

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT			1. CONTRACT ID CODE		PAGE OF PAGES 1 of 1	
2. AMENDMENT/MODIFICATION NO. 19NP4021Q5214-M001		3. EFFECTIVE DATE February 3, 2021		4. REQUISITION/PURCHASE REQ. NO. PR9645214		5. PROJECT NO. (If applicable)
6. ISSUED BY Department of State American Embassy Kathmandu			CODE	7. ADMINISTERED BY (If other than Item 6) CODE		
8. NAME AND ADDRESS OF CONTRACTOR (NO., street, city, county, State, and ZIP Code)				9a. AMENDMENT OF SOLICITATION NO.		
				9b. DATED (SEE ITEM 11)		
				10a. MODIFICATION OF CONTRACT/ORDER NO. 19NP4021Q5214		
				10b. DATED (SEE ITEM 13) 02/03/2021		
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS						
<p><input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended</p> <p>Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers.</p> <p>FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.</p>						
12. ACCOUNTING AND APPROPRIATION DATA (If required)						
13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.						
A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b)						
C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X D. OTHER (Specify type of modification and authority)-						
E. IMPORTANT: Contractor <input type="checkbox"/> is not, <input checked="" type="checkbox"/> is required to sign this document and return 1 copies to the issuing office.						
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)						
The purpose of this modification is to add additional supporting documents and specification regarding the requirements. Which is attached herewith.						
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.						
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME OF CONTRACTING OFFICER John A Nader		
15B. NAME OF CONTRACTOR/OFFEROR BY _____ (Signature of person authorized to sign)		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA BY  (Signature of Contracting Officer)		16C. DATE SIGNED 02/03/2021

Additional Specification

Hand towel: Cotton Fabric -18" x 32". Mix colors are fine.

Hand Washing Station:

- Supplies for each handwashing station into a separate box designated for each handwashing station kit.
- 500 liter Drum for Hand Washing Station.



Technical brief

on contactless handwashing station

April 2020

The outbreak of COVID-19 has been declared as pandemic which is transmitted to individuals through direct contact with respiratory droplets of an infected persons (generated through coughing and sneezing) and can also be infected from touching surfaces contaminated with the virus and touching their eyes, nose and mouth. While COVID-19 continue spreading and have high chances that it might spread in future, it is important that local authorities take action to prevent further transmission, reduce the impact of outbreak and support control measures. Handwashing with soap together with other preventative and control health interventions will be helpful to curbing the transmission of harmful germs. WHO has recommended to adopt habit of maintaining own hand hygiene and respiratory hygiene as much as possible to reduce the risk of transmission of dangerous virus like COVID-19.



What is Contactless Handwashing station (CHS)

As the COVID-19 is spreading rapidly across the globe and low-income countries like Nepal is at high risk, so it is responsibility of all concern authorities and agencies working in various geographical areas to act quickly and efficiently on prevention and control from further spreading. WHO has advised public to take basic protective measures against the spread of new corona virus by simply maintaining hand hygiene as frequently as possible. So, to support easy access on handwashing with soap and water to the public while visiting marketplaces, public places or schools and health care centers, the 'contact less' handwashing station is an appropriate option to maintain their hand hygiene. The contact less hand washing station is easy to install at public places and supports to reduce spread of corona virus that can be transmitted by touching contaminated taps sometimes. The Installation of such facilities at the strategic locations will be a life saver for people who cannot afford alcohol-based hand rub sanitizer while travelling at the public places.

Contactless handwashing station is a handsfree setup for the purpose of hand washing which has been designed to operate without touching tap or soap by hands.

Design of Contactless Handwashing station (CHS)



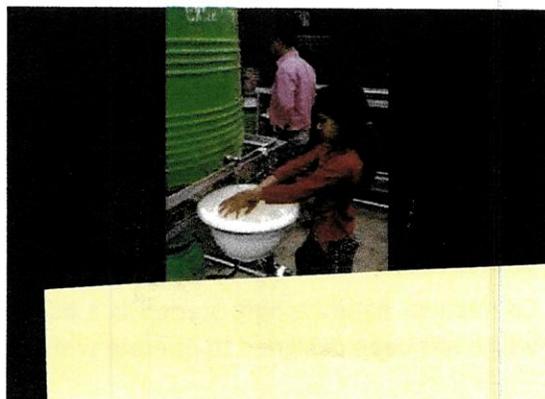
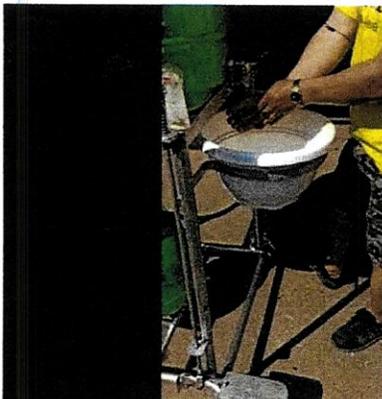
Why Contactless Handwashing station (CHS)?

