follows: i) The Bid Manager shall seek written clarifications from the lowest Bidder with approval of 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 bid document. ii) If, after evaluating the price analyses, the Tender Accepting Authority determines that the Bidder has substantially failed to demonstrate its capability to deliver the contract at the offered price, then the bid/ proposal shall be rejected. iii) Such contracts should be closely monitored that final payments in such cases do not abnormally increase due to extra items. Further, there is no abnormal increase in quantities of the item for which contractors have initially quoted very high rates.
13A		In case the contractor does not carry out the work on ALQ items as per schedule or as per NIT specifications, the Engineer-in-charge shall issue a letter to the contractor to comply its obligations as per NIT, for ALQ items. Engineer-in-charge shall also give one reminder over 10 days 1 st letter and if contractor still do not start the work on ALQ items, the bank guarantee i.e. QPBG should be cancelled 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 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. Additional Performance Security: The contractor shall submit an irrevocable additional performance security in the form of an irrevocable Insurance Surety bond, demand draft, bank guarantee issued from Scheduled Commercial Bank (i.e. Indian or Foreign Banks included in the Second Schedule of Reserve Bank of India Act, 1934 excluding Co-Operative /Regional Rural Banks, if the Bid price offered by the selected bidder is lower than 10% of the estimated cost put to tender. This clause shall be binding and enforceable in relation to all works, irrespective of their nature, scope, or value. Additional performance security Amount and Treatment- The additional performance security shall be calculated as below- (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
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		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 but exclusive of GST for all the items. 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/ bidder shall submit list of works completed in last 5 years*as well as which are in hand (in progress) in the following format for assessing bidding capacity of the bidders:-

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

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

CONDITIONS OF CONTRACT

Definitions:

1.		The contract means the documents forming the tender and acceptance thereof and the formal agreement / 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 in charge of the work and who shall sign the contract on behalf of the Chairman, Airports Authority of India as mentioned in Schedule 'F' here under. 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 there from 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.2 Cr.
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 upto 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, (notwithstanding and/or without prejudice to any other provisions in the contract) within period specified in Schedule 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 submit performance guarantee within the stipulated period, no payment will be released to the contractor for the work done in respect of 1st running account bill. Moreover, interest @10% per annum on performance guarantee amount would be levied (non-refundable) for delayed period of submission.
		iii. The Performance Guarantee shall be initially valid upto the stipulated date of completion plus 30 days beyond that. In case the time for completion of work gets enlarged, contractor shall get the validity of Performance Guarantee extended for such enlarged time for completion of work. After recording of the completion certificate for the work by the competent authority, the performance guarantee shall be returned to the contractor, without any interest. However, in case of contracts involving maintenance of buildings and services / any other work thereafter, 50% of Performance Guarantee shall be retained as Security Deposit as per contract conditions. The same shall be returned on successful completion of commitment year wise proportionately.
		iv. The Engineer-in-Charge shall not make a claim under the performance guarantee except for amounts to which the AAI is entitled under the contract (notwithstanding and/or without prejudice to any other provisions in the contract agreement) in the event of: 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 person/persons whose tender(s) may be accepted (hereinafter called the contractor) shall permit AAI at the time of making any payment to him for work done under the contract to deduct a sum at the rate of 5% of the gross amount of each running and final bill till the sum deducted will amount to security deposit of 5% of the tendered value of the work. Such deductions will be made and held by AAI by way of Security Deposit unless he/they has/have deposited the amount of Security at the rate mentioned above in the form of Bank Guarantee (including e-Bank Guarantee) from any of the Commercial Bank (i.e. Indian or Foreign Banks included in the Second Schedule of Reserve Bank of India Act,1934 excluding Co-Operative/Regional Rural Banks). In case a Guarantee Bonds of any Bank is furnished by the contractor to the AAI as part of the security deposit and the Bank is unable to make payment against the said Guarantee Bond, the loss caused thereby shall fall on the contractor and the contractor shall forthwith on demand furnish additional security to the AAI to make good the deficit. In works where condition of submission of performance guarantee is not applicable, the security deposit at the rate of 10% (Ten Percent) of gross amount of each running bill shall be deducted instead of 5%, till the sum will amount to security deposit of 10% of the contract value of work. Other conditions shall remain same as stated above. All compensations or the other sums of money payable by the contractor under the terms of this contract may be deducted from, or paid by the sale of a sufficient part of his security deposit or from the interest arising therefrom, or from any sums which may be due to or may become due to the contractor by AAI on any account whatsoever and in the event of his Security Deposit being reduced by reason of any such deductions or sale as aforesaid, the contractor shall within 10 days make good in Fixed Deposit Receipt, Insurance Surety Bonds, Account Payee Demand Draft or Bank Guarantee from any of the Commercial Bank (if deposited for more than 12 months) endorsed in favour of the Airports Authority of India, any sum or sums which may have been deducted from, or raised by sale of his security deposit or any part thereof. The security deposit shall be collected from the running bills and the final bill of the contractor at the rates mentioned above. The security deposit as deducted above can be released against Bank Guarantee issued by any Commercial Bank (i.e. Indian or Foreign Banks included in the Second Schedule of Reserve Bank of India Act,1934 excluding Co-Operative /Regional Rural Banks), on its accumulations to a minimum of Rs. 5 lakh to the condition amount of such bank guarantee, except last one, shall not be less than Rs. 5 lakh. Note 1: Provided further that the validity of Bank Guarantee shall be in conformity with provisions contained in the clause 17 which shall be extended from time to time depending upon extension of contract under provision of Clause 2 & Clause 5. Note 2: Note 1 above shall be applicable for both clause 1 and 1A.
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CLAUSE 1 B

	Additional Performance Security	The contractor shall submit an irrevocable additional performance security in the form of an irrevocable Insurance Surety bond, demand draft, bank guarantee issued from Scheduled Commercial Bank (i.e. Indian or Foreign Banks included in the Second Schedule of Reserve Bank of India Act, 1934 excluding Co-Operative /Regional Rural Banks, if the Bid price offered by the selected bidder is lower than 10% of the estimated cost put to tender. This clause shall be binding and enforceable in relation to all works, irrespective of their nature, scope, or value. Additional performance security Amount and Treatment- The additional performance security shall be calculated as below- (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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Clause2A

	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 payable 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 along with final bill after completion of work. Bonus/ Incentive shall be applicable for the contract completed before stipulated dated of completion and shall not be applicable for the contract extended beyond the stipulated period even with justified hindrance and without any action of compensation for delay. This clause shall not be applicable for the works which estimated cost put to tender is less than Rs. 50.00 Cr.
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Clause2B

	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 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 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 there after. 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.
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		ix. If the contractor being a company shall pass a resolution or the court shall make an order that the company shall be wound up or if a receiver or a manager on behalf of a creditor shall be appointed or if circumstances shall arise which entitle the court or the creditor to appoint a receiver or a manager or which entitle the court to make a winding up order. x. If the contractor shall suffer an execution being levied on his goods and allow it to be continued for a period of 21 days. xi. If the contractor assigns (excluding part(s) of work assigned to other 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 authorized 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.
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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. - For works costing upto Rs. 5.00 Cr. -- CPM/ PERT Chart - 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. - Contractor shall submit monthly progress reports (2 copies) highlighting status of various activities and physical completion of work. PROGRAMME CHART 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. - The programme chart should include the following: - Descriptive note explaining sequence of the various activities. - Network (PERT / CPM / BARCHART). - 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. - 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.
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		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 up to Rs.5.00 Crores) / Rs. 5000/- (for works costing more than Rs.5.00 Crores) shall be made on per day basis in case of delay in submission of the monthly progress report.
5.2		If the work(s) be delayed by:- - Force majeure, or an act of terrorism - 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 never the less 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 so that a complete record is obtained of all works performed under the contract. All measurements and levels shall be taken jointly by the Engineer-in-Charge or his authorized representative and by the contractor or his authorized representative from time to time during the progress of the work and such measurements shall be signed and dated by the Engineer-in-Charge and the contractor or their representatives in token of their acceptance. If the contractor objects to any of the measurements recorded, a note shall be made to that effect with reason and signed by both the parties. If for any reason the contractor or his authorized representative is unavailable and the work of recording measurements is suspended by the Engineer-in-Charge or his representative, the Engineer-in-Charge and the Department shall not entertain any claim from contractor for any loss or damages on this account. If the contractor or his authorized representative does not remain present at the time of such measurements after the contractor or his authorized representative has been given a notice in writing three (3) days in advance or fails to countersign or to record objection within a week from the date of the measurement, then such measurements recorded in his absence by the Engineer-in-Charge or his representative shall be deemed to be accepted by the Contractor. The contractor shall, without extra charge, provide all assistance with every appliance, labour and other things necessary for measurements and recording levels. Except where any general or detailed description of the work expressly shows to the contrary, measurements shall be taken in accordance with the procedure set forth in the specifications notwithstanding any provision in the relevant Standard Method of measurement or any general or local custom. In the case of items which are not covered by specifications, measurements shall be taken in accordance with the relevant standard method of measurement issued by the Bureau of Indian Standards and if for any item no such standard is available, the 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 measurement any work in order that the same may be measured and correct dimensions thereof be taken before the same is covered up or placed beyond the reach of measurement and shall not cover up and place beyond reach of measurement any work without consent in writing of the Engineer-in-Charge or his 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 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.
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		Engineer-in-Charge or his authorized representative may cause either themselves or through another officer of the department to check the measurements recorded jointly or otherwise as aforesaid and all provisions stipulated herein above shall be applicable to such check of measurements or levels. It is also a term of this contract that recording of measurements of any item of work in the measurement book and/or its payment in the interim, on account or final bill shall not be considered as conclusive evidence as to the sufficiency of any work or material to which it relates nor shall it relieve the contractor from liabilities from any over measurement or defects noticed till completion of the defect 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 authorized representative from time to time, during the progress of the work, shall be got checked by the contractor from the Engineer-in-Charge or his authorized representative as per interval or program fixed in consultation with Engineer-in-Charge or his authorized representative. After the necessary corrections made by the Engineer-in-Charge, the measurement sheets shall be returned to the contractor for incorporating the corrections and for resubmission to the Engineer-in-Charge for the dated signatures by the Engineer-in-Charge and the contractor or their representatives in token of their acceptance. Whenever bill is due for payment, the contractor would initially submit draft computerized measurement sheets and these measurements would be got checked/test checked from 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 authorized 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,
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		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 there ach of checking and/or test checking measurement and shall not cover up and place beyond reach of measurement any work without consent in writing of the Engineer-in-charge or his authorized representative of the work who shall within the aforesaid period of seven days inspect the work, and if any work shall be covered up or placed beyond the reach of checking and / or test checking measurements without such notice having been given or the 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 authorized 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. Fifteen 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. Ten lac, the interim or running account bills shall be submitted by the contractor for the work executed on the basis of such recorded measurements on 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 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 7 A

	New clause	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
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CLAUSE 8A

	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 8B

	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 work, 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 5% 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.
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CLAUSE 9 A

	Payment of contractor's bills to Banks	Payments due to the contractor and refund of various nature may, if so desired by him and wherever possible in banks be made through electronic payment mechanism instead of direct to him, provided that the contractor furnishes to the Engineer-in-Charge. - Informations as per preforma 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 finalize the programme for the completion of work as per clause 5 of this contract and shall give his estimates of materials required on the basis of drawings/ or schedule of quantities of the work. The contractor shall give in writing his requirement to the Engineer-in-charge, which shall be issued to him keeping in view the progress of work as assessed by the Engineer-in-charge in accordance with the agreed phased programme of work indicating monthly requirements of various materials. The contractor shall place his indent in writing for issue of such materials at least 7 days in advance of his requirement. Such materials shall be supplied for the purpose of the contract only and the value of the materials so supplied at the rates specified in the aforesaid schedule shall be set off or deducted, as and when materials are consumed in items of work (including normal wastage) for which payment is being made to the contractor, for any sum then due or which may therefore become due to the contractor under the contract or otherwise or from the security deposit. At the time of submission of bills, the contractor shall certify that balance of materials supplied is available at site in original good condition. The contractor shall submit 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 claims thereof. Engineer-in-charge shall (whose decision shall be final and binding on the contractor) be within his rights to follow the procedure of recovery in clause 42 at any stage of the work if reconciliation is not found to be satisfactory. The contractor shall bear the cost of getting the materials issued, loaded, transporting to site, unloading, storing under cover as required, cutting, assembling and joining the several parts together as necessary. Notwithstanding anything to the contrary contained in any other clause of the contract and all stores / materials so supplied to the contractor or procured with the assistance of the AAI shall remain the absolute property of the Authority and the contractor shall be the trustee of the stores/ materials, and the same 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 authorized 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 not to take back the stores/ materials the contractor shall have no claim for compensation on any account of such stores/ materials so supplied to him as aforesaid and caused by him or for any wastage in or damage to in such stores/materials. On being required to return the stores/ materials, the contractor shall hand over the stores/ materials on being paid or credited such price as the Engineer-in-charge shall determine, having regard to the condition of the stores/ materials. The price allowed for return to the contractor, however, shall be at the prevailing market rate not exceeding the amount charged to him, excluding the storage charge, if any. The decision of the Engineer-in-charge shall be final and conclusive. In the event of breach of the aforesaid condition, the contractor shall in addition to the contract be himself open to action for contravention of the terms of the licenses or permit issued/ or for criminal breach of trust, be liable to Authority for all advantages or profits resulting or which in the usual course would have resulted to him by reason of such breach. Provided that the contractor shall in no case be entitled to any compensation or damages on account of any delay in supply or non-supply thereof for any such materials and stores provided further that the contractor shall be bound to execute the entire work if the materials so supplied by the Authority within the original scheduled time for completion of the work plus 50% thereof or schedule time plus 6 months whichever is less of the time of completion of work exceeds 12 months, but if a material has been supplied within the aforesaid period, then the contractor shall be bound to do so much of the work as may be possible with the materials and stores supplied in the 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 (30) 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 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 including testing charges. The Engineer-in-charge or his authorized representative shall always have access to the works and to all workshops and places where work component 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 attend such removal and substitution shall be borne by the Contractor. 8. The contractor shall at his own expense, provide a material testing lab at the site for conducting routine field tests. The lab shall be equipped atleast with the testing equipment as specified in Schedule F. 9. Details in respect of all mandatory tests shall be maintained in the desired format and attached with each Running Account Bill.
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CLAUSE 10 B

(1)	Secured Advance on Nonperishable materials	1. The Contractor, on signing an indenture form specified in Appendix-XX, shall be entitled to be paid during the progress of the execution of the work upto 75% of the assessed value of any materials which are in the opinion of the Engineer-in-charge nonperishable, non- fragile and non-combustible 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. 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	2. Mobilization advance not exceeding 10% of the contract amount 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. The amount of any installments shall not exceed by 5% of the contract amount of the work. The first installment 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 installment(s) to the satisfaction of the Engineer-in-Charge. Before any installment 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	3. 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	4. 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, if the price of any material incorporated in the work 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 material(s) 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 (but not due to any variation of rates in GST applicable on such material(s) being considered under this clause), Authority shall in respect of materials incorporated in the works and/ or labour engaged on the execution of the work after the date of coming into force of such law, statutory rule or order be entitled to deduct from the dues of the contractor, such amount as shall be equivalent to the difference between the prices of the materials and/or wages as prevailed at the time of the last stipulated date for receipt of tenders including extensions if any, for the work and the prices of materials and/ or wages of labour on the coming into force of such law, statutory rule or order. This will be applicable for the contract period including the justified period extended under the provisions of clause 5 of the contract without any action under clause 2. Engineer-in-charge shall call books of account and other relevant documents from the contractor to satisfy himself about reasonability of increase in prices of materials and wages. The contractor shall, within a reasonable time of his becoming aware of any alteration in the price of any such materials and/ or wages of labour, give notice thereof to the Engineer-in-charge stating that the same is given pursuant to this condition together with all information relating thereto which he may be in position to supply. For this purpose, the labour component of 85% of the value of the work executed during period under consideration shall not exceed the percentage as specified in Schedule F, and the increase / decrease in labour shall be Considered on the minimum daily wages in rupees of any unskilled mazdoor, fixed under any law, statutory rule or order. The cost of work for which escalation applicable is same as cost of work done shall be worked out as below: - Gross value of work done up to this quarter: (A) - Gross value of work done up to the last quarter : (B) - Gross value of work done since previous quarter (C) = (A-B) - Full assessed value of Secured Advance fresh paid in this quarter: (D) - Full assessed value of Secured Advance recovered in this quarter: (E) - Full assessed value of Secured Advance for which escalation payable in this quarter, (F) = (D-E) - Advance payment made during this quarer: (G)
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		h) Advance payment recovered during this quarter: (H) i) Advance payment for which escalation 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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	Payment due to variation in prices of materials after receipt of tender	If after submission of the tender, the price of materials specified in Schedule-F increases/ decreases beyond the base price(s) as indicated in schedule 'F' for the work, then the amount of the contract shall accordingly be varied and provided further that any such variations shall be effected for stipulated period of contract including the justified period extended under the provision of clause 5 of the contract without any action under Clause 2. However for work done/ during the justified period extended as above, it will be limited to indices prevailing at the time of updated stipulated date of completion considering the effect of extra work (Extra time to be calculated on pro-rata basis only as cost of extra work X stipulated period/ tendered cost). The increase/ decrease in prices of cement, steel reinforcement, structural steel, Bitumen and POL shall be determined by the indices issued by the Director General, CPWD. For other items provided in the Schedule 'F', this shall be determined by the All India Wholesale Price Indices of materials as published by Economic Advisor to Government of India, Ministry of Commerce and Industry. Base price for cement, steel reinforcement, structural steel and POL shall be as issued under authority of Director General, CPWD applicable for Delhi including Noida, Gurgaon, Faridabad and Ghaziabad and for other places as issued under the authority of Zonal Chief Engineer, CPWD and base price of other materials issued by concerned Zonal Chief Engineer and as indicated in Schedule 'F'. In case, price index of a particular material is not issued by Ministry of Commerce and Industry then the price index of nearest similar material as indicated in Schedule F shall be followed. The amount of the contract shall accordingly be varied for all such materials worked out as per the formula given below for individual material: Adjustment for component of individual material. $V = P \times Q \times \frac{CI - CI_0}{CI_0}$ where, V = Variation in material cost i.e. increase or decrease in the amount in rupees to be paid or recovered P = Base price of material as issued under authority of DG, CPWD or concerned Zonal Chief Engineer CPWD and as indicated in Schedule 'F'. For Projects and original works Q = Quantity of material brought at site for bonafide use in the works since previous bill excluding any such quantity consumed in the deviated quantity of items beyond deviation limit and extra/substituted item, paid/to be paid at rates derived on the basis of market rates under clause 12.2 For maintenance works Q = Quantity of material brought at site for bonafide use in the works since previous bill including any such quantity consumed in the deviated quantity of items beyond deviation limit paid at agreement rates and extra/substituted item being scheduled items, but excluding non scheduled extra/substituted item paid/to be paid at market rates under clause 12.2
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		CI0=Price index for cement, steel reinforcement bars, structural steel and POL as issued by the DG, CPWD and corresponding to the time of base price of respective material indicated in schedule 'F'. For other items, if any provided in Schedule 'F', All India Wholesale Price Index for the material as published by the Economic Advisor to Government of India, Ministry of Industry and Commerce and corresponding to the time of base price of respective material indicated in Schedule 'F'. CI = Price index for cement, steel reinforcement bars, structural steel and POL as issued under the authority of DG, CPWD for period under consideration. For other items, if any, provided in Schedule 'F' All India Wholesale Price Index for the material for the period under consideration as published by Economic Advisor to Government of India, Ministry of Industry and Commerce. If actual purchase price of material is less than base price P and $CI \geq CI0$ then, this clause shall not be applicable. Note: i. In respect of justified period extended under the provisions of Clause 5 of the contract without any action under clause 2, the index prevailing at the time of updated stipulated date of completion considering the effect of extra work (extra time to be calculated on prorata basis only as cost of extra work X stipulated period/ tendered cost) shall be considered. Provided always that provisions of the preceding Clause 10 C shall not be applicable in respect of materials covered in this Clause. ii. If during progress of work or at the time of completion of work, it is noticed that any material brought at site is in excess of requirement, then amount of escalation if paid earlier on such excess quantity of material shall be recovered on the basis of cost indices as applied at time of payment of escalation or as prevailing at the time of effecting recovery, whichever is higher. iii. Cement mentioned wherever in this clause includes cement component used in BMC brought at site from outside approved RMC plants, if any. iv. The consumption record of ready mix concrete shall be kept in a register and cement consumption for the same shall be calculated accordingly. If built-up steel items are brought at site from workshop, then the variation shall be paid for structural steel up-to the period when the built-up item/ finished product is brought at site.
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Clause 10CC

	Price adjustment for works.	If the prices of materials and/or wages of labour required for execution of work increase, the contractor shall be compensated for such increase as per provisions detailed below and the amount of the contract shall accordingly be varied, subject to the condition that such compensation for escalation in prices and wages shall be available only for the work done during the stipulated period of the contract including the justified period extended under the provisions of clause 10C. The contract without any action under clause 2. Such compensation for escalation in the prices of materials and labour, when due, shall be worked out based on the following provisions: - The base date for working out such escalation shall be the last stipulated date of the receipt of tenders including extension, if any. - The cost of work on which escalation will be payable shall be reckoned as below: - Gross value of work done upto this quarter: (A) - Gross value of work done upto the last quarter: (B) - Gross value of work done since previous quarter (C) = (A-B) - Full assessed value of secured advance fresh paid in this quarter: (D) - Full assessed value of secured advance recovered in this quarter: (E) - Full assessed value of secured advance for which escalation is payable in this quarter, (F) = (D-E) - Advance payment made during this quarter: (G) - Advance payment recovered during this quarter: (H) - Advance payment for which escalation is payable in this quarter (I) = (G-H) - Amount paid based on prevailing market rates due to deviations/variations as per Clause 12 during this quarter: (J) Then, $M = C + F + I - J$ $N = 0.85 M$ - Less cost of services rendered at fixed charges as per Clause 34 and recovered during the quarter (L) - Less cost of Engineering Consultancy Services rendered at fixed charges as per BOQ and paid during the quarter (X). Cost of work for which escalation is applicable $W = N - (L + X)$ design & Detailing shall be treated as civil work for EPC contract.
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		Components for materials, labour, etc. shall be pre-determined for every work and incorporated in the conditions of contract attached to the tender papers included in Schedule 'F'. The decision of the Engineer-in charge in working out such percentage shall be binding on the contracts. iii. The following principles shall be followed while working out the payment/recovery on account of variation of prices of material and/or wages of labour. a) The compensation for escalation shall be worked out at quarterly intervals and shall be with respect to the cost of work done as per bills paid during the three calendar months of the said quarter. The date of submission of bill finally by the contractor to the department shall be the deciding factor to decide the bills relevant to the quarterly interval. The such payment shall be made at the end of three months after the month (excluding the month in which the work order issued) and thereafter at three month's interval. At the time of completion of the work, the last period for payment might become less than 3 months, depending on the actual date of completion. b) The indices as defined below (excluding In) relevant to any quarter/period for which such compensation is to be paid shall be the arithmetical average of the indices relevant to the three calendar months. If the period up to the date of completion after the quarter covered by the last such instalment of payment, is less than three months, the indices shall be the average of the indices for the months falling within that period. c) The minimum wage of an unskilled Mazdoor shall be the higher of the wage notified by Government of India, Ministry of Labour and that notified by the local administration both relevant to the place of work and the period of reckoning. d) The escalation for labour also shall be paid at the same quarterly intervals when escalation due to increase in cost of materials is paid under this clause. If such revision of minimum wages takes place during any such quarterly intervals, the escalation compensation shall be payable at revised rates only for work done in subsequent quarters; e) Irrespective of variations in minimum wages of any category of labour, for the purpose of this clause, the variation in the rate for an unskilled Mazdoor alone shall form the basis for working out the escalation compensation payable on the labour component. iv. In the event the price of materials and/or wages of labour required for execution of the work decreases, 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 formulae herein stated below under this clause 10CC shall mutatis apply. v. The contract price shall be adjusted for increase or decrease in rates and prices of labour, cement, steel reinforcement bar, fuel and lubricants and other input materials as per percentage of material/labour specified in schedule F and in accordance with the principles, procedures and formulae specified below: a) Price adjustment for change in cost shall be paid in accordance with the following formulae:
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**i) For Construction:**

$$V_w = W * (1/100) * [C_p * (C_i - C_o) / C_o + L_p * (L_i - L_o) / L_o + CM_p * (CM_i - CM_o) / CM_o + EM_p * (EM_i - EM_o) / EM_o + F_p * (F_i - F_o) / F_o + S_p * (S_i - S_o) / S_o + B_p * (B_i - B_o) / B_o]$$

ii) For Maintenance:

$$V_w = W * (1/100) * [L_p * (L_i - L_o) / L_o + CM_p * (CM_i - CM_o) / CM_o + EM_p * (EM_i - EM_o) / EM_o + B_p * (B_i - B_o) / B_o]$$

Where, W = Cost of work done as per para (ii) above.

V_w (Variation of cost of work) = Increase or decrease in the cost of works during the period under consideration due to change in the price for relevant components.

Percentage components of materials & labour as specified in the schedule F are defined as under:-

C_p- Cement component,

L_p- Labour component,

CM_p- Civil component of other construction materials,

EM_p- E & M i/c IT and AS component of construction materials

F_p- POL (Diesal) component

S_p- Reinforcement steel bars/TMT structural steel (including strands and cables) component

B_p- Bitumen component

Indices for various components of materials & labour to be used for the purpose of this Clause are defined as under:

C_o= Wholesale Price index for pozzolana Cement published by office of the Economic Adviser, Ministry of Industry & Commerce valid for the month of last date of receipt of tender including extension, if any.

C_i= Wholesale Price index for pozzolana Cement published by office of the Economic Adviser, Ministry of Industry & Commerce for the period under consideration.

L_o= Minimum daily wage in rupees of an unskilled adult mazdoor, fixed under any law, statutory rule or order as on the last date of receipt of tender including extension, if any.

L_i= Minimum wage in rupees of an unskilled adult mazdoor, fixed under any law, statutory rule or order as applicable on the last date of the quarter previous to the one under consideration.

CM_i= Price Index for civil component of other construction materials valid for the month of the last date of receipt of tender including extension, if any, as published by AAI.



		CM_I= Price Index for civil component of other construction materials for the period under consideration, as published by AAI. EM₀= Price Index for E & M component of construction materials valid for the month of the last date of receipt of tender including extension, if any, as published by AAI. EM_I= Price Index for E & M component of construction materials for the period under consideration, as published by AAI. F₀= Wholesale Price Index of HSD (High Speed Diesel) published by office of the Economic Adviser, Ministry of Industry & Commerce valid for the month of last date of receipt of tender including extension, if any. F_I= Wholesale Price Index of HSD (High Speed Diesel) published by office of the Economic Adviser, Ministry of Industry & Commerce for the period under consideration. S₀= Wholesale Price Index of Mild Steel-long products published by office of the Economic Adviser, Ministry of Industry & Commerce valid for the month of last date of receipt of tender including extension, if any. S_I= Wholesale Price Index of Mild Steel-long products published by office of the Economic Adviser, Ministry of Industry & Commerce for the period under consideration. B₀= Wholesale Price Index of Bitumen published by office of the Economic Adviser, Ministry of Industry & Commerce valid for the month of last date of receipt of tender including extension, if any. B_I= Wholesale Price Index of Bitumen published by office of the Economic Adviser, Ministry of Industry & Commerce for the period under consideration.
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CLAUSE 10 D

	Dismantled Material AAI Property	The contractor shall treat all materials obtained during dismantling of a structure, excavation of the site for a work etc. as property of AAI and such materials shall be disposed off to the best advantage of Authority according to the instructions in writing issued by the Engineer-in-charge.
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CLAUSE11

	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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CLAUSE12

	Deviations / variations extent and pricing	The engineer-in-charge shall have power (i) to make alteration in, omissions from, additions to, or substitutions for the original specifications, drawings, designs and instructions that may appear to him to be necessary or advisable during the progress of the work, and (ii) to omit a part of the works in case of non-availability of a portion of the site or for any other reasons and the contractor shall be bound to carry out the works in accordance with any instructions given to him in writing signed by the Engineering- charge and such alterations, omissions, additions or substitutions shall form part of the contract as if originally provided therein and any altered, additional or substituted work which the contractor may be directed to do in the manner specified above as part of the works, shall be carried out by the contractor on the same conditions in all respects including price on which he agreed to do the main work except as hereafter provided.
12.1		The time for completion of the works shall, in the event of any deviations resulting in additional cost over the tendered value being ordered, be extended, if requested by the contractor, as follows: i. In the proportion which the additional cost of the altered, additional or substituted work, bears to the original tendered value plus ii. 25% of the time calculated in (i) above or such further additional time as may be considered reasonable by the engineer-in-charge.



12.2	Deviation, Extra Items and Pricing	In the case of extra item(s) (items that are completely new, and in addition to the items contained in the contract) the contractor may within fifteen days of receipt of order or occurrence of the item(s) claim rates, supported by proper analysis, for the work and the Engineer-in-charge shall within Six weeks of the receipt of the claims supported by analysis, after giving consideration to the analysis of the rates submitted by the contractor, determine the rates on the basis of the market rates and the contractor shall be paid in accordance with the rates so determined.
	Deviation, substituted items pricing	In the case of substituted items (items that are taken up with partial substitution or in lieu of items of work in the contract), the rate for the agreement item (to be substituted) and substituted item shall also be determined in the manner as mentioned in the following para. (i) If the market rate for the substituted item so determined is more than the market rate of the agreement item (to be substituted), the rate payable to the contractor for the substituted item shall be the rate for the agreement item (to be substituted) so increased to the extent of the difference between the market rates of substituted item and the agreement item (to be substituted). (ii) If the market rate for the substituted item so determined is less than the market rate of the agreement item (to be substituted), the rate payable to the contractor for the substituted item shall be the rate for the agreement item (to be substituted) so decreased to the extent of the difference between the market rates of substituted item and the agreement item (to be substituted).
	Deviation, Deviated Quantities, Pricing	In the case of contract items, substituted items, contract cum substituted items, which exceed the limits laid down in schedule F, the contractor may within fifteen days of receipt of order or occurrence of the excess, claim revision of the rates, supported by proper analysis for the work in excess of the above mentioned limits, provided that if the rates so claimed are in excess of the rates specified in the schedule of quantities, the Engineer-in-Charge shall within prescribed time limit of receipt of the claims supported by analysis, after giving consideration to the analysis of the rates submitted by the contractor, determine the rates on the basis of the market rates and the contractor shall be paid in accordance with the rates so determined.
12.3		The provisions of the preceding paragraph shall also apply to the decrease in the rates of items for the work in excess of the limits laid down in Schedule F, and the Engineer-in-Charge shall after giving notice to the contractor within one month of occurrence of the excess and after taking into consideration any reply received from him within fifteen days of the receipt of the notice, revise the rates for the work in question within one month of the expiry of the said period of fifteen days having regard to the market rates.
12.4		The contractor shall send to the Engineer-in-Charge once every three months, an upto date account giving complete details of all claims for additional payments to which the contractor may consider himself entitled and of all additional work ordered by the Engineer-in-Charge, which he has executed during the preceding quarter failing which the contractor shall be deemed to have waived his right. However, the Executive Director Engineering may 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: i. For Buildings: All works up to 1.2 meters above ground level or up to floor 1 level whichever is lower. ii. For abutments, piers and well staining: All works up to 1.2 m above the bed level. iii. 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.
		iv. For roads, apron, runway & taxi track all items of excavation, filling GSBC and including treatment of sub-base. v. For reservoirs/tanks (other than overhead reservoirs/tanks): All works upto 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): - the contractor shall be entitled to an extension of time equal to the period of every such suspension PLUS 25% for completion of the item or group of items of work for which a separate period of completion is specified in the contract and of which the suspended work forms a part, and; - If the total period of all such suspensions in respect of an item or group of items or work for which a separate period of completion is specified in the contract exceeds thirty days, the contractor shall, in addition, be entitled to such compensation as the Engineer-in-Charge may consider reasonable in respect of salaries and/or wages paid by the contractor to his employees and labour at site, remaining idle during the period of suspension, adding thereto 2% to cover indirect expenses of the contractor provided the contractor submits his claim supported by details to the Engineer-in-Charge within fifteen days of the expiry of the period of 30 days. - If the works or part thereof is suspended on the orders of the Engineer-in-Charge for more than three months at a time, except when suspension is ordered for reasons (a) in sub-para (i) above, the contractor may after receipt of such order serve a written notice on the Engineer-in-Charge requiring permission within fifteen days from receipt by the Engineer-in-charge of the said notice, to proceed with the work or part thereof in regard to which progress has been suspended and if such permission is not granted within that time, the contractor, if he intends to treat the suspension, where it affects only a part of the works as an omission of such part by AAI or where it affects whole of the works, as an abandonment of the works by AAI, shall within ten days of expiry of such period of 15 days give notice in writing of his intention to the Engineer-in-Charge. In the event of the contractor treating the suspension as an abandonment of the contract by AAI, he shall have no claim to payment of any compensations on account of any profit or advantage which he might have derived from the execution of the work in full but which he could not derive in consequence of the abandonment. He shall, however, be entitled to such compensation, as the Engineer-in-Charge may consider reasonable, in respect of salaries and/or wages paid by him to his employees and labour at site, remaining idle in consequence adding to the total thereof 2% to cover indirect expenses of the contractor provided the contractor submits his claim supported by details to the Engineer-in-Charge within 30 days of the expiry of the period of 3 months.
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CLAUSE 15 A

	Compensation in case of delay due to late supply of stipulated material by AAI.	The contractor shall not be entitled to claim any compensation from AAI for the losses suffered by him on account of delay by AAI in the supply of materials in Schedule 'B' where such delay is covered by the difficulties relating to supply of wagons, for the carriage or any reasonable cause beyond the control of AAI. DELETED This clause 15 A will not be applicable for works where no material is stipulated for issue by AAI.
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CLAUSE16

	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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CLAUSE17

	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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CLAUSE19A

		No labour below the age of fourteen years shall be employed on the work.
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CLAUSE19B

	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 there under 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 there of 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 Other wise is deducted or the Jamadar from the wage of recovered workmen.
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CLAUSE19C

		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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CLAUSE19D

		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: i. the number of labourers employed by him on the work, ii. their working hours, iii. the wages paid to him, iv. 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 v. 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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CLAUSE19E

		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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CLAUSE19F

		Leave and pay during leave shall be regulated as follows: 1. Leave: i. In the case of delivery - maternity leave not exceeding 8 weeks, 4 weeks upto and including the day of delivery and 4 weeks following that day. ii. In the case of miscarriage - upto 3 weeks from the date of miscarriage. 2. Pay: i. In the case of delivery – leave pay during maternity leave will be at the rate of women's average daily earnings, calculated on total wages earned on the days when full time work was done during a period of three months immediately preceding the date on which she gives notice that she expects to be confined or at the rate of Rupee one only a day whichever is greater. ii. In the case of miscarriage—leave pay at the rate of average daily earning
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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'x5') adjacent to the hut for each family.
		c. The contractor(s) shall also construct temporary latrines and urinals for the use of the labourers each on the scale of not less than four per each one hundred of the total strength, separate latrines and urinals being provided for women. d. The contractor (s) shall construct sufficient number of bathing and washing places one unit for every 25 persons residing in the camp. These bathing and washing places shall be suitably screened. ii. Specifications a. All the huts shall have walls of sun-dried or burnt-bricks laid in mud mortar or other suitable local materials as may be approved by the Engineer-in-Charge in case of sun-dried bricks, the walls should be plastered with mud gobri on both sides. The floor may be kutcha but plastered with mud gobri and shall be at least 15 cm (6") above the surrounding ground. The roofs shall be laid with the thatch or any other materials as may be approved by the Engineer-in-Charge and the contractor shall ensure that throughout the period of their occupation, the roofs remain water-tight. b. The contractor (s) shall provide each hut with proper ventilation. c. All doors, windows and ventilators shall be provided with suitable leaves for security purposes. d. There shall be kept an open space of at least 7.2 m (8 yards) between the rows of huts which may be reduced to 6m (20 ft.) according to the availability of site with the approval of the Engineer-in-Charge. Back to back construction will be allowed. iii. WaterSupply The contractor (s) shall provided adequate supply of water for the use of labourers. The provisions shall not be less than two gallons of pure and wholesome water per head per day for drinking purposes and three gallons of clean water per head per day for bathing and washing purposes. Where piped water supply is available supply shall be at stand posts and where the supply is from wells or river, tanks which may be of metal or masonry, shall be 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 there for. 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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CLAUSE19I

