



An Overview of COVID-19 Construction Industry Impacts and Claims

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1. INTRODUCTION

The World Health Organization (WHO) first declared the global COVID-19 pandemic a public health emergency of international concern on January 30, 2020, and later declared it to be a global health pandemic on March 11, 2020.¹ Shortly after, COVID-19 was declared to be a national emergency in the United States on March 13, 2020.²

The COVID-19 pandemic significantly impacted the construction industry due to governmental shutdown orders, implementations of new health and safety measures to slow the spread of the virus, and resulting supply chain disruptions. These impacts generally resulted in schedule delays and cost increases on engineering and construction projects, in some cases leading to disputes between owners and contractors regarding responsibility for these delays and cost increases.

In this article, the impact of COVID-19 on the construction industry is discussed in Section 2 while the applicability of various contract clauses for COVID-related disputes is discussed in Section 3. Section 3 of this article summarizes information published in articles and blog posts written by various attorneys and law firms. The intent of Section 3 of this article is to provide a summary of the legal issues related to COVID-19 impacts on the construction industry that may be beneficial to owners and contractors. However, this article does not constitute legal advice.

¹ “Rolling Updates on Coronavirus Disease (COVID-19),” The World Health Organization, 31 July 2020, <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/events-as-they-happen>.

² “Proclamation on Declaring a National Emergency Concerning the Novel Coronavirus Disease (COVID-19) Outbreak,” The President of the United States, 13 March 2020, <https://trumpwhitehouse.archives.gov/presidential-actions/proclamation-declaring-national-emergency-concerning-novel-coronavirus-disease-covid-19-outbreak/>.



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2. COVID-19 IMPACT ON THE GLOBAL AND U.S. DOMESTIC CONSTRUCTION INDUSTRY

Several sources have reported on the general impacts of COVID-19 on the global and U.S. domestic construction industry. These negative impacts included impacts to both labor and materials availability as well as labor productivity, as is discussed in detail below in Sections 2.1 and 2.2 (labor impacts) and Section 2.3 (materials impacts).

2.1 CONSTRUCTION LABOR IMPACTS

The negative impacts of COVID-19 on the labor aspect of construction projects are two-fold:

1. COVID-19 impacted production (*i.e.*, the overall progression of work) on engineering and construction projects due to the unavailability of labor resources because of government-mandated lockdowns, ill personnel, quarantine requirements for exposed and ill personnel, travel restrictions, and general skilled labor shortages in the construction industry; and
2. COVID-19 impacted labor productivity (*i.e.*, output per worker per unit time) on engineering and construction projects due to the implementation of new health and safety protocols, including site access requirements (*e.g.*, questionnaires and temperature checks), hygiene requirements (*e.g.*, handwashing), personal protective equipment (PPE, *e.g.*, masks and gloves), sanitization, social distancing, and remote work (for engineers and office staff) as well as due to general morale and mental health impacts.

COVID-19-related impacts to both production and labor productivity on construction projects are discussed below in Sections 2.1.1 and 2.1.2 respectively.

2.1.1 Construction Labor Impacts – Production

Government-imposed shutdowns and lockdowns occurred globally throughout the COVID-19 pandemic during periods of high viral transmission. In the U.S., whether construction was considered an essential business or was subject to lockdown rules typically varied by state. Beginning in March 2020, most states in the U.S. instituted state-wide lockdowns with varying



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degrees of restrictions,³ and by the end of March 2020, more than half of the U.S. population was under stay-at-home orders.⁴

Another obvious impact to the availability of construction labor was the potential for an increase in absenteeism due to workers falling ill with the COVID-19 virus. One study that analyzed over 730,000 COVID-19 test results in Los Angeles between August and October 2020 found that for tests where associated occupations were reported, construction workers had the highest rate of asymptomatic positivity⁵ (5.7%) and the second highest rate of symptomatic positivity⁶ (10.1%).⁷ Based on COVID-19 hospitalization data, another study concluded that construction workers in central Texas had a five-fold increased risk of hospitalization due to COVID-19 when compared with other occupations.⁸

The risk of absenteeism due to mental health issues during the pandemic also increased. One source reported that approximately 25% of employees may experience toxic levels of stress after periods of lockdown, that employees suffering from stress reported a loss of productivity of approximately 35%, and that the effects of lockdown and quarantine on an employee's mental wellbeing could appear months after the end of isolation.⁹ Another source reported that in an informal survey of construction contractors, 70% of respondents indicated that employee anxiety was their top concern.¹⁰

³ Jason Manning, Anoop Sattineni, and April E. Simons, "COVID-19 Impact to Construction Activity Durations on Department of Defense (DoD) Projects," EPIc Series in Built Environment, Volume 2, 2021, p. 156, <https://easychair.org/publications/open/Mv6W>.

⁴ Rosie Perper, Sarah Al-Arshani, and Holly Secon, "More than Half of the US Population Is Now under Orders to Stay Home – Here's a List of Coronavirus Lockdowns in US States and Cities," Business Insider, 31 March 2020, <https://www.businessinsider.com/states-cities-shutting-down-bars-restaurants-concerts-curfew-2020-3>.

⁵ Asymptomatic positivity refers to cases where individuals test positive for COVID-19 but do not exhibit symptoms of COVID-19 infection.

⁶ Symptomatic positivity refers to cases where individuals test positive for COVID-19 and also exhibit symptoms of COVID-19 infection.

⁷ Lao-Tzu Allan-Blitz, Isaac Turner, Fred Hertlein, and Jeffrey D. Klausner, "High Frequency and Prevalence of Community-Based Asymptomatic SARS-CoV-2 Infection," medRxiv preprint, 11 December 2020, <https://www.medrxiv.org/content/10.1101/2020.12.09.20246249v1.full.pdf>.

⁸ Remy F. Pasco, Spencer J. Fox, and S. Claiborne Johnston, "Estimated Association of Construction Work with Risks of COVID-19 Infection and Hospitalization in Texas," JAMA Network Open, 29 October 2020, <https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2772346>.

⁹ "Restarting Work Safely and Efficiently," Boston Consulting Group in Collaboration with the World Economic Forum, July 2020, p. 11 of 28, <https://web-assets.bcg.com/93/80/613528b54fffb5e4dee61981ae5e/bcg-report-return-to-work-e-and-c-sector-july30.pdf>.

¹⁰ Jennifer Goodman, "6 Ways the Coronavirus Outbreak Will Affect Construction," ConstructionDive, 13 March 2020, <https://www.constructiondive.com/news/6-ways-the-coronavirus-outbreak-will-affect-construction/574042/>.



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In addition to absenteeism, work stoppages and quarantines also significantly impacted production on construction projects. Several sources reported on the impact of COVID-19-related work stoppages and quarantines, including:

1. In “Early Impacts of the COVID-19 Pandemic on the United States Construction Industry,”¹¹ the authors report the results of 34 telephone interviews that they conducted with construction professionals throughout the United States in April and May 2020. They report that the results of their survey indicated that some of the reasons that workers chose not to report to work during the pandemic included quarantine requirements. Additionally, one of the survey respondents described a situation where a subcontractor employee had newly transitioned into the workplace and subsequently tested positive for COVID-19, which resulted in the project being temporarily shut down and other workers being quarantined for 14 days.
2. In “COVID-19 Impacts to Supply Chain, Permitting, A/E Consulting and Labour,”¹² the authors reported in April 2020 that in the U.S. and Canada, when a construction worker tested positive, the project was typically stopped, the site was deep cleaned, and affected workers were quarantined for 14 days.
3. In “Restarting Work Safely and Efficiently,”¹³ the Boston Consulting Group published quarantine guidelines in August 2020 that included 14-day quarantines for workers testing positive for COVID-19 at entry point pre-screenings as well as for vulnerable workers who had been exposed to positive cases either at home or on the work site.

COVID-19-related travel bans also impacted production on construction projects. For example, one source reported in March 2020 that a large, international construction company implemented a ban on international travel across its entire global workforce.¹⁴ Yet another source indicated that in some cases, subcontractors that had to cross state lines in the U.S. were hesitant to work to avoid the 14-day quarantine requirement imposed by some states.¹⁵

Finally, in addition to the above, several sources reported general skilled labor shortages in the construction industry due to the impacts of COVID-19:

¹¹ A. Alsharef, S. Banerjee, S. M. J. Uddin, A. Albert, and E. Jeselskis, “Early Impacts of the COVID-19 Pandemic on the United States Construction Industry,” *Int. J. Environ. Res. Public Health* 2021, 18, 1559; 2021, pp. 4, 8, and 10 of 20, <https://doi.org/10.3390/ijerph18041559>.

¹² “COVID-19 Impacts to Supply Chain, Permitting, A/E Consulting and Labour,” Avison Young, April 2020, <https://www.avisonyoung.us/news-releases/-/aynp/view/2020/04/06/project-management-considerations-across-the-u-s-and-canada/in/philadelphia>.

¹³ “Restarting Work,” pp. 21 and 23 of 28.

¹⁴ Goodman, “6 Ways.”

¹⁵ Alsharef, Banerjee, Uddin, Albert, and Jeselskis, “Early Impacts,” p. 7 of 20.



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1. In “COVID-19 Impacts to Supply Chain, Permitting, A/E Consulting and Labour,”¹⁶ the authors report that there was a labor shortage in North America’s construction market leading to extended project schedules even prior to COVID-19, and that these shortages were exacerbated by the impact of COVID-19.
2. In “Construction Costs Rising in 2022: Here’s Why It’s Happening,”¹⁷ the authors state that the pandemic decreased the number of workers in the construction industry due to layoffs and workers leaving the industry, forcing construction companies to compete for skilled labor resources.
3. In “Early Impacts of the COVID-19 Pandemic on the United States Construction Industry,”¹⁸ the authors report the results of 34 telephone interviews that they conducted with construction professionals throughout the United States in April and May 2020. They report that the results of their survey indicated that a large number of furloughs and layoffs were occurring for craft workers, project engineers, estimators, and administrative employees in the construction industry and that the future demand for craft workers was unclear. They also report that several respondents expressed concern that laid-off workers may choose to leave the industry and not return to work, as was the case when large numbers of workers abandoned the industry during the Great Recession. Conversely, they also report that some respondents indicated that financially strong contractors may benefit from the situation by hiring from the pool of surplus skilled workers created by the layoffs and furloughs.

2.1.2 Construction Labor Impacts – Productivity

To mitigate the spread of COVID-19 on construction sites, several safety measures were recommended and/or implemented. Depending on jurisdiction, various COVID-19-specific safety protocols may have been required. In some cases, COVID-19 compliance staff were hired to ensure compliance with job site requirements.¹⁹ The implementation of these safety protocols resulted in productivity losses, discussed in detail below. The safety protocols were focused on five main categories, as follows:

¹⁶ “COVID-19 Impacts to Supply Chain.”

