Initial Environmental Examination

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India: Assam Skill University Project

Sub-Project: Establishment, Operation and Management of Interim Campus

Prepared by the Assam Skill University Project – Project Management Unit for the Asian Development Bank

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ABBREVIATIONS

ADB	-	Asian Development Bank
ASDM	-	Assam Skill Development Mission
ASI	-	Archaeological Survey of India
ASU	-	Assam Skill University
CPCB	-	Central Pollution Control Board
CSQA	-	Construction Supervision and Quality Assurance
DMP	-	Disaster Management Plan
EA	-	Executing Agency
EIA	-	Environnemental Impact Assessment
EMP	-	Environnemental Management Plan
GoA	-	Government of Assam
GoI	-	Government of India
GRC	-	Grievance Redress Committee
GRM	-	Grievance Redress Mechanism
IEE	-	Initial Environmental Examination
IA	-	Implementing Agency
MOEFCC	-	Ministry of Environment, Forest and Climate Change
PMC	-	Project Management Consultants
PMU	-	Project Management Unit
PSC	-	Project Steering Committee
PUC	-	Pollution Under Control
PWD	-	Public Works Department
REA	-	Rapid Environmental Assessment
SEIAA	-	State Environment Impact Assessment Authority
SEED	-	Skill, Employment and Entrepreneurship Department
SPS	-	Safeguard Policy Statement

CURRENCY EQUIVALENTS

(As of 1 March 2023)
Currency unit – Indian rupee (Rs)
Rs1.00 = $0.0121
$1.00 = Rs 82.418

WEIGHTS AND MEASURES

µg	–	microgram
dB(A)	–	weighted decibel
km	–	kilometer
km^2	–	square kilometer
m	–	meter
m^2	–	square meter

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EXECUTIVE SUMMARY

1. The Assam Skill University (ASU) management feels that ASU should kick-start its journey towards achievement of its broad objectives and start its operation of conducting skill development courses from the academic session 2023-24. However, it would take at least 3 to 4 years for ASU to have a full-fledged campus operational.

2. Therefore, it is proposed to set-up an interim campus to build core management and faculty team, develop internal university management and operating systems, and launch few skills education and training courses in collaboration with established reputed training / knowledge partners with proven track record in running such courses / programs. Asian Development Bank (ADB) conducted a Loan Review Mission from 19th September 2022 to 22nd September 2022. During the mission, it was informed about the concept of Interim campus has been in-principle approved by the Project Steering Committee and proposed to be set-up at the Government Industrial Training Institute (ITI), Guwahati.

3. The Mission visited the proposed site of interim campus and noted that civil works including new and renovation work of existing building may be required. The Mission therefore suggested that a detailed project report (DPR) which elaborates on investment needs, as well as management and operating system development needs in line with ASU's overall vision, strategy, and business models.

4. The ADB Safeguards Review Mission visited the proposed site of ASU interim campus on 29th September 2022 and noted that field-based environmental due diligence should be conducted during the process of preparing a DPR.

5. The Mission noted the urgent need to start recruiting at least 10–15 key staff and faculty members so that those staff and faculty members, together with the ASU Vice Chancellor and Registrar, can be involved in the ASU campus and facility development, including the interim campus development and operation, from the very beginning.

6. The Hon'ble Chief Minister, Government of Assam has taken review on progress of ASUP on 15th October 2022. The Chief Executive Officer (CEO), ASUP informed to the Hon'ble CM for the proposed concept to set up an interim campus at ITI, Guwahati and sought his guidance on the same.

7. The Hon'ble Chief minister agreed on the setting up of an interim Campus. However, he insisted on alignment with ADB norms. In line with this requirement, it was agreed to develop a DPR for setting up and initiate operations of the interim campus which will incorporate the rationale, concepts and details for the approval of ADB.

8. The main activities of proposed Interim campus of Assam Skill University are envisaged as follows:

a. To build core University Management and Faculty teams of newly established University.
b. Develop internal university management systems, which would manage administrative and academic processes.
c. Development of operating systems that manage and control the resources.
d. Start Skill Training Programs on Industry-aligned and high-demand courses, in line with key objectives.
e. Ensure brand visibility of ASU to position it as an aspirational centre for TVET.

f. Establish strong association and partnership with industries and other reputed skilling institutions for better industrial cooperation and operational efficiency.
g. Implement GESI action plan of the ASUP.

9. The proposed location for setting up of interim campus for Assam Skill University is at Government Industrial Training Institute (ITI) Guwahati established in 1957. The ITI Guwahati is located at A. K. Azad Road, Birubari and is well connected with various modes of transport. ITI Guwahati is located at 3 km from Guwahati Railway Station, 9 km from the Guwahati Interstate Bus Terminal and 25 km from the Guwahati Airport. It has vacant workshop buildings and open land for setting up of interim campus. The associated land is within the boundaries of ITI Guwahati campus. The entire land belongs to the Government of Assam, hence there is no encumbrance associated with the uses of land and allotted building by the Government of Assam. The built-up area of the Interim campus will be around 11972 sq. ft (1112.23 m^2). The total cost of project is estimated to be US$ 0.850 million.

10. The ASU project site is an unencumbered land owned by the government. The project is categorized as 'B' for environment. Accordingly, to comply with the Asian Development Bank's (ADB) Safeguard Policy Statement (SPS), 2009, this Initial Environmental Examination (IEE) report has been prepared for the latest sub-project configuration and ASU Interim Campus plot area of 11972 sq. ft (1112.23 m^2). For ease of implementation, ASU Interim campus development has been divided into a few subprojects. Some of these subprojects, will be prepared and supported under the project, while the others will be prepared after the civil work is completed. The current subproject involves civil construction and renovation of ASU Interim campus and facilities, including new construction of G+1 building of 2500 sq.ft.(232.25 m^2), renovation of existing workshop building of 5708.18 sq. ft (530.30 m^2), and construction of prefabricated shed of 3764 sq.ft.(348.68 m^2).

11. This IEE report has been prepared for ASU Interim Campus subproject based on overall plot, review of project-related documents including proposed engineering design, review of asset hand-over related documents of the proposed site, on-site observations and assessment of proposed land.

12. This IEE report provides details of the subproject and associated potential environmental impacts during pre-construction, construction, and operation phases. The IEE report also suggests ways of mitigating and addressing these identified environmental impacts. In the vicinity of ASU Interim Campus site, there are no environmentally and/or ecologically protected areas (national parks, wild-life or bird sanctuaries, tiger reserves, bio-spheres, forests, etc.), wetlands, mangroves, or estuaries in or near the ASU site. There are no archeologically protected monuments, structures, or heritage sites within 300 m distance of ASU Interim Campus plot. The ASU Interim Campus site is on a developed footprint area of ITI Guwahati. No flood issues have been recorded in the existing ITI campus since its inception in 1957 as reported by the Principal, faculty and students of the ITI during the stakeholder consultation held among the ITI Guwahati and Project Management Unit (PMU), Assam Skill University Project (ASUP).

13. Since the subproject will involve civil works, consumption of natural resources (water and construction materials), transportation of construction materials, usage of construction equipment and machinery and consumption of power supply, there will be environmental impacts. Similar to the construction stage impacts, there will be environmental impacts during operation phase as well. Yet environmental impacts during both construction and operation phases are not likely to be significant as these will be limited to ASU Interim Campus site with no tree cutting requirements for campus and facilities construction and renovation. The routine and localized impacts associated with construction and operation can be mitigated easily by following the measures laid down in the **Environment Management Plan (EMP)** included in

the IEE report. The EMP will be included in the contract of the successful bidder /contractor. **The IEE confirms the subproject (detailed design and construction of ASU Interim campus and facilities) as environment category "B".** No further special study or detailed environmental impact assessment (EIA) needs to be undertaken to comply with ADB SPS, 2009 or Government of India EIA Notification, 2006.

14. PMU at Assam Skill Development Mission (ASDM) is responsible for supervising overall planning and implementation of civil works. The PMU has environmental and social safeguard specialists. To assist PMU in supervision, Project Management Consultant (PMC) firm and Construction Supervision and Quality Assurance (CSQA) firm have been appointed. PMU and PMC will ensure that the Environment Management Plan (EMP) is followed during pre-construction and construction phases. The EMP implementation will be monitored by the environment safeguard specialists of PMU and appointed PMC firm.

15. A three-tier grievance redress mechanism (GRM) has already been established for ASUP.

- Level-1 will be at the site involving representatives from the project implementing agency for which the site engineer will register the grievances and a grievance box will also be placed at the construction site.
- Level-2 of the GRM will be at the PMU level, headed by the Mission Director of ASDM.
- The Level-3 GRM structure will be at the State level, headed by the Secretary of the Skill, Employment and Entrepreneurship Department (SEED) Government of Assam.
- Different modes for registering grievances have been adopted:
    - **Web based**: A separate corner has been developed at the ASDM website so that the public and displaced persons can register their complaints in the online column during the execution stage.
    - **Project Information board**: ASU project information board will be installed at the ASU project site and at the interim campus site. Contact details (name, phone number and email) of the Grievance Redressal Officer (GRO) will be available on the board.
    - **Telephone or e-mail based:** A telephone number is available on the website of ASDM so that the general public can register their complaint through telephone /mobile phone. An e-mail id has been created and is available on the ASDM website so that a complainant can register a complaint through e-mail as well.
    - One **complaint register** will also be maintained at the construction site by the contractor where people can register their complaints. Similarly, another one will be maintained at the Interim Campus site.
    - In addition to it **grievance register format** will be also available at the site for people to register their grievances in the prescribed format and put it in the drop-box.

16. At any stage of the grievance redress process, an aggrieved person will be free to access the legal system. The affected person(s) /aggrieved parties can give their grievance verbally or in writing. Further, the person(s) / aggrieved party who is, or maybe adversely affected by the sub- project may submit complaints to ADB's Accountability Mechanism. The details of GRM are provided in this IEE report.

I. INTRODUCTION

A. Background

1. **Location.** The proposed location for setting up of interim campus for Assam Skill University is at the Government Industrial Training Institute (ITI) Guwahati. ITI Guwahati is located at A. K. Azad Road, Birubari and is well connected with various modes of transport. It has vacant workshop buildings and open land for setting up of an interim campus.

Sl. No.	Name of Facility	Latitude	Longitude
1	Assam Skill University Interim Campus	26.1648° N	91.7447° E

2. ITI Guwahati is located at a distance of 3 km from Guwahati Railway Station, 9 km from the Guwahati Interstate Bus Terminal and 25 km from the Guwahati Airport. The project site is well connected to important destinations. The distances of important destinations are given below:

Sl. No.	Name of Facility	Altitude (m)	District	Distance from ASU Interim Campus		
1.	ASU Interim Campus	55 m	Kamrup Metropolitan	Guwahati Station Airport Guwahati ISBT Tezpur Nalbari IIT Guwahati Udalguri Alipurduar Cooch Behar Darrang Dispur	: : : : : : : : : : :	03 Km 25 Km 12 Km 174 Km 71 Km 21 Km 110 Km 302 Km 322 Km 84 Km 06 Km

3. The proposed ASU Interim Campus site is unencumbered land owned by the government. The Kamrup Metropolitan district geographically lies between the latitude 25.9411° N and longitude 91.2891° E.

4. **Present Status of ASU Interim Campus Site:** The ASU Interim Campus site is located on Govt. land owned by GoA. The construction works will be on the delineated plot as per drawings and layout of Interim Campus. There are no significant ecological resources in the ASU Interim Campus site as it is lying on developed footprint area of ITI Guwahati except along the periphery with few trees that will be protected prior staring any activity, has very minimal presence of shrubs and is in an open area. The photographs of the ASU Interim Campus site are shown below.

Front View of ITI Guwahati

Front View of Interim Campus at ITI Guwahati

Proposed Road along the Existing Warehouse (Building Blocks)

View of site showing trees and growth of local shrubs due to vacant and unutilized land

B. Compliance with India's Environmental Regulatory Framework

5. India's environmental rules and regulations, as relevant for the construction and renovation of ASU Interim Campus, are shown in **Table 1**. The Environmental Impact Assessment (EIA) Notification, 2006 issued by the Ministry of Environment, Forests and Climate Change (MOEFCC), GOI specifies the requirements for mandatory environmental clearances. All projects and activities are broadly categorized into two categories—category 'A' and category 'B', based on the spatial extent of potential impacts on the environment, human health, and natural and man-made resources[1]. However, MOEFCC's Notifications - S.O. 3252, dated 22/12/2014 and S.O. 5733, dated 14/11/2018, exempt all educational and training institutes from obtaining prior environmental clearance. Hence, this subproject will not require any prior environmental clearances according to the environmental rules and regulations of India. Further, as shown in **Table 1**, most other rules pertaining to India's regulatory framework such as Ancient Monuments and Archaeological Sites and Remains Act, 1958; the Wildlife (Protection) Act, 1972, amended in 2003 and 2006; and the Forest (Conservation) Act, 1980, will also not apply to construction and renovation of ASU Interim Campus. Permissions (consent to establish and consent to operate) will be required for construction and renovation of ASU Interim Campus from the State Pollution Control Board. Moreover, according to ADB's SPS 2009, all ADB funded activities and projects are required to comply with the borrower country's environmental regulations. Therefore, all minor localized impacts will be managed as per the environmental management plan (EMP). During pre-construction, construction and operation phases of the project, compliance with National Ambient Air Quality Standards (NAAQS) for air quality, ambient noise standards for noise levels, General Standards for Drinking Water Standards specified by Bureau of Indian Standards (BIS) will be ensured to the extent possible[2].The above standards have been specified under various acts and rules promulgated by the GoI.

[1] All projects or activities included as Category 'A' in the Schedule, including expansion and modernization of existing projects or activities and change in product mix, will require prior environmental clearance from the Central Government in the Ministry of Environment, Forest and Climate Change (MoEFCC) on the recommendations of an Expert Appraisal Committee (EAC) to be constituted by the Central Government for the purposes of this notification. All projects or activities included as Category 'B' in the Schedule, including expansion and modernization of existing projects or activities as specified in sub paragraph (ii) of paragraph 2, or change in product mix as specified in sub paragraph (iii) of paragraph 2, but excluding those which fulfill the General Conditions stipulated in the Schedule, *will* require prior environmental clearance from the State/Union territory Environment Impact Assessment Authority (SEIAA). The SEIAA shall base its decision on the recommendations of a State or Union territory level Expert Appraisal Committee (SEAC) as to be constituted for in this notification. In addition, General Condition (GC) of the notification specifies that any project or activity specified in Category 'B' will be treated as Category A, if located in whole or in part within 5 km from the boundary of: (i) Protected Areas notified under the Wild Life (Protection) Act, 1972, (ii) Critically Polluted areas as notified by the Central Pollution Control Board from time to time, (iii) Notified Eco-sensitive areas, (iv) inter-State boundaries and international boundaries.

[2] This Project does not have any interventions that would improve the prevailing ambient air quality, ambient noise levels and surface and ground water qualities. Therefore, the baseline parameters of the above aspects monitored at the commencement of construction would be ensured.

Table-1: Environmental Regulatory Compliance

Sub-Project	Applicability of Acts/Guidelines	Compliance Criteria
Establishment, Operation and Management of Interim Campus	The EIA notification, 2006 (and its subsequent amendments till date) provides for categorization of projects into category 'A' and 'B', based on extent of impacts.	The sub-project is not covered in the ambit of the EIA notification (amended till date), either as a Category 'A' or Category' B' project. As per the MOEFCC Notifications S.O. 3252 dated 22/12/2014 and S.O. 5733, dated 14/11/2018, educational and training institutions are exempted from obtaining prior environmental clearance **(Annexure-1).** As a result, the categorization, and the subsequent environmental assessment and clearance requirements, either from the state or the GOI, are not triggered. The guidelines of sustainable environmental management will be followed (in the design, construction and operation phases) as per the MOEFCC S.O. 3252 dated 22/12/2014 and S.O. 5733, dated 14/11/2018. However, guidelines provided in the above notification for sustainable environmental management need to be followed. **Not Applicable for obtaining environmental clearance, however, the guidelines for sustainable environmental management need to be followed.**
	The Ancient Monuments and Archaeological Sites and Remains Act, 1958, and the rules, 1959 provide guidance for carrying out activities including conservation, construction and reuse in and around the protected monuments.	The ASU site is not close to any monument which is protected by the Archaeological Survey of India (ASI). Hence, no clearance is needed from National Monuments Authority. **Not Applicable**
	Water (Prevention and control of pollution) Act, 1974 and Air (prevention and control of pollution) Act, 1981	Consent for Establishment (CFE) and Consent for Operation (CFO) from the State Pollution Control Board will be required during construction for installation of diesel generator set, hot mix plant, and concrete batching plant. CFE will also be required for the project. For the Operation phase CFO will be required. **Applicable**
	The Wildlife (Protection) Act, 1972, amended in 2003 and 2006, provides for protection and management of Protected Areas.	No wildlife protected areas near ASU Interim Campus site. **Not Applicable**
	Forest (Conservation) Act, 1980	This act provides guidelines for conservation of forests and diversion of forest land for non-forest use. It describes the penalties for contravention of the provisions of the Act. If forest land must be acquired, clearance is required from the Forest Department.

Sub-Project	Applicability of Acts/Guidelines	Compliance Criteria
		No forest land is required for the ASU Interim Campus site. Hence, this is not applicable. **Not Applicable**
	Solid Waste Management Rules, 2016	These rules have been notified by the MOEFCC for collection, transportation and disposal of municipal solid waste. In the case of ASU Interim Campus, these rules will be applicable both during construction and operation phases. **Applicable**
	Hazardous Wastes (Management, Handling and Trans-boundary Movements) Rules, 2016	These rules are for safe handling, storage, transportation and disposal of hazardous wastes. The hazardous wastes mainly discarded fuel and lubricants on account of vehicle, equipment and machinery maintenance during construction and waste from laboratory and machinery (in workshops) will be generated during operation phase. Hence these rules will be applicable. **Applicable**
	Battery Waste Management Rules, 2020	These rules have been promulgated for safe recycling of lead acid batteries. These will be applicable both during construction and operation phases. **Applicable**
	Noise Pollution (Regulation and Control) Act, 1990	This act prescribes ambient noise levels for various land uses. The applicable zone is silence zone for this location. This act will be applicable both during construction and operation phases of ASU Interim Campus. **Applicable**
	E- Waste (Management) Rules, 2016	These rules have been formulated to channelize the E-waste to authorized dismantlers for possible re-use and recycle of waste. These will be applicable during operation phase of ASU Interim Campus. **Applicable**
	Permission to withdraw Ground Water {S.O. 6140(E) dated 12 December 2018 issued under the powers of Environment (Protection) Act, 1986}	The ASU project plans to use ground water during operation phase. To withdraw ground water, permission will be required from Central Ground Water Board. **Applicable**
	Bio-Medical Waste Management Rules, 2016	The ASU Interim Campus will have a first aid center to provide first aid and referral to district hospital. There may be generation of bio-medical waste. This waste needs to be handled, stored and disposed of as per provisions stipulated in Bio-Medical Waste Management Rules, 2016. **Applicable**

Sub-Project	Applicability of Acts/Guidelines	Compliance Criteria
	Construction and Demolition Waste Management Rules, 2016	The rules have been formulated for safe storage, transportation, and disposal of construction and demolition waste. There will be generation of construction waste during construction phase. Hence these rules will be applicable during construction phase. **Applicable**
	Building and Other Construction Workers (Regulations of Employment and Conditions of Service) Act, 1996	The rules have been formulated and notified under this Act in 1998 for the regulation of employment and safe working conditions for the construction workers. The workers will be employed by the contractor (s) for the construction and these rules will be applicable during construction phase for proper occupational, health and safety measures at site. **Applicable**

C. International Agreements and Commitments of Government of India

6. The Republic of India is party to various international agreements, /conventions and treaties for conservation of environment. The construction, development and operations of ASU will not trigger the international conventions such as Ramsar Convention on Wetlands, 1971; Convention on World Cultural and Natural Heritage, 1972; Vienna Convention on Protection of Ozone Layer, 1985; and Montreal Protocol on Substances Depleting the Ozone layer, 1987; and Convention on Biological Diversity (CBD), 1992 because ASU site is neither close to any notified wetlands, nor cultural and natural heritage sites, nor any production of ozone depleting substances is expected from the project and no biodiversity rich areas are close to project site. The only convention(s) pertaining to climate change will be triggered as elaborated below:

United Nations Framework Convention on Climate Change (UNFCCC), 1994

7. As per the convention the reduction and limitation requirements of Green House Gases (GHG) apply only to developed countries. The only reporting obligation for developing countries relates to the preparation of GHG inventory (GHG sources and sinks, potential vulnerability to climate change, adaptation measures and other steps being taken to address climate change). India acceded to the Kyoto Protocol in 2002 and voluntarily agreed to reduce the GHG emissions in 2018.

8. The ASU Interim Campus subproject activities will not have direct GHG emissions, but on account of slight increase in traffic both during construction and operation phases, there will be increased SO_2 and NOx emissions through vehicular emissions.

9. The project aims to adopt environmentally friendly construction materials, energy conservation measures (energy efficient fixtures, and campus -lighting), minimization of natural resource consumption and landscaping and tree plantation.

D. Asian Development Bank's Environmental Safeguard Policy Principles

10. Since the proposed project is being funded by the ADB, it has to comply with ADB's SPS, 2009, in addition to India's environmental laws and regulations applicable at the national,

state and local levels. The environmental safeguard policy principles embodied in SPS, 2009 aim to avoid adverse impacts on the environment and on affected people or communities; minimize, mitigate and/or compensate for adverse project impacts, if unavoidable; help borrowers to strengthen their safeguard systems and to develop their capacity in managing the environmental and social risks. The SPS, 2009 categorizes all projects into 3 environmental categories (A, B or C) based on their potential impacts[3]. Similarly, ADB's rapid environmental assessment (REA) checklist was used to assess the potential impacts of the construction and development of ASU Interim Campus **(Annexure-2)**. This subproject has been categorized as of environment category 'B'. Accordingly, this IEE has been prepared to address the potential impacts in line with the requirements for category 'B' projects. The IEE was based mainly on environmental screening of ASU Interim Campus and secondary sources of information and field reconnaissance surveys. Stakeholder consultations at ASU Interim Campus site are an integral part of the IEE. An EMP outlining the specific environmental measures to be adhered to during implementation of the subproject is included in the IEE document. This EMP will be made part of the civil works contract for the selected contractor and will be implemented.

E. Review and Approval Procedure

11. For Category 'B' projects, the draft IEE report is prepared by Assam Skill University Project – Project Management Unit and will be submitted to ADB for clearance. After clearance from ADB, this IEE report will also be disclosed in ADB's website in accordance with ADB's SPS 2009 and Access to Information Policy, 2018. The EA will also disclose this IEE report to the stakeholders in a form and language understandable to the communities (Assamese) by making hardcopies available at ASU Interim Campus site office, ASDM office at Guwahati and Deputy Commissioner's office at Kamrup Metropolitan. The soft copy of IEE report will be disclosed at ASU website.

F. Report Structure

12. This report contains nine sections including: (i) Introduction; (ii) description of sub-project components; (iii) description of the existing environment around the sub-project; (iv) environmental impacts and mitigation measures; (v) analysis of alternatives; (vi) environmental management and monitoring plans; (vii) public consultation and information disclosure; (viii) findings and recommendations; and (ix) conclusions.

[3] As per SPS 2009, projects are assigned to one of the following four categories: (i) **Category A.** A proposed project is classified as category A if it is likely to have significant adverse environmental impacts that are irreversible, diverse, or unprecedented. These impacts may affect an area larger than the sites or facilities subject to physical works. An environmental impact assessment is required. (ii) **Category B.** A proposed project is classified as category B if its potential adverse environmental impacts are less adverse than those of category a project. These impacts are site-specific, few if any of them are irreversible, and in most cases mitigation measures can be designed more readily than for category B Project. An initial environmental examination is required. (iii) **Category C.** A proposed project is classified as category C if it is likely to have minimal or no adverse environmental impacts. No environmental assessment is required although environmental implications need to be reviewed (iv) **Category FI.** A proposed project is classified as category FI if it involves investment of ADB funds to or through a financial intermediary (FI) (paras. 65-67).

II. DESCRIPTION OF THE PROJECT COMPONENTS

A. Components of the ASU Project

13. The location of the ASU Interim Campus site has been shown in **Figures 1 and 2. Table -2** summarizes the need for the project and brief description of ASU Interim Campus components. The Figure-2 showing layout marked on plot boundary.