		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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CLAUSE19J

		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 CPV Training Institute / Industrial Training Institute/National Institute 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. Not with standing 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. Provide 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 running account payments, if PF / ESI contributions are not paid by the contractor and proof to that effect have not been produced regularly on due dates. To withhold 3% for building work & 1.5% for road/pavement work of the total amount of work done during the period considered. ESI & EPF amount paid to the statutory authorities by the contractor shall be reimbursed on actual basis on submission of documentary evidence.
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CLAUSE21

	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 ensure.
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CLAUSE22

		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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CLAUSE23



	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 Clause	All disputes or difference 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 clauses(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 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 (i) 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, ass per format annexed at Annexure- '17'. 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 provided under Chapter-VA of the Airports Authority of India Act, 1994. Note: For the purpose of the above 'Initial Statement of Claim' should be taken into consideration for deciding individual arbitrator or Tribunal under Clause 2 ii (a) & (b) of the Dispute Resolution Clause.
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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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CLAUSE27

	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 rate as is 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 or measurement, the Engineer-in-Charge may in 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 conclusively against the contractor with regard to any sum or sums payable to him under the provision of the clause.
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CLAUSE28

	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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CLAUSE29

	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 maybe, whether in his individual capacity or otherwise.
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		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 there on 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 otherground 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 gross amount of the work done. ii. The contractor(s) shall make his/their own arrangement of water connection and laying of pipelines from existing main of source of supply. iii. The Department do not guarantee to maintain uninterrupted supply of water and it will be incumbent on the contractor (s) to make alternative arrangements for water at his/their own cost in the event of any temporary break down in the AAI's water main so that the progress of his/their work is not held up for want of water. No claim of damage or refund of watercharges will be entertained on account of such breakdown.
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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
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		contractor on this account and his decision shall be binding on the contractor. ii. The contractor shall be allowed to construct temporary wells in AAI land for taking water for construction purposes only after he has got permission of the Engineer-in-Charge in writing. No charges shall be recovered from the contractor on this account but the contractor shall be required to provide necessary safety arrangements to avoid any accidents or damage to adjacent buildings, roads and service lines. He shall be responsible for any accidents or damage caused due to construction and subsequent maintenance of the wells and shall restore the ground to its original condition after the wells are dismantled on completion of the work.
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CLAUSE33

	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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CLAUSE34

	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 not available 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 (Engineering) or the General Manager (Engg) shall be final and binding on the contractor. v. The hire charges shown above are for each day of 8 hours (inclusive of the one hour lunch break) or part thereof. vi. Hire charges will include service of operating staff as required and also supply of lubricating oil and stores for cleaning purposes. Power fuel of approved type, firewood, kerosene oil etc. for running the plant and machinery and also the full time chowkidar for guarding the plant and machinery against any loss or damage shall be arranged by the contractor who shall be fully responsible for the safeguard and security of plant and machinery. The contractor shall on or before the supply of plant and machinery sign an agreement indemnifying the Department against any loss or damage caused to the plant and machinery either during transit or at site of work. vii. Ordinarily, no plant and machinery shall work for more than 8 hours a day inclusive of one hour lunch break. In case of an urgent work however, the Engineer-in-charge may, at his discretion, allow the plant and machinery to be worked for more than normal period of 8 hours a day. In that case, the hourly hire charge 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 period of 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 to 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. A 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 authorized 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 of amount 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 on 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 shown 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 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 paving 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 or for reasons other than authorized 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) alongwith every running account bill / final bill and shall produce evidence if at any times so required by the Engineer-in-Charge. ii. The contractor shall provide and employ on the site only such technical assistants as are skilled, and experienced in their respective fields and such foremen and supervisory staff as are competent to give proper supervision to the work. The contractor shall provide and employ skilled, semi-skilled and unskilled labour as is necessary for proper and timely execution of the work. The Engineer-in-Charge shall be at liberty to object to and require the contractor to remove from the works any person who in his opinion misconducts himself, or is incompetent or negligent in the performance of his duties or whose employment is otherwise considered by the Engineer-in Charge to be undesirable. Such person shall not be employed again at works site without the written permission of the Engineer-in-Charge and the persons so removed shall be replaced as soon as possible by competent substitutes. iii. The contractor shall not change his engineer/supervisory staff after approval of the Engineer-In-Charge. If Contractor wants to replace any of his staff due to unavoidable circumstances, he will seek permission of Engineer-In-Charge indicating reasons for such change, qualification and experience of the alternative employee suggested by him. The qualification and experience of the alternative staff shall not be inferior to the person employed earlier.
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CLAUSE 37

	Levy/Taxes/ Royalty/ Land 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 but exclusive of GST for all the items 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 - Land/space (Paved/ Unpaved/ Covered-AC or Non-AC), to the extent allotted to contractors during execution of work for the purpose of installation of plants, labour camps, cement godown, site offices, stacking of materials shall be provided at free of cost upto defect liability period/ maintenance period. - A security deposit at the rate of Rs 500/- per sqm in the form of DD/BG shall be deposited by the contractor. In case contractor do not deposit security deposit same shall be deducted from Ist Running Account Bill. - Such security deposit shall be released only after allotted land has been fully vacated by the contractor to entire satisfaction of Engineer-in-charge. If contractor fails to vacate the allotted land/space (Paved/Unpaved/Covered-AC/Non-AC) after Defect Liability Period/Maintenance Period of the work shall be charged as per prevailing licence fee of the airport plus 25% penalty over that.
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CLAUSE 38

	Conditions for reimbursement of levy/taxes if levied after receipt of tenders	1. Rates to be quoted by the parties should be inclusive of all taxes, duties, CESS, fee, royalty charges etc. levied under any statute applicable on last stipulated date of receipt of tender including extension if any but exclusive of GST. 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 be 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 there to.
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CLAUSE39

	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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CLAUSE40

	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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CLAUSE41

	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 XVIII along with tender documents. AAI shall appoint Independent External Monitor(s) to oversee effective implementation of Integrity Pact for works supplies. For this purpose, a panel of Independent External Monitors shall be constituted by the Authority in concurrence with Central Vigilance Commission (CVC). i. The Contractor/Supplier shall have to act in accordance with the conditions laid down in the integrity pact. - Signing of Integrity Pact is mandatory for every Bidder/Contractor in this procurement/bid process the signed original 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 the bid 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 anyone employed by it or acting on its behalf (whether with or without the knowledge of the Bidder) shall entitle the authority to take all or any one of the action as specified in section 6 of the integrity pact. ii. In case any violation of above conduct is established, AAI reserves right to take following actions. - If contractor commits a violation of its commitments and obligations under the Integrity Pact Program during bidding process, he shall be liable for disqualification from tender process and forfeiture of his Earnest Money deposit/ Bid Security. - In case of violation of the Integrity Pact after award of the contract, Authority is entitled to terminate the contract and shall be entitled to demand and recover from the contractor damages equivalent to 5% of the contract value or the amount equivalent to Security Deposit or Performance Bank Guarantee, whichever is higher. - 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. - 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. iii. Person signing IP shall not approach the Courts while representing the matters to IEMs and he / she will await their decision 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. - 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. - any omission, or misrepresentation that may mislead or attempt to mislead so that financial or other benefit may be obtained or an obligation avoided. - any collusion, bid rigging or anticompetitive behavior that may impair the transparency, fairness and the progress of the procurement process. - 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. - 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. - any coercion or any threat to impair or harm, directly or indirectly, any party or its property to influence the procurement process. - obstruction of any investigation or auditing of a procurement process. - Making false declaration or providing false information for participation in a tender process or to secure 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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CLAUSE 42

	Return of material and recovery for excess material issued.	i. After completion of the work and also at any intermediate stage in the event of non-reconciliation of materials issued, consumed and balance – (see Clause 10), Theoretical quantity of materials issued by the AAI for use in the work shall be calculated on the basis and method given hereunder. - Quantity of cement & bitumen shall be calculated on the basis of quantity of cement & bitumen required for different items of work as shown in the Schedule of Rates mentioned in Schedule 'F'. In case any item is executed for which standard co-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. - Theoretical quantity of steel reinforcement for structural steel sections shall be taken as the quantity required as per design or as authorized by Engineer-in-Charge, including authorized lap, laces, chairs etc. plus 3% wastage due to cutting into pieces, such theoretical quantity being determined and compared with the actual issues each diameter-wise, section wise and category wise separately. - Theoretical quantity of G.I. & C.I. pipes, conduits, wires and cables pig lead and G.I. / M.S. sheets shall be taken as quantity actually required and measures plus 5% for wastage due to cutting into pieces (except in the case of G.I./M.S. sheets it shall be 10%), such determination & comparison being made diameter-wise & category-wise. - For any other materials as per actual requirements. ii. Over the theoretical quantity 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 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 schedule items, the decision of the Engineer – in - charge regarding theoretical quantities of materials which should have been actually used, shall be final and binding on the contractor. - The said action under this clause is without prejudice to the right of the AAI to take action against the contractor under any other conditions of contract for failing the work according to the prescribed specifications. - For materials brought by the contractor for use in item of work at site, similar theoretical consumption shall be prepared and submitted to the Engineer-in-Charge for verification. If it is found that material consumed in the work is less than the theoretical consumption after taking into account possible minus variation, the recovery for corresponding material shall be effected as per rates specified in schedule 'F' under Clause 42.
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CLAUSE43

	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 there with 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 war like 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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CLAUSE44

	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 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. / 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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CLAUSE45

	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: - 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; - 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 contract or 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; - All works including temporary works to their full value executed from time totime. - 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 so paid by AAI from any moneys due or which may become due to the Contractor or recover the same as a debt due from the Contractor. xiii. In case contractor takes Contractor All Risk (CAR) Policy in joint name of AAI and Contractor for full tendered value 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 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
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		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.
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	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 finalize his rates, terms and conditions and mode of execution of work with specialized 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 decided hereafter 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 the 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 the schedule indicated in the NIT. The compensation for the delay shall be 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 compliance to tender specifications. The main contractor as well as associated expert 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 as 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 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.50 Cr., it shall be at the discretion of Technical Sanctioning authority to open for Escrow account or not. The bank charges for Escrow Account shall be borne by contractor. The detailed conditions of Escrow Account shall be drawn in consultation with 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 office equipment and other minor expenses etc. while release of balance 75% fund shall be regulated by the department. The contractor shall seek prior concurrence of Engineer-in-Charge for release of payment to the supplier etc. through Escrow Account by the Bank. Funds against cheque issued by contractor shall be released by Bank on receipt of written consent from Engineer-in-Charge. iii. 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%. The Contractor shall submit his proposal to the Engineer-in-Charge/Authority for utilization of funds made available by AAI (75% against each RA bill)
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		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 advance 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's request within maximum of three working days. The terms and condition of Escrow Account shall be finalized with bank according to terms and conditions of contract. Bank shall release payment against such cheques only after written consent of authorized officer of AAI is received. vi. Contractor shall be permitted to close Escrow Account on receipt of final payment for the work/project or on receipt of letter for foreclosure of work by the AAI. All balances and liabilities against this Escrow Account shall be left at the disposal of the contractor.
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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 upto and including 3m. (10ft.) in length. For long ladders, this width should be increased at least $\frac{1}{4}$ " for each additional 30cm. (1 foot) of length. Uniform step spacing of not more than 30cm shall be kept. Adequate precautions shall be taken to prevent danger from electrical equipment. No materials on any of the site or work shall be so stacked or placed as to cause danger or inconvenience to any person or the public. The contractor shall provide all necessary fencing and lights to protect the public from accident and shall be bound to bear the expenses of 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 up to 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 ready made paint.
 - b) Suitable face masks should be supplied for use by the workers when paint is applied in the form of spray or a surface having lead paint is dry rubbed and scrapped.
 - c) Overall shall be supplied by the contractors to the workmen and adequate facilities shall be provided to enable the working painters to wash during and on the cessation of work.
9. An additional clause (viii)(i) of AAI Safety Code (iv) the Contractor shall not employ women and men below the age of 18 on the work of painting with product containing lead in any form, wherever men above the age of 18 are employed on the work of lead painting, the following principles must be observed for such use:
- i) White lead, sulphate of lead or product containing these pigment, shall not be used in painting operation except in the form of pastes or paint ready for use.
 - ii) Measures shall be taken, wherever required in order to prevent danger arising from the application of a paint in the form of spray.

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

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



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

1. APPLICATION

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

2. DEFINITION

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

3. FIRST-AID FACILITIES

- (i) At every work place, there shall be provided and maintained, so as to be easily accessible during working hours, first-aid boxes at the rate of not less than one box for 150 contract labour or part thereof ordinarily employed.
- (ii) The first-aid box shall be distinctly marked with a red cross on white back ground and shall contain the following equipment.
 - (a) For work places in which the number of contract labour employed does not exceed 50 Each first –aid box shall contain the following equipments:
 1. 6 small 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 snake bite lancet.
 8. 1 (30 gms) bottle of potassium per manganate 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 per manganate crystals.
 11. 1 pair scissors.
 12. 1 copy of the first-aid leaflet issued by the Director General Factory Advice Service and Labour Institute / Government of India.
 13. A bottle containing 100 tablets (each of 5 gms) of aspirin.

14. Ointment for burns.
15. A bottle of suitable surgical antiseptic solution.

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

4. DRINKING WATER

- i) In every work place, there shall be provided and maintained at suitable places, easily accessible to labour, a sufficient supply of cold water fit for drinking.
- ii) Where drinking water is obtained from an intermittent public water supply, each work place shall be provided with storage where such drinking water shall be stored.
- iii) Every water supply or storage shall be at a distance of not less than 50 feet from any latrine drain or other source of pollution. Where water has to be drawn from an existing well which is within such proximity of latrine, drain or any other source of pollution, the well shall be properly chlorinated before water is drawn from it for drinking. All such wells shall be entirely closed in and be provided with a trap door which shall be dust and water proof.
- 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 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 there in.
- ii) Separate and adequate cleaning facilities shall be provided for the use of male and female workers.
- iii) Such facilities shall be conveniently accessible and shall be kept in clean and hygienic condition.

6. LATRINES AND URINALS

- i) Latrines shall be provided in every work place on the following scale namely:
 - a) Where female are employed, there shall be at least one latrine for every 25 females.
 - b) Where males are employed, there shall be at least one latrine for every 25 males.
- ii) Provided that, where the number of males or females exceeds 100, it shall be sufficient if there is one latrine for 25 males or females as the case may be upto the first 100, and one for every 50 there after.
- 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 non absorbent materials and shall be cement washed inside and outside at least once a year, Latrines shall not be of a standard lower than borehole system.

- v) (a) Where workers of both sexes are employed, there shall be displayed outside each block of latrine and urinal, a notice in the language understood by the majority of the workers “For Men only” or “For Women Only” as the case may be.
(b) The notice shall also bear the figure of a man or of a woman, as the case may be.
- vi) There shall be at least one urinal for male workers upto 50 and one for female workers upto fifty employed at a time, provided that where the number of male or female workmen, as the case may be exceeds 500, it shall be sufficient if there is one urinal for every 50 males or females upto the first 500 and one for every 100 or part thereafter.
- vii) (a) The latrines and urinals shall be adequately lighted and shall be maintained in a clean and sanitary condition at all times.
(b) Latrines and urinals other than those connected with a flush sewage system shall comply with the requirements of the Public Health Authorities.
- viii) Water shall be provided by means of tap or otherwise so as to be conveniently accessible in or near the latrines and urinals.
- ix) Disposal of excreta: Unless otherwise arranged for by the local sanitary authority, arrangements for proper disposal of excreta by incineration at the work place shall be made by means of a suitable incinerator. Alternately excreta may be disposed of by putting a layer of night soil at the bottom of a pucca tank prepared for the purpose and covering it with a 15 cm. Layer of waste or refuse and then covering it with a layer of earth for a fortnight (when it will turn to manure).
- x) The contractor shall at his own expense, carry out all instructions issued to him by the Engineer-in-Charge to effect proper disposal of night soil and other conservancy work in respect of the contractor’s workmen or employees on the site. The contractor shall be responsible for payment of any charges which may be levied by Municipal or Cantonment Authority for execution of such on his behalf.

7. PROVISION OF SHELTER DURING REST

At every place there shall be provided, free of cost, four suitable sheds, two for meals and the other two for rest separately for the use of men and women labour. The height of each shelter shall not be less than 3 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 sft) per head. Provided that the Engineer-in-Charge may permit subject to his satisfaction, a portion of the building under construction or other alternative accommodation to be used for the purpose.

8. CRECHES

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

9. CANTEENS

- i) In every work place where the work regarding the employment of contractor labour is likely to continue for six months and where in contract labour numbering one hundred or more are ordinarily employed, an adequate canteen shall be provided by the contractor for the use of such contract labour.
- ii) The canteen shall be maintained by the contractor in an efficient manner.
- iii) The canteen shall consist of at least a dining hall, kitchen, store room, 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 meter (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 table's 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 food stuffs, 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 whosupplies contract labour for any work and includes a sub contractor.

(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 format (Appendix-IX)
- (ii) The card shall be valid for each wage period.
- (iii) The contractor shall mark the attendance of each workman on the card twice each day, once at the commencement of the day and again after the rest interval, before he actually starts work.
- (iv) The card shall remain in possession of the worker during the wage period under reference.



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

9. EMPLOYMENT CARD

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

10. SERVICE CERTIFICATE

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

11. PRESERVATION OF LABOUR RECORDS

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

12. POWER OF LABOUR OFFICER TO MAKE INVESTIGATIONS OR ENQUIRY

The Labour Officer or any person 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 sub contractor 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.



APPENDIX-I

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

[Refer Clause 1A and 2B]

To
The Airports Authority of India

.....
.....

1. In consideration of the Airport Authority of India having its head office at New Delhi [hereinafter called the "AAI" which expression shall unless repugnant to the subject or context include its administrator, successors and assigns) having agreed under the terms and condition of Contract Agreement No.dated.....made between.....and AAI in connection with the work of..... (hereinafter called the said contract) to accept Deed of Guarantee as herein provided for Rs.....(Rupees.....only) from a Nationalized Bank in lieu of the Security deposit to be made by the contractor or lieu of the amount withheld towards compensation for delay pending final extension of time to be made from the contractors contained in the said Contractor. We, the... bank (hereinafter referred to as "the said Bank" and having our registered office at do hereby undertake and agree to identify and keep indemnified AAI from time to time to the extent of Rs..... (Rupees..... only) against any loss or damage, cost, charges and expenses caused to or suffered by or that may be caused to or suffered by AAI by reason of any breach or breaches by the said Contractor of any of the terms and condition contained in the said contract and to unconditionally pay the amount claimed by AAI on demand and without demur to the extent aforesaid.
2. We..... Bank, further agree that AAI shall be the sole judge of and as to whether the said Contractor has committed any breach or breaches of any of the terms and conditions of the said contract and the extent of loss, damage, costs, charges and expenses caused to or suffered by or that may be caused to or suffered by AAI on account thereof and the decision of AAI that the said Contractor has committed such breach and breaches and as to the amount or amounts of loss, damage, costs, charges and expenses caused to or suffered of that may be caused to or suffered by AAI from time to time shall be final and binding on us.
3. We, the said Bank, further agree that the Guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said contracts and till all the dues of AAI under the said contract or by virtue of any of the terms and conditions governing the said contract including compensation for delay if any as decided by AAI, have been fully paid and its claims satisfied or discharged and till the Accepting Authority of the contract certifies that the terms and condition and accordingly Contract have been fully and properly carried out by the said contractor and accordingly discharges this guarantee subject, however that AAI shall have no claim under this Guarantee after 90(Ninety) days from the date of expiry of the defects Liabilities periods or Final /Extension of Time granted 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 not with standing 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 _____

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

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

KNOW ALL PEOPLE by the represents that we _____ (name of bank) having our registered office at _____ (herein after called "the bank") are bound unto Airports Authority of India through its "Bid Manager/Engineer-In-charge/AAI's Authorized representative" (Designation with Address) (herein after called "Bid Manager/Engineer-In-charge/AAI's Authorized representative", as the case may be which expression shall unless repugnant to the subject of contract includes its administrators, successors and assigns) the sum of Rs. _____ (Rs. In words _____) which payment will truly to be made to the said "Bid Manager/Engineer-In-charge/AAI's Authorized representative" 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 "Bid Manager / Engineer-In-charge/AAI's Authorized representative".
 - a) Fails or refuses to execute the form of Agreement in accordance with the instructions to contractor, if required—
OR
 - b) Fails or refuses to furnish the performance guarantee in accordance with the provisions of tender document and instructions to contractor—
OR
 - c) Fails or refuses to start the work, in accordance with the provisions of the contract and instructions to contractor,
OR
 - d) Fails or refuses to submit fresh bank guarantee of an equal amount of this bank guarantee against security deposit after award of contract.

We undertake to pay to the "Bid Manager/Engineer-In-charge/AAI's Authorized representative" either up to the above amount thereof upon receipt of his first written demand, without the "Bid Manager/Engineer-In-charge/AAI's Authorized representative" having to substantiate his demand, provided that in his demand the "Bid Manager/Engineer-In-charge/AAI's Authorized representative" will note that the amount claimed by him is due to him owing to the concurrence of one or any of the above conditions, specifying the occurred condition or conditions.

This guarantee will remain in force up to and including the date* _____ after the deadline for submission of tender as such deadline is stated in the instructions to contractor or as it may be extended by the Bid Manager/Engineer-In-charge, notice of which extension (s) to the bank is hereby waived. Any demand in respect of this guarantee should reach the bank not later than the above date.

DATE _____

SIGNATURE OF THE BANK

WITNESS.....
(SIGNATURE NAME AND ADDRESS)

SEAL

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

PROFORMA FOR MANDATORY TESTS TO BE ATTACHED WITH RUNNING ACCOUNT BILLS

Contract Agreement No. and Date..... R/A Bill
No.....

[illegible]

Signature of Sudt. (Engg)

Signature of Manager /AM(Engg)

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

Name and address of the contractor.....

Name and location of the work.....

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

Date on which maternity leave commenced and ended

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

Leave Pay paid to the employee

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



APPENDIX-IV

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

Name and address of the contractor-----

Name and location of the work-----

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

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

Name of work

Name of Contractor-----

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

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

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

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

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

Sl.No.

Category

Minimum
wagefixedActual wage
paidNumber
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

Service 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 EmployerFor 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 carryon.....

Name and location of work.....

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

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

Name of the Establishment_____Name of Owner_____LIN_____Wage period

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

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



Deduction								Net Payment	Employer Share PF Welfare Fund
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



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

Register of wages

Name and address of contractor.....

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

Name and location of work.....

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

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



APPENDIX-VIIIA

WAGE CARD

Wages Card No.....

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

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

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

Rate of Wages.....

1	2	3	4	5	6	7	8	9	1	1	1	1	1	1	1	1	1	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>67880</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

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

APPENDIX-IX

Wages Slip

Name and address of contractor.....

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

Name and location of work.....

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

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

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

3. Rate of daily wages/piece rate..... 4.

Amount of overtime wages..... 5. Gross
wages payable.....

6. Deduction, if any..... 7. Net
amount of wages paid.....

Initials of the contractor or his representative



APPENDIX-X

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

Name and address of contractor.....

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

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

Name and address of Principal Employee.....

1. Name of the workman.....

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

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

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

5. Wage period.....

6. Tenure of employment.....

7. Remark.....

Signature of Contractor



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 accepted the terms and conditions of the proposed agreement between [hereinafter called the said contractor(s)] for the work (here in after "the said agreement") having agreed to production of a irrevocable Bank Guarantee for Rs. (Rupeesonly) as a security / guarantee from the contractor(s) for compliance of his obligations in accordance with the terms and conditions in the said agreement.
 We..... (Indicate the name of the Bank, here in after referred to as "theBank") here by undertake to pay to the Chairman, AAI an amount not exceeding Rs. (Rupeesonly) 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. (Rupees.....only).
3. We, the said Bank, further undertake to pay the Chairman, AAI any money so demanded not with standing any dispute or disputes raised by the contractor(s) In any suit or proceeding pending before any court or tribunal relating thereto, or 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 contract 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 full liberty without our consent and without effecting in any manner our obligations hereunder by any of terms and conditions of the said agreement or to extend time of performance of 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 waive 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~~ to
Airports Authority of India)

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

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

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

Sir,

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

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

Signature of the Depositor

Place:

Date:

APPENDIX-XII

LIST OF ACTS AND OMISSIONS FOR WHICH FINES CAN BE IMPOSED

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

1. Willful in subordination 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 in different 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.....

SI. 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 Instalment	Last Instalment	
1	2	3	4	5	6	7	8	9	10	11	12	13

**APPENDIX-XV**

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

Name and address of contractor.....

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

Name and location of work.....

Name and address of Principal Employer.....

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

**APPENDIX-XVI**

Form-XXIII

[See Rule 78(2)(e)]

Register of Overtime

Name and address of contractor.....

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

Name and location of work.....

Name and address of Principal Employer.....

S. N o	Name of workme n	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	Overtim e earning	Rate on which overtime paid	Remarks
1	2	3	4	5	6	7	8	9	10	11	12



APPENDIX-XVII

NOTICE FOR APPOINTMENT OF ARBITRATOR
[Refer Clause 25]

To

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

Dear Sir,

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

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

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

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

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

Yours faithfully

(Signature)

Copy to:

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

APPENDIX -XVIII**INTEGRITY PACT**

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

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

AND

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

WHEREAS the Authority intends to award, under laid down organizational procedures, tender/ contractfor.....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 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 response to the NIT(Notice Inviting Tender) dated..... Contractor is signing the contract for execution ofNOW, therefore, To avoid all forms of corruption by following a system that is fair, transparent and free from any influence/potential 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 said goods/equipment/execution of works at a competitive price in conformity with the specified specifications by avoiding the high cost and the distortionary impact of corruption on public procurement, and Enabling Authority to abstain from bribing or indulging in any corrupt practice in order to secure the contract by providing assurance to them that their competitors will also abstain from bribing and other corrupt practices and the Authority will commit to prevent corruption, in any form, by its 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 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 any 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. The Bidder/Contractor 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 in doing 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.

- 23 The Bidder / Contactor has not entered and will not enter with other bidders in any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specification, certifications, subsidiary contracts, submission or non-submission of bids or any actions to restrict competition or to introduce cartelization in the bidding process.
- 24 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.
- 25 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.
- 26 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.
- 27 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.
- 28 The Bidder/Contractor shall 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.
- 29 The Bidder/Contractor will not accept any advantage in exchange for any corrupt practice, fair means and illegal activities.
- 210 The Bidder/Contractor shall not use improperly, for purposes of competition or personal gain, or pass on to others, any information provided by the Authority as to the business relationship, regarding plans, technical proposals and business details, including information contained in any electronic data carrier. The Bidder / Contractor also under takes to exercise due and adequate care lest any such information is divulged.
- 211 The Bidder/Contractor will inform to the Independent External Monitor.

- i) If he receives demand for an illegal/undue payment/benefit.

- ii) If he comes to know of any unethical or illegal payment/benefit.
- iii) If he makes any payment to any Authority's associate(s)
- 2.12 The Bidder/Contractor 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/Contractor shall not instigate or cause to instigate any third party 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 of 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 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 Undertaking in India or any Government Department in India that could justify Bidder'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 0.5Cr. (Rupees zero point five Cr.) and to submit the same to the Authority along-with 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 0.5Cr. (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/PERFOMANCE, VALIDITY etc., which is as per terms and conditions and details given in the 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 or not with the knowledge of the BIDDER) shall entitle the Authority to take 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 terminate the contract, if already signed, without giving any compensation to the BIDDER.
- iii) If the Authority has disqualified / debarred the Bidder from the tender process prior to the award under section 2 or 3 or 4, the Authority is entitled to forfeit the earnest money deposited/bid security.
- iv) To recover all sums already paid by the Authority, and in case of an Indian BIDDER with interest thereon at 2% higher than the prevailing Prime Lending Rate of State Bank of India, while in case of a BIDDER from a country other than India with interest thereon at 2% higher than the LIBOR. If any outstanding payment is due to the BIDDER from the Authority in connection with any other contract or any other stores, such outstanding payment 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 period upto two years.
- viii) To recover all sums paid in violation of this Pact by Bidder(s) to any middleman or agent or broker with a view to securing the contract.
- ix) In case where irrevocable Letters of Credit have been received in respect of any contract signed by the Authority with a 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 delay subject only to condition that if the Bidder/Contractor can prove and establish to the satisfaction of the Authority that the disqualification / debarment of the bidder from the tender process or the termination of the contract after award of the contract has caused no damage to the Authority.

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

5.3 (i) To (xii) 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, 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/recovered 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.
- 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 to the Bidder/Contractor. The Bidder/Contractor will also grant the Monitor(s) on 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 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 a member of the Board of the Authority within 2 weeks from the date of reference / 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 a 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 the 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. Contractual and 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 behavior) and 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 A.I 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 10B)

(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 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.
- (7) That if the Contractor shall at any time make any default in the performance or observance in any respect of any of the terms and provisions of the said agreement or of these presents the total amount of the advance or advances that may still be owing 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.
- (8) 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.
 - (b) 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.
- (9) That except in the event of such default on the part of the Contractor as aforesaid interest on the said advance shall not be payable.



- (10) That in the event of any conflict between the provisions of these presents and the said agreement the provisions of these presents shall prevail and in the event of any dispute 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 AAI 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

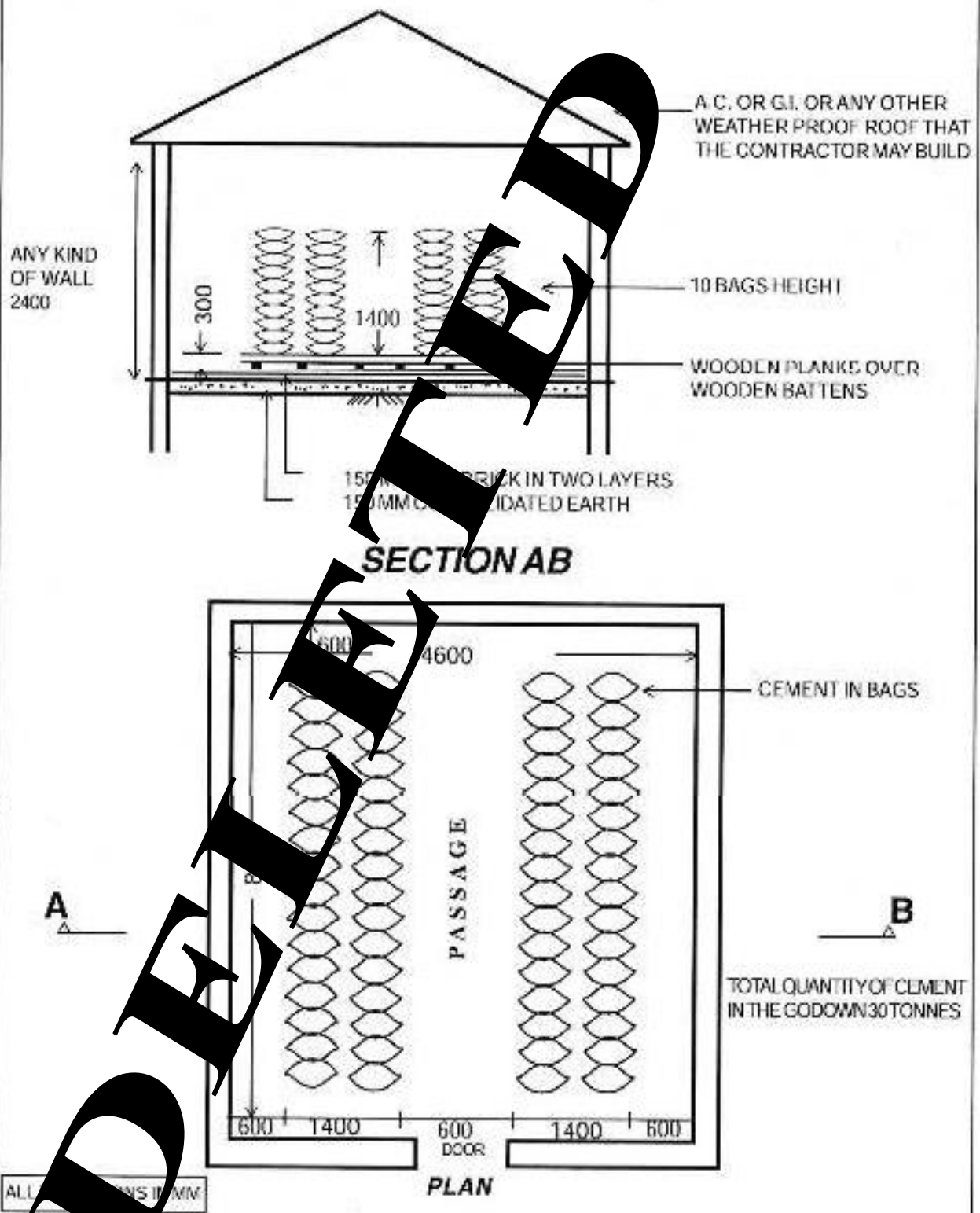
Signature

Witness Name

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-1 to SOQ-99** 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 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 File name. If the BOQ file is found to be modified by the bidder, the bid will be rejected and EMD shall be forfeited.

SCHEDULE `B`

Schedule of materials to be issued to the contractor.

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

Schedules
SCHEDULE `C`



Tools and plants to be hired to the contractor.

Sl.No.	Description	Hire charges perday	Place of Issue
1	2	3	4
NOT APPLICABLE			

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: Renovation of Guest room at OTB, S.V. Airport, Raipur. (Civil & Electrical Works)

Estimated cost of work: Rs. 25.10 Lakhs (Excluding GST)

- | | |
|---------------------------------------|-----------------------|
| i. Earnest Money: | Rs. 75,300.00 |
| ii Performance Guarantee: | Not Applicable |
| iii Additional Performance Guarantee: | Applicable |
| iv Security deposit: | 10% of contract value |
| v Defect Liability Period | 12 Months |

SCHEDULE 'F'**GENERAL RULES & DIRECTION**

Officer inviting tender : AGM (Engg.-Civil), S.V. Airport Raipur.

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 Clause 12
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Definitions:

Office inviting tender	:	AGM (Engg.-Civil) Airports Authority of India S.V. Airport, Raipur
2(v) Engineer-in-Charge	:	As per AAI's Work Manual
2(viii) Accepting Authority	:	As per AAI's DOP.
2(x) Percentage on cost materials & Labour to cover all overheads & Profits	:	15%
2(xi) Standard schedule of rates	:	CPWD DSR 2023, with up to date correction slips as on last date of submission of tenders & Market rates.
2(xii) Department	:	AAI, Engineering Wing, Raipur

Clause 1

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

Clause 1 B

(i)	Time allowed for submission of Additional Performance Guarantee from the date of issue of letter of Intent	30 Days
(ii)	Issue of Award Letter	After receipt of Performance Gurantee/ Additional Performance Gurantee
(iii)	Signing of Contract Agreement	Within 10 days of issue of Award Letter

Clause 2

	Authority for fixing compensation under Clause 2	As per DOP of AAI
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Clause 2A

	Whether Clause 2A shall be applicable	Yes / No
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Schedules
Clause 5



	Number of days from the date of issue of letter of acceptance for reckoning date of start	10days
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Mile Stone(s) as per table given below:

Sl.No.	Description of Milestones (Physical)	Time allowed in days (from date of start)	Amount to be withheld in case of non-achievement of milestone
As Per Clause (5) of GCC			

Time allowed for execution of work. : **08 (Eight) Months**

Authority to decide:

- i Extension of time : As per AAI's DOP
- ii Re-scheduling of milestone : As per AAI's DOP
- iii Shifting of date of start in case of delay in handing over of site : As per AAI's DOP

Clause 6, 6A

Clause applicable—(6 or 6A) : Clause 6A is applicable

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. 2.00 Lakhs
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Clause 10A

Testing equipment to be provided by the contractor:

All the Testing equipments required for conducting test as per CPWD specification 2019, Vol-I & Vol-II with updated correction slips.

