

# Initial Environmental Examination

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October 2022

India: Rajasthan State Highway Investment  
Program –Tranche 3  
Volume 3 of 3, Appendix I

Prepared by PPP Division, Public Works Department, and Government of Rajasthan for the Asian Development Bank.

**CURRENCY EQUIVALENTS**  
(as of 21 October 2022)

Currency unit	–	Indian Rupee (₹)
INR1.00	=	\$0.012
\$1.00	=	₹82.83

**ABBREVIATIONS**

AE	–	Authority Engineer
ADB	–	Asian Development Bank
ASI	–	Archaeological Survey of India
BIS	–	Bureau of Indian Standard
BOQ	–	Bill of Quantities
CBD	–	Convention on Biological Diversity
CCF	–	Chief Conservator Forest
CGM	–	Chief General Manager
CGWA	–	Central Ground Water Authority
CGWB	–	Central Ground Water Board
CPCB	–	Central Pollution Control Board
CTE	–	Consent to Establish
CTO	–	Consent to Operate
CFO	–	Certificate for Operation
COP 26	-	26 <sup>TH</sup> UN Climate Change Conference of Parties
CSC	–	Construction Supervision Consultant
dBA	–	Decibel
DEIAA	–	District Environment Impact Assessment Authority
DFO	–	Divisional Forest Officer
DGM	–	Deputy General Manager
DPR	–	Detailed Project Report
EA	–	Executing Agency
EAC	–	Expert Appraisal Committee
EARF	–	Environmental Assessment and Review Framework
EFP	–	Environment Focal Person
EIA	–	Environmental Impact Assessment
EMP	–	Environmental management plan
EMOP	–	Environmental monitoring plan
ERDAS	–	Earth Resources Data Analysis System
FGD	–	Focused Group Discussion
FSO	–	Focal Safeguard Officer
FHWA	–	The Federal Highway Administration
GHG	–	Green House Gas
GIS	–	Geographic Information System
GM	–	General Manager
GOR	–	Government of Rajasthan
GOI	–	Government of India
GOR	–	Government of Rajasthan
GRC	–	Grievance Redress Committee
GRM	–	Grievance Redress Mechanism
GSDP	–	Gross State Domestic Product
IS	–	Indian Standard
IEE	–	Initial Environmental Examination
IMD	–	Indian Meteorological Department

IRC	–	Indian Road Congress
IUCN	–	International Union for Conservation of Nature
RPCB	–	Rajasthan Pollution Control Board
MDR	–	Major District Road
Leq	–	Equivalent Continuous Noise Level
MFF	–	Multi-tranche Financing Facility
MoEF&CC	–	Ministry of Environment, Forests and Climate Change
MORTH	–	Ministry of Roads Transport and Highway
NAAQS	–	National Ambient Air Quality Standard
NSDP	–	Net State Domestic Product
NH	–	National Highway
ODR	–	Ordinary District Road
PCR	–	Physical Cultural Resources
PCU	–	Passenger Car Unit
PF	–	Protected Forest
PM	–	Particulate Matter
PD	–	Project Director
PIU	–	Project Implementation Unit
PPP	–	Public-Private Partnership
PWD	-	Public Works Department
REA	–	Rapid Environmental Assessment
RF	–	Reserved Forest
RCD	–	Road Construction Department
ROB	–	Road Over Bridge
ROW	–	Right-of-Way
RR	–	Rural Roads
SE	–	Superintendent Engineer
SEIAA	–	State Environment Impact Assessment Authority
SH	–	State Highway
SOE	–	Safeguard Officer – Environment
SPS	–	ADB Safeguard Policy Statement, 2009
TEEMP	–	Transport Emissions Evaluation Model for Projects
TNM	–	Traffic Noise Model
UNESCO	–	United Nations Educational, Scientific and Cultural Organization
UNFCC	–	United Nations Framework Convention on Climate Change
USEPA	–	United States Environment Protection Agency
WLS	–	Wildlife Sanctuary
WPA	–	Wildlife Protection Act

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**Appendix I: Community Occupational Health & Safety Plan (COSHP): To be added as Appendix-1 with all EMPs.**

**COMMUNITY OCCUPATIONAL SAFETY AND HEALTH PLAN  
(COSH-Plan)**

**TO OVERCOME CHALLENGES OF THE COVID-19 PANDEMIC**

**FOR**

DEVELOPMENT & MAINTENANCE OF CHURU-TARANAGAR-NOHAR SECTION OF SH-36 (FROM CH-0+000 AT CHURU TO CH-39.540 AT TARANAGAR & FROM CH 39.540 AT TANANAGAR TO CH-111.940 AT NOHAR); TOTAL LENGTH 111.940 KM IN THE STATE OF RAJASTHAN ON ENGINEERING, PROCUREMENT & CONSTRUCTION (EPC) MODE



**PWD**  
Public Works Department  
Government of Rajasthan



<b>Term</b>	<b>Definition or Explanation</b>
<b>Asymptomatic</b>	Showing no symptoms of the disease. A person infected with the virus can be <u>asymptomatic</u> because they are in an early stage of infection and symptoms have not yet developed (“pre-symptomatic”), or they may not develop any symptoms at all during their infection.
<b>COVID-19</b>	The name of the disease is caused by the novel corona virus, SARS-CoV-2, and is short for “Corona virus Infectious Disease 2019.” (Source: <a href="#">WHO</a> )
<b>Case Fatality Rate (CFR)</b>	An estimate of the risk of mortality from a contagious disease. The CFR is calculated by dividing the number of deaths caused by disease by the number of cases of that disease in a given time period. The CFR is time and location-dependent, and many different factors can influence the CFR, such as speed of diagnosis of cases, health system capacity, age, and other demographic characteristics, among others. For COVID-19, estimates of the CFR have varied. <b>Source:</b> WHO.
<b>Close contact</b>	A person; may be at risk of contagious disease because of their proximity or exposure to a known cause. The exact definition of close contact differs by disease; for COVID-19, the CDC defines close contact as anyone who has been within 6 feet of a person infected with the virus for a prolonged period of time or has had direct contact with the infected person’s secretions
<b>Community transmission/spread</b>	Infections identified in a given geographic area without a history of travel elsewhere and no connection to a known cause.
<b>Contact tracing</b>	The process of identifying, assessing, and managing people who have been exposed to a contagious disease to prevent onward transmission. (Source: <a href="#">WHO</a> ).
<b>Coronavirus</b>	A family of viruses that cause illness ranging from the common cold to more severe diseases, such as Middle East Respiratory Syndrome (MERS-CoV) and Severe Acute Respiratory Syndrome (SARS-CoV). The novel coronavirus recently discovered has been named SARS-CoV-2 and it causes COVID-19. (Source: <a href="#">WHO</a> ).
<b>Drive through testing</b>	Individuals remain in their vehicles, and medical staff in protective gear come to administer the swab test and the swabs are sent to a laboratory for testing.
<b>Droplet transmission/spread</b>	A mode of transmission for a contagious disease that involves relatively large, short-range (less than 6 feet) respiratory droplets produced by sneezing, coughing, or talking. (Source: WHO).
<b>Epidemic</b>	An increase, often sudden, in the number of cases of a disease above what is normally expected in that population in that area. (Source: WHO)
<b>Essential government functions</b>	All services are needed to ensure the continuing operation of the government agencies and provide for the health, safety, and welfare of the public.
<b>Home isolation</b>	Persons with COVID-19 who have symptoms or laboratory-confirmed COVID-19 who have been directed to stay at home until they are recovered.
<b>Immunocompromised</b>	Having an impaired or compromised immune response. People may be immunocompromised due to an underlying condition or due to a medication, they are taking for a condition. Being immunocompromised may put a person at higher risk for COVID-19.
<b>Isolation</b>	Separating sick people with a contagious disease from those who are not sick.
<b>70% isopropyl alcohol</b>	<u>Washing thoroughly with soap and water</u> is the best way to kill the coronavirus on the skin, but surfaces can be harder to disinfect. Experts say that disinfectant wipes and spray, and solutions made with 70% isopropyl alcohol are <u>also effective at</u>

Term	Definition or Explanation
	<u>destroying the virus' structure</u> . But be careful. <u>Making your own hand sanitizer and other cleaning agents</u> can be dangerous and isn't recommended.
<b>PPE</b>	Personal protective equipment, or <u>PPE</u> , refers to any gear necessary to minimize a person's exposure to harmful materials that could cause illness or injury--gloves, full-body suits, protective eyewear, and N95 masks.
<b>N95 Respirator (face mask)</b>	Personal protective equipment is used to protect the wearer from airborne particles and from liquid contaminating the face.
<b>Pandemic</b>	An epidemic that has spread over several countries/continents, usually affecting a large number of people.
<b>Quarantine</b>	Separating and restricting the movement of people exposed (or potentially exposed) to a contagious disease.
<b>SARS-CoV-2</b>	The name of the novel coronavirus that causes COVID-19 disease. (Source: <u>WHO</u> ).
<b>Self-quarantine</b>	Staying home and away from other people as much as possible after exposure.
<b>Shelter in place</b>	all residents must remain at their place of residence, except to conduct essential activities, essential businesses, and essential government functions.
<b>Social distancing</b>	Measures are taken to reduce person-to-person contact in a given community, with a goal to stop or slow down the spread of a contagious disease. Measures can include working from home, closing offices and schools, canceling events, and avoiding public transportation.
<b>Symptomatic</b>	Showing symptoms of the disease. The most common symptoms of COVID-19 <u>include</u> cough, shortness of breath or difficulty breathing, fever, chills, muscle pain, sore throat, and new loss of taste or smell.
<b>Ventilator</b>	A device that delivers air into the lungs through a tube that is placed into the mouth or nose and down into the windpipe.
<b>Viral shedding</b>	The period of time after the virus has replicated in the host and is being emitted.

**Note:** The above definitions are derived from the Guidelines of Ministry of Home Affairs (MHA), Ministry of Health & Family Welfare (MoHFW) & World Health Organization (WHO).

## CHAPTER-1

### 1. Introduction

#### 1.1. Introduction: COVID-19-An Unanticipated Issue:

Environmental Management Plans (EMPs) as incorporated in The Schedule–S of Contract Agreement of Hybrid Annuity Mode (HAM) Projects being implemented by Concessionaire in Tranche-I, so far, and in the Schedule-U of Engineering Procurement Construction (EPC), being implemented by EPC Contractors, in Tranche-I, Tranche-II, and Tranche-III, were prepared at times, when an epidemic, having no immediate control and cure/treatments was not reported as prevailing in the State of Rajasthan. These already incorporated EMPs in Schedules of contract agreements, being referred, contain the very routine type of mitigation and remedial measures, meant for ensuring good occupational community health and safety among workers across the entire institutional–set-up involved in the monitoring and implementation of EMPs in Tranche-I, Tranche-II and Tranche-III roads. All of sudden, since the beginning of the month of December 2019, humanity across the World, is hearing, viewing, watching, and getting affected by the spread of this deadly COVID-19 disease, to date, being predicted, as may remain part of human lives everywhere in the World at least till appropriate vaccines are developed and become available as effective treatments. Almost all countries of the World, 213 numbered so far, are being reported as affected seriously by COVID-19. Huge socio-economic losses are being experienced by all affected countries. Governments have strictly enforced lock-downs of all official, business, trade activities, in fact, almost all socio-cultural affairs besides simultaneous lockdown and implementation of general Standard Operating Procedures (SOPs) for the prevention and control of the spread of COVID-19; by thermal scanning, social distancing, sanitization, mask-wearing, self-isolation, quarantines, increasing capacities of hospitals for COVID-19 and related treatments. Governments of many countries including the Government of India and the Government of Rajasthan are allowing a re-start of construction activities in the highways and road sector, as given in para 16 and para 3 of Ministry of Home Affairs order no. 40-3/2020-DM-I(A) dated 15.4.2020 allowing construction of roads w.e.f. 20.4.2020.