Figure-1: Location of ASU Interim Campus site (ITI Guwahati)

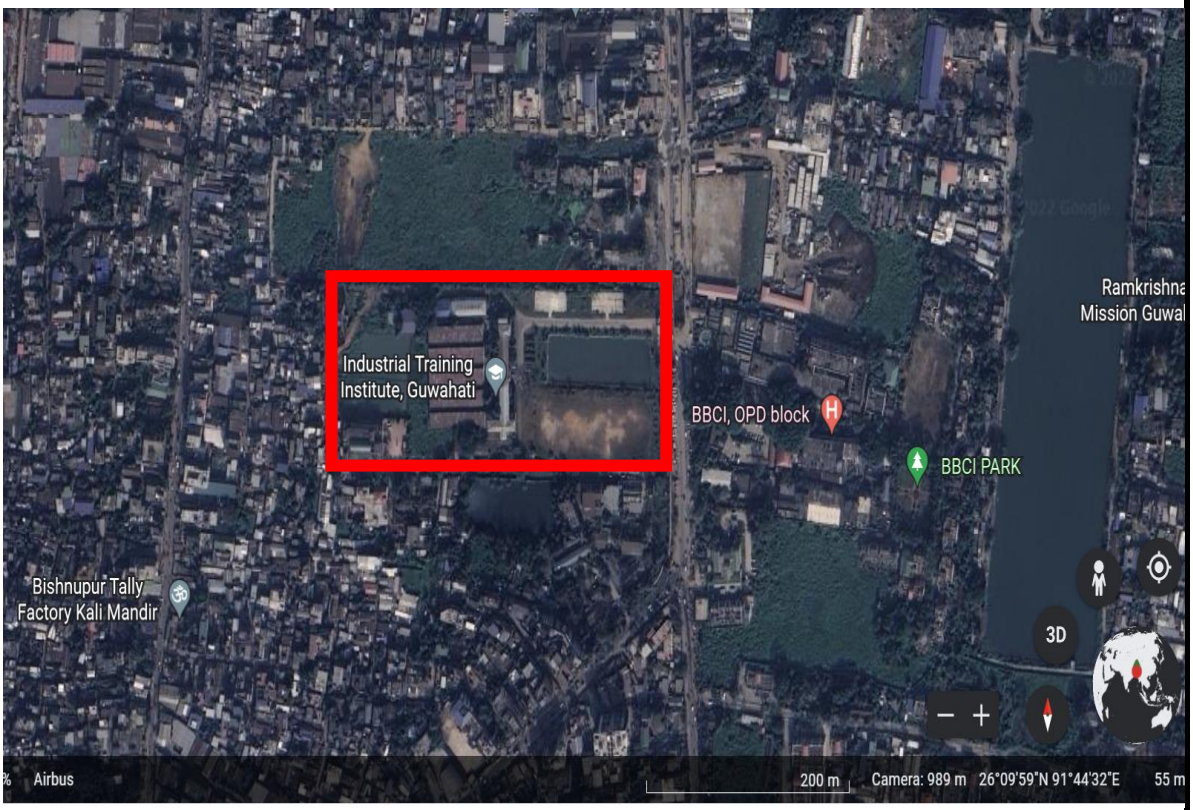


Figure-2: Location of ASU Interim Campus Site

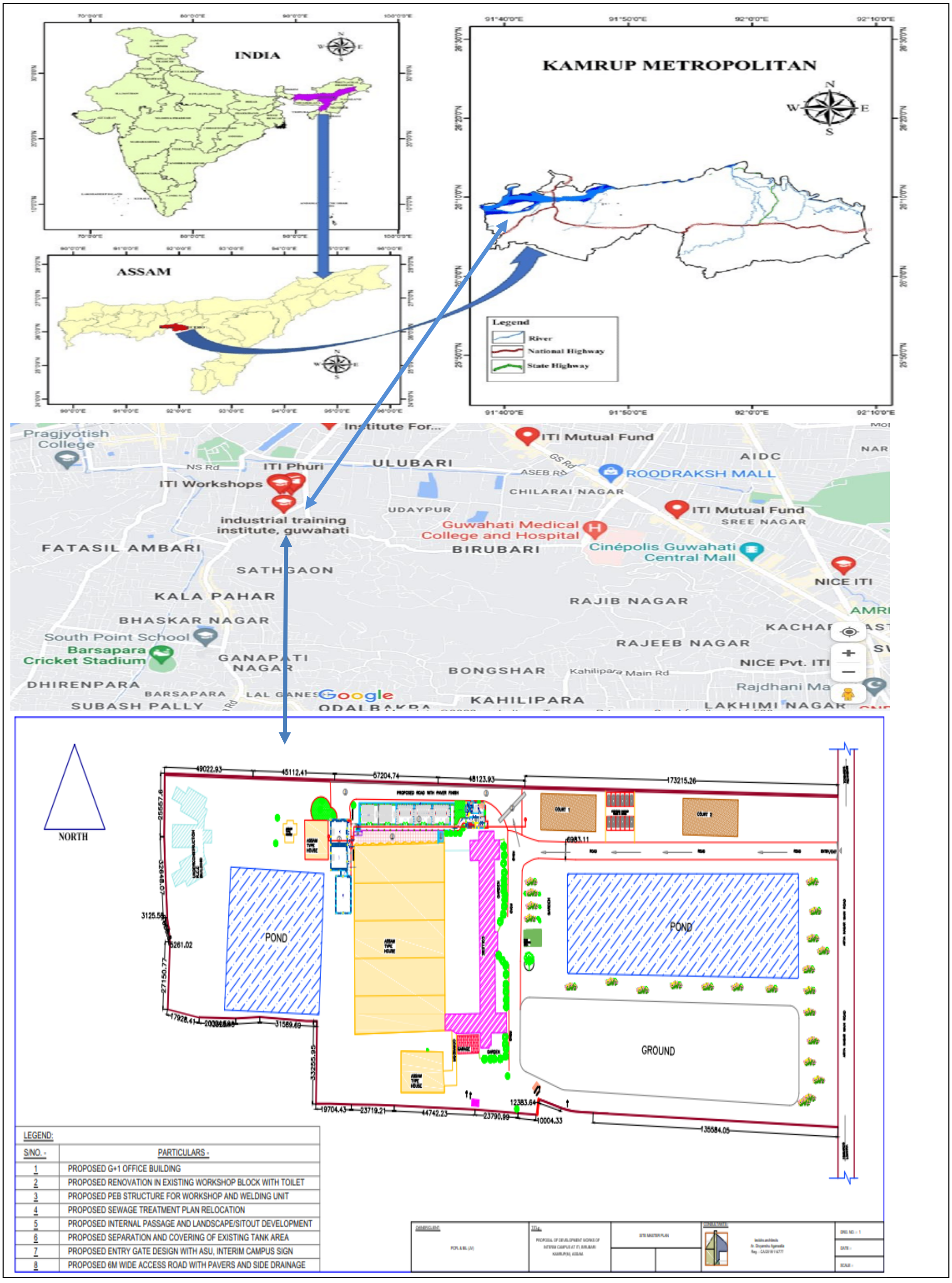
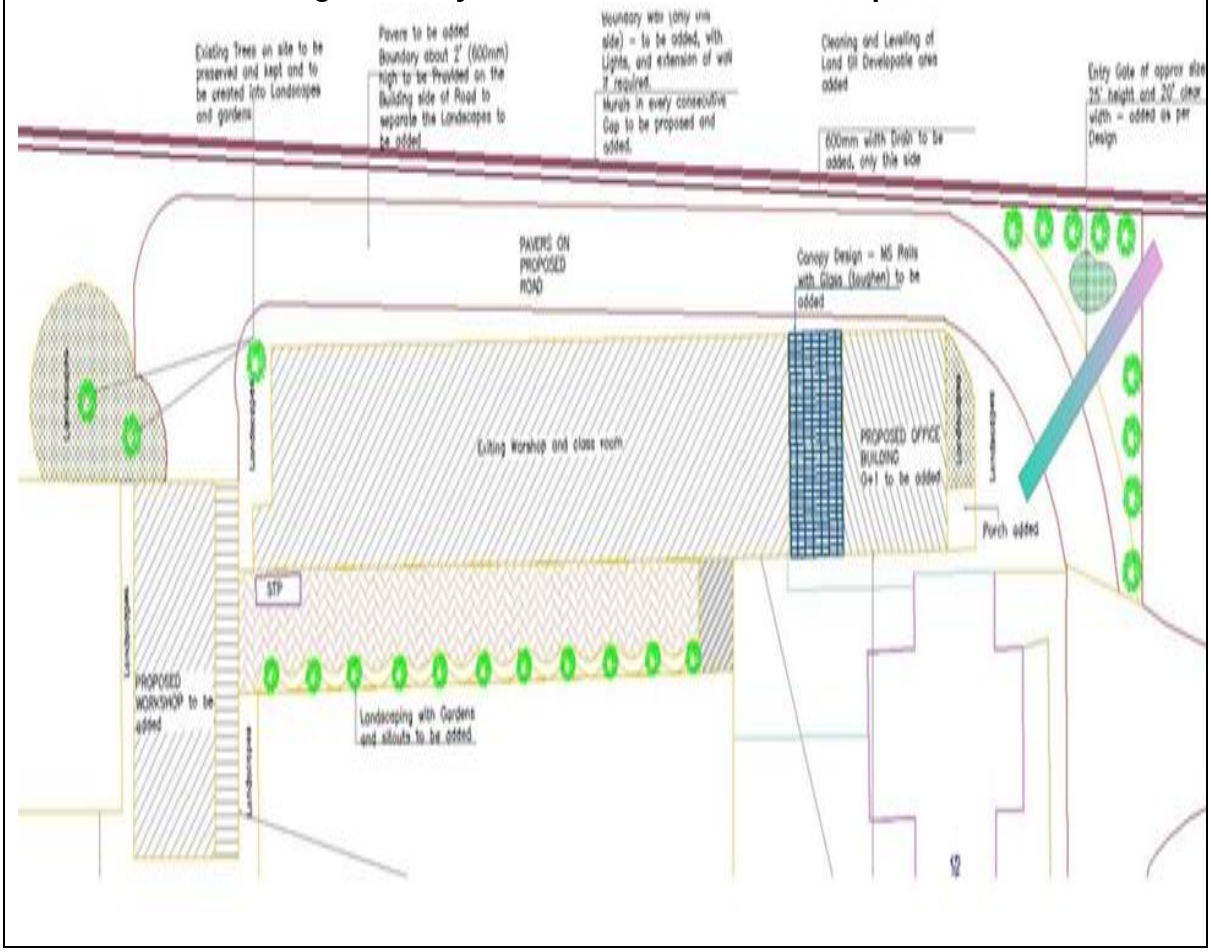


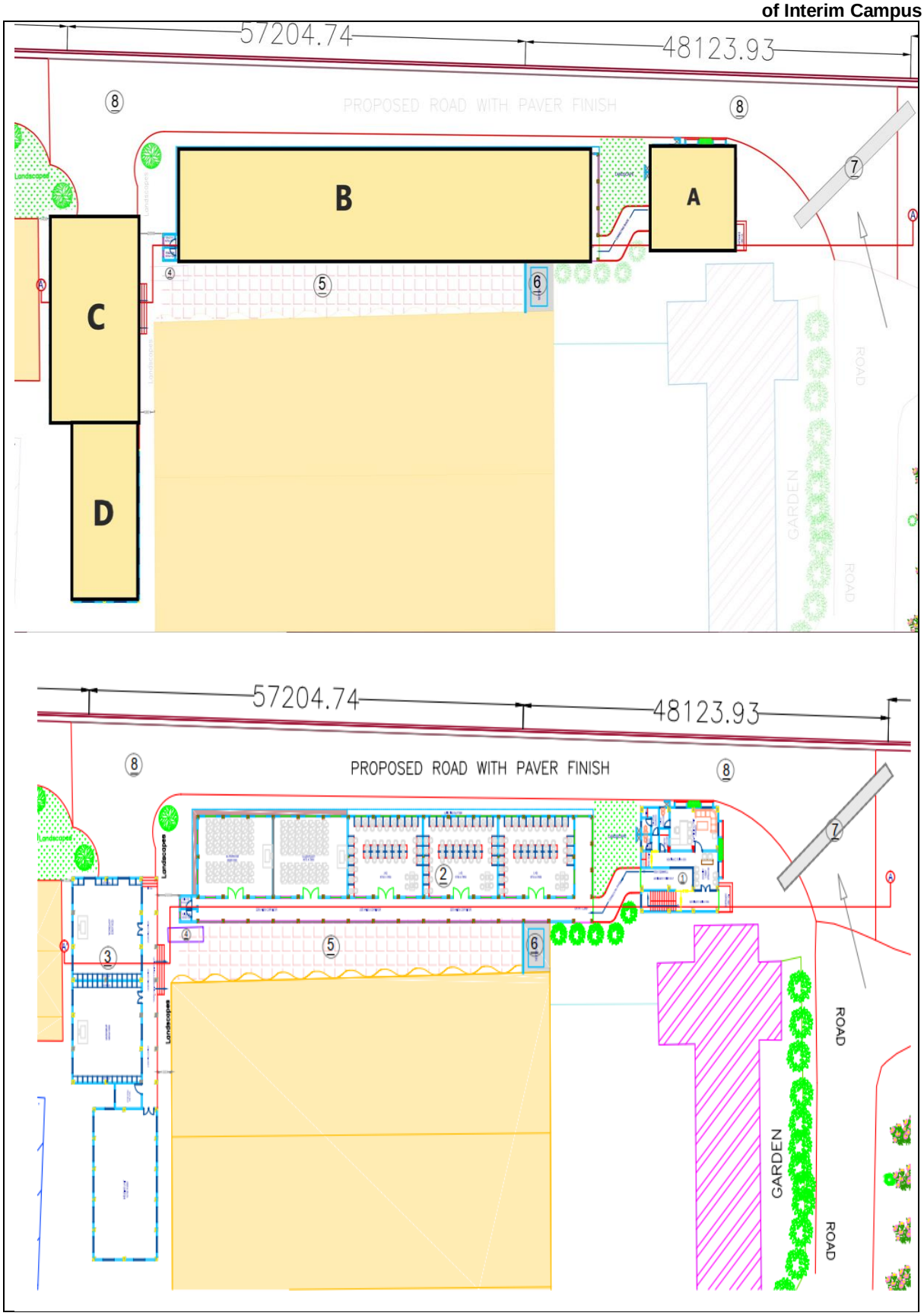
Table-2: Description of the ASU Interim Campus Components

Description	Need of the Sub-project	Proposed Components
Establishment, Operation and Management of Interim Campus	The ASU management feels that ASU should kick-start its journey towards achievement of its broad objectives and start its operation of conducting skill development courses from the academic session 2023-24. However, it would take at-least 3 to 4 years for ASU to have a full-fledged campus operational. Therefore, it is proposed to set-up an interim campus to launch few courses in collaboration with established reputed training and/or knowledge partners with proven track record in running such courses / programs.	The current subproject involves civil construction and renovation of ASU Interim campus and existing facilities, including new construction of G+1 building (2500 sq.ft.), renovation of existing workshop building (5708.18 sq.ft), and construction of prefabricated shed (3764 sq. ft.)

14. The layout plan of ASU Interim Campus is shown below in **Figure-3.** The floor wise drawings for Interim Campus components are given in **Annexure-3.** These are all preliminary or indicative drawings. These will be finalized during detailed engineering. Should there be any environmental implications due to such finalized drawings or in the final design, these would be reassessed and reflected in the updated IEE report which will be submitted to ADB for review, clearance and disclosure.

Figure-3: Layout Plan of ASU Interim Campus

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PROPOSED ROAD WITH PAVER FINISH
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B. Executing and Implementing Agencies

15. The Skill, Employment and Entrepreneurship Department (SEED) of GoA is the EA. The Assam Skill Development Mission (ASDM) is the IA. The ASDM has established a project management unit (PMU) for the overall project implementation. For the civil works components of ASU Interim Campus, the ASDM will be supported by the PMC team and construction supervision and quality assurance (CSQA) firm. The PMC and CSQA firm teams will be multi-disciplinary teams, including environmental specialist (intermittent inputs) in PMC team. The PMC consulting firm has been appointed. The PMC environmental specialist has adequate experience and knowledge of environmental rules and regulations of the State and GoI and other environmental management aspects. In addition to PMC, CSQA firm has also been hired for construction supervision and quality check. The civil works contractor engaged for the construction will also have environment, health and safety officer in its team till closure of its contract. The ASDM will be responsible for supervising overall planning and implementation of civil and renovation works with the assistance of CSQA firm and PMC team. ASDM will ensure that the ASU and all activities financed under the ADB comply with environmental rules and regulations of GoI and GoA and ADB's SPS 2009.

C. Implementation Schedule

16. The implementation period for the proposed ASU Interim campus is six months. The preliminary drawings (architectural in nature) for the ASU Interim campus have been prepared **(Annexure-3).** Civil works for the Interim Campus will be procured through advertisement. The contractor will be mobilized by July 2023.The works are planned to be completed progressively by October 2023.

III. DESCRIPTION OF THE EXISTING ENVIRONMENT FOR ASU INTERIM CAMPUS SITE

17. This section presents a brief description of the existing environment around the ASU Interim Campus site, including its physical resources, ecological resources. broad aspects on various environmental parameters such as geography, climate and meteorology, physiographic, geology, seismology and ecology parameters that are likely to be affected by the proposed ASU Interim Campus construction and development are presented. Secondary information was collected from relevant government agencies like the State Forest Department, State Environment Department, State Pollution Control Board, and Meteorological Department.

A. Environmental Profile

Air and Noise Quality:

18. No air pollution sources have been seen in the surroundings of project site except connecting AK Azad Road, which is mainly vehicular emission. As site is adjacent to ITI Guwahati, there are few environmental sensitive receptors (residential houses, schools, hospitals, etc.) which are outside of the perimeter of delineated ASU Interim Campus site except ITI Guwahati. Ambient Air quality data is available for the ITI Guwahati. Major pollutant is PM_{10}, SO_2 and NO_x. The Air Quality Index of ITI Guwahati is 142 and the average concentration of PM_{10} is 162 µg/m^3, SO_2 is 6.88 µg/m^3 and NO_x 17.37 µg/m^3 (*Source*: Ambient Air Quality Data for Guwahati City for March 2022, Pollution Control Board Assam). The PM_{10} values exceed the national standard. Baseline ambient air quality monitoring will be carried out by the contractor in pre-construction phase immediately after mobilization.

19. Noise levels data is not available for the ITI Guwahati (proposed ASU Interim Campus). The data has been referred from the secondary published sources. The noise levels are 52.2-69.9 dB(A) during the morning (7-10 am), 52.4 -69.3 dB(A) during noon (12 noon-2 pm), and 54.6-71.1 dB(A) during the evening (4-7 pm) hours, respectively. The noise ambient noise levels are exceeding the limits. However, to have site specific ambient noise levels data, monitoring will be conducted by the contractor prior to start of construction works with the aim of establishing site specific baseline conditions.

Climate:

20. The climate of Guwahati is subtropical, with pleasantly warm, dry winters from November to February and a long, hot and rainy period from April to mid-October. The monsoon runs roughly from June to early or mid-October, but showers occur in April and May (and more rarely in March), which gradually become more frequent. In Guwahati, the wet season is hot, and mostly cloudy and the dry season is warm and clear. Over the course of the year, the temperature typically varies from 12°C to 32°C and is rarely below 9°C or above 35°C. Average annual rainfall is 1600 mm in the region with about 92 rainy days. About 90 % of rain occurs between April and September and June and July being the rainiest months.

Temperature:

21. The hot season lasts for 6.6 months, from March 28 to October 16, with an average daily high temperature above 30°C. The hottest month of the year in Guwahati is August, with an average high of 32°C and low of 26°C. The cool season lasts for 1.7 months, from December 13 to February 4, with an average daily high temperature below 25°C. The coldest month of the year in Guwahati is January, with an average low of 12°C and high

of 23°C. The below figure shows month wise Temperature data at Guwahati.

Figure-4: Month Wise Temperature Variation at Guwahati

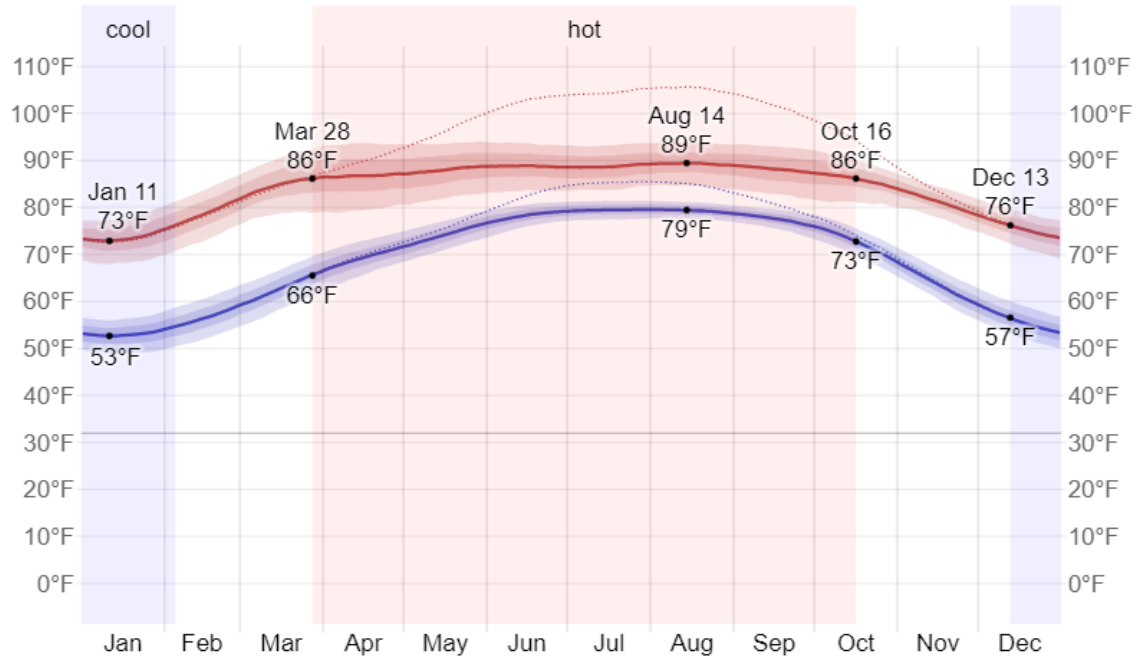


Figure 4 - Month wise temperature variation at Guwahati
Source : https://weatherspark.com/y/111996/Average-Weather-in-Guwahati-India-Year-Round

Rainfall:

22. Guwahati experiences extreme seasonal variation in monthly rainfall. The rainy period of the year lasts for 9.6 months, from January 30 to November 18, with a sliding 31-day rainfall of at least 13 mm. The month with the most rain in Guwahati is July, with an average rainfall of 312 mm. The rainless period of the year lasts for 2.4 months, from November 18 to January 30. The month with the least rain in Guwahati is December, with an average rainfall of 76 mm. Average annual rainfall at Guwahati is around 1600 mm. The month wise rainfall for Guwahati has been shown in below figure:

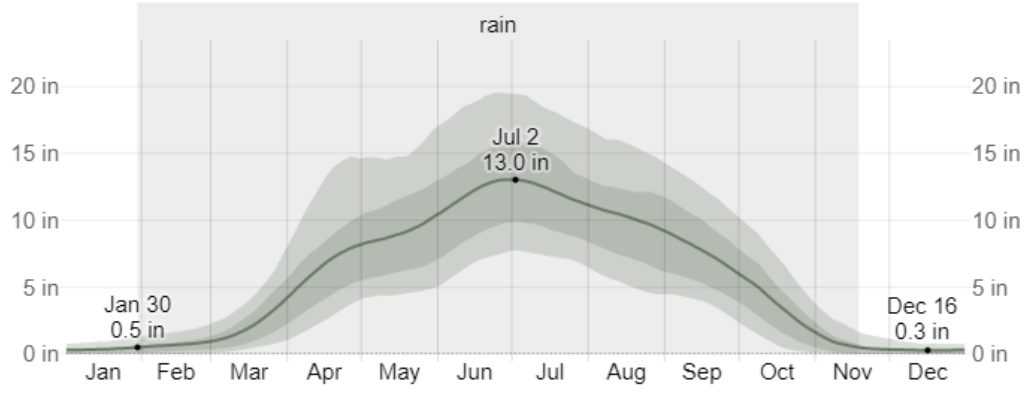


Figure 5 - Rainfall Data for Guwahati
Source : https://weatherspark.com/y/111996/Average-Weather-in-Guwahati-India-Year-Round

Humidity:

23. Based on climatological data of the Guwahati, it is found that Guwahati experiences extreme seasonal variation in the perceived humidity. The muggier period of the year lasts for 8.1 months, from March 23 to November 27, during which time the comfort level is muggy,or miserable at least 25% of the time. The month with the fewest muggy days in Guwahati is January, with 0.2 days that are muggy or worse.

Wind Speed and Directions:

24. The average hourly wind speed in Guwahati experiences mild seasonal variation over the course of the year. The windier part of the year lasts for 5.5 months, from February 25 to August 8, with average wind speeds of more than 6.3 km per hour. The windiest month of the year in Guwahati is April, with an average hourly wind speed of 7.3 km per hour. The calmer time of year lasts for 6.6 months, from August 8 to February 25. The calmest month of the year in Guwahati is January, with an average hourly wind speed of 5.2 km per hour.

Topography and Soils

25. The topography of the city is undulating varying in elevation from 49.5 m to 55.5 m above Mean Sea Level (MSL). The land is interspersed with a large number of hills. The central part of the city has small hillocks namely Sarania hill (193 m), Nabagrah hill (217 m), Nilachal hill (193 m) and Chunsali hill (293 m). The Buragosain Parbat in the East and the hills of Rani and Garbhanga in the south form the major hill formations of the city. These hills make contiguous formations with the hills of Meghalaya. There are total of 18 hills in the city. The total reported area covered by hills in Guwahati Metropolitan Development Authority (GMDA) area is 68.81 sq.km. The existence of forests in the city is largely confined to the hill areas. Guwahati city soil consists of alluvial deposits with layers of both coarse and fine-grained soils. Hence, large modifications in earthquake waves can occur due to change in variation in soil properties near to the surface of earth.

Surface water and Ground water

26. Brahmaputra river is the principal source of water for the residents of Guwahati city. The city is drained mainly by river Bharalu, a small tributary of the river Brahmaputra. In Guwahati city, the septic effluents and garbage from households are either released to municipal drains or nearby wasteland. The domestic refuge and garbage remain in the open for several days and thus lactates as well as storm water runoff carrying various toxic substances are likely to contaminate different water bodies including ground water. The main drained channel of the city is used for discharging household, municipal, industrial and commercial wastes and it also acts as the natural drain for storm water runoff. The Bharalu river water is not used for drinking purpose, but the polluted water may deteriorate the quality of the ground water reserves near the banks. Analysis of physico-chemical parameters such as pH, temperature, conductivity, turbidity, dissolved oxygen, biological oxygen demand, chemical oxygen demand, total dissolved solid, total hardness, calcium, magnesium, iron, nitrate, fluoride of Bharalu river or storm water runoff and ground water source with 30-35 meters has shown that the Bharalu water or storm water is thoroughly contaminated and the ground water sources near the banks are of poor quality. It seems that various stations are contaminated due to domestic waste or discharge of commercial, sewage into the Bharalu channel. The below table shows Brahmaputra River Water quality in Sub-Project Region. No flood issues have been reported at the existing ITI Campus.

Table 3 – Brahmaputra River Water quality in Sub-Project Region

Sl. No.	Parameter	Unit	Value	Permissible CPCB Criteria	
				Class B (Suitable for outer Bathing)	Class C (Drinking Water source after conventional treatment and disinfection)
1	pH	-	7.4	6.5 to 8.5	6 to 9
2	Conductivity	Micromhos/ cm	288	Not Stipulated	Not Stipulated
3	Dissolved Oxygen	mg/l	6.7	5 or more	4 or more
4	BOD (3 Days 27^0C)	mg/l	3	3 or less	3 or less
5	Total Coliforms	MPN/100 ml	640	500 or less	5000 or less
6	Total Dissolved Solids	mg/l	168	Not Stipulated	Not Stipulated
7	Oil and Grease	mg/l	1.4	Not Stipulated	Not Stipulated
8	Cyanide as (CN)	mg/l	<0.005	Not Stipulated	Not Stipulated
9	Phenol	mg/l	<0.001	Not Stipulated	Not Stipulated
10	Total Hardness (as CaCO3)	mg/l	99	Not Stipulated	Not Stipulated
11	Chloride (as Cl)	mg/l	25	Not Stipulated	Not Stipulated
12	Sulphate (as SO4)	mg/l	3	Not Stipulated	Not Stipulated
13	Nitrate (as NO3)	mg/l	1.6	Not Stipulated	Not Stipulated
14	Fluoride (as F)	mg/l	0.2	Not Stipulated	Not Stipulated
15	Calcium (as Ca)	mg/l	28	Not Stipulated	Not Stipulated
16	Magnesium (as Mg)	mg/l	7	Not Stipulated	Not Stipulated
17	Copper (as Cu)	mg/l	<0.05	Not Stipulated	Not Stipulated
18	Iron (as Fe)	mg/l	0.40	Not Stipulated	Not Stipulated
19	Manganese (as Mn)	mg/l	<0.05	Not Stipulated	Not Stipulated
20	Zinc	mg/l	0.06	Not Stipulated	Not Stipulated
21	Boron (as B)	mg/l	<0.02	Not Stipulated	Not Stipulated
22	Arsenic (as As)	mg/l	<0.002	Not Stipulated	Not Stipulated
23	Mercury (as Hg)	mg/l	<0.001	Not Stipulated	Not Stipulated
24	Lead (as Pb)	mg/l	<0.05	Not Stipulated	Not Stipulated
25	Cadmium (as Cd)	mg/l	<0.01	Not Stipulated	Not Stipulated

Sl. No.	Parameter	Unit	Value	Permissible CPCB Criteria	
				Class B (Suitable for outer Bathing)	Class C (Drinking Water source after conventional treatment and disinfection)
26	Alkalinity (as CaCO3)	mg/l	128	Not Stipulated	Not Stipulated
27	Hexavalent Chromium as Cr+6	mg/l	<0.05	Not Stipulated	Not Stipulated

Source: Environmental Impact Assessment Report for Installation of 2 Mounded Bullets at Guwahati Refinery, Year 2017

Geology and Seismology:

27. Guwahati City is situated in the North-Eastern region of India along the bank of the mighty Brahmaputra. Guwahati city falls within Seismic Zone V as per IS 1893 [Part I: 2002] which is considered as seismically most active zone vulnerable to major earthquakes. The reason which makes this region prone to a major earthquake in near future is the drifting of the Indian sub-continental plate towards the Eurasian plate with the passage of time.