Clause 10 B (II)

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

Clause 10C:- Applicable

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

Clause 10 CA:- Not-Applicable

Materials covered under this clause	Nearest Material (Other than Cement*, reinforcement bars, structural steel & Bitumen) for which all India Wholesale Price index is to be followed	Base price and its corresponding period of all the materials covered under clause 10CA May 2023 (Excluding GST) F.O.R. Ripur
1. Cement (OPC)	-	
—— (PPC)	-	
2. Reinforcement steel bars (TMT)	-	
3. Structural Steel	-	
4. Bitumen VG 10	-	
VG 30	-	

*Note:

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

Clause 10 CC :- Not-applicable

Clause 10CC to be applicable in contracts with stipulated period of completion exceeding the period shown in next column	18 Months
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A. For Construction Period

S.NO	Relevant component of Material/Labour for Price escalation	*Percentage against total value of work
1.	Cement component	-
2.	Labour component	-
3.	Civil Component of other Construction Materials	-
4.	E&M (Electrical and Maintenance i/c IT & Airport system) component of Construction materials	-
5.	POL (Diesel) component	-
6.	Reinforcement Steel bars/TMT bars/Structural Steels (including strands and cables) component	-
7.	Bitumen component	-
	Total	100%

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

B. For operation & maintenance period

S.NO	Relevant component of Material/Labour for Price escalation	*Percentage against total value of work
1.	Labour component	25%
2.	Civil Component of other Construction Materials	75%
3.	E&M (Electrical and Maintenance i/c IT & Airport system) component of Construction materials	
4.	Bitumen component (For Pavement work component)	
	Total	100%

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

Clause11

Specification to be followed for execution of work	CPWD Specification Vol-I & Vol-II with updated correction slips
--	---

Clause12

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)

Clause16

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

Clause18**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: RHQ / Kolkata

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	B.E. Degree	Civil Engineering	Site Engineer	2 yrs	01	Rs. 2000/- Per day	Rupees Two Thousand per day

- Assistant Engineers retired from Government services that are holding Diploma will be treated at par with Graduate Engineers.
- Diploma holder with minimum 05 year relevant experience with a reputed construction company can be treated at par with Graduate Engineer for the purpose of such deployment subject to the condition that such diploma holder should not exceed 50% of requirement of degree engineers

Clause 37

License Fee for unpaved land

As per Clause 37 (3)

Clause 41(a)

Integrity Pact applicable

~~Yes~~ /No**Clause 42 Not Applicable**

(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 up-to-date correction slips till last date of submission of tender, technical specifications & SOQ.
(ii)	Variations permissible on theoretical quantities	
a.	Cement for works with estimated cost put to tender not more than Rs.5 lakhs.	3% plus/minus
	For works with estimated cost put to tender more than Rs.5lakhs	2% plus/minus
b.	Steel Reinforcement and structural steel 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	Less use beyond the permissible variation*
1.	Cement	Not Applicable	Not Permitted
2.	Steel reinforcement	Not Applicable	Not Permitted
3.	Structural Sections	Not Applicable	Not Permitted
4.	Bitumen issued free	Not Applicable	Not Permitted
5.	Bitumen issued at stipulated fixed price	Not Applicable	Not Permitted

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

Clause 48**EscrowAccount: 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 or areas
1.	Consolidation of earth sub grade	1860 Sq.m
2.	Consolidation of stones soling 15 cm to 22.5 cm thick	170 Cu.m
3.	Consolidation of brick soling 10 cm to 20 cm thick	230 Cu.m
4.	Consolidation of wearing coat of stone ballast 7.5 cm to 11.5 cm thick	30 Cu.m
5.	Consolidation of wearing coat of brick ballast 10 cm thick	30 Cu.m
6.	Spreading and consolidation of red bajri 6mm	1860 Sq.m
7.	Painting one coat using stone aggregate 12.5mm nominal size	
	(a) @ 1.65 m3 per 100 m2 and paving bitumen A-90 or S-90@2.25 Kg per m2or	
	(b) @ 1.50 m3 per 100 m2 and bitumen emulsion or Road tar @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 m2or	
	(ii) @ 1.35 m3 per 100 m2 and bitumen emulsion @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 per Sq.m. or	
	(ii) 1.25 Kg. of road tar, per Sq.m. 600 Sq.m.)	600Sq.m.
9.	Re-painting with stone aggregate 10 mm nominal size 0.9 Cu.m. per 100 Sq.m. with	
	(i) 1kg of paving bitumen A-90 or S-90 per Sq.m. ;k or	
	(ii)1.25 kg of bitumen emulsion per Sq.m. 1670 Sq.m.	1670 Sq.m.
10.	2 cm premix carpet surfacing using 2.4 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
11.	2.5 cm premix carpet surfacing using 3 m3 of stone aggregate 10 mm nominal size per 100m2and 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.	370 Sq.m.

14.	6 cm thick bitumen concrete surfacing using stone aggregate 5.8 Cu.m. (60%40 mm nominal size and 40% 25 mm nominal size) per 100m2 and coarse sand 2.9 Cu.m. Per 100m2 and hot cut back bitumen over a tack coat of hot cut back bitumen.	280 Sq.m.
15.	7.5 cm thick bitumen concrete surfacing using stone aggregate 7.3 Cu.m. (60%50 mm nominal size and 40% 40 mm nominal size) per 100m2 and coarse sand 3.65 Cu.m. Per 100m2 and hot cut back bitumen over a tack coat of hot cut back bitumen.	280 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 10 mm nominal size 6.10 Cu.m. Per 100 Sq.m. with binder, binding with 20 mm to 12.5 mm nominal size stone grit, 1.83 Cu.m. per 100 Sq.m. and seal coat of binder and stone grit 10 mm nominal size, 1.07 Cu.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 1.83 Cu.m. per 100 Sq.m. and seal coat of binder and stone grit 10 mm nominal size, 1.07 Cu.m. per 100 Sq.m., the binder being hot bitumen or as specified.	370 Sq.m.
20.	4cm. thick premix macadam surfacing using stone aggregate 25 mm nominal size 4.57 Cu.m. per 100 Sq.m. and hot bitumen 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 bitumen 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.

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

Date:

To,

Assistant General Manager (Engg.-Civil),
Airports Authority of India,
S. V. Airport, Raipur-492015

Sub: Acceptence of Terms & Conditions of Tender.
(Tender ID No: 2026_AAI_28250_1)

Name of Work: Renovation of Guest room at OTB, S.V. Airport, Raipur.

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 is found to be incorrect/untrue or found violated, then we shall be liable for debarment from tendering in AAI without giving any notice or reason therefore or summarily reject the bid or terminate the contract, without prejudice to any other rights or remedy including the forfeiture of the full said earnest money deposit absolutely.

Yours Faithfully,

(Signature of the Bidder, With Official Seal)

ANNEXURE -2

**FORM OF BANK GUARANTEE TO SECURE A LUMP-SUM UTILIZATION
ADVANCE**

(On Non-Judicial Stamp Paper)

To

The Airports Authority India

1. In consideration of the Airports Authority India having its head office at New Delhi (hereinafter called "AAI" which expression shall be construed to be enugnant to the subject or context include its administrators, successors and assigns) having agreed under the terms and conditions (Contract Agreement No. _____ dated _____ made between _____* _____ and AAI in connection with the work of (hereinafter called "the said contract"), to make at the request of the Contractor a lump-sum advance of Rs. _____ (Rupees _____ only) for utilizing it for the purpose of the Contract on his furnishing a guarantee acceptable for AAI we, the Bank (hereinafter referred to as "the said Bank") and having our registered office at _____ do hereby guarantee the due recovery by AAI of the said advance with interest thereon - as provided according to the terms and conditions of the Contract. If the said Contractor fails to utilize the said advance for the purpose of the Contract and/or the said advance together with interest thereon as aforesaid is not fully recovered by AAI we, the _____ Bank hereby unconditionally and irrevocably undertake to pay to AAI on demand and without demur to the extent of the said sum of Rs. _____ Rupees _____ only) any claim made by AAI on us for the loss or damage caused to or suffered by AAI by reason of not being able to recover in full the said sum of Rs. _____ (Rupees _____ only) with interest, as aforesaid.
2. We, the _____ Bank further agree that AAI shall be the sole judge of and as to whether the said Contractor has not utilized the said advance or any part thereof for the purpose of the Contract and the extent of loss or damage caused to or suffered by AAI on account of the said advance together with interest not being recovered in full and the decision of AAI that the said Contractor has not utilized the said advance or any part thereof for the purpose of the Contract and as to the amount or amounts loss or damage caused to or suffered by AAI shall be final and binding on us.
3. We, the said Bank, further agree that the Guarantee therein contained shall remain in full force and effect during the period that would be taken for the performance of the said Contract and till the said advance with interest has been fully recovered and its claims satisfied and discharged and till the Accepting Authority of the contract certifies that the said advance with interest has been fully recovered from 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 completion of the said contract, _____ (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 said 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 effecting 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 the advance 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 a forbear from enforcing any of the terms and conditions governing the Contract or the advance or securities available to AAI and the said Bank shall be released from its liability under these presents by any exercise by AAI of the 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 of AAI or any indulgence by AAI to the said Contractor or of any other matter whatsoever after I 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 if and the Guarantee herein contained shall be enforceable against the Bank notwithstanding any security which AAI may have obtained or obtain from the Contractor shall at the time when proceedings are commenced against the Bank hereunder be outstanding or unrealised.
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 change in the Constitution of the said Contractor or the said Bank shall not discharge our liability hereunder.
7. Address of Regional / Controlling branch of the Bank branch of bank Guarantee is--

In presence of:

Dated this _____ Day of _____ 2018

WITNESS:

1

For and on behalf of (The Bank)

Signature.....

Name&Designation.....

Authorization No.....

Name&Place.....

Bank's Seal.....

2

The above Guarantee is attested by Airports Authority of India.

For and on behalf of Airports Authority of India.

Signature

Name

Designation

Dated

Note:

***For Proprietary Concerns**

Shri _____ son of _____ resident of _____
carrying on business under the name and style of _____ at _____
(herein after called “the said Contractor” which expression shall unless
the context requires otherwise include his heirs, executors, administrators and legal
representatives).

For Partnership Concerns

1 Shri _____ son of _____ resident of _____

2 Shri _____ son of _____ resident of _____
_____ carrying on business in co-partnership under the name and style of _____
at _____ (hereinafter collectively called “the said contractor”
which expression shall unless the context requires otherwise include each of them and their
respective heirs, executors administrators and legal representatives).

For Companies

M/s _____ a Company registered under the Companies Act, 1956 and
having its registered office in the State of _____ (Here in after called “the said Contractor” which
expression shall unless the context requires otherwise include its administrators, successors
and assigns).

GUARANTEE TO BE EXECUTED BY CONTRACTOR FOR REMOVAL OF DEFECTS AFTER COMPLETION IN RESPECT OF SPECIALIZED WORKS

(SAMPLE COPY)

(Separate Warranty / Guarantee Agreements shall be made for different specialized jobs based on descriptions provided in the Technical / CPWD Specifications/SCC)

The Agreement made this-----day of-----
- two thousand & nineteen -----between-----son of---
-----of----- (herein after called the Guarantor of the one
part) and the Chairman, AAI (hereinafter called the Authority of other part).

WHEREAS THIS agreement is supplementary to a contract (here in after called the Contract) dated-----and made between the GUARANTORY OF THE ONE PART and the Chairman, AAI, whereby the Contractor, inter-alia undertook to render the buildings and structures in the said contract recited completely water and leak proof.

AND WHEREAS THE GURANTOR agreed to give a guarantee to the effects that the said structures will remain water and leak proof for 10 (Ten) years (05 years Guarantee Bond in the form of BG for value of 5% of total water proofing system + 05 years Corporate Guarantee) from the date of giving of water proofing treatment.

NOW THE GUARANTOR herby guarantees that water proofing treatment given by him will render the structures completely leak proof and minimum life of such water proofing treatment shall be 10 (Ten) years (05 years Guarantee Bond of value of 5% of total water proofing system + 05 years Corporate Guarantee) to be reckoned from the date of giving of water proofing treatment.

Provided that the guarantor will not be responsible for leakage caused by earthquake or structural defects or misuse of roof or alteration and for such purpose.

- a) Misuse of roof shall mean any operation which will damage proofing treatment, like chopping of firewood and things of the same nature which might cause damage to the roof.
- b) Alteration shall mean construction of an additional storey or a part of the roof or construction adjoining to existing roof whereby proofing treatment is removed in parts.
- c) The decision of the Engineer-in-charge with regard to cause of leakage shall be final.

During this period of guarantee the guarantor shall make good all defects and in case of any defect being found render the building water proof to the satisfaction of the Engineer-in charge at his cost and shall commence the work such rectification within 7 days from the date of issue of the notice from the Engineer-in-charge calling upon him to rectify the defects failing which the work shall be got done by the department by some other contractor at the GUARANTOR's cost and risk. The decision of the Engineer- in-charge as to the cost, payable by the Guarantor should be final and binding.

That if Guarantor fails to execute the water proofing or commits breach there under then the Guarantor will indemnify the Principal Employer and the successors against all loss, damage, cost, expense or otherwise which may be incurred by him by reasons of any default on the part of the GUARANTOR in performance and observance of this supplementary agreement. As to the amount of loss and / or damage and / or cost incurred by the Government the decision of the Engineer-in-charge will be final and binding on the parties.

IN WITNESS WHEREOF these presents have been executed by the Obligator -----
-----and by ----- and for an on behalf of the Chairman, AAI on the day, month
and year first above written.

SIGNED, SEALED AND delivered by OBLIGATOR IN THE PRESENCE

OF:- 1.

2.

SIGNED FOR AND ON BEHALF OF CHAIRMAN, AAI -----IN THE
PRESENCE OF:-

1.

2.

UNDERTAKING REGARDING DEBARMENT/BLACKLISTING/RESTRAINTMENT

(To be given on Contractor's Letter Head)

Name of work: Renovation of Guest room at OTB, S.V. Airport, Raipur.

(Tender ID No.: 2026_AAI_28250_1)

I/We (Name and post of authorized signatory) on behalf of
..... (Name of Firm) do here by solemnly affirm and declare as follows:

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

Date:

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

Place:

ANNEXURE-5**FORM “A”**

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

Sl No.	Details of Work	W-1	W-2	W-3
i.	Name of work/project and Location			
ii.	Name and Address of client			
iii.	Awarded Cost of work (in Rs. Lakhs)			
iv.	Date of 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 ending 31st March of one year prior to the previous financial year duly certified by the Chartered Accountant as submitted by the applicant to the Income - Tax Department

Fig in lakhs Rs.

Sl No.	Particulars	Financial Year (Last Three years ending 31st March of one year prior to the previous financial year)		
		FY.....	FY.....	FY.....
1	Turn-over on Construction works			
2	Profit/loss after Taxes (standalone)			

2. Financial Arrangement for carrying out the proposed work.

Unique Document Identification Number (UDIN)

Signature of Chartered Accountant with Seal

SIGNATURE (S) OF BIDDER (S)

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

FORM "C"

FORM FOR CERTIFICATE OF NET WORTH FROM CHARTED ACCOUNTANT

This is to certify that as per audited balance sheet and profit & loss account during the financial year, the Net Worth of M/S.
(Name & registered address of Individual/Firm/Company), as on
(the date of certificate) is Rs. after considering all liabilities. It is further certified that Net Worth of the company has not eroded by more than 30% in last three years ending on 31st March(one year prior to the previous financial 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 or 31st March 2024, if the balance sheet of the previous financial year has not been audited.

FORM "D"

FINANCIAL DATA

(WORK DONE DURING LAST FIVE FINANCIAL YEARS)

Name of the Bidder:-

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

Note:

- All such documents reflect the financial data of the tenderer or member in case of JV/Consortium, and not that of its parent company.
- The financial data in above prescribed format shall be certified by Chartered Accountant/Company Auditor under his signature and stamp in original along with membership no.

Unique Document Identification Number (UDIN)

Signature of Chartered Accountant with Seal

SIGNATURE (S) OF BIDDER (S)

FORM-E
WORKS IN HAND

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

Name of the bidder:-

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

Unique Document Identification Number (UDIN)

Signature of Chartered Accountant with Seal

SIGNATURE (S) OF BIDDER (S)

WORK

DIARY

PART A

1. Name of
Work.....

2. Contract Agreement No
.....

3. Date of
Acceptance.....

4. Name & Registered address of
Contractor.....
.....

5. Contract
Sum.....

6. Period of Contract
.....

7. Name and local address of Contractor / Contractor's Agent
.....

8. Date of First Works Order
.....

9. Date of Handing over the Site to contractor
.....

10. Date of commencement of work
.....

11. Stipulated date of completion of
contract.....

12. Suspension orders showing duration and
authority.....
.....

13. Extended date of completion with authority

.....

14. Date of actual completion of
work.....

15. Date of work taken over

.....

16. Date of expiry of Maintenance Period

.....

....

WORK DIARY PART B

DAILY RECORD

1. Weather_____

Labour engaged by Contractor

Skilled						Unskilled	
Category	No	Category	No	Category	No	Category	No
Concreter		Paviour		Glazier		Mate	
Bricklayer		Tiller		Plumber		Bhistry	
Mason		Painter				Mazdur (man)	
Carpenter		Polisher				Mazdur (Women)	
Joiner						Mazdur (boy)	

2. Important materials brought on site with approximate quantities (rejection, if any, to be stated)

Schedule 'B' material		Contractor's Materials		Rejections	
Materials	Quantity	Materials	Quantity	Materials	Quantity

3. Details of plant, equipment and transport and transport working on site

T&P	T&P Hired under Schedule "C"		Contractor's T&P equipment and Transport	
	Quantity	Remark's regarding breakdown maintenance etc	Quantity	Remark's regarding breakdown maintenance etc
Road Roller				
Concrete Mixer				

4. Brief Particulars of work in progress:
.....

5. Important stage completed and passed :
.....

6. Remarks of Visiting Officer :
.....

**Date signature of Engineer-in-charge or
representative**

**Date signature of Contractor or his
authorized representative**

FORM OF SUPPLEMENTARY AGREEMENT

This Agreement made this day the betweenhere in after called the First party which expression shall include his heirs, executors and administrators / their successors and assigns and the Chairman, Airports Authority of India through Hereinafter called the Second party which expression shall include his successors assigns, shown as under:-

1. That this Agreement shall be called as Supplementary Agreement to the Agreement No.relating to the construction ofentered into by the parties to this agreement.
2. That WHEREAS the first party has substantially completed the execution of the work described in and covered by the Agreement Noexcept the item mentioned in the schedule annexed to this Agreement And whereas the items of the work mentioned in the schedule annexed to this Agreement can't now be executed on account of non completion of the sanitary work, electric installation and some other work; and whereas both the parties are desirous that the items mentioned in the schedule annexed to this agreement should be executed by the first party after the completion of the sanitary work, electric installation and some other work, it is hereby further agreed as under:-
 - a) That the first party shall and will execute the work covered by the items mentioned in the schedule annexed to this agreement at the rates and as per the terms and conditions of the original Agreement nowhenever called upon to do so by the Engineer-In-Charge, within a period of one year from the date hereof.
 - b) That the first party shall have absolutely no claim of whatsoever nature against the second party for doing the work mentioned in the schedule annexed to this Agreement as required under clause (a) above, except that which he would be entitled to under the original Agreement No.....
 - c) That the first party shall be liable to execute all other items arising out of the original Agreement No which in the opinion of the Engineer-In-Charge are necessary.
 - d) That the first party shall start with the work of the remaining items mentioned in the schedule annexed to this Agreement withindays fromon the receipt of a letter to the effect from the Engineer-In-Charge or from any date fixed in the said letter and shall complete the said work within the time fixed by the said Engineer-In-Charge or as extended by him from time to time.
 - e) That on the due execution and completion of this agreement by the parties, the bill of the first party in relation to the work already done by him under the original Agreement No..... shall be provisionally finalized by the second party and payment on account, if any amount is due, shall be made to the first party provided that the second party shall have a right to retain such amount as is considered reasonable by him as a security for the execution of the work mentioned in the schedule annexed to this agreement and the second party shall have a right to deal with the said amount of security as he thinks proper under the terms and conditions of the original agreement. Further, on the due execution and completion of this agreement, the first party should be entitled to claim back his security deposit relating to the work in question, subject to the right of the second party to retain such amount as he thinks reasonable as mentioned above soon after the maintenance period of month(s), as the case may be mentioned in Clause of the original agreement, is over.
 - f) That the final bill relating to the entire work under the two agreements should be prepared after the completion of the entire work covered by Agreement No and this agreement.

3. Except as modified by this agreement the said Agreement No shall remain in full force and effect.

IN WITNESS WHEREOF THE ABOVE MENTIONED PARTIES HAVE PUT THEIR
signature
on this day the.....

(Signature of Contractor)
authority

_____ of accepting

For and on behalf of Chairman,
Airports Authority of India

(Signature of Witness)

(Signature of Witness)

Name & address of witness

Name & address of witness

FORM OF HYPOTHECATION DEED,**(on Non-Judicial stamp paper), [General Condition No.10B (ii)]**

THIS INDENTURE made this day.....of 200.. between *of the one part and Airports Authority of India here in after called AAI which expressions shall unless the context requires otherwise include its administrators, successors and assigns of the other part;

WHEREAS under Condition 10B(ii) of the General Conditions of Contract relating to the Contract Agreement no._____dated entered in to between AAI and the Contractor, the Contractor has applied to AAI for an advance of Rs.(Rupees_____only) for plant and equipment described in the Schedule hereto specifically acquired by the Contractor for the works and brought to site;

AND WHEREAS one of the conditions on which the said advance of Rs. (Rupees_____only) is to be granted by AAI to the Contractor is that the Contractor shall hypothecate the plant and equipment described in the Schedule hereto in favour of AAI as security for the due repayment of the said advance.

AND WHEREAS the Contractor has represented that he is the owner of the plant and equipment described in the Schedule hereto.

NOW THIS INDENTURE WITNESSETH THAT in pursuance of the said agreement and in the consideration of the premises the Contractor both hereby hypothecate, assign and transfer to AAI the plant and equipment described in the Schedule hereto to the intent that the same shall remain and form security for repayment to AAI of the advance of Rs. (Rupees _____ only) together with the interest there on at % per annum.

1. The Contractor hereby agrees, declares and covenants with AAI as follows:

- (a) The Contractor shall repay to AAI the said advance of Rs. _____ (Rupees _____ only) together with interest on as foresaid by (date) and agrees that the said advance be recovered by AAI making deductions in the manner provided in condition 54 of the General Conditions of Contract and other conditions of the contract from the claims made by the Contractor or against AAI for on account payment.
- (b) The Contractor has paid in full the purchase price of the plant and equipment described in the schedule hereto and each and every one of the same are the absolute property of the contractor and that the same have not been sold, pledged, mortgaged or transferred or in anyway dealt with by the Contractor.
- (c) So long as any amount remains payable to AAI by the Contractor in respect of the said advance of Rs. _____ (Rupees _____ only) the Contractor shall not sell, pledge, hypothecate, transfer, part with or in anyway deal with the plant and equipment described in the Schedule hereto.
- (d) If the said advance of Rs. _____ (Rupees _____ only) shall not be repaid by the Contractor or recovered in the manner described above by the said day of due to any reason whatsoever or the said Contract has been determined earlier or cancelled or if the Contractor shall sell, pledge, hypothecate, transfer, part with or in anyway deal with the plant and equipment or any part thereof or the Contractor or any of the partners in adjudged insolvent or the contract is to be wound up or makes any composition or arrangement with its creditors or the Contractor shall

commit breach of any of the terms and conditions or covenants as herein contained or if any of the said plant and equipment or if any other property whatsoever belonging to the Contractor has been sold or attached for a period of not less than 21 days in execution of any order or decree of any court for payment of money, the whole of the said advance of Rs. _____ (Rupees _____ only) or such part thereof as may have remained unpaid or unrecovered together with interest thereon shall forthwith become due and payable.

- (e) AAI may on the happening of any of the events mentioned in clause (d) or in the event of the said advance or any part thereof becoming due and payable and not being paid or recovered or cannot be recovered as provided in the said conditions, seize and take possession of the said plant and equipment (and either remain in possession thereof without removing the same or else may remove the same) and sell the said plant and equipment or any part of them either by public auction or private contract and may out of the sale proceeds retain the amount of the said advance and interest thereon remaining unpaid and un-recovered and all costs, charges, expenses and payments incurred or made in maintaining, defending or protecting the rights of AAI hereunder and shall pay over the surplus, if any, to the Contractor.
- (f) The Contractor shall at all times during the continuance of the security and at the expense of the Contractor insure and keep insured the plant and equipment described in the Schedule hereto for the full value thereof in the joint names of the Contractor and AAI with an insurance company to be approved by the Engineer-in-Charge against all risks of loss or damage from whatever cause arising other than the Excepted Risks. During the continuance of the security the Contractor shall pay all premia and sums of money necessary for keeping such insurance on foot and the insurance policy and receipts in original for premia paid shall be deposited with the Engineer-in-Charge. The Contractor shall assign all his right, title and interest in the policy to AAI.
- (g) The Contractor shall not permit or suffer the said plant and equipment or any part thereof to be destroyed or damaged or used to be abused or to deteriorate in a greater degree than it would deteriorate by reasonable wear and tear thereof in the performance of the Contract.
- (h) In the event of any damage or loss happening to the said plant and equipment or any part thereof from whatever cause other than the Excepted Risks the Contractor shall forthwith have the same repaired or replaced as the case may be or arrange for payment of the entire amount recovered or to be recovered from the insurance company to AAI towards the payment of the said advance of Rs. (Rupees only).

2. Upon repayment in full of the amount secured on account of this hypothecation deed the said plant and equipment secured hereunder shall stand released from hypothecation but this is without prejudice to the right of AAI under any other Conditions of the Contract.

SCHEDULE ABOVE REFERRED TO:

Sl.No	Particulars of Plant and Equipment	Nos	Purchase price / Price Considered reasonable by Engineer-in-Charge	Total Price	Advance (75% Col.5)
1	2	3	4	5	6

IN WITNESS WHEREOF the parties here to have executed these presents on the day and year first above written Signed and delivered by the within named _____ (Contractor) in the presence of

WITNES

S 1.

2.

Signed Shri _____

(Name and Designation)

For and behalf of Airports Authority of India in the presence of Witness

(1)

(2)

Note:

***For Proprietary Concerns**

Shri _____ son of _____ resident of _____ carrying on business under the name and style of _____ at (herein after called "the said Contractor" which expression shall unless the context requires otherwise include his heirs, executors, administrators and legal representatives).

For Partnership Concerns

1. Shri _____ son of _____ resident of _____

2. _____ son of _____ resident of _____ carrying on business in co-partnership under _____ the _____ name and style of _____ at (herein after collectively called "the said Contractor" which expression shall unless the context requires otherwise include each of the mand their respective heirs, executors, administrators and legal representatives)

For Companies

M/s. accompany
registered under the Companies Act, 1956 and having its registered office in the State of (Here in
after called "the said Contractor" which expression shall unless the context require so ther wise
include its administrators, success or sand assigns)

UNDERTAKING FOR DEPLOYMENT OF T & P

(To be given on Contractor's Letter Head)

Name of work: Renovation of Guest room at OTB, S.V. Airport, Raipur.

Name of Contractor/Firm:

I/We have applied for issue of tender for the above mentioned work and hereby undertake that:

- I/We have gone through the tender documents and drawings in its entirety and have understood the nature of work to be executed.
- I/We will deploy sufficient plant and machinery as per the requirement of work matching to achieve the milestone/targets and overall completion within the time period.
- I/We will deploy adequate T&P in working condition with adequate standby arrangement for efficient / timely execution of the work.
- I/We will abide by any instructions by AAI for such procurement / arrangement of T&P on lease as is considered necessary for efficient / timely execution of work.

Date :

Signature of Contractor

Advisory: For Applicant and its BG Issuing Bank Branch.

It is to be noted that along with physical BG; we have also activated an online facility to view the issued BG cover message transmitted to ICICI Bank through SFMS platform.

- For availability of BG in this platform, it is necessary that BG issuing/amending bank send the BG advice in the form of message format IFN 760COV (BG Issuance) / IFN 767COV (BG Amendment) via SFMS (Structured Financial Messaging System) as provided by RBI.
- In the event of BG issuing/amending bank not sending the message IFN 760COV/ IFN 767COV or committing any error while capturing the details at least in the below field, BG confirmation through online portal would not be updated.

Request you to notify your bank (BG issuing bank) to update below details at time of submission of BG issuance/amendment request to their respective banks:

BG advising message – IFN 760COV/ IFN 767COV via SFMS

IFSC CODE: ICIC0000007

Corporate Name- Airport Authority of India

<u>Field Number</u>	<u>Particulars (to be mentioned in Row 1)</u>
7037	<unique identifier> (LIST ATTACHED)

Please note that the issuing bank while issuing/amending the BG, should ensure that the above information is correctly captured in the message i.e. IFN 760COV/ IFN 767COV.

Please find below indicative request letter format to be sent to issuing bank for ensuring transmission of BGs through SFMS.

S No.	Name of the AAI Unit	Email ID	UNIQUE IDENTIFIER CODE (7037)
32	RAIPUR	bgv.raipur@aai.aero	AAIRAI PUR

Request Letter: Transmission of Bank Guarantee Cover Message <to be submitted
by applicant to BG issuing bank>

Date: _____

The Manager,

(Bank),

(Branch)

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

Dear Sir/Ma'am,

I/We, _____, request you to include unique identifier _____ in
field 7037 of the SFMS cover messages IFN COV 760 (for BG issuance) and IFN COV 767 (for BG
amendment) while transmitting the same to the beneficiary bank (ICICI Bank-IFSC-
ICIC0000007).

Thanking You,

(Vendor/Customer/Concessionaire)



PROFORMA FOR INVOCATION OF BANK GUARANTEE IN INR

Date:

The Chief/ Branch Manager, *

Subject : Invocation of Bank Guarantee No.....dated.....for
Rs..... Valid upto.....

Dear Sir,

AAI hereby notify to immediately encash the following Bank Guarantee and its extension thereof issued by your bank in favour of Airports Authority of India (AAI) on account of M/s..... towards Contract No..... dated..... awarded by AAI.

Bank Guarantee No.	Bank Guarantee Date	Bank Guarantee Amount (INR)	Validity Period	Sl. No. of Letter

The Original Bank letter with Sl. No..... along with the Original Bank Guarantee and extension thereof areis enclosed for encashment.

The proceeds of Rs..... be credited to the AAI current account as per details given below :

Beneficiary Account Name : Airports Authority of India
 Bank Name :
 Branch :
 Branch Code :
 Bank Account No.
 IFSC Code
 SWIFT Code

Kindly acknowledge receipt of this letter.

Please treat this matter as Most Urgent.

Thanking You,

Yours faithfully,

For and on behalf of
 Airports Authority of India

*To be addressed to Branch of Bank issuing B.G.
 CC: Bank's Head Office

Format Consent Letter

Dispute Resolution Clause-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 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

[Format for opting Mediation in existing Agreement*]-Paragraph 06 of TI

From:

_____,

To

No. _____ Date: _____

Reference: Agreement No. _____ for the work of _____ Court Case
Number/Arbitration between _____ & _____

Subject: Request to refer the existing dispute for mediation through medication Committee of
Independent Experts.

Sir,

Please refer the subject cited above. Vide agreement dated _____ for _____
disputes arose with regard to _____ and the matter is pending for/yet to be
referred for resolution/adjudication by Dispute Resolution Committee/ Dispute Resolution
Board/Arbitrator/_____ court.

I / we _____, do hereby request the Airports Authority of India to refer our disputes
/ ongoing dispute to MCIE as per AAI Mediation Policy dated _____ which are listed
as under:

- i.
- ii.
- iii.

We undertake to abide by the terms and conditions of the said policy of AAI and would not
question any settlement, if arrived, through Mediation. All cost/expenses of mediation shall be
borne equally with the Accepting part.

It is consented that by referring the matter to mediation, dispute resolution through
DRC/DRB under clause _____ of the agreement, is dispensed with.

Yours
faithfully,

(_____)

Authorized Representative of Requesting Party

(_____)

Authorized Representative of Accepting Party

Annexure-IA						
For the Month of						
Calculation of monthly Price Indices for Civil components of other construction materials based on All India Wholesale Price Index as published by Economic Advisor- For Building works						
S.No.	Description of construction materials	Commodity name as published by Economic Advisor	Commodity code	%age of individual/group items	*Index based on 2011-12 = 100	Weightage index of individual/group items
1	2	3	4	5	6	7 = 5 x 6
i.	Bricks and tiles	Manufacture of refractory products	1313020000	5.00		
ii.	Aggregates	Limestone	1103020002	7.00		
iii.	Sand, dust	Stone, chip	1313070002			
iv.	Granite flooring	Granite	1313070001	7.00		
v.	Paints, Varnish, Lacquer	Manufacture of paints, varnishes and similar coatings, printing ink and mastics	1310050000	2.00		
vi.	Ply & Commercial wood	Manufacture of veneer sheets; manufacture of plywood, laminboard, particle board and other panels and boards	1307020000	1.00		
vii.	SS tubes(railings, frames etc.) , GI Pipes	Pipes & Tubes	1314080000	1.00		
viii.	Ordinary Glass, Toughened Glass, FiberGlass	Manufacture of Glass & Glass product	1314090000	7.50		
ix	Aluminium related items i/c APC, roofing	Aluminium Alloy	1314090007	35.00		
x	GI Roofing	GP/GC sheet	1314050003	5.00		
xi	Sanitary ware	Manufacture of clay building materials	1313030000	1.50		
	Total			100.00		
	Price Index for civil components of other construction materials for the month			=		<u>Total of Column (7)</u> 100.00

* In case of change in base year the monthly Price Index shall be adjusted with applicable multiplying factor.

Annexure-IB						
For the Month of						
calculation of monthly Price Indices for Civil components of other construction materials !based on All India Wholesale Price Index - For Pavement Work						
S.No.	Description of construction materials for civil works	Commodity name as published by Economic Advisor	Commodity code	%age of individual/group items (Say)	*Weightage based on 2011-12 = 100	Weightage index of individual/group items
1	2	3	4	5	6	7 = 5 x 6
i.	Bricks	Plain bricks	1313020003	0.20		
ii.	Aggregates	Limestone	1103020002	56.20		
iii.	Sand/ Dust	Stone, Chip	1313070002	27.50		
iv.	Paints, Varnish, lacquer	Manufacture of paints, varnishes and similar coatings, printing ink and mastics	1310050000	10.90		
v.	Earth work, Concrete Production/Manufacture	Manufacture of Machinery for Mining, Quarrying& Construct ion	1318000000	0.20		
	Total			100.00		
	Price Index for civil components of other construction materials for the month of			=		<u>Total of Column (7)</u> 100.00

* In case of change in base year, the monthly Price Index shall be adjusted with applicable multiplying factor.

Annexure-IC

For the Month of

For Calculation of monthly Price Indices for Electrical, AS & IT components of construction materials based on All India Wholesale Price Indexes published by Economic Advisor - **For all (Building/Pavement) Works**

S.No.	Description of construction materials	Commodity code published by Economic Advisor	% age of Weightage of material for individual/group items	*Index based on 2011-12 = 100	Weightage Index of individual/group items
1	2	3	4		6 = 4 x 5
i.	Manufacture of other electronic and electric wires and cable	1317040000	13.68		
ii.	Generators & Alternator	1317010001	13.47		
iii.	Transformer	1317010004	3.73		
iv.	AC Motor	1317010005	15.46		
v.	Electric Switch gear control/ starter	1317010007	13.60		
vi.	UPS	1316010002	1.60		
vii.	Manufacture of wiring devices electric lighting & display equipment	1317050000	8.93		
viii.	Galvanized iron pipe	1314080001	6.10		
	MECHANICAL EQUIPMENT				
ix.	Cooling tower	1314040002	2.35		
x.	Water Pump	1314050003	2.11		
xi.	Chillers	1318080001	9.10		
x.	GP/GC Sheet	1314050003	9.87		
	Total		100.00		
	Price index for Electrical, AS & IT construction materials for the month of		=		<u>Total of Column (6)</u> 100.00

*In case of change in base year, the monthly Price Index shall be adjusted with applicable multiplying factor.