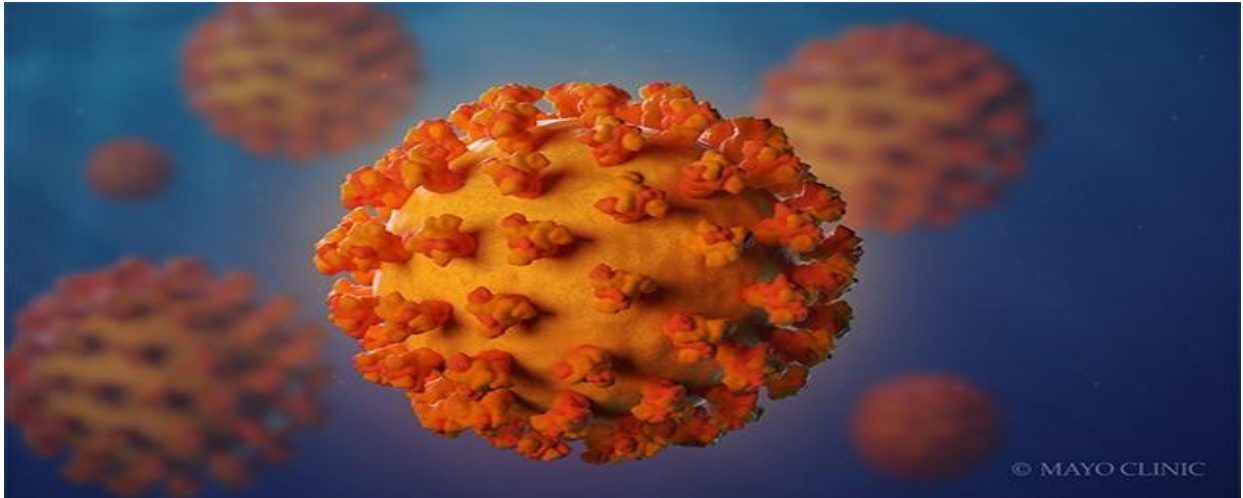
#### 1.2. Requirement of Community Occupational Safety and Health Plan:

We recognize that the current COVID-19 Pandemic situation imposes many challenges to project implementation. It has been decided that existing occupational, community, health, and safety measures as given in EMPs, are not adequate to overcome challenges involved in the prevention and control of the spread of COVID-19. We are treating this as an unanticipated issue that must be considered in construction management, particularly Community Occupational Safety and Health. In this regard, we would like to request that pertinent plans be devised and reviewed by the PMC, subject to RPWD approval, to include COVID-19 related measures prior to the resumption of works. We understand that there are national and local protocols in place regarding returning to work and other related activities. While preparing for Community Occupational Safety & Health (COSH), we have taken into consideration of WHO guidelines in getting the workplace ready in light of the pandemic mentioned above. Since this is a developing situation, we would suggest that a separate plan has been prepared as an **Appendix-01 to Schedule-S in case of Annuity HAM Model of Concessionaire Agreement/Schedule-U in case of EPC Model of the Contract Agreement** so it can easily be updated/revised in case of requirement for the addition of any new development. Measures to prevent & control the impacts to the community as the works resume has been considered in the COSH-Plan.

The monitoring and implementation of Standard Operating Procedures and Protocols, as suggested in this **COSH-Plan**, during the resumption and continuity of construction, operation and maintenance activities, will not only reduce risks of the spread of COVID-19 but also strengthen SOPs on Thermal Scanning, Social Distancing, Sanitization of hands, objects, and surfaces. The implementation of this COSH-Plan, like other Articles and Schedules of Contract Agreements of HAM and EPC Modes, shall be legally binding for each Concessionaire and EPC Contractor. Therefore, the above shall be implemented by the Concessionaire /Contractor as a Contractual Obligation with assistance, cooperation, monitoring & control of RPWD-PPP, PIU Offices, AES/IEs, and PMC.

### 1.3. What is Coronavirus and COVID-19:

A coronavirus is a kind of common virus that causes an infection in the nose, sinuses, or upper throat. Most coronaviruses aren't dangerous. COVID-19 is a disease caused by a new strain of coronavirus. 'CO' stands for corona, 'VI' for the virus, and 'D' for disease. It is caused by a coronavirus named SARS-CoV-2 and leads to respiratory tract infection, affecting the upper respiratory tract (sinuses, nose, upper throat) or lower respiratory tract (windpipe and lungs). Formerly, this disease was referred to as '2019 novel coronavirus' or '2019-nCoV'. The World Health Organization (WHO) declared COVID-19, a Public Health Emergency of International Concern on 30 January 2020.



Photograph 1: Coronavirus is a family of viruses that can cause respiratory illnesses such as the common cold, severe acute respiratory syndrome (SARS), and the Middle East respiratory syndrome (MERS)-Source-Mayo Clinic-2020

### 1.4. How does COVID-19 spread:

A review of websites-based data, information, and updates indicates that COVID-19 spreads from one infected surface to another surface. The surface-to-surface touch and interactions exist in our day-to-day life, among persons (person to person) and persons to non-living surfaces. The spread normally occurs:

- **Person to Person Spread:** (i). One person with the virus-infection sneezes or coughs or talks in proximity (lesser than 1 meter) of another person, leaving respiratory droplets on skin or clothing of other people, (ii). When a person, maybe un-infected touches another person who has the virus infection on their skin or clothing and (iii). One virus-infected person touches the face of another person, which gives the virus infection an entry point via the mouth, nose, or eyes of the person being touched.
- **Person in contact with infected surfaces or objects:** When a person, maybe many persons, touch a surface or object, may be surfaces or objects that has the virus on them and then touch their own mouth, nose, or possibly their eyes.

Figure 2 below illustrates activities and processes, mainly responsible for the spread of COVID-19





Figure 1: Activities and processes, mainly responsible for the spread of COVID-19 Source:

Source: <https://www.mygov.in/covid-19>

**1.5. Symptoms of COVID-19:**

As per available scientific findings, COVID-19 affects human beings at different levels and manifests itself in symptoms as outlined in Table 1 below

Table 1: Symptoms of COVID-19

S. No	Most common symptoms	Less common symptoms	Serious symptoms
1.	Fever	Aches and pains	Difficulties in breathing or shortness of breathing
2.	Dry Cough	Sore throats, a runny nose	Chest pain or pressures
3.	Tiredness	Diarrohea	Loss of speech or movements
4.		Conjunctivitis	
5.		Headaches	
6.		Loss of Tastes or smell	
7.		A rash or rashes on skin or discoloration of fingers and toes	
8.		<ul style="list-style-type: none"> <li>• chills</li> <li>• repeated shaking with chills</li> </ul>	

Figure 2 below illustrates key symptoms, identified by the medical community, so far, across the world including India.

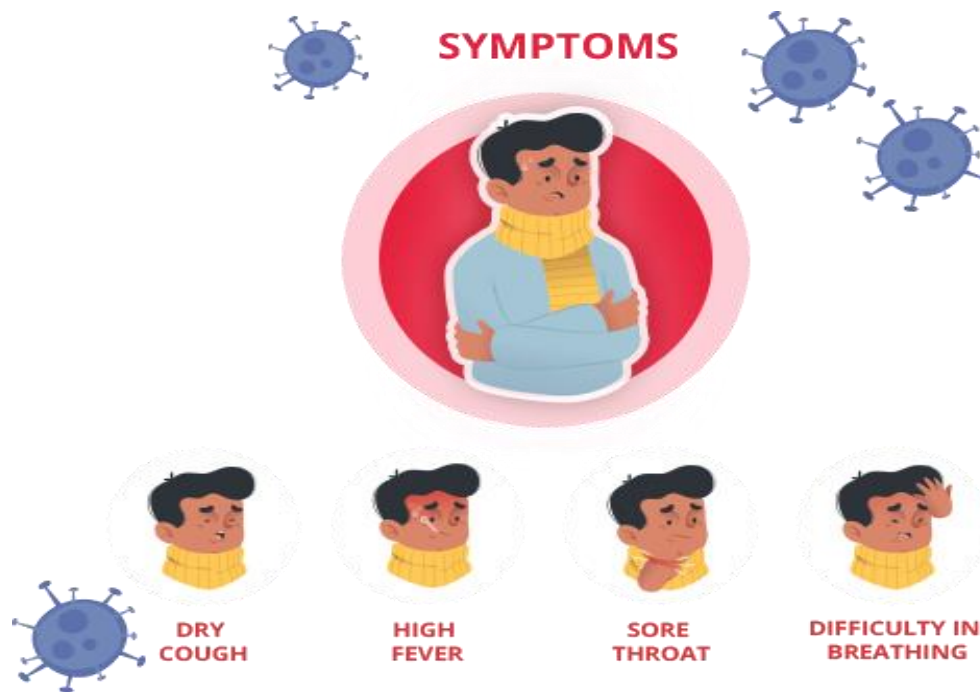


Figure 2: Key symptoms of COVID-19, identified by the medical community, so far, across the world including India. Source: <https://www.mygov.in/covid-19>

For a more in-depth understanding of the above-referred key symptoms of COVID-19 in a lively manner, refer and visit the following website:

<https://www.youtube.com/watch?v=oBSkHZPu2xU>

#### 1.6. Updating about the global situation of COVID-19:

“WHO” is working 24/7 to analyze data, provide advice, coordinate with partners, help countries prepare, increase supplies, and manage expert networks. The outbreak was declared a Public Health Emergency of International Concern on 30 January 2020. To stay up to date, follow @ Dr. Tedros and @WHO on Twitter, read WHO’s [daily situation reports](#) and releases, and watch our regular [press conferences](#) by visiting its following website for updates about the global situation: <https://www.who.int/covid-19>

#### 1.7. Updating about the national situation of COVID-19 in India:

The government of India is taking all necessary steps to ensure that we are prepared well to face the challenge and threat posed by the growing pandemic of COVID-19 the Corona Virus. With the active support of the people of India, GOI and State Governments are making all required efforts to contain the spread of the virus in the country. The most important factor in preventing the spread of COVID-19 at local, regional, and national levels is to enlighten and empower the citizens with the right information and take precautions as per the advisories being issued by the Ministry of Health & Family Welfare. Visit the following websites for getting enlightened and remaining updated about all aspects and issues pertaining to COVID-19 at the national level:

<https://www.mygov.in/covid-19>

<https://www.mohfw.gov.in/>

Additional guidelines on rational use of Personal Protective Equipment (setting approach for Health functionaries working in non-COVID areas), dated 15.05.2020 on the following website:

<https://www.mohfw.gov.in/pdf/GuidelinesonrationaluseofPersonalProtectiveEquipment.pdf>.

**1.8. Updating about COVID-19 Pandemic Situation in Rajasthan:**

Ministry of Health and Family Welfare is 24x7 monitoring the COVID-19 situation in each district of the State. All details including **Rajasthan 0141-2225624/2225000 Toll-Free No: 104/108, National Call Center No. +91-11-23978046, Toll-Free No:1075**, WhatsApp Chatbot +911412225624, Helpline Email-ID-rajasthan\_idsp@yahoo.co.in. Frequently Asked Questions on all aspects and issues of COVID-19, list of COVID-19 facilities, hospitals offering COVID-19 treatments, awareness materials, travel advisories, GOR instructions and welfare measures for different ministries and departments, citizens, migrants, and practices/SOPs to be adopted and implemented for maintaining good behavioral health at all levels governance and society are available and are consistently updated on the following website: <http://www.rajswasthya.nic.in/Index.htm>

**1.9. Role of PMU-RPWD-PPP, PIUs, AEs/IEs, Concessionaires, Contractors and PMC:**

RPWD-PPP work as Project management Unit (PMU), PIUs work as Project Implementation Units, Authority engineers and Independent Engineer work as Construction Supervision Consultants and Project Management Consultants (PMC) work for monitoring and advising on design, construction, operation, and maintenance issues. All these entities together work as an institutional set-up, with differentiated responsibilities. The key role of this entire institutional set-up, during this national and international health emergency i.e. COVID-19 Pandemic, is to work together in close coordination with one another, as well as, with ministries and departments of the Government of Rajasthan, besides also working with local communities, for the control and prevention of the spread of COVID-19 by overcoming the challenges arised due to resumption of the work activities.

