FINDING A BALANCE: CULTURAL ADAPTATION AND STANDARDIZED CORPORATE INDENTITY
IN WORKPLACE DESIGN

by

Lauren Bachynski

A Practicum submitted to the
Faculty of Graduate Studies of The University of Manitoba
in partial fulfilment of the requirements of the degree of

MASTERS OF INTERIOR DESIGN

Department of Interior Design
Faculty of Architecture
University of Manitoba
Winnipeg, Manitoba, Canada

THE UNIVERSITY OF MANITOBA
FACULTY OF GRADUATE STUDIES
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Finding a Balance

Cultural Adaptation and Standardized Corporate Identity in Workplace Design

Acknowledgements

I would like to take this opportunity to sincerely thank the following people and companies for their support.

Dr. Cynthia Karpan (Advisor), Kelley Beaverford (Internal Examiner), and
Sean MacDonald (Internal Examiner)
For your valuable direction, enthusiasm, and support. It has allowed me to grow through this work while enjoying it from beginning to end. A special thank you to Dr. Cynthia Karpan whose expectations, guidance, and friendship provided me with a constant source of motivation and inspiration.

Accenture
For providing critical programming information that allowed this project to be more realistic in it's determination. A special thank you to Daniel B. Johnston (Global Director, CRE Workplace) for the generous time and effort you invested to make this possible.

Manitoba Hydro
For providing the context in which the overall project was based. Your assistance and accommodation during this process has been greatly appreciated.

My Parents Marte & Boris Bachynski
For your unconditional love and support which has given me the tools and determination to realize and achieve my goals.

Jeremy McGee
For your complete belief in me, and what I am capable of. Although indirect, your contribution to this work has been substantial.

Vanessa Aleshka & Natalie Rogers Foidart
Both there since the beginning, I could not have chosen two better friends to have shared this experience with.

Abstract

This practicum sets out to address several challenges faced by a multinational corporation operating within a globalized marketplace through the reconsideration of its workplace design. The aim is to achieve a balance between cultural adaptation and standardized corporate identity in the design for the hypothetical multinational management consulting company, *Torrent*. The balance is pursued in order to support Japanese and Canadian national-work-cultures, the two cultures on which the practicum is based, while creating a strong, consistent, and recognizable visual identity across its different subsidiaries. The practicum asserts that cultural adaptation should be addressed through the *physical structure*, and standardized corporate identity addressed through the *symbolic artifacts* of the workplace design. The practicum argues that if conflict occurs between these two themes in the design of a workplace, precedence should be given to spatial elements essential for responding to a national-work-culture over elements communicating corporate identity. This precedence is based on the predetermined nature of national culture and its basis in the human values of the company's employees. The practicum's overall objective is to demonstrate how both of these themes can be achieved simultaneously in order to create a balance that benefits both the multinational company as well as its host country.

The practicum's outcome involves two design solutions developed for *Torrent* based on a single workplace, one responding to Japan's national work culture, and the other to Canada's. A standardized corporate identity is achieved through the communication of a consistent company identity in both workplace designs. The practicum's final design solution is based within the context of a newly constructed office building in downtown Winnipeg, Manitoba, Canada.

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Chapter 1 . Introduction

1.1 Context & Rationale

Globalization has had a profound effect on the marketplaces of the world in the 20th century; an effect which continues to intensify in the 21st century. Thomas L. Friedman, an American author and journalist renowned for his writing on the topic, describes globalization as:

the inexorable integration of markets, nation-states, and technologies to a degree never witnessed before, and in a way that is enabling the world to reach into individuals, corporations and nation-states farther, faster, deeper and cheaper than ever before . . . . the spread of free-market capitalism to virtually every country in the world.

(1999, p. 9)

Globalization, viewed in economic terms, is therefore an interrelationship between countries, their markets and economies and inherent technologies. This interrelationship has largely resulted from technological advancement and the spread of market-oriented economies around the world. The term "globalization" first came into use in the early 1980's as companies engagement in foreign investment and trade began to significantly increase (Gilpin, 2001). Globalization has thus been the context in which the development and expansion of the multinational corporation has occurred.

The multinational corporation, also known as the transnational corporation, can be defined as a company possessing subsidiaries in two or more different countries, often for the purpose of expanding their market and acquiring local resources in an effort to derive greater profit margins. Robert Gilpin (2001), in his book, *Global Political Economy; Understanding the International Economic Order*, states that the foreign direct investment of these corporations, or investments by corporations in enterprises in countries other than their own, amounts to hundreds of billions of dollars. This investment has been significantly allocated to industries which

provide services (Gilpin). These corporations do not produce a product; rather they provide services which are sold in the marketplace to consumers and other businesses. The quality and efficiency with which these services are provided is largely dependent on the people who produce them. Consequently, these corporations place a high value on the people they employ, often referred to as a company's "intellectual capital" (Stewart, 2001).

Within developed countries an increasing amount of competition for skilled employees exists, and corporations must compete to become "employers of [employee] choice" (Carr, 2004, p. 8). This is particularly true when industries deal with information technology, innovation, and research. As a result, these corporations have placed an increasing emphasis on attracting and retaining talented and skilled workers (Carr), and on finding ways in which they can work more effectively. Multinational corporations face an even greater challenge, as they must do this within different cultural contexts.

Multinational companies within the service sector confront additional significant challenges within the context of globalization in regards to identification and differentiation within the marketplace. Multinational corporations face formidable competition in the globalized marketplace, competition that continues to increase as a greater number of corporations go abroad (Kirkman & Shapiro, 1997; Wells, Shuey, & Kiely, 2001). In order to survive in this competitive marketplace, companies need to create a strong, clear, and coherent identity that can be communicated in a variety of cultural contexts. As customers increasingly buy products and services based on the company (Sorrell, 1989) (as opposed to the services or products which it produces [Melewar & Saunders, 1999]), the company's identity takes on a growing significance. This corporate identity should therefore express who the company is, and connect the multinational corporation's subsidiaries (Sorrell)

to provide a consistent visual identity over these cultural contexts. Wally Olins (2003), a renowned expert, practitioner, and author on branding and corporate identity, states:

> As companies mutate into global coalitions with fluid management structure, shifting boarders, alliances and business activities, brands increasingly emerge as the most significant spiritual and emotional glue holding organizations together and representing their reputation to all the worlds with which they deal. Brands become the prime manifestation of corporate purpose. That is they are important not just for their customers, but for the people who work or deal with the organization as employees, partners or investors. In a changing, turbulent world in which everything else is opaque the brand's status as a symbol of the company and what it makes and sells becomes central. Apart from having an internal, focusing, stabilizing role, the brand is an outward symbol of continuity, clarity and coherence.

> (p. 115)

Strong corporate identities are of particular significance for multinational corporations within the service sector. As these corporations cannot rely on products to carry their brand, they must, in turn, find other means of communicating their identity.

Globalization and the expansion of multinational corporations have often been viewed as a threat to indigenous cultures around the world (Wells, Shuey, & Kiely, 2001). The majority of multinational corporations originate from Western countries, most notably the United States (Carr, 2004). As these corporations expand into different countries, they bring with them the culture, goods, and products of their native countries. Within these corporations the organizational structure, management style, technologies, and practices are often also transferred into these new countries in an effort to achieve greater efficiencies and reduce costs (Trompenaars & Hampden-Turner, 1997). Many believe that these corporations thus place increasing pressure on indigenous cultures, and fear that their continued expansion will result in loss of cultural diversity and identity (Wells, Shuey, & Kiely). It is feared that this loss could potentially lead to the creation of one homogenous

global culture based largely on Western values, and thereby deprive people of the traditions, values, and practices inherent to different cultures (Wells, Shuey, & Kiely). As a result, anti-globalization demonstrations have taken place in different parts of the world. These demonstrations have been carried out in order to create awareness and protest these and other issues pertaining to globalization. Multinational corporations are therefore also confronted with the challenge of demonstrating respect for the cultures of the countries in to which they expand, and helping to ensure each culture's continued existence. These challenges must be met in order to reduce and prevent future backlash against the corporations, establish relationships of mutual learning and respect between cultures, and to maintain global cultural diversity which provides an added richness to our human experience.

Design of the workplace interior is a strategy for addressing the challenges of the service-oriented multinational corporation operating within the context of globalization. This strategy would involve a workplace design that is responsive to the national culture of the country the corporation operates in. The implementation of this culturally adaptive design approach could potentially better support the values, understandings, behaviors, and practices inherent to the indigenous national-work-culture. This cultural adaptation could also potentially increase employee satisfaction and result in more effective and efficient utilization of resources. Finally a culturally adaptive design could express respect for the culture, and support the integrity of the national culture within the workplace, and thus in the overall community.

The strategy would incorporate a design that communicates a standardized corporate identity. The expression of a standardized corporate identity in culturally different workplaces would allow the corporation to have a stronger identity, thereby allowing the company greater recognition and differentiation in an increasingly competitive marketplace. I argue that reconsideration

of the workplace environment serves as an effective strategy in enabling multinational service oriented corporations to become more competitive in the global marketplace.

The implementation of either cultural adaptation or standardized corporate identity in the design of a multinational corporation's workplace however, should be carefully considered. On one hand, complete cultural adaptation has the potential for eroding a corporation's identity and reduce its prominence in the marketplace. On the other hand, complete standardization of the workplace has the potential for creating ineffective workplaces and showing disrespect for the culture in which it is located. The presence of both elements together, however, would allow the desired benefits of each element to be better realized, while reducing potential disadvantages. Consequently, cultural adaptation and standardized corporate identity should be pursued together in the design of a multinational corporation's workplace environment.

1.2 Purpose of Study

This practicum investigates the balance between cultural adaptation and standardized corporate identity in the workplace design(s) of a multinational company operating in the service sector of the economy. For the purposes of this practicum, "balance" is defined as, "something that offsets or counters the weight or influence of another element" (Encarta Dictionary, 2007). The term, balance, is not used to suggest an equilibrium or harmony between cultural adaptation and standardized corporate identity, rather a simultaneous expression of these elements in the design, in order to maximize the benefits provided by each. The purpose of the practicum was to bring together these two distinct themes in the design of a workplace environment, in order to benefit both the multinational corporation and host countries.