B. Ecological Resources

28. The city of Guwahati is the biggest metropolis in Northeast India and happens to be a part of Indo-Burma Biodiversity Hotspot. It is the capital city of the state of Assam with a total area of 216.79 sq. km. having a population of around a million with a population density of 2695.43 per sq. km. The city is situated on an undulating plain with varying altitudes of 49.5–55.5 m above MSL. The city is surrounded by eighteen hills. Guwahati has eight Reserve Forests (South Kalapahar RF, Fatasil RF, Jalukbari RF, Gotanagar RF, Hengrabari RF, Sarania Hill RF, Garbhanga RF, Rani RF) and two Wildlife Sanctuaries (Deepor Beel WLS and Amchang WLS) along with an internationally acclaimed wetland and Ramsar site, the Deepor Beel, within the city limits. The mighty river the Brahmaputra flows through the city. Guwahati has a tropical monsoon climate and receives about 1600 mm annual rainfall with an average annual temperature of 23°C. The overall habitat type in the subproject site surroundings mainly comprises of forest patches, scrublands, grasslands, plantations, wetlands, agricultural lands, human settlements, and commercial areas. The forest patches are of a moist deciduous type. All these, make the city, a thriving center for biodiversity. Recent assessments have revealed Guwahati to be the home of around 60 species of fishes, 25 species of amphibians, 53 species of reptiles, 212 species of birds and 36 species of mammals. Out of all these species, 33 species were found to be threatened with extinction and another 62 species needs evaluation. This points out to the fact that Guwahati has a lot to offer in terms of urban biodiversity. In fact, Guwahati is the only city in India to have its own city's animal: The Ganges River Dolphin. The ITI Guwahati site does not fall in any reserved, protected or revenue forest and being in the city it is not habitat to any protected and rare species of flora and fauna.

IV. ENVIRONMENTAL IMPACT AND MITIGATION MEASURES

A. Environmental Impacts

29. Any project creating physical infrastructure & renovation will cause some impacts on the environment. This report examines the potential impacts anticipated during the construction and operation phases due to construction and operation of ASU Interim Campus site.

B. Location Impacts:

30. The ASU Interim Campus site with 9.3 acres area (approx. 36425 sq.m) is located on government land owned by GoA. The construction works will be on the delineated plot as per the proposed drawings. There are no significant ecological resources in the ASU Interim Campus site as it is lying on developed footprint area of ITI Guwahati campus except along with the periphery with few trees that will be protected prior starting any activity, has very minimal presence of shrubs and is in an open area. There are no heritage sites notified by National Monuments Authority or State Archaeological Department within the delineated site or in the immediate surroundings (300 m distance). No significant impacts can arise due to ASU Interim Campus as its components including proposed G+1 Office Building, renovation of existing workshop, Pre-engineered building (PEB) structure and road development will not impinge upon any area of ecological, archaeological or historical importance. The ASU Interim Campus site is not in the immediate vicinity of national highway or state highway. The distance of nearby road is about 200 m, so some air and noise pollution related impacts on ASU Interim Campus are anticipated on account of vehicular traffic.

C. Design impacts and pre-construction impacts:

31. Impacts arising from project design, including the technology used, scale of operations, discharge standards, topographic survey, geotechnical survey, etc.; As noted above, the proposed project site of ASU Interim Campus is owned by the GoA. In the absence of trees at the proposed construction area and renovation of building footprint, there are no issues pertaining to tree cutting. The tree in surrounding area or periphery will be protected prior starting any activity. There is presence of shrubs in small part of site. Based on the environmental screening of the ASU site, it is concluded that there are no significant adverse environmental impacts during the design and pre-construction phase of project. No specific activities pertaining to obtaining environmental and forest clearances for the Interim Campus project are anticipated. The building plans will be approved by the local municipal council of Guwahati and/or Town and Country Planning Department of Assam Government. In the design, sustainable environmental management measures would be built in as per prevailing guidelines.

D. Construction impacts:

32. Impacts resulting from construction and renovation activities including site clearance, earthworks, civil works, etc:

a) All construction activities to be undertaken at the ASU Interim Campus site will be approved by the PMU-ASDM through CSQA firm. The regulatory approvals required for building plans will be obtained from relevant authorities before the start of construction activities as applicable. The construction stage impacts due to the project

are generic to the construction activities. The EMP emphasizes on the construction impacts and necessary mitigation measures to be strictly followed by the contractor and supervised by the PMU and its authorized agency appointed (viz. PMC) by the ASDM. The key potential impacts are covered in the following paragraphs.

b) **Impact due to stockpiles of construction materials.** Improper stockpiling of construction materials could obstruct movement of vehicles within ITI Guwahati. Hence, due consideration will be given for proper materials storage within the earmarked construction site. Stockpiles (sand, subgrade, cement, reinforced steel, and earth) will be covered (with covered bricks or polythene sheet) to protect from dust and erosion.

c) **Disposal of construction waste.** The construction waste could lead to untidy conditions at site and surroundings. These wastes will comprise broken pieces of bricks, surplus earth, discarded and/or spilled construction materials, used shuttering materials, etc. In the ASU Interim Campus construction, it shall be mandatory for the contractor to ensure proper disposal of the construction waste at the disposal site as designated by the PMU and CSQA firm.

d) **Quarry and Borrow pits operations.** Since the civil works are minor in nature, all construction materials will be procured from market from sources compliant with the environmental regulations of India. There will not be any need for direct procurement of stone dust and sand and other building materials from quarries. The borrow pit operations are not required as site is plain.

e) **Increase in noise levels.** Noise levels in the immediate proximity of ASU Interim Campus construction site are expected to increase during construction. However, these will be largely imperceptible as civil works will be confined to relatively small area. Further due to the nature of building construction works proposed under this sub-project is such that it would not generate noises large enough to cause any disturbances or nuisances. Further, there are no rock formations at site, so there will not be any requirement for blasting. Hence extreme noise generations are ruled out. Barricades of sufficient height will be installed between the construction area and the ITI Campus to act as dust & noise barrier. Transportation of construction materials will be confined to after class hours of the ITI, depending upon extent of construction activity. Barricade or screens of prefabricated sheets will be used in the access road for bringing construction materials to the site. Necessary monitoring of noise levels will be taken up as part of environmental monitoring plan.

f) **Impacts on biodiversity during construction phase.** No major impacts are expected on the biodiversity during the construction phase as current ASU Interim Campus proposed building footprint has no presence of trees except along with the periphery where few trees are present that will be protected prior to starting any activity, has minimal presence of shrubs and is in an open area. There are no endangered or rare species of flora and fauna in the surroundings of proposed ASU Interim Campus site.

g) **Disturbance due to traffic during construction phase.** At the time of construction, inconvenience to locals is not anticipated as site is accessible through an existing AK Azad Road and Service Road that is away from habitation.

h) **Impact on cultural properties.** The ASU Interim Campus site construction and development will not have any impact on any religious structures or any other structures of historical and/or cultural significance.

i) **Ground Water.** Ground water will not be extracted and used for construction purposes. The contractor will arrange for water from the market. It will be supplied by the authorized water tankers. The problem of ground water contamination is also not anticipated during the construction phase since there will be proper disposal of the wastewater generated from the welfare measures provided for the workers.

j) **Ambient Air Quality.** Generation of dust is anticipated during transportation, excavation, and construction activities. Some dust and gaseous emissions will also be generated during the construction period from machines such as mixers, and vehicles engaged in transportation of construction materials. Pollutants of primary concern at this stage include respirable and suspended particulate matter (RSPM) and gaseous emissions (NOx, SO_2, CO, etc.). However, transportation of construction materials will be confined to a few trips per day (proposed after ITI class hours) depending upon extent of construction activity. Therefore, impact at this stage will be temporary and restricted to the close vicinity of the ASU Interim Campus construction site only. Proper barricading and screening of the access road and work site with two tier tin (1tin approx. 6ft) will be done by the contractors. All vehicles and construction equipment operating for the contractor, CSQA firm, and PMU ASDM will obtain and maintain "Pollution under Control" (PUC) certificates. Regular sprinkling of water during excavations, loading, unloading, vehicular movement on approach roads, and raw material transport will prevent spread of dust and other contaminants. Periodic vehicle exhaust emission quality monitoring will be conducted to ensure that the exhaust emissions from vehicles comply with the vehicle emission standards specified by the GoI. The contractor will submit emission monitoring results as a compliance with environmental monitoring plan. The impacts related to air pollution on account of construction activities will be felt close to proposed ASU Interim Campus site. The contractor would undertake periodic monitoring of ambient air quality to ascertain effectiveness of measures proposed for maintaining the ambient air quality during construction of ASU Interim Campus.

k) **Construction Waste.** Some waste will be generated due to excavated earth material and waste from construction. Debris and excavated earth material can be reused subject to the approval of the Engineer during the construction. Waste generated during construction will be disposed of as per provisions of 'Construction and Demolition Waste Management Rules, 2016' and to the satisfaction of the Engineer. The disposal locations for waste will be finalized in consultation with local civic authorities and in compliance with construction and demolition waste management rules 2016. The clean-up and restoration operations will be implemented by the contractor prior to demobilization. The contractor will clear all temporary structures and dispose of all garbage from project site. Entire construction site and surrounding vacant area will be left tidy, at the contractors' expense as per the satisfaction of the Engineer.

l) **Impacts due to Labor Camp**. The contractor is likely to engage local labor for various construction activities. However, in cases when migrant labor must be engaged, the contractor will establish properly designed labor camp with all basic amenities such as dignified well-ventilated and well-lit accommodation, potable water supply, gender segregated sanitation facilities, including provision of septic tanks and soak pits, and COVID-19 protection facilities. The permission for labor employment (registration with local labor office) should be obtained (under the Inter State Migrant Workmen (Regulation of Employment and Conditions of Service) Act, 1979). Dust bins, hand sanitizer and hand washing facilities will be provided in adequate numbers at camp site.

m) **Occupational Health and Safety and COVID-19.** The occupational health and safety related impacts will include injury to the construction work force, chances of accidents at site and adverse impacts on health of workers if proper measures are not adopted and necessary protection gadgets are not used. COVID-19 related impacts will cause chances of more infections if protection measures are not provided. The COVID-19 related measures should be taken up at site as per the then prevailing guidelines issued by the Ministry of Health and Family Welfare, GOI and Government of Assam for the construction projects.

n) **Site enclosure to avoid washing of lose earth and other construction materials during monsoon.** The contractor needs to take appropriate measures such as proper enclosure of site with MS sheet to avoid washing of construction materials during rains and possible damage to surroundings.

E. Environmental impacts during Operational Phase:

33. Impact resulting from operational phase activities including waste handling and disposal:

a) Since only educational activities will be undertaken at the ASU Interim Campus, there will not be any adverse environmental impacts during operation. Necessary regulatory permissions (such as occupancy certificate, permission from fire department, etc.) will be obtained from civic authorities before start of operations of Interim Campus. The ASU Interim Campus design provides for adequate parking and safe disposal of waste. Toilet blocks will be connected to sewerage network of the ASU Interim Campus or ITI Campus as feasible. The solid waste generated at Interim Campus during operation phase will be segregated. Its disposal will be integrated with Guwahati Municipal Corporation. There may be generation of some waste on account of maintenance and operation of equipment in Workshop. The supplier of the equipment will be responsible for collecting the waste for possible reuse and recycling. Since several equipment have been planned for the workshop, effective operation and maintenance of equipment needs to be undertaken as part of ASU Interim Campus operations and maintenance.

b) The water requirements for the ASU Interim Campus during the operation phase will be met from ground. Necessary permission from Central Ground Water Board will be obtained. The treatment for raw water will include screening, reduction of total suspended solids (TSS) and hardness and disinfection to meet drinking water standards specified in IS:10500 by the Bureau of Indian Standards.

c) In the operation phase, there will be generation of different types of solid wastes (municipal waste, hazardous waste from laboratories/workshops, E-Waste from IT and computer facilities and discarded lead acid batteries). These wastes will require handling, transport, and disposal as per regulatory requirements of their respective categories to avoid environmental impacts.

d) There will be occupational risks due to handling and storage of hazardous and toxic equipment and chemicals in workshops. These risks include minor fire on account of leakage and injuries due to spillage and unsafe handling.

e) The design of the ASU Interim Campus buildings includes structural and seismic safety measures required by India's latest building codes (in seismic zone V). The other safety features are explained below:
   - The ASU Interim Campus will be equipped with fire-fighting systems with portable fire extinguishers, alarms and smoke detectors. The staircases will have adequate

width to allow occupants to exit the campus buildings during any fire-related or other eventuality.

- During natural calamities, the operations will be stopped. The trainees and staff will be safely evicted as per the disaster management plan of Guwahati city.
- Building design and toilet facilities will be barrier-free for physically challenged persons.

f) **Socio-economic Impacts.** The project will have positive socio-economic impacts during construction as it will provide employment and business opportunities. In the operation phase, the ASU Interim Campus functioning will also have positive socio-economic impacts since it will provide Assam and other north-eastern states' youth and adults an opportunity to enhance job-oriented skills at an affordable price. In addition to the above, local economy will also grow through demand of houses on rentals, local goods consumption, service shops operations and operations of eateries in the Birubari specially ASU Interim Campus surroundings.

g) **Flora and Fauna.** The ASU Interim campus land is owned by the GoA. In the absence of any trees or vegetation on proposed building footprint, no adverse impacts on fauna and flora are anticipated. No tree cutting is required. Further, in the ASU campus, plantation of shrubs and landscaping will be taken up along the pathways and vacant spaces to enhance natural ambience.

h) **Emergency Plan for Accident and Natural Hazards.** For operation phase, onsite emergency plan will be prepared by the PMU for ASU Interim Campus. For natural calamities, the Disaster Management Plan (DMP) prepared by GoA for Guwahati will be followed. The GoA has prepared district wise DMPs as per provisions of Disaster Management Act, 2005 of Government of India.

i) **Maintenance of Drainage System in the Campus.** It is clear from the earlier description that project site receives more than 1750 mm rainfall during monsoon months so there may be water logging issues in ASU Interim Campus if drainage system is not maintained. The ASU Interim Campus management Team will maintain drainage system properly to avoid water logging. However, no flood issues have been reported in the existing campus of the ITI, Guwahati till now.

F. Description of Planned Mitigation Measures for the Identified Impacts

34. Screening of environmental impacts is based on the magnitude and duration of the impacts. **Table-4** summarizes the potential environmental impacts for ASU Interim Campus for the project life cycle. The mitigation measures including the institutional responsibilities for implementing the same have also been summarized. The subproject site is located sufficiently away from protected areas and the components proposed will not impact any environmentally sensitive or protected areas. All subproject activities including construction and operation will take place within available government land. When national regulations differ from the performance levels and measures presented in WBEHS Guidelines, projects are expected to achieve whichever is more stringent. The reported ambient air quality has indicated PM_{10} values exceeding the standards and other ambient air quality parameters are well within the limits. The proposed mitigation measures are expected to maintain the overall ambient air quality during construction and operation stages within the baseline condition values. The ground and surface water quality parameters are well within the limits specified for drinking water.The noise levels are exceeding limits of various land use. The project will keep the parameters within the baseline values through mitigation measures.

35. The baseline monitoring for ambient air quality of the project area would be undertaken by the civil works contractor prior to commencing with the works. The air emissions from the

construction equipment would be monitored for compliance with the national standards for the specific emitters as required by the regulatory framework. During implementation, no activities are envisaged that would contribute to deterioration of ambient air quality.

Table-4: Summary of Environmental Impacts and Planned Mitigation Measures

Sl. No.	Potential Environmental Issues	Duration or Extent	Magnitude	Proposed Mitigation Measures	Institutional Responsibilities
1	**Location Impacts**				
1.1	Lack of sufficient planning to ensure long term sustainability of the ASU Interim campus features and ensure protection especially from earthquake and other natural disasters	Permanent	Major	The preliminary design of ASU Interim campus has been completed considering earthquake coefficient of zone V. During the earthquake or any other natural calamity, Disaster Management Plan prepared by the Kamrup Metropolitan district administration will be followed. It will be updated for ASU Interim campus in coordination with district administration. To address the water logging issue at site an effective drainage system is being designed based on existing drainage system at ITI Guwahati. The plinth level of the existing workshops is at 0.9m above the existing ground level. The plinth level of the new structures will be kept 20cm above HFL to ensure long term sustainability which is the standard requirement of municipal corporation.	Contractor, PMU, ASDM
2	**Design and Pre-construction Impacts**				
2.1	Consents, permits, clearances, no objection certificates (NOC), etc.	Permanent	Minor	Obtain all necessary consents, permits, clearance, NOCs, etc. prior to start of civil works. Acknowledge in writing and provide report on compliance with all the obtained consents, permits, clearance, NOCs, etc. Include in detailed design drawings and documents all conditions and provisions, if necessary.	Contractor, ASDM, and PMU
2.2	Environmental monitoring in respect of ambient air quality,	Preconstruction, immediately	Minor	Contractor to carry out environmental monitoring immediately after mobilization to establish baseline in respect of ambient air	Contractor, ASDM, and PMU

Sl. No.	Potential Environmental Issues	Duration or Extent	Magnitude	Proposed Mitigation Measures	Institutional Responsibilities
	water quality and noise levels to establish baseline levels	after mobilization		quality, water quality (ground and surface), and noise levels.	
2.3	Layout of components to avoid impact on the aesthetics of the ASU Interim Campus site	Permanent	Minor	The ASU Interim campus buildings will not have any adverse impacts on aesthetics of project site and surroundings and exteriors of campus buildings will be similar to the exteriors of buildings in the project region as well as matching with institutional looks. There will be positive impacts as green areas to be developed in campus will enhance look of the area.	Contractor, ASDM, and PMU
2.4	Increased storm water runoff from alterations of the site's natural drainage patterns due to landscaping, excavation works, construction of parking lots, and addition of paved surface	Permanent	Moderate	The preliminary ASU Interim campus layout and design has considered storm water runoff. This will be provided through the development of existing drainage system within the campus. The effective drainage plan shall be prepared by the contractor, and it will be reviewed by the PMU and PMC for the implementation in the construction phase.	Contractor, ASDM, PMU
2.5	Integration of energy efficiency and energy conservation programs in the ASU Interim campus planning and design	Permanent	Moderate	The following energy efficiency measures have been adopted in the ASU Interim campus design and subsequent implementation: • Installation of Bureau of Energy Efficiency (BEE) certified equipment at the workshop, laboratories, classrooms and other facilities to reduce the energy consumption of appliance without diminishing the services. • Usage of energy efficient light emitting diode lighting fixtures (LED) which produce light up to 90%more efficiently than incandescent light bulbs. The disposal of discarded LED should be done in consultation with civic bodies and supplier.	Contractor, ASDM, and PMU

Sl. No.	Potential Environmental Issues	Duration or Extent	Magnitude	Proposed Mitigation Measures	Institutional Responsibilities
2.6	Impacts on flora and fauna	Temporary	Minor	There is no requirement for tree cutting for the development of ASU Interim campus. There may be requirement for removal of locally grown shrubs in some portion of ASU Interim site. This loss of shrubs will be made up during landscaping and tree plantation works of the ASU Interim Campus. The detailed landscaping and tree plantation plan will be prepared during project implementation. The removal of shrubs will be only from areas delineated for construction. The detailed plantation and landscaping plan shall be prepared during pre-construction phase.	Contractor, PMU, and PMC
3	**Construction Impacts**				
3.1	Construction camps - location, selection, design and layouts	Temporary	Moderate	Construction camp at the ASU Interim Campus site will be located within the plot. The construction camp will not affect the day-to-day activities of local residents and stakeholders as workforce will not exceed 100. Adequate sanitation facilities (with septic tanks and soak pits) shall be provided at camp site so that no wastewater will be discharged outside. Preferably local labors will be deployed.	Contractor, ASDM, and PMU
3.2	Traffic circulation plan during construction	Temporary	Minor	Prior to commencement of site activities and mobilization on ground, the contractor will prepare a traffic circulation plan for safe passage of local traffic during construction stage. This will include alternative access routes (for any emergency access), traffic regulations, signages, etc. If necessary, the boundary wall may be broken for making separate access for bringing construction material to site and repair it after completion of construction works at site. The contractor will get these plans approved from the traffic police	Contractor, CSQA firm, and PMU

Sl. No.	Potential Environmental Issues	Duration or Extent	Magnitude	Proposed Mitigation Measures	Institutional Responsibilities
				with the assistance of CSQA firm and PMU. In the peak time construction related traffic will not exceed 20-25 vehicles per hour, including vehicles in use of construction crew to travel to site. The contractor will disseminate the traffic circulation plan around the project site.	
3.3	Impacts on flora and fauna	Temporary	Minor	The PMU and PMC will conduct site induction and environmental awareness program for the construction workers and CSQA Team at site. The workers will be sensitized not cut the trees (outside site) for fire wood and not to hunt local fauna. The construction related activities will be limited within the site of ASU Interim Campus to minimize impacts on flora and fauna. Storage of construction materials will be within the project site limits to avoid impacts on flora (local shrubs).	Contractor, PMU, PMC, and CSQA firm
3.4	Clearance activities, including delineation of construction areas for various buildings and facilities	Temporary	Moderate	The commencement of clearance activities for the ASU Interim campus will be undertaken with due permission local civic authorities and from the environment specialist of the PMU/PMC to minimize environmental impacts. All areas used for temporary construction operations will be subject to complete restoration to their former conditions with appropriate rehabilitation procedures.	Contractor, CSQA firm, PMU, and PMC
3.5	Drinking water availability	Tem1`porary	Major	Sufficient supply of potable water will be provided and maintained at the construction site and construction camp. If the drinking water is obtained from an intermittent public water supply, then storage tanks will be provided.	Contractor, CSQA firm, PMU, and PMC

Sl. No.	Potential Environmental Issues	Duration or Extent	Magnitude	Proposed Mitigation Measures	Institutional Responsibilities
3.6	Waste disposal	Permanent	Major	Location of disposal site for construction waste will be finalized by the environmental specialists of the PMU and PMC. The PMU will confirm the location of disposal. Further, it will be ensured that disposal of the material will not impact the seasonal water body (at site) or environmentally sensitive areas. In the disposal Construction and Demolition Waste Management Rules, 2016 will be followed.	Contractor, CSQA firm, PMU, and PMC
3.7	Stockpiling of construction materials	Temporary	Moderate	Stockpiling of construction materials should not impact or obstruct the local small drains and stockpiles will be covered to protect from dust and erosion. The stockpiles shall be bunded so that these are not washed away during intense rainfall.	Contractor, CSQA firm, PMU, and PMC
3.9	Soil and water pollution due to fuel and lubricants, construction waste	Temporary	Moderate	The fuel storage and vehicle cleaning at site should be avoided as far as possible. In case of unavoidable circumstances, fuel storage should be in the leak proof drums and storage of drums should be on temporary raised paved platform. The vehicle and equipment maintenance should be taken at the authorized workshops only to avoid pollution at site.	Contractor, CSQA firm, PMU, and PMC
3.10	Soil erosion	Temporary	Moderate	Adequate measures will be taken up so that there is no soil erosion causing risks in the vicinity.	Contractor, CSQA firm, PMU, and PMC
3.11	Siltation of existing water ponds due to spillage of construction wastes	Temporary	Moderate	No disposal of construction wastes will be carried out into the existing small water ponds at ITI. The waste materials will be transported to the pre-identified disposal site for safe disposal. This disposal site will be identified by the PMC, PMU, and CSQA firm in consultation with local civic authorities.	Contractor, CSQA firm, PMU, and PMC
3.12	Generation of dust	Temporary	Moderate	The contractor will take every precaution to reduce the levels of dust at construction site. The ASU Interim campus site will be properly	Contractor, CSQA firm, PMU, and PMC

Sl. No.	Potential Environmental Issues	Duration or Extent	Magnitude	Proposed Mitigation Measures	Institutional Responsibilities
				barricaded with adequate height (3 m) two tier prefabricated mild steel sheets from all sides to avoid air emissions and dust impacts in the surroundings of site due to construction activities. All pulverized material will be covered with Tarpaulin or Green Net. Regular sprinkling of water *on the access road during transport of materials and construction site to be done by contractor for dust suppression.	
3.13	Emission from construction vehicles, equipment and machinery	Temporary	Moderate	Vehicles, equipment and machinery used for construction will conform to the relevant standards (vehicular emission standards of GoI and CPCB specified standards for equipment and machinery) and will be regularly maintained to ensure that pollution emission levels comply with the relevant requirements. The materials shall be covered while transportation. The vehicles will also have reverse horns and blinkers. Th equipment and machinery will be barricaded to reduce emission.	Contractor, CSQA firm, PMU, and PMC
3.14	Noise pollution	Temporary	Moderate	Noise limits for construction equipment used in this project will not exceed 70 dB (A). Regular monitoring will be taken up at the site as per monitoring plan. The noisier equipment can be used after class hours of the ITI. Construction works with noise effect can be planned with the holidays of the ITI to further reduce any effect of noise.	Contractor, CSQA firm, PMU, and PMC
3.15	Material handling at site	Temporary	Moderate	The workers would be provided with appropriate personal protective equipment commensurate with the safety and health risks associated with the activities such as workers employed (i) on mixing cement, lime mortars, concrete, etc., would be provided with protective footwear and protective goggles; and (ii) in welding works,	Contractor, CSQA firm, PMU, and PMC

Sl. No.	Potential Environmental Issues	Duration or Extent	Magnitude	Proposed Mitigation Measures	Institutional Responsibilities
				would be provided with welder's protective eye-shields. The use of any toxic chemical (paints, thinners and anti-corrosive and anti-termite materials, etc.) will be strictly in accordance with the manufacturer's instructions. The CSQA firm will be given at least 6 working days' notice of the proposed use of any chemical. A register of all toxic chemicals delivered to the site will be kept and maintained up to date by the contractor.	
3.16	Occupational health and safety and measures during construction COVID-19 Health and Safety Plan	Temporary	Moderate	Adequate safety measures for workers during handling of materials at the ASU site will be taken up. Necessary safety measures will also be taken for working at heights and trenches as per the instructions of CSQA firm team and PMC/PMU environmental specialists. The contractor must comply with all regulations for the occupational safety of workers. Precaution will be taken to prevent danger of the workers from fire, accidental injury, etc. First aid treatment will be made available for all injuries likely to be sustained during the course of work. The Contractor will comply with all anti-malaria instructions/advisories given by the PMU, PMC or CSQA firm. Necessary awareness program will be carried out for HIV/AIDS and STD. All protection measures pertaining to COVID-19 will be taken at the site as per the protocol specified by the GoA and GoI for the construction sites. For this, a COVID-19 Health and safety Plan will be prepared by the contractor after mobilization. The protection measures for COVID-19 will continue till pandemic threat continues.	Contractor, CSQA firm, PMC, and PMU