¹⁷ “Construction Costs Rising in 2022: Here’s Why It’s Happening,” Point Acquisitions, 8 October 2022, <https://pointacquisitions.com/2022-rising-construction-costs/>.

¹⁸ Alsharef, Banerjee, Uddin, Albert, and Jeselskis, “Early Impacts,” pp. 4, 12, 14 of 20.

¹⁹ John G. McConville, “COVID-19 the New ‘Normal’ for Global Construction,” presented at 2021 AACE International Conference & Expo, slide 9 of 28.



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1. **Site Access:** Site access safety protocols included the limitation of visitors²⁰ and the implementation of health questionnaires²¹ and health checks, such as temperature checks²² and COVID-19 testing,²³ prior to site entry.
2. **Personal Hygiene:** Personal hygiene safety measures included the installation of handwashing stations and encouraging workers to use them regularly.²⁴
3. **Personal Protective Equipment (PPE):** PPE safety protocols included requirements for masks and gloves²⁵ and in some cases goggles²⁶ and aprons.²⁷ In some cases, additional cool-down breaks were required due to the additional PPE, further impacting productivity.²⁸ Additionally, some sources reported PPE shortages early in the pandemic.^{29, 30}
4. **Sanitization:** Sanitization safety measures included enhanced job site cleaning protocols;³¹ enhanced cleaning at points of worker contact such as tools, machinery, and vehicles;³² disinfecting tools and surfaces;³³ discouraging the sharing of tools and equipment;³⁴ cleaning delivered materials and equipment prior to use;³⁵ and the deep cleaning of infected job sites.³⁶
5. **Social Distancing:** Social distancing protocol required observing six feet of distance between workers when possible.³⁷ In some cases this resulted in modified work procedures;³⁸ staggered shifts;³⁹ staggered break times;⁴⁰ reduced work hours or

²⁰ Fredrick Simpeh and Christopher Amoah, “Assessment of Measures Instituted to Curb the Spread of COVID-19 on Construction Site,” *International Journal of Construction Management*, 20 January 2021, <https://www.tandfonline.com/doi/full/10.1080/15623599.2021.1874678>, pp. 5 and 8 of 10.

²¹ “Restarting Work,” p. 9 of 28.

²² Simpeh and Amoah, “Assessment of Measures,” pp. 5 and 8 of 10.

²³ “Restarting Work,” pp. 8–9 of 28.

²⁴ “Restarting Work,” pp. 8 and 20 of 28.

²⁵ Manning, Sattineni, and Simons, “COVID-19 Impact,” p. 157.

²⁶ McConville, “COVID-19 the New ‘Normal,’” slide 18 of 28.

²⁷ Simpeh and Amoah, “Assessment of Measures,” pp. 5 and 7 of 10.

²⁸ McConville, “COVID-19 the New ‘Normal,’” slide 18 of 28.

²⁹ “COVID-19 Impacts to Supply Chain.”

³⁰ Alsharef, Banerjee, Uddin, Albert, and Jeselskis, “Early Impacts,” pp. 2, 8, and 15 of 20.

³¹ McConville, “COVID-19 the New ‘Normal,’” slide 18 of 28.

³² “Restarting Work,” p. 8 of 28.

³³ Alsharef, Banerjee, Uddin, Albert, and Jeselskis, “Early Impacts,” p. 16 of 20.

³⁴ Alsharef, Banerjee, Uddin, Albert, and Jeselskis, “Early Impacts,” p. 16 of 20.

³⁵ Simpeh and Amoah, “Assessment of Measures,” pp. 5 and 8 of 10.

³⁶ “COVID-19 Impacts to Supply Chain.”

³⁷ “COVID-19 Impacts to Supply Chain.”

³⁸ McConville, “COVID-19 the New ‘Normal,’” slide 9 of 28.

³⁹ Alsharef, Banerjee, Uddin, Albert, and Jeselskis, “Early Impacts,” p. 15 of 20.

⁴⁰ “Restarting Work,” p. 10 of 28.



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smaller, spread-out work crews;⁴¹ reduction in the number of attendees at in-person meetings;⁴² holding meetings outdoors if possible;⁴³ additional buses and site offices;⁴⁴ and bans on car-pooling.⁴⁵

Additionally, several sources have reported on actual productivity losses on construction projects resulting from the implementation of the COVID-19 protocols listed above:

1. In “COVID-19 the New ‘Normal’ for Global Construction,”⁴⁶ John McConville reported that loss of productivity on industrial construction projects due to COVID-19 ranged from 10% to 40%. Based on discussions with several construction professionals regarding loss of productivity for specific trades on industrial construction projects in the U.S. and Canada, McConville summarizes production losses by trade. McConville reports that the highest productivity losses were for field-fabricated and erected piping (13% to 26%) and electrical and instrumentation work (13% to 23%).
2. In “Restarting Work Safely and Efficiently,”⁴⁷ the Boston Consulting Group reported perceived productivity losses of 20% to 30% due to COVID-19. They also discuss that approximately 25% of employees may experience toxic levels of stress after periods of lockdown and that employees suffering from stress reported a loss of productivity of approximately 35%.
3. In “Early Impacts of the COVID-19 Pandemic on the United States Construction Industry,”⁴⁸ the authors report that productivity rates in the construction industry have suffered due to COVID-19, with most of the loss in productivity and efficiency attributed to new safety measures.
4. In “COVID-19 Impact to Construction Activity Durations on Department of Defense (DoD) Projects,”⁴⁹ the authors report that they conducted an anonymous online survey of U.S. DoD contractors and naval construction personnel in October 2020 and received 68 responses. Survey respondents were asked to identify which trades were taking longer to perform tasks due to COVID-19. The top two

⁴¹ McConville, “COVID-19 the New ‘Normal,’” slides 9 and 18 of 28.

⁴² “Restarting Work,” pp. 10 and 22 of 28.

⁴³ “Restarting Work,” pp. 10 and 22 of 28.

⁴⁴ McConville, “COVID-19 the New ‘Normal,’” slides 9 and 18 of 28.

⁴⁵ Jennifer Goodman, “The New Normal: 8 Ways the Coronavirus Crisis Is Changing Construction,” ConstructionDive, 30 April 2020, <https://www.constructiondive.com/news/the-new-normal-8-ways-the-coronavirus-crisis-is-changing-construction/576681/>.

⁴⁶ McConville, “COVID-19 the New ‘Normal,’” slides 12, 17, and 20 of 28.

⁴⁷ “Restarting Work,” p. 11 of 28.

⁴⁸ Alsharef, Banerjee, Uddin, Albert, and Jeselskis, “Early Impacts,” p. 8 of 20.

⁴⁹ Manning, Sattineni, and Simons, “COVID-19 Impact,” pp. 158–162.



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responses were mechanical and electrical trades, with mechanical trades primarily taking longer to perform ductwork and equipment activities and electrical trades primarily taking longer to perform wiring, conduit, and equipment activities.

5. In “COVID-19 Causing Extra 15% Productivity Loss on UK Sites,”⁵⁰ the author reports that an analysis of 45 commercial real estate projects delivered during the pandemic showed that labor shortages and social distancing due to COVID-19 resulted in a productivity loss of approximately 7%. The author further reported that an additional 1% productivity loss is attributed to the poor transfer of design information while working remotely, and an additional 7% loss is attributed to late material deliveries.
6. Two sources report on the results of a joint productivity study performed by the Sheet Metal and Air Conditioning Contractor’s National Association (SMACNA) and the National Electrical Contractor’s Association (NECA). The study was based on job sites in 21 states in the U.S. operating under COVID-19 protocols during 2020 and included data from multiple types of construction projects including chemical, manufacturing, and energy facilities. Based on an analysis of 113,000 labor hours associated with mechanical crews, plumbing crews, and electrical crews, the study concluded that productivity loss due to COVID-19 protocols averaged 17.9%. Of the 17.9% total productivity loss, the study reported that approximately 8.8% was due to additional jobsite safety measures such as site access and sanitization protocols, while approximately 9.2% was due to loss of productivity during construction activities due to factors such as social distancing, worker fatigue from anxiety and absenteeism, and off-shift work.^{51,52}
7. In “Pandemics and Construction Productivity: Quantifying the Impact,”⁵³ the authors report on a study performed by NECA, which appears to be the NECA portion of the joint study NECA performed with SMACNA discussed above. This NECA study focused on productivity impacts for electrical contractors between April and July 2020. Based on the analysis of over 92,000 labor hours, the study concluded that total productivity loss averaged 21.8%.

⁵⁰ “COVID-19 Causing Extra 15% Productivity Loss on UK Sites,” Construction Management, 23 June 2020, <https://constructionmanagement.co.uk/covid-19-causing-extra-15-productivity-loss-on-uk-sites/>.

⁵¹ “Empirical Productivity Impacts of the Novel Coronavirus,” J.S. Held, 26 April 2022, pp. 4–5 of 10, <https://jsheld-prod.imgix.net/Empirical-Productivity-Impacts-of-the-Novel-Coronavirus.pdf>

⁵² Joe Bousquin, “Study Finds COVID-19 Protocols Led to a 7% Loss on Construction Projects,” Construction Dive, 11 August 2020, <https://www.constructiondive.com/news/study-finds-covid-19-protocols-led-to-a-7-loss-on-construction-projects/583143/>.

⁵³ Michael McLin, Dan Doyon, Brian Lightner, and Mark Federle, “Pandemics and Construction Productivity: Quantifying the Impact,” ELECRI International, August 2020, pp. 10–12 of 30, <https://ecaottawa.org/wp-content/uploads/2021/01/PandemicAndConstructionProductivity-Final-Report-August.pdf>.



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2.2 OFFICE WORKER LABOR IMPACTS

Generally, office workers such as design engineers and drafters, procurement personnel, and general office staff suffered from the same COVID-19-related production impacts as those discussed above for construction workers in Section 2.1.1. That is, office workers were also subject to government-imposed shutdowns and lockdowns and increased absenteeism due to illness, quarantines, and travel restrictions.

While office workers may have had the opportunity to work remotely from home during the pandemic—depending on geographical location, computing resources required, and individual company policies—any office workers who remained in an office environment would have likely been subject to COVID-19 protocols similar to those discussed above in Section 2.1.2. Implementation of such measures including increased personal hygiene (handwashing), wearing of PPE (masks), increased sanitization, and social distancing would have resulted in associated productivity losses for office workers analogous to those experienced by construction workers.