## CHAPTER-2

### General Guidelines: Standard Operating Procedure

The entire workforce involved in the institutional set-up involved and responsible for the monitoring and implementation of the Community Occupational Safety & Health Plan (COSH-Plan) shall ensure downloading and functioning of Arogya-Satu on their mobiles, tabs, and Ipads as well as on laptops, computer systems operating in their offices.

1. Concessionaires and EPC Contractors shall appoint separate COVID-19-COSH-Engineer for each road, for the implementation of COSH-Plan, who will report monitoring and implementation details of COSH, by email, Phone/SMS/WhatsApp, etc.& report on a daily basis to concerned Authorized Representatives, Project Managers (Concessionaires and EPC Contractors) with a copy to PDs (PIUs), AEs/IE and PMC. This COSH Engineer appointed, shall prepare a list of hospitals, clinics in nearby project areas and shall circulate this list by email to the Project Manager-Concessionaire / Contractor, PD (PIUs), AEs/IEs, and PMC.
2. Concessionaires and EPC Contractors shall provide required training to each Engineer appointed for each road, for the implementation of COSH-Plan. Self-training by each Engineer by visiting and consulting following or any other relevant websites, should be encouraged:  
<https://www.mygov.in/covid-19>  
<https://www.who.int/emergencies/diseases/novel-coronavirus-2019/training/online-training>  
<https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public>  
<https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance>  
*apps.who.int > iris > rest > bitstreams > retrieve*
3. All offices of RPWD-PPP, PD Offices, Concessionaires, EPC Contractors, Authority & Independent Engineers and Project Management Consultant (PMC) shall be continuing already being implemented SOPs/protocols of thermal scanning, hands sanitization, masks wearing and social distancing, not only, at entry and exit points, but also during inside offices works.
4. Regular basis sprayer-based sanitization shall be continued for vehicles, inside office spaces, and objects.
5. Concessionaires and EPC Contractors, at entry and exit points of their road construction sites, shall make arrangements for ensuring thermal scanning, hand sanitization, checking for mandatory wearing of masks, and social distancing (keeping distance of 2 meters).
6. Contract Packages where operation and maintenance activities are going on, including Toll Plazas, shall strictly implement the same protocols.
7. Concessionaires and EPC Contractors shall strictly implement the mandatory wearing of masks for all those, present on sites, during their entire staying period on roads sites and associated activities.
8. Concessionaires and EPC Contractors shall assess essential requirements of laborers and another workforce, required for construction, operation, and maintenance activities on roads sites and shall make arrangements for their safe transportation to required sites by providing vehicles transporting different types of workforce, with 30-40% of their passenger-carrying capacity.
9. Concessionaires and EPC Contractors shall carry out regular basis sanitization of laborer's camps, in case existing and operating, either in construction camps or at any place on sites of roads, besides carrying out awareness training of laborers in implementation of social distancing, hands sanitization, wearing of masks in all their day to day activities including arrangements of sleeping and rest taking beds, keeping a distance of 5 meters from one bed to another, as well as, implementing social distancing protocols in their eating, drinking, bathing and washing activities.
10. Concessionaires and EPC Contractors shall make arrangements for regular hands sanitization, at the adequate number of places with strict compliance with social distancing protocols, not only, inside construction camps, but also, at required places on sites where construction, operation, and maintenance activities are going on and shall also provide adequate numbers of hand sanitizers, soaps, and towels all these hand sanitization places.

11. Concessionaires and EPC Contractors shall display adequately sized posters displaying boards, to be visible to one and all in offices and on sites, at least from a distance of 5 meters, containing Dos and Don'ts issued by The Ministry of Health and Family Welfare, GOI, and GOR.
12. Concessionaires and EPC Contractors shall not allow any worker/staff on construction sites; who is sick and has symptoms of cold, cough, sneezing, frequent headache, or body ache. Concessionaires and EPC Contractor shall immediately make arrangements for medical consultations in nearest health centers, for those found symptomatic.
13. Concessionaires and EPC Contractors shall ensure immediate reporting to nearest PHC/HC/Medical Nursing Homes/Clinics/District level Hospitals or nearest administrative centers at district, tehsil, block levels, in case, there is any detection of Severe Acute Respiratory Indicators (SARI) and Influenza-Like Indicators (ILIs) and shall implement the further course of action as per advice and prescription of PHC/HC/Medical Nursing Homes/Clinics / District level Hospitals and concerned administration.
14. Besides the above-given SOPs/Protocols, Concessionaires and EPC Contractors shall ensure the strict implementation of the following preventive measures, meant for **the protection** of the entire workforce on construction sites, **from rising temperatures, due to summer heat waves**:
  - i. There should be adequate shading arrangements at required places on all sites where activities related to construction, operation, and maintenance of roads, are going on. These shading arrangements, resting facilities inside, should be as per social distancing protocols, properly sanitized, and provided with hands sanitization facilities on regular basis. The laborers/workers should be allowed to take rest, especially during the time period from 11: 00 AM to 3: 00 PM to protect laborers and workers, not only, from scorching sun-heat, sun-stroke, but also from COVID-19 by making the immune system of the body strong. Early as well as Late shifts may be allowed in the above case.
  - ii. Good quality drinking water shall be provided to the entire workforce, not only during their rest period from 11: 00 AM to 3: 00 PM, but also, before and after this period.
  - iii. Engineer appointed for each road, for the implementation of COSH Plan, shall keep all the time ready First-Aid Box containing essential medicines, ORS, Electrol, Glucose, at construction, operation, and maintenance work sites on roads.
15. Generic illustrations on General SOPs are given in Figures 3, 4, 5, and 7 on the foregoing pages:

**Figure 3: Work place SOPs, being implemented by PMC.**

# Keep Our Workplace Safe!

## Practice good hygiene



Stop hand shakes and use **non-contact greeting methods**



Clean hands at the door and schedule **regular hand washing reminders**



**Disinfect surfaces** like doorknobs, tables, and desks regularly



**Avoid touching your face** and cover your coughs and sneezes



**Increase ventilation** by opening windows or adjusting air conditioning

## Limit meetings and non-essential travels

Use **video conferencing** instead of face-to-face meetings

When video calls are not possible, hold your meetings in **well-ventilated rooms and spaces**

**Suspend all non-essential travels** and trips



## Stay home if...

- You are **feeling sick**
- You have a **sick family member** at home



• **No Smoking**



• **No going out from the office premises**



• **No outside food allowed.**

## Take care of your emotional and mental well-being

Outbreaks are a stressful and anxious time for everyone. We're here to support you!



• **Self service for water & tea.**

## #Fight against COVID-19

ON BEHALF OF CORPORATE TEAM

Figure 4: Prevention and Control SOPs being implanted by PMC.

**SMEC** Member of the Surbana Jurong Group

# STOP THE SPREAD

**Sj** SURBANA JURONG

**WASH YOUR HANDS FREQUENTLY**  
Regularly and thoroughly clean your hands with an alcohol-based hand rub or wash them with soap and water.

**MAINTAIN PHYSICAL DISTANCING**  
Maintain at least 2.0 metre distance between yourself and anyone who is coughing or sneezing.

**AVOID TOUCHING EYES, NOSE AND MOUTH**  
Hands touch many surfaces and can pick up viruses. Once contaminated, hands can transfer the virus to your eyes, nose or mouth.

**IF YOU HAVE A FEVER, COUGH AND DIFFICULTY BREATHING, SEEK MEDICAL CARE EARLY**  
Stay home if you feel unwell. If you have a fever, cough and difficulty breathing, seek medical attention and call in advance.

**#Fight against COVID 19** On behalf of Corporate Team

Figure 5: Work resumption SOPs, being implemented by PMC.



# Resumption Plan key points



- Mandatory downloading of Aarogya Setu app by all staff members before joining office.



- The employees will be allowed access to office premises upon usage of sanitizers & checking of temperatures.



- All areas in the premises will be disinfected.
- All the employees and others entering company premises to wear face mask at all times.



- Only face-detection system in Bio-metric to be used. Finger-prints detection system should be discontinued till further notice.



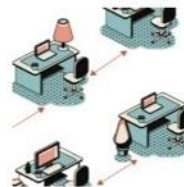
- To the extent possible, employees should use their personal vehicles for commuting to workplace. Carpools or public transport to be avoided.

- Air and rail travel will be restricted only to very urgent usages



- All employees to strictly adhere to the social distance of minimum 1 meter.

- Employees will be made to sit at a distance of 1 meter to ensure social distancing



- Physical meetings to be avoided as far as possible. Mediums like MS-teams, skype to be used for meetings.

**\*For detailed information refer the Resumption Plan**



On behalf of Corporate Department



Figure 6: Dos and Don'ts –SOPs issued for one and all by Ministry of Health and Family Welfare, Govt. Of India



**Protect yourself and others!**

**Follow these Do's and Don'ts**

**Do's** ✓



Practice frequent hand washing. Wash hands with soap and water or use alcohol based hand rub. Wash hands even if they are visibly clean



Cover your nose and mouth with handkerchief/tissue while sneezing and coughing



Throw used tissues into closed bins immediately after use



See a doctor if you feel unwell (fever, difficult breathing and cough). While visiting doctor wear a mask/cloth to cover your mouth and nose



If you have these signs/symptoms please call State helpline number or Ministry of Health & Family Welfare's 24X7 helpline at 011-23978046



Avoid participating in large gatherings



Have a close contact with anyone, if you're experiencing cough and fever



Touch your eyes, nose and mouth



Spit in public

**Don'ts** ✗

**Together we can fight Coronavirus**


**For further information :**


Call at Ministry of Health, Govt. of India's 24X7 control room number


**+91-11-2397 8046**

Email at [ncov2019@gmail.com](mailto:ncov2019@gmail.com)

Figure 7: COVID-19 related testing requirements and contact details, issued by Ministry of Family and Health Welfare, Govt of India.

  
स्वास्थ्य एवं परिवार कल्याण मंत्रालय  
भारत सरकार

 Help us to help you



# नोवल कोरोनावायरस (COVID-19)

— खुद रहें सुरक्षित, दूसरों को रखें सुरक्षित —

## क्या आपको COVID-19 की जाँच की आवश्यकता है?


- यदि आपको खाँसी, बुखार या सांस लेने में कठिनाई जैसे लक्षण नहीं हैं तो आपको COVID-19 की जाँच करवाने की आवश्यकता नहीं है
- यदि आपमें उपरोक्त लक्षण हैं और आपने इटली, ईरान, कोरिया गणराज्य, फ्रांस, स्पेन, जर्मनी, या संयुक्त अरब अमीरात, आदि किसी भी COVID-19 प्रभावित देश की यात्रा की है या आप प्रयोगशाला से प्रमाणित COVID-19 के किसी रोगी के संपर्क में आये हैं, तो तुरंत राज्य हेल्पलाइन नंबर या स्वास्थ्य और परिवार कल्याण मंत्रालय, भारत सरकार की **24x7 हेल्पलाइन 011-2397 8046** पर सम्पर्क करें
- हेल्पलाइन सेवा आपके संपर्क विवरणों को नोट करेगी और COVID-19 के परीक्षण प्रोटोकॉल के साथ आपसे संपर्क करेगी
- प्रोटोकॉल के अनुसार यदि आपको जाँच की आवश्यकता है तो आपकी जाँच केवल सरकार द्वारा अनुमोदित प्रयोगशाला में की जायेगी

• सरकार द्वारा अनुमोदित प्रयोगशालाओं की सूची <https://www.icmr.nic.in/> पर उपलब्ध है

• वर्तमान में, COVID-19 के परीक्षण के लिए कोई भी निजी अस्पताल/निजी प्रयोगशाला अधिकृत नहीं है

## हम सब साथ मिलकर कोरोनावायरस से लड़ सकते हैं

अधिक जानकारी के लिए स्वास्थ्य एवं परिवार कल्याण मंत्रालय, भारत सरकार के 24x7 हेल्पलाइन नं. **+91-11-23978046** पर कॉल करें या ई-मेल करें **ncov2019@gmail.com**

 mohfw.gov.in @MoHFWIndia @MoHFW\_INDIA mohfwindia

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## CHAPTER-3

### 3. Site Management Standard Operating Procedures for Construction, Operation and Maintenance Phases

The goal of the Community Occupational Safety and Health Plan (COSH-Plan) is to foster a safe and healthy work environment. COSH-Plan may also protect co-workers, family members, employers, customers, and many others including the community around who might be affected by the workplace environment.<sup>1</sup>

The Community Operational Safety and Health requirements of any construction activity/Toll Plaza must also not be compromised at this time for which all contractors/Toll Collectors are obliged to take care of its workers/labours as per the safety/health/accommodation/sanitation provisions of The Building and Other Construction Workers Act 1996 and the Rules made therein.

