



CONSTRUCTION AS A SAFE AND ESSENTIAL INDUSTRY

April 2020



EXECUTIVE SUMMARY

In most countries, such as the United States, the United Kingdom and Germany, governments have stated that the construction industry should continue operating during the global COVID-19 pandemic, as construction is an essential activity that contributes in the overall efforts against COVID-19. Among many contributions, the construction industry keeps communications systems functioning; creates and maintains critical transport infrastructure such as bridges and roads; repairs existing hospital infrastructure; builds new temporary emergency hospitals and healthcare facilities; and keeps society's basic services such as water, energy and many others running.

Maintaining economic stability will imply prioritizing sectors according to not only their relative importance for people's livelihood, but also to their risk of virus transmission. Construction work sites are inherently tightly controlled work environments; they are not open to the general public, where work is carried out outdoors, they normally have low personnel density, and they are conducted under the strictest health and safety protocols to prioritize the safety of workers. For these reasons, the construction industry is placed in the low risk of transmission range according to classification criteria issued by the Department of Occupational Safety and Health Administration of the United States ([OSHA](#)). Additionally, many national and regional business associations have already complemented robust existing guidelines with special protocols that have been implemented to address the COVID-19 health and safety measures in the construction industry.

The cement, concrete and aggregates industries are low worker density operations due to the reason that by nature our industry's operations are conducted in wide open spaces, mostly over dozens of hectares, that are the size of several soccer fields. At CEMEX, the Health and Safety of our employees has been for many years **our number one priority**. Our workers operate with large amounts of distance between them and our operations are mostly conducted in open spaces with large degrees of natural ventilation, making virus transmission more unlikely. We have developed over 50 new protocols in place in all our operations. Due to the COVID-19 pandemic, we have complemented our existing protocols by developing and implementing special protocols and guidelines to protect our employees, communities and customers from the risks COVID-19 presents. Nonetheless, we are constantly updating and improving our protocols and guidelines to address new developments and to follow applicable health regulations and guidelines.

As a low worker density operation with strict guidelines and protocols based on national and international well-known institutions, organizations and national governments, the construction value chain is well-suited to protect workers and continue carrying out essential activities paramount to addressing society's needs during this pandemic. This is expected to drive the reactivation of local and national economies, keep and create direct and indirect employment, drive the economies going forward, and most of all maintain society's well-being.

CONTRIBUTION OF THE CONSTRUCTION INDUSTRY DURING COVID-19 AND ITS ECONOMIC AND SOCIAL IMPACT ON THE MARKET

Construction as an Essential Industry

The construction industry provides fundamental infrastructure requirements to support the vital needs of the country and is a critical component of a local and national economy. The construction industry provides critical services for public safety and welfare with building, highway-heavy, and utility needs. Construction workers maintain and improve our nation's infrastructure, including:

- Hospitals
- Schools
- Road and bridge networks
- Housing & industry buildings
- Water transmission
- Sewage
- Energy and communication systems
- Social infrastructure: police, fire and health care facilities
- Projects of public interest
- Oil wells
- Port docks

Construction is essential now and will remain so in the coming months and years to construct, maintain, and repair critical infrastructure, and to build temporary health facilities and expand existing ones. In addition, there may be opportunities to use this period of reduced public usage to advance maintenance and repair works if it is safe and practical to do so.

Construction Industry Economic and Social Impact

Construction is paramount to economic and social stability and it is an instrumental engine in the reactivation of local economies. The industry energizes nearly 90 subsectors of the economy,

from the production of construction materials to the sale of furniture and fixtures. Construction makes up 6.2% of GDP and national/regional economic activity, where 3.6 Mn people are employed directly by construction and 15 Mn are supported indirectly by its related industries.

The construction industry has a multiplier effect on the reactivation of the local and national economy mainly protecting and creating direct and indirect employment, because it is a tractor sector that drives many other industries and creates business opportunities at the local level. During this unprecedented time of the COVID-19 pandemic, the construction industry can help to provide a boost to the economy. Investment in infrastructure impacts the economy through two channels.

The first channel, a short-term economic reactivation which is associated with the direct, indirect and induced effects at the time of the construction of civil works. This includes demand for inputs from suppliers, the largest supply of infrastructure that is demanded from other economic sectors as part of its production inputs, and the employment that is generated both in the same activity and in its suppliers. The second channel is the medium and long-term one, due to the positive impact on productivity and competitiveness of the other activities that use the transport of goods as an input in their productive structure, through lower transport costs and savings in travel time, among others. Looking forward, the industry should be the engine driving the post-pandemic economy, vital to fortifying medium and long-term economic growth and development.