Additionally, any office staff that were required to visit a construction site (*e.g.*, design engineers performing site walks for design verification or quality control purposes),⁵⁴ would also have been subject to the on-site COVID-19 protocols discussed above for construction workers in Section 2.1.2, resulting in productivity loss. This is especially true regarding site access, where office workers may have been granted only limited access, if any, to a construction site.

Office workers who transitioned to working remotely from home also faced challenges. In “Early Impacts of the COVID-19 Pandemic on the United States Construction Industry,” the authors report the results of 34 telephone interviews that they conducted with construction professionals throughout the United States in April and May 2020. They report that survey participants experienced a significant number of challenges when transitioning to working from home, including:

1. Lack of necessary digital infrastructure, resulting in issues with workers gaining access to necessary software packages;
2. The need for businesses to invest in virtual private networks (VPNs) to facilitate remote access to software packages and design tools;
3. Individuals having issues connecting their business computers to their home networks;
4. Individuals experiencing internet outages and poor internet quality at their home offices;
5. Individuals unfamiliar with how to use a VPN;

⁵⁴ Assuming there were no travel restrictions preventing site visits in the first place.



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6. Learning curves for new communication platforms such as Zoom, Microsoft Teams, and Slack;
7. Individuals experiencing more distractions at home; and
8. Individuals taking on additional childcare duties due to schools moving to an online format.⁵⁵

Because of these challenges, some survey participants reported that their organizations decided to ask their remote employees to return to the office environment.⁵⁶

Despite the above challenges, one source reported in April 2020 that even though most office staff were working remotely, the daily flow of information such as submittals, approvals, requests for information (RFIs), etc., did not appear to have been impacted to a great degree.⁵⁷ As discussed above, one report cited only a 1% productivity loss due to issues transferring design information while working remotely.⁵⁸

When researching the topic, this author did not locate additional references that discussed productivity loss due to remote work specifically for the case of engineering design teams in the engineering and construction industry. Assuming that the requirement for advanced computing resources such as computer aided design (CAD) and 3D modeling programs didn't preclude engineers and drafters from working at home, additional productivity losses (and potentially design quality issues) above and beyond the 1% indicated above (which seems to be related strictly to the transmittal of information) would have been expected to occur when working remotely from home. Reasons for this increased productivity loss would have included reduced communication among engineers, including reduced communications among engineers of different disciplines (*e.g.*, issues at design interfaces), and reduced communications among engineers and drafters. Additionally, performing drawing reviews and design reviews remotely would have added additional challenges, including increased risk for errors, omissions, and/or rework.

2.3 MATERIAL AND EQUIPMENT SUPPLY CHAIN IMPACTS

Several sources have reported on the negative impacts of COVID-19 on the global and domestic construction industry supply chain. These supply chain impacts, which affected the timely supply and delivery of equipment and materials, included material shortages and extended lead times for common construction materials such as steel, lumber, and insulation as well as for materials and equipment more closely related to the industrial construction industry, such as pumps; pipes, valves, and fittings (PVF); and electrical system components. These material shortages often

⁵⁵ Alsharef, Banerjee, Uddin, Albert, and Jeselskis, "Early Impacts," pp. 1, 4, and 13 of 20.

⁵⁶ Alsharef, Banerjee, Uddin, Albert, and Jeselskis, "Early Impacts," p. 13 of 20.

⁵⁷ "COVID-19 Impacts to Supply Chain."

⁵⁸ "COVID-19 Causing Extra 15%."



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resulted in delivery delays, with delays on the order of several weeks to months in some cases as discussed in detail below.

There were multiple pandemic-related causes for the impacts to the construction supply chain, including: (1) production losses at supplier locations due to government-imposed shutdowns and lockdowns and/or increased absenteeism, as discussed above in Section 2.1.1, and (2) productivity losses at supplier locations due to the implementation of new health and safety measures such as those discussed above in Section 2.1.2. Government-imposed shutdowns and lockdowns occurred throughout the COVID-19 pandemic during periods of high viral transmission, especially in early 2020 and mid-2021:

1. In “6 Ways the Coronavirus Outbreak Will Affect Construction,”⁵⁹ Jennifer Goodman reported in March 2020 that Chinese government COVID-19 containment efforts and quarantines significantly impacted Chinese factories. Goodman further reported that approximately 30% of U.S. building material imports come from China and that some American construction companies receive up to 80% of their materials from China, with one of the largest home builders in the United States announcing supply shortages.
2. In “COVID-19 Impact to Construction Activity Durations on Department of Defense (DoD) Projects,”⁶⁰ the authors write that beginning in March 2020, most states in the U.S. instituted state-wide lockdowns with varying degrees of restrictions.
3. In “More Than Half of the U.S. Population Is Now under Orders to Stay Home,”⁶¹ the authors write that by the end of March 2020, more than half of the U.S. population was under stay-at-home orders.
4. In “COVID-19 the New ‘Normal’ for Global Construction,”⁶² John McConville reported that as of May 15, 2021, more than 20 countries, including the U.K., Vietnam, Russia, Israel, and several members of the European Union, were on COVID-19 lockdown or had closed their borders in an effort to contain the spread of the virus.

Along with the impacts due to supplier shutdowns and productivity losses, the supply chain in the U.S. was also impacted by COVID-19-related issues affecting U.S. shipping ports and the domestic trucking industry:

⁵⁹ Goodman, “6 Ways,” pp. 4–5 of 10.

⁶⁰ Manning, Sattineni, and Simons, “COVID-19 Impact,” p. 156.

⁶¹ Perper, Al-Arshani, and Secon, “More than Half.”

⁶² McConville, “COVID-19 the New ‘Normal,’” slide 10 of 28.



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1. In “The Impact of COVID-19 on Supply Chains,”⁶³ John Joyce reported in October 2021 that shipping vessels had been stacking up waiting for berthing space at some of the busiest ports in the world, including at the ports of Los Angeles and Long Beach in the U.S., which both receive exports from China. Joyce reported data from the Pacific Merchant Shipping Association that showed container dwell time began increasing significantly in August 2020 and remained high through at least June 2021.
2. In “3 Things Driving Construction’s Supply Chain Problem,”⁶⁴ Erin Jay reports that in addition to the backup at U.S. ports, the U.S. construction supply chain was also impacted by a lack of both trucks and truck drivers.
3. In “Early Impacts of the COVID-19 Pandemic on the United States Construction Industry,”⁶⁵ the authors write that in the U.S., several trucking companies within the supply chain were deemed non-essential and were required to halt operations during the pandemic. They further indicate that there was general concern among truck drivers with regards to crossing state lines due to quarantines imposed by certain states.

In addition to the above-referenced articles, several sources have reported on the general, high-level impacts of COVID-19 on the global and domestic construction industry supply chain. Such examples include:

1. In “Tackling the Impacts of COVID-19 on Construction Projects: An Exploration of Contractual Dispute Avoidance Measures Adopted by Construction Firms,”⁶⁶ the authors report that there was general uncertainty regarding the supply chain due to the potential for supplier shutdowns. They further write that quarantines in China led to issues with transportation for finished products and shipping containers being held up in China’s ports.

⁶³ John Joyce, “The Impact of COVID-19 on Supply Chains,” Brennan Inc. Blog, 14 October 2021, <https://blog.brennaninc.com/impact-of-covid-19-on-supply-chains>.

⁶⁴ Erin Flynn Jay, “3 Things Driving Construction’s Supply Chain Problem,” the Bluebeam Blog, 24 November 2021, <https://blog.bluebeam.com/supply-chain-disruptions-construction/>.

⁶⁵ Alsharaf, Banerjee, Uddin, Albert, and Jeselskis, “Early Impacts,” p. 7 of 20.

⁶⁶ Babatunde A. Salami, Saheed O. Ajayi, and Adekunle S. Oyegoke, “Tackling the Impacts of COVID-19 on Construction Projects: An Exploration of Contractual Dispute Avoidance Measures Adopted by Construction Firms,” International Journal of Construction Management, 11 August 2021, <https://doi.org/10.1080/15623599.2021.1963561>, p. 4 of 10.



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2. In “COVID-19: Managing Force Majeure Risk in a Construction Project Supply Chain,”⁶⁷ the authors wrote in April 2020 that construction project supply chains continued to be disrupted as the COVID-19 pandemic intensified.
3. In “Coronavirus Whallops Cargo at Port of Los Angeles, LAX, JFK, O’Hare,”⁶⁸ Ken Roberts reported that in March 2020 the Port of Los Angeles imports from China fell to their lowest monthly total in over a decade. Roberts further reported that imports from China also dropped off steeply at LAX, JFK, and O’Hare.
4. In “Early Impacts of the COVID-19 Pandemic on the United States Construction Industry,”⁶⁹ the authors report the results of 34 telephone interviews that they conducted with construction professionals throughout the United States in April and May 2020. They report that most of the participants experienced or expected to experience delays in material delivery that were expected to cause disruptions and delay project progress, with delays particularly relevant when the supply chain involved imported materials. They indicate that material shortage was also caused by social distancing and quarantine requirements that resulted in diminished workforces within supply chain organizations. Additionally, they write that these supply chain challenges led to increased demand at alternate, local suppliers, but that these local suppliers were in some cases unable to receive shipments of the raw material that they needed to meet the increased demand. Moreover, several interview participants indicated that the supply chain disruptions resulted in increased costs for construction materials, particularly in the case of lumber, cement, and concrete products.
5. In “A Look at COVID-19 Impacts on the Construction Industry,”⁷⁰ the authors wrote in May 2020 that the spread of COVID-19 had disrupted the supply of goods and materials and that material supply chains had experienced a significant level of disruption.
6. In “COVID-19 Impact to Construction Activity Durations on Department of Defense (DoD) Projects,”⁷¹ the authors report that they conducted an anonymous online survey of U.S. DoD contractors and naval construction personnel in October

⁶⁷ David Robertson, Matthew Secomb, and Emily Elliott, “COVID-19: Managing Force Majeure Risk in a Construction Project Supply Chain,” White & Case, 13 April 2020, <https://www.whitecase.com/insight-alert/covid-19-managing-force-majeure-risk-construction-project-supply-chain>.

⁶⁸ Ken Roberts, “Coronavirus Whallops Cargo at Port of Los Angeles, LAX, JFK, O’Hare,” Forbes, 3 April 2020, <https://www.forbes.com/sites/kenroberts/2020/04/03/coronavirus-whallops-cargo-at-port-of-los-angeles-lax-jfk-ohare>.