Percentage of Materials Component/ Labour for price adjustment under Clause- IOCC to be filled in Schedule-Z {For Item rate tenders)/ Schedule-Z {For EPC tenders) by the NIT approving authority

A- For Construction Period

S.No.	Relevant component of material/labour for prices escalation	%age of total value of work	For Item rate tenders	For EPC tenders
i.	Component of Cement		It shall be the %age cost of total Cement quantity of Cement, which shall be worked out on the basis of COEFFICIENTS FOR CEMENT CONSUMPTION as per CPWD DAR/MoRTH/AIRFIELD PAVEMENTS AOR/MR for all items, multiplied by rate considered in the Approved Technical Sanction/Detailed Estimate in respect to the cost of Civil works.	5.50 %age Civil Cost.
ii.	Labour component		To be decided by NIT approving authority as per Note -3 of para-3 of TC- 06/2023. TC- 06/2023	To be decided by NIT approving authority as per Note -3 of para-3 of TC- 06/2023. TC- 06/2023
iii.	Civil component of other construction material		It shall be the % age cost of Civil works after deduction of Labour, Cement, Steel, POL, Bitumen components as per the approved Technical Sanction Estimate.	It shall be the % age cost of Civil works after deduction of Labour, Cement, Steel, POL, Bitumen components as per the approved Technical Sanction Estimate.
iv.	Electrical & Mechanical (E&M) i/c IT & AS component of construction materials		It shall be the % age cost of Electrical & Mechanical (E&M) i/c IT & AS works after deduction of Labour components as per the approved Technical Sanction Estimate.	It shall be the % age cost of Electrical & Mechanical (E&M) i/c IT & AS works after deduction of Labour components as per the approved Technical Sanction Estimate.
v.	Component of POL		5.00 % for pavement works and Nil for building works	5.00 % for pavement works and Nil for building works
vi.	*Reinforcement steel bars/TMT bars/ Structural Steel (i/c strands and cables)		It shall be the %age cost of total quantity of Steel (TMT bars/Structural Steel) worked out as per the Approved Technical Sanction/Detailed Estimate in respect to the cost of Civil works.	26.0% of %age Civil Cost.

vii.	Component of Bitumen		It shall be the % age cost of total quantity of Bitumen, which shall be worked out on the basis of COEFFICIENTS FOR BITUMEN CONSUMPTION as per CPWD DAR/MoRTH/ AIRFIELD PAVEMENTS AOR/MR of all items multiply by rate considered in the approved Technical Sanction/ Detailed Estimate, in respect to cost of Civil works.	It shall be the % age cost of total quantity of Bitumen, which shall be worked out on the basis of COEFFICIENTS FOR BITUMEN CONSUMPTION as per CPWD DAR/MoRTH/ AIRFIELD PAVEMENTS AOR/MR of all items multiply by rate considered in the approved Technical Sanction/ Detailed Estimate, in respect to cost of Civil works.
	Total	100%		

Percentage of Materials Component/ Labour for price adjustment under Clause- IOCC to be filled in Schedule-F {For Item rate tenders)/ Schedule-Z {For EPC tenders) by the NIT approving authority

B- For Maintenance Period

S.No.	Relevant component of material/labour for prices escalation	%age of total value of work	For Item rate/EPC tenders
i.	Labour component		To be decided by NIT approving authority as per Note -3 of para-3 of TC-06/2023
ii.	Civil component of other construction material		It shall be % age cost of Civil works after deduction of Labour and Bitumen components as per the approved Maintenance Estimated cost.
iii.	Electrical & Mechanical (E&M) i/c IT & AS component of construction materials		It shall be the % age cost of Electrical & Mechanical (E&M) i/c IT & AS works after deduction of the Labour component as per the approved maintenance Estimated cost.
iv.	Component of Bitumen		It shall be the % age cost of total quantity of Bitumen, which shall be worked out basis on COEFFICIENTS FOR BITUMEN CONSUMPTION as per MPWD DAR /MaRTH /Airfield Pavement AOR/ MRB systems multiply by rate considered in the approved Technical Specifications and Detailed Estimated cost in respect of Civil works.
	Total	100%	

Calculation Example is given at APPENDIX A

APPENDIX-A

Calculation Example for Percentage against total value of work to be filled in Schedule-F

Suppose Estimated Cost put to tender EPC Model for a Composite work like Terminal Building project including Civil, Electrical, AS & IT works is Rs. =

		500	Cr.	Capital Cost
1	Cost of Civil Works	300	Cr.	60.00%
2	Cost of Electrical i/c AS&IT Works	200	Cr.	40.00%
	A + B =	500	Cr.	
A	To be filled in Schedule-F- For Construction Period			Percentage against total value of work
i.	Labour component	As part as per Note -3 of para-3 of TC - 26/2023 For B/SITC Electricals		25.00%
ii.	Cement Component	5.50% of Civil cost i.e. 5.50% of 300 = 16.50		3.30%
iii.	Component of Steel	26.00% of Civil cost i.e. 26.00% of 300 = 78.00		15.60%
iv.	Component of Bitumen	0.00% of Civil cost i.e. 0.00% of 300 = 0.00		0.00%
v.	Component of POL	0.00% of Civil cost i.e. 0.00% of 300 = 0.00		0.00%
vi.	Civil Component of other construction after deduction of Cement, Steel, Bitumen, POL and Labour Components	= 60 - (5.50 + 26.00 + 0.00 + 25.00)/100 x 60		26.10%
vii.	Component of Electrical i/c AS&IT Works after deduction of Labour Component	= 40 - (25)/100 x 40		30.00%
	Total			100.00%

APPENDIX-A				
B	To be filled in Schedule-F- For Maintenance Period			
Suppose Estimated Cost put to tender of a Composite work like Terminal Building project including Civil, Electrical, AS & IT works is Rs. =		50	Cr.	Maintenance Cost
1	Cost of Civil Works	5	Cr.	10.00%
2	Cost of Electrical i/c AS&IT Works	45	Cr.	90.00%
To be filled in Schedule-F- For Maintenance Period				Percentage against total value of work
i.	Labour component	As part as per Note -3 of para of TC - 06/2023 For Other Maintenance work/ ITC works		70.00%
ii.	Bitumen component (For Pavement work component)	0.00% of Civil cost i.e. 0% of 10% = $0.00/100 \times 10$		0.00%
iii.	Civil Component of other Construction Materials after deduction of Bitumen and Labour Components	= $10.00 - 0.00 - 70.00 = 3.00$ $3.00/100 \times 100$		3.00%
iv.	Component of Electrical i/c AS&IT Works after deduction of Labour Component	= $90.00 - (0.00 + 70.00)/100 \times 90$		27.00%
Total				100.00%

Proforma 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: Renovation of Guest room at OTB, S.V. Airport, Raipur. (Civil & Electrical Works)

Tender ID: (2026_AAI_28250_1)

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:

ANNUAL VALUE OF GENERAL CONSTRUCTION WORK DURING THE LAST FIVE YEARS ENDING 31.03.2025

Name of the firm/contractor _____
(Fig. in lakhs Rs.)

Sl. No.	Particulars	Financial Year (Last Five Financial Years)				
		2024-25	2023-24	2022-23	2021-22	2020-21
1.	Annual Value of General Construction works carried out in the corresponding financial year. (excluding GST)					
2.	Annual Value of similar nature of works (as per NIT) in the corresponding financial year (excluding GST)					

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

Signature of Chartered Accountant
With seal

Signature of Bidder with seal

SUPPLEMENTARY AGREEMENT

This Agreement made on this between here in after called the First party which expression shall include his heirs, executors and administrators / their successors and assigns and the Chairman, Airports Authority of India through hereinafter called the Second party which expression shall include his successors assigns, shown as under:-

1. That this Agreement shall be called as Supplementary Agreement to the Agreement No. relating to the [Name of work] entered into by the parties to this agreement.

2. It is hereby further agreed as under:-

Notwithstanding anything contained in this agreement, Parties agree that during the Contract Period along with Defect Liability Period, in the event the Authority opts to transfer its rights such as operation, maintenance, development etc. of the Airports to a third party under PPP model or in any manner as may be decided by AAI/Government of India, then the Authority shall have the right to assign/novate/alter this Agreement, in favour of such third party, to which Work/Contract Executing Agency/Contractor hereby gives their consent unconditionally and Authority will not be bound to obtain any further consent of Work/Contract Executing Agency/Contractor. Such assignment/novation/alteration would release Authority of all liabilities and obligations arising under this agreement from and after the date of assignment/novation/alteration and the rights and obligations of Authority under this Agreement and other arrangements entered into in accordance with the provisions of this Agreement shall be vested in such third party. The Parties, along with relevant third party shall execute necessary documentation or put in place necessary agreements for the aforesaid assignment/novation/alteration as and when need arise.

3. Except as modified by this agreement the said Agreement No shall remain in full force and effect.

IN WITNESS WHEREOF THE ABOVE MENTIONED PARTIES HAVE PUT THEIR signature on this day the

(Signature of Contractor)

(Signature of accepting authority
For and on behalf of Chairman, Airports
Authority of India

(Signature of Witness)

(Signature of Witness)

Name & address of witness

Name & address of witness

Special Conditions of Contract (Civil Works)

SPECIAL CONDITIONS OF CONTRACT

1. GENERAL

- 1.1 Special conditions of Contract shall be read in conjunction with General Conditions of Contract, Technical Specifications, Drawings, BOQ and any other documents forming part of this contract wherever the context so requires.
- 1.2 Notwithstanding the sub-division of the documents into these separate sections and volume every part of each shall be deemed to be supplementary to and complementary of every other part and shall be read with and into the CONTRACT so far as it may be practicable to do so.
- 1.3 Where 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 intention 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.
- 1.4 Nothing extra shall be payable on account of various activities to be performed as per special conditions of contract except where so specified.

2. COMPLETION SCHEDULE

- 2.1 Contractor shall have to plan his construction programme and activities so as to complete the work in the stipulated period by working in **multiple shifts**. Accordingly, contractor to ensure adequate lighting arrangement (Mobile Tower) as per site requirement. 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.
- 2.2 The contractor shall furnish within 15 days from the stipulated date of start of work a time schedule program for completion of the work within the stipulated time and as per conditions of the contract. The programme 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 programme shall be subject to the approval of engineer-in-Charge who may order changes in the programme. The decision of Engineer-in-Charge shall be final and binding in this regard.
- 2.3 Contractor is expected to mobilize and employ sufficient resources to achieve the progress within the broad frame work of accepted methods of working and safety. Timely deployment of required machineries, equipments, apparatus and instruments are to be treated as one of the sections of the work.
- 2.4 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.
- 2.5 During the currency of the work the contractor is expected to adhere to the time schedule or mile stone and total completion and this adherence will be a part of Contractor's performance under the contract.

- 2.6 The Engineer-in-Charge can hold the payment till such time; the contractor does not submit the time schedule programme. The Contractor will be fully responsible to submit scheduled programme in consultation with Engineer-in-Charge to complete the work within stipulated time.

2.7 PERFORMANCE:

- a. The contractor shall perform all works in substantial and acceptable manner in accordance with the plans and specification and in accordance with such further explanatory drawings, details and instructions as may from time to time be given by the Engineer-in-Charge. The work must be proceeded within such sections and such times as directed by the Engineer-in-Charge.
- b. The contractor shall provide and do everything necessary for the proper execution of the works according to the true intent and meaning of the drawing and specification taken together the same may or not be particularly shown on the provided that the same can be reasonably inferred there from. Figured dimensions to be followed in preference to scale dimensions and all particulars to be taken from the actual work.
- c. It must be clearly understood that the whole of the conditions are intended to be strictly enforced and that no extra charges in respect of extra work will be allowed unless they are clearly outside the spirit and meaning of the conditions or unless such works shall have been ordered in writing by the Engineer-in-Charge.

3 SCOPE OF WORK

Works to be carried out as per the Bill of Quantities/Structural details and design as approved by AAI and any other related works considered necessary.

4. DRAWINGS AND DOCUMENTS

- 4.1 The drawings accompanying the tender document, if any, are of indicative nature and issued for tendering purpose, with the purpose to enable the tenderer to make an offer in line with the requirements of the AAI.
- 4.2 The execution of work shall be as per the "Approved Drawings" and detailed specifications. No claim whatsoever, shall be entertained for variation in the approved for construction drawings and tender drawings, if any.
- 4.3 However, no extra claim whatsoever, shall be entertained for variation in the "Approved for Construction" and "Tender drawings" regarding any changes. The execution of work shall be as per approved drawings and detailed specifications.

5. BILL OF QUANTITIES

- 5.1 The Bill of Quantities shall be read in conjunction with General Conditions of Contract, Special Conditions of Contract, Technical Specifications, PWD, AAI and MoRTH specifications, Drawings and any other Document forming a part of this tender. The quantities shown against the various items are only approximate and subject to variations as made in General Conditions of the Contract.

6. LICENSE FEE FOR LAND ALLOTTED BY AAI

- 6.1 Land/space (Paved/ Unpaved/ Covered-AC or Non-AC), to the extent allotted to contractors during execution of work for the purpose of installation of plants, labour camps, cement godown, site offices, stacking of materials shall be provided at free of cost up to defect liability period/ maintenance period.
- 6.2 A security deposit at the rate of Rs 500/- per sqm in the form of DD/BG shall be deposited by the contractor. In case contractor do not deposit security deposit same shall be deducted from Ist Running Account Bill.
- 6.3 Such security deposit shall be released only after allotted land has been fully vacated by the contractor to entire satisfaction of Engineer-in-charge. If contractor fails to vacate the allotted land/space (Paved/Unpaved/Covered-AC/Non-AC) after Defect Liability Period/Maintenance Period of the work shall be charged as per prevailing licence fee of the airport plus 25% penalty over that.
- 6.4 **Land for Labour Camps:** Labour camps will be permitted within the premises of Raipur Airport but excluding operational and restricted area, if land for such purpose is available with security deposit as per clause no.-6.1 of SCC, otherwise the contractor shall make the necessary arrangements at any other suitable place at his own cost, with prior approval of Engineer-in-Charge.

7. TEMPORARY WORKS

- 7.1 The Tenderer should see the approaches and conditions of the same. If any approach from main road is required at site or existing approach is to be made and maintained for cartage of materials etc. by the Contractor, the same shall be provided, improved and maintained by the Contractor at his own cost.
- 7.2 The contractor shall segregate the site of work from other area by providing barricades as directed by the Engineer-in-Charge if required by providing wooden/steel barricades of appropriate height with proper framing, keeping the aesthetic view and safety. The barricading towards operational area shall be painted with red and white paint as directed by Engineer-In-Charge. After completion of the work these shall be removed and taken away by the contractor. Cost of providing the barricades, sign boards etc. shall be borne by the contractor and nothing extra shall be paid on this account.
- 7.3 All Temporary and ancillary works including enabling works connected with the work shall be responsibility of the Contractor and the price quoted by them shall be deemed to have included in the cost of such works which shall be removed by the contractor at his cost, immediately after completion of the work and nothing extra shall be paid.
- 7.4 Site clearance (as per the requirements) shall be arranged by the contractor at his own cost and nothing extra shall be payable on this account. All the salvageable materials received after demolitions, if any, are to be stacked properly and handed over to Engineer-in-Charge. These dismantled materials shall be the property of the Airports Authority of India.

8. PAYMENTS

- 8.1 For the work done by the agency, R/A bill are to be processed as per schedule "F" Clause-7. These bills shall be prepared based on joint measurements on a prefixed date fixed by Engineer-in-charge. If the Contractor or his authorized representative does not present/associates for joint measurements, ex-parte measurements of the work done since previous bill shall be recorded by the Engineer-in-charge or his authorized representative for the purpose of bill/payments. The contractor shall submit all the bills on the Performa prescribed by the Engineer-in-Charge, in triplicate. The bill need to be submitted as per GST invoicing format, or as per relevant rules and regulation prescribed by AAI.
- 8.2 The payment shall be made from the AAI Office at concerned Airport or from Regional Head quarter, Eastern region, AAI.

9. INCOME TAX AND LABOUR CESS

- 9.1 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.
- 9.2 Labour cess @1% or as per rules and regulations in force shall be deducted from the bills of the contractors and deposited with designated authorities.

10. WATER

- 10.1 Contractor shall make his own arrangements of suitable water supply for the work and his staff and workmen at his own cost. The testing charges of water shall be borne by the contractor.
- 10.2 Generally water required for the work shall not be given by AAI and same has to be arranged by the Contractor. In case AAI water source is available near the work site and water can be spared to the contractor as per discretion of the Engineer-in-Charge, the Contractor may draw water from the AAI source as approved by Engineer-in-Charge.
- 10.3 Wherever AAI water source used by the Contractor. 1% of gross bill amount (work done) shall be deducted from the running/final bill.

11. POWER SUPPLY

- 11.1 Generally electricity required for the work shall not be given by AAI and same has to be arranged by the Contractor. In case AAI electricity source is available near the work site and electricity can be spared to the contractor as per direction of Engineer-in-charge. The contractor may draw electricity from the AAI source as approved by Engineer-in-charge.
- 11.2 Necessary meter and connection from the source as approved by Engineer-in-charge shall be arranged by the contractor. No extra payment towards meter and connection arrangement shall be paid by AAI
- 11.3 Wherever AAI's source of electricity is used by the contractor. Charges as fixed by the local Electricity Board/Authority for per unit shall be charged from the Contractor.

12. CONTRACT AGREEMENT

- 12.1 The contract agreement shall be executed on a non-judicial stamp paper of value Rs. 100/- and cost of the stamp paper shall be borne by the Contractor.
- 12.2 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

- 13.1 The contractor shall without prejudice to his overall responsibility to execute and complete the work as per specifications and time schedule, progressively deploy adequate equipments, tools, tackles and augment the same as decided by the EIC depending on the exigencies of the work so as to suit the construction schedule. However, contractor has to deploy following minimum machineries at site as given below:-

Sl. No.	Equipment Description	No.
1.	Weigh Batch Hot Mix Plant/Ready mix plant	1 No.
2.	Self-Propelled Electronic Sensor Paver	1 No.
3.	Vibratory roller 8 to 10 tonne	1 No.
4.	Tippers/Dumpers	2 Nos.
5.	Hydraulic Excavator	1 No.

NOTE:

1. Apart from the Tools and Plants quantity shown above, contractor is required to deploy additional T&P if required and directed by EIC to ensure timely completion of work.
2. In the interest of progress of work, if early deployment of any machinery/equipment is desired by EIC then the contractor shall deploy the same as per the direction of EIC. For such early deployment claim whatsoever shall be entertained.

13.2 EQUIPMENTS FOR NIGHT WORKING:

In case, it appears, at any stage that the project 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 by the contractor at his own expenses.

- 13.3 No Construction equipment shall be supplied by the AAI.

14. SITE ORGANISATION

- 14.1 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 equipment 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.

15. FIELD LABORATORY AND LIST OF EQUIPMENTS: -

- 15.1 The contractor at his own cost shall set up a fully furnished and adequately equipped field laboratory at site within 4 days from the schedule date of start of work and maintain the same by providing adequate technical and upkeep staff. The laboratory should have office space for engineers to do testing and store for storage of samples. The remaining space shall be provided for

the installation of equipment, laboratory tables and cupboards, working space for carrying out tests, besides a wash basin, toilet facility.

The following minimum equipment shall be provided in the laboratory.

Sl. No.	Description of Items	Quantity
A.	GENERAL	
i)	Balance 20 kg capacity – self indicating type	1 No.
ii)	Electronic Balance 5 Kg capacity 0.5gm	2 Nos.
iii)	Water bath-electrically operated and thematically Controlled with adjustable shelves, sensitivity 1 deg C.	1 No.
iv)	Thermometers : Mercury-in glass thermometer range 0 to 250 deg C. Mercury-in steel thermometer with 30 cm stem, range up to 300 deg C.	4 Nos.
v)	Electric Oven/electric hot plate/Kerosen or gas stove.	1 No.
vi)	Set of IS sieves with Lid and pan with mechanical shaking apparatus; 450 mm diameter : 65mm, 40mm, 25mm, 12.5mm, 10mm and 75mm size and any other sieve required at site.	2 Sets.
vii)	200 mm diameter : 2.36mm, 2.0mm, 1.18mm, 600 micron, 425 micron, 300 micron, 150 micron and 75 micron and any other sieve required at site.	2 Sets.
viii)	Water Testing Kit	1 Set
ix)	First Aid Box	1 Set
x)	Measuring Jar for Silt contents	2 Nos.
B	APPARATUS FOR AGGREGATES	
i)	Aggregate Impact Value Test apparatus	1 Set
ii)	Los angles Abrasion Test apparatus	1 Set
iii)	Flakiness and Elongation Test Gauges.	1 Set
iv)	Standard measure of 30, 15 and 3 liters capacity along with standard tamping rod.	2 Set.
C.	SURVEYING INSTRUMENTS	
i)	Steel Tapes 50 meters, 15 meters and 5 meters.	2 Nos. each
ii)	Total station survey equipment/Theodolite/Auto level	1 Set
D	OTHER MISCELLANEOUS FIELD AND LABORATORY APPARATUS	
i)	Field Density Apparatus along with cutting tray, chisel, hammer and standard rod. (Sand Replacement Method).	2 Nos.
ii)	Proctor Hammer for assesting Density	1 Set.
iii)	3m straight edge	1 No.
iv)	Camber Board	1 No.
v)	Manual Core cutting machine with 10cm diameter diamond cutting edge.	1 Set.
vi)	Vacuum Pump and standard needles.	1 Set.
vii)	Penetrometer with specific gravity bottles.	1 Set
viii)	Centrifuge type bitumen extractor, hand operated, complete with commercial benzene.	2 Set.
ix)	Marshall stability test apparatus, complete with all accessories.	2 Set.
x)	Electronic Moisture Meter	1 No.

15.2 In addition to tools, equipments, apparatus and instruments as directed above, if any, additional tool equipment apparatus and instrument is required for laboratory and execution of work as per technical specification of NIT the same shall be provide by contractor. Nothing extra shall be payable to contractor on this account.

15.3 The Engineer-In-Charge, may at his discretion, check the test results obtained at contractors
C-NIL I-NIL O-NIL

laboratory by independent tests at an approved laboratory. The cost of such material, transport, cost of testing etc. shall be borne by the contractor.

16. CLOSING DAY'S WORK

- 16.1 After the closure of day's work, all equipment and materials must be placed at a location, approved by Engineer-in-charge.

17. INSPECTION OF SITE AND TESTING

- i) The Engineer-in-Charge or his authorized representative shall have full power to inspect any portion of the work, examine the materials and workmanship at the contractors works or at any other place from where the material is obtained. Acceptance of any material shall in no way relieve the contractor of his responsibility for meeting the requirement of the specifications.
- ii) Routine type tests for the various items of material shall be performed at the contractor's works and test certificates furnished. The contractor shall permit the Engineer-in-Charge or his authorized representative to be present during any of or all the tests. After notification to the Engineer-in-Charge that the work has been completed, the contractor shall make under the direction and in the presence of Engineer-in-Charge such tests and inspections as have been specified or as the Engineer-in-Charge shall consider necessary to determine whether or not the full intent of requirements of the plans and specifications have been fulfilled. In case the work does not meet the full intent of the specifications it shall be rectified by the Contractor at no extra cost and the contractor shall bear all the expenses for any further tests considered necessary.
- iii) All tools, instruments, plants, material and labour/operating personnel for the test shall be provided by the contractor at his own cost.
- iv) All branded materials shall be supplied with manufacturer's certificate. If AAI wants to carry out any test on the material supplied by the contractor through an outside laboratory to verify any of the parameters, the testing charges for such tests shall be borne by AAI. In case of failure to meet the test/specifications criteria, testing charges of such samples shall be recovered from the contractor. The defective material shall be replaced by the contractor with suitable material and the contractor shall be liable to carry out such tests thorough an outside laboratory as the Engineer-In-Charge may decide to verify important parameters of the specifications of the material.
- v) The Engineer-in-Charge may at his discretion, check the test results obtained at contractors laboratory by independent tests at an approved laboratory. The cost of such material, transport, cost of testing etc. shall be borne by the contractor.

18. ADMISSION TO SITE

- 18.1 For the works falling within the restricted area, execution shall be restricted to operational requirement. The contractor is expected to finish the work before each break by adequate planning with suitable constructions joints etc. as per the satisfaction of Engineer-in-charge. All men & vehicles shall be permitted to enter the aerodrome operational area only on possession of the security passes issued by AAI / Security agencies on the recommendations of Engineer-in-charge. The contractor shall apply in writing in advance of the commencement of work for issue of security passes and shall submit a list of personal concerned with their

addresses and shall satisfy the Engineer-in-charge who shall at his discretion, have the right to recommend the issue of passes to control the admission of contractor, his agents, his staff and workmen. The contractor shall ensure that his men shall work in areas / zones allotted to them. Passes shall be deposited with the Engineer-in-charge on demand and in any case immediately after completion of work. The contractor's staff/workmen shall observe all the rules promulgated from time to time by the concerned authorities such as prohibition of smoking & lighting, search of persons on entry and exit, keeping to specified routes etc. Any person found violating the security rules laid down by the authorities will be expelled from the area without assigning any reason whatsoever and contractor shall have no claim on this account. No time extension shall be granted and nothing extra shall be payable by AAI on account of restriction due to non-operational hours and working in restricted working conditions.

For entry of any vehicle inside the airport operational area a separate temporary vehicle entry permit shall be issued, and the same will be charged as per AAI existing fee as applicable from time to time. Nothing extra shall be paid to contractor /agency on this account.

Besides levying charges on entry of vehicles in operational area, it has been decided to levy charges on the issuance of Airfield Driving Permit (ADP) after according necessary training. The charges for issuance of ADP shall be as per rates prevalent at that time.

It may also be noted that, in addition to the aforesaid charges for vehicle permit, GST at the prevalent rate will also be charged as per the Govt. policy.

Note: - Security Clearance- The contractor shall apply for security clearance after the award of work. It is the responsibility of contractor to take security clearance from concerned department (AAI/BCAS) within required time frame (One month) as well as after security clearance, security programme shall also be approved from concerned department.

- The movement of all workers and vehicles at the construction site shall be made through gate no. 04 only and shall be under constant supervision and control of the ASG/CISF Personnel.
- The nominal roll and the police background check of all the persons working at the construction site shall be ensured by the Contractor and the record of the same shall be maintained at the construction site and shall be shown to the BCAS and ASG/CISF whenever asked for.
- The movement of the vehicles & construction workers involved in the construction activity shall be restricted to the confined area of the construction site only.
- During the construction work proper signage and caution boards are put into that area. Further caution tape shall also be placed on the work site to segregate the place.
- During the time of construction work, one Site In-Charge from the Contractor side shall be appointed to supervise all movement, and construction activities and ensure the compliances / recommendation as the proposed site is a part of the operational area.
- Contractor shall make all necessary arrangements to prevent any incident of unlawful interference with the civil aviation operations through this infrastructure development.

Requirements related to AEP before working at Civil Airports

Any agency or entity operating, working, providing services or facilities at the security restricted areas of an aerodrome have to obtain security clearance and approval of security programme as applicable and specified by the Director General of BCAS,

For issue of Aerodrome Entry Permit (AEP) following points are required:-

1. If any agency receives any work order from AAI, the agency himself have to upload the Security Clearance through BCAS online portal i.e. <http://www.esahaj.gov.in>. if it is a fresh entity or first time working entity at airport sector.
2. After approval of Security Clearance, the entity shall have uploaded the Security Programme through e-bcas portal i.e. <http://www.ebcas.gov.in>
3. Appoint of ASCO (Aviation Security Coordiante Office) and ASCO shall have undergone the 05 days Induction coourse with BCAS approval ASTI.
4. Back ground check of all staffs from superintendent Office by Agency in his letter pad.
5. Back ground check copy shall be attached in the AEP application forms.
6. One day on-line AVSEC Awareness Training of all staffs.
7. One BCAS Back Ground Check form shall be filled by the agency and submitted to the office for onward submission to RD, BCAS for generation of Back Ground Check by BCAS.

ISSUANCE OF VEHICLE PERMITS

Vehicle Entry Permit is required to be issued to vehicles which are required to operate on airside area.

Documents required:

- ✓ Notification from the employer / owner of vehicle regarding requirement of vehicle in operational area.
- ✓ Copy of Registration Certificate.
- ✓ Copy of Insurance policy of vehicle.
- ✓ Copy of Pollution check certificate of vehicle.

Vehicle inspection before issuance of Vehicle Entry Permit

The vehicle inspection is required to be carried out by safety officer before issuance of vehicle entry permit. The following aspects to be ensured: -

- Vehicle is in road worthy condition
- Obstacle lights in accordance with CAR wherever night operation / low visibility operations take place.
- Vehicle marking ensured: - logo of company / agency. Speed governors to restrict speed of vehicle.

19. STORES AND MATERIALS

- 19.1 No storage accommodation will be arranged by AAI. Contractor shall make all such arrangements at his own cost to the satisfaction of Engineer-in-Charge.

20. SITE FOR STACKING OF MATERIALS, MACHINES, INSTALLATIONS OF T&P AND CONSTRUCTION OF TEMPORARY HUTMENTS.

The contractor shall be allowed to install plants and machineries, store and stack the material and construct temporary hutments for labour during construction operation within Airport premises in non-operational area subject to availability. Location selected by Engineer-in-Charge shall be final and binding and nothing extra shall be payable to the contractor for any extra lead involved from the work site and also no charges will be levied by the AAI for such temporary use of land by contractor, however contractor has to vacate, the Airport premises occupied for above said purpose immediately after completion of the work.

21. STANDARD OF WORKMANSHIP

- 21.1 To determine the acceptable standard of workmanship, the contractor shall execute portion of the item of work as sample for approval of the Engineer-in-Charge, before taking up the actual execution of the particular item of work.

22. BYE-LAWS

- 22.1 The contractor shall comply with all bye-laws and regulations of local and statutory authorities having jurisdiction over the works and shall be responsible for payment of all fees and other charges and for giving and receiving of all necessary notices and keeping the Engineer-in-Charge, informed of the said compliance with the bye-laws, payments made, notices issued and received.
- 22.2 The contractor shall indemnify the AAI against all claims in respect of patent rights, design, trademarks of name or other protected rights in respect of any plant, machine, work or materials used for or in connection with the work or temporary works and from and against all claims, demands, proceedings, cost, charges and expenses whatsoever in respect of or in relation thereto. The contractor shall defend all actions arising from such claims and shall himself pay all royalties, license fees, damages, costs and charges of all and every sort that may be legally incurred in respect thereto.

23. SITE PRECAUTIONS

- i) Any materials or T & P etc. found lying outside the sites approved by the Engineer-in-Charge shall be removed by the Engineer-in-Charge at the risk and cost of the contractor.
- ii) With regard to construction safety measures, the contractor shall adhere to various Indian Standard Codes of Practice, requirements of Provincial Government and local Municipal Authority wherever the provisions of the latter two agencies shall be more stringent than the provisions of the former. When these codes do not exist, the contractor shall adhere to such safety measures as directed by the Engineer-in-Charge.
- iii) The contractor shall, during construction, provide barricades as per specifications prescribed by the Engineer-in-Charge to segregate the working area to ensure safety of all concerned. No extra payment shall be made to the contractor on this account.
- iv) The contractor shall be responsible for any damage, resulting from his operations, either to buildings, structures, airport fixtures such as underground cable, contact lights, hard surface areas, water mains, other operational installations, Airport roads etc. The contractor shall restore, replace or repair any such damage to the complete satisfaction of the Engineer-in-Charge and in default the Engineer-in-Charge may cause the same to be made good by any other means and deduct the expenses from any sums due to contractor.

24. The contractor shall take all precautions to avoid all accidents by exhibiting necessary day & night caution boards, speed limit boards, red flags, red lights and providing barriers. He shall be responsible for all damages and accidents caused due to negligence on his or his personal's part. No hindrances shall be caused to traffic during execution of work.
25. No payment will be made to the contractor for damage caused by rains or other natural calamities during the execution of the works and no such claim on this account will be entertained.
26. The contractor shall remove the labour huts, temporary barricades etc. on completion of the work and leave the site in a neat and tidy state. The payment of final bill will be subject to the compliance of this condition by the contractor.

27. MATERIAL AT SITE

- 27.1 Materials brought to the site by the contractor shall be stored by the contractor in a safe and dry storage space. The contractor shall be responsible for safe custody of materials at site till such time; the installation is commissioned and handed over to the Engineer-in-Charge.
- 27.2 Cement bags shall be stored in separate godowns to be constructed by Contractor at his own cost with weather proof roofs and walls. Each godown shall be provided with a single door with two locks, the keys of one lock shall remain with AAI Engineer-in-Charge of work and that of the other lock with the authorized agent of the contractor at the site of work so that the cement is removed from the godown according to the daily requirement with the knowledge of both the parties and the account maintained in the Performa approved by the Engineer-In-Charge.
- 27.3 The contractor is required to submit the bill receipt for cement, lime, paint and any other item incorporated in works for which Engineer-in-charge directs.

28 WORKING IN RESTRICTED AREA AND RESTRICTED TIME:-

- 28.1 For the work to be carried out in Operational area, whenever necessary, the work shall be carried out in the non-operational period or night also. The Contractor shall have to coordinate with the Aerodrome Authority for locating T&P and stacking of materials, issuing passes etc. Nothing extra shall be paid to the contractor for the entire above factor.

29 ARRANGEMENT TO BE MADE BY THE CONTRACTOR AT SITE SITE OFFICE, VEHICLES AND OTHER PLANTS & EQUIPMENTS

- 29.1 Necessary diesel/petrol/fuel & lubricants etc. for smooth running of all the equipments, vehicles and machineries deployed for the work shall be provided by the contractor at his own expense. In the event of any break down of the plant, vehicles and machineries deployed for the work, the contractor shall take prompt remedial measure to put them back in working condition and nothing extra will be paid. To minimize break down period, necessary spare parts shall be kept readily available at site by the contractor at his own expense.
- 29.2 The equipment required for execution of work should be positioned as per instructions of Engineer-in-charge. No rent or security deposit of land shall be charged for stacking of material/ movable machinery required for execution of work in available land in consultation with Engineer-in-charge.

- 29.3 Necessary registers and stationery required for entering data and test results shall be provided by the contractor at his own cost as directed by the Engineer - in- Charge.
30. The agency is also required to provide specific safety devices to the manpower deployed at site for the work as detailed below:-
- i) Safety helmets and foot wears are to be provided for the workers.
 - ii) Safety belts, protective Goggles, Hand gloves etc are to be provided as per requirement and nature of job.

31. APPARTITIONING OF WORK

The Airport Authority of India reserves the right to appartition the work at different levels amongst not more than two contractors, by negotiations, if necessary.

- 31.1 i) In order to encourage use of fly ash as per Govt. of India guidelines, Portland Pozzolana Cement (PPC) of approved grade shall be used for the work. It shall be ensured that the percentage of fly ash is printed on each bag of cement (PPC) by the manufacturer. In case, it is not printed on each bag, a certificate from the PPC manufacturer indicating the same shall be obtained before allowing such cement in works.
- ii) In case OPC is used by the agency, Engineer-In-Charge may permit use of the same.
- iii) In case the contractor uses OPC, he must use 43 grade OPC. The contractor is allowed to use 53 grade OPC only in case of non-availability of 43 grade OPC wherever possible with prior approval of Engineer-In-Charge. However nothing shall be paid extra to contractor on this account.