The most important contribution of the construction sector is that it provides decent work and income to millions of workers. The construction industry and its supply chain employ people that rely on their job income for basic necessities, essential items such as food on the table, water for their families, a roof over

their heads, and healthcare. These necessities are all available due to the jobs created by the industry. Therefore, the construction industry is more than just an economic driver, it is also an economic and social pillar that sustains the livelihoods of millions of workers and their families.

| SPECIFIC LOCAL OR NATIONAL MARKET CONTEXT | |
|--------------------------------------------------------------------------------------|------------------------------------------------------------|
| <i>Relevance of the construction industry in the market with economic indicators</i> | |
| % of GDP | 6.2% |
| Direct Employment and/or % of total employment | 3.3Mn (27%) |
| Indirect Employment and/or % of total indirect employment | 15Mn |
| Relevant subindustries dependant on construction | Real Estate, Cement, Steel |
| Essential Activities being conducted (hospitals, strategic infrastructure, etc.) | Mega projects, urban development, strategic infrastructure |

CEMENT, CONCRETE AND AGGREGATE INDUSTRIES: NATURALLY LOW RISK

The cement, concrete and aggregate industries are among the **lowest worker density industries**, due to the reason that by nature the operations are conducted in wide open spaces mostly over dozens of hectares, the size of several soccer fields.

The quarries, the plants and the warehouses all have the lowest worker density levels within manufacturing industry. An international industrial density study shows an average of 0.1 workers per an area similar to a professional soccer field in cement plants, meaning the workers operate in vast open spaces with large amounts of distance between them.

Due to the nature of the work process itself, few workers are required for every activity, and workers operating in distinct activities have little interaction with each another. The operations are also mostly conducted in open spaces with large degrees of natural ventilation, which coupled with the other reasons, make the cement, concrete and aggregate industries among the lowest risk regarding virus transmission.

CEMEX: HIGH HEALTH AND SAFETY STANDARDS

At CEMEX, the health and safety of our workers has been and will always be the **number one priority of our company** and we are one of the safest in the industry. We've always had high health and safety standards in place to protect our workers and communities. On top of the natural characteristics of our industry that make virus transmission unlikely, we've decided to enhance our robust existing protocols by implementing and adopting more than 50 new special protocols to address the risks posed by the COVID-19 to reduce any probability of virus transmission.

Our protocols are based on national and international guidelines and recommendations set by the main experts on the subject, such as the World Health Organization; they also strictly adhere to local, national and industry regulations. That being said, we are constantly updating and enhancing all our protocols to address new developments and protect our workers, communities, and general public.

Protecting our People: Special Health and Safety Protocols

Measures and procedures to protect the health of our people from any kind of risk including viruses has been at the core of our business for years. To guarantee the safety and well-being of our employees, contractors, customers and visitors during the COVID-19 pandemic, the following special protocols are currently being implemented across our operations:

[Personal Hygiene Protocol](#)

Personal hygiene guidelines are prepared and published through local communication campaigns materials: e-mails, printed materials.



These practices include:

- ✓ Washing hands frequently or when not close to a bathroom.
- ✓ Using antibacterial gel or alcohol-based hand rub.
- ✓ When sneezing and coughing, nose and mouth must be covered with a disposable tissue or with flexed elbow or upper sleeve.
- ✓ Avoid sharing personal objects.
- ✓ Avoid attending crowded places.



[Physical Distancing Protocol](#)

Social distancing is directed at minimizing human-to-human contact during a pandemic outbreak. In our business setting there are several means of facilitating social distancing by:

- ✓ Increasing distance between closely spaced facilities.
- ✓ Ventilating the workplace.
- ✓ Cleaning workstations between shifts.

Where necessary, at times industry guidelines allow certain close working, including in a control hierarchy where it is not possible to follow physical distancing guidelines in full. These circumstances, however, must be absolute exceptions that require specific authorization and additional controls to be implemented.

[Access Control Screening Protocol](#)

Policies and procedures related to illness at work are directed at limiting the spread of a pandemic-related disease in the workplace by using the procedures for handling suspected ill personnel or visitors.



Practices include:

- ✓ Screening people at the reception areas and all entry points for pandemic-related disease symptoms.

- ✓ Limiting visitors to a minimum and screening them.
- ✓ Assessing access and availability of medical services for the employees.
- ✓ Sanitary Filter for pickup for Distributor & Industrials.