The outcome of this practicum comprises a single workplace, designed in two different ways, for the hypothetical multinational management consulting company, *Torrent*. Cultural adaptation was pursued through design responding to the national workplace cultures of Japan and Canada, each country represented in one of the two workplace interiors. Standardized corporate identity was achieved through the communication of a consistent company identity in both workplace interiors. The practicum's final design solution is based within the context of a newly constructed office building in downtown Winnipeg, Manitoba, Canada.

The practicum demonstrates: 1) how the interior of a workspace can be designed in a culturally responsive manner, 2) how the design of an interior workspace can communicate a consistent corporate identity, and 3) how cultural adaptation and standardized corporate identity can be expressed simultaneously through the design of the workplace environment. Through the research and understanding gained in the investigation of these subjects, two designs were offered as solutions, one for each country.

The practicum is based on an investigation of research based literature and theory which, after synthesis and analysis, has been applied to the development of a design. This process resulted in two original design solutions that surpasses conventional workplace design in supporting Japanese and Canadian national work cultures, and in expressing Torrent's corporate identity. The intent of the practicum was to contribute to the knowledge base in the field of interior design with regard to culturally adaptive and standardized identity in workplace design.

The continued acceleration of globalization in the world suggests a growing need for this base of knowledge. Globalization is important to this practicum because it is the context in which the "multinational-client-corporation" has emerged. Ben Bernanke, Chairman of the United States Federal Reserve, has suggested that the

impact of globalization on the world economy has a, "faster, broader, and deeper" presence in the world than ever before, and has asserted that this trend will continue in the future (Andrews, 2006). As globalization continues to accelerate, it is conceivable that the number of these multinational-client-corporations will also continue to increase. As such, a need for interior designers with knowledge and expertise in the design of standardized corporate identity and culturally adaptive workplaces would also increase.

The practicum aims to provide interior designers with an investigation process that can be applied to the design of various corporate workplaces in various countries around the world. The practicum aspires to increase the relevance of interior design in the 21st century as an instrument for helping to maintain cultural diversity and enhancing corporate strategy within the context of globalization. The practicum accomplishes these goals by demonstrating how through informed investigation, cultural adaptation and standardized corporate identity can exist, simultaneously, in the interior design of a workplace environment.

1.3 Users and Context

The user groups within the practicum are comprised of employees and clients of the multinational corporation, *Torrent*. In a general sense, the public living in Japan and Canada belong to the user group as well. A workplace has been designed in two different ways, each responding to the work-culture of either Japan or Canada. These workplaces hypothetically exist within each country, however a Winnipeg based office building provides the hypothetical physical context for each design. It is important to note that both the multinational corporation Torrent and the Winnipeg based office building serve only as examples in this practicum. As mentioned previously, the intention of this practicum is to utilize an investigative design

process that can be applied to the design of different corporate workplaces in countries around the world. As a result, Torrent and the Winnipeg based office building serve as a template for a design and research process which can be applied to a variety of multinational corporations and building contexts.

1.3.1 National Contexts: Japan and Canada

The investigation focuses on the national cultures of two major economic markets in the world; Japan (Asia) and Canada (North America). These countries are both stable democracies with educated populations and similar available technologies. Although both are considered Western countries, the differences in culture between the two countries are quite profound. These differences carry over into the workplace, and therefore provide an excellent example of why the design of workplaces in different countries should respond to culture.

Culture can be analyzed at several different levels including "continental culture" (i.e., European culture), "national culture" (i.e., Japanese culture), and "regional/sub- cultures" (i.e., Afro- American culture, feminist culture). National culture was chosen as the level of analysis for this practicum's culturally adaptive design for two primary reasons. First, a national level of cultural analysis is most appropriate for research pertaining to the multi-national corporation because it is defined as possessing subsidiaries within numerous countries, and not as possessing numerous subsidiaries within one country. For example, a company operates within three different subsidiaries within Japan, all located within Tokyo city. A regional cultural analysis would therefore be inappropriate for the study because the corporation only exists in one region within the country.

The second reason national level cultural analysis is appropriate for this study is because it is the level of analysis at which the most empirical research on cultural

differences exists (Hofstede, 1980; Trompenaars & Hampden- Turner, 1997; Schwartz, 1994). This profusion of empirical research is largely due to the ease in which a person's national culture can be identified (Dahl, 2004). A person's identification with a regional and sub-culture is more complicated and problematic as an individual may belong to several sub-cultures at the same time (Dahl). National culture as a level of analysis, however, prevents redundant duplication and significantly reduces ambiguity in the process of research (Dahl). The conception that different people coming from the same country largely possess the same values and norms has also received substantial support (Hofstede, 1991; Smith & Bond, 1998). National culture therefore serves as the most appropriate level of analysis for this practicum.

1.3.2 Users: Torrent Inc.

Torrent is a global management company that provides business around the world with consultative advice on ways of improving performance. The company is hypothetical in nature, but has been based on an existing global management consulting company. In order to create a more realistic depiction of this type of company, information was obtained from this existing consulting company and used as a guideline to inform Torrent's organizational structure, operations and requirements.

Torrent provides three main services: management consulting, technology services, and coordination of outsourcing client company operations. The company represents the multinational-client-company that has emerged through globalization. As such, Torrent has offices in eight countries including Japan and Canada, the countries on which the practicum's cultural adaptations are based. Torrent's service orientation in the marketplace assigns value to people, and not products. Therefore, improvements in employee productivity and communication of

corporate identity may prove to be more significant to its success than it would for a product based company. Further, because of the performance consulting nature of their business, design involving Torrent workspaces has the potential for impacting other companies. Torrent maintains a commitment to corporate citizenship through building mutually beneficial relationships with clients, employees, and the broader community. Torrent's philosophy is based on core values for: 1) research based knowledge, 2) global community orientation, and 3) creating client value through improved business performance.

1.3.3 Design Context: Downtown Winnipeg Based Office Building

The final design solution is based within the context of a newly constructed Manitoba Hydro office building in Winnipeg, Manitoba. The building was selected for a variety of reasons including visibility, accessibility, interior spatial qualities, amenities, and proximity to pertinent facilities and services.

The building stands at 112.5 meters (369 feet) in height, contains 22 stories, and occupies 64,590 square meters (695,742 square feet) of space (Stoyko, 2007). The building is located between Portage and Graham Avenues, two of the busiest streets in terms of vehicular circulation in the city, and on several major bus routes. In an effort to increase pedestrian traffic at the street level, the building was intentionally set back from the street and incorporates numerous retail spaces located on its ground floor. The building is easily accessible by pedestrian and vehicular traffic, as well as by the city's public transit system. Coupled with its size and central location, the building serves is a prominent and highly visible structure in downtown Winnipeg.

The building's interior space also played a significant role in its selection for the practicum. Designed primarily as an office space, the interior has large open floor plates with high ceilings (3310 mm/ approximately 10 and a half feet in height). The

exterior of the building features floor-to-ceiling glazing, which maximizes daylight in the interior space. The interior space has been designed in order to facilitate future changes in business processes and technology. Environmentally sustainable design initiatives, an interior atrium space, and roof top terrace provide a healthy environment for employees.

The office building also boasts a number of amenities including: 1) an outdoor courtyard and green space, 2) retail space located on the ground and the second floor, and 3) an enclosed skywalk that connects the building to other downtown buildings. Parking is available in an underground parkade and in surrounding lots at the street level. Conference facilities, restaurants, and fitness and daycare centers are also located in close proximity to the building.

The building's innovative state-of-the-art design, its central location in an urban center, and proximity to other businesses served as important criteria in the selection of this building as a workplace for the practicum's client company, Torrent. The building expresses Torrent's corporate identity in the form of a contemporary and functional design, as well as the company's value for improved business performance (healthy work environment, design adaptable to future needs, proximity to other businesses).

1.4 Design Investigation Process

The methods used in the design investigation included a literature review, informal observational studies, and precedent analysis.

A review of literature was conducted on the two major themes of the practicum: cultural adaptation and standardized corporate identity in the interior design of the workplace. The literature reviewed on cultural adaptation is interdisciplinary in nature, as it is taken from the fields of anthropology, cross-cultural

communications, and management. The review of literature on cultural adaptation

took place in two phases. The first phase was based on theoretical analysis of culture

in terms of what it is, and how it informs the design of an interior workspace. The

second phase was based on both qualitative and quantitative research of the cultural-

based value differences that exist between

countries.

Research based literature identified five prominent contributions to

cultural research in this area: 1) Edward T. Hall's (1959, 1976) cross-cultural

communication concepts, 2) Florence R. Kluckholn and Fred L. Strodtbeck's (1961)

"cultural value orientations," 3) Geert Hofstede's (1980) "cultural dimensions," 4) Fons

Trompenaars and Charles Hampden-Turner's (1997) "dimensions of culture," and

5) Shalom Schwartz's (1994) "culture-level value types." Each of these research

contributions outline a number of key differences across the national cultures of

different countries.

In order to create a manageable and applicable framework for this practicum,

a synthesis of these key differences was created. The synthesis was based on

reoccurring themes and relevance to interior design of a culturally adaptive

workplace. The synthesized framework identifies the aspects of culture that are most

essential for responding to each national workplace culture in the interior design of

the workplace. The framework was applied to Japan and Canada, and then further

supported by current literature on the values and work cultures of both countries.

Informal interviews and observations were also undertaken and used to further

support this analysis. Conducted in 2007, these informal interviews and observations

spanned one to four hours, and occurred within the workplaces of companies and

governmental organizations in Japan and Canada. This research and interview process

resulted in the development of two charts, one for each country, that present the

information in a concise and accessible way (see p. 55-67). For the purpose of demonstrating the application of research to the spatial design of a workplace, the charts also include potential design implications for each of the key differences in the work cultures.

The literature reviewed on standardized corporate identity was found in the disciplines of business management and architecture and interior design. The review begins with an analysis of the concept of corporate identity, and goes on to explain its expression in the design of the built environment. This is followed by an examination of the standardization of a company's corporate identity in the interior design of its workplace environments, and its significance for a multinational company possessing culturally adaptive workplaces. The core values of the practicum's client company, Torrent, are expressed through the design composition in order to communicate the company's identity in its Japanese and Canadian workplaces.