Sites/Toll plazas/Offices should remind the workforce at every opportunity of the Site Operating Procedures/Guidelines which are aimed at protecting them, their colleagues, their families, and the nearby population.

#### 3.1. Work Travel to and from Construction, Operation, and Maintenance sites:

- Concessionaires and EPC Contractors **shall ensure** that only the essential workforce involved including labourers, be allowed to travel to sites for attending works related with Construction, Operation, and Maintenance of roads.
- Concessionaires and EPC Contractors **shall ensure** the implementation of the following SOPs/Protocols for site management:
  - I. As State governments impose similar restrictions for inter-state travel, any such requirements for self-isolation must be obeyed as applicable.
  - II. All workers traveling to and from sites, shall carry hand sanitizers (containing at least 70% alcohol) and make regular use of them while going to and from site journey and even later.
  - III. Thermal scanning, hand sanitization with soaps and water and by sanitizers wherever water is not available, sanitization of vehicles, compulsory wearing of masks, hand-gloves of each worker including labourers at the entry and exit points of a site.
  - IV. Social distancing in vehicles, preferring single occupancy in vehicles when traveling to and from, from offices, construction, operation, and maintenance sites, as illustrated below in Figure 9 and table 2:

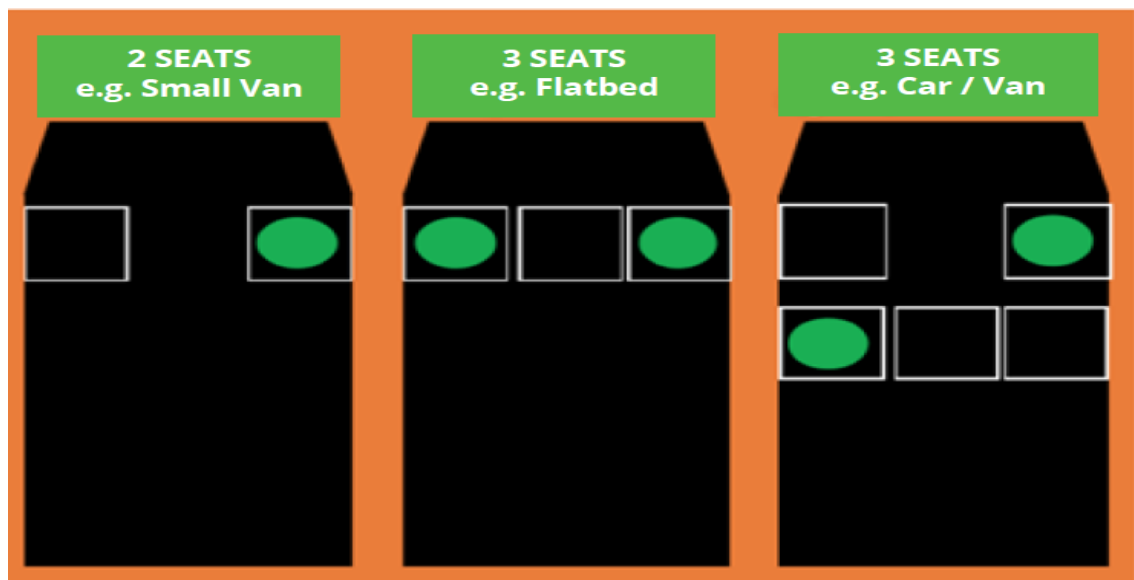


Figure 8: Suggested SOP for social distancing while traveling in vehicle/s, to and from sites

**Table 2: Recommended Maximum Road Vehicle Seating Arrangements**

Recommended Maximum Road Vehicle Seating Arrangements		
Nos. of Seats	Max no. of occupants	Seating arrangement
2	1	1 Driver
3	2	1 in the driving seat 1 in the far passenger seat
5	3	1 in the driving seat 2 in the far passenger seat

- I. Sick workers/labourers shall not be allowed to travel to attend office, road site construction, operation, and maintenance activities.
- II. Appropriate parking spaces are to be provided.
- III. Drivers, while driving will make window glass screen slightly open and before picking up and after leaving a worker onsite for attending the work onsite & will get the vehicle sanitized (windows, doors, inside and outside the vehicle contact points).
- IV. Ministry of Health and Family Welfare, Govt of Rajasthan, has issued travel advisories, as available on the following website: <http://www.rajswasthya.nic.in/Travel%20Advisories.htm>

**3.2. Return from Outstation to Construction, Operation, and Maintenance sites:**

- PIUs, Concessionaires, EPC Contractors, AEs/ IEs, and PMC, shall at their own make arrangements to check the fitness of their respective persons for returning to work sites.
- PIUs, Concessionaires, EPC Contractors, AEs/IEs, and PMC, shall **obtain Self Declaration Work Fitness** from persons, who are willing to return to offices, sites for attending their works.

**3.3. Working from home or working remotely:**

- PIUs, Concessionaires, EPC Contractors, AEs/IEs, and PMC, shall, wherever possible, allow their persons to Work From Home (WFH) or remotely by providing all required online working facilities and meetings are to be held through webinars, tele-conferencing, and video-conferencing.

**3.4. Project Director of the concerned PIU to act as Nodal Officer for COVID-19 COSH Compliance:**

The Project Director of concerned PIU shall act as C-19-COSH Compliance-Head, inactive assistances, and co-operation from persons **(i).On Behalf of PWD-PPP:** PIU Engineers, **(ii).On Behalf of AEs & IEs:** Team Leaders, Deputy Team Leader, Resident Engineers, and **(iii).On Behalf of PMC:** Environmental Specialist and Junior Engineers (PMC) and shall receive update upon the compliances w.r.t implementation of COSH-Plan, being implemented onsite and shall report to ACE (RPWD-PPP) as & when required basis.

**3.5. Appointment of Onsite COVID-19 Prevention and Control Safety Engineers:**

- Concessionaires and EPC Contractors shall appoint one COVID-19 COSH Engineer, maybe as Additional Responsibility, due to additional financial burden during loss suffering COVID-19 time, given to existing Project Managers and Deputy Project Managers of each road in each contract package. This COVID-19 COSH Engineer shall monitor the implementation of the COSH-Plan on each road with the assistance and cooperation of site safety supervisors and site engineers. This COVID-19 COSH Engineer should be clearly identifiable at each road site and the level COVID-19COSH Engineer should be clearly posted on the back of his/her safety jacket.
- Concessionaires and EPC Contractors, shall train the COVID-19COSH-Engineer and the team of site safety supervisors and site engineers for each road. Self-training by each Engineer by visiting and consulting following or any other relevant websites, should be encouraged:

<https://www.mygov.in/covid-19>

<https://www.who.int/emergencies/diseases/novel-coronavirus-2019/training/online-training>

<https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public>

<https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance>

- Concessionaires and EPC Contractors shall ensure that the backup shall be available, in case any COVID-19-COSH Engineer and his team member is attending any training, going on leave, and sick.
- Concessionaires and EPC Contractors shall ensure that details of the COVID-19 COSH Engineer are displayed at notice boards of each site.
- **Roles and Responsibilities of COVID-19 COSH Engineer for each road are as follows:**
  - I. Ensure these screenings and assessments occur before employees and visitors gain entry to the site. Screening and assessment protocols may include a visual scan and temperature check, self-certification, or a questionnaire regarding symptoms and exposure or a combination of these strategies.
  - II. To choose appropriate and feasible screening and assessment SOPs/protocols based on the needs of the worksite the COVID-19 COSH Engineer will communicate these protocols clearly to all employees and subcontractors prior to their implementation.
  - III. To monitor day-to-day onsite implementation of COSH for ensuring that all SOPs pertaining to thermal scanning, social distancing, sanitization, and others related to office and site health, hygiene, and safety are properly implemented for prevention and control of the spread of COVID-19.
  - IV. To gather the data and information from site safety supervisors and site engineers regarding the implementation of COSH-Plan and to report to COVID-19COSH Engineer & Project Director of the concerned PIU.

### **3.6. Office and On-Sites Inductions:**

- Concessionaires and EPC Contractors shall ensure that COVID-19COSH Engineer, shall be implementing the following SOPs for the site's offices and other on-site inductions programs:
  - I. The entire workforce involved in the institutional set-up and responsible for the monitoring and implementation of the Occupational Community Safety and Health Plan (COSH) shall ensure downloading and functioning of Arogya-Satu on their mobiles, tabs, and Ipads as well as on laptops& computer systems operating in their offices.
  - II. A Safety Stand-Down/toolbox talk/tailgate training must be conducted on all job sites on the first day of returning to work, and weekly thereafter, to explain the protective measures in place for all workers. Social distancing must be maintained at all gatherings.
  - III. Offices and site induction training must be completed and proof of training must be presented at the site. Therefore, for sites that do not require an identity card to operate a digital site control, workers must print off proof of training upon completion of the induction programming. Attendance will be communicated verbally and the trainer and trainees will sign in each attendee. E-learning materials are given at the following websites of WHO and the Ministry of Health& Family Welfare, GOI shall be utilized:
    - <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/training/online/training>
    - [https://www.mohfw.gov.in/pdf/FacilitatorGuideCOVID19\\_27%20March.pdf](https://www.mohfw.gov.in/pdf/FacilitatorGuideCOVID19_27%20March.pdf)
  - IV. COVID-19 safety requirements shall be visibly posted on each jobsite.
  - V. Trainers and Trainees who have traveled outside of India are asked to refrain from attending a site until 14 days after the person has returned to India. If trainers/ trainees are feeling ill they should be asked not to attend a worksite and if COSH-Engineer / his site team/staff witnesses symptoms of illness they will ask the trainer/trainee to please leave the site until such time that the worker is no longer exhibiting symptoms of illness.
  - VI. For workers who are unable to attend and complete their induction training at their own location/s, computer labs at the site offices may be opened for such types of workers, with compliance with social distances SOPs. Therefore, workers may still attend a site office to complete their site-induction program if they have no other option. Please note, we encourage all to make their best effort to complete the training in their own location if possible, by making use of learning and training materials at the following websites:
    - <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/training/online-training>

<https://www.who.int/emergencies/diseases/novel-coronavirus-2019/training/online-training>

### 3.7. Preventive Measures:

The following preventive measures shall be taken during the site management of the project.