Sl. No.	Potential Environmental Issues	Duration or Extent	Magnitude	Proposed Mitigation Measures	Institutional Responsibilities
3.17	Clearing of construction of camps and restoration	Temporary	Major	Contractor at the ASU site will prepare site restoration plan for approval by the CSQA and PMC. These camp site restoration plans are to be implemented by the contractor prior to demobilization. On completion of the works, all temporary structures will be cleared away, all rubbish burnt, excreta or other disposal pits or trenches filled in and effectively sealed off, and the site left clean and tidy, at the contractor's expense, to the entire satisfaction of the engineer (PMU and CSQA firm site team). This will be taken up comply with the condition of contract.	Contractor, CSQA firm, PMU, and PMC
3.18	Onsite emergency plan for accidents and mishaps and disaster management plan for natural calamities	Temporary	Major	The onsite emergency plan will be prepared by the contractor in consultation with PMC and PMU. For natural calamities, disaster management plan prepared by the Kamrup Metropolitan district Administration under the provisions of Disaster Management Act 2005 will be followed. The updating of DMP shall be followed up by the ASU management (for inclusion of ASU Interim Campus operations) with the district administration.	Contractor
3.19	Flooding and Water Logging and construction materials accidental flow with flood water	Temporary	Major	The contractor will take all measures to barricade the site with MS sheet till permanent boundary wall is constructed. The contractor will maintain quick drainage of site to avoid any water logging and flow of lose construction material with rainwater. The contractor will take all necessary mitigatory measures to ensure that mud and construction materials do not enter agriculture fields of houses from storm water of site.	Contractor, CSQA Firm
4	**Operation and Maintenance impacts**				

Sl. No.	Potential Environmental Issues	Duration or Extent	Magnitude	Proposed Mitigation Measures	Institutional Responsibilities
4.1	Regulatory permissions for ASU operations	Regularly as per requirements	Moderate	All regulatory permissions such as building occupancy certificate from civic authorities, NOC from fire department, etc. will be obtained before start of ASU Interim Campus operations.	ASU management team, PMU, PMC, ASDM
4.2	Environmental conditions	Permanent	Moderate	Air, water and noise quality will be monitored periodically as per the environmental monitoring plan prepared. The boundary wall and plantation along the periphery will be maintained to avoid any impacts from the ASU Interim campus in the surroundings.	ASU management team, PMU, PMC, and ASDM
4.3	Safety risks	Permanent	Moderate	1- Proper demarcation and flagging of the area requiring safety observations will be taken up after completion of construction works. 2- Necessary precaution measures to be observed by visitors will be printed on boards and will be prominently put inside the ASU Interim Campus. 3- The hazardous and toxic materials at the laboratories and /or workshops will be handled and stored as per instructions provided in material safety data sheets.	ASU management team, PMU, PMC, and ASDM
4.4	Unhygienic conditions due to poor maintenance of sanitation facilities and irregular solid waste collection, handling and disposal	Permanent	Severe	The ASU Management will carry out maintenance of the toilets and carry out the regular waste collection and disposal of the waste to the local disposal site (authorized for use by the Kamrup Metropolitan district Municipal Council). Sewage network will be maintained effectively. For maintenance period, necessary holding capacity will be built for storage of untreated sewage. The organic and inorganic waste will be segregated. The inorganic waste along with horticulture waste will be used to prepare organic manure by constructing compost pits in	ASU management team, PMU, PMC, and ASDM

Sl. No.	Potential Environmental Issues	Duration or Extent	Magnitude	Proposed Mitigation Measures	Institutional Responsibilities
				the open space. This manure may be used as fertilizer for landscaped area and plantation. Any hazardous waste generated waste generated will be handled as per the provisions of 'Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2016. Any bio-medical waste generated at Medical Center will be handled, stored, transported and as per the provisions of 'Bio-Medical Waste Management Rules 2016'. The E-waste generated will be handled and disposed of as per provisions of 'E- Waste Management Rules, 2016'. The used and discarded lead acid batteries for recycling and disposal as per Battery Waste Management Rules, 2020'.	
4.5	Onsite emergency plan for accidents and mishaps and disaster management plan for natural calamities	Temporary	Major	The management team of ASU Interim Campus will prepare on site emergency plan for possible accidents and mishaps during operation phase (due to fire, handling and storage of hazardous and toxic chemicals at laboratories, workshops, etc.). This plan will cover all types of accidents. For natural calamities, the disaster management plan prepared by Kamrup Metropolitan district administration will be followed. The updating of DMP shall be followed up by the ASU management (for inclusion of ASU Interim Campus operations) with the district administration.	ASU management team, PMU, PMC, and ASDM
4.6	Maintenance of drainage system of ASU Interim campus	Regularly as per requirements	Major	The ASU management Team will maintain drainage system constructed properly to avoid flooding of campus.	ASU management team, PMU, PMC, and ASDM

G. Land AquisitionStatus

36. The proposed ASU Interim Campus is within the boundaries of ITI Guwahati campus. The entire land belongs to Government of Assam, hence there is no encumbrance associated with the uses of land. Detail of land document of ITI Guwahati is Dag No.-184, 185, 213, Mouza- Ulubari, Circle- Ulubari, Guwahati. The records showing ownership of GoA for the project site are in **Annexure-5**.

V. ANALYSIS OF ALTERNATIVES

A. Introduction

37. In this chapter analysis of alternatives has been carried out for 'with' and 'without' ASU Interim Campus project, location selection, project implementation scheduling and materials usage in the detailed design and construction of ASU Interim campus and facilities.

B. Without Project Scenario

38. Without project scenario Assam youth and adults will continue facing challenges of getting job oriented skilled courses. Hence without project scenario is undesirable. The ASU Interim Campus will not only help youth and adults in Assam but also in the northeastern states. Therefore, without Interim campus will not help to initiate skill education and training as well as training of trainers related activities before the main campus is operationalized. This earlier program availability to the youth will also be helpful in making awareness about ASU courses and will help in smooth start of operations at ASU Mangaldai campus.

C. With Project Scenario

39. The ASU Interim Campus project scenario will help Assam and other north-eastern states youth and adults in attaining job-oriented skill courses, qualification to work in the state, country and abroad. The establishment of ASU will strengthen the skills education and training ecosystem since the tag of a 'university' attached to an institution is expected to improve the general perception of skilling institutions as inferior to the conventional education system, i.e. the skill university will make skilling aspirational among youth. Further, The ASU management feels that ASU should kick-start its journey towards achievement of its broad objectives and start its operation of conducting skill development courses from the academic session 2023-24. However, it would take at least 3 to 4 years for ASU to have a full-fledged campus operational. Therefore, it is proposed to set-up an interim campus to launch few courses in collaboration with established reputed training / knowledge partners with proven track record in running such courses / programs. While the 'with subproject scenario' may have negative environmental impacts from construction and renovation activities, the environmental impacts are projected to be temporary and short-term in nature. The impacts during construction and operation phase are not irreversible and can be readily mitigated.

D. ASU Location Alternatives

40. The ASU Interim Campus site with 9.3 acres area is located on Govt. land owned by GoA. The construction works will be on the delineated plot as per indicative drawings proposed in civil section of this DPR. There are no significant ecological resources in the ASU Interim Campus site as it is lying on developed footprint area of ITI Guwahati except on periphery few trees that will be protected prior staring any activity, so very minimal presence of shrubs and is in an open area. There are no heritage sites notified by ASI or State Archaeological Department within the delineated site or in the immediate surroundings (300 m distance). No significant impacts can arise due to ASU Interim Campus as its components including proposed G+1 office building, renovation of existing workshop, PEB structure and road development will not impinge upon any area of ecological, archaeological or historical importance. The ASU Interim Campus site is not in the immediate vicinity of national highway or state highway. The distance of nearby road is about 200 m, so air and noise pollution

impact on ASU Interim Campus are anticipated on account of vehicular traffic to some extent.

E. Material Usage and Sustaibaility considerations

41. In terms of design, materials (steel bars, cement, sand, stones, and bricks) will be appropriately selected (as per approved design specification) considering that the area is within the seismic zone V classification. There will be no use of asbestos containing sheets or pipes for renovation works. The ASU Interim Campus also plans to have energy efficient lighting and equipment system.

F. Conclusion

42. It is clear from the above that without project scenario is undesirable and the location of ASU interim Campus has been strategically selected with only short-term and reversible environmental impacts. To make the project outcome and outputs sustainable, necessary measures have been included in the project design.

VI. ENVIRONMENT MANAGEMENT PLAN (EMP)

A. Institutional Arrangements for Project Implementation

43. The Government of Assam through Skill, Employment, and Entrepreneurship Department (SEED) is the executing agency (EA). The EA (i) assumes overall responsibility for the execution of the project and reporting; (ii) engages adequate permanent or fixed-term staff to implement the project; iii) provides overall strategic guidance on technical supervision and project execution; and (iv) ensures overall compliance with the loan covenants.

44. The implementing agency (IA) for the project is ASDM. The ASDM is registered under the Societies Act. The IA responsibilities include (i) project planning and budgeting; (ii) day-to-day assistance, supervision and guidance for the project site team and consultant; (iii) review ASU Interim Campus components for due diligence requirements and approve subproject proposals; (iv) bidding, evaluation and contract award; (v) managing and disbursing funds; (vi) review compliance with loan covenants, contract specifications, work plans and quality control; (viii) monitoring and reporting of environmental safeguards; and (viii) consolidate and submit progress reports, finance and accounting/audit reports, and matters requiring higher level decision to project steering committee (PSC) and ADB.

45. In Assam, a state level PSC has been established. This committee is chaired by Secretary SEED, with secretaries of industry, agriculture, land and revenue, information technology, health, planning and finance, handloom and textile, tourism, transformation and development, education, public works, social justice and empowerment, and the vice chancellor of ASU as members. The PSC has been empowered to take all decisions on behalf of the state and will provide overall advice and guidance to the EA, IA, and PMU.

46. The ASDM has established a PMU, headed by a full-time Project Director (PD) at ASDM, and consisting of personnel drawn from relevant line departments and market. This PMU will also have safeguards specialists (social and environment). These specialists will be hired from market and/or from other GoA departments on deputation. The PMU will be supported by the project management consultants (PMC). The PMU will be the nodal agency for overall management of all project activities and will be responsible for: (i) project planning and budgeting; (ii) providing day-to-day assistance, supervision and guidance for the site team, contractors and consultants; (iii) reviewing ASU Interim Campus components to satisfy ADB's due diligence requirements and coordinating approvals for proposals submitted by contractors, CSQA firm team, and site team of PMU; (iv) bidding, evaluation and contract award; (v) managing and disbursing funds; (vi) reviewing compliance with loan covenants, contract specifications, work plans and quality control; (vii) monitoring and reporting of environmental safeguards;(viii) consolidating and submitting progress reports, finance and accounting/audit reports, and matters requiring higher-level decision, to the PSC and ADB; and (ix) engaging and mobilization of CSQA firm at ASU Interim Campus site for quality check and construction works supervision. To implement the construction of ASU Interim Campus project smoothly, the contractor will establish site office. In this office, space will be available for ASDM team, CSQA team and contractor team for better coordination of project activities. This office will be of temporary structure and will be dismantled on completion of construction activities.

47. The construction of ASU campus and facilities at site will be supervised by the CSQA firm multidisciplinary team. This CSQA firm team will be headed by the Team Leader. The CSQA firm team will be responsible for: (i) providing day-to-day assistance, supervision and guidance to the contractor; (iii) reporting to PMU; (iv) supervising construction, conducting quality control, advising PMU on approval of progress payments to contractors; and (v) maintaining records and accounts on an up-to-date basis and making these available to ADB,

its missions, or auditors for inspection. Moreover, the CSQA Team leader, architect, landscape architect, structural engineer, electrical engineer, water and sewerage engineer and site supervisor has their specific roles towards EMP compliance with respect to environmental, health and safety management plans, recommend measures to enhance the environmental sustainability, ensure that renewable energy and energy efficiency measures are adopted in ASU campus and facilities as mentioned in the Terms of Reference. The CSQA will report to PMU and PMC on monthly basis on the details of construction supervision and quality assurance activities along with the environmental, health and safety management plans. The environmental specialist of PMC and PMU will interact with CSQA firm on team on regular basis for the EMP implementation related issues.

48. The project management consultant (PMC) will be engaged to provide support to the PMU in overall planning, risk management, implementation, monitoring, reporting, and evaluation under the project. The PMC team will have experienced professionals specializing in areas such as procurement, social safeguards, environmental safeguard, finance, etc. The PMC will assist the PMU and ASDM in meeting the relevant requirements of ADB, GoA, and GoI for project implementation. The PMC team will report and work under the overall guidance of the PMU.

49. In order to ensure effective implementation of safeguard related components in the project, PMU will have safeguard experts (one environmental specialist and one social development specialist). These safeguard experts will ensure implementation of environmental management plan and social safeguard actions under the project.

50. As mentioned earlier, PMC have one environmental safeguard specialist in their team. This environmental specialist is a qualified graduate in environmental science with about 8 years of professional experience in environmental assessment and management in projects financed by international financial institutions. The environmental safeguard specialists of PMC will provide support to PMU safeguard specialists as and when required by PMU for the EMP implementation during construction, reporting, safeguards related documents preparation, disclosure, and capacity building of CSQA firm team and contractors on an intermittent basis.

51. The contractor in the current subproject will appoint one environmental and safety officer for the implementation of IEE and EMP requirements at site.

B. Responsibility for updating IEE during Pre-Construction and Construction

52. **Responsibility for monitoring.** During construction, the environmental specialist of PMU and environmental specialist of PMC will monitor the contractor's EMP implementation at site and will update IEE if there is change in scope of ASU Interim campus features or a new component is added. During the operation phase, monitoring will be the responsibility of the PMU and/or management handling ASU Interim Campus operations. The environmental specialist of PMU with the assistance of PMC environmental specialist will prepare semi-annual environmental monitoring reports for submission to ADB till the project completion report is prepared. The frequency of submission of environmental monitoring report will be revised from semi-annual to annual in the operation phase of Interim Campus.

53. **Responsibility for Reporting.** PMU will submit semiannual reports on the implementation of the EMP to ADB. It will permit ADB to field environmental review missions to examine in detail the environmental aspects of the project. Any lapses or shortcomings (like non-compliances with regulatory requirements, accidents at sites, etc.) in adhering to the IEE and/or EMPs for specific sub-projects should be reported to ADB immediately. The PMC's environment specialist will assist the PMU in finalizing the semiannual environmental

monitoring reports. For any non-compliance observed, corrective actions agreed in consultation with ADB will be implemented in a time bound manner. The cost for mitigating non-compliance will be borne by the contractor as per contract provisions or by the facility owner as applicable. During the bidding process, prospective contractors will be made aware of these requirements by including IEE report and EMP in the bid document, and explaining the proposed conditions during pre-bid meeting and inclusion of IEE with EMP document as General Conditions of Contract in the contract of selected contractor. In case mitigation costs of any unforeseen impacts are not coming in scope of contract, these will be met out of contingencies built in the overall project cost.

Table-5: Pre-Construction Phase Environmental Management Plan for Detailed Design and Construction of ASU Interim Campus and Facilities

Sl. No.	Environmental Issues	Mitigation Measures	Parameters (Indicators for Compliance)	Responsible for Implementation	Responsible for Supervision	Frequency for Monitoring	Sources of Fund for Implementing Mitigation Measure
1	Lack of sufficient planning to ensure long term sustainability of the ASU campus and its facilities and protection of assets	The preliminary design of ASU Interim campus has been completed considering earthquake coefficient of zone V. During the earthquake or any other natural calamity, Disaster Management Plan prepared by the Kamrup Metropolitan district administration will be followed. It will be updated for ASU Interim campus in coordination with district administration. To address the water logging issue at site an effective drainage system is being designed based on existing drainage system at ITI Guwahati. The plinth level of all structures would be maintained above XX mm of highest flood level reported.	Verification of site-specific design parameters	Contractor	CSQA firm supported and guided by PMU, and PMC environmental specialists on EMP related issues	Review after completion of detailed design	Contractor
2	Environmental monitoring to establish baseline monitoring	Contractor to carry out environmental monitoring immediately after mobilization to establish baseline in respect of	Sample collection, finalization of locations for monitoring	Contractor	PMU and PMC environmental specialist	Once before start of construction activities	Contractor

Sl. No.	Environmental Issues	Mitigation Measures	Parameters (Indicators for Compliance)	Responsible for Implementation	Responsible for Supervision	Frequency for Monitoring	Sources of Fund for Implementing Mitigation Measure
		ambient air quality, water quality (ground and surface), and noise levels.					
3	Layout of components to avoid impacts on the aesthetics of the project site and surroundings	The ASU Interim campus buildings will not have any adverse impacts on aesthetics of project site and surroundings and exteriors of campus buildings will be similar to the exteriors of buildings in the project region as well as matching with institutional looks. There will be positive impacts as green areas to be developed in campus will enhance look of the area.	Campus buildings exteriors	Contractor	CSQA firm, PMU, and PMC	Review of exterior color of buildings after completion of brickwork and plaster	Contractor
4	Increased storm water runoff from alterations of the site's natural drainage patterns due to landscaping, excavation works, construction of parking lot, and addition of paved surfaces	The preliminary ASU Interim campus layout and design considered storm water runoff. This will be provided through the development of existing drainage system within the campus. The effective drainage plan shall be prepared by the contractor and it will be reviewed by the PMU and PMC for the implementation in the construction phase.	Arrangement for proper diversion of storm water runoff	Contractor	CSQA firm, PMU, and PMC	Design of drainage system and layout of ASU	Contractor
5	Consents, permits, clearances, no	Obtain all necessary consents, permits,	Consents, permits,	Contractor	CSQA firm, PMU, ASDM	Check permission from	Contractor

Sl. No.	Environmental Issues	Mitigation Measures	Parameters (Indicators for Compliance)	Responsible for Implementation	Responsible for Supervision	Frequency for Monitoring	Sources of Fund for Implementing Mitigation Measure
	objection certificate (NOC), building drawings approvals from civic authorities, labor licenses of contractors, insurance for workers etc.	clearances, NOCs, etc. prior to start of civil works. Acknowledge in writing and provide report on compliance (with terms and conditions) for, all obtained consents, permits, clearances, NOCs, etc.	clearance and NOCs records and communications			district administration	
6	Integration of energy efficiency and energy conservation programs in the ASU Interim campus planning and design	The following energy efficiency measures have been adopted in the ASU Interim campus design and subsequent implementation: Installation of BEE certified equipment at the workshop, laboratories, classrooms and other facilities. Usage of energy efficient lighting fixtures (LED). The disposal of discarded LED should be done in consultation with civic bodies and supplier.	Specifications of equipment, LED lights specifications	Contractor	CSQA firm, PMU, and PMC	During installation of lighting system, electrification and equipment installation	Contractor
7	Utilities (mainly electric line and possibility of underground cables)	The locations and operators of utilities to be impacted for the subproject should be identified and documented in detailed design documents to prevent unnecessary	List and maps showing utilities to be shifted. Contingency plan for services disruption	Contractor will prepare preliminary list and maps of utilities to be shifted.	CSQA Firm Team and PMU	After delineation of ASU Interim Campus site	Contractor

Sl. No.	Environmental Issues	Mitigation Measures	Parameters (Indicators for Compliance)	Responsible for Implementation	Responsible for Supervision	Frequency for Monitoring	Sources of Fund for Implementing Mitigation Measure
		disruption of services during the construction phase.					
8	Social and cultural resources	Develop a protocol for use by the contractor in conducting any excavation work, to ensure that any chance finds are recognized, and measures are taken to ensure they are protected and conserved.	Chance find protocol	PMU and PMC safeguard specialists to develop protocol for chance finds	PMU	Prior to start of construction activities	PMU operation costs
9	Construction camp-locations, selection, design and layout	Sitting of the construction camp, if required, at project site shall be as per the guidelines below and details of layout to be approved by PMU.	Construction Camp sites, and locations of material storage areas, sanitation facilities	Contractor	PMU and PMC	At the time of construction camp establishment and finalization of storage areas	Contractor
10	Sources of construction materials	Use local material and sources compliant with environmental regulations of India at the national, state and local levels. Verify suitability of all material sources and obtain approvals from PMU. Submit to PMU on a monthly basis documentation of sources of materials.	Authority Permission will be ensured.	Contractor PMU and CSQA firm to verify sources (including permits) if additional is requested by contractor	PMU and CSQA firm	Upon submission by contractor	Contractor

Sl. No.	Environmental Issues	Mitigation Measures	Parameters (Indicators for Compliance)	Responsible for Implementation	Responsible for Supervision	Frequency for Monitoring	Sources of Fund for Implementing Mitigation Measure
11	Access for construction material transportation	Locate entry and exit points for the site in a way that traffic congestion is minimum on access roads to site. Transportation of materials to be done after class hours of ITI.	Traffic management plan	Contractor	CSQA Firm and PMU	During delivery of construction materials	Contractor
12	Occupational health and safety	Comply with IFC EHS Guidelines on Occupational Health and Safety to the extent possible. Develop comprehensive site-specific health and safety (H&S) plan. The overall objective is to provide guidance to contractor on establishing a management strategy and applying practices that are intended to eliminate, or reduce, fatalities, injuries and illnesses for workers performing activities and tasks associated with the project. Include in H&S plan measures such as: (i) type of hazards at construction site;	Health and safety (H&S) plan	Contractor	CSQA Firm, PMU, and PMC	During pre-construction phase	Contractor

Sl. No.	Environmental Issues	Mitigation Measures	Parameters (Indicators for Compliance)	Responsible for Implementation	Responsible for Supervision	Frequency for Monitoring	Sources of Fund for Implementing Mitigation Measure
		(ii) corresponding personal protective equipment for each identified hazard; (iii) H&S training for all site personnel; (iv) procedures to be followed for all site activities; and (v) documentation of work-related accidents. Ensure that there will be no use of asbestos containing materials such as roofing sheets and pipes. Provide medical insurance and accident coverage for all workers (skilled, semi-skilled and unskilled) of contractor and sub-contractors.					
13	Measures for the protection of COVID-19 at ASU campus site	All protection measures pertaining to COVID-19 will be taken at the site as per the protocol specified by the GoA and GoI for the construction sites. For this, a COVID-19 Health and safety Plan will be prepared by the contractor after mobilization. The protection measures for COVID-19 will continue till pandemic threat continues.	COVID-19 screening and protection facilities	Contractor	PMU, CSQA Firm, and PMC	During pre-construction phase	Contractor

Sl. No.	Environmental Issues	Mitigation Measures	Parameters (Indicators for Compliance)	Responsible for Implementation	Responsible for Supervision	Frequency for Monitoring	Sources of Fund for Implementing Mitigation Measure
14	Stakeholder consultations	Continue information dissemination, stakeholder consultations, and involvement/participation of stakeholders during project implementation.	Disclosure records Consultations	Contractor, PMU, and PMC	ASDM	• During updating of IEE Report (if required) • During preparation of site- and activity-specific plans as per EMP • Prior to start of construction • During construction	PMU and contractor
15	Disclosure of IEE and EMP	The IEE report including EMP and monitoring table to be disclosed in English and Assamese language at ASDM website and hard copies to be made available at ASU Interim Campus site office, ASDM Guwahati office, and Deputy Commissioner Kamrup Metropolitan office.	IEE, EMP and environmental monitoring table	PMU	ASDM	Before start of construction works	PMU
16	Establishment of grievance redress committee and functionality	Grievance Redress Mechanism (formation of committees) to be notified by the IA (ASDM).	Committees and contact details at site, PMU and state level	PMU	ASDM	Notification before start of construction works	PMU

Table-6: Construction Phase Environmental Management Plan for Construction of ASU Interim Campus and Facilities

Sl. No.	Environmental Issues	Mitigation Measures	Parameter (Indicators for Compliance)	Responsible Implementation	Responsible Supervision	Frequency for Monitoring	Sources of Fund for Implementing Mitigation Measure
1	Regulatory compliances	Following regulatory compliances shall be ensured at site: 1- Required NOC from local Authority 2- Labor license from Government of Assam 3- Copies of medical insurance and accident insurance coverage for all workers at site.	Compliance clearance copies	Contractor and PMU	ASDM	Validity during entire construction phase	Contractor and PMU
2	Sanitation, Drinking water facilities and accommodation of construction workers at construction camp	The contractor shall provide sanitation facilities at the camp site. These facilities will include dust bins in adequate numbers for solid waste collection, drinking water facilities, and separate toilets for male and females. These toilets facilities shall be well maintained, and septic tanks/soak pits shall be provided at the toilets. The dust bins shall be regularly emptied and waste from camp site shall be disposed off at designated locations. The accommodation shall be well lighted and ventilated and will have amenities such as water supply and sanitation as explained above.	Construction camp sanitation and drinking water facilities	Contractor	CSQA firm, PMU, and PMC	Regularly during construction phase	Contractor

Sl. No.	Environmental Issues	Mitigation Measures	Parameter (Indicators for Compliance)	Responsible Implementation	Responsible Supervision	Frequency for Monitoring	Sources of Fund for Implementing Mitigation Measure
3	Traffic circulation plan during construction phase	Prior to commencement of site activities and mobilization on ground, the contractor will prepare and get approved (from local traffic police after the review of CSQA firm) traffic circulation plan during construction for safe passage of public vehicles so that locals are not at inconvenience. The contractor will carry out dissemination of these information and traffic circulation plan at ASU Interim Campus construction site.	Safe movement of traffic	Contractor	CSQA firm and PMU	Every day during construction phase	Contractor
3	Clearance activities, including delineation of construction areas	Only ground cover shrubs, if any, that impinge directly on the permanent works or necessary temporary works shall be removed with prior approval from the environmental specialists of PMU and PMC. All areas used for temporary construction operations will be subjected to complete restoration to their former conditions with appropriate rehabilitation procedures. The photographic records shall be maintained for the temporary sites used for construction.	Pre-construction records of site and vegetation in area of construction	Contractor	PMU, PMC, and CSQA firm	During site clearance activities	Contractor

Sl. No.	Environmental Issues	Mitigation Measures	Parameter (Indicators for Compliance)	Responsible Implementation	Responsible Supervision	Frequency for Monitoring	Sources of Fund for Implementing Mitigation Measure
		These will help in proper restoration.					
4	Drinking water availability at construction camp and construction site	Sufficient supply of cold potable water to be provided and maintained. If the drinking water is obtained from an intermittent public water supply, then storage tanks will be provided. For this, contractor will submit plans which detail how availability of drinking water shall be assured.	Water supply source and availability of water	Contractor	CSQA firm and PMU	During construction phase regularly	Contractor
5	Waste disposal	The pre-identified disposal location shall be part of comprehensive waste disposal plan. Solid waste management plan to be prepared by the contractor in consultation with local civic authorities. The environmental specialist of PMU shall approve these disposal sites after conducting a joint inspection on the site with the contractor and PMC environmental specialist. Contractor shall ensure that waste shall not be disposed off near water stream in the surroundings of site and along the access path.	Waste disposal sites, waste management plan	Contractor	PMU, PMC, and CSQA firm	Regularly during construction phase	Contractor