⁶⁹ Alsharif, Banerjee, Uddin, Albert, and Jeselskis, “Early Impacts,” pp. 4, 7, 9, and 12 of 20.

⁷⁰ James P. Chivilo, Gina A. Fonte, and Gregory H. Koger, “A Look at COVID-19 Impacts on the Construction Industry,” Holland & Knight, 26 May 2020, <https://www.hklaw.com/en/insights/publications/2020/05/a-look-at-covid19-impacts-on-the-construction-industry>.

⁷¹ Manning, Sattineni, and Simons, “COVID-19 Impact,” p. 163.



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2020 and received 68 responses. They report that material delivery times was the biggest issue identified in response to an open-ended question asking respondents to identify specific examples of how the construction industry had changed due to the COVID-19 pandemic.

In addition to the above information regarding general, high-level impacts of COVID-19 on the construction supply chain, several sources reported more specific impacts for select types of materials and equipment:

1. In “COVID-19 the New ‘Normal’ for Global Construction,”⁷² John McConville reported in mid-2021 that more than 80% of contractors had experienced delays in obtaining domestic and international construction materials. McConville also reported significant cost increases in North America between January and May 2021 for several categories of common construction materials, including lumber (+75%), copper materials/electrical cable (+20%), carbon steel and stainless steel pipe and fittings (+16-22%), and rebar (+10-25%). Additionally, McConville reported that process equipment delivery dates had moved out four to ten weeks and general material shortages had resulted in increased lead times of four to 20 weeks.
2. In “Material Cost Escalation, Delays and COVID-19: Managing Risk in Challenging Times,”⁷³ the authors reported in July 2021 that delivery delays were a consequence of COVID-19 and that non-residential projects would face significant challenges as a result. In particular, they report that steel lead times had experienced significant delays, with delivery ranging from 12 to 40 weeks.
3. In “Delays, Labor Shortages and COVID Stress: Construction Firms Working through Challenging Times,”⁷⁴ Dan Rafter interviewed Eric Gowin of Contegra Construction Company, located in the U.S., in September 2021. Gowin reported that structural steel and roof insulation were in short supply and that the lead times for structural steel had increased from 12–16 weeks to over 30 weeks.
4. In “Post-COVID Lead Times,” Xinyao Wang reported pre- and post-COVID lead times for various categories of construction materials in the U.S. in October 2021. Examples of the lead time increases reported include:
 - a. Prestressed concrete lead times increased from 3–4 months to 6–7 months.

⁷² McConville, “COVID-19 the New ‘Normal,’” slides 13, 23, and 25 of 28.

⁷³ Rachel E. Stack and Carl R. Pebworth, “Material Cost Escalation, Delays and COVID-19: Managing Risk in Challenging Times,” Faegre Drinker, 20 July 2021, <https://www.faegredrinker.com/en/insights/publications/2021/7/material-cost-escalation-delays-and-covid-19-managing-risk-in-challenging-times>.

⁷⁴ Dan Rafter, “Delays, Labor Shortages and COVID Stress: Construction Firms Working through Challenging Times,” RE Journals, 27 September 2021, <https://rejourneys.com/delays-labor-shortages-and-covid-stress-construction-firms-working-through-challenging-times/>.



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- b. Precast concrete lead times increased from 2–4 weeks to 4–6 weeks.
 - c. Insulation material lead times increased from 2–4 weeks to 4–5 months.
 - d. Steel pipe and tube lead times increased from 4–8 weeks to 4–5 months.
 - e. Fabricated structural steel lead times increased from 6–8 weeks to 5–6 months.
 - f. Metal bar joists and rebar lead times increased from 2–3 months to more than six months.⁷⁵
5. The Mason Public Utility District 3 (PUD 3) in the state of Washington published an alert in September 2021 regarding supply chain disruptions and unpredictable lead times due to COVID-19. The alert indicated raw material shortages for metals (transformers and wire), PVC, and fiber optic cables and components.⁷⁶
 6. In “Supply Chain Issues Still Plaguing North American PVF (Pipe, Valve, and Fitting) Industry,”⁷⁷ Titan Fittings, a supplier, reported in October 2021 that the North American PVF industry continued to deal with supply chain uncertainties such as supply chain disruptions, shortages of critical raw materials, and shipping delays due to COVID-19. Titan reported price hikes of 20% for tubular products by major pipe manufacturers and 10% for carbon steel butt-weld fittings.
 7. In “Supply Chain Issues Continue to Impact Global Pump Market,”⁷⁸ the Freedonia Group reported in June 2022 that the global pumps market was affected by COVID-related supply chain disruptions and that supply shortages and rising raw material prices led to increased pump prices. The Freedonia Group reported that while the pump market achieved double-digit growth in 2021, difficulties meeting orders prevented even greater gains. The Freedonia Group reported that supply chain issues in the pump market were expected to persist through 2022.
 8. In “COVID-19 Electrical Distribution Supply Chain Impact Update,” Kevin Reed reported periodic updates throughout the pandemic regarding the status of lead time and pricing for various categories of electrical materials and equipment in the U.S. Reed’s reports highlighted the following significant availability issues:

⁷⁵ Xinyao Wang, “Post-COVID Lead Times,” Cumming, 11 October 2021, <https://cumming-group.com/post-covid-lead-times/>.

⁷⁶ “ALERT: Material Shortages and Supply Chain Disruptions Are Causing Delays,” Mason PUD 3, 16 September 2021, <https://www.pud3.org/blog/articles--blog/behind-the-scenes-at-pud-3/alert-material-shortages-and-supply-chain-disruptions-are-causing-delays>.

⁷⁷ “Supply Chain Issues Still Plaguing North American PVF (Pipe, Valve, and Fitting) Industry,” Titan Fittings, October 2021, <https://www.titanfittings.com/Articles.asp?ID=424>.

⁷⁸ “Supply Chain Issues Continue to Impact Global Pump Market,” PR Newswire, The Freedonia Group, 9 June 2022, <https://www.prnewswire.com/news-releases/supply-chain-issues-continue-to-impact-global-pumps-market-301564891.html>.



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- a. July 2020: Major availability issue for safety products including gloves and masks. PVC also experiencing some lead time issues.
- b. September 2020: Increasing availability issues for wire and cable; distribution equipment; wiring devices; fuses, signaling, hardware, and access equipment; and PVC.
- c. November 2020: Major availability issues for distribution equipment and PVC. Increasing availability issues for conduit raceway; conduit access; and fuses, signaling, hardware, and access.
- d. January 2021: Major availability issues for distribution equipment and PVC. Increasing availability issues for conduit raceway; conduit access; and fuses, signaling, hardware, and access.
- e. June 2021: Major availability issues for distribution equipment and PVC. Increasing availability issues for wire and cable; voice data and video; conduit raceway; conduit access; wiring devices; and fuses, signaling, hardware, and access.⁷⁹

Based on the above, COVID-19-related negative impacts to the construction industry supply chain were widely reported starting as early as March 2020. The supply chain disruptions began as early as March 2020 due to COVID-19-related lockdowns in China and continued at least through 2021 with varying degrees of negative impact for various categories of materials. COVID-19-related supply chain negative impacts were reported for various construction materials including lumber, structural steel, and concrete. In addition, COVID-19-related supply chain negative impacts were also reported for various processing equipment and related materials such as pumps, carbon steel PVF, stainless steel PVF, electrical cabling, and electrical distribution equipment.

⁷⁹ Kevin Reed, “COVID-19 Electrical Distribution Supply Chain Impact Update,” ParamontEO, 8 July 2020, <https://paramont-eo.com/supply-chain-impact-update-2/>.



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3. COVID-19 CONSTRUCTION IMPACTS: CONTRACTS AND CLAIMS CONSIDERATIONS

This section of the article summarizes the potential applicability of typical construction contract clauses and legal strategies for COVID-related construction project impacts, best practices for mitigation of the COVID-19 impacts on construction projects, and contracting recommendations for avoiding disputes and claims related to COVID-19 and/or other future pandemics. The intent of this section of the article is to provide a summary of the legal issues related to COVID-19 impacts on the construction industry that may be beneficial to owners and contractors. This article was not written by an attorney and does not constitute legal advice.

3.1 APPLICABILITY OF FORCE MAJEURE AND DELAY CONTRACT CLAUSES

Several authors discuss the potential applicability of various contract clauses to COVID-19 impacts in the construction industry. *Force majeure* clauses, which pertain to delays caused by unforeseeable events outside the control of either contracting party, and delay clauses have been cited as being potentially applicable to COVID-19 impacts as discussed below.

In “COVID-19’s Impact on Construction: Is There a Remedy? – Time Extension, Force Majeure, or More?,” the authors write that three key factors will likely determine whether a *force majeure* clause is applicable to COVID-19 impacts:

1. Whether the *force majeure* clause specifically references the event as being out of the party’s control;
2. Whether the event was foreseeable; and
3. Whether the event caused the non-performance.⁸⁰

The authors also state that most *force majeure* clauses allow for an extension of time but not a corresponding price adjustment. Therefore, they write that while it is critical to meet contractual requirements for providing notice of delays, a contractor should be careful not to react too quickly as to limit itself to only a time extension if clauses other than *force majeure* may be applicable. Similarly, they write that an owner that denies a time extension without compensation under a *force majeure* clause may find itself defending against other clauses or legal theories that allow for contractor compensation.

⁸⁰ William J. Shaughnessy, William E. Underwood, and Chris Cazenave, “COVID-19’s Impact on Construction: Is There a Remedy? – Time Extension, Force Majeure, or More?,” *The National Law Review*, 3 April 2020, <https://www.natlawreview.com/article/covid-19-s-impact-construction-there-remedy-time-extension-force-majeure-or-more>.



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In “Dealing with the Construction Impacts of COVID-19,” the authors discuss two primary categories of *force majeure* delay clauses:

1. Clauses containing a non-exclusive list of examples of *force majeure* events with a high-level provision for “anything outside of either party’s control;” and
2. Clauses that specifically list out every event that would qualify as a *force majeure* event.⁸¹

The authors write that once it is determined whether COVID-19 impacts fall within a specific *force majeure* clause, further assessment is required to determine whether the clause provides only an extension of time or also provides compensation for delay costs.

Additionally, the authors discuss potentially applicable delay clauses of various standard contracts as follows:

1. The American Institute of Architects (AIA) contract A201-2017 §8.3, which they write is sufficiently broad as to entitle a contractor to the potential recovery of provable delay costs due to COVID-19 impacts;
2. The ConsensusDocs 200 Standard Agreement §6.3.1, which they state contains a list of excusable delays, including pandemics, and provides for a contractor’s right to cost adjustment; and
3. The U.S. Federal Acquisition Regulations (FAR 52.249-10 and FAR 52.349-14), which indicate that both epidemics and quarantine restrictions are grounds for excusable delay.