### 3.8. awareness and Communication:

- Concessionaires and EPC Contractors shall ensure implementation of the following SOPs for awareness and communication:
  - I. COVID-19 prevention and control signage boards are installed and displayed with posters issued by MF&HW (GOI) and GOR and relevant updates from MHA (GOI and GOR).
  - II. Worksite policies for the control and prevention of COVID-19.
  - III. All workers present and working at different location/s of site/s should practically implement the following recommended practices for the prevention and control of the spread of COVID-19, as identified by WHO, Ministry of Family and Health Welfare (GOI and GOR).
- Avoid touching eyes, noses, and mouth without properly sanitized, soap, and water-washed hands.
- Coughing and sneezing into a tissue paper or on the bend of the arm and dispose of any used tissue paper in the covered waste bin.
- Always wear face masks (cotton cloth-based face masks), to be washed and dried properly in sunshine.
- Sanitize, clean, and disinfect frequently touched objects and surfaces including all reusable Personal Protection Equipment (PPEs)
- Personal items such as mobile, face masks, pens, notebooks, tools should not be exchanged with one another.
- PPEs being used, are to be removed with due care, by giving adequate attention to surfaces/points of PPEs that have the potential to get infected, either it should be washed and disinfected properly or a new PPE to be brought into use.
- Hand sanitization by using sanitizers, in case soap and water are not available. Hands sanitization is to be carried out regularly for 20-30 seconds after using wash-rooms, before handling food items, after blowing nose, coughing, sneezing, before smoking.
- Traditional Indian NAMASTE or waving hands, from a social distance of 2 meters, to be practiced for common physical greetings and welcomes. Hand shaking should not be practiced.
- **Self-isolation:**

Anyone who meets one of the following criteria should not come to the site:

  - Has a high temperature or a new persistent cough - follow the guidance on self-isolation?
  - Is a vulnerable person (by virtue of their age, underlying health condition, clinical condition, or pregnancy)?
  - Is living with someone in self-isolation or a vulnerable person?
- **Procedure if Someone Fall sick:**

If a worker develops a high temperature or a persistent cough while at work, they should:

  - Return home immediately
  - Avoid touching anything
  - Cough or sneeze into a tissue and put it in a bin, or if they do not have tissues, cough and sneeze into the crook of their elbow.
  - They must then follow the guidance on self-isolation and not return to work until their period of self-isolation has been completed.
- **Travel to Site**
  - Wherever possible workers should travel to site/Toll Plaza/office alone using their own transport and sites need to consider:

- Parking arrangements for additional cars and bicycles.
- Other means of transport to avoid public transported cycling.
- Providing hand cleaning facilities at entrances and exits. This should be soap and water wherever possible or hand Sanitizer if water is not available.
- How someone who is taken ill would get home?
- **Site/Toll Plaza/Office Access Points**
  - Stop all non-essential visitors
  - Introduce staggered start and finish times to reduce congestion and contact at all times.
  - Monitor site access points to enable social distancing – you may need to change the number of access points, either increase to reduce congestion or decrease to enable monitoring.
  - Remove or disable entry systems that require skin contact e.g. fingerprint scanners.
  - Require all workers to wash or clean their hands before entering or leaving the site.
  - Allow plenty of space (two meters) between people waiting to enter the site.
  - Regularly clean common contact surfaces in reception, office, access control, and delivery areas e.g. scanners, turnstiles, screens, telephone handsets, desks, particularly during peak flow times.
  - Reduce the number of people in attendance at site inductions and consider holding them outdoors wherever possible.
  - Drivers should remain in their vehicles if the load will allow it and must wash or clean their hands before unloading goods and materials.
- **Hand washing**
  - Provide additional hand washing facilities to the usual welfare facilities if a large spread out the site or significant numbers of personnel onsite.
  - Ensure soap and fresh water are readily available and kept topped up at all times.
  - Provide hand Sanitizer where hand washing facilities are unavailable.
  - Regularly clean the hand washing facilities and check soap and Sanitizer levels.
  - Provide suitable and sufficient rubbish bins for hand towels with regular removal and disposal.
  - Sites will need extra supplies of soap, hand sanitizer, and paper towels and these should be securely stored.
  - Photographs 2 and 3 show the Sample Hand Washing arrangement which has been made by ACE–RPWD-PPP in the internal premises of the PPP Cell. Similarly, good quality hand washing arrangements are in operation outside all offices, including bank and canteen and inside all common wash rooms, individual wash rooms of engineers, besides good quality hand sanitizers, compulsory wearing of face masks and maintaining social distancing (up to 2 meters minimum) in the office of each engineer, non-engineers, PMC Office as well as at entry gates of RPWD.



Photographs 2 and 3: Hand washing arrangements made by RPWD (PPP), in front of ACE Office.



Photograph 3: Hand washing arrangements made by RPWD(PPP), in front of ACE Office.



- **Toilet Facilities**

- Restrict the number of people using toilet facilities at any one time e.g. use a welfare attendant.
- Wash hands before and after using the facilities.
- Enhance the cleaning regimes for toilet facilities particularly door handles, locks, and toilet flush.
- Portable toilets should be avoided wherever possible, but where in use these should be cleaned and emptied more frequently.
- Provide suitable and sufficient rubbish bins for hand towels with regular removal and disposal.

- **Canteens and Eating Arrangements**

- Whilst there is a requirement for construction sites to provide a means of heating food and making hot drinks, these are exceptional circumstances and where it is not possible to introduce means of keeping equipment clean between uses, kettles, microwaves, etc. must be removed from use. The workforce should also be required to stay on-site once they have entered it and not use local shops.
- Dedicated eating areas should be identified on-site to reduce food waste and contamination
- Break times should be staggered to reduce congestion and contact at all times
- Hand cleaning facilities or hand sanitizer should be available at the entrance of any room where people eat and should be used by workers when entering and leaving the area.
- The workforce should be asked to bring pre-prepared meals and refillable drinking bottles from home.
- Workers should sit 2 meters apart from each other whilst eating and avoid all contact.
- Where catering is provided on-site, it should provide pre-prepared and wrapped food only.
- Payments should be taken by contactless card wherever possible.
- Crockery, eating utensils, cups, etc. should not be used.
- Good quality, preferably RO, drinking water should be provided with enhanced cleaning measures of the tap mechanism with the non-hand-touch operation are to be introduced.
- Tables should be cleaned between each use.
- All rubbish should be put straight in the bin and not left for someone else to clear up.
- All areas used for eating must be thoroughly cleaned at the end of each break and shift, including chairs, door handles, vending machines, and payment devices.

- **Changing Facilities, Showers, and Drying Rooms**

- Introduce staggered start and finish times to reduce congestion and contact at all times.
- Introduce enhanced cleaning of all facilities throughout the day and at the end of each day.
- Consider increasing the number or size of facilities available on-site if possible.
- Based on the size of each facility, determine how many people can use it at any one time to maintain a distance of two meters.
- Provide suitable and sufficient rubbish bins in these areas with regular removal and disposal.

- **Avoiding Close Working**

- There will be situations where it is not possible or safe for workers to distance themselves from each other by 2meters.

### **General Principles**

- Non-essential physical work that requires close contact between workers should not be carried out.
- Work requiring skin-to-skin contact should not be carried out.
- Plan all other work to minimize contact between workers.
- Re-usable PPE should be thoroughly cleaned after use and not shared between workers.
- Single-use PPE should be disposed of so that it cannot be reused.
- Stairs should be used in preference to lifts or hoists.
- Where lifts or hoists must be used:
  - Lower their capacity to reduce congestion and contact at all times
  - Regularly clean touchpoints, doors, buttons, etc. There should be a full-time operator for the lift.
- Increase ventilation in enclosed spaces.

- Regularly clean the inside of vehicle cabs and between use by different operators.
- **Cleaning**
  - Enhanced cleaning procedures should be in place across the site, particularly in communal areas and at touch points including:
    - Taps and washing facilities
    - Toilet flush and seats
    - Door handles and pushes plates
    - Hand rails on staircases and corridors
    - Lift and hoist controls
    - Machinery and equipment controls
    - Food preparation and eating surfaces
    - Telephone equipment
    - Key boards, photocopiers, and other office equipment
  - Rubbish collection and storage points should be increased and emptied regularly throughout and at the end of each day.
- **Site Meetings**
  - Only absolutely necessary meeting participants should attend. Attendees should be two meters apart from each other.
  - The room should be well ventilated/windows opened to allow fresh air circulation. Consider holding meetings in open areas where possible.
- **DURING the meeting or event**
  - Provide information or a briefing, preferably both orally and in writing, on COVID-19 and the measures that organizers are taking to make this event safe for participants.
  - Build trust. For example, as an icebreaker, practice ways to say hello without touching.
  - Encourage regular hand washing or use of an alcohol rub by all participants at the meeting or event.
  - Encourage participants to cover their face with the bend of their elbow or tissue if they cough or sneeze. Supply tissues and closed bins to dispose of them in a proper way.
  - Provide contact details or a health hotline number that participants can call for advice or give information.
  - Display dispensers of alcohol-based hand rub prominently around the venue.
  - If there is space, arrange seats so that participants are at least two meters apart.
  - Open windows and doors whenever possible to make sure the venue is well ventilated.
  - If anyone starts to feel unwell, follow your preparedness plan or call your hotline.
  - Depending on the situation in your area, or recent travel of the participant, place the person in the isolation room. Offer the person a mask so they can get home safely, if appropriate, or to a designated assessment facility.
  - Thank all participants for their cooperation with the provisions in place.
- **AFTER the meeting**
  - Retain the names and contact details of all participants for at least one month. This will help public health authorities trace people who may have been exposed to COVID-19 if one or more participants become ill shortly after the event.
  - If someone at the meeting or event was isolated as a suspected COVID-19 case, the organizer should let all participants know this. They should be advised to monitor themselves for symptoms for 14 days and take their temperature twice a day.
  - If they develop even a mild cough or low-grade fever (i.e. a temperature of 37.3 degrees Centigrade or 99.1-degree Fahrenheit more) they should stay at home and self-isolate. This means avoiding close contact (1 meter or nearer) with other people, including family members. They should also telephone their healthcare provider or the local public health department, giving them details of their recent travel and symptoms.
  - Thank all the participants for their cooperation with the provisions in place.
- **Construction Plans and Drawings – Review and Approval:**

- To be done online.
- Avoid paper drawings and plans, Personal tablets/iPods, etc. may be used.
- Official Submission in hard copies should be avoided & online submissions in soft copies should be followed.

### **3.8.1 Monitoring the entire workforce:**

- COVID-19COSH Engineer on each road shall track worker's health status, numbers of workers working on-site and off-site, their leave requests for fulfilling family work-related duties, besides, daily updating, with all required privacies, the list of all quarantined workers.

### **3.8.2 Thermal Scanning and other verbal information and affirmations at entries and exits:**

Concessionaires and EPC Contractors shall ensure implementation of the following SOPs for each worker:

- I. Temperature scanning at the entry and exit points of site/s on daily basis.
- II. Self-verbal informing about current health status on daily basis, whether suffering from flu-like symptoms such as fever, tiredness, coughing, congestion, or any other infection spread related health disorder.
- III. Self verbally informing once that he/she has not returned to India from any other country within the last 14 days.
- IV. Self-verbal informing and affirmation that he/she that to the best of their knowledge, they had not been in contact with someone with a confirmed or probable case of COVID-19&they had not been working on a site that was shut down due to reported cases of COVID-19 spread. Responses furnished are to be kept private and treated as sensitive medical information.

#### **3.8.2.1 Maintaining AC temperature & ventilation in Offices:**

**Offices shall ensure strict implementation of ISHRAE (Indian Society for Heating, Refrigerating & Air Conditioning Engineers) Guidelines in the operation and maintenance of their HVAC systems. Key Dos and Don'ts of these guidelines are as follows:**

- **Dos**
  - I. Maintain a constant temperature and humidity level between 24°C and 30°C & 40% and 70% respectively. Since it more or less established that the COVID-19 virus is unable to survive more than 37°C or more, ISHRAE insists that room temperature and humidity levels should be monitored closely in order to render the virus ineffective
  - II. recirculation of cool air by room air conditioners must be accompanied by outdoor air intake through slightly open windows and exhaust
  - III. Keep the windows slightly open or use exhaust to accompany the recirculation of AC's cool air with outdoor air intake
  - IV. Increase the frequency of filter cleaning. The service provider may be advised to clean the filters more frequently.
  - V. In case of breakdown contact authorized dealer only
  - VI. During non-working hours and weekends, it is recommended to keep the air circulation system running at all times without cooling.
  - VII. The exhaust ventilation systems in wash rooms should be kept operational 24/ 7.
  - VIII. All offices including commercial buildings limit risk by ventilating the indoor environment with outdoor air as much as possible. The suggestive precaution, as mentioned in the guidelines, is the use of mechanical ventilation systems that improve the quality of the outdoor air through filtration.
  - IX. All those offices which have remained closed during the lockdown should ensure proper cleaning and sanitization of HVAC systems, before the re-start of operation of HVAC systems. Most commercial establishments have remained closed during the lockdown.