Sl. No.	Environmental Issues	Mitigation Measures	Parameter (Indicators for Compliance)	Responsible Implementation	Responsible Supervision	Frequency for Monitoring	Sources of Fund for Implementing Mitigation Measure
6	Stockpiling of construction materials	Stockpiling of construction materials will be done in such a way that it does not impact and obstructs the drainage and movements of locals for accessing their agriculture fields. The stockpiles will be covered by tarpaulin sheet to protect from dust and erosion. The stockpiles shall be bunded so that these are not washed away during intense rainfall.	Stockpiling locations at ASU Interim Campus site	Contractor	CSQA firm, PMU and PMC	Regularly during construction phase	Contractor
7	Arrangement for construction water	The Contractor shall provide a list of locations and type of sources from where water for construction shall be acquired. To avoid disruption/ disturbance to other water users, the contractor shall arrange water from market or from local municipality and consult PMU before finalizing the source.	Water availability at identified water source locations	Contractor	PMU, CSQA firm	Regularly during construction phase	Contractor
8	Siltation of existing water ponds due to spillage of construction wastes	No disposal of construction wastes will be carried out into the existing small water ponds at ITI Guwahati site.	Water ponds at ITI Guwahati.	Contractor	PMU, PMC, and CSQA firm	Regularly during construction phase	Contractor
9	Water pollution from fuel and lubricants	The contractor shall not store fuel and lubricants at site to avoid water pollution on account of spillage. These will be purchased on need basis.	Vehicle parking, refueling sites, etc.	Contractor	PMU, PMC, and CSQA firm	Regularly during construction phase	Contractor

Sl. No.	Environmental Issues	Mitigation Measures	Parameter (Indicators for Compliance)	Responsible Implementation	Responsible Supervision	Frequency for Monitoring	Sources of Fund for Implementing Mitigation Measure
		The maintenance of vehicle and equipment shall be avoided at site. It will be taken up at authorized workshops. The contractor shall ensure that all vehicle/machinery and equipment operation, and refueling shall be carried out in such a manner that spillage of fuels and lubricants does not contaminate the ground. The monitoring of ground water quality will be taken up as per monitoring plan.					
10	Soil pollution due to fuel and lubricants and construction wastes	Fuel and lubricants storage at site will be avoided to avoid soil pollution on account of spillage. These will be purchased on need basis from market. Vehicle and equipment cleaning and washing shall be avoided at site.	Vehicle parking area	Contractor	PMU, PMC and CSQA firm	Regularly during construction phase	Contractor
11	Soil erosion	Adequate measures will be taken up so that there is no soil erosion causing risks in the vicinity.	Excavated areas, erosion measures taken	Contractor	PMU, PMC and CSQA firm	Regularly during construction phase	Contractor
12	Generation of dust	The contractor will take every precaution to reduce the levels of dust at construction site. The	ASU site, air quality	Contractor	PMU, PMC, and CSQA firm	Regularly during construction phase	Contractor

Sl. No.	Environmental Issues	Mitigation Measures	Parameter (Indicators for Compliance)	Responsible Implementation	Responsible Supervision	Frequency for Monitoring	Sources of Fund for Implementing Mitigation Measure
		ASU Interim campus site will be properly barricaded with adequate height (two tier) prefabricated mild steel sheets from all sides to avoid air emissions and dust impacts in the surroundings of site. All filling works to be protected/covered in a manner to minimize dust generation.	monitoring results				
13	Emission from construction vehicles, equipment and machinery	All vehicles, equipment and machinery used for construction shall conform to the relevant Bureau of India Standard (BIS) norms. The discharge standards promulgated under the Environment Protection Act, 1986 shall be strictly adhered to. The silent/quiet equipment available in the market shall be used in the construction. The contractor shall maintain a record of Pollution under Control Certificates (PUCs) for all vehicles and machinery used during the contract period which shall be produced for verification whenever required.	PUC certificates of vehicles and machinery	Contractor	PMU, PMC and CSQA firm	Regularly during construction phase	Contractor
14	Noise pollution	The contractor shall confirm that all construction equipment used in construction shall strictly conform to the MoEFCC	Certificates of vehicles conforming noise	Contractor	PMU, PMC, and CSQA firm	Regularly during construction phase	Contractor

Sl. No.	Environmental Issues	Mitigation Measures	Parameter (Indicators for Compliance)	Responsible Implementation	Responsible Supervision	Frequency for Monitoring	Sources of Fund for Implementing Mitigation Measure
		and CPCB noise standards and all vehicles and equipment used in construction shall be fitted with exhaust silencers. Noise monitoring will be taken up as per monitoring plan. The noisier equipment can be used after class hours of the ITI. Construction works with noise effect can be planned with the holidays of the ITI to further reduce any effect of noise.	standards, noise monitoring results				
15	Impacts on flora and fauna	The PMU and PMC will conduct site induction and environmental awareness program for the construction workers and CSQA Team at site. The workers will be sensitized not to cut the trees (outside site) for fire wood and not to hunt local fauna.	Landscaping area and tree plantation	Contractor	PMU, PMC, and CSQA firm	Regularly during construction phase	Contractor
16	Material handling at construction site	Workers employed on mixing cement, lime mortars, concrete, etc. will be provided with protective footwear and protective goggles. Workers who are engaged in welding works will be provided with welder's protective eye shields.	Data on available personal protective equipment	Contractor	PMU and CSQA firm	Regularly during construction phase	Contractor

Sl. No.	Environmental Issues	Mitigation Measures	Parameter (Indicators for Compliance)	Responsible Implementation	Responsible Supervision	Frequency for Monitoring	Sources of Fund for Implementing Mitigation Measure
		Workers engaged in stone breaking activities will be provided with protective goggles and clothing. The use of any toxic chemical (paints, thinners and anti-corrosive and anti-termite materials, etc.) will be strictly in accordance with the manufacturer's instructions. The PMU site in-charge (District Program Manager /Deputy Director Project) will be given at least 6 working days' notice of the proposed use of any chemical. A register of all toxic chemicals delivered to the site will be kept and maintained up to date by the contractor.					
17	Disposal of construction waste, and debris	The contractor shall confirm that safe disposal of the construction waste will be ensured in the pre-identified disposal locations. In no case, any construction waste will be disposed off around the ASU interim campus site.	Disposal site	Contractor	PMU, PMC and CSQA firm	Regularly during construction phase	Contractor
18	Onsite emergency plan for minor accidents and	The onsite emergency plan will be prepared by the contractor in	Onsite emergency plan document	Contractor	PMU, CSQA firm, and PMC	Mock drill every quarter	Contractor

Sl. No.	Environmental Issues	Mitigation Measures	Parameter (Indicators for Compliance)	Responsible Implementation	Responsible Supervision	Frequency for Monitoring	Sources of Fund for Implementing Mitigation Measure
	mishaps and disaster management plan for natural calamities	consultation with CSQA firm, PMU and PMC. For natural calamities, disaster management plan prepared by the Kamrup Metropolitan district administration under the provisions of Disaster Management Act, 2005 will be followed.	and disaster management plan document of Darrang District				
19	Occupational Health and Safety and COVID-19 measures during construction	Adequate safety measures for workers during handling of materials at the construction site will be taken up. The contractor has to comply with all regulations for the safety of workers. Precaution will be taken to prevent danger of the workers from accidental injuries, fire, etc. First aid treatment will be made available for all injuries likely to be sustained during the course of work. The contractor will comply with all anti-malaria instructions given by the PMU, PMC, and CSQA firm	Records of availability of personal protective equipment, availability of first aid kits	Contractor	PMU, PMC, and CSQA firm	Regularly during construction phase	Contractor

Sl. No.	Environmental Issues	Mitigation Measures	Parameter (Indicators for Compliance)	Responsible Implementation	Responsible Supervision	Frequency for Monitoring	Sources of Fund for Implementing Mitigation Measure
		Necessary COVID-19 protection measures will be taken up as per prescribed protocols of GoA and GoI guidelines. There will not be any use or handling of asbestos containing materials such as roofing sheet and plumbing pipes.					
20	Flooding and Water Logging and construction materials accidental flow with food waters	The contractor will take all measures to barricade the site with MS sheet till permanent boundary wall is constructed. The contractor will maintain quick drainage of site to avoid any water logging and flow of lose construction material with rainwater. The contractor will take all necessary mitigatory measures to ensure that mud and construction materials do not enter agriculture fields of houses from storm water of site.	Flooding and water logging	Contractor	PMU, PMC, and CSQA firm	Regularly during construction phase and especially during monsoon months	Contractor
21	Clearing of construction of camp and restoration	The contractor to prepare site restoration plan for approval by the PMU or its authorized agency (such as CSQA Firm). The plan is to be implemented by the contractor prior to demobilization.	Restoration plan, and records of pre-construction of temporary sites	Contractor	PMU, ASDM, CSQA firm	End of construction phase	Contractor

Table-7: Operation Phase Environmental Management Plan for ASU Interim Campus and Facilities

Sl. No.	Environmental Issues	Mitigation Measures	Parameter (Indicators for Compliance)	Responsible Implementation	Responsible Supervision	Frequency for Monitoring	Sources of Fund for Implementing Mitigation Measure
1	All regulatory permissions for operations of ASU	All regulatory permissions such as building occupancy certificate from civic authorities, NOC from fire department, etc. will be obtained before start of ASU Interim operations.	List of permissions /NOCs required	ASU management team, PMU, and PMC	ASDM	Regularly for validation /renewal of permissions	ASU operational budget
2	Environmental Conditions	Air, water and noise quality will be monitored periodically as per the environmental monitoring plan prepared. The boundary wall and plantation along the periphery will be maintained to avoid any impacts from the ASU Interim campus in the surroundings.	Ambient air quality standards, drinking water quality standards, and ambient noise standards	ASU management team, PMU, and PMC	ASDM	Every season except monsoon for first two years	ASU's operational budgets
3	Safety risks	1- Proper demarcation and flagging of the area requiring safety observations will be taken up after completion of construction works.	Risk area identification, boards for precautionary measures	ASU management team, PMU, and PMC	ASDM	Regularly during operation phase	ASU's operational budgets

Sl. No.	Environmental Issues	Mitigation Measures	Parameter (Indicators for Compliance)	Responsible Implementation	Responsible Supervision	Frequency for Monitoring	Sources of Fund for Implementing Mitigation Measure
		2- Necessary precaution measures to be observed by visitors will be printed on boards and will be prominently put inside the ASU Interim Campus. 3- The hazardous and toxic materials at the laboratories and /or workshops will be handled, stored and disposed as per instructions provided in material safety data sheets.					
4	Unhygienic conditions due to poor maintenance of sanitation facilities and irregular solid waste collection	The ASU operations and management team will carry out maintenance of the toilets and carry out the regular waste collection and disposal of the waste to the local disposal site. Any hazardous waste generated waste generated will be handled as per the provisions of 'Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2016. Any bio-medical waste generated at Medical Center will be handled, stored, transported and as per the provisions of 'Bio-Medical	Maintenance schedule of the toilet blocks, disposal plans of various solid wastes	ASU management team, PMU, and PMC	ASDM	Every quarter	ASU's operational budgets

Sl. No.	Environmental Issues	Mitigation Measures	Parameter (Indicators for Compliance)	Responsible Implementation	Responsible Supervision	Frequency for Monitoring	Sources of Fund for Implementing Mitigation Measure
		Waste Management Rules 2016'. The E-waste generated will be handled and disposed of as per provisions of 'E- Waste Management Rules, 2016'. The used and discarded lead acid batteries for recycling and disposal as per Battery Waste Management Rules, 2020.					
5	Natural disasters	Necessary procedures to be followed by the visitors, students, ASU Interim Campus staff during natural disasters shall be written at prominent locations.	Warnings of disasters by Meteorological Department	ASU management team, PMU, and PMC	District Administration	During disasters	Government of Assam
6	Onsite emergency plan for minor accidents and mishaps and	The operations and management team of ASU will prepare on site emergency plan for possible minor accidents and mishaps (due to fire, handling and storage of hazardous and toxic chemicals at laboratories, workshops, etc.) during operation phase.	Onsite emergency plan document	ASU management team	ASDM	Mock drills every quarter	ASU operational budgets
7	Disposal of waste from ASU Interim campus	The ASU operations and management team will prepare waste disposal plans for municipal waste, bio-	Waste disposal plans for various types of wastes	ASU management team, PMU, and PMC	ASDM	Regularly	ASU operational budgets

Sl. No.	Environmental Issues	Mitigation Measures	Parameter (Indicators for Compliance)	Responsible Implementation	Responsible Supervision	Frequency for Monitoring	Sources of Fund for Implementing Mitigation Measure
		medical waste and hazardous waste in consultations with local civic authorities.					
8	Maintenance of drainage system of ASU Campus	The ASU management Team will maintain drainage system constructed properly to avoid flooding of campus	Drainage maintenance schedule and clearing of drains before monsoon	ASU management team, PMU, and PMC	ASDM	Regularly as per requirements	ASU Operational Budget

C. Environmental Monitoring Plan

54. Environmental monitoring will be undertaken during construction at three levels. Environmental monitoring (which covers EMP implementation and compliance with rules and regulations with respect to the environment, and handling of solid and liquid waste) at site will be undertaken by the contractor during pre-construction and construction phases and will be supervised by PMU (with the support of PMC and CSQA Firm teams). Environmental monitoring during operation phase will be taken up by the PMU through an accredited laboratory. The environment safeguards specialists of the PMU and PMC will ensure that IEE and EMP are updated for any changes in design in accordance with ADB's and GoA's requirements. The CSQA firm team and environmental specialists of PMC and PMU will ensure that all the provisions of the EMP are being adhered to by the contractor. To ensure the effective implementation of mitigation measures and EMP during pre- construction and construction phases of this project, it is essential that an effective environmental monitoring plan is followed as given in below table. The proposed monitoring of all relevant environmental parameters, with a description of the sampling stations, frequency of monitoring, applicable standards and responsible agencies are presented in this table.

Table 8 - Environment Monitoring Plan

Sl. No.	Field (Environmental Attribute)	Phase	Parameters to be Monitored	Locations	Frequency	Responsibility
1	Air quality	During pre-construction phase	CO, NOx, PM_{10}, $PM_{2.5}$, and SO_2 / NAAQS	01	Once in the pre-construction phase to establish baseline	Contractor through NABL accredited monitoring agency
		During construction phase			Once in a quarter except monsoon	
		During operation phase for first two years			Once in a quarter except monsoon	
2	Ground water quality	During pre-construction phase	TDS, TSS, pH, Hardness, BOD, Faecal Coliform IS:10500)	01	Once in the pre-construction phase to establish baseline	Contractor through NABL accredited monitoring agency
		During construction phase			Once in a quarter except monsoon	
		During operation phase for first two years			Once in a quarter except monsoon	
3	Noise Levels	During pre-construction phase	National Ambient Noise Standards	01	Once in the pre-construction phase to establish baseline	Contractor through NABL accredited monitoring agency
		During construction phase			Once in a quarter except monsoon	
		During operation phase for first two years			Once in a quarter except monsoon	

D. Capacity Building

55. In addition to the primary objective of project strengthening industry-aligned and flexible skills education and training systems in Assam, the project will also raise awareness about environmental conservation amongst implementing agency, contractors, CSQA firm team, and local communities. The project will have the opportunity to build capacity in environment protection for the stakeholders. In the operation phase, ASU campus management team will take up awareness about environmental conservation with the assistance of PMU.

56. The environment specialists at PMU and PMC will provide the basic training required for environmental awareness. Specific modules customized for the available skill set will be devised after assessing the capabilities of the members of the training program and the requirements of the project. The training would cover basic principles of environmental assessment and management, mitigation plans and programs, implementation techniques, monitoring methods and tools.

E. Environmental Budget

57. Most of the mitigation measures require the contractor to adopt good site practices, which should be part of their normal procedures, and these are mandated under the prevailing regulations and standards, hence there are unlikely to be major costs associated with compliance. The summary budget for the environmental management costs for the sub-project is presented in below table:

Table 9- Environment Management Cost

Monitoring Component	Rate	Amount (INR)	Source of Fund
Pre-Construction and Construction Phase			
Air, Water, Land and Noise Mitigation Measures	Covered in the construction cost of contractor as EMP is part of bid and contract document.		Contractor
Ambient Air Quality: One location at location of maximum construction activity at Interim Campus site (one sample during pre-construction phase and two samples during construction phase - Total 3 samples)	10,000	30,000	Contractor
Water Quality: One ground water sample from Interim Campus construction site from existing bore well/hand pump (one sample during pre-construction phase and two samples during construction phase - Total 3 samples)	10,000	30,000	Contractor
Ambient Noise Quality: One location of maximum construction activity at Interim	3000	9,000	Contractor

Monitoring Component	Rate	Amount (INR)	Source of Fund
Campus construction site (one sample during pre- construction phase and two samples during construction phase - Total 3 samples)			
Cost for Occupational Health and Safety Measures Occupational health and safety measures at construction site and workers' camp	Covered in the construction cost of contractor as EMP is part of bid and contract document.		Contractor
Capacity Building Training Program	Covered in the consultancy cost of the PMC and operation cost of PMU		
Total: Pre-Construction and Construction Phase Monitoring Cost (A)		**69,000**	
O&M Phase			
Ambient Air Quality One location at Interim Campus, thrice a year, for first 2 years (three samples a year, total of six samples)	10,000	60,000	PMU and Interim Campus
Drinking Water Quality One treated drinking water sample at ASU campus, thrice a year, for first 2 years (three samples a year, total of six samples)	10,000	60,000	PMU and Interim Campus
Ambient Noise Quality One location at ASU campus, thrice a year, for first 2 years (three samples a year, total of six samples)	3000	18,000	PMU and ASU
Maintenance of Plantation, Shrubs and Landscape Areas	Covered in operation and maintenance cost of ASU campus		
Capacity Building	Covered in operation and maintenance cost of ASU campus		
Maintenance of drainage system of ASU campus to avoid water logging and flooding	Covered in operation and maintenance cost of ASU campus		
Total O&M Phase Monitoring Cost (B)		**1,38,000**	
Total Cost (A+B)		2,07,000	
Contingencies @ 5 %		10,350	
Total estimated cost (₹)		**2,17,350 (approx. ₹2,20,000)**	
Total estimated cost (US$)		**US$ 2,693.77**	

Note: Conversion rate US$ to ₹ as on 29th November 2022: 1 US$ = 81.67 ₹

VII. PUBLIC CONSULTATION AND INFORMATION DISCLOSURE

A. Process For Consultations Followed

58. The design and construction of ASU Interim campus and facilities does not involve any elements which could have an adverse impact on the community. There is no deprivation of any sort for the residents or displacement of any groups. Particularly, with regard to environmental impacts, this subproject can be characterized as having no significant adverse impacts.

59. In view of this, the need for holding a public hearing(as defined in EIA Notification 2006 of GoI) was not perceived at this stage as EIA Notification is not applicable to ASU project. However, in compliance with the ADB's guidelines, focused public consultations were undertaken during the site visit to the ASU Interim Campus site in ITI Guwahati Campus. The consultations were held with the ITI Principal, Faculty Members and Students. The stakeholders were informed about the ASU project components and subsequent implementation in their area and their views were obtained. During the preparation of this These consultations were carried out on November 16, 2022. The number of participants (male and female) is given in **Table-10**.

60. The process of consultations was an integral part of the ASU Interim campus design and environmental assessment, in accordance with ADB's guidelines to achieve the following objectives:

- To educate the general public, specially potentially impacted or benefited communities, individuals and stakeholders about the proposed ASU Interim Campus and its design, construction and renovation;
- To familiarize the people with technical and environmental issues of the design, construction and renovation of ASU Interim campus and facilities for better understanding;
- To solicit the opinion of the stakeholders on environmental issues and assess the significance of impacts due to the subproject;
- To foster co-operation among officers of EA and IA, and the stakeholders to achieve a cordial working relationship for smooth implementation of the project; and
- To identify the environmental issues relating to the proposed activity.

61. During the consultations local residents opined that there is need to provide skills and job-oriented education to the youth of Assam State so that better employment opportunities are made available to them. The project will help rural youth in getting training and skills enhancement education. The project will also provide employment and business opportunities to local population during construction and operation phases. The stakeholders demanded fast implementation of the overall project. The dates of consultations and stakeholders consulted are summarized in **Table 10 & 11**. The records of consultations (list of participants with signatures) and consultation photographs are given in **Annexure- 6.**

Table-10: Dates and Stakeholders Consulted

Sl. No.	Stakeholders Consulted	Dates of Consultations	Number of Participants	
			Male	Female
1	Principal, Faculty and students of ITI Guwahati	16 November 2022	35	14

Most of the suggestions of stakeholders were considered in the project design, as shown in **Tables 11**.

Table-11: Views, Comments, and Suggestions of Stakeholders at ASU Interim Campus Site

Sl. No.	Place	Date	Consultations Held with	Issues discussed	Outcome of discussions and consideration in project design and implementation
1	ASU Interim campus site	16/11/2022	ITI Principal, Faculty Members and Students	Project components, benefits of project, implementation schedule, environmental and social impacts during project implementation, etc.	1. Participants, especially ITI Faculty and Students, welcomed the commencement of the project and assured all help during project implementation. The environmental & Social specialist (PMU) and ASU officials thanked the ITI Faculty and Students. 2. One Faculty participant suggested that local population should be given preference in supply of construction materials and employment during construction. The environmental specialist replied that contractors once appointed will procure manpower and materials. At that time local population may interact with them for the supply of materials and employment. 3. One Faculty participant enquired about ITI access road to the ASU Interim Campus site. The environmental specialist replied that access road will be developed and maintained throughout the construction period. 4. The environmental specialist solicited suggestions for environment protection from the participants. The participants suggested that plantation and waste disposal should be done with care. The environmental specialist replied that plantation and landscaping plan for the Interim campus will be prepared and implemented. The solid waste disposal will be as per regulatory requirements. 5. One Faculty participant suggested during discussion that there is intense rainfall so drainage should be maintained. The consultant and ASDM officials informed that campus will be designed with proper drainage system considering rainfall. However, The Principal, faculties and the students reported that there is no flood record of the campus since 1957. 6. Students suggested implementation of mitigation measures for noise generation from construction and renovation of interim campus. The environmental specialist replied that

Sl. No.	Place	Date	Consultations Held with	Issues discussed	Outcome of discussions and consideration in project design and implementation
					all measures will be implemented to avoid inconvenience to students.

B. Future Consultation and Information Disclosure

62. To ensure continued stakeholder participation in the ASU Interim Campus project life cycle, periodic consultations and focus group discussion should be continued. A grievance redress committee (GRC) will be formed at the site and also at PMU level to register grievances regarding technical, social and environmental issues. The participatory process will ensure that all views are adequately reviewed and suitably incorporated in the design and implementation process. Further, to ensure an effective disclosure of the ASU Interim Campus project proposal to the stakeholders and the communities in the vicinity of site, an extensive project awareness campaign will be carried out.

Information Disclosure

63. Electronic version of this IEE will be placed in the official websites of the ASU and ADB (after clearance of this document by the GoA and ADB). On demand, any person seeking information can obtain a hard copy of the complete IEE document by paying cost of photocopy from the office of the PMU and ASU Interim Campus site office on a written request. The hard copies of IEE report summary in Assamese language will be available at ASU office, Guwahati, ASU Interim Campus site office, Deputy Commissioner office, Kamrup Metropolitan district for reference.

64. The PMU will issue notification on the disclosure mechanism on its website ahead of the beginning of the subproject detailing start and end date of construction works. This will create awareness of the project implementation among the public.

C. Grievance Redress Mechanism

65. The affected person(s)/aggrieved party can give their grievance verbally or in written to the ASU Interim Campus site office. Grievances of affected person will first be brought to the attention of the officer in charge of the site (District Program Manager of ASDM), who can resolve the issue at the site level. If the matter is not solved within 7 days period by the site in charge, it will be brought to the GRC constituted for the purpose at site. This GRC shall discuss the issue in its monthly meeting and resolve the issues within one month after receiving the grievance. If the matter is not resolved by GRC at the site level within the stipulated time, it shall be referred to GRC at PMU level by the officer in-charge of the site (District Program Manager) of ASDM.

66. GRC at PMU shall discuss the issue and try to resolve it and inform the ASU site office. If the matter is not resolved by the GRC at PMU level within one month, the matter will be referred to the state level project steering committee (SPC), who will resolve the complaint within one month. However, the aggrieved person/party can bring the matter to the Court of Law any time. The PMU and ASU site office shall keep records of all grievances received including contact details of the complainant, date of receiving the complaint, nature of grievance, agreed corrective actions and the date the actions were taken and their final outcome. A complaint register will be maintained at construction and renovation site. The grievance redress process is shown below. The cost for the operation of GRM will be accounted for in project cost as part of PMU operation.

67. Further, person(s)/aggrieved party who are, or may be, adversely affected by the project may submit complaints to ADB's Accountability Mechanism. The accountability mechanism provides an independent forum and process whereby people can voice, and seek a resolution of their problems, as well as report alleged violations of ADB's operational policies and procedures. Before submitting a complaint to the Accountability Mechanism, affected

person(s) /aggrieved party should first make a good faith effort to solve their problems by working with the ADB South Asia operations department including the India Resident Mission.