Several additional authors discuss the potential *force majeure* relief for COVID-19 impacts provided by applicable clauses found in various standard contracts and civil laws, as follows:

1. In “Tackling the Impacts of COVID-19 on Construction Projects: An Exploration of Contractual Dispute Avoidance Measures Adopted by Construction Firms,” the authors discuss *force majeure* clauses with respect to the International Federation of Consulting Engineers (FIDIC), the Joint Contracts Tribunal (JCT), and the New Engineering Contract (NEC) standard contracts;⁸²

⁸¹ Michael A. Stover, Cynthia E. Rodgers-Waire, and Thomas J. Moran, “Dealing with The Construction Impacts of COVID-19,” American Bar Association Newsletters, Spring 2020, https://www.americanbar.org/groups/tort_trial_insurance_practice/publications/committee-newsletters/construction_impacts_of_covid/.

⁸² Salami, Ajayi, and Oyegoke, “Tackling the Impacts.”



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2. In “COVID-19: Legal Impact on Contractual Obligations,” the authors discuss *force majeure* with respect to Article 401 clause 3 of the Russian Federation (RF) Civil Code;⁸³
3. In “How Should the Impact of the COVID-19 Outbreak Be Managed on Projects under FIDIC and NEC?,” the authors discuss *force majeure* with respect to the FIDIC and NEC standard contracts;⁸⁴
4. In “COVID-19’s Impact on Construction Contracts – Will Force Majeure Relief or Other Rights Be Available?,” the authors discuss *force majeure* with respect to the FIDIC standard contract as well as with respect to English and Chinese law;⁸⁵
5. In “COVID-19’s Impact on Construction: Is There a Remedy? – Time Extension, Force Majeure, or More?,” the authors discuss *force majeure* and delay with respect to the AIA, ConsensusDocs, FAR, FIDIC, and Design-Build Institute of America (DBIA) standard contracts;⁸⁶ and
6. In “Construction Contracting and COVID-19: Negotiating in Uncertain Times,” the authors discuss *force majeure* and delay with respect to the AIA, ConsensusDocs, and the Engineers Joint Contract Documents Committee (EJCDC) standard contracts. The authors write that these standard contracts do not provide monetary relief for *force majeure* events, which conflicts with the interpretation in “Dealing with the Construction Impacts of COVID-19” discussed above.⁸⁷

In “Is the Coronavirus a Force Majeure That Excuses Performance of a Contract?,” David Marmins discusses the applicability of *force majeure* clauses to COVID-19 impacts in detail and notes that any broad *force majeure* clause should apply to COVID-19 impacts occurring after 11 March 2020, when the World Health Organization declared COVID-19 to be a global pandemic. Marmins writes that many *force majeure* clauses include “epidemic” or “pandemic” as qualifying events and that even without the specific reference, COVID-19 impacts should still qualify under *force*

⁸³ Julia Zagonek and Pavel Boulatov, “COVID-19: Legal Impact on Contractual Obligations,” 30 March 2020, <https://www.whitecase.com/insight-alert/covid-19-legal-impact-contractual-obligations>.

⁸⁴ Rebecca Shorter, Charles Nairac, Dr. Markus Burianski, Dr. Dimitar Kondev, and Yasmine El Achkar, “How Should the Impact of the COVID-19 Outbreak Be Managed on Projects under FIDIC and NEC?,” 31 March 2020, <https://www.whitecase.com/insight-alert/how-should-impact-covid-19-outbreak-be-managed-projects-under-fidic-and-nec>.

⁸⁵ Emma Schaafsma and Michelle Li, “COVID-19’s Impact on Construction Contracts – Will Force Majeure Relief or Other Rights Be Available?,” 11 February 2020, <https://hsfnotes.com/construction/2020/02/11/coronavirus-impacting-construction-contracts-will-force-majeure-relief-or-other-rights-be-available/>.

⁸⁶ Shaughnessy, Underwood, and Cazenave, “COVID-19’s Impact on Construction.”

⁸⁷ Karen A. Denys and Rachael E. Stack, “Construction Contracting and COVID-19: Negotiating in Uncertain Times,” 10 August 2021, <https://www.faegrewalker.com/en/insights/publications/2021/8/construction-contracting-and-covid-19-negotiating-in-uncertain-times>.



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majeure clauses due to governmental quarantines and travel bans. Marmins also points out that *force majeure* clauses typically apply only if the triggering event was unforeseeable.⁸⁸

Based upon Marmins' commentary above regarding foreseeability, it may be difficult to argue that *force majeure* clauses are applicable to COVID-19 delays in the case of contracts that were entered into after the beginning of the pandemic, once the potential impacts of the pandemic were known. In a more recent article, "The Dotted Line: COVID-19 Force Majeure Clauses Are Losing Their Punch," Joe Bousquin cites several attorneys who indicate that owners are not accepting *force majeure* clauses that include COVID-19 in new construction contracts.⁸⁹

In "Force Majeure in Construction and Real Estate Claims," Douglas V. Bartman writes that courts frequently apply *ejusdem generis* doctrine when determining if an event falls within a *force majeure* catchall provision and that under this doctrine the catchall provision is narrowly construed. Bartman also notes that the *force majeure* event must render performance impossible, not just difficult, and that parties may have a duty to attempt other means of performance. Further, Bartman stresses the importance of adherence to contract requirements regarding providing timely notice for all potential *force majeure* events.⁹⁰

In "Covid to Impact Construction Claims 'Until at Least 2023,'" the authors write that in some jurisdictions, local law may provide for *force majeure* relief in instances where the contract does not, and cite examples related to Spanish and French civil code. They write that courts in civil law jurisdictions have recognized COVID impacts as *force majeure* events under contractual definitions of "pandemic" but have not yet considered whether a *force majeure* event will provide both time and cost relief for contractors. They also write that in common law jurisdictions, contractual extensions of time for COVID-related claims have not been a major issue, but cost entitlement remains an issue.⁹¹

Other authors discuss the nuances of *force majeure* clauses with respect to COVID-19 impacts. In "COVID-19 Impacts on Construction Contracts: Legal Arguments for and against Performance," Laurie Stanziale writes that *force majeure* clauses are not generally a basis for price increases or

⁸⁸ David J. Marmins, "Is the Coronavirus a Force Majeure That Excuses Performance of a Contract?," American Bar Association, 19 March 2020, <https://www.americanbar.org/groups/litigation/committees/real-estate-condemnation-trust/articles/2020/winter2020-coronavirus-force-majeure-clauses-real-estate-contracts/>.

⁸⁹ Joe Bousquin, "The Dotted Line: COVID-19 Force Majeure Clauses Are Losing Their Punch," Construction Dive, 25 January 2022, <https://www.constructiondive.com/news/the-dotted-line-covid-19-force-majeure-clauses-are-losing-their-punch/617479/>.

⁹⁰ Douglas V. Bartman, "Force Majeure in Construction and Real Estate Claims," American Bar Association, 17 July 2020, <https://www.americanbar.org/groups/litigation/committees/commercial-business/articles/2020/spring2020-force-majeure-construction-real-state-claims/>.

⁹¹ Junaid Banoobhai and Nesreen Osman, "Covid to Impact Construction Claims 'Until at Least 2023,'" 17 August 2021, <https://www.pinsentmasons.com/out-law/analysis/covid-impact-construction-claims-2023>.



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loss of profitability claims.⁹² In “COVID-19: Impacts and Responses in the Construction Industry,” the authors also discuss the application of *force majeure* clauses to COVID-19 impacts and highlight the differences between application in common law and civil law jurisdictions.⁹³ In “Navigating Construction Contract Delays amid COVID-19,” the authors write that typical *force majeure* clauses relate to delayed time for performance but do not excuse performance altogether, and point out that while some non-standard contracts may contain a clause that allows damages in case of delays, other contracts may contain a no damages for delay clause.⁹⁴

3.2 APPLICABILITY OF CHANGE IN LAW AND CARDINAL CHANGE CONTRACT CLAUSES

Several authors discuss the potential applicability of various contract clauses to COVID-19 impacts in the construction industry. Change in law and cardinal change clauses have both been cited as being potentially applicable to COVID-19 impacts as discussed below.

In “Covid to Impact Construction Claims ‘Until at Least 2023,’” the authors discuss the implications of COVID-19 in Europe, the Middle East, and Africa. The authors state that construction projects typically allow for relief for delays due to changes in law, which in the case of COVID-19 may include lockdowns or quarantines that delay completion, and that the relief may include both extension of time and compensation for costs related to the delay. However, they write that it is not uncommon for a change in law clause to exclude claims where the change in law is due to a *force majeure* event. Further, they write that problems may arise where a party declares a *force majeure* event, which typically does not include cost entitlement, prior to a change in law due to COVID being put into effect. They indicate that some jurisdictions have introduced guidelines or legislation to fairly deal with pandemic-related claims and set specific conditions for entitlement.⁹⁵

In “Changing Construction Risk Regimes in Light of COVID-19,” the authors broadly state that relief for governmental lockdowns and other restrictions has become a key issue in construction projects in the Americas. They indicate that a change in law clause may provide relief in the event that the *force majeure* clause of a particular contract does not. The authors note that the language in change of law clauses, and the associated relief, differ from contract to contract. They write that in some cases, the language in the clause may lead to dispute where, for example, an owner may interpret “applicable law” to limit relief to cases involving changes in statutes and regulations

⁹² Laurie Stanziale, “COVID-19 Impacts on Construction Contracts: Legal Arguments for and against Performance,” JD Supra, 13 September 2021, <https://www.jdsupra.com/legalnews/covid-19-impacts-on-construction-5855673/>.

⁹³ “COVID-19: Impacts and Responses in the Construction Industry,” Baker McKenzie, January 2021, <https://www.bakermckenzie.com/-/media/files/insight/publications/2021/01/covid19--impacts-and-responses-in-the-construction-industryv2.pdf>.

⁹⁴ Richard T. Hewlett and Lauren E. Potocsky, “Navigating Construction Contract Delays amid COVID-19,” The National Law Review, 13 April 2020, <https://www.natlawreview.com/article/navigating-construction-contract-delays-amid-covid-19>.

⁹⁵ Banoobhai and Osman, “Covid to Impact.”