The literature review concludes with a discussion of how a balance can be achieved between cultural adaptation and standardized corporate identity in the design of the workplace. This balance occurs through assigning priority to spatial elements which are essential for responding to national workplace culture over spatial elements communicating corporate identity.

The precedent analysis provides examples of the application of several of the practicum's design concepts to existing environments and contexts. These precedents suggest possible approaches and possible implications of these design concepts. Three precedents were examined, each relating to a different aspect of the final design. The first precedent, the "Nicola Valley Institute of Technology" located in British Columbia, Canada, provides an example of culturally adaptive design. It does this through consideration of traditional aboriginal cultural values and the application of traditional aboriginal designs and structures in the design of a commercial

building. The second precedent, "Mother", an advertising firm located in London, United Kingdom, demonstrates how a company's corporate identity can be communicated through the interior design of a service oriented company's workplace. The third precedent, the "Starbucks Coffee Company", is an example of a multinational company that expresses a consistent corporate identity through the interior design of it stores located throughout the world.

A design programme was completed outlining the contextual issues, human factors, spatial requirements, and objectives of the design. The programme included detailed information on Torrent's employees and clients, the building and site, as well as the furniture, fixtures, and equipment needed in the space. The programme was used to inform the functional and aesthetic spatial requirements of the design.

The final phase of the design process was design development. In this phase the development of a design strategy was based on the application of the qualitative and quantitative research, precedent analysis, and programmatic requirements of the corporation and building. This phase resulted in the practicum's final design strategy.

1.5 Definition of Terms

In order to provide an accurate understanding of the subject matter discussed in this practicum, operational definitions for four critical terms are provided. These terms include "culture" and three sub-concepts of culture including: 1) national culture, 2) organizational culture, and 3) workplace culture.

Culture is a broadly used word that describes several different concepts. Originating from the Latin word "colere" meaning "to cultivate," culture has long been associated with the concept of human construct (Dahl, 2004). Although no universally recognized definition of culture exists, the word culture is most commonly used to describe art, music, and literature as well as other intellectual endeavors collectively

pursued within a society. In Western societies, the word culture is also used to refer to a level of civilization, development, or sophistication of an individual or society, and is often referred to in terms of "high or low culture" (Hofstede, 1991). This concept of culture is associated with "refinement of the mind," achieved predominantly through education (Hofstede, p. 5). Culture is also used more broadly to describe collective human processes, or processes shared by of a group of individuals (Hofstede). These human processes are comprised of a set of learned values, assumptions, beliefs, attitudes, and conventions that inform an individual's rituals and behaviors. This practicum deals with the third, broader concept of culture.

Cultural researcher and author, Geert Hofstede (1991), suggests that the broad concept of culture can be broken down into several different layers of analysis. These layers are comprised of; "national level," "regional level," "gender level," "generational level," "social class level," and "organizational/corporate level" (Hofstede, p. 10). Of relevance to this practicum, are the levels of national culture and organizational culture. National culture (also described as "culture" in the document) refers to a common value system and set of norms held by a population defined by the boundaries of a nation-state. Anthropologists Kroeber and Kluckhohn define culture as consisting of:

> Patterned ways of thinking, feeling and reacting, acquired and transmitted mainly by symbols, constituting the distinctive achievements of human groups, including their embodiments in artifacts; the essential core of culture consists of traditional (i.e.: historically derived and selected) ideas and especially their attached values.

<div align="right">(Kluckhohn, 1951, p. 86, 5)</div>

Therefore, national culture is based on the ideas and values that inform the behaviors of a group of people living within the same national context.

Organizational culture, also referred to as "corporate culture," can be defined as "the specific collection of values and norms that are shared by people and groups

in an organization and that control the way they interact with each other and with stakeholders outside the organization" (Hill & Jones, 2001, p. 435). Organizational culture also prescribes the "appropriate kinds of behavior by employees in particular situations and control the behavior of organizational members towards one another" (Hill & Jones, p. 435). Therefore, organizational culture is comprised of the values and assumptions that have been developed to deal with the varying circumstances encountered by the company, which in turn inform the behaviors of its employees.

While national culture and organizational culture are similar in that they are both based on values which inform subsequent behaviors, they are derived from very different sources and should not be confused. National culture as defined in this document, is central to this practicum's investigation. Organizational culture is not a subject of the practicum's investigation, but has been defined in so that it is understood in relation to national culture.

National culture informs another key term in the practicum, "national-work-culture" which will also be referred to as "work-culture." National-work-culture is a sub-concept of the greater concept of national culture, much as national culture is a sub-concept of the broader term of culture. It describes national culture specifically as it pertains to the workplace, meaning the values, assumptions, perceptions, and understandings in and of work, and how it is done. These, in turn, inform the behaviors, practices, processes, and interactions that occur in reference to work and the workplace. National-work-culture is an important concept in the practicum's investigation, because the way in which it is influenced by national culture is the basis for the culturally adaptive design of the workplace.

1.6 Limitations

This practicum is a conceptual investigation, based on the application of theory

and research to design. The conclusions provide only a few possible solutions regarding obtaining a balance between cultural adaptation and standardized corporate identity in the interior design(s) of a multinational company's workplace. Consequently, the practicum is not generalizable to all workplace design.

A limitation of the practicum in the area of culturally adaptive design is that the practicum pertains specifically to employees that possess a national cultural background consistent with the culture of the country they are working in. The practicum's design, therefore, does not accommodate employees who have come from other countries or national cultures, either on a temporary or permanent basis.

The practicum is also limited by the qualitative research produced on the key cultural differences between countries. While quantitative research in this area suggests that countries adhere to these differences in varying degrees (i.e., weak power distance vs. strong power distance), the qualitative research provides little or no discussion on the degrees of difference. These differences are not defined or explained, and therefore are difficult to account for in the design.

Finally, the practicum's theme of standardized corporate identity in the design of the workplace has been limited to hypothetical values developed for the hypothetical client corporation, Torrent.

1.7 Overview of document

The practicum consists of six chapters entitled: "Introduction," "Literature Review," "Precedent Analysis," "Design Programme," "Design Outcome," and "Conclusion." Chapter one provides an initial orientation and overview of the practicum project. It explains what the project is, why it is being done, and the limitations it is subject to. Chapter two consists of a literature review on the two major themes of the practicum: cultural adaptation and standardized corporate identity in the interior design of the workplace. The literature review provides the

theoretical basis that supports the design investigation. Chapter three consists of a precedent analysis in which themes explored in the literature review are demonstrated through real-life design examples. The precedents analyzed are as follows: 1) Nicola Valley Institute of Technology, 2) Mother Advertising, and 3) Starbucks Coffee Company. Chapter four provides the functional and aesthetic spatial requirements of the design. The design programme draws from the practicum's theoretical research, information provided by an existing global management company, and the design context of a Winnipeg based downtown office building. Chapter five summarizes the final design outcome for a balance between cultural adaptation and standardized corporate identity in the workplace(s) of the multinational company, Torrent. Chapter six provides a conclusion and discussion of potential areas for future study.

Chapter 2 . Literature Review

The literature review provides the theoretical basis for achieving balance between cultural adaptation and standardized corporate identity in the interior design of a multinational corporation's workplace environment. The review is thus comprised of two sections: *Cultural Adaptation in the Design of the Workplace*, and *Standardized Corporate Identity in the Design of the Workplace*. In order to systematically develop the topic, these two sections are further divided into several sub-sections. The literature review concludes with a brief discussion of how both themes could be integrated in order to achieve a balance in the design of a workplace environment.

2.1 Cultural Adaptation in the Design of the Workplace

The literature reviewed on *Cultural Adaptation in the Design of the Workplace* informs two different workplace designs; one responding to the national workplace culture of Japan, the other to Canada. The review commences with an explanation of culture as a "mental program," a concept that informs a person's thoughts and behaviors, and distinguishes people into different groups or categories. Through an examination of different theoretical models, the mental program of national culture is comprehensively examined in terms of its composition, including its foundations and how it is manifested within a society. Important disparities in the foundations and manifestations of different cultures are explored through several significant research studies. These qualitative and quantitative research studies identify several fundamental differences that exist across cultures. Two charts pertaining to the national-work-cultures of Japan and Canada are based on two of these research studies. Differences in the national-work-cultures of both countries are synthesized and discussed in relation to possible spatial applications for two culturally adaptive workplace designs. Cultural change is also analyzed in order to examine how these workplace designs can remain culturally adaptive over time. The section concludes

with a discussion of the contrasts between Japan and Canada's national-work-cultures and their application to design, thus revealing the importance of a culturally adaptive design within the workplaces of multinational corporations.

2.1.1 Culture as a Mental Program

In order to understand how national culture influences peoples' thoughts and behaviors in the workplace, it is first important to understand how culture functions within a person's psychological composition. Geert Hofstede (1991), a seminal Dutch writer and researcher in the area of cross-cultural studies, developed a relatively simple conceptual framework which identifies culture as one of three elements in the human mind responsible for a person's "patterns of thinking, feeling and potential acting" (Hofstede, p. 4). Hofstede called this framework a "mental program." The term "mental program" is a construct, meaning that it is has been created to allow for better interpretation and understanding of people's thoughts and behavior, but does not exist in actuality. Hofstede uses the analogy of a computer to describe how the "program" functions within a person's mind. Like a computer, the human mind is the "hardware" from which programs operate. The "programming" of this "hardware" determines the way in which it functions. Hofstede, therefore, suggests that the mental program (or "mental software") possessed by each person largely determines their thoughts, feelings and behaviors. This mental program is comprised of three broad levels; "human nature," "culture," and "personality" (Hofstede, p. 5-6).
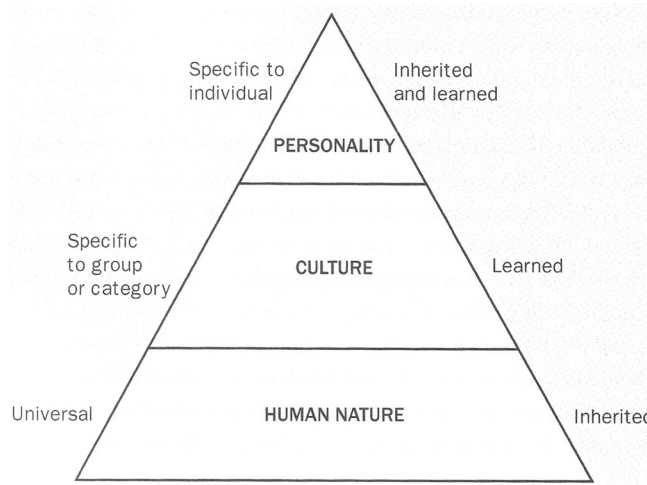
Figure 1. Hofstede's three levels of mental programming. Retrieved from *Cultures and Organizations; Software of the Mind*, 2nd ed. (2005, p. 4). Copyright property of Geert Hofstede.

