

Business Continuity

October 2017



Introduction

We recognize that our ability to continue to function as an organization is critical to our clients, who rely heavily on our firm and our people to keep their own real estate functioning properly.

Accordingly, this Memorandum describes the program we have established to support the continuity of our key business activities, as distinguished from the plans we have separately established with individual clients concerning the operation of the respective facilities we manage for them.

Although it is not possible to guarantee that service disruptions will not occur in the event of a serious disaster situation, we believe we have the internal systems and people that will give us the best possible ability to recover quickly and flexibly and to continue to provide our clients with the service they have come to expect from us.

#### Our key considerations include:

- 1. Employee safety strategies and communications protocols
- 2. Financial and operational risks analysis
- 3. Identification of mission-critical systems
- 4. Systems and telecommunications availability or alternative means of communications, as appropriate
- 5. Board of Directors and Executive Management communications and coordination
- 6. Client, employee, and media communications and notifications

### Oversight

Our Global Operating Board oversees the effectiveness of our business continuity planning, which is a holistic management process requiring ongoing assessment of the various risks we face and the appropriateness of the systems we have designed to respond to those risks. We have built our business continuity capability to be flexible and we therefore monitor and improve it as necessary. We have taken into account business interruptions of various lengths of time and scopes, and our goal is to be able to recover functions based on their significance and time criticality. Our Global Business Continuity Director drives program consistency worldwide.

#### Design

JLL's business continuity program involves the integration of multiple contingency plans that cover people, various information technology and operational systems, business processes, and facilities. Aligned globally to ensure appropriate oversight and consistency of planning and assessment, the program is executed locally with responsibility placed on individual business and support staff units in order to reflect their diverse situations, requirements, and practices. We are committed to enabling innovative and flexible remote working capabilities, which allows us to serve our Clients without overreliance on a particular location. This vision, combined with the state-of-theart cloud-based technology, lean processes, and global presence gives us confidence that our Clients can receive uninterrupted high-quality service delivery.

#### Implementation

Our business continuity program reflects and takes advantage of the highly mobile nature of our professional workforce, which in the ordinary course of our business is widely dispersed throughout multiple office locations across the globe and is increasingly being trained and equipped to work remotely, often across countries and regions and often with multiple, geographically dispersed clients. This provides a significant and inherent hedge against the effects of more localized business disruptions. Importantly, therefore, our centrallymanaged information technology function has designed our most important knowledge management, human resources and financial systems to be operated from multiple, remote locations on a global basis.

Our capabilities are being enhanced as we move certain functions to highly secured outsourced providers "in the cloud," which reduces the risks inherent in managing our own servers and back-up systems. At the same, we invest in strengthening the resilience of our IT infrastructure, including telecommunications, network, and data centers to ensure we have a robust, multi-layered resilience foundation.

In the event of a serious situation that precluded work from one or more of our major offices, this would allow our people readily to work from home or other JLL office locations for extended periods of time. It would also allow the organization to move impacted business processes to areas or staff populations that have been relatively less affected in order to ensure that key business activities are maintained at an adequate level while we respond to the crisis situation. We believe this ability differentiates us from our competition in the real estate services industry.



# **Information Technology Continuity**

Our Information Technology recovery function is overseen by the firm's Enterprise Technology Architecture and Security Group and has been designed to provide maximum availability and recovery capabilities to a remote-enabled workforce and performance reliability of critical business systems. IT Continuity is tailored to support our business by securing the availability of key IT resources that are crucial to the delivery of the services to our Clients regardless of operational disruptions. These capabilities are enabled using the following processes:

Secure Systems Availability and Device	Independence. Critical business systems within JLL are securely available from any Internet connected device to provide seamless availability to clients and employees anytime and from anywhere.
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Operational System and Information Backup	We maintain direct relationships with manufacturers of our information protection infrastructure so that they can provide the best technical support and the latest proven innovations. With respect to information backup, backups are performed on a nightly basis and sent off-site by the next business day.
Data Center Redundancy	Primary regional data centers are located in Chicago, London, and Sydney. Each primary data center has a dedicated recovery center within the same region. In addition, these regional primary data center locations serve as data backup locations to distributed corporate offices within their respective region.
Telecommunication Redundancy	We utilize telecommunications services from multiple vendors across all of our offices and facilities to provide redundancy for the firm's telecommunications needs. In the event of a loss of service, our systems are designed to switch over to the backup service provider.
Network Redundancy	We utilize network services from outside providers for all of our facilities to provide redundancy for the firm's network needs. In the event of a loss of service, our systems are designed so that clients and employees are able to switch over to a backup service provider or the Internet to access critical resources.

## **Crisis Management**

We have also established crisis management and emergency communications protocols and tools designed to enable the prompt and continuous crisis response and communication between our Board of Directors, our executives, and our management teams so that they can make the decisions and provide the leadership necessary to avoid or minimize the effects of a serious disruption to the business regardless of its origin. Our Board members and senior managers are based in a number of different locations world-wide and travel frequently, which we view positively in terms of (1) always having experienced leadership available on a dispersed basis regardless of where a significant incident may take place and (2) minimizing the risk that a significant portion of our leadership would become unavailable at any time. Our crisis management framework is designed to maximize the efficiency of the crisis response, shorten the disruption period, and enable us to maintain and/or resume service delivery.

## **Testing and lessons learned**

Given we operate world-wide, we have come to realize that we are virtually always affected, to one degree or another, by major negative events, whether natural or man-made, and we seek to learn from each one and improve our capabilities as an organization as we prepare for the next one. Accordingly, our technology systems and our people and processes have been successfully implemented over the past few years in situations that include a major black-out of the Northeastern United States; Hurricanes Harvey, Irma, Maria, Sandy, Katrina, Rita, and Wilma; the Japan earthquake and tsunami; the London bombings; the SARS epidemic; and a plane crash and earthquake in the central business district of Mexico City. We have also operated effectively during major city events that disrupted normal urban logistics such as the London Olympics and the NATO Summit in Chicago. Experience gathered through these events was invaluable in improving our business resilience, through strengthened coordination and cooperation, aimed at integrating business continuity, IT disaster recovery, and crisis management.



We would be pleased to meet with our clients to discuss any specific queries or concerns they may have, and to determine how we can best work together to further align our respective business continuity planning efforts.