These establishments will need maintenance for both engineering and health safety. The air-conditioned spaces of establishments under prolonged lockdown will pose health hazards due to fungus and molds in the ducts and open spaces depending on the humidity and temperature prevailing within. Further, there may be bird droppings, and excreta of rodents as well increased level of insects,

- **DON'Ts**

- I. Rajasthan by and large has a dry climate, does not allow the relative humidity to fall below 40 percent. The water evaporating from a pan kept in the room will increase humidity if it falls below 40 per cent.
- II. Do not keep the room closed even when ACs are not running. The windows should be partly kept open while using electric fans. If the room has an exhaust fan, it should be switched on for better ventilation.

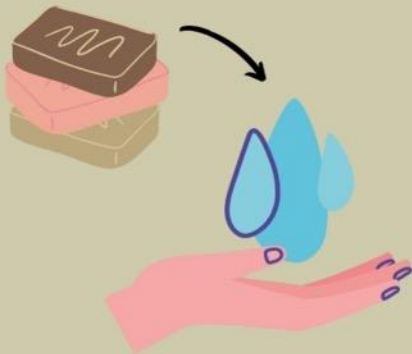
- COVID-19 is a Global Pandemic and there are concerns associated with Air conditioning and Ventilation also. ISHRAE (Indian Society for Heating, Refrigerating & Air Conditioning Engineers) took the lead to address this matter and on 13.04.2020 came out with comprehensive HVAC Guidelines after most relevant, Digitally Enabled, Panel Discussion, drawing expert Panelists from Industry, Academia & Research on "How to Operate Air Conditioning and Ventilation Systems to control the spread of Corona Virus in Residences, Work spaces & Healthcare Facilities". Complete details of ISHRAE Guidelines, being referred, are available at the following website :

[https://ishrae.in/mailer/ISHRAE\\_COVID-19\\_Guidelines.pdf](https://ishrae.in/mailer/ISHRAE_COVID-19_Guidelines.pdf)

### **3.8.3 Checking for Masks wearing and Sanitization:**

- Concessionaires and EPC Contractors shall ensure implementation of the following SOPs for each worker for mask-wearing and hand sanitization, as illustrated below in SMEC-SOPs in Figure 8:

# A GUIDE TO USE FACE MASK



Before putting on a mask, clean hands with alcohol-based hand rub or soap and water



Cover mouth and nose with mask and make sure there are no gaps between your face and the mask.



Replace the mask with a new one as soon as it is damp and do not re-use single-use mask.



To remove the mask: remove it behind (do not touch the front of mask); discard immediately in a closed bin. Clean hand with alcohol based hand rub or soap and water.

**#Fight against COVID 19**

On behalf of Corporate Team

Figure 9: SOPs to be implemented for mask-wearing, being implemented by PMC

- **Onsite restrictions for onsite entries, movements, and exits:**

Concessionaires and EPC Contractors shall ensure that only essential & required workforce, shall be allowed to enter and work on-site.

Concessionaires and EPC Contractors shall ensure that close working means within 2 meters is preferable to be eliminated, however, in case, within 2 meters works are required to be carried out, following extra pre-caution are required to be strictly implemented:

- I. An exclusive zone for <2m work will be set up pre-close work commencement.
- II. No worker is suffering from flu-like symptoms such as fever, tiredness, coughing, congestion, or any other infections spreading potentially related health disorders and has symptoms of COVID-19.
- III. Each worker entering into close working space within 2 meters, shall do adequate hands sanitization and shall wear required PPE including wearing of face mask, hand gloves, safety goggles is being practiced.

#### **3.8.4 Stopping common touch points:**

Concessionaires and EPC Contractors shall ensure the implementation of the following SOPs for minimizing the use of common touch points:

- I. Commonly shared coffee machines, water fountains, microwave ovens, and similar shall be kept and operated under restricted access and shall be regularly cleaned and sanitized.
- II. Common pens shall not be used for signing purposes in registers or wherever required.
- III. Washroom facilities such as sinks shall be re-organized as per SOPs pertaining to social distancing.
- IV. Doors and handles either shall be removed or regularly sanitized and paper towels are to be provided to allow users to avoid skin contact.
- V. Hand gloves shall be worn whenever possible while on the worksite, but are to be treated the same manner as bare hands in terms of minimizing unnecessary touching of anything on-site and the user's face.

#### **3.8.5 Limiting numbers in human interactions requiring locations on construction sites:**

- **Concessionaires and EPC Contractors shall ensure the implementation of the following SOPs for complying with social distances requirements in offices:**

- I. All non-essential site personnel should be encouraged to work from home where possible – usual support from the management is required.
- II. Personnel working in site offices should be dispersed so there is always a social distance of 2m.
- III. Stopping of non-essential visitors attending offices.
- IV. Use I.T software to support online meetings both in and out of the office.
- V. Keep workstation surfaces clear and wipe with disinfectant regularly.
- VI. Hand sanitizers should be made available at the main entry and exit points.
- VII. Keep main doors open where possible to reduce persons touching door handles etc.
- VIII. Increase the cleaning regimes including a wipe down with disinfectant on door handles, stair rails, etc. at regular intervals throughout the day

- **Concessionaires and EPC Contractors shall ensure the implementation of the following SOPs for complying with social distances requirements in toilet facilities:**

- I. Restrict the number of people using toilet facilities at any one time. Ensure there is a social distance of 2m maintained while using the toilet facility.
  - II. Implement an appropriate COVID-19 hygiene regime.
  - III. Ensure soap and hand washing pictorial **guides** provided for washing hands are clearly visual and in a firm manner and in language to be understood by all.
  - IV. Enhance the cleaning regimes for toilet facilities, particularly door handles, locks and the toilet flush handle.
  - V. Provide suitable and sufficient rubbish bins for hand towels with regular removal and disposal.
- **Concessionaires and EPC Contractors shall ensure the implementation of following SOPs for complying with social distances requirements in eating and drinking arrangements facilities to ensure a social distancing of 2m:**
    - I. Workers attending site works shall be advised to where possible to bring a packed lunch and individual water bottles in helping the elimination of transmission points on microwaves and water pour points etc. Where catering is provided on-site, consider the provision of pre-prepared and wrapped food only.
    - II. Lunch and tea-coffee-taking timings shall always be staggered to reduce congestion and contact.
    - III. All workers present at different points on a site shall do hand washing and sanitization before doing any eating and drinking activity. Hand cleaning facilities or hand sanitizer should be available at the entrance and exit of Canteen Hall where workers eat and should be used by all workers while entering and leaving that area.
    - IV. Seating arrangement shall be arranged in a manner, so that workers may sit 2 meters apart from each other, whilst eating and avoid all physical contact with co-workers. Tables should be cleaned between each use and sitting based on rotation.
    - V. Good quality drinking water, preferably RO water to be provided to the entire work force, whether working in site offices or at any active construction site.
    - VI. All areas used for eating must be thoroughly cleaned after each use, including chairs, door handles, vending machines, payment devices, etc.
    - VII. All rubbish should be disposed of in a suitable waste bin.

### **3.8.6 Construction activities prioritization for settlement areas:**

- **Concessionaires and EPC Contractors shall ensure the implementation of the following SOPs while working on sites in and near settlement areas:**
  - I. All workers working in settlement areas shall strictly enforce the minimum social distancing with local community members.
  - II. Non-essential and Non-emergency works shall not be carried out in the densely populated settlement, markets, etc. Emergency work can be carried out provided workers are equipped with required PPEs such as nitrile gloves, Tyvek suits or coveralls, and facial/ respiratory protection.
  - III. Workers shall ensure that their hands and tools are thoroughly cleaned and sanitized before entering the workplace and after leaving, and any surfaces or equipment in the occupied space are disinfected before work is done on them

### **3.8.7 Transportation of construction materials: onsite loading and un-loading:**

- **Concessionaires and EPC Contractors shall ensure the implementation of the following SOPs while getting transportation of construction materials on sites by their own vehicles, as well as by vehicles of being outsourced suppliers:**
  - I. All construction materials shall be transported in covered vehicles.

- II. Drivers, helpers, and others involved in transportation, loading, and un-loading of construction material shall be, thermally scanned and proper hand sanitization shall be carried out.
- III. Drivers and helpers involved in vehicle operations shall sanitize outer objects and surfaces of Windows, lights, and internal objects and surfaces, such as steering, buttons, seats, and any other object and surfaces to be touched by them during the course of the operation of the vehicles.
- IV. Drivers and helpers involved in vehicle operations shall always carry a First-Aid box in their vehicles.
- V. Drivers, helpers, and others involved in the transportation, loading, and un-loading of constructional materials shall comply with social distancing rules of working at 2 meters distance from one another and wearing safety goggles, hand gloves, safety shoes, and face masks.

### 3.8.8 Preventing cross infections:

- **Concessionaires and EPC Contractors shall ensure the implementation of the following SOPs, while at access points to all construction sites because the potential for cross-contamination is higher at site entry and exit points and where there are high levels of surface contact points such as in welfare areas, site walkways, stairs access, side railings, etc.:**
  - I. Only restricted entries based on essential workers and visitors shall be allowed to enter site/s.
  - II. Thermal scanning and hands sanitization at each entry and exit point.
  - III. Timings of site work start and end on each day are planned and implemented in a staggered manner.
  - IV. Multiple entries points shall be established in case of many active construction sites.
  - V. Reduction in the number of workers in attendance at site inductions and consider holding them outdoors wherever possible.
  - VI. Delivery drivers should remain in their vehicles if the load will allow it and must wash or clean their hands before unloading goods and materials.
  - VII. On access routes throughout the site, one-way systems should be implemented where possible, barrier gates should be wedged open, and touch points should be cleaned regularly.
  - VIII. All tools and equipment should be properly sanitized to prevent cross-contamination.
  - IX. Arrangements for one individual to use the same tool, equipment, and plant as much as possible. Make available cleaning material for all tools to be wiped down with disinfectant between each user. Organize work practices to reduce/eliminate transmission points.
  - X. Cabs and touch points of site vehicles and plants (Excavators, Cranes, etc.) to be thoroughly cleaned and a cleaning regime by plant operators should be maintained daily.
  - XI. Consider the provision of stickers for tools, equipment, and mobile plant to encourage disinfection.

### 3.8.9 Onsite meetings:

- **Concessionaires and EPC Contractors shall ensure the implementation of the following SOPs in all meetings, where possible, are to be conducted virtually using online systems for remote meetings unless it is necessary to meet face-to-face. In these circumstances, keep the numbers attending as small as possible ensuring the mandatory 2m distance apart. The meeting time should be kept as brief as possible.**
  - I. Only 'absolutely necessary' meeting participants should attend.
  - II. Attendees should be 2m apart from each other.
  - III. Rooms should be well ventilated/windows open to allow fresh air circulation.