Human nature is the most basic and universal level of a person's mental programming (Hofstede, 1991). This universal level is shared not just among human beings but with the animal world as well. This mental program is inherited in a person's genes, and is responsible for a person's basic physical and psychological functions. Using the analogy of a computer, it is comparable to its basic "operating system."

Culture is the collective level of a person's mental programming (Hofstede, 1991). It is not exclusive to an individual, rather it is shared among a larger group of people. This mental program is not inherited but is learned from the social environment in which a person grows up and from which they derive their life experiences. While this learning occurs throughout an individual's life, the majority of it occurs within the first ten years, often through the transfer of collective mental programs between generations (Hofstede). The collective level of culture is largely responsible for forming an individual's perception and interpretation of meaning, and thus acts to modify the physical and psychological functions produced by human

nature.

Personality is the individual level of a person's mental programming (Hofstede, 1991). It is not shared with other people, and is thus unique to the individual. This individual level can produce a variety of different thoughts and behaviors that are independent of the universal and collective levels of mental programming. This mental program is both inherited as genetic characteristics and qualities and learned from a person's social environment and personal experience (Hofstede).

Hofstede (1991) acknowledges that although a person's mental program functions similar to that of a computer, unlike computers, humans also have the ability to digress from these programs and think and behave in new and unanticipated ways. Hofstede further acknowledges, however, that although a person can think or behave in unexpected ways, over time a person or group's mental programming is perceived to be largely consistent. He suggests that mental programs therefore produce behaviors that are not random but, to some degree, predictable, and this predictability has allowed for the construction of social systems within a society.

Within Hofstede's (2001) framework, the level of culture is positioned between the levels of human nature and personality. The exact location of the borders between these levels remains a subject of debate in the field of social science. Agreement also does not exist regarding which phenomena belong to the collectivist level versus universalistic level of mental programming. Despite these uncertainties, several important insights can be derived from the framework with regard to culture. These include: 1) culture understood as a mental program that exists within the human mind and informs a person's "patterns of thinking, feeling and potential act-ing" (Hofstede, 1991, p. 4), 2) culture understood within the context of three levels of mental programming (human nature, culture, and personality) which produce relatively predictable behaviors over time, 3) culture learned from the

environment and experiences a person encounters primarily during the early years of his or her life, and 4) culture defined as a collective construct and thus shared by either a group or category of people (Hofstede, 1991, 2001). Hofstede's framework thus provides a basic understanding of the relationship between culture and people, in terms of how culture is acquired, the psychological context in which culture exists, and the influence of culture on the collective functioning of people within a society.

The collective function of culture is of particular significance to this practicum. Hofstede (1991) infers that the collective nature of culture brings together people who possess a similar mental program, and differentiates people who do not. He states, "culture is the collective programming of the mind which distinguishes the members of one group or category of people from another" (Hofstede, p. 5). Presumably then, different mental programs result in different cultural groups or categories of people, each containing their own patterns of thoughts, feelings, and behaviors; a perception supported by Newman and Nollen (1996):

> National culture is a central organizing principle of employees understanding of work, their approach to it, and the way in which they expect to be treated. National culture implies that one way of acting or one set of outcomes is preferable to another.
>
> (p. 755)

These different patterns of thoughts, feelings and behaviors, as they are expressed within the workplaces of different national cultures, are the basis of this practicum's investigation. The practicum maintains that, because these patterns differ across the workplaces of different national cultures, so too must the design of workplaces in different national cultures. In this way, employees can be supported by their workplace environments.

2.1.2 The Composition of Culture

A collective group's "patterns of thinking, feeling and potential acting"

(Hofstede, 1991, p. 4), based on their common mental program of national culture, can be more comprehensively understood through the examination of several different models. These models present different concepts pertaining to the composition of national culture, each containing different levels and layers. These levels and layers illustrate what culture essentially is based upon, how it is manifested within society, and how visible these manifestations are to those possessing different cultural programs. These models are important because they help us to understand how, and in what ways, cultures differ from one another, and why their layers must be consistent. Four different models of culture are explained, beginning with the "iceberg model" and followed with models by Geert Hofstede (1991), Fons Trompenaars and Charles Hampden-Turner (1997), and Helen Spencer-Oatey (2000). While each model pertains to national culture more generally, they can be applied to the examination of national-work-culture as a sub-concept of broader national culture.

The "iceberg model" is the most basic model of culture, and is comprised of only two levels (Dahl, 2004). Like an iceberg, this model contains a visible and invisible level. The visible level, or the portion of the iceberg above the water, constitutes aspects of the culture that are more explicit and easily observed (i.e., the cultures artifacts and behaviors). The invisible level, or the portion of the iceberg submerged beneath the water, consists of the aspects of culture that are not immediately visible (i.e., the cultures' values). While simplistic, this model's two fundamental levels of culture provided the ground work for the development of later cultural models.
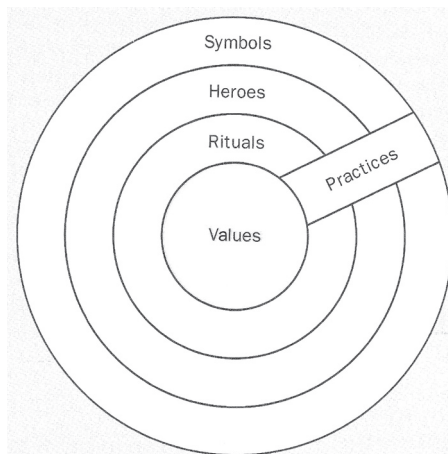
Figure 2. Hofstede's 'onion diagram' of culture. Retrieved from *Cultures and Organizations: Software of the Mind*, 2nd ed. (2005, p. 7). Copyright property of Geert Hofstede.

Geert Hofstede (1991) proposed a comprehensive model of culture based on a similar premise of visible and invisible levels. Similar to an onion, a central core is encompassed by three additional layers (see figure 2). The central core is comprised of the invisible level of values, representing the deepest and least visible layer of culture on which the other layers are based. Surrounding this core are the layers of "rituals," "heroes," and "symbols" which constitute the visible level of culture. Hofstede describes rituals as "collective activities, technically superfluous in reaching desired ends, but within a culture, are considered as socially essential" (Hofstede, p. 8). Some examples of rituals include greetings, methods of paying respect to others, and ceremonies. Heroes are defined as, "persons, alive or dead, real or imaginary, who posses characteristics which are highly prized in a culture, and who serve as models for behavior" (Hofstede, p. 8). The most peripheral layer is symbols, which represents the most obvious and superficial aspects of culture. Symbols describe the, "words, gestures, pictures or objects that carry particular meaning which is only recognized by those who share the culture" (Hofstede, p. 7). Hofstede's model also incorporates

practices, visible behaviors which extend across the rituals, heroes and symbols layers of the model. Hofstede's separation of the visible level into three different layers along with his inclusion of the practices layer, provides a more comprehensive understanding of culture than the previous model.
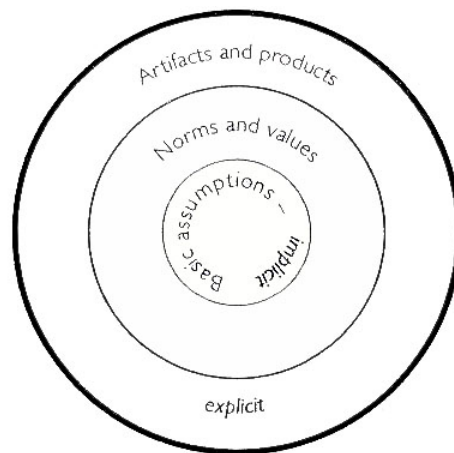
Figure 3. Trompenaars and Hampden-Turner's model of culture. Retrieved from *Riding the Waves of Culture; Understanding Diversity in Global Business* (1997, p. 22). Copyright property of The McGraw-Hill Companies, Inc.

Fons Trompenaars and Charles Hampden-Turner's (1997) model of culture consists of three layers (see figure 3). The model also uses an onion-like structure, however the invisible level is instead termed as "implicit" while the visible level was named "explicit." The inner core is comprised of "basic assumptions." These basic assumptions are for the most part consistent with Hofstede's core level of "values." The next layer "norms and values" is defined by Trompenaars and Hampden-Turner as the standards of good and bad, the social controls as well as the accepted and desired behavior within a society. Trompenaars and Hampden-Turner have further defined Hofstede's layer of values into two layers of values, an intrinsic layer, and a more visible layer (Dahl, 2004). The outermost layer of the model are the "artifacts and products" of the culture, which include the language, buildings, food, fashion and art produced by the culture (Trompenaars & Hampden–Turner).
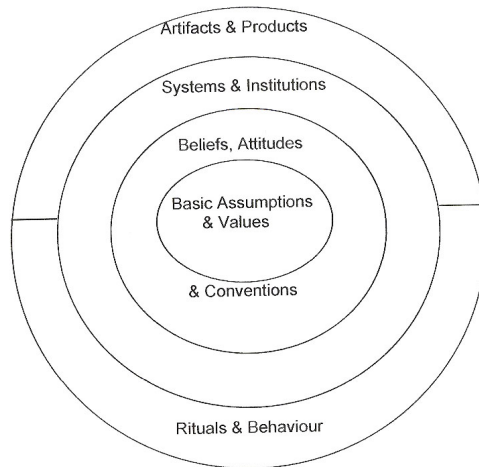
Figure 4. Spencer-Oatey's model of culture. Retrieved from *Culturally Speaking; Managing Rapport through Talk across Cultures* (2000, p. 5). By kind permission of Continuum International Publishing Group.