Contactless hand washing station allows handsfree service for getting water and soap while washing hand. It saves water and soap as well. The water consumptions for one hand wash is about 360ml which is one forth less than the conventional metal tap and bar soap. Similarly, the 3 ml of liquid soap can be extracted by pumping the soap dispenser twice through pedal. So, the main objective of installing this system at public place is to provide handsfree hand washing services which helps to stop further transmission of various types of germs including corona virus.

How does it work?

It allows to use foot to press on pedal attached both sides at the bottom of the facility to get water and liquid soap. The required quantity of water and liquid soap can be drawn simultaneously from the facility by simply pressing the pedal at the bottom using foot as many times as required. The water needs to be refilled regularly from other available sources in the tank connected to this facility. The liquid soap needs to be refilled once the soap dispenser gets empty. The refilling job of the water and liquid soap depends on the numbers of users and the capacity of water tank and soap dispenser itself.

For more detail how it works please follow the video below:



Wastewater management: A container has to be placed at the lowest level to collect the wastewater from basin which can be disposed safely at proper place. It is advised to connect the basin drainage pipe directly to the city drainage or sewer system if possible, otherwise a pit needs to be dug at proper distance from the facility to safely manage the wastewater.

Tap: Tap need to be mechanized by pressing the pedal fixed at the bottom of frontside of the facility which can be easily pressed by using minimum muscle power. The tap has to be low cost plastic or brass with a ball valve type and which operates by pressing lever up or down.

Liquid Soap and dispenser: Liquid soap has to be placed aside by provisioning pressing mechanism through pedal. The liquid soap dispenser available in the market can be used or pump type hair shampoo bottle can be used. The liquid soap can be locally made by using disinfected water and powder detergent.

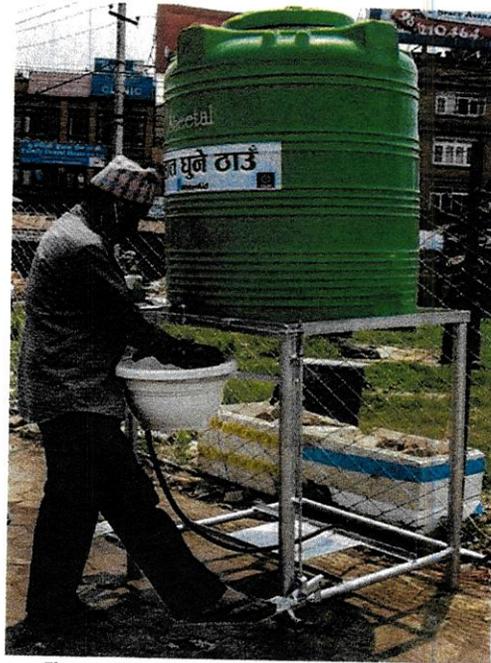


Figure 3: A pedestrian using contactless hand washing station installed at roadside of Lalitpur municipality

Operation and management:

- Container to be filled each day depending on the water consumptions and user numbers. Water must be contamination free (Ensure WHO standards are met for **water quality** (FRC > 0.5mg/L).
- Availability of liquid soap need to be ensured.
- Wastewaters need to be properly disposed in city open drain or underground sewer system or in pit considering there will be no risk to harm human or animals.
- Oil-up/greasing at the lever, spring, joints, hinges in a weekly basic is required for efficient working conditions.
- Whole hand washing facility components has to be cleaned thoroughly with disinfectant or 0.1% chlorine solution on daily basis if possible, otherwise weekly basis is strongly recommended. The water tank should also be cleaned thoroughly. For disinfectants product available in Nepal, please click the link. <https://bit.ly/3ew9hvd>
- Stock disinfectant solution and use it when needed. The disinfectants can be prepared by following the steps recommended by WHO and CDC given in the link below:
 1. WHO recommendation - <https://www.who.int/ihr/publications/Annex7.pdf?ua=1>
 2. CDC recommendation for 0.5% strong chlorine solution from 70% HTH chlorine - <https://www.cdc.gov/vhf/ebola/pdf/cleaning-hand-washing-with-chlorine-powder.pdf>
 3. CDC recommendation for 0.05% mild chlorine solution from 70% HTH chlorine - <https://www.cdc.gov/vhf/ebola/pdf/chlorine-solution-liquid-mild.pdf>