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while a contractor may interpret “applicable law” to more broadly include governmental decrees such as COVID-related public health orders. Furthermore, the authors note that absolute distinctions between *force majeure* clauses and change in law clauses may not exist in certain contracts and advise that all parties to a specific contract should carefully evaluate the applicable clauses when evaluating claims stemming from COVID-19 governmental shutdown orders.⁹⁶

In “How Should the Impact of the COVID-19 Outbreak Be Managed on Projects under FIDIC and NEC?,” the authors write that under clause 13.7 of the International Federation of Consulting Engineers (FIDIC) contract, contractors may be entitled to both an extension of time and compensation of costs if changes in laws impacting the project site cause them to incur costs and delays. Additionally, the authors note that under Option X2.1 of the New Engineering Contract (NEC), which indicates that a change in law constitutes a compensation event, a contractor may be entitled to time and costs in the event that government legislation impacts the project, *e.g.*, restricts movement of materials or people.⁹⁷

In “COVID-19: The Current Impact on Construction and Engineering Projects” and “COVID-19’s Impact on Construction Contracts – Will Force Majeure Relief or Other Rights Be Available?,” the authors broadly state that change in law contract provisions may give a contractor the right to both a time extension and compensation for costs incurred in various jurisdictions.^{98,99} In “COVID-19’s Impact on Construction: Is There a Remedy? – Time Extension, Force Majeure, or More?,” the authors also write that parties should consider whether a change in law provision may be another remedy for time and cost adjustments or termination in the event that a governmental order or change in law renders performance impracticable or impossible.¹⁰⁰ Additionally, in “Construction Contracts Impacted Now and into Post-COVID World,” John Bleasby cites Sahil Shoor of Gowling WLP as stating that in Canada, changes in applicable law provisions may be used to limit the impact of governmental orders on supply chains and construction but do not address issues related to best practices regarding COVID-19 avoidance and mitigation.¹⁰¹

In “Construction Claims in the COVID Era: Lessons Learned and Best Practices,” the authors cite an applicable case, *Pernix Serka JV v. Department of State* (2020), where a contractor faced delay on a project in Sierra Leone due to an Ebola outbreak. The contracting agency stated that how the

⁹⁶ David Strickland and Michael Yates, “Changing Construction Risk Regimes in Light of COVID-19,” 6 April 2020, <https://www.whitecase.com/insight-alert/changing-construction-risk-regimes-light-covid-19>.

⁹⁷ Shorter, Nairac, Burianski, Kondev, and El Achkar, “How Should the Impact?”

⁹⁸ Julian Bailey, Nicolas Bouchardie, and Ignacio Madalena, “COVID-19: The Current Impact on Construction and Engineering Projects,” 14 April 2020, <https://www.whitecase.com/insight-alert/covid-19-current-impact-construction-and-engineering-projects>.

⁹⁹ Schaafsma and Li, “COVID-19’s Impact.”

¹⁰⁰ Shaughnessy, Underwood, and Cazenave, “COVID-19’s Impact on Construction.”

¹⁰¹ John Bleasby, “Construction Contracts Impacted Now and into Post-COVID World,” Daily Commercial News, Canada, 29 October 2021, <https://canada.constructconnect.com/dcn/news/ohs/2021/10/construction-contracts-impacted-now-and-into-post-covid-world>.



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contractor chose to manage the outbreak was a business decision and provided an extension of time but no compensation of costs. The contractor sought cost compensation, claiming that the Ebola outbreak constituted a cardinal change, constructive change, and constructive suspension of work. The U.S. Civilian Board of Contract Appeals did not agree, noting that even though the outbreak was unexpected, it was not caused by the government, and the contracting agency did not direct any specific action in response. The authors note that without a directed change from an agency, it may be difficult for contractors to recover under a changes clause for additional procedures due to COVID.¹⁰²

In “Material Cost Escalation, Delays and COVID-19: Managing Risk in Challenging Times,” the authors write that although *force majeure* and cardinal change clauses have not historically been used for relief associated with material cost and lead time increases, parties are resorting to these claims due to COVID-19 impacts on supply chains.¹⁰³

Finally, in “COVID-19: Legal Impact on Contractual Obligations,” the authors discuss material change of circumstances as per Article 451 of the Russian Federation (RF) Civil Code, noting that when a project is impacted by a material change of circumstances, an affected party can demand that the contract is either amended or terminated. The authors write that under Article 451 and other special provisions of law, the contractor can request a price increase if there is a significant increase in the cost of materials or equipment and may terminate the contract if the owner refuses this request. Further, the authors write that the contractor must notify the owner of any delays outside of its control, and in the absence of instructions from the owner, the contractor may terminate the contract and claim damages. They note that Article 451 may be engaged in response to COVID-19 supply chain impacts and that the relevant party must prove that performance would be very difficult or expensive.¹⁰⁴

3.3 APPLICABILITY OF SUSPENSION AND TERMINATION CONTRACT CLAUSES

Several authors discuss the potential applicability of various contract clauses to COVID-19 impacts in the construction industry. Suspension of work and termination for convenience clauses have both been cited as being potentially applicable to COVID-19 impacts as discussed below.

In “Dealing with the Construction Impacts of COVID-19,” the authors write that owners may elect to suspend work on a project until COVID-19 impacts have passed, while in other cases they may be required to suspend work by local governmental shutdown orders. The authors summarize the

¹⁰² Nicole Giles and Tara Ward, “Construction Claims in the COVID Era: Lessons Learned and Best Practices,” JD Supra, 22 February 2021, <https://www.jdsupra.com/legalnews/construction-claims-in-the-covid-era-8696382/>.

¹⁰³ Stack and Pebworth, “Material Cost Escalation.”

¹⁰⁴ Julia Zagonek and Pavel Boulatov, “COVID-19: Legal Impact on Contractual Obligations,” 30 March 2020, <https://www.whitecase.com/insight-alert/covid-19-legal-impact-contractual-obligations>.



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implications of an owner’s suspension for convenience in various standard construction contracts as follows:

1. The American Institute of Architects (AIA) contract document A201 contains typical language for suspension by the owner for convenience at §14.3, which states that both contract time and cost shall be adjusted for increases caused by the suspension;
2. ConsensusDocs §11.1.1 references a contractor’s right to cost and time adjustments for increases due to an owner’s suspension of the work;
3. For U.S. federal contracts, FAR 52.242-14 provides that a contractor is entitled to price adjustments for increased costs if the government suspends the project for an unreasonable amount of time and the contractor is not responsible for any concurrent delay; and
4. Other, non-standard contracts may entitle the contractor to a price adjustment if work is suspended for longer than a specified time duration.

Additionally, the authors indicate that suspension clauses may also allow either party to terminate the contract if a suspension lasts longer than a specified time duration.

Further, the authors discuss termination for convenience by the owner as a potential in hospitality and retail sectors that were hardest hit by the impacts of COVID-19, such as governmental shutdown orders. They indicate that the termination clause of the particular contracts will govern with respect to a contractor’s rights to compensation for work not performed, including profits. From a surety standpoint, the authors note that while termination for convenience eliminates risk of any performance bond claims due to delays, risk associated with payment bonds may remain pending termination claim settlements with vendors. The authors also point out that the U.S. Office of Management and Budget (OMB) provided guidance to federal agencies that they should look for other solutions, including termination for convenience, if completion by the contractor is not possible due to COVID-19 impacts, and that these actions should not negatively affect a contractor’s performance rating.¹⁰⁵

In “How Should the Impact of the COVID-19 Outbreak Be Managed on Projects under FIDIC and NEC?,” the authors write that in extreme cases of prevention of work and *force majeure*, parties may wish to consider termination. The authors cite that under the International Federation of Consulting Engineers (FIDIC) contracts, either party can terminate the contract “‘if the execution of substantially all the Works in progress is prevented’ due to the *force majeure* event for a continuous period of 84 days or for multiple periods that total more than 140 days.” They indicate that upon

¹⁰⁵ Stover, Rodgers-Waire, and Moran, “Dealing with the Construction Impacts.”



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termination, the contractor will be paid for completed work but cannot recover profit on incomplete work, and the owner cannot recover costs associated with hiring a replacement contractor.

Additionally, the authors cite that under the New Engineering Contract (NEC) clause 91.7, the owner may terminate the contract when an event of Prevention (clause 19.1) is “forecast to delay Completion of the whole of the works by more than thirteen weeks.” They indicate that in such a case, if the contractor wants to avoid termination, it must mitigate the delay or accelerate remaining works to ensure that completion is not delayed by more than 13 weeks. In the event of such a termination, the authors explain that the contractor will be paid for completed work but cannot recover profit on incomplete work, and the owner cannot recover costs associated with hiring a replacement contractor. The authors further note that the impact of governing law is relevant when considering termination because both the FIDIC and NEC forms refer to potential reliance on governing law for termination.¹⁰⁶

In “COVID-19’s Impact on Construction: Is There a Remedy? – Time Extension, Force Majeure, or More?,” the authors state that under AIA from article 14.1.1.2 (“Termination or Suspension of the Contract”), the contractor has the right to terminate the contract if the work is stopped for 30 consecutive days, by no fault of the contractor, for “an act of government, such as declaration of a national emergency, that requires all work to be stopped,” which may include a public health order that prohibits construction. The authors write that if the contractor invokes its right to terminate, the AIA form provides that the contractor is entitled to recover payment for work performed as well as overhead and profit on remaining work and termination costs. Conversely, the authors cite that an owner may choose to suspend (AIA article 14.3) or terminate (AIA article 14.4) work for convenience. The authors write that in the event of an owner suspension for convenience, the contractor would be entitled to a price adjustment, while in the event of an owner termination for convenience, the contractor would be entitled to be paid for work executed as well as any termination costs incurred.

Additionally, the authors write that under ConsensusDocs, both parties have rights similar to those under the AIA form. The authors indicate that the ConsensusDocs 200 Standard Agreement article 11.5 provides for termination by the contractor in the case of “national emergency or other governmental act,” in which case the contractor is entitled to be paid for completed work, proven losses, and overhead and profit on work not performed. Further, the authors indicate that article 11.4 provides for termination for convenience by the owner, in which case the contractor would be entitled to payment for completed work, termination costs, and potentially a premium if previously agreed.¹⁰⁷

¹⁰⁶ Shorter, Nairac, Burianski, Kondev, and El Achkar, “How Should the Impact.”

¹⁰⁷ Shaughnessy, Underwood, and Cazenave, “COVID-19’s Impact on Construction.”



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3.4 APPLICABILITY OF THE IMPOSSIBILITY OF PERFORMANCE DEFENSE

Several authors discuss the potential applicability of performance obligation relief measures external to the contract with respect to COVID-19 impacts in the construction industry. In particular, the impossibility (or impracticability) of performance, a common law defense for non-performance, has been cited as a potential relief strategy as discussed below.