Helen Spencer-Oatey's (2000) model is both an adaptation and expansion of the models developed by Hofstede (1991), and Trompenaars and Hampden-Turner (1997) (see figure 4). Spencer-Oatey's model contains four layers and also possesses an onion-like structure, however four adaptations have been made to the models explained earlier. The first adaptation involves combining "values" and "basic assumptions" into the single core layer. This allows for the differentiation of visible and more fundamental levels of values alluded to in Trompenaars and Hampden-Turners model, yet recognizes them both as central to culture (Dahl, 2004). The second adaptation is the creation of the layer "beliefs, attitudes and conventions" which surrounds the core. The addition of this layer recognizes that these elements can change to some degree without significant changes in the core values (Dahl). The third adaptation was the addition of the "systems and institutions" layer which surrounds the "beliefs attitudes and conventions" layer. This level serves to differentiate the psychological aspects of the previous layer from their more physical manifestations in society. The fourth adaptation is the division of the peripheral level into two equal segments; one side of "artifacts and products," the other of "rituals

and behaviors." This division allows the behavioral aspects to be differentiated from more physical aspects in the most superficial manifestation of culture (Dahl). These adaptations and expansions provide a significantly more comprehensive and detailed model then the three models developed prior to it.

These four models each represent a different concept of culture in terms of content and structure. Among the models, however, are three key themes that can inform the design of a culturally adaptive workplace. First, each model contains at least two levels: an invisible level (or implicit level) and a visible level (or explicit level) of culture. The invisible level represents the aspects of the culture that are less tangible and are more difficult to observe or distinguish. The visible level is more easily distinguished and perceived by an observer. Hofstede's (1991) concept of shared mental programs can be applied to this theme in order to distinguish whether an observer is inside or outside the culture being evaluated.

Second, within Hofstede's, Trompenaars and Hampden-Turner's (1997), and Spencer-Oatey's models (2000), each of the visible and invisible levels contain one or more layers. The order of these layers show both a progression from the most invisible layer (the core layer) to the most visible layer (the peripheral layer), as well as how the layers influence one another, as internal layers influence those layers more external to them.

Third, "values" and "basic assumptions" constituted the most invisible layers of culture in all of the models. Therefore "values" and "basic assumptions" were identified, consistently, as providing the foundation on which the other layers of culture were based. These themes will be discussed further in relation to the model developed by Spencer-Oatey.

Spencer-Oatey's (2000) model, the most recent and developed of the four models examined, offers more defined layers of culture. With the introduction of the

"systems and institutions" layer, Spencer-Oatey's model is most relevant to this practicum. If the workplace is regarded as an institution, presumably it should be influenced by the deeper, more internal layers of culture. The more visible institutional layer of the workplace should therefore be consistent with the invisible layers of "values and basic assumptions" as well as the "beliefs, attitudes and conventions" of the culture in which it exists.

If however, the institution is based on a different set of values and assumptions, derived from a different mental program (as is often the case with multinational corporations originating from different national cultures), then a conflict is created. Presumably this conflict would manifest within a portion of the model's next layer "rituals and behaviors." This manifestation would occur because both a person's values and assumptions (Carr, 2004) and the physical workplace support and influence employee behavior (Becker & Steele, 1995; Drake, 2002). This conflict could result in resistance and tension in these behaviors, and thus inhibit full effectiveness in the work performed in the workplace.

This lack of effectiveness has been known to occur when management practices are applied within cultures other than those in which such practices were derived. Application of these practices can result in employees feeling "dissatisfied, distracted, uncomfortable and uncommitted" (Newman & Nollen, 1996, p. 755). More notably, these practices can escalate to "resistance, sabotage, vocal protests or attitudes of withdrawal and reduced commitment to work" when these practices significantly conflict with the values or practices of the indigenous culture (Kirkman & Shapiro, 1997). Therefore, inconsistency in a culture's values, assumptions and expected behavior can result in a reduction of an employee's desire or ability to perform work capably. It has also been observed that:

Management practices that reinforce national cultural values are more

likely to yield predictable behavior (Wright & Mischel, 1987), self efficacy (Earley, 1994) and high performance (Earley, 1994) because congruent management practices are consistent with existing behavioral expectations and routines that transcend the workplace. Employees are not distracted from work performance by management practices that ask them to behave in ways that are inconsistent with extant national values.

(Newman & Nollen, 1996, p. 755)

The influence of management practices on work performance parallels the influence of the work environment on work performance, as both management and the environment support and facilitate the way in which work is done within the workplace. Presumably then, in order for people to function most effectively in the workplace, the design of the workplace should be consistent with the values, assumptions, and behaviors within a national culture.

2.1.3 Differences Across National Cultures

In order for the design of a workplace to be consistent with the values, assumptions and behaviors of a national culture, the values, assumptions and behaviors must first be identified. A review of the qualitative and quantitative research on culture's values, assumptions and behaviors is explained next.

2.1.3.1 Contributions of Cultural Research

While an interest in different cultures has most likely existed for centuries, it was not until the mid-twentieth century that formal research was conducted, analyzing differences between cultures (Dahl, 2004). Early studies were based primarily at the superficial level of observable behaviors and were not supported by quantitative data (Dahl). It soon became apparent that broader and more comprehensive studies of culture were required so that culture could be understood in greater depth. Since the 1950's a significant amount of this research has been

produced in the fields of anthropology, cross-cultural communications, and management. These research contributions compare different cultures and identify universal differences that exist across them. Five prominent contributions to cultural research since this time, include the foundational research of Edward T. Hall's (1959, 1976) cross-cultural communication concepts, Florence R. Kluckhohn and Fred L. Strodtbeck's (1961) "cultural value orientations," followed by the national cultural research of Geert Hofstede's (1980) "cultural dimensions," Fons Trompenaars and Charles Hampden–Turners (1997) "dimensions of culture," and Shalom Schwartz's (1994) "culture-level value dimensions." The research of these authors has been examined in order to identify themes over a fifty year period. Each of these research contributions are considered seminal in cross-cultural studies, and comprise some of the most highly cited work in the field of social sciences.

2.1.3.1.1 Foundational Cultural Research

Anthropologist Edward T. Hall's work in cross-cultural studies was largely based on his work for the Foreign Service Institute (1951-1955) in the United States Department of State. His work at the Institute with linguist George L. Trager, as well as other scholars also working in the area, paved the way for his seminal books, *The Silent Language* (1959), *The Hidden Dimension* (1966), and *Beyond Culture* (1976). *The Silent Language* was considered the foundational text of a new scholarly field of study: cross-cultural communication (also known as intercultural communication). The field brings together several different fields including anthropology, cultural studies, psychology, and communication, with the purpose of studying communication between people of different cultures. Hall's work focused primarily on the study of non-verbal communication between different national cultures. Three of the major concepts he developed include: 1) high and low context culture (how

information is communicated and understood in different cultures), 2) proxemics (how different cultures use space), and 3) polychronic and monochronic time orientation (how different cultures perceive and organize time).

During the same time period that Hall was working for the Foreign Service Institute, anthropologist Florence Rockwood Kluckhohn was studying culture related values. In 1950, Kluckhohn put forward the idea that different cultures could be compared based on their values. The "Values Project," a comparative quantitative study of five different communities in the American Southwest, was undertaken by Florence Rockwood Kluckhohn and Fred L. Strodtbeck during the 1950s. The results of the study were subsequently published in Kluckhohn and Strodtbeck's (1961) book *Variations in Value Orientations* in which five basic value orientations were identified. These value orientations were based on several basic assumptions.

Kluckhohn and Strodtbeck (1961) assumed that there were a small number of universal problems that result from the human condition that all people must find solutions for. They believed that there exists a range of potential solutions for these problems, and that all societies have access to these different solutions at all times. Further, they assumed that societies prefer certain solutions over others, and these preferred solutions make up a dominant profile and substitute profile of value orientations. Both profiles rank the value orientations in order of preference by the society. Kluckhohn and Strodtbeck state, "our most basic assumption is that there is systematic variation in the realm of cultural phenomena which is both definite and as essential as the demonstrated systematic variation in physical and biological phenomena" (1961, p. 3). Kluckhohn and Strodtbeck's five value orientations are each accompanied by three potential variations, and include the following: 1) human nature orientation (evil, mixture of good-and-evil, good), 2) man-nature orientation

(subjugation, harmony, mastery), 3) time orientation (past, present, future), 4) activity orientation (being, being-and-becoming, doing), and the 5) relational orientation (lineality, collaterality, individualism). These orientations were further supported by relatively consistent outcomes derived from qualitative research conducted within American Southwestern communities prior to Kluckhohn and Strodtbeck's study (French, 1962).

2.1.3.1.2 National Cultural Research

Dutch researcher Geert Hofstede developed the first set of extensive empirical data relating to cross-cultural values. His research is commonly regarded as the most influential contribution of cross-cultural research to the social sciences, "there are almost no publications, either from the disciplines of sociology, anthropology, history, law, economics, or business administration that does not refer to Hofstede's work….. when explaining correspondences and distinctions between cultures" (Institute for Research and Intercultural Cooperation, 2001).

Hofstede's research is derived from the database of one of the world's largest multinational corporations, *IBM*. The database was developed from over 116, 000 questionnaire surveys evaluating the work related values of the company's employees in 72 different countries (Hofstede, 2001). The survey was first administered around 1968, and then a second time around 1972. IBM employees provided an ideal population sample as they constituted similar educations, occupations, ages, positions, and organizational culture. The primary area in which they differed was nationality. Subsequently, differences in national culture and values stood out clearly in the survey results. Hofstede used these surveys to identify stable universal differences in the values possessed by national cultures of different countries.

In his first publication *Cultures Consequences; International Differences in Work Related Values* (1980), revised more recently as *Cultures Consequences; Comparing Values, Behaviors, Institutions and Organizations Across Nations* (2001), Hofstede identified four of these primary differences which he calls "cultural dimensions." These include: 1) individualism vs. collectivism (individualism to collectivism), 2) power distance (low to high), 3) uncertainty avoidance (low to high), and 4) masculinity vs. femininity (masculine to feminine). A fifth dimension was added in Hofstede's subsequent book, *Cultures and Organization; Software of the Mind* (1991). This dimension was named "confucian dynamism" also known as "long-term vs. short-term orientation" (long to short term) (1991, p. 164). This dimension was based on the research of Canadian psychologist Michael Harris Bond on eastern countries. The nations included in the study were ordered along these five dimensions based on their national mean scores in order to classify their dominant value structures (Schwartz, 1994). Hofstede also plotted each of the countries in four dimensional models indicating their location within two of his dimensions. These five dimensions are widely accepted and have been the foremost research paradigm since they were published (DeCieri & Dowling, 1995).