IV. Consideration to be given to hold meetings in open areas where possible

**3.8.10 First Aid Requirements:**

- **Concessionaires and EPC Contractors shall ensure the implementation of the following SOPs while providing First-Aid responses to suspected infections on-sites and in offices:**
  - I. Standard infection control precautions shall be applied when responding to any first aid incident on any site or in office spaces. Hand washing with warm water and soap or an alcohol-based hand sanitizer gel must be performed before and after providing any first aid treatment.
  - II. In case any worker is suspected of experiencing a cardiac arrest, do not listen or feel for breathing by placing ear and cheek close to the worker's mouth. If First Aid Provider is in any doubt about confirming the cardiac arrest, the default position is to start chest compressions only until help arrives. The heart stops sending blood to the body and brain, either because it is beating too fast and too erratically, or because it has stopped beating altogether. Oxygen-starved brain cells start to die. Death occurs in minutes — unless a bystander takes matters into his or her hands and starts Cardio- Pulmonary Resuscitation (CPR). Cardio-Pulmonary Resuscitation (CPR) consists of the use of chest compressions and artificial ventilation to maintain circulatory flow and oxygenation during cardiac arrest (see the images below). Although survival rates and neurologic outcomes are poor for patients with cardiac arrest, early appropriate resuscitation—involving early defibrillation—and appropriate implementation of post-cardiac arrest care lead to improved survival and neurologic outcomes. Push down at least two inches at a rate of 100 to 120 pushes a minute in the center of the chest, allowing the chest to come back up to its normal position after each push.



- III. Figure 10: Delivery of chest compressions. Note the overlapping hands placed on the center of the sternum, with the rescuer's arms extended. Chest compressions are to be delivered at a rate of at least 100-120 compressions per minute.
- IV. Workers after giving First Aid treatments shall be moved to a first aid room or in a room to minimize the risk of infection to others.
- V. The First Aid provider shall wear Additional PPE (enclosed eye protection and medical mask if available) when responding to all first aid incidents where close contact cannot be avoided.
- VI. After First-Aid treatment in case, any worker is showing symptoms consistent with COVID-19. He /She shall be immediately transferred to a nearby hospital where COVID-19 treatment is done.
- VII. First Aid Provider, wherever possible, should avoid close contact with workers with minor injuries (cuts, abrasions, minor burns) - and advise the injured workers what steps to take in treating their injury.
- VIII. First Aid Provider shall ensure that no reusable equipment should be put to service without being cleaned/disinfected appropriately.

- IX. First Aid Provider, shall ensure all the time availability of following PPEs requirements
- X. Disposable gloves (nitrile/latex)
- XI. FFP3 or FFP2 Face masks
- XII. Disposable plastic aprons
- XIII. Enclosed eye protection
- XIV. First Aid Provider must ensure that the mask covers both the mouth and nose and is fitted correctly to create an adequate seal to the face.
- XV. First Aid Provider and his staff must ensure that following first aid treatment, disposable PPE and any waste should be disposed of appropriately and reusable PPE cleaned/disinfected thoroughly.
- XVI. COVID-19-COSH Engineer on each road shall regularly remain with First Aid Facilities on each road and shall ensure replenishments of PPE stock as appropriate by liaising with the Authorized Representative or Project Manager to ensure any issues with first aid PPE are resolved in a timely manner as possible.**

**3.8.11 Strict implementation of required Personal Protection Equipment (PPEs) is required:**

- PPEs are always used for the protection of the entire workforce involved in construction, operation, and maintenance-related activities of roads in Tranche-I and II, from any risk to injury due to an office-based or onsite job hazards. Strict use of PPEs has now assumed greater significance for the protection of the entire workforce from risks of getting infected from COVID-19. A list of PPEs to be used for the prevention and control of the spread of COVID-19 has been provided in table 3, along with brief illustrations of PPEs to be used in figures 10 and photographs, however, for gaining more awareness and training regarding the use of PPEs, PIUs, Concessionaires, EPC Contractors, AEs/IEs and PMC are requested to visit following websites :

<https://www.mohfw.gov.in/pdf/GuidelinesonrationaluseofPersonalProtectiveEquipment.pdf>

<https://openwho.org/courses/IPC-PPE-EN>



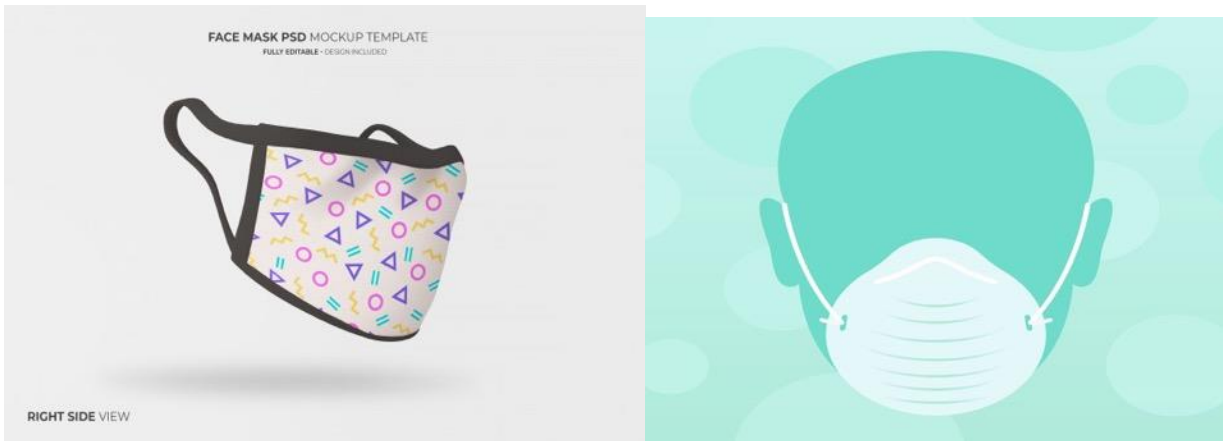
**Figure 11: PPEs required in construction, operation, and maintenance activities of roads**

Source: [https://www.freepik.com/premium-vector/worker-with-personal-protective-equipment-safety-icons\\_1576853.htm#page=1&query=safety&position=16](https://www.freepik.com/premium-vector/worker-with-personal-protective-equipment-safety-icons_1576853.htm#page=1&query=safety&position=16)



**Photograph 4: PPEs required in construction, operation, and maintenance activities of roads**

Source: [https://www.freepik.com/premium-vector/worker-with-personal-protective-equipment-safety-icons\\_1576853.htm#page=1&query=safety&position=16](https://www.freepik.com/premium-vector/worker-with-personal-protective-equipment-safety-icons_1576853.htm#page=1&query=safety&position=16)



**Photograph 5: PPE-Face Mask, required in construction, operation, and maintenance activities of roads**

Source: [https://www.freepik.com/premium-vector/worker-with-personal-protective-equipment-safety-  
icons\\_1576853.htm#page=1&query=safety&position=16](https://www.freepik.com/premium-vector/worker-with-personal-protective-equipment-safety-icons_1576853.htm#page=1&query=safety&position=16)



**Photograph 6: PPE-Face Shields, required in construction, operation, and maintenance activities of roads**

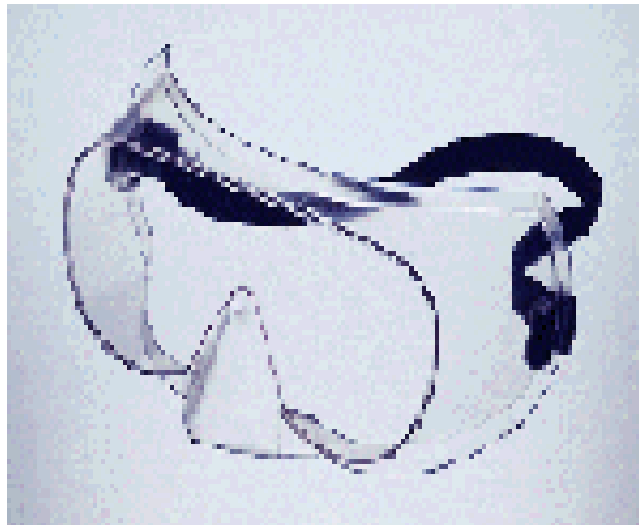
Source: [https://en.wikipedia.org/wiki/Face\\_shield](https://en.wikipedia.org/wiki/Face_shield)



Photograph 7: Indirect-ventilated safety goggles



Photograph 8: Direct-ventilated goggles



Photograph 9: Non-ventilated safety goggles

Source: <https://www.osha.gov/SLTC/etools/eyeandface/ppe/impact.html>

**Table 3: Personal Protection Equipment (PPEs) to be used among the workforce at construction sites**

Activities	Risk of Exposure among the workforce (High/Medium/Low)	Recommended PPEs	Good Practices to be implemented while using appropriate PPEs
Onsite Construction Camp Management			Concessionaires and EPC Contractors shall ensure the implementation of following best practices while monitoring the use of appropriate PPEs
Construction Camp area	High for all types of workers and labourers including engineers of Concessionaires/EPC Contractors /AEs/IEs/PIUs and PMC present in the area, maybe open areas of the construction camp	<ul style="list-style-type: none"> <li>• Safety Jacket</li> <li>• Safety Helmets</li> <li>• Good quality cotton sun-facing protection cap, only for engineers, labourers, and other workers</li> <li>• Mask</li> <li>• Gloves- Normal, means good quality cotton/rubber gloves reusable after washing and sun-drying</li> <li>• Eye protection ( direct or indirect ventilation providing safety goggles or face shield)</li> <li>• Safety shoes</li> </ul>	<ul style="list-style-type: none"> <li>• it is to be ensured during the selection of eye and face protection PPEs that selected PPE is a task suitable and is the correct fit for each worker for ensuring maximum protection from the risks of COVID-19 infection.</li> <li>• medical-grade PPE neither should be secured nor used, unless required due to the medical nature of a job site.</li> <li>• workers should not be allowed to wear shorts which could leave the lower leg vulnerable to various injuries that could become infected, as well as weather conditions and trade-specific hazards (such as overexposure to UV light when working with arc welders.</li> <li>• Each PPE should not be subject to continued use if damaged, soiled, compromised, uncomfortable, or in other circumstances, re-usable PPE can be used. Advice on suitable decontamination arrangements should be obtained from the manufacturer, supplier, or local infection control organization.</li> <li>• Eye Protection (Safety Goggles), should be Ventilated type of goggles that allow air circulation while providing protection against airborne particles, dust, liquids, or light (Refer to Photographs 7 and 8).               <ol style="list-style-type: none"> <li>I. <b>direct Ventilation:</b> Resist direct passage of large particles into the goggle. Prevent fogging by allowing air circulation.</li> <li>II. <b>indirect Ventilation:</b> Prevent fogging by allowing air circulation, Protect against liquid or chemical splash entry.</li> </ol> </li> <li>• Non-ventilated goggles should not be used because these goggles do not allow the passage of air into the goggle and require frequent cleaning due to dust, food, etc ( Refer to Photograph 9 ).</li> </ul>
Camp Project Office	Same as above	Same as above, including Heavy-duty gloves and closed work shoes for those involved in cleaning, dis-infection, and sanitizing the office furniture, floors, etc.	
Toilet facilities	Same as above	Same as above, including Heavy-duty gloves and closed work shoes for those involved in cleaning, disinfection, and sanitizing the office furniture, floors, etc	
Quality Control Laboratory	Same as above	Same as above, including Heavy-duty gloves and closed work shoes for those involved in cleaning, dis-infection, and sanitizing the office furniture, floors, etc.	
Project-related meetings	Same as above	Same as above, including Heavy-duty gloves and closed work shoes for those involved in cleaning, dis-infection, and sanitizing the office furniture, floors, etc.	
Eating places/Kitchens	Same as above	Same as above, including Heavy-duty gloves and closed work shoes for those involved in cleaning, disinfection, and sanitizing the office furniture, floors, etc.	