32. PERFORMANCE

The contractor shall perform all works in substantial and acceptable manner in accordance with the plans and specifications and in accordance with such further and explanatory drawings, details and instructions as may from time to time be given by the Engineer-in-Charge. The work must be progressed within such sections and at each time as directed by the Engineer-in-Charge.

33. DIFFERENCE BETWEEN FIRST LOWEST BIDDER AND SECOND LOWEST BIDDER

- 33.1 **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.**

34. PRICES

The rates quoted shall be in Indian Rupees only and inclusive of cost of material, all taxes (**except GST**), duties, levies, labour cess, applicable customs duty in case of imported items, labour, tools & plants, packing, freight / transportation of items from factory up to the installation site, Octroi & insurance up to the site, loading, unloading and hoisting arrangement for installation, fee(s) for testing, inspection documents including the fee(s) payable for obtaining statutory license / approval etc. from concerned department .

35. SOURCE OF MATERIAL

35.1 Aggregate shall be procured from approved quarries subject to fulfillment of test criteria as specified in BOQ items / Technical Specifications and approval of Engineer-In- Charge.

35.2 No crushing of aggregate will be allowed within AAI premises and its vicinity.

36. SITE CONDITIONS, REQUIREMENTS AND SOURCES OF MATERIALS.

- a) The contractor shall be responsible for the true and proper setting out of the work and for the correctness of the positions levels and dimensions and alignments of all parts of the works and for the provisions of all necessary applications and labour in connections therewith.
- b) If any time during the progress of the work any error may appear or arise in the position, levels, dimension or alignments of any part of the work, the contractor on being required to do so by the Engineer-in-Charge shall at his own expense rectify such errors to the satisfaction of the Engineer-in-Charge.
- c) The checking or any setting out of any line by the Engineer-in-Charge or his representative shall not relieve in any way the contractor of responsibility for the correctness thereof and shall carefully project and preserve all bench marks, site rails, pegs and other things used in the set out of work.
- d) All duties concerning establishment of a set of bench marks, permanent theodolite stations, centre of pillars etc. for performing all the functions of us till the physical completion of all items in question shall be carried out by the contractor at his own cost.
- e) He shall also keep proper record of such permanent bench marks established, denoting therein their correct levels.
- f) The work establishing all such bench marks shall be carried out only by experience staff of the contractor with the help of precision instrument suitable for this type of work. The instruments shall be checked for their accuracy and for permanent adjustment before the commencement of the work and also frequent intervals during the progress of the work.
- g) All such bench marks established by the contractor shall be subjected to check and approval of the Engineer-in-Charge or his duly representative and variations noticed in the work as a result of improper establishment or maintenance of such bench marks shall be at the contractor's risk and expense.
- h) The contractor has to adjust his work and progress to work in co-ordination with other agencies working at site.
- i) The materials such as Granite, Sand and other materials shall be brought to site only after approval of the quarry / source by the Engineer-in-Charge.

NUISANCE:

37. The Contractor shall not at anytime do, cause or permit any nuisance on the Site or do anything which shall cause unnecessary disturbance or inconvenience to owners, tenants or occupiers of other properties near the Site and to the Public generally.

WATCHING AND LIGHTING:

38. The Contractor shall provide and maintain at his own expense all lights, guards, fencing and watching when and where necessary or required by the Engineer-in-Charge for the protection of the Works or for the safety and convenience of those employed on the Works.

DUTIES AND POWERS OF ENGINEER-IN-CHARGES'S REPRESENTATIVE:

39. The duties of the representative of the Engineer-in-Charge, are to watch and supervise the Works and to test and examine any materials to be used or workmanship employed in connection with the Works. He shall have no authority to order any work involving any extra payment by AAI nor to make any variation in the Works.
- 39.1 The Engineer-in-Charge may from time to time in writing delegate to his Representative any of the powers and authorities vested in the Engineer-in-Charge and shall furnish to the Contractor a copy of all such written delegation of powers and authorities. Any written instruction or written approval given by the Representative of the Engineer-in-Charge to the Contractor within the terms of such delegations shall bind the Contractor and AAI as though it had been given by the Engineer-in-Charge.
- 39.2 Failure of the Representative of the Engineer-in-Charge to disapprove any work or materials shall not prejudice the power of the Engineer-in-Charge thereafter to disapprove such work or materials and to order the pulling down, removal or breaking up thereof.
- 39.3. If the Contractor shall be dissatisfied with any decision of the Representative of the Engineer-in-Charge, he shall be entitled to refer the matter to the Engineer-in Charge who shall thereupon confirm, reverse or vary such decision.

40. WORK DURING NIGHT OR ON SUNDAYS AND HOLIDAYS:

Subject to any provisions to the contrary contained in the Contract, permanent works shall be carried out during night or on Sundays or on authorized holidays with the permission of the Engineer-in-Charge.

41. TESTS:

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

42. For the civil works the work shall in general conform to the CPWD specification 2019 with correction slips issued up to date and MORTH Specification with correction slips / amendments upto date. Should there be any difference in the provision of the said specifications for any item of work and the description of the item given in the schedule of quantities, the latter shall prevail. If any item is not covered in CPWD specifications, any other related specifications or printed publication on general specifications refer to elsewhere in the contract with up-to-date correction slips shall be followed.

43. All the materials to be used on the work shall be of best quality available and shall have the approval of Engineer-in-Charge before use.
44. The contractor shall arrange to provide portable lights and markings with the luminous paint to indicate the areas under construction or repairs as per the direction of Engineer-in-Charge. These lights shall be of the approved colour and capacity and shall be operated throughout the night and during bad weather. In addition to these markings, lights, cone markers painted with luminous paints shall also be put.
45. The contractor will remove the labour huts on completion of the work. The payment of final bill will be subject to the compliance of this condition by the contractor.
46. The contractor shall provide suitable temporary diversion arrangement for flow of water in the existing drain, pumping and bailing out water from the drain, if required, for proper execution of the works, at his own cost & as per directions of Engineer-in-Charge.
47. The contractor shall make necessary arrangement for all machinery, equipment etc. considered necessary by the Engineer-in-Charge for completion of works within the stipulated time. The rates quoted by the contractor shall include the cost of providing / running all such machinery, equipment etc. Nothing extra shall be paid on this account.
48. The contractor shall regulate the movement of vehicles in accordance with the regulations of local traffic authority and shall provide necessary roads, diversions etc. for access of vehicles to the site of work. Nothing extra over and above quoted by him shall be paid on this account.

49. SAMPLING AND TESTING

- a. The contractor shall provide proper facilities at all times for the inspection and testing of materials and the Engineer-in-Charge shall have access at all times to the place of stores or manufacture. The contractor shall give sufficient advance notice of placing order so as to permit test to be completed before the material is incorporated in the work and shall afford such facilities as the Engineer-in-Charge may require for collection and forwarding samples and making inspection. The contractor shall not make use of or incorporate in the work the materials represented by the samples, until tests have been made and materials found to be in accordance with the specifications.
- b. All tests of materials furnished by the contractor shall be made in accordance with commonly recognized methods of Indian or of other international organization or such other method and test as are prescribed in the specification or are in use in conformity with standard practice of the department and all charges will be borne by the contractor.
- c. Field tests of materials will be carried out by the Engineer-in-Charge as deemed necessary and these tests shall be made in accordance with the standard practices of the department. The cost involved in all such field tests will be borne by the contractor.
- d. The various tests as indicated in the specifications or as considered necessary by the Engineer-in-Charge shall be carried out in the laboratory as approved by the Engineer-in-Charge. The contractor shall bear the entire cost of samples, testing charge, carriage and other incidental expenditure incurred thereof. The result shall be final and binding on the contractor.
- e. The contractor shall submit certified true copies of the vouchers for verification of actual purchase of any materials whenever directed by the Engineer-in-Charge.

- f. The contractor shall not be entitled for any extra payment whatsoever on account of the above special conditions of contract until and unless specified otherwise.
 - g. Contractor shall distinctly display a board at work site on the cement store indicating the opening balance on a particular day, receipt during the day and issue during the day and closing balance at the end of the day. (The entries shall be updated immediately on physical issues).
50. If any additional tests apart from mandatory tests specified in the Contract are required to be carried out at the instance of AAI or Chief Technical Examiners Organisation, to ensure conformity of the item to the Contract specifications, the cost of such tests shall be borne by Airports Authority of India. 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 of GCC and other relevant clauses of the contract.
- 51. RECOVERIES**
- 51.1 The works diary shall be got printed by the contractor.
The proforma for the same is given at **Annexure - 8**. Additional sheets should also enclose with each page so as to furnish any additional information. Work diary shall be signed by the contractor/ Engineering Representative on daily basis by presenting himself in the site office of Engineer-in-charge. Failure to do so render agency liable to pay penalty@ **Rs. 100/- per day** for each day of such lapses. In case of failure to do so the details as filled up by AAI representative shall be treated as final.
- 51.2 However, these recoveries as stipulated above do not relieve the contractor to pay levy of compensation for delay as per clause no. 2 of GCC, in case work is not completed within the stipulated time.
- 52. Novation Clause (applicable for PPP Airports): Agency needs to execute a Supplementary agreement attached at Annexure-20 in Proforma page no. PR-39.**
Notwithstanding anything contained in this agreement, Parties agree that during the Contract Period along with Defect Liability Period, in the event the Authority opts to transfer its rights such as operation, maintenance, development etc. of the Airports to a third party under PPP model or in any manner as may be decided by AAI/Government of India, then the Authority shall have the right to assign/novate/alter this Agreement, in favour of such third party, to which Work/Contract Executing Agency/Contractor hereby gives their consent unconditionally and Authority will not be bound to obtain any further consent of Work/Contract Executing Agency/Contractor. Such assignment/novation/alteration would release Authority of all liabilities and obligations arising under this agreement from and after the date of assignment/novation/alteration and the rights and obligations of Authority under this Agreement and other arrangements entered into in accordance with the provisions of this Agreement shall be vested in such third party. The Parties, along with relevant third party shall execute necessary documentation or put in place necessary agreements for the aforesaid assignment/novation/alteration as and when need arise.
- a. The authority shall cause to transfer/novate this Agreement, in favour of such third party, on the principle that such transfer/novation would release Authority of all liabilities and obligations arising from and after the date of transfer/novation of such rights. The Parties, along with relevant third party(s) shall execute necessary documentation or put in place necessary agreements for the aforesaid transfer/novation; and
 - b. The rights and obligations under or pursuant to all contracts and other arrangements entered into in accordance with the provisions of this Agreement between Authority and Contractor shall be vested in such third party. The contract may be terminated with a termination notice of 30 days without any liabilities to AAI on account of anything else what so ever.

53. Advisory: For Applicant and its BG Issuing Bank Branch.

It is to be noted that along with physical BG; we have also activated an online facility to view the issued BG cover message transmitted to ICICI Bank through SFMS platform.

For availability of BG in this platform, it is necessary that BG issuing/amending bank send the BG advice in the form of message format IFN 760COV (BG Issuance) / IFN 767COV (BG Amendment) via SFMS (Structured Financial Messaging System) as provided by RBI.

In the event of BG issuing/amending bank not sending the message IFN 760COV/ IFN 767COV or committing any error while capturing the details at least in the below field, BG confirmation through online portal would not be updated.

Request you to notify your bank (BG issuing bank) to update below details at time of submission of BG issuance/amendment request to their respective banks:

BG advising message -IFN 760COV/ IFN 767COV via SFMS

Bank Details:-

Corporate Name : Airports Authority of India

BANK NAME : ICICI Bank

IFSC CODE : ICIC0000007

BG ADVISING MESSAGE : -IFN 760COV (BG ISSUE)

IFN 767COV (BG AMENDMENT)

Field Number unique identifier Code:

7037 AAIRAIPUR

Please note that the issuing bank while issuing/amending the BG, should ensure that the above information is correctly captured in the message i.e. IFN 760COV/ IFN 767COV.

The indicative request letter format as per Annexure-15 Page no. PR-25 to be sent to issuing bank for ensuring transmission of BGs through SFMS.

Special Conditions of Contract (Electrical Works)

SPECIAL CONDITIONS OF CONTRACT FOR ELECTRICAL WORKS

Name of work:- Renovation of Retiring Room at S.V. Airport Raipur.

SH: Electrical work.

1. INTRODUCTION:

These special conditions of contract shall be read in conjunction with AAI general conditions of contract for all the systems mentioned above. If there are any provisions in the special conditions of contract which are at variance with the provisions of conditions of contract, the provision in special conditions of contract shall be take preference.

- (i) The work shall be carried out in accordance with Indian standard code of practice. It shall also be in conformity with the current Indian Electricity rules, and Regulations and requirements of the local Electricity supply Authority so far as these become applicable to the installation. All Civil and Electrical works in general shall be carried out as per relevant CPWD/FAA specifications
- (ii) Should there be any difference in the description of an item in the provision of the said specification of item of work and the description of item given in the schedule of quantities the scope of the item shall be taken according to the following order of preference.
 - a) Nomenclature of item as given in the schedule of quantities.
 - b) Drawing/Sketch, if any referred in the nomenclature of items.
 - a) Particular specifications.
 - b) Relevant CPWD & IS code (latest revision).
 - c) General drawings.
 - d) Sound engineering practice as directed by the Engineer-in Charge whose decision in this regard shall be final and binding on the contractor.

2. SCOPE OF WORK

The scope of work covers but not limited to the following. The contractor is required to ascertain the entire scope of work that may be necessary for completion of the facility envisaged on their past experience of similar projects.

All materials, tools and tackles, equipments, labour, including all labour facilities as per labour laws are to be arranged by the contractor. Cost of transportation of labour and materials shall have to be borne by the contractor.

In the event of any dispute of any kind related to the works, decisions of the Engineer-in-charge for this work shall be final and binding. The Engineer-in-charge shall mean the **DGM (E-E), AAI, Raipur Airport, Raipur** and the Site-in-charge concerned is his

authorized representative to carry out general supervision.

The general scope of work to be performed under this contract shall comprise of the following:-

- Item wise SOQ is enclosed based on which the work shall be executed.
- Detailed drawings / schemes to be prepared based on SOQ/site requirement and got approved before procurement action / manufacture.
- Satisfactory supply & installation of items / system as per tender / approved drawings.
- Satisfactory execution of works as per tender conditions & specification, AAI specifications, Indian standards, standard engineering practices.
- Proper handing over of the installations in satisfactory working conditions along with required as built drawings, documents and items as specified in the tender.
- Effective co-ordination with the other agencies to carry out the work smoothly

3. SITE: -The site of work is located at Old Terminal Building, Retiring Room at S.V. Airport, Raipur.

(i) **SITE INSPECTION:** - Before quoting the rates the bidder is advised to inspect and examine the site/installations and satisfy himself about the nature and scope of work involved. The bidder is deemed to have the full knowledge of the site, whether the bidder inspected the site or not and no extra claim consequent to any misunderstanding or otherwise shall be allowed.

(ii) **SUBMISSION OF DRAWINGS:** - On award of work, the successful tenderer, within 15 days from date of commencement of work shall prepare and furnish all related drawings for approval. Such drawing shall be based upon specifications, local laws, by-laws and regulations. The contractor shall be responsible to take actual measurement at site to avoid any surplus materials on completion of work.

Approval of design & drawings shall not absolve the contractor of any of his obligations to meet the requirements of specifications under this contract.

4. COMPLETENESS OF TENDER

All sundry fittings, assemblies, accessories hardware items, SS-nut bolts, Gaskets termination lugs for electrical connections as required and all other sundry 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.

5. SCHEDULE OF QUANTITIES (SOQ)

A schedule of work for the above is placed in the tender in “SOQ” Schedule of work which accounts for all works to meet the CPWD/AAI requirements. Tenderers are required

to quote as per NIT schedule considering all the specifications and conditions.

6. STRUCTURAL ALTERATIONS TO BUILDINGS

- i. No structural member in the building shall be damaged/altered, without prior approval from AAI.
- ii. Structural provisions like openings, pipes if any, provided by AAI for the work, shall be used. Where these require modifications, such contingent or works shall be carried out by the contractor, at his cost after the prior approval of AAI.
- iii. All cut out openings in floors provided by AAI shall be closed, after installing the cables in accordance with the item therefore in the schedule of work.
- iv. All cuttings made by the contractor in connection with the works shall be filled by him at his cost to the original finish.

7. TECHNICAL SUBMITTALS

- i) The contractor shall submit equipment proposals with brochures, specifications, descriptions ~~along with type test reports not older than 5 years from the date of call of tender,~~ for the review and provisional approval by the Engineer in charge, prior to ordering of equipment and commencing the manufacturing of equipment.

8. METHOD OF EXECUTION

The contractor shall submit his program of execution at least one week in advance. The contractor shall submit a separate bar chart for execution program mentioning man hours required so that the work can be done accordingly.

The additional cost if any in engaging the labour for night work shall be included in the rates. Nothing extra shall be paid by AAI in this regard separately.

9. MATERIALS

All the materials required for this work should confirm to relevant IS/IEC/CPWD specifications and as per preferred list of makes of AAI. The copies of purchase vouchers & gate passes should be produced along with the acceptance test certificates. The type test certificates, routine test certificates and acceptance test certificates shall also to be submitted by agency.

10. STORAGE OF MATERIALS

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

The contractor shall take away the balance of any materials left at the site after commissioning of the system. The cost, if already paid, for such items shall be deducted from the subsequent running bills. AAI shall not be liable to pay for any of the incidental

charges connected with the above.

11. CONSUMPTION OF MATERIALS

Proper record of daily consumption of materials shall be maintained at the site of work for each item as directed by AAI. This is also required to be done even if the contractor arranges these materials himself.

12. RESTRICTIONS IN WORKING HOURS

The number of hours working in the area might be restricted due to operational reasons/other reasons and contractors will not have any claim for extra payment on this account. The contractor's staff working in the operational area will obey the instructions of authorities in clearing the site. Also prior permission has to be obtained before stacking of materials in the premises.

The work shall be done in phases, in close co-ordination with AAI and other present operating agencies.

The contractor shall note that the site for installation will be made available in parts or in phases. It is the responsibility of the contractor to program his work accordingly. No extra amount will be paid on account of site being made available in phases/parts.

13. Security

The contractor and his employees shall abide by security regulation framed by AAI/BCAS or Police Authorities. Any worker of the contractor, whose presence is found undesirable in AAI premises, shall not be allowed to work. The Contractor shall be fully responsible for the satisfactorily 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"

The work has to be carried out in operational /Restricted Area of airport. The tenderer shall apply in writing, in advance of commencement of work, for the issue of security passes alongwith security clearance and police verification as per BCAS guidelines and shall submit a list of personnel concerned and shall satisfy the Engineer-in-Charge who shall at his discretion have the right to recommend the issue of passes to control the movement of the contractor, his agents, his staff and workmen. The cost of photograph and prescribed fee (INR), if required, for the issue of the passes will be borne by the contractor. The contractor shall ensure that his men work only in areas/zones allotted to them. The entry passes shall be deposited with the Engineer-in-Charge on demand and in any case immediately after completion of work. The contractor, his staff and workmen shall observe all the rules promulgated from time to time by the Airports Authority of India, e.g. prohibition of smoking and lighting, frisking of persons on entry and exit, keeping to specified routes etc. Any person found violating the security rules laid down by the Airports Authority of India will be expelled from the area without assigning any reason whatsoever and contractor shall have no claim on this account.

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 addresses. 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 assigning any reason whatsoever and contractor shall have no claim on this account. No time extension shall be granted and nothing extra shall be payable by AAI on account of restricted due to non-operational hours and in restricted working conditions.

SITE PRECAUTIONS

- i) The contractor shall provide red flag barricades, caution boards at site, if required, designated by the Engineer-in-charge. One supervisor has to present at site all the time during work execution with walky-talky for coordination.
- ii) Every transport vehicle shall carry a permit issued by the AAI and shall be produced on demand by him or his authorized agent. All vehicles entering the Airport shall follow the routes prescribed by the AAI for entering the areas and shall display red flags yellow light on top. No vehicle shall be allowed in operational area period during the day when visibility is 800 M or less.
- iii) The contractor shall take all precautions to avoid all accidents by exhibiting necessary day & night caution boards, speed limit boards, red flags, red lights and providing barriers reflective jackets to staff. He shall be responsible for all damages and accidents caused due to negligence on his part.
- iv) The contractor shall remove all the dismantle materials etc. on completion of the work and leave the site in a neat and tidy state. The payment of final bill will be subject to the compliance of this condition by the contractor.

14. REGULATIONS

All men and vehicles will observe the regulations in force in the operational area and will do nothing to pose a danger to the aircraft and their operations.

15. CO-ORDINATION

- i) The contractor shall co-operate and co-ordinate with all other working agencies associated with this work or any agencies working at Raipur Airport. Agencies shall compare plans, specifications and the time schedules and so arrange his work so that there will be no interference during execution of the work. The contractor shall forward to AAI all correspondence and drawings exchanged. Failure to do so will render the contractor responsible for subsequent change found necessary facilities to execute the work simultaneously with other agencies. No claim on this account shall be entertained by AAI.
- ii) There are various agencies working in airport operational area. The tenderer is responsible for ascertaining all relevant coordination/information with other agencies

including AAI for smooth and safe progress of work. The cost of all measures necessary to ensure complete co-operation/co-ordination between contractors/works/airport agencies shall be deemed to be included in the quote.

- iii) The contractor shall be responsible for any damage, resulting from his operations either to buildings, structures, airport fixtures, underground cable, hard surface areas, water/telephone lines, other operational installations, Airport roads etc. The contractor shall restore, replace or repair any such damage to the complete satisfaction of the Engineer-in-charge and in default the Engineer-in-charge may cause the same to be made good by any other means and deduct the expenses from any sums due to contractor.

16. Entry Pass

The work site lies in restricted area, the contractor shall apply in writing in advance for issue of necessary entry passes of workmen engaged by him. **Prior to this the contractor has to register his firm in the e-sahaj portal for getting security clearance of agency/firm and also has to get Security Programme approved by BCAS. The firm has to apply for provisional Security clearance till regular Security clearance is being issued by the BCAS.** The necessary police verification etc. as required for entry passes will be the responsibility of the contractor. **All expenditure towards arranging security passes shall be borne by the Agency.** The contractor has to follow the local security/ safety rules and regulations and such instructions on restricted hours of work as may be imposed on him by the department/ local authorities, while working in security restricted zones and no claim whatsoever on account of loss of labour / idle labour etc. can be entertained.

17. TESTING AND MEASURING EQUIPMENTS

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

18. TOOLS AND PLANTS:-

All required tools and plants (having valid Calibration certificate as applicable) required for executing this work shall be arranged by the contractor. Equipment for measurement of work and testing the installation shall be procured by the contractor for their use at their own cost. The same shall also be made available to AAI without any charges to AAI.

19. WATER AND ELECTRIC SUPPLY

AAI will not be responsible for the supply of water and electric power to the contractor for execution of work. The contractor shall make his own arrangements for temporary connections required, if any, and make necessary payments to the concerned departments. No amount shall be payable by AAI on this account. Water and Electricity if available shall be provided on chargeable basis as per AAI rates.

20. SAMPLES

- i) The contractor shall be required to provide samples of all the materials sufficiently

in advance free of cost to obtain approval of AAI. Approved samples shall be retained by AAI until the completion of the work and all materials and workmanship incorporated in the work are to conform to the approved samples in all respects. Rejected materials shall be removed from the site immediately under the supervision of AAI.

- ii) Dispatch schedules are to be, informed to Engineer-in-charge, before dispatch of materials.
- iii) To determine the acceptable standard of workmanship the contractor shall execute a portion of the items of work as a sample for approval of the Engineer-in-charge before taking up the actual execution of the particular item of work. These samples on approval of the Engineer-in-charge shall be guiding samples for execution of the particular item of work. Work not conforming of approved samples shall be rejected.

21. TESTING/INSPECTION OF MATERIALS BEFORE DESPATCH

AAI reserves the right to inspect the materials at factory/certified lab/OEM facility before dispatch if inspection of equipment at the factory/certified lab/OEM facility is to be done, 15 days prior intimation should be given. All arrangements for conducting the inspection/testing at the factory/certified lab/OEM facility shall be the responsibility of the contractor.

The traveling and daily allowance for the 1st inspection at factory will be borne by AAI. In case the material/test is not ready at factory or the test fails during the 1st inspection, the TA/DA for the AAI staff for the 2nd& onward inspection shall be borne by the contractor.

For visual/destructive tests of materials, the contractor shall provide samples of all the materials free of cost well in advance.

All the materials to be used in and on every part of the works shall be subjected, from time to time, to such tests as AAI may direct. Such tests shall be performed at the expenses of the contractor. The samples for tests shall be in all cases selected by AAI. If at any time, any material so tested, fails to meet the acceptance criteria, the same shall be removed from the site of works and other materials replaced. But in the absence of any specified test/acceptance criteria, the decision of AAI shall be final and binding as to whether the said materials shall be accepted or rejected.

The contractor shall produce on demand from AAI, the necessary test certificates certifying that the materials conform to the technical specifications. However, this clause will not apply to routine testing of materials at the site laboratory of the contractor.

All tools, instruments, plants and labour/operating personnel for the tests shall be provided by the contractor at his own cost. For any tests as directed by AAI that have to be carried out at an outside laboratory the same should be carried out by the contractor without any cost to AAI and the cost shall include cost of tests, transportation, freight etc. The category requirement of testing/inspection are provided in Annexure-I (List of Preferred makes). The detail of materials, if any, not specified in the list of preferred

makes, the decision of E-I-C shall be final and binding on the contractor.

22. SITE FOR PLANTS/EQUIPMENT, STACKING OF MATERIALS & LABOUR

The contractor shall stack materials at the site of work strictly as per instructions of AAI keeping in view the safety and smooth progress of the project.

Nothing extra shall be payable for any extra lead involved in stacking the materials at a reasonable distance away from the work place.

23. SITE MAINTENANCE DURING CONSTRUCTION

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

24. CONFORMITY TO IE ACT, IE RULES AND REGULATIONS

All electrical works shall be carried out in accordance with the provisions of Indian Electricity Act-1910 Indian electricity rules-1956 amended up to date (date of call of tender unless specified otherwise) and the State Electrical Inspectorate.

The works shall also conform to relevant Indian standard codes of practice (COP) for the type of work involved.

All materials to be used in work shall be as per the preferred list of makes duly accepted by Engineer-in-charge.

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

25. GENERAL REQUIREMENT OF COMPONENTS

RATINGS OF COMPONENTS

All current carrying components in an installation shall be of appropriate ratings of voltage, current and frequency as required at the respective sections of the electrical installation in which they are used without their respective ratings being exceeded.

26. BYE-LAWS

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

27. SAFETY

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

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

All plant and machinery of the contractor shall observe the safety regulations needed for working in a project where other contractors/sub-contractors/ agencies might also be

working, so as not to interfere with the work of the other contractors.

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

28. COMPENSATION

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

The rates quoted by the Contractor for all items except those where specific provisions indicated in the schedule of quantities shall include all leads lifts and noting extra shall be paid on this account.

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

The Contractor shall clear the site thoroughly of all scaffolding materials, wastage and rubbish etc., left out of his work and dress the site area to the satisfaction of AAI upon completion of the work and before release of payment of the last running bill. The payment of final bill will be subject to the compliance of this condition by the contractor.

29. INSURANCE OF WORKS

- (i) Without limiting its obligations and responsibilities. contractor 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 execution of works and also damage arising from a cause occurring prior to the commencement of the defect liability period 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 defect liability clause hereof.
- (ii) The work and the temporary works to the full value of such works executed from time to time.
- (iii) The materials, equipment and other things brought on to the site by the contractor or issued by AAI to the contractor to the full value of such materials, tools, plant and other things. Also the insurance policies for the workers and staff shall be taken.
- (iv) Such insurance shall be affected with any subsidiary of the General Insurance Company of India or by a company approved by the Insurance Regulatory Authority of India and the contractor shall whenever required, produce to the AAI the policy or

the policies of insurance and the receipts of payments of the premiums.

30. THIRD PARTY INSURANCE

- (i) Before commencing the execution of the works the contractor (But without limiting his obligations and responsibilities) shall insure against any 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 works or temporary works or in carrying out of the contract.
- (ii) Such insurance 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 and for at least the minimum amount of Rs. 1 Lakh with unlimited number of occurrences. Whenever required the contractor shall produce to the AAI the policy or policies of Insurance and the receipts of payments of the premiums.
- (iii) If the Contractor could not effect a comprehensive insurance cover against risks which he may be required to effect under the terms of this clause, then he shall give his attention to get the best insurance cover available and even in case of effecting a wider insurance cover than the one which the subsidiary of the General Insurance Company or by a company approved by the Insurance Regulatory Authority of India could offer, such an Insurance is ought to be done after the AAI's approval, by or through the subsidiary of the General Insurance Company.

31. COMPENSATION FOR DELAY

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

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

32. PRICES

The rate quoted for all items as per BOQ shall be in Indian Rupees only and inclusive of all taxes, duties, levies, Cess, freight, Insurance, loading unloading at the destination and as per scope of work mentioned in Special Condition of Contract and technical specification etc. **but excluding GST**. GST shall be released for any taxable supply / services against submission of valid tax invoice(s).

33. PAYMENT TERMS

- A. AAI shall pay to the contractor in the manner specified below for the works executed under this after deduction of Security Deposit @10%, Labour Cess @1%, Income tax, Compensation of delay in work (to be decided by accepting authority), and other statutory deductions, recoveries / penalties for which the contractor has rendered

himself liable under the contract terms & conditions from each running bills. All items in SOQ are deemed to be SITC at site.

- i) For supply, installation. Testing & commissioning items.
 - 70% of item rate on prorated basis on delivery of material at site in good condition.
 - 20% of item rate on installation of equipment/cables.
 - 10% of item rate on Testing & Commissioning.
- ii) For installation. Testing & commissioning items.
 - 80% of item rate on installation of equipment/cables.
 - 20% of item rate on Testing & Commissioning.
- iii) For supply items
 - 90% of item rate on prorated basis on delivery of material at site in good condition.
 - 10% of item rate on Testing & Commissioning.

Contractor shall submit purchase bill, test certificates and other related documents to process the bill for payment.

34. GUARANTEE AND DEFECTS LIABILITY PERIOD

- i) The materials/workmanship shall be guaranteed for a period of 12 (Twelve) Months from the date of completion of the work. The contractor shall guarantee that all equipment and the installation shall be free from any defects due to the defective material and bad workmanship and that the equipment shall operate satisfactorily and that the performance and efficiencies of the equipment shall be not less than the guaranteed values. Any parts of the installation found defective during guarantee period shall be replaced / rectified by the contractor without any charge whatsoever. The services of the contractor's and / or manufacturer's personnel, if requisitioned, during this period, for such work, shall be made available free of any cost to the Authority.
- ii) If the defects are not remedied within a reasonable time as mentioned in the written notice. The Authority shall proceed to do so at the contractor's risk and expense without prejudice to any other right.
- iii) The contractor shall furnish the following guarantee. - (To be submitted on completion of work).
- iv) **We warrant that everything supplied by us including all components fitted into the installation including equipment manufactured by others i/c imported materials shall be in all respect free from defects and faults in materials, workmanship, manufacture and installation including its components and shall be of the highest grade and quality up to acceptable standards for materials of the type ordered and shall be in full conformity with the specification, drawings or samples, if any, and we shall be fully responsible for their efficient performance. This guarantee shall survive inspection for acceptance and payment for the equipment and installation, but shall expire (except in respect of the complaint notified to us) 12 (Twelve)**

months after taking over of installation or actual completion of work whichever is later."

- v) The complaints, if any, with respect to any defect to material, Workmanship manufacturing, installation and performance of any of the equipment or any part or parts thereof shall be notified by the AAI in writing by registered post or by mail (it shall be deemed to be received by contractor in respect of a mail within two days and in respect of the registered post within one week from the date of dispatch) during the DLP period which shall reckoned for a period of 12 (Twelve) months after taking over of installation or actual completion of work whichever is later. The contractor shall rectify such defects within notified period from the date of notification at his own cost. Charges and expenses when called upon to do so by the AAI shall be born by contractor.
- vi) Any faulty components replaced renewed or repaired under the guarantee clause shall also be guaranteed for a period of 06 months from the date of such replacement or renewal or repair or until the end of the above-mentioned period whichever is later. If any defect be not remedied within the said period of notification. AAI may proceed to do the work at Contractors risk, acceptance and without prejudice to any other rights which the AAI may have on the contractor in respect of such character as may affect the replacement or renewals of such defect. The release of security deposit will be after defects liability period as mentioned in schedule E of General conditions of contract. However. In case of the extended guarantee period for the defective equipment/component. The Engineer-In-Charge shall ascertain the consequential cost in respect of such equipment/component & shall release the Security Deposit after withholding the consequential cost. This withheld amount shall be released on completion of such extended guarantee period.
- vii) Further, if the replacement or renewals under guarantee period are of such character as may affect the efficiency of the installation. AAI shall have the right to give the contractor one month notice in writing for appropriate test to be carried out, if the results of such tests satisfy the requirement as specified in the contract. The cost of such test shall be born by the AAI and if the test result fail to meet the specified requirement, the cost of the test will be born by the contractor.

All inspection, replacement or rectification carried out by the contractor during the testing & commissioning period shall be at the cost of the contractor.

The guarantee/ Warranty for **LED Light fixtures shall be 03 Years** form the date of completion of work.

Before releasing of Security Deposit, bidder has to submit separate Bank Guarantee for an amount equal to 30% of completed cost of Electrical Part for "SITC of LED Light Fixtures" valid for 3 Years form the date of completion of work.

35. INSTALLATION

Following shall be the part of the installation works

- Shifting of the units from place of storage to place of installation.
- Un packing
- Verification for transit damages / availability of all items including accessories operating handles, instruction manuals, drawings, test certificates etc and taking necessary action where needed.
- Assembling different sections/units when sent separately.
- Provision of Metal channels / Anti vibration mounts etc. where needed.
- Positioning of the Nuts as per the drawings /site requirements.
- Alignment checks
- Grouting /securing to the floor /foundations /base channels etc for stable installations.
- Undertaking all related minor civil, mechanical works like chipping, plastering, cutting, welding drilling etc.
- Making minor additions/alterations as per site requirement for satisfactory installation.
- Taking all necessary safety precautions for the equipment as well as personal.
- Touching up damages painting points.
- Earthing of the unit
- Making interconnection with other equipments /system where necessary.
- Connecting and ensuring efficient termination of cables/ bus duct as applicable using proper size cable lugs, glands and appropriate size GI/zinc passivated hard ware with spring washer and plate washer at appropriate locations (similar size bolts not to be used for bigger holes in cables lugs/switch gears to avoid weak electrical connections).
- Ensuring proper tightness of all joints, connections.
- Providing proper supporting /protection arrangement to the cables /units etc to avoid undue stress on the termination /joints.
- Providing required instruction/information/caution/name plates for easy operation and maintenance.
- Provision of interlocks where needed.
- Following proper codes like IS and sound engineering practices.
- Obtaining requisite statutory approval, license etc where applicable.
- Performance pre commissioning checks and ensuring proper functioning of all the systems.
- Satisfactory commissioning the equipment /system.
- Documentation.

~~36. TRAINING~~

~~The Contractor shall impart training to minimum of 10 AAI staff/Section Staff/ contract staff during the erection and also familiarize them with the operation and maintenance of all the system for a minimum period of two weeks to the full satisfaction of AAI, failing which Rs.50,000/- recovery shall be made.~~

~~Training shall be provided for understanding and operation of all the items related to all systems. Charge for training should be included in the total cost. The contractor shall also provide training materials to the staff prior to the commencement of the training.~~

~~The contractor shall arrange through OEM or his authorized representative for initial training at site to ensure competence in the operation and maintenance of the HIRL LED Light Fixtures to minimum 10 numbers manpower for 2 days as nominated by Engineer-in-Charge. The training program shall reflect the requirements of the operating instructions and maintenance manuals failing which Rs 5000 penalty shall be levied for each day.~~

~~The training program shall include but not limited to the following elements:~~

~~i. Operation Training~~

- ~~a) Systems description including electrical, electronic and mechanical sub-system and their functions.~~
- ~~b) System operating procedures.~~
- ~~c) System limitations~~
- ~~d) On-site system operation.~~

~~ii. Maintenance Training~~

- ~~a) System description including electrical, electronic and mechanical sub-systems and their functions.~~
- ~~b) Descriptions and procedures for system and component inspection, lubrication, adjustment and repair.~~
- ~~c) System and component trouble shooting, and On-site inspection and operation and maintenance participation during the contract maintenance service period.~~
- ~~d) Schedule of maintenance, safety checks and procedures.~~

37. TESTING OF INSTALLATION AFTER COMPLETION

On completion of the installation, all required tests as specified under the contract and as given under relevant CPWD specifications shall be performed to the full satisfaction of the Engineer-in-charge. Tendered rates shall be deemed to include for testing of equipment's. Tools and plants, other materials and personnel's required for conducting tests shall be provided by the contractor. Site inspection / Test Report shall be prepared and submitted to Engineer-in-charge.