D. Composition and functions of GRC

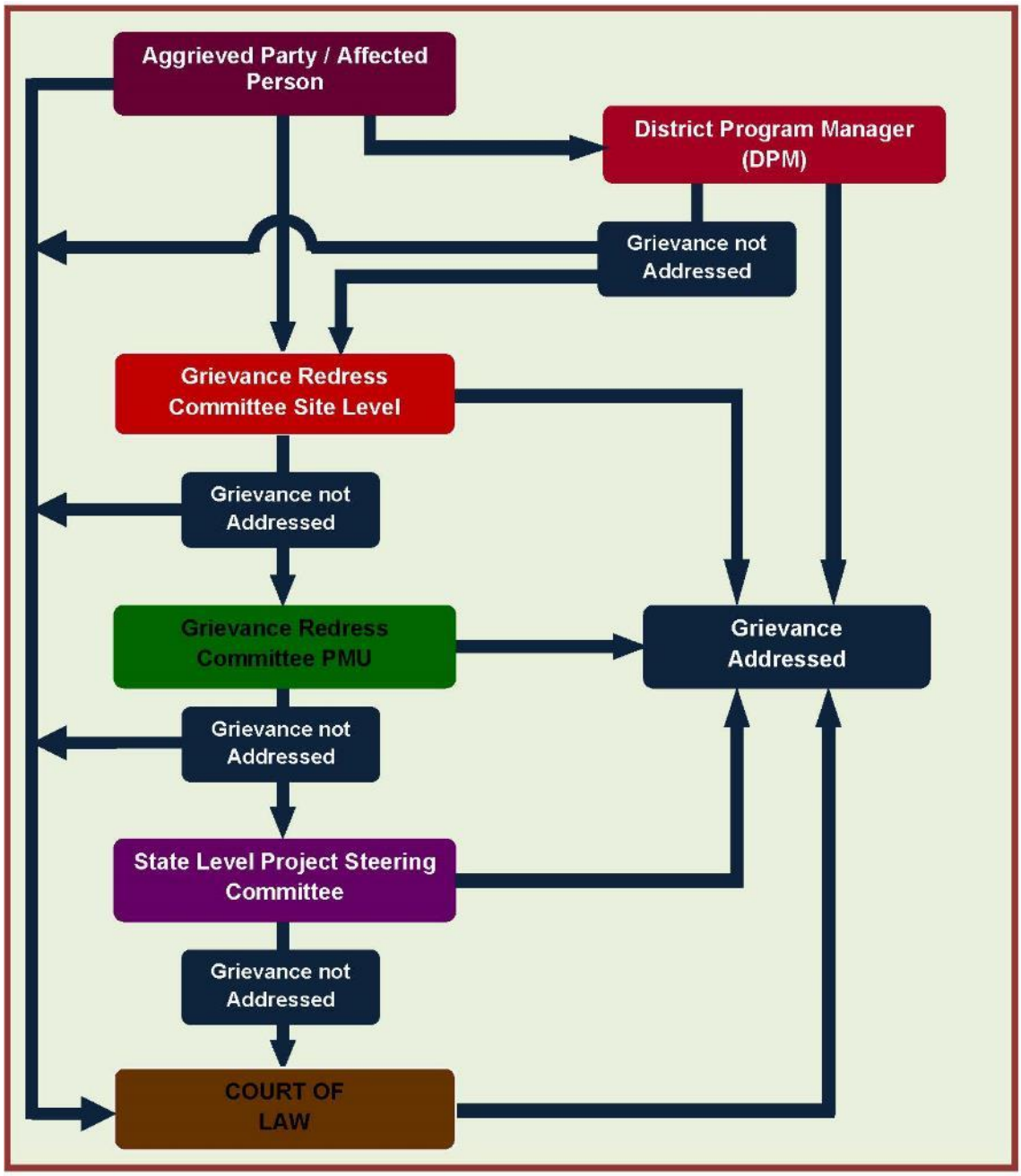
68. **Site Level Grievance Redress Committee (GRC-Site).** This committee will comprise of PMU civil engineer, PMU environment specialist, PMU gender and indigenous peoples specialist, and one local elected representative from Panchayat. The GRC-Site will be headed by District Program Manager of ASDM. It will meet at least once a month. The agenda of the meeting will be circulated to all the members and the affected persons /aggrieved party along with venue, date and time at least a week prior to the meeting. The matters shall remain with GRC for a month at site level for one month.

69. **GRC at PMU.** There shall be one GRC in PMU. GRC at PMU will include the Director ASDM, safeguard specialists (Environmental and Social) of the PMU and Finance Officer/Manager of PMU/ASDM. The Committee shall be headed by the Mission Director, ASDM. This committee shall look into the matters, which are referred to and not resolved by GRC at site level. If the matter is not resolved by the GRC at PMU level within one month, then the aggrieved person or party can bring the matter to the state level project steering committee (PSC) which is in-charge of the project. The GRC mechanism at PMU will also refer the compliant to the PSC. However, the aggrieved person/party can bring the matter to the Court of Law any time during the process or even without approaching the GRC. The PMU and site office shall keep records of all grievances received including contact details of complainant, date of receiving the complaint, nature of grievance, agreed corrective actions and the date these were affected and final outcome. For this a complaint register will be maintained at Interim Campus site. The grievance redress process is shown below. The cost for functioning of GRM will be accounted for in project cost as part of PMU functioning.

70. **Approach to GRC.** Affected person or aggrieved party can approach the GRC for redress of his/their grievances through any of the following modes:

- Web based: A separate corner will be developed at the ASDM/ASU website (s) so that public and affected person can register their complaints in the online column.
- ASU project information board will be installed at site and on this board, contact details (name, phone number and email) of complaint receiving officer will be available.
- Telephone based: A telephone number will be available on the website of ASDM/ASU and at the construction site so that general public can register their complaint through telephone and mobile phone to the ASU interim campus site office and PMU office. One complaint register will also be maintained at the construction site.
- The EA (SEED) has issued an order for the establishment of GRM.
- Construction site. The grievance redress mechanism for the project for safeguards related issues is shown below in **Figure-6**:

Figure-6: Grievance Redress Mechanism (ASU Interim Campus Project)



VIII. FINDINGS AND RECOMMENDATIONS

71. The construction and Renovation of ASU Interim campus does not involve any interventions in and around the natural and cultural heritage destinations and have no significant (direct and indirect) environmental impacts. It is expected that the ASU Interim Campus will offer industry-aligned and flexible skills education and training programs for youths and adults. This will help them in getting gainful employment locally and internationally.

72. This IEE has identified minor likely impacts on water, air and noise during construction and has defined mitigation measures. Minor impacts have also been identified during operation phase and mitigation measures have also been given in the IEE. Those mitigation measures will be implemented and monitored during project implementation. The overall environmental quality of ASU Interim Campus subproject site and surroundings will not be affected as a result of construction, Renovation and operation of ASU Interim campus.

73. The specific management measures laid down in the IEE will effectively address any adverse environmental impacts due to the ASU Interim Campus subproject. The effective implementation of the measures proposed will be ensured through the building of capacity towards environmental management within the PMU supplemented by the technical expertise of safeguards specialists of the PMU and PMC. Further, the environmental monitoring plan provides adequate opportunities towards course correction to address any residual impacts during construction and Renovation of ASU Interim Campus.

IX. CONCLUSIONS

74. On the basis of the IEE, it is expected that the subproject has only minor, localized, temporary and reversible environmental impacts. The construction, Renovation and operation of ASU Interim campus does not result into any specific and /or irreversible impacts. The identified impacts can be easily mitigated through adequate mitigation measures and regular monitoring during the design, construction and post construction phases of the project. Negative impacts on water, air quality and noise levels during civil works will be appropriately monitored and adequately mitigated. This report has not identified any comprehensive, broad, diverse or irreversible adverse impacts caused by the ASU Interim Campus subproject. Based on the findings of the IEE, the classification of the project as Category “B” is confirmed. No further special study or detailed EIA needs to be undertaken to comply with ADB SPS (2009).

ANNEXURE-1: MOEFCC NOTIFICATION ON EXEMPTION OF ENVIRONMENTAL CLEARANCE FOR EDUCATIONAL INSTITUTIONS

MINISTRY OF ENVIRONMENT, FORESTS AND CLIMATE CHANGE

NOTIFICATION

New Delhi, the 22nd December, 2014

S.O. 3252(E).—Whereas, a draft notification further to amend the notification number S.O 1555(E), dated the 14th September, 2006 (hereinafter referred to as the principal notification), was published, as required under sub-rule (3) of rule 5 of the Environment (Protection) Rules, 1986 in the Gazette of India ,Extraordinary, Part II, Section 3, Sub-section (ii) *vide* number S.O. 2319, (E) dated the 11th September, 2014 (hereinafter referred to as the said notification), inviting objections and suggestions from all persons likely to be affected thereby within a period of sixty days from the date on which copies of Gazette containing the said notification were made available to the public;

And whereas, copies of the said notification were made available to the public on 11th September, 2014;

And whereas, no objections or suggestions have been received in response to the said notification within the specified period of sixty days;

Now, therefore, in exercise of the powers conferred by Sub-section (1) and clause (v) of Sub-section (2) of Section 3 of the said Environment (Protection) Act, 1986 (29 of 1986) read with clause (d) of sub-rule (3) of rule 5 of the Environment (Protection) Rules, 1986, the Central Government hereby makes the following amendments in the said notification, namely:—

In the principal notification, in the Schedule, under Column (1), for item 8 relating to Building/Construction Projects/Area Development Projects and Townships and sub-items 8 (a) and 8 (b) and the entries relating thereto, specified there under, the following item, sub-items and entries shall be substituted, namely:—

(1)	(2)	(3)	(4)	(5)
"8		**Building or Construction projects or Area Development projects and Townships**		
8 (a)	Building and Construction projects		>20000 sq.mtrs and < 1,50,000 sq. mtrs. of built up area	The term "built up area" for the purpose of this notification the built up or covered area on all floors put together, including its basement and other service areas, which are proposed in the building or construction projects. **Note 1.-** The projects or activities shall not include industrial shed, school, college, hostel for educational institution, but such buildings shall ensure sustainable environmental management, solid and liquid waste management, rain water harvesting and may use recycled materials such as fly ash bricks. **Note 2.-** "General Conditions" shall not apply.
8	Townships and Area Development Projects		Covering an area of > 50 ha and or built up area > 1,50,000 sq. mtrs	A project of Township and Area Development Projects covered under this item shall require an Environment Assessment report and be appraised as Category 'B1' Project. **Note.-** "General Conditions" shall not apply.

[F. No. 19-2/2013-IA-III]

MANOJ KUMAR SINGH, Jt. Secy.

Note: The principal rules were published in the Gazette of India, Extraordinary, Part II, Section 3, Sub-section (ii) *vide* Notification Number S.O. 1533(E), dated the 14th September, 2006 and was subsequently amended as follows:—

1. S.O. 1737 (E), dated the 11th October, 2007;
2. S.O. 3067 (E), dated the 1st December, 2009;
3. S.O. 695 (E), dated the 4th April, 2011;
4. S.O. 2896 (E), dated the 13th December, 2012;
5. S.O.674(E), dated the 13th March, 2013;
6. S.O. 2559 (E), dated the 22nd August, 2013 ;
7. S. O. 2731 (E), dated the 9th September, 2013;
8. S. O. 562(E), dated the 26th February 2014; and
9. S. O. 1599(E), dated the 25th June, 2014.

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and Published by the Controller of Publications, Delhi-110054.

F. No. 19-2/2013-IA-III
Government of India
Ministry of Environment, Forest and Climate Change
(Impact Assessment Division)
****

Indira Paryavaran Bhawan
Aliganj, Jor Bagh Raod
New Delhi-110 003

Dated: 09th June, 2015

OFFICE MEMORANDUM

Sub: Clarification regarding Gazette Notification No. S.O. 3252 (E) dated 22.12.2014 on applicability of Environment Clearance-reg.

Vide Gazette Notification No. S.O. 3252 (E) dated 22.12.2014, the Ministry of Environment, Forest and Climate Change has exempted the School, College and Hostel for educational institution from obtaining prior Environment Clearance under the provisions of the EIA Notification, 2006 subject to Sustainable Environmental Management.

The Ministry is in receipt of representation from various educational institutions regarding issuing clarification on status of universities, and other educational institutions. The matter has been further examined in the Ministry and it is clarified that the Notification No. S.O. 3252 (E) dated 22.12.2014 provides exemption to buildings of educational institutions including universities form obtaining prior Environment Clearance under the provisions of the EIA Notification, 2006 subject to sustainable environmental Management. In case of medical universities/institutes the component of Hospitals will continue to require prior Environment Clearance.

The Guidelines to be followed for building projects to ensure sustainable environmental management in pursuance of Notification No. S.O.3252 (E) of 22nd December 2014 under EIA Notification 2006 are at Annexure-I.

This issues with the approval of the Competent Authority.

9.6.15
(Manoj Kumar Singh)
Joint Secretary

Copy to:-

1. All the officers of IA Division
2. The Chairperson/Member Secretaries of all the SEIAAs/SEACs.
3. The Chairman of all the Expert Appraisal Committees
4. The Chairman, CPCB
5. The Chairpersons/Member Secretaries of all SPCBs/UTPCCs.
6. IT Consultant, MoEFCC for uploading into the website.

Copy for information:

1. PS to MOS (Independent Charge).
2. PPS to Secretary (EF&CC).
3. All Divisional Head.
4. Website, MoEF&CC
5. Guard File.

ANNEXURE-I

GUIDELINES TO BE FOLLOWED FOR BUILDING AND CONSTRUCTION PROJECTS TO ENSURE SUSTAINABLE ENVIRONMENTAL MANAGEMENT IN PURSUANCE OF NOTIFICATION No. S.O. 3252 (E) OF 22nd DECEMBER, 2014 UNDER ENVIRONMENT IMPACT ASSESSMENT NOTIFICATION, 2006

[INDUSTRIAL SHED AND EDUCATIONAL INSTITUTIONS]

The Notification dated 22nd December, 2014 has taken out the industrial shed*, school, college, hostel for educational institution from the requirement of prior Environment Clearance (EC) under EIA Notification, 2006 and stipulated that such buildings shall ensure sustainable environmental management, solid and liquid waste management, rain water harvesting and may use recycled materials such as fly ash bricks. These Guidelines will be applicable to all buildings and constructions which come under the ambit of Notification No. S.O. (E) 3252 of 22nd December 2014. To ensure sustainable environment management these guidelines as suited will be applicable on the projects under Item 8 (a) of EIA Notification in addition to the conditions stipulated in the EC.

Land, Air, Noise, Water, Energy, Biological, Socio-economic, and Solid & other Waste Management are the main environment facets to be considered in relation to pre, during & post building construction, therefore, it is necessary to ascertain the baseline data of these environmental facets.

The project proponent should file the information about description of project as per points described below prior to start of the project. Information pertaining to compliance on other points be filed at six monthly interval to the respective State Pollution Control Board and the Regional Office of the Ministry of Environment, Forests and Climate Change.

The compliance of the following will be ensured by the respective State Pollution Control Board before giving 'Consent-to-Operate' to industries and by the Local Urban Bodies and the Development Authorities while giving the 'Occupancy Certificate' to the buildings and constructions. These Certificates should be submitted by the above authorities to the Regional Office of MoEFCC. Ministry of Environment, Forest and Climate Change can assess/evaluate/monitor the compliance of conditions enumerated in the Guidelines through verification by Regional Offices or deputed organisations / person.

S. No.	Environmental Parameters	Implementation and monitoring parameters to be included in local by-laws.
a.	Pre-requisites	**Brief description of the project** 01. Name of the Project, Survey number, Village, Taluka, District, State to be mentioned with Google Earth Image and GPS Co-ordinates of the plot to be submitted. 02. Location & distance from nearby landmark places / services to be mentioned. 03. Total Built-up area (FSI and Non- FSI) should be mentioned with detailed calculations certified by local planning and sanctioning authority. 04. Form 1, Form 1A and Consolidated statement as per Environment Notification dated September 14, 2006 to be submitted to local planning and sanctioning authority, Regional Office, MoEFCC and SPCB
b.	Environment Impacts on Project Land	05. The building layout, set-back/side margin, podium, basement ventilation etc. is prepared based on local building bye-laws and is approved by local competent authorities. The Project Proponent shall obtain all necessary clearance/ permission from all relevant agencies including Town Planning Authority before commencing the work. 06. Provisional fire NOC to be obtained from local CFO (Chief Fire Officer) 07. "Consent-to-Establish and Consent-to-Operate" shall be obtained as required from State Pollution Control Board as provided in the Air (Prevention and Control of Pollution) Act, 1981 and Water (Prevention and Control of Pollution) Act, 1974 08. The project proponent shall put in place a credible enforcement mechanism for compliance of energy conservation measures with its allottees, as projected, in perpetuity. This would be monitored by the designated Energy Conservation/ efficiency Authority in the State. 09. Soil and ground water samples will be tested to ascertain that there is no

		threat to ground water quality by leaching of heavy metals and other toxic contaminants.
		10. Top fertile soil to be preserved and to be later used in landscape.
		11. The excavation/demolition debris must be disposed off in designated landfill areas or to be used within site for levelling purpose. Under no circumstance, the debris will be disposed in river bed/lakes etc.
		12. Undertaking to be given by project proponent that occupancy will be given only after drainage and water connections are in place.
		13. Dust/smoke prevention measures such as wheel washing, water sprinkler, screening, barricading and debris chute must be installed.
		14. This should comply with the provisions of eco-sensitive zone regulations, coastal zone regulations, heritage areas (identified in the master plan or issued separately as specific guidelines), water body zones (in such zones, no construction is permitted in the water-spread and buffer belt of 30 m minimum around the FTL [full tank level]), various hazard prone area regulations, and others if the site falls under any such area.
		15. The site planning should take into account heat island effect, size and density of the built-up areas cause heat island effect, wherein higher air temperatures are created in the dense urban areas as against the low-rise surrounding built-up areas. The solar access in the morphology of clusters can be understood in terms of utilization of direct (and not reflected or diffused) solar radiation, mainly for day lighting and heat gain. This defines the minimal distances between the buildings and the relations between built-up volume and open spaces.
		16. The proportion of open spaces and built-up edges should be designed such that it ensures winter solar access and summer ventilation.
c.	Water	17. Proponent shall obtain permission for ground water withdrawal from State Ground Water Authority.
		18. Storm water control and its re-use as per CGWB and BIS standards for various applications.
		19. The natural flow of existing storm water channel should not be altered or diverted.
		20. Keeping in view the use of large quantities of water in curing, measures for reducing water demand during construction should be followed. Curing water should be sprayed on concrete structures; free flow of water should not be allowed for curing. After liberal curing on the first day, all concrete structures should be painted with curing chemical to save water. Concrete structures should be covered with thick cloth/gunny bags and then water should be sprayed on them. This would avoid water rebound and will ensure sustained and complete curing. Ponds should be made using cement and sand mortar to avoid water flowing away from the flat surface while curing.
		21. The developer should ensure groundwater and municipal water meet the water quality norms as prescribed in the Indian Standards for various applications (Indian Standards for drinking [IS 10500-1991], irrigation applications [IS 11624-1986]).
		22. The use of potable water during construction should be minimized.
		23. Separation of grey and black water should be done by the use of dual plumbing line for separation of grey and black water.
		24. Source of water to be identified.
		25. Water treatment measures such as filtration, softeners, RO etc should be implemented.
		26. Low flow fixtures and sensors to be used to promote water conservation.
		27. Water meters to be installed to monitor consumption of water.
		28. Water balance table/chart should be prepared.
d.	Waste Water Treatment	29. Sewage treatment plant of capacity capable of treating 100% waste water to be installed on site.
		30. Tertiary treatment such as dual media filter, activated carbon filter and ozonization/ chlorination to be provided so that the treated water

		characteristics are as per Central Pollution Control Board (CPCB) norms.
		31. If STP and pump room are installed in basement, adequate ventilation as per NBC air changes norms should be provided.
		32. Treated waste water to be recycled for flushing and gardening.
e.	Drainage Pattern	33. Excess treated water disposal plan to be submitted.
		34. Total paved area of the site under parking, roads, paths or any other use should not exceed 25% of the site area or net imperviousness of the site not to exceed the imperviousness factor as prescribed by the NBC 2005 (BIS 2005b), whichever is more stringent.
		35. The final disposal point for excess treated water discharge will be municipal sewer for areas where sewerage network is present.
		36. In areas where sewerage network is absent, the excess treated water can be used for agriculture or can be disposed off as per CPCB rules.
		37. Storm water disposal plan to be submitted.
		38. The final disposal point for storm water will be municipal storm drain for areas where storm water network is present.
		39. In areas where storm water network is absent, the storm water surface runoff can be disposed off in nearby natural water streams/ nallas.
f.	Ground Water	40. Hydro-geological survey for ground water analysis shall be submitted.
		41. Aquifer capacity and Ground water yield shall be determined.
		42. Rain water harvesting plan shall be submitted indicating the number of recharge pits and bores and total rain water to be harvested.
		43. Rain water to be harvested and as a safety precaution, rainwater on-line filters be provided as per NBC norms.
g.	Solid Waste Management	**A} During construction phase:**
		44. Disposal of muck during construction phase should not create any adverse effect on the neighbouring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority. The Rules on the Solid Waste Management including Construction Waste issued by the MoEFCC as amended will be applicable.
		45. Construction spoils, including bituminous material and other hazardous materials, must not be allowed to contaminate watercourses and the dump sites for such material must be secured so that they should not leach into the ground water.
		46. Any hazardous waste generated during construction phase, should be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
		47. Miscellaneous site debris such as broken tiles etc shall be used on site for leveling /backfilling purpose.
		48. Packaged STP /mobile toilets shall be provided for labour camp.
		49. Polymer bags used for cement and gypsum shall be handed over to authorized recyclers.
		50. Cardboard boxes and other packaging material will be handed over to authorized recyclers.
		B} Post construction phase:
		51. Organic waste composter (OWC) or Vermiculture pits shall be installed on site for biodegradable waste treatment (capacity calculated at 0.3kg/tenement/day) The manure generated shall be used for landscaping.
		52. The non-biodegradable waste or e-waste shall be handed over to authorized recyclers.
		53. STP sludge shall be removed using filter press or centrifuge mechanism. The dried sludge cakes shall be used as manure in landscaping.
		54. Minimize waste generation, streamline waste segregation, storage, and

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		disposal; and promote resource recovery from waste. 55. Resource recovery from waste: Employ resource recovery systems for biodegradable waste as per the Solid Waste Management and Handling Rules, 2000 of the MoEFCC. Make arrangements for recycling of waste through local dealers. 56. Use of covering sheets should be done for trucks to prevent dust dispersion from the trucks and washing of tyres when trucks with soil / debris coming on road. 57. Hazardous Waste Management: Products, such as paints, cleaners, oils, batteries, and pesticides that contain potentially hazardous ingredients require special care when being disposed. Improper disposal of household hazardous wastes can include pouring them down the drain, on the ground, into storm sewers, or in some cases putting them out with the trash. The hazardous wastes from construction and demolition activities are centering oil, formwork oil, tar and tar products (bitumen, felt, waterproofing compounds, etc.), wood dust from treated wood, lead containing products, chemical admixtures, sealants, adhesive solvents, Explosives and related products and equipment used in excavation, acrylics, and silica, etc.
h.	Air Quality and Noise Levels.	**A} During construction phase:** 58. The diesel required for operating DG sets shall be stored in underground tanks and clearance from Chief Controller of Explosives shall be taken, as applicable. 59. Ambient noise levels should conform to residential standards both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality should be closely monitored during construction phase. Adequate measures should be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB/ SPCB. 60. Burning of waste to be banned. 61. The construction site DG to be maintained regularly so that the smoke emission and noise levels are as per permissible norms. 62. Regular P.U.C check for all construction machinery coming on site be done. 63. Noise cancellation and insulation devices such as mufflers, barricades etc to be used to avoid noise propagation to adjoining areas. **B} Post construction phase:** 64. DG to be regularly maintained so that the smoke emission and noise levels are as per permissible norms. It shall be at least 6 meters away from the boundary. 65. Air quality monitoring to be done quarterly. 66. STP and water pumps, air blowers etc should be installed with noise cancellation devices or suitable acoustical enclosures to be given so that the noise levels as per NBC norms are maintained. **C} During Construction & Operation** 67. The provisions of the Air (Prevention and Control of Pollution) Act, 1981 (14 of 1981) and the rules made thereunder be complied for control of noise pollution during construction and operation. 68. Setting up the barriers: National Building Code 2005 suggests that design solutions such as barrier blocks should be used to reduce external LA10 noise levels to at least 60-70 dB (A) at any point 1.0 m from any inward looking façade. Green belts and landscaping could act as an effective means to control noise pollution. In case of railway tracks, a minimum distance of 50m to 70m may be provided between the buildings and the tracks.
i.	Energy	69. Appropriate processes and material be used to encourage reduction in carbon foot print. 70. Use of glass be reduced by up-to 40% to reduce the electricity consumption and load on air-conditioning. If necessary, use high quality double glass with special reflective coating in windows. 71. Solar water heater to be provided adequately.

72. Common area lighting should be Solar / LED.
73. Install energy meters to monitor overall consumption, and timer-switch for all common area lighting, and other consumption of measurable energy.
74. Fly ash should be used as building material in the construction as per the provisions of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 3rd November, 2009.
75. Wherever possible recycled materials having low embodied energy be used.
76. Use of light coloured, reflective roofs having an SRI (solar reflectance index) of 50% or more should be promoted. The dark coloured, traditional roofing finishes have SRI varying from 5% to 20%.
77. Optimize use of energy systems in buildings that should maintain a specified indoor environment conducive to the functional requirements of the building by following mandatory compliance measures (for all applicable buildings) as recommended in the Energy Conservation Building Code (ECBC) 2007 of the Bureau of Energy Efficiency, Government of India. The energy systems include air conditioning systems, indoor lighting systems, water heaters, air heaters, and air circulation devices.
78. Use the concept of passive solar design of buildings using architectural design approaches that minimize energy consumption in buildings by integrating conventional energy-efficient devices, such as mechanical and electrical pumps, fans, lighting fixtures, and other equipment, with the passive design elements, such as building orientation, landscaping, efficient building envelope, appropriate fenestration, increased day lighting design, and thermal mass.
79. The building should be oriented optimally based on Sun-path and engineering analysis to curtail excessive solar radiations.
80. Lighting systems should comply with the ECBC 2007 and applicable to interior spaces of buildings, exterior building features, including facades, illuminated roofs, architectural features, entrances, exits, loading docks, and illuminated canopies, exterior building grounds etc. except emergency lighting and lighting in dwelling units.
81. All the point light sources installed in the building for general lighting shall be LEDs or LEDs or equivalent. All the linear light sources installed in the building for general lighting shall be T-5 or at least 4 Star BEE rated TFLs or equivalent. The installed interior lighting power shall not exceed the LPD (Lighting Power Density) value as recommended by ECBC 2007.
82. Automatic Lighting shutoff control be installed: Interior lighting/Exterior Lighting systems shall be equipped with an automatic control device in accordance with ECBC 2007. Occupancy sensors that shall turn the lighting off within 30 minutes of occupant leaving the space. It should also have option for manual turning on lights when the space is occupied. ECBC requires controls in day lit areas that are capable of reducing the light output from luminaries by at least half and Controlling of exterior lighting with photo-controls where lighting can be turned off after a fixed interval.
83. The tapping of renewable sources of energy for lighting, heating, cooling and ventilation needs, deserve special attention. For captive solar power generation, a minimum of 15 percent of sanctioned load is the requirement.
84. Solar photovoltaic (SPV) systems are direct energy conversion systems that convert solar radiation into electric energy. SPV systems should be installed to reduced use of conventional sources of energy. Roof tops of buildings as well as other exposed areas such as of parking shades should be utilized for installation of SPV systems.
85. Hot water requirement in buildings should be met through use of various types of solar water heating systems, viz. flat plate collector: single glazed double glazed; evacuated tube collectors; and Water heating with solar concentrators.
86. The Project Proponent should ensure regular energy audit.
    i. To validate the predicted energy consumption, thermal comfort, and visual comfort criteria by an energy auditor approved by the BEE, Government of India.