Workplace Cleaning Protocol

Cleaning and disinfecting environmental surfaces are important components of routine infection control. Virus transmission can be reduced by cleaning hard surfaces with neutral detergents followed by a disinfectant solution.

- ✓ Surfaces frequently touched with hands are cleaned often.
- ✓ During acute pandemic stages, it is quite likely that an enhanced cleaning regime will overwhelm a cleaning staff that may be fewer in number than usual.
- ✓ In this case employees should be responsible for cleaning their own areas and common areas nearby.

Vehicle Operation Protocol

Protocol related to maintaining trucks sanitized and protecting our drivers and customers.



- ✓ Keep the cabin of the truck clean by disinfecting the steering wheel, the levers, buttons, and everything that is normally touched by a hand.
- ✓ Truck cabins should be cleaned after every shift. If using a cleaning crew, train and equip them appropriately including posting a "This cabin has been sanitized" card or sign.
- ✓ When driving, keep windows half-open for ventilation.



Home-Work-Home Commuting Protocol

Protecting our workers from mass gatherings with high amounts of traffic to avoid risk of virus transmission.

- ✓ Avoid mass public transportation (bus, subway). If public transportation is inevitable, hourly shift must be adjusted to commute during low-traffic hours.
- ✓ Provide company transportation service when possible
- ✓ Wear personal protective equipment at all times during commute. Don't touch face at any time during commute. Wash hands or sanitize hands right after commute.
- ✓ Reduce number of weekly commutes by adjusting work shifts.
- ✓ Follow arriving at home and taking care of family protocol to protect family and community.

Canteen & Resting Area Protocol

Extra measures are being implemented to avoid conglomeration in common areas.



- ✓ Ensure enough spacing between the chairs and remove chairs as necessary.
- ✓ Staggered Shifts: employees enter and exit facilities at different times. Avoid conglomeration in entry points.
- ✓ Increase frequency and coverage of cleaning in these areas.
- ✓ Employees must wash their hands meticulously before entering common areas.



Quarantine Protocol

Quarantine protocol, which at all times should be done in accordance with local laws and regulations, refers to the separation of persons who have a confirmed infectious illness from those who are not, and the restriction of their movement to stop the spread of that illness:

- ✓ Quarantine for people with disease-like symptoms
- ✓ Quarantine for people who have been exposed, but are not ill
- ✓ Quarantine for people returning from medium-high risk locations travel

An employee on quarantine should stay at home or in a designated building for a period of days from last exposure, enough to cover incubation period of the disease to make sure the person is not infected with the pandemic-related disease. i.e. 14 days.

Additional Protocols that we have in place across our operations:

- [Arrival at Site Protocol](#)
- [Back to the Office Protocol](#)
- [Block Accommodation/Camps Protocol](#)
- [Call Centers Protocol](#)
- [Cash Transactions Protocol](#)
- [Cement Plant Protocol](#)
- [Central Control Room Protocol](#)
- [Commercial Activities and Client Management Protocol](#)
- [Community Activities Protocol](#)
- [Construction Sites Protocol](#)
- [Contractors and Visitors Protocols](#)

- [COVID-19 Site Coordinator Responsibilities Protocol](#)
- [Discontinuation of Home Isolation](#)
- [Document Handling Protocol](#)
- [Drivers Waiting Area Protocol](#)
- [Emergency Response & First Aid Protocol](#)
- [Escalation Protocol](#)
- [Event Concentration Protocol](#)
- [Field Remote Support Protocol](#)
- [Haulers Protocol](#)
- [Industrial Clients Protocol](#)
- [Key Personnel Unavailability Protocol](#)
- [Leaving Site Protocol](#)
- [Loading & Dispatch Protocol](#)
- [Locker & Changing Rooms Protocol](#)
- [Maintenance Crew Protocol](#)
- [Meetings Protocol](#)
- [On-Road Activities Protocol](#)
- [Packaging Area Protocol](#)
- [Personal Workstation Protocol](#)
- [Post Operations Protocol](#)
- [Product Delivery Protocol](#)
- [Quality Lab Protocol](#)
- [Ready-Mix Plant Protocol](#)
- [Ready-Mix Trucks for Urban Cleaning Protocol](#)
- [Retailers & Warehouses Protocol](#)
- [Safety Systems Protocol](#)
- [Safety Toolbox Talks Protocol](#)
- [Shift Handover Protocol](#)
- [Taking Care of Family at Home Protocol](#)
- [Travel Protocol](#)
- [Visitor Induction & Training Protocol](#)
- [Visits to Closed Sites](#)
- [Workshops & Toolrooms Protocol](#)

FURTHER INFORMATION:

<https://www.cemex.com/en/covid19>

We have developed a set of protocols and guidelines to protect our workers in every stage of their daily routine. From the moment they wake up, to the moment they arrive at our plants, to the moment they

return home, we are always focused on protecting our employees' well-being. The full workday protocols are as follows:

Protocols designed to ensure the safety of our people



CEMEX: COVID-19 COMMUNITY WORK

Our efforts to mitigate the propagation COVID-19 aren't limited to our operations, we are also proactively taking actions to protect our communities and the places where we operate.