38. DETAILED WORKING DRAWINGS

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

39. COMPLETION DRAWINGS

On completion of works, the contractor shall submit four sets of “As – Built” drawings, along with one set reproducible in CAD version in suitable capacity Pen drive to AAI before the submission of the final bill. The details of the ‘As-Built’ drawings to be submitted are as given below, failing which Rs. 75,000/- recovery shall be made on pro rata basis for the following

- General Arrangements, Layout drawings with dimensions, plans, section etc.
- Control & Schematic Diagrams.
- Bill of Quantities indicating makes, Technical specs, quantity etc.
- Data Sheets / Equipment name plate details.
- Control logic (where applicable)
- Details of Inventory
- Test Certificates (Factory Tests, sites Test)
- Guarantee / Warranty Certificates (where ever applicable)
- Other documents / drawings as per the instruction of Engineer –in-Charge.
- Keys, operating handles, tools etc., as applicable.
- As- built drawing for all services.
- Manuals for System Operator, System Administrator and System Engineer.
- Detailed system specification.
- Block diagram of the system with brief descriptions.
- Schematic circuit diagram as also unit / module – wise diagram and stage – by – stage detailed description.
- Data flow chart with data at different points during operation & testing.
- Component layout & position chart / photograph for ease of locating the components.
- List of components / units PCBs, module-wise with value, tolerance, Part No, type and circuit reference (Where applicable).

- Servicing / Maintenance instruction including preventive Maintenance schedule. Indicate type of test equipment to be user for maintenance.
- Troubleshooting chart with proper test sequence, Voltage and data at various test points.
- Any other relevant information.

40. COMMISSIONING ON COMPLETION

After the work is completed, it shall be ensured that the installation is tested and commissioned. All the test/calibration certificates shall be submitted to AAI before handing over of the system.

41. COMPLETION PERIOD

The time allowed for this work is **04 Months**, which shall reckon from the 10th day of placement of work order or handing over the site whichever is earlier.

42. COMPLETION CERTIFICATE

For all works completion report shall be submitted to AAI, after completion of work along with required test reports so that completion certificate can be issued.

It is the responsibility of the contractor to provide and make arrangement of all spares including import supply, consumables for carrying out periodical / preventive maintenance during warranty / defect liability period without any cost to AAI. However, the tenderer should furnish a list of spares (import supply), they plan to make available at site, to take care of warranty period. These spares (import supply) shall be supplied along with the equipment. In case, any spares are required other than the listed spares, contractor will provide the same without any cost to AAI including customs duty.

43. Difference between first lowest bidder and other bidders

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

44. AGREEMENT:

The contract agreement shall be executed on a non-judicial stamp paper of value of Rs.100.00 and the cost of stamp paper shall be borne by the contractor within 15 days of placing of award of work. No running bill shall be paid before signing the agreement

45. HANDING OVER / CERTIFIED DATE OF COMPLETION

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

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

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

46. Novation Clause (applicable for PPP Airports):

- a. The Authority shall cause to transfer/novate this Agreement, in favour of such third party, on the principle that such transfer/novation would release Authority of all liabilities and obligations arising from and after the date of transfer/novation of such rights. The Parties, along with relevant third party(s) shall execute necessary documentation or put in place necessary agreements for the aforesaid transfer/novation; **and**
- b. The rights and obligations under or pursuant to all contracts and other arrangements entered into in accordance with the provisions of this Agreement between Authority and Contractor shall be vested in such third party. The contract period is of 02 years or the date of transfer of the airport under the PPP mode whichever is earlier. The contract may be terminated with a termination notice of 30 days without any liabilities to AAI on account of anything else what so ever. Obligations relating to Transfer The Authority agrees that during the Contract Period, in the event the Authority transfers the rights to operate and maintain the Airport to a third party(s), the Authority shall ensure that;

47. Instruction For issue of Bank guarantee

Advisory: For Applicant and its BG Issuing Bank Branch.

It is to be noted that along with physical BG; we have also activated an online facility to view the issued BG cover message transmitted to ICICI Bank through SFMS platform.

- a) For availability of BG in this platform, it is necessary that BG issuing/amending bank send the BG advice in the form of message **format IFN 760COV (BG Issuance) / IFN 767COV (BG Amendment)** via SFMS (Structured Financial Messaging System) as provided by RBI.
- b) In the event of BG issuing/amending bank not sending the message IFN 760COV/ IFN 767COV or **committing any error while capturing the details** at least in the below field, **BG confirmation through online portal would not be updated.**
- c) Request you to notify your bank (BG issuing bank) to update below details at time of submission of BG issuance/amendment request to their respective banks:

NAME OF ACCOUNT HOLDER	: AIRPORTS AUTHORITY OF INDIA
BANK NAME	: ICICI BANK
IFSC CODE	: ICIC0000007
BG ADVISING MESSAGE	: IFN 760COV (BG ISSUE)
	: IFN 767COV (BG AMENDMENT)
UNIQUE IDENTIFIER CODE	: AAIRAIPUR

Please note that the issuing bank while issuing/amending the BG, should ensure that the above information is correctly captured in the message i.e. IFN 760COV/ IFN 767COV. The indicative request letter format as per **Annexure-C** to be sent to issuing bank for

ensuring transmission of BGs through SFMS.

ANNEXURE-C

Request Letter, Transmission of Bank Guarantee Cover Message <to be submission by applicant to BG issuing bank>

Date: _____

The Manager,

(Bank),

(Branch).

Sub: Inclusion of unique identifier code of AAI while transmitting BG cover messages where beneficiary bank is ICICI Bank (FSC-ICIC0000007).

Dear Sir/ Ma'am,

I/We, _____, request you to include unique identifier _____ in field 37 of the SFMS cover messages IFN COV 760 (for BG issuance) and IFN COV 767 (for BG amendment) while transmitting the same to the beneficiary bank (ICICI Bank-IFSC-ICIC0000007).

Thanking You,

(Vendor/Customer/Concessionaire)

Technical Specifications

Civil Works

TECHNICAL SPECIFICATIONS

1. PREAMBLE

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

2. SCOPE OF WORK

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.

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 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 in 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) 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. OBLIGATIONS OF THE CONTRACTOR

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 mechanized system of construction, handling and transportation;
- ii) Fulfill all the Contractor's labour regulations i.e fair wages, display of notices regarding wages, payment of wages, labour records, attendance cards-cum-wage slips, labour welfare etc. as per standard practices and norms applicable at site;

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.

The Contractor shall take all reasonable precaution to prevent his work men 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.

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

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. GENERAL

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.

In the absence of any definite provision in the technical specifications contained herein, reference may be made to the latest CPWD, MORTH, IRC, ICAO Specifications and BIS 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.

In addition, the abbreviations CPWD, IRC, MORTH, BIS, BS, ICAOASTM, AASHTO shall be considered to have the following meaning:-

CPWD	:	Central Public Works
Department IRC	:	Indian RoadCongress
MORTH	:	Ministry of Road Transport & Highways, Government of India
BIS	:	Bureau of Indian Standards.
BS	:	British Standard
ICAO	:	International Civil Aviation Organization
ASTM	:	American Society of TestingMaterials
AASHTO	:	American Association of State Highway and Transportation Officials.

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. TESTING

It is made clear that cost of testing, cost of material for testing, all field apparatus required for sampling and testing as per CPWD/BIS codes and other codes 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. SAMPLING AND TESTING

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

The following IRC Standards and IS, ASTM, British Standard, code and CPWD Specification have generally been adopted in the tender documents. This list however does not limit the use of any other relevant code or standard 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,

standard and specifications applicable shall be the latest edition with all correction slips etc. or as directed by the Engineer-in-charge.

IRC.SPECIFICATION

IRC:19-1977	Standard specifications and code practice for water Bound macadam (second revision).
IRC:SP11-1977	Hand book of quality control for construction of roads and runways (first revision)
IRC:90-1985	Guidelines for selection, operation and Maintenance of Bituminous Hot Mix Plant.

INDIAN STANDARDS

IS:265-1987	Hydrochloric Acid
IS:383-1970	Coarse and fine aggregate from natural sources for concrete.
IS:456-1978	Code of practice for plain and reinforced concrete.
IS:460-1985 (Part I to III)	Testing Sieves
IS:516-1959	Methods of test for strength of concrete.
IS:1124-1974	Method test for water absorption, apparent specific gravity and porosity of Natural building stones.
IS:1199-1959	Method of sampling and analysis of concrete.
IS:2386-1963	Methods of test for aggregate for concrete:-
(Part-I)-1963	Particle size and shape.
(Part-II)-1963	Estimation of deleterious materials and organic impurities.
(Part-III)-1963	Specific gravity, density, voids, absorption, and bulking.
(Part-IV)-1963	Mechanical Properties.
(Part-V)-1963	Soundness
(Part-VI)-1963	Measuring mortar making properties of fine aggregates.
IS:5640-1970	Methods for determining the aggregate Impact value of soft coarse aggregate.
IS:6241-1971	Methods of test for determination of stripping value of road aggregates.
IS:8112-1989	43 grade ordinary Portland cement.
IS:12118-1987	Two parts polysulphide based sealants (Part-I&II)
IS:73-1992	Paving Bitumen
IS:217-1988	Cut back Bitumen

ASTM/BS STANDARDS/SPECIFICATIONS

ASTM:D1559-1976	Test for resistance to plastic flow of bituminous Mixtures using Marshall apparatus.
ASTM:D2172-1975	Extraction quantitative, of bitumen from bituminous pavin mixtures
ASTM:E11-39	Sieves for testing purpose “Wire Cloth sieve round hole an square” hole plate screen or sieves.
BS:410-1969	Test sieves.
MORTH Specification	“Specifications for Road and Bridge works” second revision reprinted in April 1995. Issued by Ministry of Road Transport Highways, Government of India and published by Indian Road Congress.

Technical Specifications

Electrical Works

TECHNICAL SPECIFICATIONS

INTERNAL & EXTERNAL ELECTRICAL INSTALLATIONS AND ALLIED WORKS

1.0 GENERAL

The Electrical Installation work shall be carried out in accordance with Indian Standard Code of Practice. It shall also be in conformity with the current Indian Electricity rules and regulations, so far as these become applicable to the installation. Electrical work in general shall be carried out as per following CPWD Specifications amended up to date.

Electrical Works – Internal & External Electrical Works Shall be carried out as per CPWD general specifications amended up to date.

Wherever these specifications call for a higher standard of material and or workmanship than those required by any of the above mentions regulations and specification then the specification here under shall take precedence over the said regulations and standards.

The details of scope of work subhead wise are given in the subsequent paras. The quantities worked out in schedule of quantities are based on particular equipment considered at design stage. The contractor is required to recheck the quantities based on equipment offered by him to achieve required parameters.

The bidder should note that the specifications furnished in the tender is of general nature only and it is the responsibility of the bidder to design, supply, install and commission the Light Fixtures required for the satisfactory performance of the installation.

SECTION - 1
POINT & SUBMAINS WIRING

1.1 SCOPE

This section covers the general technical requirements and measurement of the various component in Internal Electrical Installation Works.

1.2 TERMINOLOGY

The definition of terms shall be accordance with IS 732: 1989 (Indian Standard Code of Practice for Electrical Wiring), and CPWD Specifications of Internal EI – 2013 with up to-date amendments.

1.3 POINT WIRING

1.3.1 Definition:

A point (other than socket outlet point) shall include all works necessary in complete wiring to the following outlets from the controlling switch or MCB. The scope of wiring for a point shall, however, includes the wiring work necessary in tapping from another point in the same distribution circuit: -

- a) Ceiling rose or connector (in the case of points for ceiling/ exhaust fan points, pre-wired light fittings and call bells)
- b) Ceiling rose (in case of pendants except stiff pendants)
- c) Back plate (in the case of stiff pendants)
- d) Lamp holder (in the case of gooseneck type wall brackets, batten holders and fittings which are not pre-wired.

In the case of call bell points, the words “from the controlling switch or MCB” shall be read as “from the ceiling rose meant for connection to bell push

1.3.2 Scope

I) Following shall be deemed to be included in point wiring:

- a) Conduit, accessories for the conduit and wiring cables between the switch box and point outlet, loop protective earthling of each fan/ light fixture.
- b) All fixing accessories such as clips, nails, screws, Phil plug, raw1 plug etc. as required.
- c) Metal switch boxes for control switches, regulators, sockets etc. recessed or surface type and outer & inner cover plates in case of modular type switches.

- d) Outlet boxes, junction boxes, pull-through boxes etc. but excluding metal boxes if any, provided with switchboards for loose wires/ conduit terminations.
- e) Control switch or MCB as specified.
- f) Ceiling rose or connector as required.
- g) Connections to ceiling rose, connector, lamp holder, switch etc.
- h) Interconnection wiring between points on the same circuit, in the same switch box or from another.

Protective (loop earthing) conductor from one metallic switch box to another in the distribution circuits, and for socket outlets. (The length of protective conductor run along with the circuits/ sub mains is excluded from the scope of points)

(Note: In areas where false ceiling is provided, termination of wires should be at the fittings.

Flexible conduits from ceiling junction box to the fittings shall be provided duly coupled at both ends. This shall be included within the scope of point wiring.)

II) **Following shall be deemed to be included in group control point wiring**

Conduit, accessories for the conduit and wiring cables between the Switchboard/ MCBDB to the first point or wiring cable between points forming a group including loop protective earthing of each fan/ light fixture. (Providing MCB/Switch is not included in this scope and will be measured separately).

All fixing accessories such as clips, nails, screws, Phil plug, rawl plug etc. as required.

Junction boxes, pull-through boxes etc. but excluding metal boxes if any, provided with Switchboard/ MCBDB for loose wires/ conduit terminations. Ceiling rose or connector as required.

Connections to ceiling rose, connector & Switch/ MCB etc.

Bushed conduit or porcelain tubing where wiring cables pass through wall etc.

Ferrule shall be provided at both ends i.e. on switchboards/DB's as well as on fittings / fixture side.

All the wires shall be terminated with copper lugs on both side i.e. on switchboards/DB's as well as on fittings / fixture side.

1.4 **MEASUREMENT**

1.4.1 **POINT WIRING (OTHER THAN SOCKET OUTLET POINT)**

Unless and otherwise specified, there shall be no linear measurement for point wiring for light points, fan points, exhaust fan points and call bell points. These shall be measured on unit basis by counting.

No separate measurement will have made for interconnections between points in the same distribution circuit and for the circuit protective (loop Earthing) conductors between metallic switch boxes.

1.4.2 POINT WIRING FOR SOCKET OUTLET POINTS

- i) The light plug (5 / 6 Amp) point and power (15 / 16 Amp) point wiring shall be measured on linear basis, from the respective tapping point of live cable, namely, switchbox, another socket outlet point, or the Sub distribution board as the case may be, up to the socket outlet.
- ii) The metal box with covers, switch/ MCB, socket outlet and other accessories shall be measured and paid as separate item.
- iii) The power point may be 15/5 Amp or 16/6 Amp 6 pin socket outlet, where so specified in the Tender documents. (2 pin or 5 pin socket outlet shall not be permitted.)

1.4.3 SWITCH CONTROL GROUP POINT WIRING

- i) In the case of points with more than one point controlled by one switch, such points shall be measured in part i.e. from switch to the first point outlet as one point and (from switch to first point of group controlled point). Subsequent looping points i.e. one point to another point in the same group will be measured under group controlled point (from one point to another point).
- ii) No recovery shall be made for non-provision of more than one switch in such cases.

1.4.4 MCB CONTROL GROUP POINT WIRING

- i) In the case of points with more than one point controlled by one MCB, such points shall be measured in part i.e. from MCB to the first point outlet as one point and will be measured under group controlled point (from MCB to first point of group controlled point). Subsequent looping points i.e. one point to another point in the same group will be measured under group controlled point (from one point to another point).
- ii) Providing MCB is not covered in this scope and will be measured separately and shall be separately paid for.

1.4.5 TWIN CONTROL LIGHT POINTS WIRING

- i) A light point controlled by two numbers of two way switches shall be measured as two points from the fitting to the switches on either side.
- ii) No recovery shall be made for non-provision of more than one ceiling rose or connector in such cases.

1.5 CIRCUIT AND SUBMAIN WIRING

1.5.1 Circuit Wiring

Circuit wiring shall mean the wiring from the distribution board up to the tapping point for the nearest first point of that distribution circuit, viz. up to the nearest first switch box.

1.5.2 Sub main Wiring

Sub main wiring shall mean the wiring from one Main/Distribution switchboard to another.

1.5.3 Measurement of circuit and sub main wiring.

- i) Circuit and sub main shall be measured on linear basis along the run of the wiring. The measurement shall include all lengths from end to end of conduit exclusive of interconnections inside the switchboard etc. The increase on account of diversion or slackness shall not be included in the measurement
- ii) The length of circuit wiring with two wires shall be measured from the distribution board to the first nearest switch box in the circuit irrespective of whether the neutral conductor is taken to switch box or not.
When wires of different circuit are grouped in as single conduit the same shall be measured on linear basis depending on the actual numbers and sizes of wires run.
- iv) When circuit wires and wires of point wiring are run in the same conduit, circuit wiring shall be measured on linear basis depending on the actual number and sizes of wires run in the existing conduit. As far as practicable circuit wiring and point wiring shall be drawn in different conduit.
- v) Circuit wiring and sub main shall not be run in the same conduit.
- vi) Protective (loop Earthing) conductors, which are run along the circuit wiring and the sub main wiring, shall be measured on linear basis and paid for separately.

1.6 OTHER WIRING WORKS

- i) Except as specified above for point wiring, circuit wiring and sub main wiring, other types of wiring shall be measured separately on linear basis along with the run of wiring depending on the actual number and sizes of wires run.

1.7 SYSTEM OF DISTRIBUTION AND WIRING

The main distribution board and branch distribution board shall be controlled or provided with linked switch fuse unit or miniature circuit breaker (MCB) of specified rating on the phase or live conductor or combined phase and neutral control gear for incoming and outgoing as indicated in the BOQ.

Distribution of sub main and circuits.

As per final approved single line diagram.

1.7.1 Balancing of Circuits

- i) The balancing of circuits in three wire or poly phase installations shall be arranged before handing to the satisfaction of the Engineer-In-Charge.

1.7.2 Wiring System

- j) Unless and otherwise specified in the tender documents, wiring shall be done only by the "Looping System". Phase of live conductors shall be looped at the switch boxes and neutral conductors at the point outlets.
 - k) Lights, fans and call bell shall be wired in the 'lighting' circuits. 15/ 16 Amp socket outlets and other power outlets shall be wired in the 'Power' circuits. 5/ 6Amp socket outlets shall be wired in the 'lighting circuits.
 - l) The wiring throughout the installation shall be such that there is no break in the neutral wire except in the form of linked switchgear
 - m) The wiring shall be segregated as Essential and non-essential in all the building in the airports except in the case of residential quarters.
 - n) All distribution boards should have 20 %(decimal point shall be rounded to next whole digit) of spare outgoing ways / shall be provided suitable capacity spare MCBs.
 - o) Ferrules of suitable size indicating circuit & DB numbers are to be provided at both the ends.
 - p) Light, fans and call bells shall be wired in the 'lighting' circuits. 15A / 16A socket outlets and other power outlets shall be wired in the 'power' circuits. 5A / 6A socket outlets shall also be wired in the 'power' circuit both in residential as well as non-residential buildings.
-
- a) Colour Coding
Following colour coding shall be followed in wiring:
Phase : Red / Yellow / Blue.(Three phase wiring)
Live : Red (Single phase wiring)
Neutral : Black
Earth : Green.
 - b) Termination of Circuit into Switchboard
Circuit will consist of phase / neutral / earth wire. Circuit will terminate in a switch board (first tapping point, where from point wiring starts) in following manner:
Phase wire terminated in phase connector.
Neutral wire terminated in neutral connector.
Earth wire terminated in earth connector.

The switchboard will have phase, neutral and earth terminal connector blocks to receive phase/ neutral / earth wire.

1.7.3 Run of Wiring

The type of wiring shall be as specified in tender document, i.e. conduit.

Surface wiring shall run, as far as possible, along the walls and ceiling so as to be easily accessible for inspection.

In no case, the open wiring shall be run above the false ceiling without the approval of Engineer-In-Charge.

In all types of wiring, due consideration shall be given for neatness, good appearance and safety.

1.7.4 Passing through walls or floors

When wiring cables are to pass through a wall, these shall be taken through a protection (Steel/PVC) pipe or porcelain tube of suitable size such that they pass through in a straight line without twist or cross in them on either end of such holes. The ends of metallic pipe shall be neatly bushed with porcelain, PVC or other approved material.

Where a wall pipe passes outside a building so as to be exposed to weather, the outer end shall be bell mouthed and turned downwards and properly bushed on the open end.

All floor openings for carrying any wiring shall be suitably sealed after installation.

1.7.5 Joints in Wiring

- i) No bare conductor in phase and/or neutral or twisted joints in phase, neutral, and/or protective conductors in wiring shall be permitted.
- ii) There shall be no joints in the through runs of cables. If the length of final circuit or sub main is more than the length of a standard coil, thus necessitating a through joint, such joints shall be made by means of approved mechanical connectors in suitable junction boxes.
- iii) Termination of multi-stranded conductors shall be done using suitable crimping type thimbles.

1.8 CONFORMITY TO IE ACT, IE RULES AND STANDARDS

1.8.1 All electrical works shall be carried out in accordance with the provisions of Indian Electricity Act, 1910 and Indian Electricity Rules, 1956, amended up to date.

1.8.2 The works shall also conform to relevant Indian Standard Codes of Practice shall be followed.

1.9 GENERAL REQUIREMENTS OF COMPONENTS

1.9.1 Quality of Materials

All material and equipment's supplied by the Contractor shall be new. They shall be of such design, size and materials as to satisfactorily function under the rated conditions of operation and to withstand the environmental conditions at site.

1.9.2 Conformity of Standards

- a) All components shall conform to relevant Indian Standard Specification, wherever existing. However, for conduits, wiring cables, piano Switches and socket outlets, ISI marked materials shall only be permitted.
- b) The Indian Standards, including amendments or revisions thereof up to the date of tender acceptance, shall be applicable.

1.9.3 Interchangeability

Similar parts of all switches, lamp holders, distribution fuse boards, switchgears, ceiling roses, brackets, pendants, fans and all other fittings of the same type shall be interchangeable in each installation.

1.10 CABLES

1.10.1 WIRING CABLES

- i) Copper conductor cable only will be used for sub main/circuit/point wiring.
- ii) Minimum size of wiring:
 - Point wiring : 1.5 sq.mm
 - Circuit Wiring : 2.5 sq.mm
 - Power wiring : 4.0 sq.mm Power circuit rated
 - More than 1 kW : size as per calculation.
- iii) Insulation : Copper conductor cable shall be PVC insulated, FR-LSH type conforming to BIS specification.
- iv) Multi stranded cables: Allowed to be used.

1.10.2 Flexible Cables

- a) Conductor of flexible cables shall be of copper.
- b) Only 3 core flexible cables shall be used for connecting single-phase appliances.
- c) Unless armor, or tough rubber, or PVC sheath mechanically protects the flexible cables, these shall not be used in workshops and other places where they are liable to mechanical damage.
- d) Flexible cable connection to bell push from ceiling rose shall be taken through steel conduit/ metallic casing and capping.

1.11 WIRING ACCESSORIES

1.11.1 Control Switches for Points

i) Control switch (single pole switch) carrying not more than 16 A shall be modular type. The switch shall be 'ON' when the knob is down.

ii) (a) In type I, II & III quarters, Barracks & school buildings (except principal's & staff rooms) etc. Piano type switches shall be provided (unless specifically asked for by the user department /Architect.)

(b) Modular type switches to be provided for remaining types of buildings i.e. in all types of remaining non-residential buildings & residential buildings of type IV & above & Transit hostel or as may be decided by the Architect/ user department. (**Note:** Provision is meant for new constructions and in existing buildings during rewiring if the building work renovation is also in progress in the area. Otherwise existing type of piano switches will be continued.)

iii) It is recommended to provide double pole MCB in proper enclosure as power outlet for window type AC, geysers, etc.

iv) Control switch shall be placed only in the live conductor of the circuit. No single pole switch or fuse shall be inserted in the protective (earth) conductor, or earthed neutral conductor of the circuit.

(b) Switch Box

(i) Switch box shall be hot dip galvanized, factory fabricated, suitable in size for surface/ recess mounting and suitable in size for accommodating the required number of switches and accessories (where required to be used for applications other than modular switches / sockets).

(ii) Switch box also can be of non-metallic material. The technical sanctioning authority will approve specified makes of reputed quality and specifications.

(c) Switch Box Covers (for application other than modular type)

Phenolic laminated sheets of approved shade shall be used for switch box covers. These shall be of 3 mm thick synthetic phenolic resin bonded laminated sheet as base material and conforming to grade P- I of IS 2036: 1974.

Switch box covers (for modular type)

Modular Switches/socket/ wiring devices plates shall be the same product as of switches/sockets/wiring devices. This shall be of best quality molded plastic grid mounting type device plates/frames and shall match with the type of switches/ sockets & boxes.

Note: Specification for switch boxes is covered in the chapters on the various types of wiring. Combined switch cum socket shall not be permitted.

1.11.2 Socket Outlets

- i) Combined switch cum socket shall not be permitted.
- ii) 5/ 6Amp and 15/ 16Amp 6 Pin socket outlets shall be installed at the following positions, unless otherwise specified.
 - a) Kitchen/ Pantry 23 cm above working platform and away from the likely positions of stove and sink.
 - b) Toilets in non-residential building – 1.25 meter above floor level.
 - c) At all other places – 23 cm above floor level.

1.11.3 Switch box covers

Modular type switches / sockets suitable outer and inner cover plates as specified shall be provided over the standard box as recommended by the manufacturers of modular type switch /sockets and no separate sheet cover is required to be provided.

1.11.4 Ceiling Rose

- i) A ceiling rose shall not be used on circuit the voltage of which normally exceeds 250 Volts.
- ii) Only one flexible cord shall be connected to ceiling rose. Specially designed ceiling roses shall be used for multiple pendants.
- iii) A ceiling rose shall not embody fuse terminal as an integral part of it.

1.11.5 Lamp Holders

- a) The standard constructional feature of manufacturers (ISI approved) of lamp holders is acceptable. Where the lamp holders are part of light fixtures, the holders shall be suitable for the type of lamps used.

1.11.6 FITTINGS

The type of fittings shall be as specified in BOQ of tender documents.

- a) The contractors shall supply the specified model and make of the fittings. The standard constructional features of specified make and model as given in the tender document are acceptable.
- b) Where conductors are required to be drawn through tube or channel leading to the fitting, the tube or channel must be free from sharp angles or projection edge, and of such size as will enable them to be wired with the conductors used for the final circuit without removing the braiding or sheathing. As far as possible all such tubes or channels should be of sufficient size to permit looping back.

- c) Fittings shall be installed such that the lamp is at a height specified in approved drawings or as directed by the Engineer-In-Charge.

1.11.7 ATTACHMENT OF FITTINGS AND ACCESSORIES

1.11.8 Conduit Wiring System

- a) All accessories like switches, socket outlets, call bell pushed and regulators shall be fixed in flush pattern inside the switch/ regulator boxes. Accessories like ceiling roses, brackets, batten holders, stiff pendants etc. shall be fixed on metal outlet boxes.
- b) Brass screws shall be used to fix the accessories to their bases.
- c) The switch box/ regulator box shall normally be mounted with their bottom 1.25 m from floor level, unless otherwise directed by the Engineer-In-Charge.

1.11.9 Fixing of Walls and Ceiling

- a) PVC sleeves/ dash fasteners should normally be used for fixing to walls or ceiling.
- b) Plugging of walls or ceiling can be done in a better way where neatness is the first consideration. In all such cases, an approved type fiber fixing plug (rawl or Phil plug) with correct size of tools shall be used and done in a workmanlike manner.
- c) Looping of fittings etc. shall be done using connectors of suitable rating.

1.11.10 Ceiling Fans

- i. Ceiling fans including their suspension shall conform to relevant Indian Standards.
- ii. Any additional hardware items required for installation of ceiling fans including fan hooks/clamps shall be provided as required.
- iii. All ceiling fans shall be wired to ceiling roses or to special connector boxes, and suspended from hooks or shackles, with insulators between hooks and suspension rods. There shall be no joint in the suspension rod.
- iv. Recessed type fan clamp inside a metallic box shall be used. The metallic box shall suitably be covered with 3mm thick phenolic laminated sheet.
- v. Canopies on top of suspension rod shall effectively hide the suspension.
- vi. The leading in wire shall be of copper and nominal cross-sectional area not less than 1.5 Sq.mm. and shall be protected from abrasion.
- vii. Capacity of ceiling fan to meet the requirement of room with the longer dimension 'D' meters should be about 55 D cum / min. The height of fan blades above the floors should be $(3H + W)/4$, where H is the height of room & W is the height of the work plane. The minimum distance between fan blades and ceiling should be about 0.3 mtrs.
- viii. In the case of measurement of extra down rod for ceiling fan including wiring, the same shall be measured in units of 10 cm. Any length less than 5cm shall be ignored.

- ix. The wiring of extra down rod shall be paid as supplying and drawing cable in existing conduit.
- x. Energy efficient fans with BEE 5-star rating shall be used.

1.11.11 Exhaust Fans

- i. The contractors shall supply Exhaust Fan of model and make as per Preferred Make List of tender. The standard constructional features of specified make and model as given in the tender document are acceptable.
- ii. Exhaust fans shall be erected at the places indicated by the Engineer-In-Charge, additional hardware items required for installation of exhaust fans including clamps etc. shall be provided as required.
For fixing an exhaust fan, as per requirement of site, a circular opening shall be provided in the wall to suit the size of the frame, which shall be fixed by means of rag bolts embedded in the wall. The hole shall be neatly plastered to the original finish of the wall. The exhaust fan shall be connected to the exhaust fan point, which shall be wired as near to the opening as possible, by means of a flexible cord, care being taken to see that the blades rotate in the proper direction.
- iii. Louvers shall be erected with exhaust fan at the existing opening with the required hardware clamps etc. as required.
- iv. Exhaust fans for installation in corrosive atmosphere, shall be painted with special PVC paint or chlorinated rubber paint.
- v. Junction box
- vi. Thickness of junction box shall not be less than 1.2 mm (18 gauge) for boxes upto a size of 20 cm x 30 cm, and above this size 1.6 mm (16 gauge). The metallic boxes shall be duly painted with anticorrosive paint before erection. JB shall have Z- bend design for superior mechanical strength. The gasketing will be PU foam.

1.12 MARKING OF SWITCH BOARDS

i) Marking of each Main Board

Each main board/sub main board shall be marked indicating rating of each incoming / outgoing switch and the details of load/area it feeds. Detail /size of incoming and outgoing cable shall also be marked indicating from where the incoming cable has originated.

(ii) Marking of Distribution Board

Each Distribution Board shall be marked indicating detail of incoming switch (Size of cable and from where it is fed) and marking of each outgoing MCB indicating the area it feeds. Suitable marking sticker will be suitably fixed to indicate such details.

(iii) Marking of Power / Light DBs

Power/light DBs shall be marked 'P' and 'L' respectively.

(iv) Marking for Non-essential / Essential / UPS / Switch Boards

Each switchboard shall be marked essential / non-essential / UPS to indicate the nature of such switchboards.

(v) Marking of Main Earthing Terminal

Main earthing terminals in main / sub main switchboard shall be permanently marked, as "Safety Earth – Don't Remove"

1.13 TESTING OF INSTALLATION

All the completed installations shall be tested as per specification for "Testing of Installation".

1.13.1 Drawings

- i) The work shall be carried out in accordance with the shop drawings prepared by the contractor after acceptance & approval of Engineer-In-Charge enclosed and also in accordance with modification thereto from time to time as approved by the Engineer-In-Charge.
- ii) All wiring diagrams shall be deemed to be 'Drawings' within the meaning of the term as used in the Conditions of Contract. They shall indicate the main switchboard, the distribution boards (with circuit numbers controlled by them), the runs of various mains and sub mains and the position of all points with their controls.

1.14 COMMISSIONING OF COMPLETION

1.14.1 Before the workman leaves the work finally, he must make sure that the installation is commissioned, after due testing.

1.14.2 Conformity to IE act, IE rule & standard

Conformity to IE Act, IE Rule & standard. All Electrical works shall be commitment in Accordance with the provisions of Indian Electricity Act 2003 and Electricity Rules 1956 amended upto date.

1.14.3 Completion Plan and Completion Certificate

1.14.3.1 For all work completion certificate after completion of work as required by AAI shall be submitted to the Engineer-In-Charge.

1.14.3.2 Completion plan drawn to a suitable scale in tracing sheet with three blue print copies of the same shall also be submitted.

- a) General Layout of the building.
- b) Locations of main switchboard and distribution boards
- c) Position of all points and their controls indicating the circuit numbers controlled by them.
- d) Types of fittings, viz. various light fixtures, fans and exhaust fans etc.
- e) Name of work, job number, accepted tender reference, actual date of completion, names of Division/Sub-Division, and name of the firm who executed the work with their signature.

SECTION – 2

SPECIFICATIONS FOR METALLIC CONDUIT WIRING SYSTEM

2. SCOPE

This section covers the detailed requirements for wiring work in MS metallic conduits & flexible conduits. This section covers both surface and recessed types of works.

2.1 APPLICATIONS

Conduit system used shall be rigid.

Flexible conduits may only be permitted for interconnections between switchgear & DBs, junction box & light fixture and conduit terminations in wall.

All the interconnection wiring joints of group control shall be looped at fittings/fixtures using flexible conduit. Nothing extra shall be paid on this account.

2.2 MATERIALS

2.2.1 Conduits:

- i) All rigid conduit pipes shall be of Mild Steel steel and be ISI marked. The wall thickness shall be 1.6mm (16 SWG) for conduits up to 32mm dia. and 2mm (14 SWG) for conduits above 32mm dia and as per IS. These shall be solid drawn or reamed by welding, and finished with galvanized or stove enameled surface.
- ii) The maximum number of PVC insulated cables conforming to IS: 694-1990 that can be drawn in one conduit is given size wise in Table I, and the number of cables per conduit shall not be exceeded. Conduit sizes shall be selected accordingly in each run.
- iii) No steel conduits less than 20mm in diameter shall be used.

2.2.2 Flexible conduits:

All the flexible conduits pipes shall be high quality aluminum coated steel, heat resistant, 3 layer corrugated construction. Pipe should have high mechanical strength to stay at desire direction without support. The minimum size of conduit shall be 25 mm & wall thickness shall be as under with ± 0.5 mm tolerance.

2.2.3 Conduits Accessories:

- i) The conduit wiring system shall be complete in all respects, including their accessories.

- ii) All conduit accessories shall be MS threaded type, and under no circumstances pin grip type or clamp grip accessories shall be used. Aluminum coupler shall be provided on both sides of flexible conduit and the weight of coupler shall not be less than 30 grams.
- iii) Bends, couplers etc. shall be solid type in recessed type of works and may be solid or inspection type as required, in surface type of works.
- iv) a) Saddles for surface conduit work on wall shall not be less than 0.55mm (24 gauge) for conduits up to 25mm dia and not less than 0.9mm (20 gauge) for larger diameter. The corresponding widths shall be 19mm and 25mm.
b) The minimum width and the thickness of girder clips used for fixing conduits to steel joints, and clamps shall be as per Table-II. Flexible coupler shall be made of aluminum casting and having earthing provision including screws.