Dutch economist and cultural researcher Fons Trompenaars and management consultant Charles Hampden-Turner's cultural research focuses on helping multinational companies manage their employees in a more culturally responsive manner in order to improve the company's performance. They approach culture as "the way in which a group of people solve problems and reconcile dilemmas" (1997, p. 6). In *Riding the Waves of Culture; Understanding Diversity in Global Business*, first published in 1994 by Trompenaars, and subsequently republished in 1997 with the addition of Hampden-Turner, seven "dimensions of culture" are identified. These

dimensions are divided into three categories: 1) those that relate to relationships and people, 2) those that relate to time, and 3) those that relate to the environment (Trompenaars & Hampden-Turner, 1997). These dimensions include; individualism vs. communitarianism, universalism vs. particularism, achievement vs. ascription, neutral vs. affective, specific vs. diffuse, sequential vs. synchronic time, and internal vs. external control. The first three of these dimensions were based on Parsons and Shil's *General Theory of Action* (1951), while the last two dimensions were based on Kluckhohn and Strodtbeck's "time orientation" and "man-nature orientation" found in *Variations in Value Orientations* (1961).

The quantitative research on these dimensions was based on a questionnaire comprised of different dilemmas which evaluated respondents on their preferred behavior in several different contexts of work and leisure (Dahl, 2004). The questionnaire was given to 635 respondents across nine countries, two industries, and seven job categories, as well as in management training courses conducted in 30 companies with departments in 50 countries. In 1997, the database of respondents included 50,000 cases from over 100 different countries (Trompenaars & Hampden-Turner, 1997). Approximately 75% of the respondents questioned were at a management level, while the remaining 25% of respondents were primarily composed of administrative staff (Trompenaars & Hampden-Turner).

Like Hofstede, Trompenaars and Hampden-Turner's dimensions function as continuums in which nations can be ordered based on their national mean scores. As a result of their work, Trompenaars and Hampden-Turner are considered authorities in cross-cultural research both within the field of organizational development and more broadly in the social sciences (Cambridge, 1998).

Israeli psychologist Shalom Schwartz is credited for conducting the largest

value research project to date (Hofstede, 2001). Based on literature, Schwartz

developed a 56 value survey instrument which he used to collect data between 1988

and 1992. These surveys were administered to school teachers (grade 3-12), whom

Schwartz considered to be largely responsible for both the transmission and

socialization of values, as well as university students, considered to provide the best

indication of how culture is changing (Schwartz, 1994).

In 1994, Schwartz had collected data from over 25,000 respondents in 44

countries from every continent on the world (Hofstede, 2001). This research was used

to categorize value differences both at the individual level and at the level of national

culture. In order to categorize national culture value differences Schwartz separately

calculated the mean scores of the teacher and student values for the 38 national or

sub-national cultures from which he had collected data. This resulted in seven

"culture-level value dimensions" which included: 1) conservatism, 2) hierarchy,

3) mastery, 4) affective autonomy, 5) intellectual autonomy, 6) egalitarian

commitment, and 7) harmony (Schwartz, 1994). He then ranked each of the 38

cultures according to their "mean importance for cultural-level value dimensions" in

order to allow for comparison of significant values both within and between the

different cultures (Schwartz). Several of Schwartz's culture-level value types were

found to closely correlate with some of the dimensions identified by Hofstede.

2.1.3.2 Developing a Framework of Cultural Research

The purpose of reviewing the five previously discussed research contributions

was to identify themes and patterns pertaining to the differences in value systems

across different cultures. This comparison provided a comprehensive approach in

distinguishing these differences as it looked at data collected over several different

time periods, obtained using different methods of research and analysis, and derived

from different population samples. The research was completed over a time period of fifty years, spanning from the 1950s to the 1990s. It was obtained using both qualitative and quantitative research in the form of observation, literature reviews, and questionnaire surveys. The data was derived from several different research sample populations, including: the general population of five different American Southwest communities, employees of one of the largest multinational corporations in the world, management and administrative staff of several multinational corporations around the world, as well as school teachers and university students from several different countries. Through this comparison, a number of cultural values are examined. Following analyses of these different cultural values, four prominent themes were identified based on a description of equivalent concepts in two or more of the dimensions or value orientations developed. These themes include the following:

1. a culture's orientation towards the individual vs. a collective group
2. a culture's tolerance and expectation of equality vs. hierarchy
3. a culture's orientation to time
4. a culture's tendency for a controlled vs. harmonious relationship with their environment

These themes provide the basis for a framework which informs the culturally adaptive workplace designs for Japan and Canada (see p. 55-67). Hofstede's as well as Trompenaars and Hampden-Turner's cultural dimensions have been selected to represent each of these themes. Each of the above themes are found in one of Hofstede's "cultural dimensions" and/or Trompenaars and Hampden-Turner's "dimensions of culture," and is therefore defined by one of their dimensions. One dimension has been chosen from either Hofstede or Trompenaars and Hampden-Turner to represent each of these themes. This representative dimension has been

selected based on two criteria. First, the existence of the dimension within the researcher's list of cultural dimensions (i.e., Trompenaars and Hampden-Turner's dimensions do not contain a dimension pertaining to "equality vs. hierarchy," and therefore Hofstede's "power distance" is selected as the representative dimension). Secondly, how representative the dimension is of the overall research on the theme (i.e., Hofstede's "confucian dynamism" also known as "long-term vs. short-term orientation" and Trompenaars and Hampden-Turner's "sequential vs. synchronic time" dimensions both deal generally with a cultures orientation to time. Trompenaars and Hampden-Turner's "sequential vs. synchronic time" dimension, however, is thought to be more representative of the theme than Hofstede's "long-term vs. short-term orientation" dimension. This is due to the fact that Hofstede's dimension is largely based on the Confucian values (i.e., tradition, value for truth and virtue, hierarchy and respect, etc.) which are not discussed in the other dimensions within the theme).

In addition to the four chosen themes, two additional dimensions have been included in the framework which informs the culturally adaptive workplace designs for Japan and Canada. They include Hofstede's "uncertainty avoidance" dimension and Trompenaars and Hampden-Turner's "universalist vs. particularist" dimension. These dimensions were also each included for different reasons. Hofstede's "uncertainty avoidance" dimension has received substantial support from several other cross-cultural studies (please refer to Hofstede, 2001, p. 154 "*Validating UAI Against Data from other Sources*" for a list and description of these studies), and can therefore be described as an important value contributing to an employee's functioning in a workplace. The ideas on which Trompenaars and Hampden-Turner's "universalist vs. particularist" dimension is based, are frequently discussed in the literature reviewed on cultural values and practices of Japan and North America (Canada) (please see

Alston, & Takei, 2005; Davies & Ikeno, 2002; Hall, 1987; Nisbett, 2003). Both

dimensions are also highly applicable to the design of a culturally adaptive

workplace in both countries. As such, both dimensions have been included in the

framework despite the fact they do not constitute either of the major themes in the

research contributions examined.

Hall's concept of "high and low context cultures" has also been included in the

framework informing the culturally adaptive workplace designs for Japan and Canada.

This dimension, much like Hall's concept of proxemics, has several possible

implications for the spatial design of a workplace. Unlike proxemics, "high and low

context cultures" is included in both Hofstede's "individualism vs. collectivism"

dimension and Trompenaars and Hampden-Turner's "specific vs. diffuse" dimension. It

is supported quantitatively within these dimensions, and therefore can be used in the

framework to inform a culturally adaptive design.

2.1.3.2.1 Contributions to a Framework of Cultural Research

Hofstede and Trompenaars and Hampden-Turner's cultural dimensions were

chosen to form the basis of the framework because their research was gathered

within the context of one (Hofstede) or several (Trompenaars and Hampden-Turner)

multinational corporation(s). Combined, their research was obtained from

employees and management working in 31 multinational corporations in over 70

countries around the world. While not all of the survey questions used in this research

pertained specifically to work or the workplace values, they are appropriate for this

practicum's investigation as they assess the values, assumptions, and behaviors of the

same demographic of people who are impacted by workplace design in Japan and

Canada. Hofstede's, as well as Trompenaars and Hampden-Turner's dimensions are

also based on quantitative research from both countries, thereby providing a more

objective basis for designs driven by the subjective concept of culture.

Although Hall's concepts are easily understood in his various writings and publications, his work is limited by the fact that it refers to a small number of countries and is not supported by empirical data. For example although "proxemics" is highly applicable to this practicum's investigation, it is only supported with quantitative research for American culture. Further, the United States, Latin America, Middle Eastern countries, Europe, and Japan are referred to very generally in the discussion of many of his concepts. Hall's concept of "high and low context cultures," has been used to inform the culturally adaptive workplace design of Japan and Canada. As previously discussed, this occurred due to the quantitative research provided by Hofstede and Trompenaars and Hampden-Turner.

Kluckhohn and Strodtbeck's value orientations are comprehensive in nature. However, their research was conducted at the regional cultural level of Southwestern American communities. These value orientations are useful in identifying themes in the values structures found across different cultures, but cannot be used to inform the culturally adaptive workplace design of the national cultures of Japan and Canada.

Schwartz's culture-level value dimensions were also not included in the framework. Schwartz's research is based on the values of teachers and university students in several different countries, and is therefore less appropriate to inform the design of a culturally adaptive workplace than research derived from respondents working within multinational companies (for reasons previously mentioned). Schwartz's qualitative research was also gathered within Japan, but not within Canada, and therefore cannot be used to inform the culturally adaptive workplace design of both countries.