Design and Components of CHS

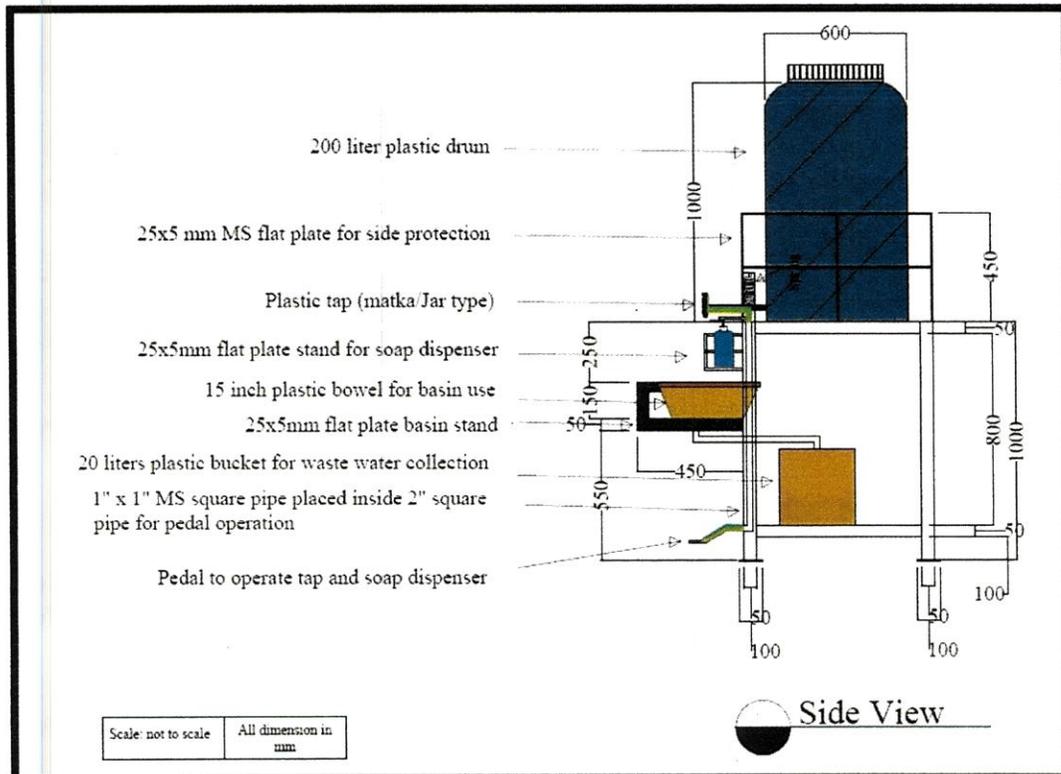


Figure 2 Components of facility

Water Storage container: It has been assumed that about 600 people will wash their hands per day from one facility, for which 200 liters container is sufficient (It requires 350 ml per person for onetime hand wash). Storage size can be increase as per the requirement. The water should be contaminated free otherwise chlorination method should be used. It is desirable to have water with Free Residual Chlorine (FRC) of 0.5 mg/lit which is recommended by WHO (For the effective disinfection of water, there should be a residual concentration of free chlorine of ≥ 0.5 mg/L after at least 30 minutes of contact time at pH < 8.0, WHO 2020.)

Basin: For the comfortable hand washing and to collect wastewater safely a 30-centimeter depth and 50-centimeter diameter basin (ceramic or plastic) is fixed at one side of facility at considerable height with drainage pipe connected between the basin and wastewater collection tank placed underneath the facility. The height of the basin can be fixed at permissible height considering child friendly structure.