2.2.4 Outlets

- i) a) Outlet boxes for light/ power sockets shall be of standard size of manufacturer to accommodate required number of modular switches, socket outlet.
b) Where a large number of control switches and/ or fan regulators are required to be installed at one place, these shall be installed in more than one outlet box adjacent to each other for ease of maintenance.
- ii) An earth terminal with stud and metal washers shall be provided in each DB/MS box for termination of protective conductor and for connection to socket outlet/ metallic body of fan regulator etc.

2.3 INSTALLATION

2.3.1 Common aspects for recessed and surface conduit works.

2.3.1.1 Conduit Joints

- a) The conduit work in each circuit or section shall be completed before the cables are drawn in.
- b) Conduit pipes shall be joined by means of screwed couplers and screwed accessories only. Threads on conduit pipes in all cases shall be between 13mm to 19mm long, sufficient to accommodate pipes to full threaded portion of couplers or accessories.
- c) Cut ends of conduit pipes shall have no sharp edges, nor any burrs left to avoid damage to the insulation of the conductors while pulling them through such pipes.
- d) The Engineer-In-Charge, with a view to ensuring that the above provision has been carried out, may require that the separate lengths of

conduit etc. after they have been prepared shall be submitted for inspection before being fixed.

- e) No bare threaded portion of conduit pipe shall be allowed, unless such bare threaded portion is treated with anticorrosive preservative or covered with approved plastic compound.

2.3.1.2 Bends in Conduit

- a) All necessary bends in the system, including diversion, shall be done either by neatly bending the pipes without cracking with bending radius of not less than 7.5 cm., or alternatively, by inserting suitable solid or inspection type normal bends, elbows or similar fittings, or by fixing cast iron inspection boxes, whichever is most suitable.
- b) No length of conduit shall have more than the equivalent of four quarter bends from outlet to outlet.
- c) Conduit fittings shall be avoided as far as possible on conduit system exposed to weather. Where necessary, solid type fittings shall be used.

2.3.1.3 Outlets

- a) All outlets such as switches, wall sockets etc. may be either flush mounting type, or of surface mounting type, as specified in the additional specifications if any or as directed by the Engineer-In-Charge.
- b) All piano type switches and accessories shall be fixed on the phenolic laminated sheet covers in flush pattern.

2.3.2 Additional requirements for surface conduit works

2.3.2.1 Fixing Conduit On Surface

Conduit pipes shall be fixed by saddles, secured to suitable approved plugs with screws in an approved manner at an interval of not more than one meter, but on either side of the couplers or bends or similar fittings, saddles shall be fixed at a distance of 30 cm from the center of such fittings.

Where conduit pipes are to be laid along the trusses, steel joists etc. the same shall be secured by means of saddles or girder clips or clamps as required by the Engineer-In-Charge.

In long distance straight run of conduit, inspected type couplers at reasonable intervals shall be provided, or running threads with couplers and jam nuts shall be provided.

2.3.2.2 Fixing Outlet Boxes

Only a portion of the switch box shall be sunk in the wall, the other portion being projected out for suitable entry of conduit pipes into the box.

2.3.3 Additional requirements for recessed conduit works

2.3.3.1 Making Chase

- a) The chase in the wall shall be neatly made, and of ample dimensions to permit the conduit to be fixed in the manner desired.
- b) In the case of building under construction, the conduits shall be buried in the wall before plastering, and shall be finished neatly after erection of conduit.
- c) In chase of exposed brick/ rubber masonry work, only machine cutting shall be done for fix the conduit and accessories in position along with the building work.

2.3.3.2 Fixing Conduits in Chase

- a) The conduit pipe shall be fixed by means of staples, J-hooks, or by means of saddles, not more than 60 cm apart, or by any other approved means of fixing.
- b) All threaded joints of conduit pipes shall be treated with some approved preservative compound to secure protection against rust.

2.3.3.3 Fixing Conduits in RCC work

- a) The conduit pipes shall be laid in position and fixed to the steel reinforcement bars by steel binding wires before the concreting is done. The conduit pipes shall be fixed firmly to the steel reinforcement bars to avoid their dislocation during pouring of cement concrete and subsequent tamping of the same.
- b) Fixing of standard bends or elbows shall be avoided as far as practicable, and all curves shall be maintained by bending the conduit pipe itself with all long radius, which all permit easy drawing in of conductors.

2.3.3.4 Fixing Inspection Boxes

Suitable inspection boxes to the minimum requirement shall be provided to permit inspection, and to facilitate replacement of wires, if necessary. The distance between Hexagonal inspection / junction boxes shall not exceed 12.5 mts in straight run. Inspection box shall have Z- bend design for superior mechanical strength and thickness of the same shall not be less than 1.6 mm. These boxes shall be duly painted with anticorrosive paint before erection. The gasketing will be PU foam.

Location of inspection/ junction boxes in RCC work should be identified by suitable means to avoid unnecessary chipping of the RCC slab subsequently to locate these boxes.

These shall be mounted flush with the wall or ceiling concrete. Minimum 65mm depth junction boxes shall be used in roof slabs and the depth of the boxes in other places shall be as per IS: 2667-1977.

Suitable phenolic laminated sheet cover shall be provided on the inspection box. Suitable ventilating holes shall be provided in the inspection box covers.

2.3.3.5 Fixing Switch Boxes and Accessories

Switch boxes shall be mounted flush with the wall. All outlets such as switches, socket outlets etc. shall be flush mounting type, unless otherwise specified.

2.3.3.6 Fish wire

To facilitate subsequent drawing of wires in the conduit, GI fish wire of 1.6mm / 1.2mm (16/ 18 SWG) shall be provided along with the laying of the recessed conduit.

2.3.3.7 Bunching of Cables

- a) Cables carrying direct current may, if desired, be bunched whatever their polarity, but cables carrying alternating current, if installed in metal conduit shall always be bunched so that the outgoing and return cables are drawn into the same conduit.
- b) Where the distribution is for single phase loads only, conductors for these phases shall be drawn in one conduit.
- c) In case of three phase loads, separate conduits shall be run from the distribution boards to the load points or outlets as the case may be.

2.3.4 Earthing Requirements

2.3.4.1 The entire system of metallic conduit work, including the outlet boxes and other metallic accessories, shall be mechanically and electrically continuous by proper screwed joints, or by double check nuts at termination. The conduit shall be continuous when passing through wall or floors.

2.3.4.2 Protective (loop earthing) conductor (s) shall be laid along the runs of the conduit between the metallic switch boxes and the distribution boards/ switchboards, terminated thereto. The conductors shall be of such size and material as specified. Depending upon their size and material, the protective earth conductors shall be either drawn inside the conduits along with the cables, or shall be laid drawn in outside the conduits. When laid external to the conduits, this shall be properly clamped with the conduit at regular intervals.

2.3.4.3 The protective conductors shall be terminated properly using earth studs, earth terminal block etc. as the case may be.

2.3.4.4 Gas or water pipe shall not be used as protective conductor (earth medium).

TABLE – I

Maximum number of PVC insulated 650/1100V grade Aluminum/copper conductor cable conforming to IS: 694 – 1990.

Nominal Cross- Sectional area of conductor in <u>sq.mm</u>	20mm		25mm		32mm		38mm		51mm		64mm	
	S	B	S	B	S	B	S	B	S	B	S	B
1	2	3	4	5	6	7	8	9	10	11	12	13
1.50	5	4	10	8	18	12	-	-	-	-	-	-
2.50	5	3	8	6	12	10	-	-	-	-	-	-
4	3	2	6	5	10	8	-	-	-	-	-	-
6	2	-	5	4	8	7	-	-	-	-	-	-
10	2	-	4	3	6	5	8	6	-	-	-	-
16	-	-	2	2	3	3	6	5	10	7	12	8
25	-	-	-	-	3	2	5	3	8	6	9	7
35	-	-	-	-	-	-	3	2	6	5	8	6
50	-	-	-	-	-	-	-	-	5	3	6	5
70	-	-	-	-	-	-	-	-	4	3	5	4

NOTE:

1. The above table shows the maximum capacity of conduits for a simultaneous drawing in of cables.
2. The columns headed 'S' apply to runs of conduits which have distance not exceeding 4.25m between draw in boxes and which do not deflect from the straight by an angle of more than 15 degrees. The columns headed 'B' apply to runs of conduit which deflect from the straight by an angle of more than 15 degrees.
3. Conduit sizes are the nominal external diameters.

TABLE - II

Girder clips or clamps

Size of Conduit	Width	Thickness
i) 20 mm - - - -	19 mm	0.9mm (20 SWG)
ii) 25 mm - - - -	19 mm	0.9mm (20 SWG)
iii) 32 mm & above - - -	25 mm	1.2mm (18 SWG)

2.3.5 PAINTING

This section covers the requirements of painting work in internal electrical installations, carried out manually by brush. This does not cover spray painting work of factory made items.

Painting Work in General

Paints

Paints, oils, varnishes etc. of Preferred make, in original tin to the satisfaction of the Engineer-In-Charge shall only be use.

Preparation of the Surface

The surface shall be thoroughly cleaned and made free from dust or foreign matter before painting is started. The proposed surface may be inspected by the Engineer-In-Charge before the paint is applied.

Application

- i) Paint shall be applied with brush. The paint shall be spread as smooth and even as possible. Particular care shall be paid to rivets, nuts, and bolts and over-lapping. Before drawing out in small containers, it shall be continuously stirred with a smooth stick, while painting work is taken up.
- ii) Primary coat of anti-corrosive paint shall be given in the case of steel work, after preparation the surface. In all cases of painting work, finishing shall be with 2 coats of paint in approved shade.
- iii) Each coat shall be allowed to dry out sufficiently before a subsequent coat is applied.

Precautions

All furniture, fixture, glazing, floors etc. shall be protected by suitable covering. All stains, smears splashing, dropping etc. shall be removed. While painting etc. it shall be ensured that the painting of wall and ceiling etc. is not spoiled in any way.

SECTION -3

NON-METALLIC CONDUIT WIRING SYSTEM

3. Scope

This chapter covers the detailed requirements for wiring work in non-metallic conduits. This chapter covers both surface and recessed types of wiring work.

3.1 Application

Recessed conduit work is generally suitable for all applications. Surface conduit work may be adopted in places like workshops etc. and where recessed work may not be possible to be done. The type of work shall be as specified in individual works.

Flexible non-metallic conduits shall be used only at terminations, wherever specified.

Special Precautions

If the pipes are liable to mechanical damages, they should be adequately protected.

Non-metallic conduit shall not be used for the following applications: -

- (a) In concealed/inaccessible places of combustible construction where ambient temperature exceeds 60 degrees C.
- (b) In places where ambient temperature is less than 5 degrees C.
- (c) For suspension of fluorescent fittings and other fixtures.
- (d) In areas exposed to sunlight.

3.2 Materials

All non-metallic conduit pipes and accessories shall be of suitable material complying with IS 2509: 1973 and IS 3419: 1989 for rigid conduits and IS 9537 (Part 5): 2000 for flexible conduits. The interior of the conduits shall be free from obstructions. The rigid conduit pipes shall be ISI marked.

The conduits shall be circular in cross-section. The conduits shall be designated by their nominal outside diameter. The dimensional details of rigid non-metallic conduits are given in Table III.

No non-metallic conduit less than 20 mm in diameter shall be used.

• **Wiring Capacity:**

The maximum number of PVC insulated aluminum /copper conductor cables of 650/1100 V grade conforming to IS 694: 1990 that can be drawn in one conduit of various sizes is given in Table I. Conduit sizes shall be selected accordingly.

- **Conduit Accessories**

- a) The conduit wiring system shall be complete in all respect including accessories.
- b) Rigid conduit accessories shall be normally of grip type.
- c) Flexible conduit accessories shall be of threaded type.
- d) Bends, couplers etc. shall be solid type in recessed type of works, and may be solid or inspection type as required, in surface type of works.
- e) Saddles for fixing conduits shall be heavy gauge non-metallic type with base.
- f) The minimum width and the thickness of the ordinary clips or girder clips shall be as per Table IV.
- g) For all sizes of conduit, the size of clamping rod shall be 4.5 mm (7 SWG) diameter.

- **Outlets:**

- a) The switch box shall be made of either rigid PVC molding, or mild steel, or cast iron on all sides except at the front. The regulator boxes shall however be made only of mild steel or cast iron.
- b) PVC boxes shall comply with the requirements laid down in IS 14772: 2000. These boxes shall be free from burrs, fins and internal roughness.
- c) The thickness of the walls and base of PVC boxes shall not be less than 2 mm. The clear depth of PVC boxes shall not be less than 60 mm.

3.3 Installation

3.3.1 Common Aspects for Both Recessed and Surface Conduit Work

The erection of conduits of each circuit shall be completed before the cables are drawn in.

3.3.2 Conduit Joints

3.3.2.1 All joints shall be sealed/cemented with cement. Damaged conduit pipes/fittings shall not be used in the work. Cut ends of conduit pipes shall have neither sharp edges nor any burrs left to avoid damage to the insulation of conductors while pulling them through such pipes.

3.3.2.2 The Engineer-in-charge, with a view to ensuring that the above provision has been carried out, may require that the separate lengths of conduit etc. after they have been prepared shall be submitted for inspection before being fixed.

3.3.2.3 Bends in Conduit

- All bends in the system may be formed either by bending the pipes by an approved method of heating, or by inserting suitable accessories such as bends, elbows or similar fittings, or by fixing non-metallic inspection boxes, whichever is most suitable. Where necessary, solid type fittings shall be used.
- Radius of bends in conduit pipes shall not be less than 7.5 cm. No length of conduit shall have more than the equivalent of four quarter bends from outlet to outlet.
- Care shall be taken while bending the pipes to ensure that the conduit pipe is not injured, and that the internal diameter is not effectively reduced.

3.3.2.4 Outlets

All switches, plugs, fan regulators etc. shall be fitted in flush pattern. The fan regulators can be mounted on the switch box covers, if so stipulated in the tender specifications, or if so directed by the Engineer-in-charge.

TABLE III

Dimensional Details of Rigid Non-metallic Conduits

(All dimensions in mm)

S. No.	Nominal Outside Diameter (in mm)	Maximum Outside Diameter (in mm)	Minimum Inside Diameter (in mm)	Maximum Permissible Eccentricity (in mm)	Minimum Permissible Ovality (in mm)
1.	20	20 + 0.3	17.2	0.2	0.5
2.	25	25 + 0.3	21.6	0.2	0.5
3.	32	32 + 0.3	28.2	0.2	0.5
4.	40	40 + 0.3	35.8	0.2	0.5
5.	50	50 + 0.3	45.0	0.4	0.6

TABLE IV

Ordinary Clips or Girder Clips

Size of Conduit	Width	Thickness
(1) 20 mm & 25 mm	19 mm	20 SWG (0.9144 mm)
(2) 32 mm & above	25 mm	18 SWG (1.219 mm)

SECTION-4

TESTING OF INSTALLATION

4. SCOPE

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

4.1 GENERAL:

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

Insulation resistance test.
Polarity test of switch.
Earth continuity test.
Earth electrode resistance test.

4.2 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 the Department (AAI).

4.3 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 a switch 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 less than 0.5 mega ohm.

4.4 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.

4.5 TESTING OF EARTH CONTINUITY PATH

The earth continuity conductor, including metal conduits and metallic envelopes 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.

4.6 MEASUREMENT OF EARTH ELECTRODE RESISTANCE

4.6.1 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

$$R = \frac{V}{I}$$

Where,

R- Resistance of the test electrode in

ohms V- Reading of the voltmeter in volts

I- Reading of the ammeter in amps

- 4.6.1.1** i) Stray currents flowing in the soil may produce serious errors in the measurement of earth resistance. To eliminate this, hand driven generator is used.
- 4.6.1.2** ii) If the frequency of the supply of hand driven generator coincides with the frequency of stray current, there will be wandering of instrument pointer. An increase or decrease of generator speed will cause this to disappear.
- 4.6.2** 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 50 m, and each time placing the electrode B mid-way between them.
- 4.6.3** On these principles, “Megger Earth Tester” containing a direct reading ohm-meter, a hand driven generator and auxiliary electrodes are manufactured for direct reading of earth resistance of electrodes.

4.7 **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.

4.8 **FORM OF COMPLETION CERTIFICATE**

I/We certify that the installation detailed below has been installed by me/us and tested and that best of my/ our knowledge and belief it complies with Indian Electricity Rules 1956, as well as the Contract Specifications.

4.9 **Particulars of work: -**

a) **Internal Electrical Installation**

No. Total Load Type or system of wiring

i) Light point

ii) Fan point

iii) Plug point

a) 3 pin 5 Amp

b) 3 pin 15 Amp

c) Others

b) **If the work involves installation of underground cable**

i) Total length of underground cable & its size.

ii) No. of Joints: End

Joint:

Tee

Joint:

St. through joint:

4.9.1 **Earthing: -**

Description of earth electrodes.

Number of earth electrodes.

Size

4.9.2 **Test Results of Wiring: -**

a) Insulation resistance.

i) Insulation resistance of the whole system of conductors to earth
Mega ohms

ii) Insulation between the phase conductor and neutral

Between phase R and neutral . . . Mega ohms

Between phase Y and neutral . . . Mega ohms

Between phase B and neutral . . . Mega ohms

iii) Insulation resistance between the phase conductors in case of poly phase supply

Between phase R and neutral . . . Mega ohms

Between phase Y and neutral . . . Mega

b) Between phase B and neutral . . . ohms

c) Polarity test Mega

Polarity of non-linked single pole branch switches. **Earth**

continuity test

Maximum resistance between any point in the earth continuity conductor including metal conduits and main earth lead..... ohms.

d) **Earth electrodes resistance Resistance** of
each earth electrode

i)

ii) .

. .

iii) .

iv) . .

v) .

e) Lightning Protective System

Resistance of the whole of lightning protective system to earth before any bonding is effected with earth electrodes and metal in/on the structure ohms.

LUX Levels:

All areas will be illuminated through LED light fixtures. Following are the proposed minimum average lux levels for various areas in the Airport.

LED LIGHT FITTINGS

SPECIFICATION OF LED LIGHT FIXTURES

S. N.	Description	Minimum- Requirements for Indoor Lights	Minimum- Requirements for Outdoor Lights	Minimum Requirements for Residential Lights
1	Efficiency of LED light fitting (Efficacy)	100 lumen / watt	110 lumen / watt	70 lumen / watt
2	Life of LED light fitting	50000 burning hrs.	50000 burning hrs.	35000 burning hrs.
3	Approved makes for LED	NICHIA / CREE / OSRAM / PHILLIPS (LUMILED) / SHARP / SEOUL / EVERLITE / CITIZEN (JAPAN) / BRIDGELUX (USA) / SAMSUNG (An undertaking shall be submitted from fitting manufacturer regarding confirmation about use of make of LEDs in their fitting before supply of fittings)	NICHIA / CREE / OSRAM / PHILLIPS (LUMILED) / SHARP / SEOUL / EVERLITE / CITIZEN (JAPAN) / BRIDGELUX (USA) / SAMSUNG (An undertaking shall be submitted from fitting manufacturer regarding confirmation about use of make of LEDs in their fitting before supply of fittings)	NICHIA / CREE / OSRAM / PHILLIPS (LUMILED) / SHARP / SEOUL / EVERLITE / CITIZEN (JAPAN) / BRIDGELUX (USA) / SAMSUNG (An undertaking shall be submitted from fitting manufacturer regarding confirmation about use of make of LEDs in their fitting before supply of fittings)
4	CRI	80	70	70
5	THD	Less than 10%	Less than 10%	Less than 20%
6	Voltage Range	140 V to 270 V	140 V to 270 V	140 V to 270 V
7	Type of housing	Extruded Aluminum / CRCA / Standard Alloy	High Pressured Die Cast Aluminium / Standard Alloy	Extruded Aluminium / High Pressured Die Cast Aluminium /

		housing		Standard Alloy
8	IP Category	IP 20	IP 65	IP 20
9	Surge protection	Shall be provided conforming to relevant IS standard / IEC for LED Driver (in-built): EN 61000-4-5 or as specified in SOQ. More than 2KV	More than 4 KV	More than 2 KV
10	Labeling / identification Mark	Manufactures Name / Logo shall be engraved / Embossed on housing / body on aluminum plate Labels or Screen printed on housing / body. Sticker shall not be acceptable.	Manufactures Name / Logo shall be engraved / Embossed on housing / body on aluminum plate Labels or Screen printed on housing / body. Sticker shall not be acceptable.	Manufactures Name / Logo shall be engraved / Embossed on housing / body on aluminum plate Labels or Screen printed on housing / body. Sticker shall not be acceptable.
11	Warranty period	5 years warranty from actual date of completion of work on complete luminar including driver / control gear, LED, all accessories etc.	5 years warranty from actual date of completion of work on complete luminar including driver / control gear, LED, all accessories etc.	3 years warranty from actual date of completion of work on complete luminar including driver / control gear, LED, all accessories etc.
12	Power Factor	0.95	0.95	0.95
13	Total Power consumption of fitting.	Not More than 110% of rated capacity of LED Light fitting.	Not More than 110% of rated capacity of LED Light fitting.	Not More than 110% of rated capacity of LED Light fitting.
14	Approved Make of Driver	MEANWELL / INVENTRONICS / C & S / MOSO POWER / BAG / PHILLIPS / WIPRO / OSRAM / BAJAJ / PHAROS / FULLHAM / HELVER / OEM of Light fixtures	MEANWELL / INVENTRONICS / C & S / MOSO POWER / BAG / PHILLIPS / WIPRO / OSRAM / BAJAJ / PHAROS / FULLHAM / HELVER / OEM of Light fixtures	MEANWELL / INVENTRONICS / C & S / MOSO POWER / BAG / PHILLIPS / WIPRO / OSRAM / BAJAJ / PHAROS / FULLHAM / HELVER / OEM of Light fixtures
15	Type of Driver	Enclosed / Encapsulated	Enclosed / Encapsulated	Enclosed / Encapsulated
16	Efficiency of Driver	85%	85%	85%
17	Testing Facility	LED Luminaire manufacturers shall in house NABL accredited	LED Luminaire manufacturers shall in house NABL accredited photometry lab.	LED Luminaire manufacturers shall in house NABL accredited photometry lab.

		photometry lab.		
18	BIS Registration	All luminaires, drivers shall be BIS registered.	All luminaires, drivers shall be BIS registered.	All luminaires, drivers shall be BIS registered.
19	Housing Thickness	Housing of Luminaire shall be greater than or equal to 0.5 mm for CRCA or 1 mm for extruded aluminium or 1.5 mm for PDC aluminium or heavier if so required to meet the application requirement.	Housing of Luminaire shall be greater than or equal to 0.5 mm for CRCA or 1 mm for extruded aluminium or 1.5 mm for PDC aluminium or heavier if so required to meet the application requirement.	Housing of Luminaire shall be greater than or equal to 0.5 mm for CRCA or 1 mm for extruded aluminium or 1.5 mm for PDC aluminium or heavier if so required to meet the application requirement.
20	IK Rating	IK 04	IK 07	Not Applicable
21	LED Binning (Standard Deviation Colour matching)	Greater than 5 (SDCM)	Greater than 5 (SDCM)	Greater than 7 (SDCM)
22	Unified Glare Rating (UGR)	Greater than or Equal to 19	NA	NA
23	Test reports of luminaire	The luminaire should be tested as per IEC 60598-1: 2014 with upto date amendments standards and following test reports should be submitted along with the fittings: Heat Resistance Test, Thermal Test, Ingress Protection Test, Drop Test, Electrical / Insulation Resistance Test, Endurance Test, Humidity Test,	The luminaire should be tested as per IEC 60598-1: 2014 with upto date amendments standards and following test reports should be submitted along with the fittings: Heat Resistance Test, Thermal Test, Ingress Protection Test, Drop Test, Electrical / Insulation Resistance Test, Endurance Test, Humidity Test, Photometry Test (LM 79 Report), LM 80 report.	The luminaire should be tested as per IEC 60598-1: 2014 with upto date amendments standards and following test reports should be submitted along with the fittings: Heat Resistance Test, Thermal Test, Ingress Protection Test, Drop Test, Electrical / Insulation Resistance Test, Endurance Test, Humidity Test, Photometry Test (LM 79 Report), LM 80 report.

		Photometry Test (LM 79 Report), LM 80 report.		
24	CCT	As per SOQ	As per SOQ	As per SOQ

NOTE: The model numbers and make specified in SOQ are only for references for the product requirement. The product supplied, must match the SOQ & technical specifications. The technical data sheets shall be arranged for taking approval from AAI before the dispatch of materials.

Television with wall mount bracket			
Make:		LG, Sony, Sumsung	
S. N.	Minimum Technical Specification		Compliance (Yes/No)
1	Screen Size	43" or better	
2	Resolution	3840 x 2160 (UHD)	
3	Refresh Rate	60 Hz	
4	HDR_HDR 10 Pro	Yes	
5	HDR_HLG	Yes	
6	Audio Output	10W + 10W	
7	Speaker System	2.0 ch	
8	AI Sound/Pro	AI Sound (Virtual 5.1 Up-mix)	
9	Processor	Alpha 5	
10	Home Dashboard	Yes	
11	Web Browser	Yes	
12	Pre-loaded App	Yes	
13	Magic Remote Compatibility	Yes	
14	HDMI eARC	Yes	
15	Wi Fi	Yes	
16	Screen Share (Miracast)	Yes	
17	Air Play	Yes	
18	Bluetooth	Yes	
19	Google Assistant	Yes	
20	Amazon Alexa	Yes	
21	Voice Recognition (Standalone)	Yes	
22	Ports	HDMI In *3, RF In *1, USB *2, RJ45 *1	
23	Accessory	Magic Remote	
24	Comprehensive Onsite Warranty	5 Years	

Mini Refrigerator			
Make:		Voltas, Blue Star, LG	
S. N.	Technical Specification		Compliance (Yes/No)
1	Product subcategory	Mini Bar with Freezer	
2	No of doors	Single Door	
3	External body material	PPGI	
4	Power rating watts	42W	
5	Inner Materials	HIPS	

SECTION-5

Split Inverter type AC units:

- 5.1 The 1.5 TR Inverter type units having one indoor unit and one outdoor unit comprising of **INVERTER rotary compressor** functioning with environment friendly refrigerant like R32 or equivalent. The refrigerator used should be ozone non-depleting.
- 5.2 The unit should have full function battery operated cordless remote control.
- 5.3 The indoor units shall be mounted at a suitable height. The outdoor unit shall be mounted on wall bracket or on a raised platform of suitable length and width at a height of 45 cm from ground as per site condition or as directed by Engineer-In-Charge.
- 5.4 The unit shall be supplied along with standard length of refrigerant piping and drain piping and control cable etc. The power cable should be 3x4 Sqmm. PVC sheathed, out of which one core should invariably be used for loop earthing.
- 5.5 The drain pipe should be as per Schedule with suitable length. The refrigerant pipe should be well insulated to avoid condensation. The unit shall be suitable to operate on 230 +/- 10%, 50Hz AC Supply for 1.5/2.0 TR units.
- 5.6 The Unit shall be of min. BEE-5 star rating.
- 5.7 Only copper material condenser units and cooling unit will be accepted.
- 5.8 All finishing works like packet filling, wall colony work or any other Civil work from inside or outside of building shall be completed in all respects.
- 5.9 The makes of AC unit with associated accessories shall be according to the list of approved makes as attached.
- 5.10 All drain pipes shall be routed to the nearest shaft with required scope.

5.11 STABILIZER FOR SPLIT AIR CONDITIONERS

The detailed specification of Stabilizer for single Phase 1.5 Ton Split type Air conditioner wall mounting types as following:

- Input Voltage : 230V, 50HZ, AC Supply
- Working Voltage Range: 150V to 280V or as per OEM Specification.
- Capacity : ≥15 Amps
- Protection of Stabilizer :
 - i) Low and High Voltage Cut-off Protection
 - ii) Built in Thermal Overload
 - iii) Intelligent Time Delay System
- Installation: Wall Mounting Cabinet Design

LIST OF PREFERRED MAKES FOR ELECTRICAL ITEMS
विद्युत वस्तुओं के लिए अधिमन्य रूपों (प्रीफर्ड मेक्स) की सूची

Annexure- A
अनुलग्नक-ए

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

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

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

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

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

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

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

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

SR. NO.	ITEMS	PREFERRED MAKES (W.E.F. 22.09.2023)	CATEGORY FOR TEST CERTIFICATION/ INSPECTION
K	MISCELLANEOUS & OTHER MECHANICAL ITEMS		
152	HAND DRIER	TECHNOCRATS/ EURONICS / DOLPHY / ANAND AUTOMATIC SYSTEM / KOPAL	CATEGORY-3
153	DOUBLE WALL CORRUGATED HDPE PIPE	KESHAV KRIPA/ TIRUPATI PLASTOMATIC / NARAYANI POLYPIPER / GEMINI / GANGOTRI / HIMALYAN	CATEGORY-3
154	PLAIN HDPE PIPE	KESHAV KRIPA/ NARAYANI/ VALENS / MANGALAM / BEC	CATEGORY-3
155	AUTOMATIC SLIDING DOOR	NEPTUNE/ S. ADITYA/ DORMAKABA/ TECHNOCRATS/ AUTOINGRESS / GODREJ	CATEGORY-3
156	ELEVATOR	TRIO ELEVATOR/ OMEGA ELEVATOR/ ESCON / JOHNSON LIFTS / ECE	CATEGORY-1
157	ESCALATOR	TRIO ELEVATOR/ OMEGA ELEVATOR/ JOHNSON LIFTS	CATEGORY-1
158	BOLLARD	AVIANS / SWARAJ / S. ADITYA/ TECHNOCRATS/ EURONICS/ NEPTUNE / BROSIS	CATEGORY-3
159	BOOM BARRIER	AVIANS / SWARAJ / S. ADITYA/ DORMAKABA/ TECHNOCRATS/ BROSIS / NEPTUNE / AUTOINGRESS	CATEGORY-3
160	TROLLEY GATE	AVIANS / SWARAJ/ S. ADITYA/ TECHNOCRATS/ DELITE/ AUTOINGRESS	CATEGORY-3
161	TYRE KILLER	SWARAJ / S. ADITYA/ TECHNOCRATS / NEPTUNE / BROSIS	CATEGORY-3
162	EXTERNAL LIGHTING POLES	UTKARSH / RMSCO (RAJASTHAN METAL) / SKIPPER / BP PROJECTS/ K-LITE/ PRAKASH SURYA (SURYA ROSHNI) / TRANSRAIL/ SUMIP / SIGNIFY/ BAJAJ / WIPRO / ORIENT ELECTRIC/ CROMPTON	CATEGORY-3
163	DECORATIVE POLE	UTKARSH / SKIPPER/ BP PROJECTS/ K-LITE/ PRAKASH SURYA (SURYA ROSHNI) / TRANSRAIL/ SIGNIFY/ BAJAJ/ WIPRO/ ORIENT ELECTRIC/ CROMPTON	CATEGORY-3
164	HIGH MAST	UTKARSH/ SKIPPER/ BP PROJECTS/ K-LITE/ PRAKASH SURYA (SURYA ROSHNI) / TRANSRAIL/ SIGNIFY/ BAJAJ/ WIPRO/ ORIENT ELECTRIC/ CROMPTON	CATEGORY-3
165	ALUMINIUM LADDERS / HYDRAULIC LADDERS	DELITE / SUMER/ PARAS/ VARDHMAN	CATEGORY-2
166	DASH FASTENERS	HILTI / MUNGO	CATEGORY-4
167	GEAR BOX	MGM VARVEL / iMAK	CATEGORY-3
168	GEARED MOTOR	ROTOMOTIVE / MGM VARVEL / iMAK	CATEGORY-3
L	GROUND LIGHTING ITEMS		
169	PAPI	VARDHMAN / AMA	CATEGORY-1
170	LAMP (T-14, T-10, SPHERICAL)	JS LAMPS/ KOILITE/ PHILIPS	CATEGORY-3
171	LAMP (HALOGEN)	OSRAM / SIGNIFY (PHILIPS) / YOUYANG	CATEGORY-3
172	ISOLATING TRANSFORMER	CTC (CREATIVE TRADING) / VARDHMAN/ AMA/ BILDAL/ ELECTROMACH/ THORN/ DMAN-OY/ CECELEC/ ADB/ YOUYANG	CATEGORY-1
173	CONSTANT CURRENT REGULATOR (CCR)	AMA/ HONEYWELL/ HIND RECTIFIER/ THORN/ IDMAN-OY/ CECELEC / ADB/ YOUYANG/ NASU SYSTEM	CATEGORY-1

SR. NO.	ITEMS	PREFERRED MAKES (W.E.F. 22.09.2023)	CATEGORY FOR TEST CERTIFICATION/ INSPECTION
174	5 KV GRADE AFL CABLE - UNSHIELDED	RR KABEL/ ALOKE (ANKUR) / RALLISON (LKB) / JRD / KEI/ GLOSTER / ALOKE (ANKUR) / BHANSALI	CATEGORY-1
175	1.1 KV GRADE SECONDARY LEAD FOR AFL CABLE	RR KABEL/ AMA/ ELECTROMACH/ ALOKE (ANKUR) / RALLISON (LKB) / JRD	CATEGORY-2
176	PLUGS / RECEPTACLE / CONNECTOR	CTC (CREATIVE TRADING) / ELECTROMACH / ALOKE (ANKUR) / VARDHMAN/ NEPTUNE/ AMA/ BILDAL/ BCH/ VASANTH/ YOUYANG	CATEGORY-2
177	5 KV GRADE AFL CABLE - SHIELDED	RR KABEL/ ALOKE (ANKUR) / JRD	CATEGORY-1

CATEGORY REQUIREMENT OF TEST CERTIFICATE/ INSPECTION

CATEGORY-1:

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

CATEGORY-2:

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

CATEGORY-3:

- a) OEM/ Dealer/ Contractor routine test certificate.
- b) Visual and functional check by AAI official at AAI airport site.

CATEGORY-4:

- a) Visual and functional check by AAI official at AAI airport site.

**** These items shall be got approved from Competent Authority before placing the purchase order.***

NOTE: Any other item whose make is not specified shall be supplied with prior approval of the Engineer-in-Charge. LIST OF PREFERRED MAKES FOR ELECTRICAL WORKS

List of Preferred Makes Civil Works for use in AAI works (As on 17.10.2025)

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 Metaliks & 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

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. / Bhoruka (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. (Formely D-Line) / Hafele India Pvt. Ltd. / GEZE GmbH / Linx 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 / Arjnwoodmart 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

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.) / Tuflite / 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

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 Corportation) / 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

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) / Linco 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	Magcrete 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 / Linco 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	

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 / Sanqir Plastics Pvt. Ltd.