2.1.3.2.2 A Comparison of Contributions to a Framework of Cultural Research

This chart displays the different sets of cultural dimensions or value orientations developed by each researcher(s) in order to better allow for a comparison of their similarities and differences. Of note are Schwartz's seven individual value types, which have been grouped into two contrasting values in the chart (i.e., hierarchy vs. egalitarian commitment) in order to allow for consistency to be maintained in the representation of the researcher's cultural dimensions and value orientations. This consistency enables comparisons between the dimensions to be made more easily. Each of the researchers are displayed chronologically according to the date of their research publication, in the top-most row of the chart. Their dimensions or value orientations are each displayed in the columns below their names. Dimensions or value orientations that contain consistent themes have been placed in rows and are represented in blue colored boxes. The two additional dimensions identified are represented in single green boxes. The additional concept used in the framework, developed by Edward T. Hall, is represented in pink colored boxes. The dimensions which have been extracted and applied to the subsequent *Framework of Japanese and Canadian Workplace Cultural Research* are represented with bold text.

Comparison of Contributions to Cultural Research Chart

-- Qualitative Research --- --- Quantitative Research -----------------

Hall *Foundational Research* *(1950s)*	Kluckhohn & Strodtbeck *Foundational Research* *(1950s)*	Hofstede *National Cultural Research* *(1960s & 1970s)*	Trompenaars & Hampden-Turner ***National Cultural Research*** *(1970s, 1980s & 1990s)*	Schwartz *National Cultural Research* *(1980s & 1990s)*
High vs. Low Context Cultures	Relational Orientation	**Individualism vs. Collectivism**	Individualism vs. Communitarianism	Conservativism vs. Autonomy
			Achievement vs. Ascription	
		Power Distance		Hierarchy vs. Egalitarian Commitment
			Neutral vs. Affective	
		Uncertainty Avoidance		
Polychronic vs. Monochronic Time Orientation	Time Orientation	Long- term vs. Short-term Orientation	**Sequential vs. Synchronic Time**	
		Masculinity vs. Femininity		
			Universalism vs. Particularism	
	Man-Nature Orientation		**Internal vs. External Control**	Mastery vs. Harmony
	Activity Orientation			
High vs. Low Context			Specific vs. Diffuse	
	Human Nature Orientation			
Proxemics				

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2.1.3.3 A Framework of Japanese and Canadian Workplace Cultural Research

The seven cultural dimensions identified in the *Comparison of Contributions in Cultural Research Chart* provide a framework on which to base the design of two culturally adaptive workplaces for Japan and Canada. The dimensions explore the way in which people from different national cultures interact and relate with other people, perceive inequality, tolerate uncertainty, approach time, relate to their environments, and value relationships. These dimensions are each be examined specifically in reference to Japan and Canada and their workplaces in order to provide a more comprehensive understanding of the values, assumptions, and behaviors that inform both of the designs.

1. High Context vs. Low Context Cultures

Edward T. Hall (1976) introduced the concept of "high and low context cultures" in his book, *Beyond Culture*. He suggested that the way a person communicates and understands information within a given context is largely determined by their culture. He defined the concept as follows:

> A high context (HC) communication or message is one in which most of the information is already in the person, while very little is coded, explicit, transmitted part of the message. A low context (LC) communication is just the opposite; i.e., the mass of the information is vested in the explicit code.

(p. 79)

In high context cultures less information is required, as much of the information is embedded within the person and context itself, for instance the environment, atmosphere, participant's status, body language, facial gestures, and intuitive understandings. These forms of communication are thus relied more heavily upon than more direct forms of communication such as the written or spoken word. In high context cultures, continuous communication of information is important in the

workplace, which most often occurs through face-to-face interactions, in order to ensure people are informed about the business and what is happening in the company (Hall, 1987). This form of communication is more prevalent in group oriented cultures in which relationships take precedence (Hall). In low context cultures more information is communicated through explicit forms of communication, as less is derived from the surrounding context. More background information is required before completing a task or making a decision. In these cultures information in the workplace is more compartmentalized and communicated on a "need-to-know basis" (Hall).

Hall identifies Japan as a high context culture (Hall, 1987, p. 8-11) which is further supported by Japans ranking in Hofstede's "individualism vs. collectivism" dimension and Trompenaars and Hampden-Turner's "specific vs. diffuse" dimension. Hall does not specify Canada's cultural context, however Canada is identified as a low context culture based on its rankings within Hofstede's and Trompenaars and Hampden-Turner's dimensions.

2. Individualism vs. Collectivism

This dimension is the most prevalent of Hofstede's five dimensions, and is frequently referred to and discussed within intercultural research (Dahl, 2004). Hofstede defines it as follows:

> Individualism pertains to societies in which the ties between individuals are loose: everyone is expected to look after himself or herself and his or her immediate family. Collectivism pertains to societies in which people from birth onwards are integrated into strong, cohesive groups, which throughout peoples' lifetime continue to protect them in exchange for unquestioned loyalty.

(1991, p. 51)

Countries are ranked within the dimension as either "individualist" or "collectivist"

based on scores obtained from survey questions accessing their "work goals" (1991, p. 51). Based on these scores, Hofstede identified Japanese culture as "collective" (1991, p. 54). Within the context of the workplace of a collectivist culture, an emphasis is placed on the collective group. Maintaining the relationships and harmony that supports these groups are also considered very important. As such, the majority of work is done by people working together in groups or teams, the employee is expected to put the interest of the group above their own individual interests, and recognition and responsibility is given to the group and not an individual (Hofstede).

Hofstede identifies Canadian culture as "individualistic" based on these same scores (1991, p. 54), placing a greater emphasis on the individual within the workplace. As a result, employees tend to work more independently and base decisions and actions predominantly on self-interest. Tasks are frequently prioritized over personal relationships, and recognition and responsibility is often given to specific individuals within "individualist" cultures (Hofstede).

3. Power Distance

Hofstede (1991) defines this dimension as, "the extent to which the less powerful members of institutions and organizations within a country expect and accept that power is distributed unequally" (p. 28). Based on survey questions on how inequality in the workplace is dealt with between people, countries are ranked on this dimension from low to high (Hofstede). The dimension largely evaluates the dependency relationships between employees and managers in a national culture. Japan was identified as possessing "high power distance," meaning significant inequality and dependency exits between employees and their superiors. This acceptance of inequality and hierarchy is often learned at a young age within the

context of the home and school, and is carried into the workplace as a learned behavior (Hofstede). These hierarchies can be seen in an unequal distribution of power and resources which are often visibly displayed in the workplace environment. They also result in employees who expect to be given a lot of direction, and are closely supervised in the workplace (Hofstede).

Canada was identified as having "low power distance," meaning that a more balanced relationship characterizes the interactions between employees and their superiors. Hierarchies still exist, but for more practical and functional reasons than in high context cultures, and the positions within these hierarchies change more easily (Hofstede). Visible displays of superiority of this hierarchy in the workplace are received with more negativity then "high power distance" cultures (Hofstede). As well, power is generally more decentralized and decision making involves more consultation and participation of employees in the workplaces of "low power distance" cultures (Hofstede).

4. Uncertainty Avoidance

Hofstede (1991) describes this dimension as "the extent to which the members of a culture feel threatened by uncertain or unknown situations" (p. 113). Within this dimension countries are ranked from low to high based on survey questions dealing with stress in the workplace and long-term commitment to the company (Hofstede). Japanese culture ranked within this dimension as possessing a "high uncertainty avoidance" meaning uncertainty, ambiguity, risk and innovation were typically met with anxiety and aversion (Hofstede). Familiar risks are generally tolerated, however, unfamiliar risks and uncertain situations are a source of discomfort (Hofstede). Rules, structure, and predictability on the other hand, reduce this discomfort.

Canadian culture ranked as having "low uncertainty avoidance," meaning they are generally comfortable and accepting of uncertainty and ambiguity, which are not considered a source of stress and anxiety (Hofstede). Innovation is often encouraged, as is finding new ways of solving problems without relying on conventional systems or rules (Hofstede).

5) Sequential vs. Synchronic Time

This dimension pertains to three major aspects relating to how different cultures perceive and use time. These aspects include; how people structure their activities, their orientation to past, present and future, and whether they perceive time as short or long term (Trompenaars & Hampden-Turner, 1997). Trompenaars and Hampden-Turner's ranked countries on this dimension as possessing a "sequential time orientation" or a "synchronic time orientation." A country's rank was based on questions pertaining to the importance of past, present, and future, as well as long or short term time horizons (Trompenaars & Hampden-Turner, 2004). Japan's "synchronic time orientation" is derived from their long-term approach to time and overlapping conceptions of past, present and future.[1] Synchronic cultures perceive time as "cyclical and repetitive, compressing past, present, and future by what these have in common: seasons and rhythms" (Trompenaars & Hampden-Turner, 1997, p. 126). As opposed to a sequential time orientation, in which activities are completed in a linear sequence, synchronic time oriented cultures often perform several interchangeable activities at once in order to achieve a final objective (Trompenaars

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[1] Dimension derived based on characteristics possessed by country identified as pertaining to dimension, as assignment of dimension was not explicitly stated in the text (Trompenaars & Hampden–Turner, 2004, p. 128), past present future orientation based on figure 9.1 (IBID., 1997, p. 130), long term orientation derived from figure 9.2 (IBID., 1997, p. 131).

& Hampden-Turner). Planning tends to be long-term however, proper work process takes precedence over adhering to schedules closely (Hall, 1987). Significance given to the past, present, and future mean both the past and future are considered in determining present decisions and behaviors.

Canada, a "sequential time orientated culture" possesses a short term time horizon and an orientation to the present and future.[2] Sequential time orientated cultures perceive time as progressing linearly, and complete tasks in a scheduled and planned order often in an effort to maximize efficiency (Trompenaars & Hampden-Turner, 1997). Planning is primarily short term (Trompenaars & Hampden-Turner). Canada's present and future orientation significantly influences decision making and actions taken.