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		ii. To ascertain continued safety in the operation of the electrical and mechanical systems of the building through proper maintenance by the owner or the occupants.
		87. This will be ensured in the contract document by providing for the commissioning of all electrical and mechanical systems by the respective supplier or builder. Moreover, the respective facility management group, assigned by the owner or the occupants themselves, will carry out the maintenance facilities.
		88. Energy conservation measures like installation of CFLs/LEDs for the lighting the areas outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs and TFLs should be properly collected and disposed off /sent for recycling as per the prevailing guidelines/ rules of the regulatory authority to avoid mercury contamination. Use of solar panels may be done to the extent possible.
j.	Traffic Movement System	89. Width of driveways, parking provision, ramp width and slope to be kept as per local bye laws.
k.	Provisions for Differently able	90. The Project Proponent should provide at least the minimum level of accessibility for persons with disabilities. • Ensure accessibility and usability of the facilities in the building by employees, visitors and clients with disabilities. • Ensure access to facilities and services by adopting appropriate site planning to eliminate barriers as per the recommended standards (NBC 2005 [BIS 2005f]). • Layout and designing of interior and exterior facilities as per principles of universal design such as prescribed by the National Building Code of India, building management policies and procedures, provision of auxiliary aids & appliances, and staff training in disability awareness.
l.	Green Belt/Green Cover	91. Provide minimum 1 tree for every 80 sq.mt of plot area. 92. Wherever trees are cut or transplanted, compensatory plantation in the ratio of 1:3 to be done in the premise. 93. Native species of trees to be planted. 94. Vegetation to provide as shading and promote evaporative cooling. In hot and dry climates, evaporative cooling through appropriately sized wet surfaces or fountains have a desirable effect. It should be planned for maximum benefit. 95. The project should have detail proposal for tree plantation, landscaping, creation of water bodies etc along with a layout plan to an appropriate scale.
m.	Disaster/Risk Assessment Plan	96. Fire tender movement plan to be submitted. 97. Firefighting system to be provided as per the fire NOC. 98. Turning radius to be kept as per Fire NoC or as prescribed in the local by-laws. 99. Public address system to be installed as per the Fire Safety norms. 100. Place of assembly to be indicated.
n.	Socio Economic Impact and CSR	101. Biodegradable and non-biodegradable waste bins to be provided for every household to promote waste segregation at source. 102. Importance of environment and various environment drives to be initiated. 103. Importance of maintenance of environment infrastructure to be showcased by issuing pamphlets etc. 104. Provision for health care, medical kit, crèche, First-Aid room shall be given during construction phase for the construction workers. 105. Adequate shelter for resting hours, crèche, clean and potable drinking water to be provided to construction workers. 106. All local labour welfare laws must be complied. 107. Concerns of the communities being affected by the Project are to be responded on priority, and all possible CSR is to be rendered to make the responses effectively beneficial..

o.	Environment Management Plan (EMP)	108. Detailed environment management plan comprising of estimated capital cost and O&M cost for the following environment infrastructure should be submitted: **a.** Sewage Treatment Plant **b.** Landscaping **c.** Rain Water Harvesting **d.** Power backup for environment infrastructure. **e.** Environment Monitoring **f.** Solid Waste Management **g.** Solar and Energy Conservation 109. Environment Monitoring Cell with defined functions and responsibility shall be set up and its details be submitted.

END NOTE:
Industrial Shed*: The word 'industrial shed' implies building (whether RCC or otherwise) which is being used for housing plant and machinery of industrial units and shall include godowns and buildings connected with production related and other associated activities of the unit in the same premise.

Page 7 of 7

MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

NOTIFICATION

New Delhi, the 14th November, 2018

S.O. 5733(E).—In exercise of the powers conferred by section 23 of the Environment (Protection) Act, 1986 (29 of 1986), the Central Government hereby delegates the power to local bodies such as Municipalities, Development Authorities, District Panchayatsas the case may be,to ensure the compliance of the environmental conditions as specified in the Appendix in respect of building or construction projects with built-up area ≥20,000 sq. mtrs. To 50,000 sq. mtrs. and industrial sheds, educational institutions, hospitalsand hostels for educational institutions≥20,000 sqmupto 1,50,000 sqm along with building permissionand to ensure that the conditions specified in Appendix are complied with, before granting the occupation certificate/completion certificate.

APPENDIX

Environmental Conditions for Buildings and Constructions

(Category: Building or Construction projects or Area Development projects and Townships≥ 20,000 to <50,000 Square meters as well as for industrial sheds, educational institutions, hospitals and hostels for educational institutionsfrom 20,000 sq.mto<1,50,000 sq.m)

S.N.	MEDIUM	ENVIRONMENTAL CONDITIONS
(1)	(2)	(3)
1	Topography and Natural Drainage	The natural drain system shall be maintained for ensuring unrestricted flow of water. No construction shall be allowed to obstruct the natural drainage through the site. No construction is allowed on wetland and water bodies. Check dams, bio-swales, landscape, and other sustainable urban drainage systems (SUDS) are allowed for maintaining the drainage pattern and to harvest rain water. Buildings shall be designed to follow the natural topography as much as possible. Minimum cutting and filling should be done.
2	Water Conservation,	A complete plan for rain water harvesting, water efficiency and conservation should be prepared and implemented.

	Rain Water Harvesting and Ground Water Recharge	Use of water efficient appliances should be promoted with low flow fixtures or sensors. The local bye-law provisions on rain water harvesting should be followed. If local bye-law provision is not available, adequate provision for storage and recharge should be followed as per the Ministry of Urban Development Model Building Bye-laws, 2016. A rain water harvesting plan needs to be designed where the recharge bores of minimum one recharge bore per 5,000 square meters of built up area and storage capacity of minimum one day of total fresh water requirement shall be provided. In areas where ground water recharge is not feasible, the rain water should be harvested and stored for reuse. The ground water shall not be withdrawn without approval from the Competent Authority. All recharge should be limited to shallow aquifer.
2(a)		At least 20 per cent of the open spaces as required by the local building bye-laws shall be pervious. Use of Grass pavers, paver blocks, landscape etc. with at least 50 per cent opening in pavingwhich would be considered as pervious surface.
3	Waste Management	Solid waste: Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Sewage: Onsite sewage treatment of capacity of treating 100 per cent waste water to be installed. Treated waste water shall be reused on site for landscape, flushing, cooling tower, and other end-uses. Excess treated water shall be discharged as per statutory norms notified by Ministry of Environment, Forest and Climate Change. Natural treatment systems shall be promoted. Sludge from the onsite sewage treatment, including septic tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Central Public Health and Environmental Engineering Organisation(CPHEEO)Manual on Sewerage and Sewage Treatment Systems, 2013. The provisions of the Solid Waste (Management) Rules 2016 and the e-waste (Management) Rules 2016, and the Plastics Waste (Management) Rules 2016 shall be followed.
3 (a)		All non-biodegradable waste shall be handed over to authorized recyclers for which a written tie up must be done with the authorized recyclers.
3(b)		Organic waste compost/ Vermiculture pit with a minimum capacityof 0.3 kg per person per day must be installed.
4	Energy	Compliance with the Energy Conservation Building Code (ECBC) of Bureau of Energy Efficiency shall be ensured. Buildings in the States which have notified their own ECBC, shall comply with the State ECBC. Outdoor and common area lighting shall be Light Emitting Diode (LED). Concept of passive solar design that minimize energy consumption in buildings by using design elements, such as building orientation, landscaping, efficient building envelope, appropriate fenestration, increased day lighting design and thermal mass etc. shall be incorporated in the building design. Wall, window, and roof u-values shall be as per ECBC specifications.
4 (a)		Solar, wind or other Renewable Energy shall be installed to meet electricity generation equivalent to 1 per cent of the demand load or as per the state level/ local building bye-laws requirement, whichever is higher.
4 (b)		Solar water heating shall be provided to meet 20 per cent of the hot water demand of the commercial and institutional building or as per the requirement of the local building bye-laws, whichever is higher. Residential buildings are also recommended to meet its hot water demand from solar water heaters, as far as possible.
4 (c)		Use of environment friendly materials in bricks, blocks and other construction materials, shall be required for at least 20 per cent of the construction material quantity. These include flyash bricks, hollow bricks, Autoclaved Aerated Concrete (AAC), Fly Ash Lime Gypsum blocks, Compressed earth blocks, and

		other environment friendly materials. Fly ash should be used as building material in the construction as per the provisions of the Fly Ash Notification,S.O. 763(E) dated 14th September, 1999 as amended from time to time.
5	Air Quality and Noise	Roads leading to or at construction sites must be paved and blacktopped (i.e. metallic roads). No excavation of soil shall be carried out without adequate dust mitigation measures in place. No loose soil or sand or Construction & Demolition Waste or any other construction material that causes dust shall be left uncovered. Wind-breaker of appropriate height i.e. 1/3rd of the building height and maximum up to 10 meters shall be provided. Water sprinkling system shall be put in place. Dust mitigation measures shall be displayed prominently at the construction site for easy public viewing. Grinding and cutting of building materials in open area shall be prohibited. Construction material and waste should be stored only within earmarked area and road side storage of construction material and waste shall be prohibited. No uncovered vehicles carrying construction material and waste shall be permitted. Construction and Demolition Waste processing and disposal site shall be identified and required dust mitigation measures be notified at the site Dust, smoke and other air pollution prevention measures shall be provided for the building as well as the site. Wet jet shall be provided for grinding and stone cutting. Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust. All demolition and construction waste shall be managed as per the provisions of the Construction and Demolition Waste Rules 2016. All workers working at the construction site and involved in loading, unloading, carriage of construction material and construction debris or working in any area with dust pollution shall be provided with dust mask. For indoor air quality the ventilation provisions as per National Building Code of India.
5 (a)		The location of the Genset and exhaust pipe height shall be as per the provisions of the statutory norms notified by Ministry of Environment, Forest and Climate Change The Genset installed for the project shall follow the emission limits, noise limits and general conditions notified by Ministry of Environment, Forest and Climate Change vide GSR 281(E) dated 7th March 2016 as amended from time to time.
6	Green Cover	A minimum of 1 tree for every 80 sq.mt. of land should be planted and maintained. The existing trees will be counted for this purpose. Preference should be given to planting native species.
6 (a)		Where the trees need to be cut, compensatory plantation in the ratio of 1:3 (i.e. planting of 3 trees for every 1 tree that is cut) shall be done and maintained.
7	Top Soil preservation and reuse	Topsoil should be stripped to a depth of 20 cm from the areas proposed for buildings, roads, paved areas, and external services. It should be stockpiled appropriately in designated areas and reapplied during plantation of the proposed vegetation on site.
8	Transport	The building plan shall be aligned with the approved comprehensive mobility plan (as per Ministry of Housing and Urban Affairs best practices guidelines (URDPFI)).

[F. No 3-49/2017-IA.III-Pt]

JIGMET TAKPA, Jt. Secy.

ANNEXURE-2: RAPID ENVIRONMENTAL ASSESSMENT (REA) CHECKLIST

Instructions:

(i) The project team completes this checklist to support the environmental classification of a project. It is to be attached to the environmental categorization form and submitted to the Environment and Safeguards Division (SDES) for endorsement by Director, RSES and for approval by the Chief Compliance Officer.

(ii) This checklist focuses on environmental issues and concerns. To ensure that social dimensions are adequately considered, refer also to ADB's (a) checklists on involuntary resettlement and Indigenous Peoples; (b) poverty reduction handbook; (c) staff guide to consultation and participation; and (d) gender checklists.

(iii) Answer the questions assuming the "without mitigation" case. The purpose is to identify potential impacts. Use the "remarks" section to discuss any anticipated mitigation measures.

Country/Project Title	India (53277): Assam Skill University Project (Establishment, Operation and Management of Interim Campus)
Sector Division:	SAHS

Screening Questions	Yes	No	Remarks
A. Project Sitting Is the project area adjacent to or within any of the following areas:			The project (output 3) involves Establishment, Operation and Management of Interim Campus, Therefore, the Interim campus will help to initiate skill education and training as well as training of trainers related activities before the main campus is operationalized. Construction of the interim campus and facilities of the Assam Skill University (ASU) on ITI Guwahati Campus under the ownership and possession of Assam Skill Development Mission (the implementing agency). The ASU Interim campus site is not located within core or buffer zones of national parks, sanctuaries, tiger reserves, or biosphere reserves; nor within 100m from the boundary of protected monuments of archaeological importance.
▪ Underground utilities		√	There are no underground utilities at the proposed site of ASU Interim Campus.
▪ Cultural heritage site		√	There are no buildings of archaeological and cultural heritage importance close to the ASU Interim campus site. (Within 300m distance.
▪ Protected Area		√	There are no protected areas (wildlife park or bird sanctuary) at the proposed site of ASU Interim Campus.
▪ Wetland		√	There is no wetland at the proposed site of ASU Interim Campus.
▪ Mangrove		√	The proposed site of ASU Interim Campus is away from coastal areas. Hence this is not applicable.
▪ Estuarine		√	The proposed site of ASU Interim campus is away from coastal areas. Hence this is not applicable.
▪ Buffer zone of protected area		√	The proposed site of ASU Interim campus is not in the buffer zone of any protected area.
▪ Special area for protecting biodiversity		√	There is no special protected area for biodiversity.
▪ Bay		√	The proposed site of ASU is away from the coast. Hence this is not applicable.
B. Potential Environmental Impacts Will the Project cause…			
▪ Encroachment on historical/cultural areas?		√	There are no historical or cultural areas within 300m from the proposed site of ASU Interim campus.
▪ Encroachment on precious ecology (e.g. sensitive or protected areas)?		√	The proposed site is located in urban areas. Hence it is away from any sensitive or protected areas.
▪ Impacts on the sustainability of associated sanitation and solid waste disposal systems?	√		The proper operation and maintenance of sanitation facilities will be ensured through environmental management plan (EMP) implementation. The EMP will be part of contract for the contractor. During operation phase, solid waste will be disposed of as part of the disposal systems of the local civic body in Kamrup Metropolitan.

Screening Questions	Yes	No	Remarks
▪ Dislocation or involuntary resettlement of people?		√	All project related construction works are to be undertaken in the vacant and developed footprint and encumbrance-free land. There will be no involuntary resettlement or dislocation of people.
▪ Disproportionate impacts on the poor, women and children, Indigenous Peoples or other vulnerable groups?		√	No negative impacts on the poor, women and children, indigenous peoples, or other vulnerable groups are foreseen. The project will enhance access to industry-aligned, multidisciplinary, and flexible skills education and training for graduates from higher secondary education, industrial training institutes, polytechnics, engineering colleges, academic colleges and universities, as well as professionals and other working age population, including the poor, women, and indigenous peoples.
▪ Accident risks associated with increased vehicular traffic, leading to loss of life?	√		The proposed site is not on the national highway or state highway. At present, the local road is earthen road and ends at the site. Traffic near the site is insignificant. To minimize any conflict with the local population, vehicles will be driven in a considerate manner. However, to rule out any accident due to the project related vehicular traffic, flagmen will be deployed near the construction site to regulate the traffic. Traffic management plan will be prepared for the construction phase. The traffic management plan has been elaborated in IEE and EMP. The IEE and EMP will be part of contract document for the contractor.
▪ Increased noise and air pollution resulting from increased traffic volume?	√		There will be increase in air and noise pollution due to movement of construction vehicles. The increase is expected to be marginal and intermittent in nature because of limited number of construction-related vehicles. To minimize impacts on the local community, mitigation measures (no movement of vehicles at night, mandatory pollution under control certificate, water sprinkling for dust suppression, and regular monitoring of ambient air quality and noise levels) have been elaborated in the EMP. Skills education and training activities at ASU Interim Campus are not envisaged to result in any air or noise pollution.

Screening Questions	Yes	No	Remarks
▪ Occupational and community health and safety risks?	√		The environmental impacts related to the construction of new buildings under the project will be minor in nature and mostly limited to the duration of construction. The impacts will be confined mainly within the construction site. These minor impacts will be mitigated through the EMP. Potential occupational health and safety risks during construction will be addressed by including provisions in the contract documents and implementation of the EMP. In the operation phase, safety risks due to the usage of equipment, machinery, and instruments in the laboratories and workshops of ASU will be mitigated through the formulation of safe operating procedures (SOPs). These SOPs will be developed during installation of equipment and will be displayed at equipment, machinery instruments, practical training tables, platform of laboratories and workshops. For COVID-19 protection during construction and operation phases, COVID-19 health and safety plan will be prepared in accordance with the guidelines issued by the government agencies and in consultation with ADB. This will also be part of contract document to the contractor.
▪ Risks and vulnerabilities related to occupational health and safety due to physical, chemical, biological, and radiological hazards during project construction and operation?	√		The environmental impact related to the construction of new buildings will be minor in nature and mostly limited to the duration of construction. There will be limited physical, chemical, and biological hazards during construction and operation of ASU Interim Campus. The usage of any radio-active material during construction and operation is not envisaged at present. Adequate provisions will be included in the relevant contract documents to address potential occupational health and safety hazards during the construction. For operation phase, SOPs will be followed to minimize risks and vulnerabilities due to the usage of machinery, equipment and instruments in the laboratories and workshops (including usage of any radio-active materials if unavoidable). These SOPs will be displayed at suitable locations. To minimize COVID-19 related health hazards, COVID-19 health and safety plan will be implemented.
▪ Generation of dust in sensitive areas during construction?	√		During construction, there will be minor dust generation due to material handling and operation of construction machinery and equipment. This will be controlled through dust suppression measures (e.g., water spray) and proper maintenance of construction equipment and machinery. It will also be ensured that construction equipment and machinery conform to the emission norms laid down by the Central Pollution Control Board. The necessary provisions will be included in the contract document of the contractor.

Screening Questions	Yes	No	Remarks
▪ Requirements for disposal of fill, excavation, and/or spoil materials?		√	Since new buildings will be constructed on an existing developed footprint for construction works. The excess earth generated due to these excavations will be utilized in fill works in low-lying areas of the site or any other disposal site as directed by the relevant government agencies. Given that the site is plain land, significant generation of excess excavated earth is not expected. The utilization of excess earth will be suitably included in the contract document.
▪ Noise and vibration due to blasting and other civil works?		√	During construction and renovation, some noise will be generated due to the operation of construction equipment and machinery. Adequate mitigation measures have been stipulated in the EMP. No blasting activity is envisaged during construction. Hence, there will not be any significant shaking or vibrations. Further, no construction works will be carried out during nighttime. There will be periodic ambient noise level monitoring at the construction site as per monitoring plan prepared as part of the EMP.
▪ Long-term impacts on groundwater flows as result of needing to drain the project site prior to construction?	√		The long-term impact on ground flow is not expected because as part of construction works, an efficient drainage system will be developed. Due to construction of efficient and effective drainage system; water logging issues are not envisaged in the operation phase.
▪ Long-term impacts on local hydrology as a result of building hard surfaces in or near the building?		√	Construction and Renovation on existing structures. Therefore, no long-term impacts on local hydrology are anticipated.
▪ Large population influx during project construction and operation that causes increased burden on social infrastructure and services (such as water supply and sanitation systems)?		√	During construction and Renovation, the workforce of around 100 is expected. A construction camp with adequate potable water supply and sanitation facilities will be established. Hence, there will not be any burden on social infrastructure and services. Necessary provisions for these requirements will be included in the EMP and contract documents of the contractor.
▪ Social conflicts if workers from other regions or countries are hired?		√	Preference will be given to locally available labor. The construction activities are relatively small in nature and will take place within the land owned by the Assam Skill Development Mission (the implementing agency. At present, no need to hire workers from other regions or countries is envisaged.
▪ Risks to community safety caused by fire, electric shock, or failure of the buildings safety features during operation?		√	The latest national building codes and safety measures will be adopted. The regulatory permissions for occupation of the buildings will be obtained from the local civic authorities, including fire department and other regulatory bodies after complying with the safety regulations for fire and electricity shocks.

Screening Questions	Yes	No	Remarks
▪ Risks to community health and safety caused by management and disposal of waste?	√		During construction, waste collection and disposal system will be developed and operated by the contractor. The processes being followed will be reviewed and approved by the Assam Skill Development Mission or its appointed representative entity (construction supervision and quality assurance firm). Project management consulting firm will also help the Assam Skill Development Mission in ensuring that the required safety measures are adhered to while managing and disposing of waste. In the operation phase, adequate provisions will be made in the building designs for management and disposal of wastewater and other solid waste.
▪ Community safety risks due to both accidental and natural hazards, especially where the structural elements or components of the project are accessible to members of the affected community or where their failure could result in injury to the community throughout project construction, operation and decommissioning?	√		All the construction works will be limited within the fenced area of ASU Interim Campus at ITI Guwahati and community safety risks are not foreseen in construction and renovation phase. Skills education and training activities of ASU interim campus during operation phase will not cause any hazards to the community as these will be limited to teaching and learning in classrooms and practical training classes in workshops and laboratories. The activities of ASU will not interfere with the activities of population living outside the campus. Further, the buildings will be maintained regularly in the operation phase to avoid any accident or hazard pertaining to building upkeep. Appropriate traffic safety measures would be deployed during construction and operation phases to minimize accidents with local communities.

A Checklist for Preliminary Climate Risk Screening

Country/Project Title: India (53277): Assam Skill University Project (Establishment, Operation and Management of Interim Campus)
Sector: Education
Subsector: Technical and Vocational Education and Training
Division/Department: SAHS

Screening Questions		Score	Remarks[4]
Location and Design of project	Is sitting and/or routing of the project (or its components) likely to be affected by climate conditions including extreme weather-related events such as floods, droughts, storms, landslides?	0	The proposed ASU Interim Campus site with 9.3 acres area is located on Govt. land owned by GoA. The construction works will be on the delineated plot as per indicative drawings proposed in civil section of this DPR. There are no significant ecological resources in the ASU Interim Campus site as it is lying on developed footprint area of ITI Guwahati except on periphery few trees that will be protected prior staring any activity, so very minimal presence of shrubs and is in an open area.No flood issues has been reported in the ITI Campus.
	Would the project design (e.g. the clearance for bridges) need to consider any hydro-meteorological parameters (e.g., sea-level, peak river flow, reliable water level, peak wind speed etc.)?	0	Not Applicable
Materials and Maintenance	Would weather, current and likely future climate conditions (e.g. prevailing humidity level, temperature contrast between hot summer days and cold winter days, exposure to wind and humidity hydro-meteorological parameters likely affect the selection of	0	Weather conditions at ASU site do not demand usage of any specific construction material to counteract weather phenomenon.

[4] If possible, provide details on the sensitivity of project components to climate conditions, such as how climate parameters are considered in design standards for infrastructure components, how changes in key climate parameters and sea level might affect the sitting/routing of project, the selection of construction material and/or scheduling, performances and/or the maintenance cost/scheduling of project outputs.

	project inputs over the life of project outputs (e.g. construction material)?		
	Would weather, current and likely future climate conditions, and related extreme events likely affect the maintenance (scheduling and cost) of project output(s)?	0	No, weather conditions at ASU site do not require specific scheduling for maintenance.
Performance of project outputs	Would weather/climate conditions and related extreme events likely affect the performance (e.g. annual power production) of project output(s) (e.g. hydro-power generation facilities) throughout their design life time?	0	No, weather/climate conditions and related extreme events likely affect the performance of project output(s).

Options for answers and corresponding score are provided below:

Response	Score
Not Likely	0
Likely	1
Very Likely	2

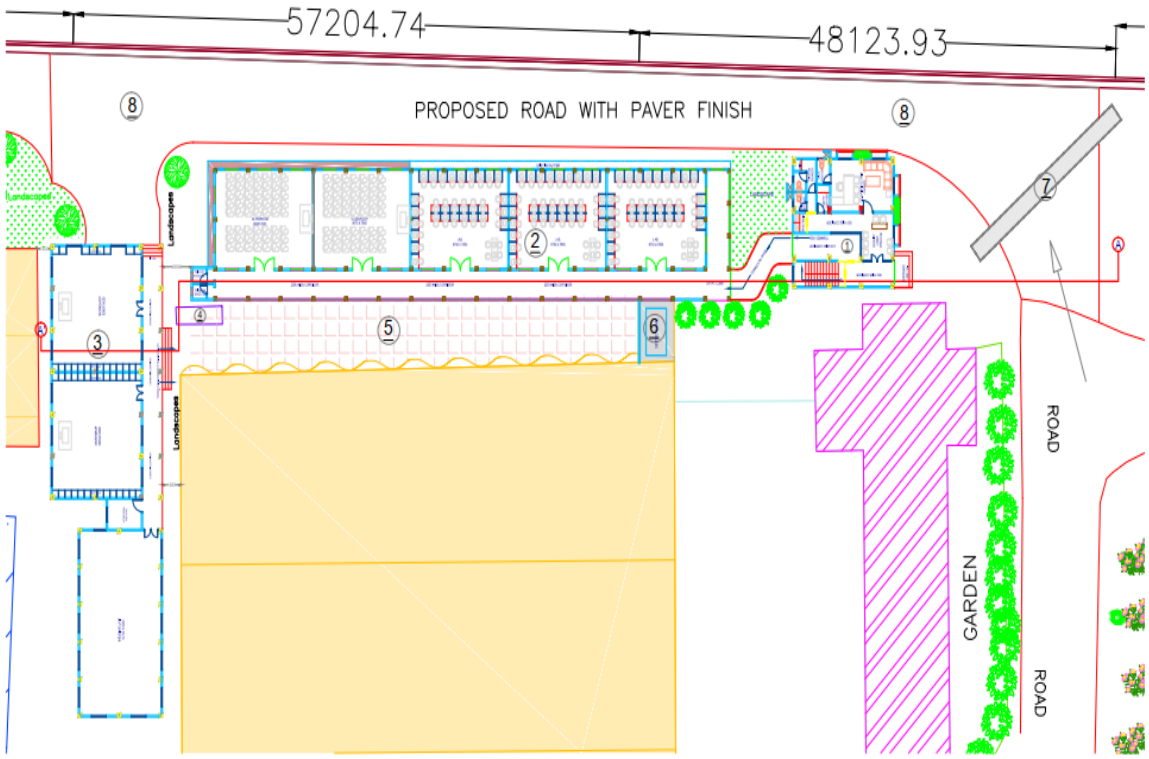
Responses when added that provide a score of 0 will be considered low risk project. If adding all responses will result to a score of 1-4 and that no score of 2 was given to any single response, the project will be assigned a medium risk category. A total score of 5 or more (which include providing a score of 1 in all responses) or a 2 in any single response will be categorized as high-risk project.