LIST OF PREFERRED MAKES FOR ELECTRICAL ITEMS
विद्युत वस्तुओं के लिए अधिमन्य रूपों (प्रीफर्ड मेक्स) की सूची

Annexure- A
अनुलग्नक-ए

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

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

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

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

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

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

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

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

SR. NO.	ITEMS	PREFERRED MAKES (W.E.F. 22.09.2023)	CATEGORY FOR TEST CERTIFICATION/ INSPECTION
K	MISCELLANEOUS & OTHER MECHANICAL ITEMS		
152	HAND DRIER	TECHNOCRATS/ EURONICS / DOLPHY / ANAND AUTOMATIC SYSTEM / KOPAL	CATEGORY-3
153	DOUBLE WALL CORRUGATED HDPE PIPE	KESHAV KRIPA/ TIRUPATI PLASTOMATIC / NARAYANI POLYPIPER / GEMINI / GANGOTRI / HIMALYAN	CATEGORY-3
154	PLAIN HDPE PIPE	KESHAV KRIPA/ NARAYANI/ VALENS / MANGALAM / BEC	CATEGORY-3
155	AUTOMATIC SLIDING DOOR	NEPTUNE/ S. ADITYA/ DORMAKABA/ TECHNOCRATS/ AUTOINGRESS / GODREJ	CATEGORY-3
156	ELEVATOR	TRIO ELEVATOR/ OMEGA ELEVATOR/ ESCON / JOHNSON LIFTS / ECE	CATEGORY-1
157	ESCALATOR	TRIO ELEVATOR/ OMEGA ELEVATOR/ JOHNSON LIFTS	CATEGORY-1
158	BOLLARD	AVIANS / SWARAJ / S. ADITYA/ TECHNOCRATS/ EURONICS/ NEPTUNE / BROSIS	CATEGORY-3
159	BOOM BARRIER	AVIANS / SWARAJ / S. ADITYA/ DORMAKABA/ TECHNOCRATS/ BROSIS / NEPTUNE / AUTOINGRESS	CATEGORY-3
160	TROLLEY GATE	AVIANS / SWARAJ/ S. ADITYA/ TECHNOCRATS/ DELITE/ AUTOINGRESS	CATEGORY-3
161	TYRE KILLER	SWARAJ / S. ADITYA/ TECHNOCRATS / NEPTUNE / BROSIS	CATEGORY-3
162	EXTERNAL LIGHTING POLES	UTKARSH / RMSCO (RAJASTHAN METAL) / SKIPPER / BP PROJECTS/ K-LITE/ PRAKASH SURYA (SURYA ROSHNI) / TRANSRAIL/ SUMIP / SIGNIFY/ BAJAJ / WIPRO / ORIENT ELECTRIC/ CROMPTON	CATEGORY-3
163	DECORATIVE POLE	UTKARSH / SKIPPER/ BP PROJECTS/ K-LITE/ PRAKASH SURYA (SURYA ROSHNI) / TRANSRAIL/ SIGNIFY/ BAJAJ/ WIPRO/ ORIENT ELECTRIC/ CROMPTON	CATEGORY-3
164	HIGH MAST	UTKARSH/ SKIPPER/ BP PROJECTS/ K-LITE/ PRAKASH SURYA (SURYA ROSHNI) / TRANSRAIL/ SIGNIFY/ BAJAJ/ WIPRO/ ORIENT ELECTRIC/ CROMPTON	CATEGORY-3
165	ALUMINIUM LADDERS / HYDRAULIC LADDERS	DELITE / SUMER/ PARAS/ VARDHMAN	CATEGORY-2
166	DASH FASTENERS	HILTI / MUNGO	CATEGORY-4
167	GEAR BOX	MGM VARVEL / iMAK	CATEGORY-3
168	GEARED MOTOR	ROTOMOTIVE / MGM VARVEL / iMAK	CATEGORY-3
L	GROUND LIGHTING ITEMS		
169	PAPI	VARDHMAN / AMA	CATEGORY-1
170	LAMP (T-14, T-10, SPHERICAL)	JS LAMPS/ KOILITE/ PHILIPS	CATEGORY-3
171	LAMP (HALOGEN)	OSRAM / SIGNIFY (PHILIPS) / YOUYANG	CATEGORY-3
172	ISOLATING TRANSFORMER	CTC (CREATIVE TRADING) / VARDHMAN/ AMA/ BILDAL/ ELECTROMACH/ THORN/ DMAN-OY/ CEGELEC/ ADB/ YOUYANG	CATEGORY-1
173	CONSTANT CURRENT REGULATOR (CCR)	AMA/ HONEYWELL/ HIND RECTIFIER/ THORN/ IDMAN-OY/ CEGELEC / ADB/ YOUYANG/ NASU SYSTEM	CATEGORY-1

SR. NO.	ITEMS	PREFERRED MAKES (W.E.F. 22.09.2023)	CATEGORY FOR TEST CERTIFICATION/ INSPECTION
174	5 KV GRADE AFL CABLE - UNSHIELDED	RR KABEL/ ALOKE (ANKUR) / RALLISON (LKB) / JRD / KEI/ GLOSTER / ALOKE (ANKUR) / BHANSALI	CATEGORY-1
175	1.1 KV GRADE SECONDARY LEAD FOR AFL CABLE	RR KABEL/ AMA/ ELECTROMACH/ ALOKE (ANKUR) / RALLISON (LKB) / JRD	CATEGORY-2
176	PLUGS / RECEPTACLE / CONNECTOR	CTC (CREATIVE TRADING) / ELECTROMACH / ALOKE (ANKUR) / VARDHMAN/ NEPTUNE/ AMA/ BILDAL/ BCH/ VASANTH/ YOUYANG	CATEGORY-2
177	5 KV GRADE AFL CABLE - SHIELDED	RR KABEL/ ALOKE (ANKUR) / JRD	CATEGORY-1

CATEGORY REQUIREMENT OF TEST CERTIFICATE/ INSPECTION

CATEGORY-1:

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

CATEGORY-2:

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

CATEGORY-3:

- a) OEM/ Dealer/ Contractor routine test certificate.
- b) Visual and functional check by AAI official at AAI airport site.

CATEGORY-4:

- a) Visual and functional check by AAI official at AAI airport site.

**** These items shall be got approved from Competent Authority before placing the purchase order.***

NOTE: Any other item whose make is not specified shall be supplied with prior approval of the Engineer-in-Charge. LIST OF PREFERRED MAKES FOR ELECTRICAL WORKS

Bill of Quantities

Name of work:- Renovation of Guest room at OTB, S.V. Airport, Raipur.

Item No.	Description	Unit	Qty.
	(Civil Works)		
1	Brick work with non modular Fly ash bricks conforming to IS:12894, class designation 5.0 in superstructure above plinth level up to floor V level in all shapes and sizes in : a) Cement mortar 1:6 (1 cement : 6 coarse sand)	Cum	5.00
2	CARRIAGE OF MATERIALS a) By Manual Labour including loading, unloading and stacking for lead less than 0.50 Km a) Lime, moorum, building rubbish	Cum	10.00
3	CARRIAGE OF MATERIALS a) By Mechanical Transport including loading, unloading and stacking for lead less than 1 Km a) Lime, moorum, building rubbish	Cum	10.00
4	Providing wood work in frames of doors, windows, clerestory windows and other frames, wrought framed and fixed in position with hold fast lugs or with dash fasteners of required dia. & length (hold fast lugs or dash fastener shall be paid for separately). A) Sal wood	Cum	1.00
5	Providing and fixing carbon steel galvanised (minimum coating 5 micron) dash fastener of 10 mm dia double threaded 6.8 grade (yield strength 480 N/mm ²), counter sunk head, comprising of 10 mm dia polyamide PA 6 grade sleeve, including drilling of hole in frame , concrete/ masonry, etc. as per direction of Engineer-in-charge. a) 10 x 160 mm	Each	24.00
6	Providing and fixing ISI marked flush door shutters conforming to IS : 2202 (Part I) decorative type, core of block board construction with frame of 1st class hard wood and well matched teak 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters. a) 35 mm thick including ISI marked Stainless Steel butt hinges with necessary screws	Sqm	9.00
7	Providing and fixing 1st quality vitrified wall tiles conforming to IS: 15622 (thickness to be specified by the manufacturer), of approved make, in all colours, shades except burgundy, bottle green, black of any size as approved by Engineer-in-Charge, in skirting, risers of steps and dados, over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm, including pointing in white cement mixed with pigment of matching shade complete.	Sqm	60.00
8	Providing and fixing 18 mm thick gang saw cut, mirror polished, premoulded and prepolished, machine cut for kitchen platforms, vanity counters, window sills, facias and similar locations of required size, approved shade, colour and texture laid over 20 mm thick base cement mortar 1 : 4 (1 cement : 4 coarse sand), joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing, moulding and polishing of edges to give high gloss finish etc. complete at all levels. a) Granite stone slab of colour black, Cherry/Ruby red a) Area of slab upto 0.50 sqm	Sqm	10.00

9	Providing and fixing 18 mm thick gang saw cut, mirror polished, premoulded and prepolished, machine cut for kitchen platforms, vanity counters, window sills, facias and similar locations of required size, approved shade, colour and texture laid over 20 mm thick base cement mortar 1 : 4 (1 cement : 4 coarse sand), joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing, moulding and polishing of edges to give high gloss finish etc. complete at all levels. a) Granite stone slab of colour black, Cherry/Ruby red a) Area of slab over 0.50 sqm	Sqm	5.00
10	Providing and fixing chromium plated brass curtain rod having wall thickness of 1.25mm with two chromium plated brass brackets fixed with C.P. brass screws and PVC sleeves etc., wherever necessary complete : a) 25 mm dia	Metre	20.00
11	Providing and fixing aluminium sliding door bolts, ISI marked anodised (anodic coating not less than grade AC 10 as per IS : 1868), transparent or dyed to required colour or shade, with nuts and screws etc. complete : a) 300x16 mm	Each	2.00
12	Providing and fixing aluminium sliding door bolts, ISI marked anodised (anodic coating not less than grade AC 10 as per IS : 1868), transparent or dyed to required colour or shade, with nuts and screws etc. complete : a) 250x16 mm	Each	6.00
13	Providing and fixing aluminium tower bolts, ISI marked, anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour or shade, with necessary screws etc. complete : a) 300x10 mm	Each	2.00
14	Providing and fixing chromium plated brass handles with necessary screws etc. complete: a) 125 mm	Each	4.00
15	Providing and fixing aluminium hanging floor door stopper, ISI marked, anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour and shade, with necessary screws etc. complete. a) Twin rubber stopper	Each	2.00
16	Providing and fixing aluminium die cast body tubular type universal hydraulic door closer (having brand logo with ISI, IS : 3564, embossed on the body, door weight upto 35 kg and door width upto 700 mm), with necessary accessories and screws etc. complete.	Each	2.00
17	Providing and fixing chromium plated brass 100 mm mortice latch and lock with 6 levers and a pair of lever handles of approved quality with necessary screws etc. complete.	Each	2.00
18	Providing and fixing factory made uPVC glazed/wire mesh windows/doors comprising of lead free uPVC multi-chambered frame, sash and mullion/coupler (where ever required) extruded profiles having minimum wall thickness of 1.70 mm for Series R1 and R2 profiles and 2.10 mm for Series R3 and R4 profiles conforming to EN: 12608 in any shape, colour and design duly reinforced with galvanized mild steel section made of required shape & size as per CPWD Specification, uPVC extruded glazing beads, interlocks and inline sash adaptor (where ever required) of appropriate dimension, EPDM gasket, hardware, SS 304 grade fasteners of minimum 8 mm dia with countersunk head, comprising of matching polyamide PA6 grade	Sqm	6.00

	sleeve for fixing frame to finished wall as per IS 1367 : Part 1 to 14, plastic packers, plastic caps and necessary stainless steel screws etc. Profile of frame, sash & mullion (if required) shall be mitred cut and fusion welded/mechanically jointed duly sealed at all corners, including drilling of holes for fixing hardware and drainage of water etc. After fixing frame the gap between frame and adjacent finished wall shall be filled with weather proof silicon sealant over backer rod of approved size and quality, all complete as per approved drawing conforming to CPWD specification & direction of Engineer-in-Charge. Section of steel reinforcement and cross sections of uPVC profiles to be as per design approved by Engineer-in-Charge. Wire mesh / Glazing of plain/ toughened/ laminated/ double glass unit with/ without high performance coatings as per design requirements and conforming to IS: 3548 & IS: 16231 shall be paid separately. Note:- Structural design proof checked from a Government Engineering Institute, to be provided by the manufacturer for (i) Sites with basic wind speed > 45 m/sec as per IS 875 - Part 3 (ii) Sites with structure height more than 20m for all wind speeds Three track three panels sliding window with two glazed & one wire mesh panels with Aluminium channel for roller track, wool pile, nylon rollers with SS 304 body. a) Using R2 series with frame (70 mm & above) x (40 mm & above) & both glazed and fly screen sash (25 mm & above) x (50 mm & above) with zinc alloy (zamak) powder coated touch locks with hook. (Height upto 1.2 metre).		
19	Providing and laying vitrified floor tiles in different sizes (thickness to be specified by the manufacturer) with water absorption less than 0.08% and conforming to IS: 15622, of approved make, in all colours and shades, laid on 20mm thick cement mortar 1:4 (1 cement : 4 coarse sand), jointing with grey cement slurry @ 3.3 kg/ sqm including grouting the joints with white cement and matching pigments etc., complete. a) Size of Tile 600 x 600 mm	Sqm	60.00
20	Providing and laying Vitrified tiles in floor in different sizes (thickness to be specified by the manufacturer) with water absorption less than 0.08% and conforming to IS:15622, of approved brand & manufacturer, in all colours and shade, laid on 20 mm thick cement mortar 1:4 (1 cement: 4 coarse sand) jointing with grey cement slurry @3.3 kg/sqm including grouting the joints with white cement and matching pigments etc. The tiles must be cut with the zero chipping diamond cutter only . Laying of tiles will be done with the notch trowel, plier, wedge, clips of required thickness, leveling system and rubber mallet for placing the tiles gently and easily. i) Glazed Vitrified tiles Matt/Antiskid finish of size a) Size of Tile 600 x 600 mm	Sqm	20.00
21	Providing and laying Vitrified tiles in different sizes (thickness to be specified by manufacturer), with water absorption less than 0.08 % and conforming to I.S. 15622, of approved make, in all colours & shade, in skirting, riser of steps, over 12 mm thick bed of cement mortar 1 :3 (1 cement: 3 coarse sand), jointing with grey cement slurry @ 3.3 kg/ sqm including grouting the joint with white cement & matching pigments etc. complete.	Sqm	10.00
22	Providing and fixing false ceiling at all height including providing and fixing of frame work made of special sections, power pressed from M.S. sheets and galvanized with zinc coating of 120 gms/sqm (both side inclusive) as per IS : 277 and consisting of angle cleats of size 25 mm wide x 1.6 mm thick with flanges of 27 mm and 37mm, at 1200 mm centre to centre, one flange fixed to	Sqm	55.00

	the ceiling with dash fastener 12.5 mm dia x 50mm long with 6mm dia bolts, other flange of cleat fixed to the angle hangers of 25x10x0.50 mm of required length with nuts & bolts of required size and other end of angle hanger fixed with intermediate G.I. channels 45x15x0.9 mm running at the spacing of 1200 mm centre to centre, to which the ceiling section 0.5 mm thick bottom wedge of 80 mm with tapered flanges of 26 mm each having lips of 10.5 mm, at 450 mm centre to centre, shall be fixed in a direction perpendicular to G.I. intermediate channel with connecting clips made out of 2.64 mm dia x 230 mm long G.I. wire at every junction, including fixing perimeter channels 0.5 mm thick 27 mm high having flanges of 20 mm and 30 mm long, the perimeter of ceiling fixed to wall/partition with the help of rawl plugs at 450 mm centre, with 25mm long dry wall screws @ 230 mm interval, including fixing of gypsum board to ceiling section and perimeter channel with the help of dry wall screws of size 3.5 x 25 mm at 230 mm c/c, including jointing and finishing to a flush finish of tapered and square edges of the board with recommended jointing compound , jointing tapes, finishing with jointing compound in 3 layers covering upto 150 mm on both sides of joint and two coats of primer suitable for board, all as per manufacturer's specification and also including the cost of making openings for light fittings, grills, diffusers, cutouts made with frame of perimeter channels suitably fixed, all complete as per drawings, specification and direction of the Engineer in Charge but excluding the cost of painting with : a) 12.5 mm thick tapered edge gypsum plain board conforming to IS: 2095- (Part I) :2011 (Board with BIS certification marks)		
23	Providing and fixing tiled false ceiling of specified materials of size 595x595 mm in true horizontal level, suspended on interlocking metal grid of hot dipped galvanized steel sections (galvanized @ 120 grams/ sqm, both side inclusive) consisting of main "T" runner with suitably spaced joints to get required length and of size 24x38 mm made from 0.30 mm thick (minimum) sheet, spaced at 1200 mm center to center and cross "T" of size 24x25 mm made of 0.30 mm thick (minimum) sheet, 1200 mm long spaced between main "T" at 600 mm center to center to form a grid of 1200x600 mm and secondary cross "T" of length 600 mm and size 24x25 mm made of 0.30 mm thick (minimum) sheet to be interlocked at middle of the 1200x600 mm panel to form grids of 600x600 mm and wall angle of size 24x24x0.3 mm and laying false ceiling tiles of approved texture in the grid including, required cutting/making, opening for services like diffusers, grills, light fittings, fixtures, smoke detectors etc. Main "T" runners to be suspended from ceiling using GI slotted cleats of size 27 x 37 x 25 x1 .6 mm fixed to ceiling with 12.5 mm dia and 50 mm long dash fasteners, 4 mm GI adjustable rods with galvanized butterfly level clips of size 85 x 30 x 0.8 mm spaced at 1200 mm center to center along main T, bottom exposed width of 24 mm of all T-sections shall be pre-painted with polyester paint, all complete for all heights as per specifications, drawings and as directed by Engineer-in-charge a) 8 mm thick fully perforated calcium silicate board made with Calcareous & Siliceous materials reinforced with cellulose fiber manufactured through autoclaving process to give stable crystalline structure with minimum compressive strength 225 kg/ sq. cm, bending strength 100 kg/sq. cm , of size 595x595 mm, having perforation of dia. 10 mm with minimum perforated area 18 % with non woven tissue on the back side, having an NRC (Noise Reduction Coefficient) of 0.85, with 50 mm thick rockwool of 48 kg /cum	Sqm	20.00

	backing.		
24	12 mm cement plaster of mix : a) 1:6 (1 cement: 6 fine sand)	Sqm	140.00
25	15 mm cement plaster on rough side of single or half brick wall of mix: a) 1:4 (1 cement: 4 coarse sand)	Sqm	40.00
26	Finishing walls with Acrylic Smooth exterior paint of required shade : a) New work (Two or more coat applied @ 1.67 ltr/10 sqm over and including priming coat of exterior primer applied @ 0.90 litre/10 sqm)	Sqm	40.00
27	Providing and applying white cement based putty of average thickness 1 mm, of approved brand and manufacturer, over the plastered wall surface to prepare the surface even and smooth complete.	Sqm	120.00
28	Wall painting with premium acrylic emulsion paint of interior grade, having VOC (Volatile Organic Compound) content less than 50 grams/ litre of approved brand and manufacture, including applying additional coats wherever required to achieve even shade and colour. a) Two coats	Sqm	40.00
29	Dismantling W.C. Pan of all sizes including disposal of dismantled materials i/c malba all complete as per directions of Engineer-in-Charge.	Each	2.00
30	Dismantling 15 to 40 mm dia G.I. pipe including stacking of dismantled pipes (within 50 metres lead) as per direction of Engineer-in-Charge. a) Internal Work- Exposed on wall	Meter	20.00
31	Dismantling doors, windows and clerestory windows (steel or wood) shutter including chowkhats, architrave, holdfasts etc. complete and stacking within 50 metres lead : a) Of area 3 sq. metres and below	Each	8.00
32	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)	Cum	2.00
33	Demolishing brick work manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge. a) In cement mortar	Cum	3.00
34	Dismantling tile work in floors and roofs laid in cement mortar including stacking material within 50 metres lead. a) For thickness of tiles 10 mm to 25 mm	Sqm	57.00
35	Dismantling C.I. or asbestos rain water pipe with fittings and clamps including stacking the material within 50 metres lead : a) 75 to 80 mm dia pipe	Meter	20.00
36	Dismantling C.I. or asbestos rain water pipe with fittings and clamps including stacking the material within 50 metres lead : a) 100 mm dia pipe	Meter	20.00
37	Dismantling tile work in walls and skirting laid in cement mortar including stacking material within 50 metres lead. a) For thickness of tiles 10 mm to 25 mm	Sqm	40.00
38	Dismantling old plaster or skirting raking out joints and cleaning the surface for plaster including disposal of rubbish to the dumping ground within 50 metres lead.	Sqm	100.00
39	Dismantling aluminium/ Gypsum partitions, doors, windows, fixed glazing and false ceiling including disposal of unserviceable material and stacking of serviceable material with in 50 meters lead as directed by Engineerin-charge.	Sqm	70.00
40	Dismantling wooden boardings in lining of walls and partitions, excluding	Sqm	20.00

	supporting members but including stacking within 50 metres lead : a) Thickness above 10 mm up to 25 mm		
41	Providing and fixing P.V.C. waste pipe for sink or wash basin including P.V.C. waste fittings complete. i) Flexible pipe a) 32 mm dia	Each	2.00
42	Providing and fixing 600x450 mm beveled edge mirror of superior glass (of approved quality) complete with 6 mm thick hard board ground fixed to wooden cleats with C.P. brass screws and washers complete.	Each	2.00
43	Providing and fixing toilet paper holder : a) C.P. brass	Each	2.00
44	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings and fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in Charge. Concealed work, including cutting chases and making good the walls etc. a) 20 mm nominal dia Pipes.	Meter	20.00
45	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings and fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in Charge. Concealed work, including cutting chases and making good the walls etc. a) 25 mm nominal dia Pipes.	Meter	20.00
46	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings and fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in Charge. Concealed work, including cutting chases and making good the walls etc. a) 32 mm nominal dia Pipes.	Meter	40.00
47	Providing and fixing glazing indoor, window, ventilator shutters and partitions etc. with EPDM rubber / neoprene gasket etc. complete as per the architectural drawings and the directions of engineer-in-charge . a) With float glass panes of 5 mm thickness (weight not less than 12.50 kg/sqm).	Sqm	6.00
48	Providing and laying water proofing treatment in sunken portion of WCs, bathroom etc., by applying cement slurry mixed with water proofing cement compound consisting of applying : (a) First layer of slurry of cement @ 0.488 kg/sqm mixed with water proofing cement compound @ 0.253 kg/ sqm. This layer will be allowed to air cure for 4 hours. (b) Second layer of slurry of cement @ 0.242 kg/sqm mixed with water proofing cement compound @ 0.126 kg/sqm. This layer will be allowed to air cure for 4 hours followed with water curing for 48 hours. The rate includes preparation of surface, treatment and sealing of all joints, corners, junctions of pipes and masonry with polymer mixed slurry.	Sqm	20.00
49	Providing & Fixing of White Vitreous Wall hung Basin with Fixing	Each	2.00

	Accessories (Code KUS-WHT-35801PM of Jaquar make or equivalent) of size 600x435x185mm i/c cutting and making good the walls wherever required complete as per directions of Engineer-in-Charge.		
50	Providing and fixing white vitreous china extended water closet of Single Piece WC with UF Soft Close Seat Cover, Hinges, Dual Flush Cistern Fitting, Fixing Accessories and Accessories Set of size 360x730x740mm of make Jaquar "SLS-WHT-6851S300UF" or equivalent make including seat cover, and cistern fittings, nuts, bolts and gasket etc complete.	Each	2.00
51	Providing and fixing Liquid Soap Container or Jaquar "Push Button Soap Dispensers, Capacity :0.8L, of make Jaquar "SDR-WHT-DJ0010FN" or equivalent make with SS Screws including making good the wall wherever required complete as directed by the Engineer-in-charge.	Each	2.00
52	Providing and fixing Health faucet of make or Jaquar "Allied" cat no:573 or equivalent make with 1 metre long Flexible Tube and CP wall hook with PVC & SS Screws including cutting and making good the wall wherever required complete as directed by the Engineer-in-charge.	Each	2.00
53	Providing and fixing CP Brass Pillar Cock make Jaquar "VGP 81001" or equivalent make wherever required complete as directed by the Engineer-in-charge. a) 15 mm nominal bore	Each	2.00
54	Providing and fixing CP Brass angle Valve of make Jaquar "VGP 81053" or equivalent make wherever required complete as directed by the Engineer-in-charge. a) 15 mm nominal bore	Each	8.00
55	Providing and fixing CP Brass 3 in 1 wall mixer of make Jaquar "FLR-5281N" or equivalent make wherever required complete as directed by the Engineer-in-charge. a) 15 mm nominal dia	Each	2.00
56	Providing and fixing Shower Rose of make Jaquar "OHS-1989" or equivalent make along with shower arm of make Jaquar "SHA-CHR-477" wherever required complete as directed by the Engineer-in-charge. a) 15 mm nominal dia	Each	2.00
57	Providing , Fixing and Installing Charcoal Louvers Panels of 12 mm thickness including preparation of surface , in any color, shade and texture, complete with Adhesive, Jointing, Cutting, providing Grooves/Slots required , if any, as per the instructions of EIC.	Sqm	110.00
58	Providing and fixing plywood 4 mm thick, one side decorative veneer conforming to IS: 1328 (type-1), for plain lining / cladding with necessary screws, including priming coat on unexposed surface with : Decorative veneer facings of approved manufacture	Sqm	210.00
59	Providing ,fixing and supplying Tables, Cupboards, partitions, drawers, racks, shutters, etc with 12 mm thick Marine plywood conforming to IS: 710 complete with all tools, accessories, etc as per the instructions of EIC. (Note:- For billing purpose , total area of plywood used with be measured)	Sqm	100.00
60	Supplying and installation of vertical blinds as approved by EIC. The fabric should be polyester with both side acrylic coating and should be treated with dust repellent chemical.The size, color, shade and texture of the blind should be customized as per the direction of Engineer-in-charge. This rate is inclusive of all the supporting accessories like, head rail, control unit, carrier (Runner), spacer, installation bracket, bottom mechanism (weight and chain)	Sqm	10.00

	etc all complete.		
61	Providing and fixing Soap dish holder of make Jaquar "ACN 1131N" or equivalent make wherever required complete as directed by the Engineer-in-charge.	Each	2.00
62	Providing and fixing SS Towel rack with lower hanger and hook make Jaquar "AHS 1581 H" or equivalent make wherever required complete as directed by the Engineer-in-charge.	Each	2.00
63	Providing and fixing unplasticised PVC connection pipe with brass unions : i) 45 cm length a) 15 mm nominal bore	Each	4.00
64	Providing and fixing PTMT grating of approved quality and colour. i) Rectangular type with openable circular lid. a) 150 mm nominal size square 100 mm diameter of the inner hinged round grating	Each	2.00
65	Providing and fixing in position SWR UPVC soil waste vent or antisiphonage pipes approved Make as per IS- 13592 (working pressure of 6kg /cm ²) including cutting, jointing with approve solvent cement compound as per IS-14735, wastage etc complete as per manufacturer's specifications and satisfaction of Engineer In-charge. a) 75mm dia SWR UPVC pipe lines laid complete	Metre	30.00
66	Providing and fixing in position SWR UPVC soil waste vent or antisiphonage pipes approved Make as per IS- 13592 (working pressure of 6kg /cm ²) including cutting, jointing with approve solvent cement compound as per IS-14735, wastage etc complete as per manufacturer's specifications and satisfaction of Engineer In-charge. b) 110mm dia SWR UPVC pipe lines laid complete	Metre	30.00
67	Providing and fixing on wall face unplasticised - PVC moulded fittings/accessories for unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A, including jointing with seal ring conforming to IS : 5382, leaving 10 mm gap for thermal expansion. i) Coupler a) 110 mm	Each	8.00
68	Providing and fixing on wall face unplasticised - PVC moulded fittings/accessories for unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A, including jointing with seal ring conforming to IS : 5382, leaving 10 mm gap for thermal expansion. i) Single tee with door a) 75x75x75 mm	Each	4.00
69	Providing and fixing on wall face unplasticised - PVC moulded fittings/accessories for unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A, including jointing with seal ring conforming to IS : 5382, leaving 10 mm gap for thermal expansion. i) Single tee with door a) 110x110x110 mm	Each	4.00
70	Providing and fixing on wall face unplasticised - PVC moulded fittings/accessories for unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A, including jointing with seal ring conforming to IS : 5382, leaving 10 mm gap for thermal expansion. i) Bend 87.5° a) 75 mm bend	Each	8.00

71	Providing and fixing on wall face unplasticised - PVC moulded fittings/ accessories for unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A, including jointing with seal ring conforming to IS : 5382, leaving 10 mm gap for thermal expansion. i) Bend 87.5° b) 110 mm bend	Each	8.00
72	Providing and fixing unplasticised -PVC pipe clips of approved design to unplasticised - PVC rain water pipes by means of 50x50x50 mm hard wood plugs, screwed with M.S. screws of required length, including cutting brick work and fixing in cement mortar 1:4 (1 cement : 4 coarse sand) and making good the wall etc. complete. a) 110 mm	Each	12.00
73	Providing Comprehensive Architectural Design, Site Planning, and 3D Visualization Services of all sites and items of the work involving following :- (a) The work involves the preparation of a complete Architectural Design Package for the entire site, ensuring adherence to local building by laws. (b) Site Layout & Master Planning (c) Detailed Architectural Drawings: Production of all "Good for Construction" (GFC) drawings including floor plans, sections, elevations, and roof plans, (d) 3D Modeling: Creation of a high-resolution 3D digital model of the entire project to verify spatial coordination and clash detection. (e) Visual Deliverables: Minimum of four (4) photorealistic 3D perspectives and a HD virtual walkthrough video of the proposed facility.	Job	1.00
74	Finishing with Deluxe Multi surface paint system for interiors and exteriors using Primer as per manufacturers specifications : a) Two or more coats applied on walls @ 1.25 ltr/10 sqm over and including one coat of Special primer applied @ 0.75 ltr /10 sqm	Sqm	80.00
	(Eletrical Works)		
75	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed steel conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable etc. as required. Group C	Point	12.00
76	Wiring for group controlled (looped) light point/fan point/exhaust fan point/ call bell point (without ndependent switch etc.) with 1.5 sq. mm FRLS PVC insulated copper conductor single core cable in surface/ recessed steel conduit, and earthing the point with 1.5 sq. mm FRLS PVC insulated copper conductor single core cable etc. as required. Group C	Point	4.00
77	Rewiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable and 1.5 sq.mm FRLS PVC insulated copper conductor single core cable as earth wire in existing surface/ recessed steel/PVC conduit including dismantling as required. Group c	Point	20.00
78	Wiring for twin control light point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed steel conduit, 2 way modular switch, modular plate, suitable GI box and earthing the point with	Point	2.00

	1.5 sq.mm. FRLS PVC insulated copper conductor single core cable etc. as required.		
79	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed steel conduit as required. 2 X 2.5 sq. mm + 1 X 2.5 sq. mm earth wire	Meter	120.00
80	Wiring for light/ power plug with 2X4 sq. mm FRLS PVC insulated copper conductor single core cable in surface/ recessed Steel conduit alongwith 1 No 4 sq. mm FRLS PVC insulated copper conductor single core cable for loop earthing as required.	Meter	60.00
81	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 5 pin 15/16 amps modular socket outlet and 15/16 amps modular switch, connection etc. as required. 4 Module(13.56x7.6) cm / (5X3)	Each	6.00
82	Supplying and fixing 4 module size GI Modular box with modular plate and cover in front on surface or in recess, including providing and fixing 3 pin 5/6 modular socket outlet and 5/6 A modular switch, connections etc. as required	Each	6.00
	Supply & Fixing of Light Fitting & Fans		
83	Supply of Recess mounted 15W LED multi CCT Panel, Featuring Multi CCT operation, switch between Cool Daylight, Natural Daylight, and Warm Daylight seamlessly through a simple toggle Soothing, glare-free illumination that enhances comfort and ambience Voltage Surge Protection of 4kV Operating Voltage Range (100V-300V) etc complete as required. as per technical specification. (Make Bajaj Model :- HYPERIO or equivalent)	Each	16.00
84	Supply of 12W LED light Recess mounted round fixture with opal diffuser and separate electronic driver. Operating voltage 230V 50ZH etc. complete as required as per technical specification.	Each	4.00
85	Installation, Testing and Commissioning of pre-wired, fluorescent fitting / compact fluorescent/ LED fitting of all types, complete with all accessories and tube/lamp etc. directly on ceiling/ wall, including connections with 1.5 sq. mm FRLS/HFFR PVC insulated, copper conductor, single core cable and earthing etc. as required.	Each	22.00
86	Supply of 9W WW ELD beacon pendant light High-quality durable metal,Adjustable suspension height, Compatible with E27 bulbs etc. complete as required as per technical specification.	Each	2.00
87	Supply, Installation, Testing and Commissioning of ceiling fan with Brush Less Direct Current (BLDC) Motor, 1200mm sweep class of insulation: B, 3 nos. metal(Aluminium alloy) blades, 30 cm long down rod, 2 nos. canopies, shackle kit, safety rope, copper winding, steel/Al body. Power Factor not less than 0.9, Service Value (CM/M/W) minimum as below, 350 RPM (tolerance as per IS : 374-2019), THD (Total Harmonic Distortion) less than 10%, remote (preferably mobile app based) for speed control and all remaining accessories including safety pin, nut bolts, washers, temperature rise=75 0C (max.), insulation resistance more than 2 mega ohm, suitable for 230 V, 50 Hz, single phase AC supply Ceiling Fan compliant to IS 374:2019 fan i/c external connections with 1.5 sq.mm FRLS/HFFR, PVC insulated copper conductor single core cable and earthing etc. as required. (Make Crompton Model Silentpro Enso or equivalent)	Each	2.00
88	Supplying and fixing two module stepped type electronic fan regulator on the existing modular plate switch box including connections but excluding	Each	2.00

	modular plate etc. as required.		
89	Supply of 200 mm sweep, Exhaust Fan complete with ball bearing, motor, blades, etc. and suitable for use on 230 volts, 50 Hz, single phase, A.C. supply as required.	Each	2.00
90	Installation of exhaust fan in the existing opening, including making good the damage, connection, testing, commissioning etc. as required. Upto 450 mm sweep	Each	2.00
91	SITC of Water Gyser 10 ltrs Capacity , 230V , 50HZ AC etc as per technical Specification.	Each	2.00
92	Supply of 1250W Electric Kettle capacity 1.2Ltr. Double wall stainless steel tank for cool touch exterior etc as per technical Specification.	Each	2.00
93	SITC of 43" Inch Ultra HD (4K) LED Smart TV Resolution: 4K Ultra HD (3840x2160) Refresh Rate: 60 Hertz Connectivity: 3 HDMI Ports to connect set top box, Blu Ray players, gaming console , 1 USB Ports to connect hard drives and other USB devices , 1 Audio Output , 1 RF Slot, Sound: 20 Watts Output , Dolby Audio , Adaptive Sound Q-symphony , Dolby Digital + Display: Crystal Processor 4K Picture Engine , 178 Degree Wide Viewing Angle , PurColor , HDR 10+ HDR HLG Contrast Enhancer Auto Motion Plus , Pre-loaded App etc. Complet as Required.	Each	2.00
	Air-Conditioning		
94	Supply, Installation, testing and Commssioning of 5 Star, Air-conditioner with remote operation having air cooled condensor, remote operation, compressor operating on refrigerant R-32/R-410a, suitable for 230 V, 50Hz, A.C supply etc. including installing the outdoor unit at a suitable location by providing wall mounting brackets/PCC foundation for outdoor unit etc. complete as required.		
94.1	1.5 TR, Hi Wall Split AC	Job	2.00
95	Providing & fixing of Copper Refrigerant piping, Control Cable suitable for R-32/R-410a (Supply and return) refrigerant with insulation tubing as per the manufacturer's standard size suitable for following Split type air conditioners complete as required. (Measurement of 1 running mtr. shall include both supply & return Cu. Piping with insulation beyond length supplied by OEM with AC unit).		
95.1	1.5 TR, Hi Wall Split AC, 230 V, 50Hz, 1 Ph AC supply	Meter	15.00
96	Supplying and laying of size 20mm dia rigid PVC pipe as drain pipe including all accessories such as bends, elbows, flexible connections etc. as required.	Meter	15.00
97	Supplying and drawing 1.1 KV grade, 3 core 2.5 sq mm, FRLSH, PVC insulated, PVC sheathed flexible copper conductor round cable confirming to IS 694 in the existing surface/ recessed steel/ PVC conduit as required. (for casette AC units, from outdoor unit to indoor)	Meter	15.00
98	Supply of 25A motor starter 2 module switch with Socket etc complete as required.	Each	2.00
99	Supply of 43 Ltr. singal door Refrigerator Mini Bar Direct Cool product subcategory Mini Bar with Freezer,no of doors 1, external body material PPGI, inner material HIPS, shelf material Mesh, power rating watts 42, min input voltage range volts 220, max input voltage range volts 240 etc Complete as required. As technical specification	Each	2.00