Use of Trucks for Urban Cleaning

- ✓ We are actively cleaning and sanitizing open public areas with our ready-mix trucks.
- ✓ We are filling our ready-mix trucks with soap and water to release into open areas. Places such as: hospital entrances, health-care facilities, urban places, etc.



Antibacterial Gel Production

- ✓ CEMEX is producing hand disinfectant according to World Health Organization (WHO) specifications. Some of our CEMEX Admixtures plants are producing sufficient quantities to



cover the needs of all employees and neighboring local communities for the entire year.

- ✓ CEMEX is donating disinfectant to local communities and support hospitals in procuring raw materials, and the product is already available for distribution - or will be shortly - across some countries where CEMEX operates.

Consumption of Non-hazardous Municipal Waste

- ✓ Close collaboration with the local and national authorities to increase the consumption on non-hazardous municipal waste in our cement kilns, to help protect capacity of medical waste facilities, specially from health centers fighting the pandemic.
- ✓ The consumption of this waste is conducted by following well established, safe environmental practices endorsed by regulators.



LEVERAGING DIGITAL TECHNOLOGIES

The industry's ecosystem has been evolving digitally; on top of all our health and safety protocols, we are also leveraging our existing digital technologies to limit physical contact and protect our workers, sales teams and clients.

To monitor the health of our employees, we are using digital technologies to increase physical distancing in our operations, monitoring in real time what worker density looks like in our plants. Additionally, we are also using the Health Check

app to closely follow up on the health of our employees through their mobile devices.

Finally, with our CEMEX Go platform, we are uniquely positioned to protect not only our workers but also our customers. CEMEX Go facilitates physical distancing by allowing us to continue our sales, our payments and our customer service operations in a virtual and safe manner that eliminates any risk of virus transmission.

CONSTRUCTION INDUSTRY: BUILT TO SUSTAIN OPERATIONS DURING COVID-19

Considering the importance of construction within the national economic structure and in providing the critical infrastructure components necessary, during and after the pandemic, some of the main national and regional construction associations have come together and coordinated a technical team of health and safety experts to complement existing protocols. Working together they will ensure there are more robust standards in the construction industry by developing a special Health and Safety Guide for Construction to Prevent COVID-19 transmission, conducive to protecting the health of workers and the whole community. Through the combined effort of the sector to assist in efforts against the virus, we are developing new protocols and guidelines showing clear social commitment during and post the COVID-19 pandemic to preserve the health and safety of workers and general public. For further information, you can find these protocols and guides [here](#).

Construction work sites are tightly controlled environments, are closed to the general public, are outdoors and are normally with low personnel density, which places them in a low risk range, according to classification criteria issued by the Department of Occupational Safety and Health Administration of the United States ([OSHA](#)).

The construction industry takes its Health and Safety responsibilities very seriously and the need to safeguard employees and customers will always remain a top priority. Each worksite implements required safety protocols and good practices guides and strict separation from the general public.

The construction site safety protocols adhere to operation procedures that contain contingency measures on site and for the supply chain, as well as early detection schemes, industrial

safety, hygiene and asepsis of areas and equipment, programming and prioritization of activities, shifts, transport and mobility, among others. The measures, actions and practices adopted by the industry are subject to adjustments, modifications and adaptations determined by health professionals and experts in occupational risks, to ensure their implementation, preserve the objectives of prevention, control and monitoring and mitigation of risk of workers in the context of the emergency of COVID -19.

Health and Safety Protocols

The construction industry can continue operations due to the adoption of health and safety protocols such as:

Screening

- ✓ Construction sites strictly control entry into the site, avoid the crowding of people at the entrance by using different time entries and question-evaluate each collaborator of their health condition.
- ✓ Access is restricted to those with at least two of the symptoms of COVID-19 and act as in accordance with the Suspicious Cases Protocol.
- ✓ Entry is also restricted to vulnerable workers pregnancy, pre-existing pathologies such as hypertension, cancer, diabetes and diseases chronic, heart and / or respiratory diseases, HIV, etc.