Activities	Risk of Exposure among the workforce (High/Medium/Low)	Recommended PPEs	Good Practices to be implemented while using appropriate PPEs
Conference Room	Same as above	Same as above, including Heavy-duty gloves and closed work shoes for those involved in cleaning, dis-infection, and sanitizing the office furniture, floors, etc.	<ul style="list-style-type: none"> <li>• All employees and workers on sites should be trained in the use of PPE. Maintain and make available a log of all PPE training provided to employees and monitor all employees to ensure proper use of the PPE.</li> <li>• PPE should be discarded in an appropriate waste container after use, and hand hygiene should be performed before putting on and after taking off PPE.</li> <li>• Prohibit sharing of PPE.</li> <li>• <b>Identification of Fake PPEs:</b> Fake PPEs can kill. Safety helmets are currently the most common version of faked PPEs on the market, with some fakes being weak enough that they can be snapped using only your bare hands. Fake safety helmets, masks, ear and eye protection, sanitizers would definitely not provide a high standard of protection to risks of COVID-19 and other work hazards. It is important for everyone's safety to know how to detect fake PPE. Some key hints that PPE might be a fake are: <ol style="list-style-type: none"> <li>1. The PPE is not a uniform color throughout.</li> <li>2. The markings on the PPE are not clear or legible, and the product is not durable.</li> <li>3. The user information leaflet provided is a photocopy, rather than an original.</li> <li>4. The information leaflet contains spelling errors and does not list the manufacturer's contact details.</li> </ol> <ul style="list-style-type: none"> <li>➤ Best Practices for Pre-cast plants</li> <li>➤ Personal Protective Equipment (PPE) <ul style="list-style-type: none"> <li>• Do not share PPE.</li> <li>• Ensure used PPE is disposed of properly.</li> <li>• Sanitize reusable PPE per manufacturer's recommendation prior to each use.</li> </ul> </li> <li>• Utilize disposable gloves where appropriate; instruct workers to wash hands after removing gloves.</li> <li>➤ Tools, Supplies, Equipment <ul style="list-style-type: none"> <li>• Do not share hand tools (shovels, floats, ladders, hand saws, etc.)</li> <li>• Disinfect reusable supplies before and after use.</li> <li>• Operators use the same piece of equipment all day.</li> </ul> </li> </ul> </li> </ul>
Store Room	Same as above	Same as above, including Heavy-duty gloves and closed work shoes for those involved in cleaning, dis-infection, and sanitizing the office furniture, floors, etc.	
Plants-HMP/WMM areas	Same as above	<ul style="list-style-type: none"> <li>• Safety Jacket</li> <li>• Sanitizers</li> <li>• Good quality hard hats for one and all present in and around plants area/Safety Helmets</li> <li>• N-95 Mask</li> <li>• Nitrile Gloves</li> <li>• Eye protection (direct or indirect ventilation providing safety goggles or face shield)</li> <li>• Safety shoes</li> </ul>	
First Aid Facility	Same as above	<ul style="list-style-type: none"> <li>• Safety Jacket</li> <li>• Safety Helmet</li> <li>• Sanitizers</li> <li>• Medical mask</li> <li>• Gown</li> <li>• Apron</li> <li>• Gloves</li> <li>• Eye protection (direct or indirect ventilation providing safety goggles or face shield)</li> <li>• Safety shoes</li> </ul>	
Electrical Operation & Maintenance including repairs, workers and other plants operators, DG sets operation		<ul style="list-style-type: none"> <li>• Same as above, including Heavy duty gloves, face shields (refer to Photograph.)</li> </ul>	

Activities	Risk of Exposure among the workforce (High/Medium/Low)	Recommended PPEs	Good Practices to be implemented while using appropriate PPEs
and maintenance, QC Labs test works involving heated materials, closing and opening of ovens, sieve analysis, crushing of tests samples, etc.			<ul style="list-style-type: none"> <li>• Clean surfaces of construction equipment (pavers, end loader, rollers, cranes, etc.) and service/fleet vehicles including steering wheel, gear shift, instrument panels, etc. at beginning and end of shifts. Use aerosol sanitizers inside closed cabs.</li> </ul>
<ul style="list-style-type: none"> <li>• <b>onsite Construction Activities</b></li> </ul>			
Tool Box Meetings /Safety Meetings	Same as above	<ul style="list-style-type: none"> <li>• Safety Jacket</li> <li>• Safety Helmets</li> <li>• Sanitizers</li> <li>• Good quality hard hats for one and all present in and around plants area/safety helmets</li> <li>• NN-95 Mask</li> <li>• Gloves</li> <li>• Eye protection (direct or indirect ventilation providing safety goggles or face shield)</li> <li>• Safety shoes</li> </ul>	
Site Clearance Activities	Same as above	<ul style="list-style-type: none"> <li>• Safety Jacket</li> <li>• Sanitizers</li> <li>• Safety Helmets</li> <li>• Good quality hard hats for one and all present in and around plants area</li> <li>• N-95 Mask</li> <li>• Nitrile Gloves</li> <li>• Eye protection (direct or indirect ventilation providing safety goggles or face shield)</li> <li>• Safety shoes</li> </ul>	



<b>Activities</b>	<b>Risk of Exposure among the workforce (High/Medium/Low)</b>	<b>Recommended PPEs</b>	<b>Good Practices to be implemented while using appropriate PPEs</b>
Embankment Construction including Earthwork, GSB laying,	Same as above	Same as above, including providing face shield (Refer to Photograph 6), GAMCHCHA for labourers and other workers	
Trees cutting and plantations	Same as above	Same as above, including providing face shield (Refer to Photographs 6 ), GAMCHCHA for labourers and other workers	
Borrow areas	Same as above	Same as above, including providing face shield (Refer to Photograph 6), GAMCHCHA for labourers and other workers	
DBM	Same as above	Same as above, including providing face shield (Refer to Photograph 6), GAMCHCHA, rigger boots for labourers and other workers	
BC Course	Same as above	Same as above, including providing face shield (Refer to Photograph 6), GAMCHCHA for labourers and other workers	
Machine Operations	Same as above	Same as above, including providing face shield (Refer to Photograph 6), GAMCHCHA for labourers and other workers	
Transportation of construction materials	Same as above	Same as above, including providing face shield (Refer to Photograph 6), GAMCHCHA and rigger boots for labourers and other workers boots	
Construction of longitudinal drains, culverts , minor and major bridges	Same as above	Same as above, including providing face shield (Refer to Photograph 6), GAMCHCHA and rigger boots for labourers and other workers boots	
De-shuttering of longitudinal drains, culverts , minor and major bridges	Same as above	Same as above, including providing face shield (Refer to Photograph6), GAMCHCHA and rigger boots for labourers and other workers boots	

### 3.8.12 Gender-Sensitive Perspectives to be adopted in the implementation of SOPs:

Concessionaires and EPC Contractors shall ensure the implementation of gender-sensitive considerations while implementing SOPs on-site and in offices

### 3.8.13 Cases detections-suspected and confirmed and Response Plans:

- **Concessionaires and EPC Contractors shall ensure the implementation of the following SOPs for detection and further course of action at entry and existing points of sites and offices, before entering the site, worker/s must confirm that:**
  - I. They are not currently exhibiting flu-like symptoms such as fever, tiredness, coughing, or congestion;
  - II. They have not returned from outside of the country within the past 14 days;
  - III. To the best of their knowledge, they have not been in contact with someone with a confirmed or probable case of COVID-19; and
  - IV. They have not been working on a site that was shut down due to the virus. Responses are to be kept private and treated as sensitive medical information.
  - V. Individuals who are at increased risk of serious illness (due to age, pregnancy, or other medical conditions) are not to be permitted on site.
  - VI. Workers who are not authorized to access the site are to be safely transported directly back home, or to a preferred location of self-isolation. When unable to do so themselves, a vehicle and driver will be arranged for them.
  - VII. When transporting a potentially ill individual, both driver and passenger are to be given masks and nitrile gloves. The passenger is to sit in the backseat, and the driver is to open and close the doors for them.
- **Concessionaires and EPC Contractors shall ensure the implementation of the following Response Plans related SOPs while for cases detected and suspected as COVID-19 positive:**
  - I. If a worker becomes unwell in the workplace with symptoms such as cough, fever, difficulty breathing, the unwell worker should be removed to an area that is at least 2 meters away from other workers. If possible, find a room or area where they can be isolated behind a closed door, such as a staff office. If it is possible to open a window, do so for ventilation. Request the unwell worker/s to wear face to prevent contamination of area and close by personnel.
  - II. The worker who is unwell should call their doctor and should outline their current symptoms. Whilst they wait for advice, ideally, they should be in isolation or as a minimum remain at least 2 meters from other workers. They should avoid touching other worker's surfaces and objects and be advised to cover their mouth and nose with disposable tissue when they cough or sneeze and put the tissue in a bag or pocket then throw the tissue in the bin. If they don't have any tissues available, they should cough and sneeze into the crook of their elbow. If they need to go to the bathroom whilst waiting for medical assistance, they should use a separate bathroom if available.
  - III. COVID-19COSH Engineer of the concerned site, where any worker/s is found as unwell and as a COVID-19 suspect, will be contacting other site safety supervisors on duty to discuss the case, identify other worker/s who have been in contact with unwell worker/s and advise on any actions or precautions that should be taken.
  - IV. COVID-19COSH Engineer and his team on site after finding out contacts of suspected or confirmed CVOID-19 case, shall instruct to those; who have had close contact, will be asked to stay at home for 14 days from the last time they had contact with the confirmed case and follow the home isolation information sheet. In case, anyone in home isolation develops new symptoms or their existing symptoms worsen within their 14-day observation period they should call their doctor for reassessment.
  - V. COVID-19COSH Engineer and his team onsite shall instruct workers/ visitors; who have not had close contact with the original confirmed case, do not need to take any precautions, and can continue to attend work.

- VI. COVID-19COSH Engineer and his team on site, shall carry out a risk assessment of each setting and advise on the management of staff and members of the public based on this assessment. The same site team will also be in contact with the case directly to advise on isolation and identifying other contacts and will be in touch with any contacts of the case to provide them with appropriate advice.
- I. COVID-19COSH Engineer and his team, once satisfied that an unwell worker is a confirmed case of COVID-19, shall provide relevant advice to other workers at site/office and encourage to contact at **Helpline Number for corona-virusRajasthan-0141-2225624/2225000, Toll-Free No: 104/108 for seeking further help and information.**
  - II. COVID-19-COSH Engineer and his team shall ensure complete cleaning and disinfection of area/space, where a worker/s, is found unwell and as COVID-19 positive suspect and will start contact at **Helpline Number for corona-virusRajasthan0141-2225624/2225000, Toll-Free No: 104/108 for seeking further help and information.**
  - III. In case a worker/s; is found unwell and a confirmed case of COVID-19, COVID-19COSH Engineer, and his team, shall transport him/her to the nearest COVID-19 treatment hospital, whose list is available on the following websites:  
<http://www.rajswasthya.nic.in/For%20Hospitals.htm>,  
<https://www.mohfw.gov.in/pdf/StandardOperatingProcedureSOPfortransportingasuspectorconfirmedcaseofCOVID19.pdf>
  - IV. Concessionaires and EPC Contractors of Tranche-I and Tranche-II, are to complete an integrated continuity plan to respond to the partial or complete shutdown of construction sites or in the case of a severe limitation of site operations.

**3.8.14 The implementation monitoring and reporting of the compliances to the implementation of COSH-Plan:**

The Contractor / Concessionaire shall prepare the project-specific implementation arrangements as per this COSH-Plan. COVID-19-COSH Engineer on each road shall be monitoring the implementation of COSH on daily basis and shall be reporting at the end of each day to the concerned Project Director of the concerned PIU, who will be reporting to Additional Chief Engineer and Superintending Engineer-RPWD-PPP& PMC. PMC shall be carrying out a review of monitoring reports and suggest/advise recommendations for continual improvements required.

**3.8.15 Shutdown in case of Noncompliance:**

The measures so adopted and implemented above shall be reviewed on daily basis, and if a site/Toll Plaza/office is not consistently implementing the measure, it may be immediately shut down.

**3.8.16 SOPs to be updated:**

It is understood that situation due to the COVID-19 Pandemic is changing and therefore it is the responsibility of the Contractor / Contractor to adopt the updated guideline issued by the Government / WHO from time to time.

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