In “Dealing with the Construction Impacts of COVID-19,” the authors write that an impossibility of performance defense may be applicable for non-performance issues attributed to COVID-19 impacts but note that if the contract specifically allocates risk for non-performance due to pandemics, the contract will take precedence over common law. They cite three factors typically required to show impossibility in most jurisdictions:

1. Unexpected occurrence of the event;
2. Non-occurrence of the event was a basic assumption when entering into the contract; and
3. Impracticability of performance due to the event.

The authors also note that all performance alternatives must be exhausted before relying on an impossibility defense. Additionally, they note that the impossibility duration will likely be temporary in nature and that the performing party should expect to resume performance at the conclusion of the impacting event.¹⁰⁸

In “COVID-19’s Impact on Construction: Is There a Remedy? – Time Extension, Force Majeure, or More?,” the authors write that the Uniform Commercial Code (UCC) and Restatement (Second) of Contracts recognize the impracticability defense, though it may not be recognized in all states. The authors cite UCC §2-615(a) (Excuse by Failure of Presupposed Conditions) as stating that delays may be excusable due to impracticability of performance based upon an event outside the contractor’s control. They also cite §261 of the Restatement (Second) of Contracts as recognizing the impracticability defense for events outside of the contractor’s control.¹⁰⁹

In “COVID-19 Impacts on Construction Contracts: Legal Arguments for and against Performance,” Laurie Stanziale states that while impossibility of performance due to unforeseen events is recognized, increased cost alone does not generally justify rescission of the contract. However, Stanziale cites commentary to UCC §2-615 as indicating that increased cost due to unforeseen contingencies or a severe shortage of materials may be contemplated under the clause. Additionally, she cites a recent decision in *Cai Rail, Inc. v. Badger Mining Corporation*, 2021 WL

¹⁰⁸ Stover, Rodgers-Waire, and Moran, “Dealing with the Construction Impacts.”

¹⁰⁹ Shaughnessy, Underwood, and Cazenave, “COVID-19’s Impact on Construction.”



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705880 in the Southern District of New York (SDNY), as offering additional insights. This decision cited a case from 1987 indicating that while impossibility due to an unanticipated event can be a defense, performance being merely economically difficult or unprofitable would not typically be an excuse in New York courts. Stanziale indicates that it is not yet fully understood how these cases and theories apply to COVID-19-related impacts.¹¹⁰

Finally, in “COVID-19: Legal Impact on Contractual Obligations,” the authors discuss impossibility of performance of an obligation as per Article 417 of the Russian Federation (RF) Civil Code. They note that notification of impossibility is required and if the contract is terminated on grounds of impossibility, the creditor cannot claim damages, and unjust enrichment must be considered with regards to payments made prior to termination.¹¹¹

3.5 APPLICABILITY OF THE FRUSTRATION OF PURPOSE DEFENSE

Several authors discuss the potential applicability of performance obligation relief measures external to the contract with respect to COVID-19 impacts in the construction industry. The frustration of purpose common law defense for non-performance, which is similar to the impossibility of performance common law defense, has been cited as a potential relief strategy as discussed below.

In “Dealing with the Construction Impacts of COVID-19,” the authors write that the principle of frustration of purpose may be applicable for delays attributed to COVID-19 impacts. They indicate that frustration of purpose is similar to the impossibility defense and applies where “a party’s principal purpose is substantially frustrated without his fault by the occurrence of an event the non-occurrence of which was a basic assumption on which the contract was made.”

Similar to the impossibility defense, the authors note that if the contract specifically allocates risk for non-performance due to pandemics, the contract will take precedence over common law. They also stress the importance of documenting the reasons for delay and discuss the importance of a bond guaranteeing the surety the right to choose its method of performance in the event of a contract default.¹¹²

In “COVID-19 Impacts on Construction Contracts: Legal Arguments for and against Performance,” Laurie Stanziale writes that while frustration of purpose due to unforeseen events is recognized, cost increases alone do not generally justify rescission of the contract. However, Stanziale cites commentary to UCC §2-615 as indicating that increased cost due to unforeseen contingencies or a severe shortage of materials may be contemplated under the clause. Additionally, Stanziale cites a recent decision in *Cai Rail, Inc. v. Badger Mining Corporation*,

¹¹⁰ Stanziale, “COVID-19 Impacts.”

¹¹¹ Zagonek and Boulatov, “COVID-19: Legal Impact.”

¹¹² Stover, Rodgers-Waire, and Moran, “Dealing with the Construction Impacts.”



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2021 WL 705880 in the Southern District of New York (SDNY), as offering additional insights. This decision cited cases from 1991, 2011, and 2020 indicating that while frustration of purpose due to an unanticipated event can be a defense if the event causes the reasons for the contract to cease to exist, performance being less profitable or even unprofitable is not enough to substantiate this defense. Stanziale indicates that it is not yet fully understood how these cases and theories apply to COVID-19-related impacts.¹¹³

Finally, in “COVID-19’s Impact on Construction Contracts – Will Force Majeure Relief or Other Rights Be Available?,” the authors note that if there is no express *force majeure* or equivalent relief in the contract, under English law the English doctrine of frustration of contracts and the Law Reform (Frustrated Contracts) Act 1943 apply. They indicate that proving frustration under English law is not straightforward.¹¹⁴

3.6 BEST PRACTICES FOR MITIGATING COVID-19 IMPACTS

Several authors discuss best practices for mitigating the risk of COVID-19 impacts on construction projects. These best practices include increased site and office hygiene, reviewing applicable contract clauses in detail and providing required contractual notice of adverse events and delays, documenting adverse events in detail, and maintaining detailed project records as discussed below.

In “COVID-19: Impacts and Responses in the Construction Industry,” the authors write that minimizing COVID-19 spread in the workplace should be a top priority. The authors suggest that owners take steps to minimize the spread including using cleaning chemicals approved by local agencies for cleaning frequently touched surfaces, screening all employees and visitors for COVID-19 symptoms, performing temperature checks, employing pre-access questionnaires, ensuring proper ventilation, and establishing quarantine protocols. The authors also discuss the importance of complying with all local health orders, including social distancing and shutdown orders, and being prepared for possible on-site governmental inspections where the owner may be asked to produce records such as a pandemic plan, personal protective equipment (PPE) and periodic testing guidelines, and medical records related to employee exposures.¹¹⁵

In “Tackling the Impacts of COVID-19 on Construction Projects: An Exploration of Contractual Dispute Avoidance Measures Adopted by Construction Firms,” the authors discuss the results of a survey they performed regarding COVID-19-related dispute avoidance measures in the construction industry. The authors write that the most frequently employed mitigation measures include maintaining good relationships, instructing employees to report potential dispute risks,

¹¹³ Stanziale, “COVID-19 Impacts.”

¹¹⁴ Schaafsma and Li, “COVID-19’s Impact.”

¹¹⁵ “COVID-19: Impacts and Responses.”



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collaboration amongst the contracting parties, proactive decisions on who will authorize site closures, and reviewing contract clauses to verify contractual notice requirements.¹¹⁶

In “How to Advise Construction Clients to Maintain Contractual and Commercial Hygiene during COVID-19,” the authors discuss the importance of documenting adverse events; the importance of proper record keeping including progress reports, daily logs, change orders, schedule updates, meeting minutes, and safety plans; and the importance of adhering to best practices during the bid stage such as submitting questions, performing due diligence, and clarifying the scope and risks.

The authors also write that while disruptions in supply chains may lead the contracting parties to quickly agree to substitute specified materials to avoid delay, contract adherence regarding formal approval of material substitutions is still important.¹¹⁷ Additionally, in “COVID-19 Impacts on Construction Contracts: Legal Arguments for and against Performance,” Laurie Stanziale writes that best practices for mitigating material price increases after contract execution include monitoring of costs and pricing, allowing for early purchases of materials, and good communication amongst contracting parties regarding notice of market changes.¹¹⁸

Several authors broadly discuss the importance of reviewing contracts and applicable law for clauses that may provide relief for COVID-19 schedule and cost impacts, the importance of satisfying contractual requirements regarding notice of COVID-19 impacts, the importance of documenting and communicating COVID-19 impacts and taking reasonable steps to mitigate losses, and the importance of preserving contemporaneous project records. Discussions of these suggested measures can be found in: “Construction Contracting and COVID-19: Negotiating in Uncertain Times,”¹¹⁹ “COVID-Related Construction Claims: 4 Key Strategies for Recovery,”¹²⁰ “COVID-19: Legal Impact on Contractual Obligations,”¹²¹ “How Should the Impact of the COVID-19 Outbreak Be Managed on Projects under FIDIC and NEC?,”¹²² “COVID-19: The Current Impact on Construction and Engineering Projects,”¹²³ and “COVID-19’s Impact on Construction: Is There a Remedy? – Time Extension, Force Majeure, or More?”¹²⁴

¹¹⁶ Salami, Ajayi, and Oyegoke, “Tackling the Impacts.”

¹¹⁷ Luke R. Conrad and Molly E. Manson, “How to Advise Construction Clients to Maintain Contractual and Commercial Hygiene during COVID-19,” American Bar Association, 17 July 2020, <https://www.americanbar.org/groups/litigation/committees/commercial-business/articles/2020/spring2020-construction-contractual-commercial-hygiene-covid-19/>.

¹¹⁸ Stanziale, “COVID-19 Impacts.”

¹¹⁹ Denys and Stack, “Construction Contracting.”

¹²⁰ Nichole Atallah, “COVID-Related Construction Claims: 4 Key Strategies for Recovery,”¹²⁰ JD Supra, 24 February 2021, <https://www.jdsupra.com/legalnews/covid-related-construction-claims-4-key-3161529/>.

¹²¹ Zagonek and Boulatov, “COVID-19: Legal Impact.”

¹²² Shorter, Nairac, Burianski, Kondev, and El Achkar, “How Should the Impact.”

¹²³ Bailey, Bouchardie, and Madalena, “COVID-19: The Current Impact.”

¹²⁴ Shaughnessy, Underwood, and Cazenave, “COVID-19’s Impact on Construction.”



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3.7 SUGGESTIONS FOR CONSIDERING COVID-19 IMPACTS (OR THE IMPACTS OF FUTURE PANDEMICS) IN CONTRACT NEGOTIATION STRATEGIES

Several authors suggest methods for sharing and reducing the risk of COVID-19 impacts on construction contracts. These methods include the addition of COVID-19-specific or other contract clauses, clarification of existing contract clauses such as *force majeure* and change in law clauses, negotiation of cost-sharing strategies, and the use of bonds and insurance, as discussed below.