Hygiene

- ✓ Construction sites allow regular breaks to wash hands, provide additional hand washing facilities (e.g. pop ups) to the usual welfare facilities, particularly on a large spread out site or where there are significant numbers of personnel on site, including plant operators.

- ✓ During COVID 19, they also provide hand sanitizer (minimum 60% alcohol based) where hand washing facilities are unavailable and make cleaning tools and equipment a top priority.

Physical Distancing

- ✓ Break times are staggered to reduce congestion and contact.
- ✓ A distance of two meters is maintained between users, wherever possible. In line with public guidelines.
- ✓ Sites and work are planned and organized to avoid crowding and minimize the risk of spread of infection. Special protocols are in place for common areas such as canteens and lockers.

Personal Protective Equipment

- ✓ All workers in construction sites must wear the adequate protective equipment to enter work sites.
- ✓ In reference to Personal Protective Equipment (PPE), the need for each equipment varies according to the activity that is done.
- ✓ Every person entering the workplace must have essential protection accessories which are common to the entire work. This includes: facemasks, gloves, closed shoes, and adequate clothes.

Quarantine Application

- ✓ Workers who meet one of the following are directed to not come to work: has coronavirus symptoms, is a vulnerable person, is living with someone in self-isolation or someone who presents symptoms.

- ✓ If a worker arrives to the screening area with coronavirus symptoms or if a worker develops symptoms at site, they are returned home by the company.
- ✓ Workers in quarantine must follow the guidance on self-isolation and not return to work until their period of self-isolation has been completed.

Third Party Interaction

- ✓ Construction sites interact with suppliers such as the cement and concrete industry. The interaction guidelines adhere to strict physical distancing protocols. No physical contact should occur with suppliers, safe distance must be followed.
- ✓ Workers must always wear personal protective equipment during interactions with third parties, this includes gloves and face masks.
- ✓ Workers must wash hands immediately after meeting external parties. Workers should sanitize hands.

Protocols designed to ensure the safety of our customers



Commercial Relationship

- Remote work Digital interaction with salesforce
- Sharing our best practices with our clients
- Taking care of our customers & salesforce

Order & Pay

- Order, pay & follow up through CEMEX Go
- Virtual Service Center
- Contactless Cash Management

Product Reception & Pickup

- Sanitary Filter for pickup for Distributor & Industrials
- Distributor & Industrials receive product with limited interaction

Delivery to end user on-site

- Builders receive product with limited interaction
- Safe product transportation

Best practices for a new way of working, reducing risks across the whole value chain



Physical Distancing



Handwashing / antibacterial



Using personal protective equipment



Avoid touching face

LOOKING FORWARD

The COVID-19 pandemic looks set to continue in the coming months, although in some countries affected the earliest, more construction projects are resuming and other parties in the industry starting work again.

For everything described in this white paper, we reiterate that the construction industry is considered an essential sector for the good and correct functioning of priority and basic activities in the country. Continuing operations in the local and national economy should allow the entire value and supply chain of the different industries to be sufficiently supplied on a timely manner. This should generate job stability, generating income for families that depend directly or indirectly on our industry, and economic activation in the world's construction and industrial sectors. Our direct support to [local and state] the authorities will help join up efforts to overcome this significant challenge affecting all aspects of our lives.

The purpose of the industry is to continue participating in the construction of a more prosperous country, to keep investing and to provide employment and a better quality of life. In this way, we will contribute to the construction of a stronger Egypt.

The safety and health of the employees will always be the number one priority and we will

continue to keep our stakeholders updated as the situation develops.

The construction industry is a highly regulated, highly inspected industry. For that reason, the industry adheres to health and safety protocols by governments, regulators and industry, and during these exceptional circumstances, the industry will always continue to comply with all such regulations. Together with our industry colleagues and trade association contacts we will continue to keep our protocols and guidelines under constant review, strengthening them further if required.

We are an industry that has close communication with local, state, national and regional authorities, regulators, communities, customers and stakeholders.

The construction industry is essential for the reactivation of local economies and the growth of any country. The multiplier effect it produces directly impacts various branches of the economy, which translates not only into the creation of key infrastructure such as roads; roads; bridges; houses; hospitals; etc.; all relevant to the social development, productivity, connectivity and competitiveness of the regions, but also generates a significant number of jobs that ensure household income.



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