Result of Initial Screening (Low, Medium, High): Low Risk

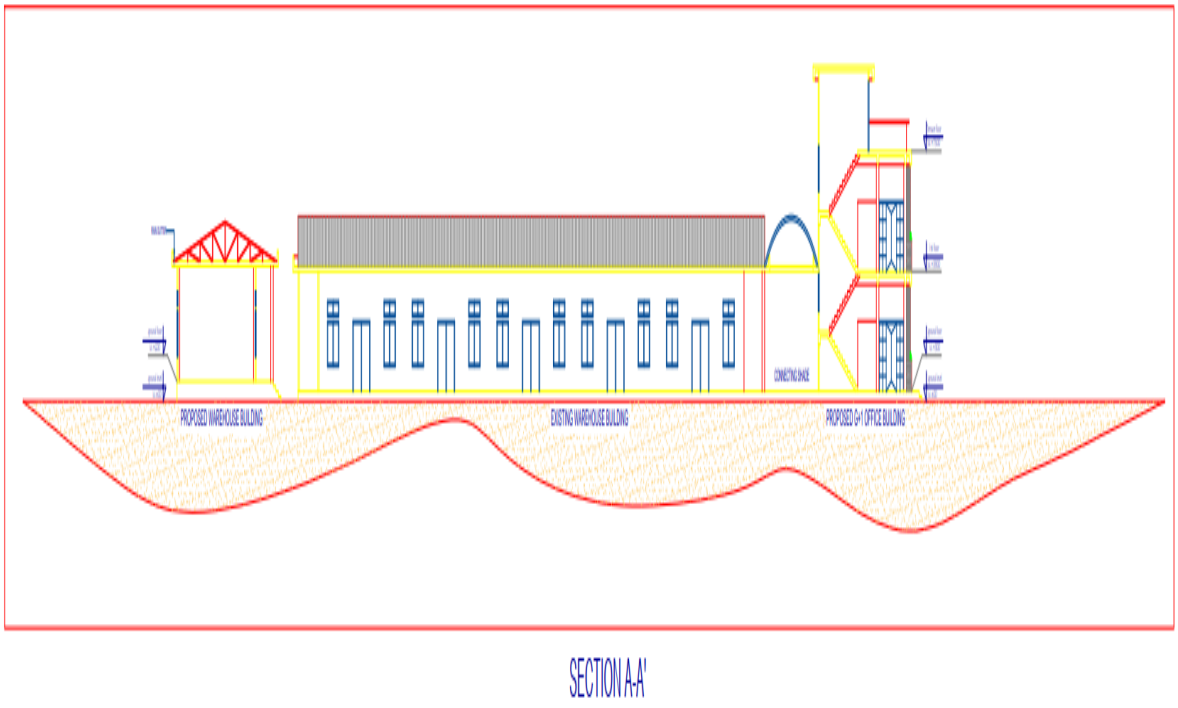
Other Comments: None

Prepared by:

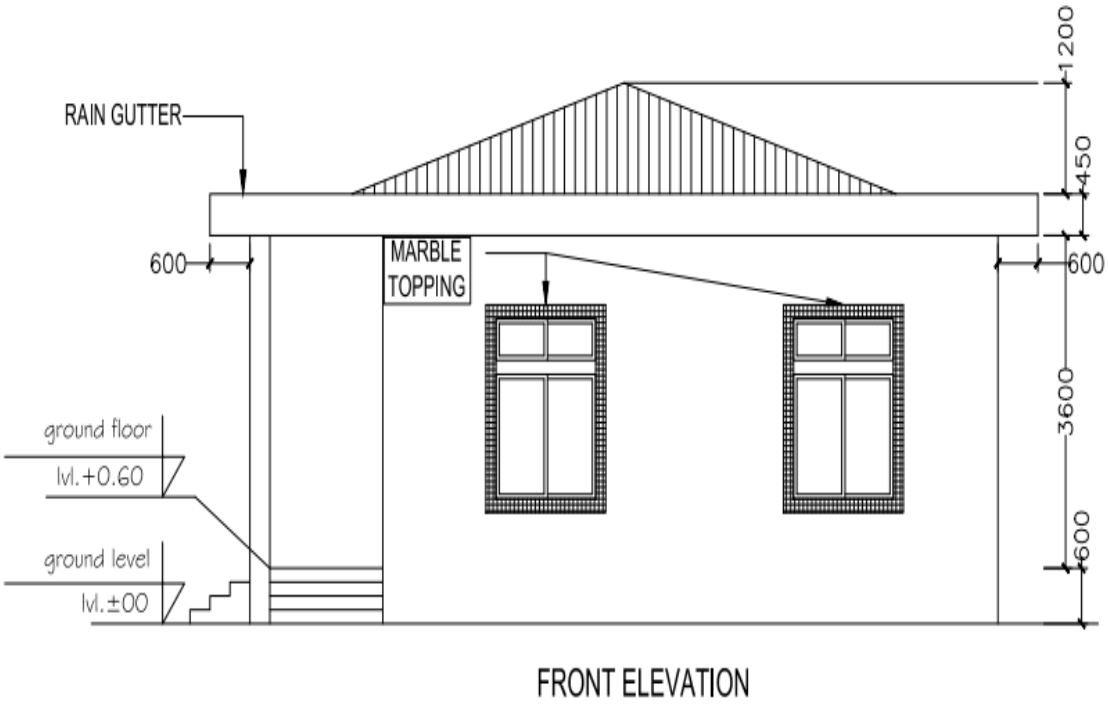
ANNEXURE-3: ACHITECTURAL PLAN OF ASU INTERIM CAMPUS FOR CONSTRUCTION AND RENOVATION



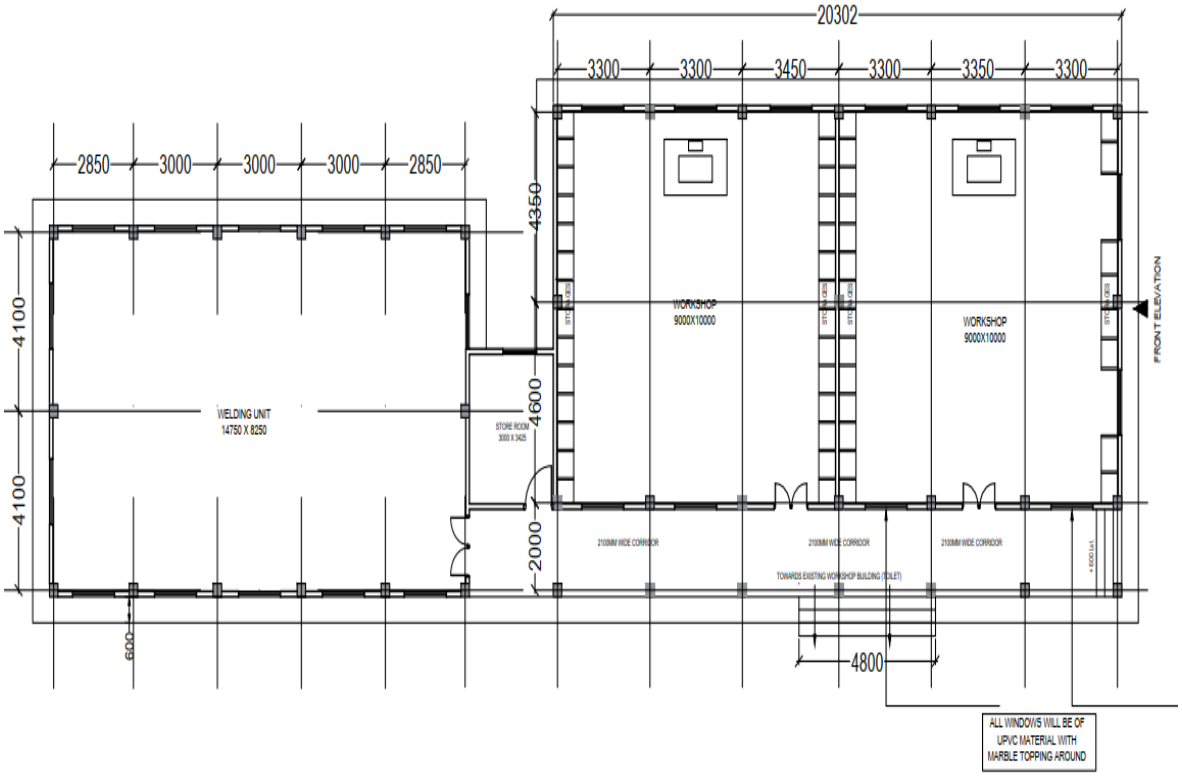
Indicative Architectural Plan - Site Blow-up



Indicative Architectural Plan - Site Section



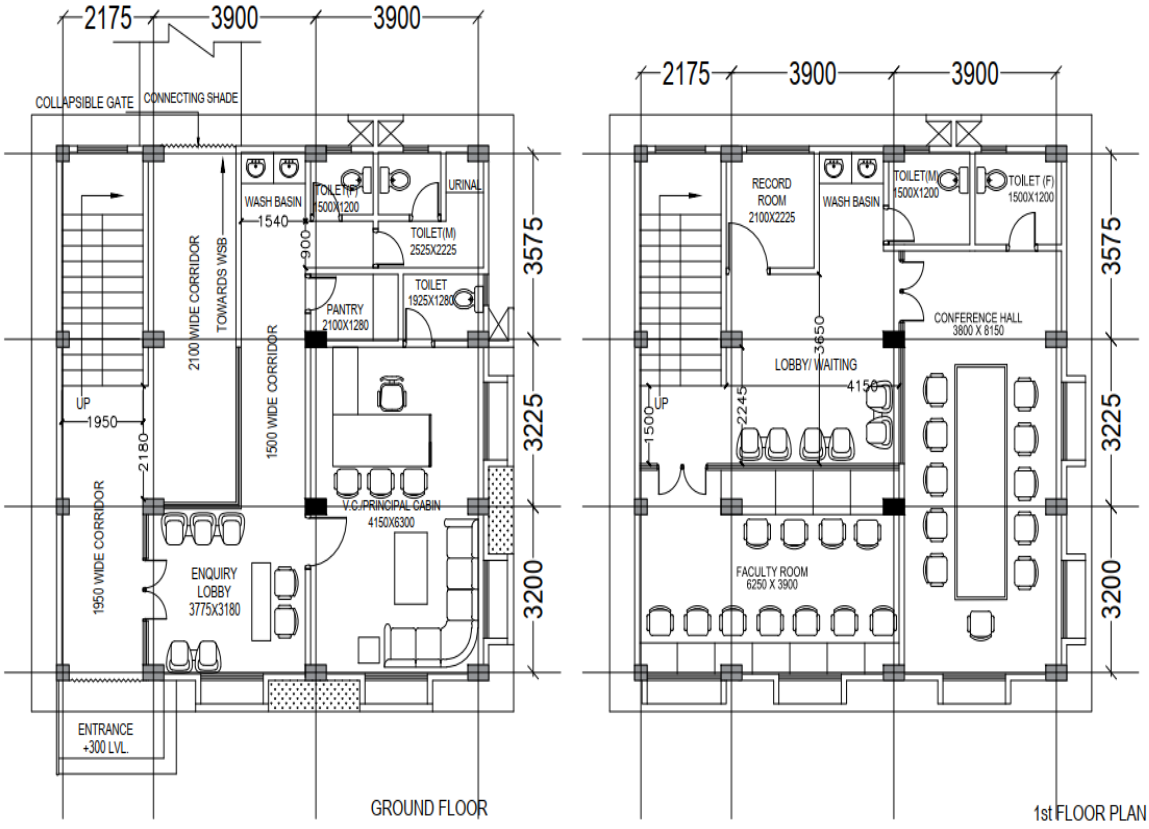
Indicative Architectural Plan - Front elevation



Indicative Architectural Plan - Ground floor plan of workshop building

FRONT ELEVATION

Indicative Architectural Plan - Front elevation of new G+1 building



Indicative Architectural Plan - Ground floor and first floor plan for new G+1 building

Indicative Architectural Plan - 3 D view of proposed interim campus building blocks

ANNEXURE-4: SAMPLE TRAFFIC MANAGEMENT PLAN

A. Principles

1. Since the scale of construction work for the boundary wall is relatively small, there will not be any major or prolonged disruption of local traffic. Nevertheless, it is good to prepare a traffic management plan (TMP) to minimize and avoid public inconvenience to the extent feasible. This indicative TMP will ensure the safety of all the road users along the work zone and minimize public inconvenience. It addresses the following issues:

(i) The safety of pedestrians, bicyclists, and motorists travelling close to the construction zone;
(ii) Protection of work crews from hazards associated with vehicle and equipment movement;
(iii) Avoiding traffic congestion and
(iv) Maintenance of access to adjoining properties.

B. Operating Policies for TMP

2. The following principles will help to promote safe and efficient movement for all road users (motorists, bicyclists, and pedestrians, including persons with disabilities) through and around work zones while reasonably protecting workers and equipment.

(i) Make traffic safety and temporary traffic control an integral and high-priority element of every project from planning through design, construction, and maintenance.
(ii) Inhibit traffic movement as little as possible.
(iii) Provide clear and positive guidance to drivers, bicyclists, and pedestrians as they approach and travel through the temporary traffic control zone.
(iv) Inspect traffic control elements routinely, both day and night, and make modifications when necessary.
(v) Pay increased attention to roadside safety in the vicinity of temporary traffic control zones.
(vi) Keep the public well informed.
(vii) Make appropriate accommodation for abutting property owners, residents, businesses, emergency services, railroads, commercial vehicles, and transit operations.

C. Analyze the impact due to street closure, if required

3. A final decision to close a particular street and divert the traffic should involve the following steps:

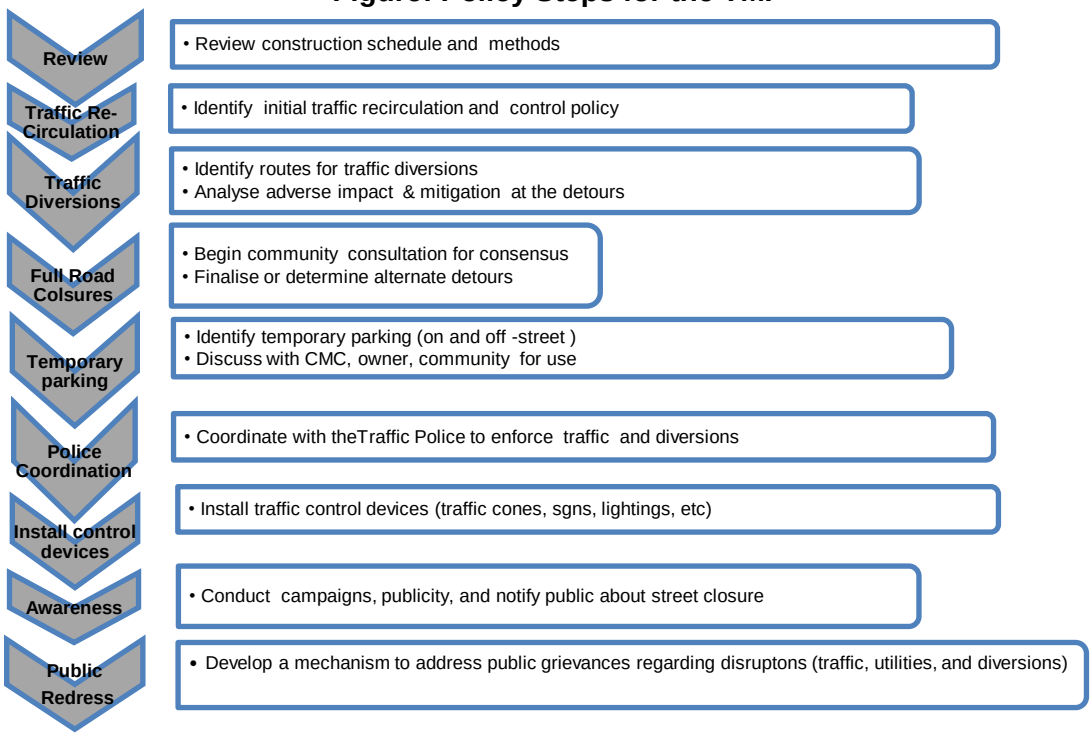
(i) Approval from the PMU site team and local administration to use alternative local streets as detours;
(ii) Consultation with businesses, community members, traffic police, PWD, etc., regarding the mitigation measures necessary at the detours where the road is diverted during the construction;
(iii) Determining of the maximum number of days allowed for road closure, and incorporation of such provisions into the contract documents;
(iv) Determining if additional traffic control or temporary improvements are needed along the detour route;
(v) Considering how access will be provided to the worksite;

(vi) Contacting emergency service, school officials, and transit authorities to determine if there is any effect on their operations; and

(vii) Developing a notification program to keep the public informed. As part of this program, the public should be advised of alternate routes that commuters can take or will have to take as result of the traffic diversion.

4. If full road-closure of certain streets within the area is not feasible due to inadequate capacity of the detour streets or public opposition, then full closure can be restricted to weekends with the construction commencing on Saturday night and ending on Monday morning prior to the morning rush hour traffic.

Figure: Policy Steps for the TMP



D. Public awareness and notifications

5. The PMU site team and the contractor will issue timely notifications to inform the public about the following issues:

(i) Road blockages and alternative routes along with the duration (as applicable)

(ii) Traffic control devices placed around the construction zones (signs, traffic cones, barriers, etc.).

(iii) Reduced speed limits to be enforced at the work zones and traffic diversions.

6. It may be necessary to conduct an awareness campaign on road safety during construction. It will target relevant groups i.e. children, adults, and drivers. Therefore, these campaigns will be conducted in schools and community centers. In addition, the project will publish a brochure for public information. These brochures will be widely circulated around the area and will also be available at the site office. The text of the brochure should be concise to be effective, with a lot of graphics. It will serve the following purpose:

(i) Explain why the brochure was prepared, along with a brief description of the project.

(ii) Advise the public to expect the unexpected.

(iii) Educate the public about the various traffic control devices and safety measures adopted at the work zones.
(iv) Educate the public about the safe road user behaviour to emulate at the work zones.
(v) Tell the public how to stay informed or where to inquire about road safety issues at the work zones (name, telephone, mobile number of the contact person; and
(vi) Indicate the office hours of relevant offices.

E. Vehicle Maintenance and Safety

7. A vehicle maintenance and safety program shall be implemented by the construction contractor. The contractor should ensure that all the vehicles are in proper running condition and comply with roadworthy and meet certification standards of GoA. All vehicles should be in good condition and meet the pollution standards of GoI and GoA. The drivers will follow the special code of conduct and road safety rules of GoA. They will ensure that all loads are covered and secured. The vehicle cleaning and maintenance will not be taken up at site.

F. Install traffic control devices at the work zones and traffic diversion routes

8. The purpose of installing traffic control devices at the work zones is to delineate these areas to warn, inform, and direct the road users about a hazard ahead, and to protect them as well as the workers. As proper delineation is the key for achieving the above objective, it is important to install good traffic signs at the work zones. The following traffic control devices will be used in work zones:

- Signs
- Pavement Markings
- Channelizing Devices
- Arrow Panels
- Warning Lights

9. Procedures for installing traffic control devices at any work zone vary depending on road configuration, location of the work, construction activity, duration, traffic speed and volume, and pedestrian traffic. Work will take place along major roads, and the minor internal roads. As such, the traffic volume and road geometry vary. However, regardless of where the construction takes place, all the work zones should be cordoned off, and traffic shifted away at least with traffic cones, barricades, and temporary signs (temporary “STOP” and “GO”).

10. The work zone should take into consideration, the space required for a buffer zone between the workers and the traffic (lateral and longitudinal) and the transition space required for delineation, as applicable. For the works, a 30 cm clearance between the traffic and the temporary STOP and GO signs should be provided. In addition, at least 60 cm is necessary to install the temporary traffic signs and cones.

11. Traffic police should regulate traffic away from the work zone and enforce the traffic diversion result from full street closure in certain areas during construction. Flaggers or personnel should be equipped with reflective jackets at all times and have traffic control batons (preferably the LED type) for regulating the traffic.

12. In addition to the delineation devices, all the construction workers should wear fluorescent safety vests and helmets in order to be visible to the motorists at all times. There should be provision for lighting beacons and illumination for night constructions. The PMU site team and contractor will coordinate with the local administration and traffic police regarding the traffic signs, detour, and any other matters related to traffic. The contractor will prepare the traffic management plan in detail and submit it along with the EMP for the final approval.

ANNEXURE-5: HANDOVER LETTER BY ITI GUWAHATI TO ASSAM SKILL UNIVERSITY

GOVERNMENT OF ASSAM
SKILL, EMPLOYMENT & ENTREPRENEURSHIP DEPARTMENT
DIRECTORATE OF EMPLOYMENT AND CRAFTSMEN TRAINING :: ASSAM
REHABARI :::: GUWAHATI-8

No. DET(P)T-132/2015/Voll/181 Dtd.Guwahati,the ~~18~~ 16th September, 2022

From : Smti Kasturi Bharali, ACS,
Director of Employment & Craftsmen Training, Assam
Rehabari,Guwahati-8

To,
The Principal Secretary to the Govt. of Assam,
Skill, Employment &Entrepreneurship Department,
Assam, Dispur, Guwahati-6

Sub :- Regarding Handing Over of the Workshop to Assam Skill University

Sir,

With reference to the subject cited above, I have the honour to inform you that a meeting was held on 01-09-2022 chaired by Mr. S.C.Das, IAS(Retd.), Vice Chancellor, Assam Skill University regarding setting up of the interim campus of Assam Skill University at ITI Guwahati. As per minutes of the meeting a decision has been taken that the Workshop Buildings under ESDI & VTIP Scheme at ITI Guwahati is to be handed over to Assam Skill University.

Therefore you are requested kindly to accord necessary permission for handing over the said buildings to Assam Skill University.

Yours faithfully

Enclo:- Minute on 01-09-2022

Director
Employment and Craftsmen Training
Assam, Rehabari, Guwahati-08

Memo No. DET(P)T-132/2015/Voll/181-A Dtd.Guwahati,the 16th September, 2022
Copy to :-

1. The Vice Chancellor, Assam Skill University, Rehabari, Guwahati-6 for favour of kind information.
2. The Senior Principal, ITI Guwahati for information.

Director
Employment and Craftsmen Training
Assam, Rehabari, Guwahati-08

SEED-16/17/2021-SKILL-Skill Employment & Entrepreneurship

I/64125/2022

GOVERNMENT OF ASSAM
SKILL, EMPLOYMENT & ENTREPRENEURSHIP DEPARTMENT

DISPUR:::::::GUWAHATI-6

**Block-D, 1st Floor, Janata Bhawan, seed-deptt@assam.gov.in,
https://skill.assam.gov.in/**

ECF No. 168936/117 Dated Dispur, the 21st October, 2022

From : Smti. J. D. Thakur, IAS,
Secretary to the Govt. of Assam,
Skill, Employment and Entrepreneurship Department.

To : The Director of Employment & Craftsmen Training, Assam,
Rehabari, Guwahati-08.

Sub. : Regarding Handing over of the Workshop to Assam Skill University.

Ref : No.DET(P)T-132/2015/Vol-I/181 dated 16/9/2022

Sir,

In inviting reference to the subject cited above, I am directed toconvey approval for handing over workshop buildings under ESDI and VTIP scheme at ITI Guwahati to Assam Skill University for setting up as their interim campus.

This has the approval of Principal Secretary, Skill, Employment and Entrepreneurship Department.

Yours faithfully,

Signed by Jurie Deka Thakur
Date: 02-11-2022 11:24:04

Secretary to the Govt. of Assam,
Skill, Employment and Entrepreneurship Department

SEED-16/17/2021-SKILL-Skill Employment & Entrepreneurship

I/64125/2022

Memo ECF No. 168936/117-A Dated Dispur, the 21st October, 2022

Copy to-

1. The Mission Director, Assam Skill Development Mission cum CEO, Assam Skill University for kind information and necessary action.

2. The Registrar, Assam Skill University, O/o the DECT campus, 3rd Floor, Rehabari, Ghy-8 for favour of kind information.

3. P.S. to Principal Secretary, Skill, Employment and Entrepreneurship Department for kind apprisal of Principal Secretary.

By order etc.,

Signed by Madhuchanda Talukdar
Date: 02-11-2022 13:12:35

Deputy Secretary to the Govt. of Assam,

Skill, Employment and Entrepreneurship Department

ANNEXURE-6: PHOTOGRAPHS AND ATTENDANCE SHEETS OF CONSULTATIONS

A. Photographs of Consultationson 16 November 2022

Discussion with faculty Members of ITI Guwahati / Stakeholders

Discussion with ITI Students

B. Attendance Sheets of Stakeholder Consultations

Stakeholder consultation

Date: 16.11.2022 Time:

Venue: ITI, Guwahati

Stakeholder type: ITI, Guwahati faculty

Sl. No.	Name	Organization/ Designation	Gender	Signature	Ph/mail
1	S.C. Das	VC, ASU	M		-99549 -44044
2	Ankur Jain	CEO, ASUP	M		
3	N.H. Majumder	ITI Gauhati	m		9435033531
4	Mdu	ITI	F		9435116814
5	Himalay Sarma	DPD, ASUP	M		8800188753
6	Jonali Boro	ITI, Ghy	F		8638232709
7	Nasim Uddin	ITI, Ghy-16	M		9101100764
8	Moncham M. Dey	RTP Ghy	M		70021-71925
9	Rupam C Bora	ASUP	M		9864092861
10	Sanghita Dutta	PMU- ASUP	F	S. Dutta	8876396955
11	Kanishma Gogoi	PMU- ASUP	f	Kgogoi	7002361688
12	Jagadish Nath	PMU-ASUP	M		9854040350
13	Pranami Barthakur	PMU- ASUP	F		9854199413
14					
15					
16					
17					
18					

Stakeholder consultation

Date: 16th Nov. 2022 Time:

Venue: ITI, Guwahati

Stakeholder: Student

Sl. No.	Name	Organization/ Designation	Gender	Signature	Ph/mail
1	Kaushik Choudhury	Student, ITI, Guwahati	M		
2	Rupjyoti Halai	"	M		
3	Jitu Moni Das	"	M		
4	Dhruba Das	"	M	Dhruba Das	
5	Bhaskar Jakalan	"	M		
6	Himangshu Kalita	"	M		
7	Sarav Mondal	"	M	Sarav Mondal	
8	Mrinal Das.	"	M		
9	Naresh Khakhary	"	M	Naresh Khakhary	
10	Ajay Rabha	"	M	Ajay Rabha	
11	Pranjal Kalita	"	M		
12	Pulaksh Deka	"	M	Pulak	
13	Abdul Kalam	"	M	Kalam	
14	Jridip Barman	"	M	Barman	
15	Nayan Jyoti Deka	"	M	Nayan Jyoti Deka.	
16	Iman Akhter	"	M	Iman Akhter	
17	Daidersa Basumatary	"	M	Daidersa Basumatary	
18	Akiful Haque	"	M	Akiful	

Stakeholder consultation

Date: 16th Nov. 2022 Time:

Venue: ITI, Guwahati

Stakeholder type: Student

Sl. No.	Name	Organization/ Designation	Gender	Signature	Ph/mail
1	Priyanshi Thakur	Student – ITI, Guwahati	F	Priyanshi	
2	Ananya Borah	"	F	Borah	
3	Minakshi Boro	"	F	Minakshi	
4	Kakali Medhi	"	F	Kakali	
5	Nikumani Saraniya	"	F	Nikumani Saraniya	
6	Unmona Dihingia	"	F	Unmona Dihingia	
7	Hemanta Bezbaruah	"	M	Hemanta Bezbaruah	
8	Dhiraj Deka	"	M	Dhiraj Deka	
9	Mondeep Baishya	"	M	MBaishya	
10	Nabakrishna Rajkhowa	"	F		
11	Sajid Ahmed	"	M	S. Ahmed	
12	Dhiramoni Rabha.	"	F		
13	Bibek Talukdar	"	M	Bibek .	
14	Nilkamal Das	"	M	Nilkamal.	
15	Rohit Kr. Thakur	"	M	Rohit Kr. Thakur	
16	Sungciring Wasisa	"	F	Sungci	
17	Abhishek Pathak	"	M	Abhishek	
18	Sheikh Aminul Hoque	"	M		