In “How to Address the Impact of COVID-19 on Construction Material Pricing,” the authors write that cost-plus contracts shift the risk of building material price increases to owners while fixed price contracts shift risks to the contractors. They write that owners should attempt to tailor their contracting approach to clearly and fairly allocate the risk of increased material prices due to COVID-19 between the owner and the contractor. The authors suggest several options such as the inclusion of a contingency within the guaranteed maximum price (GMP), limiting the time window for price escalation clauses, setting a threshold price increase for owner vs. contractor liability, or any combination of these.¹²⁵

In “Not Sharing COVID Risks Would Threaten Viability of Construction Projects,” the authors write that if contractors were to price COVID-19 impacts into contract costs, it is likely that either the contractor would price itself out of the project or the owner would wind up paying for contingencies that did not materialize. The authors write that not taking a cooperative approach and sharing risks could make the COVID-19 impacts on the construction industry even worse. They state that risk should be allocated fairly and suggest it is more efficient to deal with COVID-19 risks in a single comprehensive contract clause that overrides other clauses and includes a baseline COVID-19 scenario with compensation based on any shift in the baseline.¹²⁶

In “How to Advise Construction Clients to Maintain Contractual and Commercial Hygiene during COVID-19,” the authors suggest that parties may want to consider drafting custom contract amendments or adding a form cost-adjustment clause to document baseline prices and calculation methods for adjustments to material prices to account for increased costs due to COVID-19-related supply chain issues. The authors also write that several jurisdictions are legislating retroactive amendments with respect to insurance coverage and COVID-19 impacts. They also suggest the

¹²⁵ JD Howard and Bruce Smith, “How to Address the Impact of COVID-19 on Construction Material Pricing,” 11 June 2021, <https://www.mmmlaw.com/media/legal-update-how-to-address-the-impact-of-covid-19-on-construction-material-pricing/>.

¹²⁶ Bernard Ang and Isabelle Chan, “Not Sharing COVID Risks Would Threaten Viability of Construction Projects,” 1 September 2021, <https://www.pinsentmasons.com/out-law/analysis/not-sharing-covid-risks-would-threaten-viability-of-construction-projects>.



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consideration of bond products such as payment bonds and performance bonds, which are typically required for public projects but are used less frequently in the private sector.¹²⁷

In “COVID-19 Impacts on Construction Contracts: Legal Arguments for and against Performance,” Laurie Stanziale suggests terms for mitigating the impact of COVID-19 when drafting contracts. These terms include identifying materials susceptible to price volatility and a market index that can be used to determine price increases that would entitle the contractor to relief, limits on duration for fixed prices, the inclusion of price escalation clauses as well as allowances or contingencies, the use of bonds and/or insurance, and owner entitlement to cost reduction if there are significant price decreases.¹²⁸

In “COVID-19: Impacts and Responses in the Construction Industry,” the authors write that many parties are wanting to address COVID-19 impacts upfront in new contracts. The authors state that this approach requires adjustments to standard contract forms, typically in the form of a tailored COVID-19 clause. The authors list suggested issues and provisions that should be considered in future contract negotiations including compensation for COVID-19 mitigation efforts and delays related to COVID-19, a pandemic-specific clause in lieu of a traditional *force majeure* clause, extra work and change in law clauses, a payment scheme that sets out owner and contractor responsibility for increased costs, and suspension/termination rights of the parties.¹²⁹

In “The Dotted Line: COVID-19 Force Majeure Clauses Are Losing Their Punch,” Joe Bousquin cites several attorneys who indicate that owners are not accepting *force majeure* clauses that include COVID-19 in new construction contracts because COVID-19 is no longer unforeseeable. Bousquin also reports that the U.S. Government Accountability Office (GAO) recently upheld the Army Corps of Engineers’ decision to deem a bid nonresponsive because the bid included an additional broad provision that identified COVID-19 as a *force majeure* event when “epidemics” and “quarantine restrictions” were already considered in the Federal Acquisition Regulation (FAR). However, Bousquin also writes that attorneys suggest that the recent GAO decision does not mean that contractors should not include *force majeure* clauses in contracts, but that they need to be more specific than just broadly pointing to COVID-19 as an excuse. Bousquin also cites attorneys who indicate that COVID-19 impacts remain a negotiating point when entering into new contracts, and some owners are being realistic about potential COVID-19-related supply chain issues and are accepting material escalation clauses.¹³⁰

In “Material Cost Escalation, Delays and COVID-19: Managing Risk in Challenging Times,” the authors suggest that contracting parties address increased material prices due to COVID-19 by recognizing potential price volatility and negotiating a mutually acceptable price escalation clause.

¹²⁷ Conrad and Manson, “How to Advise.”

¹²⁸ Stanziale, “COVID-19 Impacts.”

¹²⁹ “COVID-19: Impacts and Responses.”

¹³⁰ Bousquin, “The Dotted Line.”



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They write that negotiations should include identification of materials at significant risk for price volatility and fixed-price suppliers for these materials, definition of volatile pricing to include cost and time triggers (e.g., 5% increase over 30 days), pre-ordering materials, and the use of a contingency line item for raw materials. They write that bilateral flexibility should be considered, where an owner sharing the risk of price increases should also share in the benefit if prices drop unexpectedly.¹³¹

In “Construction Contracts Impacted Now and into Post-COVID World,” Sahil Shoor, an attorney cited in the article, recommends the inclusion of a pandemic-specific clause to deal with compensation related to COVID-19 impacts. Shoor suggests that neither party has to bear the entire responsibility for the added costs associated with COVID-19 impacts, but it could be agreed that the contractor would cover costs beyond a certain threshold or that the owner would cover a certain percentage of costs above the GMP. Shoor also suggests that contractual terms specifying consequences for suspension of work could be included to reduce the impact of suspension provisions.¹³²

In “Changing Construction Risk Regimes in Light of COVID-19,” the authors suggest that contract negotiations should clarify the definitions of “pandemic,” “epidemic,” and exclusions in *force majeure* clauses and clarify the definition of “applicable law” in changes in law clauses to avoid disputes. For example, the authors write that in some cases, the language in a change in law clause may lead to dispute where an owner may interpret “applicable law” to limit relief to cases involving changes in statutes and regulations while a contractor may interpret “applicable law” to more broadly include governmental decrees such as COVID-related public health orders.¹³³

Additionally, in “COVID-19: Managing Force Majeure Risk in a Construction Project Supply Chain,” the authors discuss the importance of ensuring that risks are addressed on a back-to-back basis when passing risk down a supply chain. The authors write that problems arise when there are asymmetries in the supply chain with respect to laws governing or the contractual treatment of *force majeure* delays, which could leave a party exposed to liability for delay while other parties are excused from such liability.¹³⁴ The importance of back-to-back synergy of *force majeure* contract clauses up and down a supply chain is also discussed in “COVID-19: The Current Impact on Construction and Engineering Projects”¹³⁵ and “COVID-19’s Impact on Construction Contracts – Will Force Majeure Relief or Other Rights Be Available?”¹³⁶

¹³¹ Stack and Pebworth, “Material Cost Escalation.”

¹³² Bleasby, “Construction Contracts Impacted.”

¹³³ Strickland and Yates, “Changing Construction Risk Regimes.”

¹³⁴ Robertson, Secomb, and Elliott, “COVID-19: Managing Force Majeure Risk.”

¹³⁵ Bailey, Bouchardie, and Madalena, “COVID-19: The Current Impact.”

¹³⁶ Schaafsma and Li, “COVID-19’s Impact.”



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Finally, several authors discuss the use of insurance and/or bonds for mitigating risks on construction projects due to COVID-19. In “Dealing with the Construction Impacts of COVID-19,”¹³⁷ “How to Advise Construction Clients to Maintain Contractual and Commercial Hygiene during COVID-19,”¹³⁸ “Construction Contracting and COVID-19: Negotiating in Uncertain Times,”¹³⁹ and “6 Ways the Coronavirus Outbreak Will Affect Construction,”¹⁴⁰ the authors discuss the potential use of business interruption insurance, payment bonds, and performance bonds with regards to mitigating COVID-19 impacts.

4. CONCLUSIONS

As discussed above in Section 2, negative impacts to the construction industry as a result of the COVID-19 pandemic affected both construction and engineering labor and materials. Labor impacts included lost production due to illness and government-mandated quarantines as well as lost productivity due to the implementation of various health and safety protocols aimed at stopping the spread of the virus.

The materials supply chain disruptions began as early as March 2020 due to COVID-19-related lockdowns in China and continued at least through 2021 with varying degrees of negative impact for various categories of materials. COVID-19-related supply chain negative impacts were reported for various construction materials including lumber, structural steel, and concrete. In addition, COVID-19-related supply chain negative impacts were also reported for various processing equipment and related materials such as pumps, carbon steel PVF, stainless steel PVF, electrical cabling, and electrical distribution equipment.

These COVID-19 impacts on construction labor and materials generally resulted in schedule delays and cost increases. In some cases, this resulted in disputes and potential claims between owners and contractors regarding responsibility for these delays and cost increases.

With regards to these disputes and potential claims, it is discussed in Section 3 above that several authors have addressed the potential applicability of *force majeure* and delay clauses, suspension and termination clauses, the impossibility defense, and the frustration of purpose defense for disputes regarding COVID-19 impacts in the construction industry. Further, various authors have also reported on methods for contractually sharing and reducing pandemic-related risks to

¹³⁷ Stover, Rodgers-Waire, and Moran, “Dealing with the Construction Impacts.”

¹³⁸ Conrad and Manson, “How to Advise.”

¹³⁹ Denys and Stack, “Construction Contracting.”

¹⁴⁰ Goodman, “6 Ways.”



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construction projects as well as best practices for mitigating those risks. Importantly, the various authors stated that:

1. Contract clauses typically take precedence over common law defenses and that for impossibility or frustration of purpose to be considered, the impacting event must be significant and not render performance merely uneconomical;
2. Recommended best practices for mitigating the risk of COVID-19 (or future pandemics) on construction projects include increased site and office hygiene, reviewing applicable contract clauses in detail, providing required contractual notice of adverse events and delays, documenting adverse events in detail, and maintaining detailed project records; and
3. Methods for sharing and reducing the risk of COVID-19 (or future pandemic) impacts on construction contracts include the addition of COVID-19 or other contract clauses, clarification of existing contract clauses such as *force majeure* and change in law clauses, negotiation of cost-sharing strategies, and the use of bonds and insurance.

As always, fully understanding the specifics of the contract at hand and documenting any cost or schedule impacts contemporaneously are key for supporting (or defending against) potential claims.

About the Author



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