6) Universalist vs. Particularist

Trompenaars and Hampden-Turner (1997) measure the importance given to rules versus relationships in this dimension by different national cultures. A "universalist culture" denotes, "an obligation to adhere to standards which are universally agreed to by the culture in which we live" (Trompenaars & Hampden-Turner, p. 31). A "particularist culture" values relationships over the society's rules and standards, as well as obligations to these relationships under exceptional circumstances. For the purposes of this practicum, the importance given to relationships will be emphasized within this dimension, as it is more applicable to the design of a workplace. Japan is identified by Trompenaars and Hampden-Turner

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[2] Dimension derived based on characteristics possessed by country identified as pertaining to dimension, as assignment of dimension was not explicitly stated in the text (Trompenaars & Hampden –Turner, 2004, p. 128) past present future orientation based on figure 9.1 (IBID., 1997, p.130), short term orientation derived from figure 9.2 (IBID., 1997, p.131).

as a "particularist culture," meaning it places a great deal of importance on relationships in the workplace. This is evident in the significant amount of time taken in establishing relationships with potential business partners and clients before entering into a contractual agreements (Trompenaars & Hampden-Turner). It is also evident in relationships between employers and employees in the workplace, as this is often considered to be an important form of fulfillment for employees (Trompenaars & Hampden-Turner).

Canada is identified as a "universalist culture," meaning precedence is given to rules, codes, and standards, over relationships (Trompenaars & Hampden-Turner). As a result, rule based behavior, outlined agreements, and meeting performance requirements are generally considered to be very important in the workplace. This dimension closely relates to Hofstede's "individualism vs. collectivism" dimension in terms of the importance given to relationships in the workplace.

7) Internal vs. External Control

Trompenaars and Hampden-Turner (1997) state a culture possesses either an "inner-directed" or "outer-directed" orientation to nature. "Inner-directed" describes cultures that "believe that they can and should control nature by imposing their will upon it" (p. 145). "Outer-directed" cultures on the other hand, describes cultures that "believe that man is part of nature and must go along with its laws, directions and forces" (p. 145). This orientation to nature can also be applied to the thoughts and behaviors within the workplace and in daily life (p. 151). Based on questionnaire surveys, Trompenaars and Hampden-Turner identify Japan as possessing an "outer directed" orientation to nature, meaning they generally want to live in harmony with their external environment and circumstance, and adapt their behaviors and actions accordingly. Outcomes are largely viewed as a result of environmental factors which

cannot be controlled.

Canada however, is identified as possessing an "inner directed" orientation to nature. This means that domination, manipulation and/or control over the external environment is often viewed as necessary in order to obtain desired outcomes (Trompenaars & Hampden-Turner). Outcomes are largely perceived as determined by an individual's actions and behaviors.

2.1.3.3.1 A Framework of Japanese and Canadian Workplace Cultural Research Charts

The seven cultural dimensions identified provide a framework on which to base the design of two culturally adaptive workplaces for Japan and Canada (see p. 55-67). These culturally adaptive workplace designs are not informed by how the workplaces in both countries currently exist and are structured, as this practicum is not intended to simply replicate the workplaces that currently exist in both countries. Rather, the practicum proposes two original workplace designs that are both informed and responsive to the underlying values, assumptions, and behaviors of the national-work-cultures of Japan and Canada.

In order to inform these two culturally adaptive workplace designs, two charts were developed, one examining the cultural dimensions in relation to Japan, and the other in relation to Canada. Both charts are structured in the same way. The first column contains each of the seven dimensions as well as the researchers who identified them. The second column provides a short description of each dimension. The third column contains the empirical score/rank of either Japan or Canada on each dimensions continuum, as identified by the researcher. For the purpose of providing context, the range of scores/rankings of the other countries are also provided. In Hofstede's dimensions, the mean of the countries scores/ranks is provided to allow for comparison. These mean scores, however, do not represent the point in

which the dimension is divided into its two corresponding parts (i.e., where individualism changes to collectivism on the "individualism vs. collectivism" dimension), as this point is different for each dimension. Hofstede identified these means in his work, whereas Trompenaars and Hampden-Turner did not, and subsequently these mean rank/scores are not included for their dimensions.

The fourth column contains the classification of the country under a dimension as a result of the empirical scores/ rankings. Page numbers are referenced in which the researchers stated either countries dimension within their written text. The fifth column provides current supporting workplace research on either country. This research supports the existence of the dimension in the country and demonstrates how it informs the work culture. Recent trends in each countries work culture have also been included in this column. The sixth column contains a synthesis of key points derived from the countries dimension classification and supporting workplace research that represent the national-work-culture of either country. The seventh column represents potential ways in which the interior design of the workplace in either country could be adapted to support this national-work-culture. Overall, the chart shows a progression from the seven cultural dimensions, to the qualitative and quantitative research supporting each dimension, to finally a design solution that supports each dimension as it pertains to a Japanese or Canadian workplace.

2.1.3.3.2 A Framework of Japanese Workplace Cultural Research Chart

Cultural Dimensions:	Cultural Dimensions Defined:	Country score/range:	Country Standing:	Supporting Workplace Research:	Key Points Pertaining to Cultural Dimension in the Workplace:	Potential Expression of Cultural Dimensions in the Design of Workspace:
1. High - Context vs. Low- Context Culture (Hall)	The way information is communicated and understood within a given context	IDV[1]: score: 46 mean: 43 range: 6–91 (Hofstede) study 1: n/a[2] (Trompenaars & Hampden- Turner) study 2: score: 45% range: 11%-89% (Trompenaars & Hampden- Turner)	High-context culture	- Silence, nuances, sensitivity to subtle indications of underlying thoughts, and intuitive understandings are valued highly within Japan; as hidden forms of communication are provided through body language and surrounding environment (Davies & Ikeno, 2002, p. 104, 105). - Studies done in Japanese trading companies (Yoshino & Lifson, 1986) found that face-to-face interaction allowed for the communication of nonverbal cues (i.e.: body language and facial expressions). These nonverbal cues are thought to be as important, if not more important, then the spoken word (Zimring & Peatross, 1997, p.208). - Communication behavior studies in Japanese and American companies (Pascale, 1978; Pascale & Athos, 1981) found that face-to-face interactions are more highly depended upon for the communication of information by managers in Japanese companies than in American companies (Zimring & Peatross, 1997, p.209).	-Visual communication is important as information is often communicated more implicitly through non-verbal cues (i.e.: body language and facial expressions).	-Visual connections between working stations are important in order to allow for visual communication between employees (which in turn could facilitate more face-to-face meetings and discussions).
2. Individualism vs. Collectivism (Hofstede)	Orientation to the individual vs. larger group/ community[3]	IDV[4]: score: 46 mean: 43 range: 6–91	Collectivist	- Tasks and projects are allocated to groups, and not individuals, in which decision making relies on consultation and consensus among members (Lewis, 2003, p.404, 405; Davies & Ikeno, 2002, p. 53, 161, 195, 196; Alston, & Takei, 2005, p. 77). - Each member of a work group typically possesses a different specialty, but does not show individual distinction (Lewis, 2003, p.404, 405). - Accountability is not defined within groups; therefore credit and responsibility are not given to individuals but to the group as a whole (Schneider & Barsoux, 2003, p.103; Abegglen, 1973, p.128, 129 in Ohtsu & Imanari, 2002, p.15).	-Work is done more collectively, and decision making is often based on consensus and consultation with others.	-Employees should work primarily in group/team work settings. -Increased number of meeting rooms provided in workspace for consensus based decision making.

			- The group is credited with a success even if a particular individual is responsible for it. To credit the individual would be to differentiate and distinguish them from the group, thereby threatening the group's overall harmony (Alston, & Takei, 2005, p. 14). -'Mado-giwa', referring to those moved out of the main work area to work by an exterior window, is often used by companies to encourage employees to resign. Ostracism from the group is used as a strong form of punishment in Japan (Schneider & Barsoux, 2003, p.26,42; Davies & Ikeno, 2002, p.10). - Large meetings, often with more than thirty company employees, are held to strengthen the sense of unity and loyalty within a company. The purpose of these meetings is symbolic, as they serve no real purpose in making decisions (Alston, & Takei, 2005, p. 96).	
3. Power Distance (Hofstede)	Presence of equality vs. hierarchy in peoples roles and use of resources[5]	PDI[6]: score: 54 mean: 57 range: 11-104	Large power distance	- Vertical hierarchies (colleagues on different levels of rank) and horizontal hierarchies (colleagues on the same level of rank) both exist within Japanese companies; however vertical hierarchies have a much more significant role and are rigidity implemented. (Davies & Ikeno, 2002, p.144, 187, 188) - Direction and authority is willingly taken from managers by Japanese employees, as hierarchies in the workplace are perceived as natural (Ohtsu & Imanari, 2002, p.40; Kato & Kato, 1992). - Private offices are uncommon in Japan, except for the company's CEO. Hierarchy is however present in the organization of workstations- each row is headed by a division leader (high in rank). Positioning of workstation relative to leader is determined by employee rank. Youngest members (lowest in rank) are positioned furthest from leaders (Alston, & Takei, 2005, p. 86; Yoshino & Lifson, 1986 in Zimring & Peatross, 1997, p.205).	-Hierarchy and inequalities are largely considered natural within companies. -Presence of symbols representing hierarchy are often expected and accepted within the workplace. -Decision making is more centralized, and employees are often supervised and given direction and instruction in the workplace.	-Spatial size and quality of materials used in workstations differ across employee seniority levels within a company. -Design of workplace should facilitate supervision of employees by management.

				- Position of seating within a room is also a strong indication of rank within a Japanese company; highest ranked management is positioned at the farthest point from the door of the room, while lowest ranked employees are positioned closest to the door (Hall, 1987, p.81; Davies & Ikeno, 2002; p. 192, Alston, & Takei, 2005, p. 94). - Higher quality and more comfortable chairs and desks are used to represent seniority and promotion within Japanese companies (Alston, & Takei, 2005, p.86, 87).	
4. Uncertainty Avoidance (Hofstede)	Comfort level with risk and ambiguity vs. predictability and familiarity in daily life[7]	UAI[8]: score: 92 mean: 65 range: 8- 112	Strong uncertainty avoidance	- Japans formal hierarchies, lifetime employment system, and standardized meeting procedures are examples of how Japan has tried to reduce uncertainty in the work environment (Schneider & Barsoux, 2003, p. 162). - A slow decision making process and extensive careful planning embodies Japanese cautious and pessimistic outlook, and is used to avoid future problems and unanticipated circumstances (Alston, & Takei, 2005, p. 9). - "Deference to superiors" in situations of uncertainty is largely responsible for the lack of innovation present in teamwork in Japanese workplaces (Christopher, 1983, p. 264).	-Uncertainty in daily life is usually avoided as it results in a lack of comfort, as well as anxiety and often fear.
5. Sequential vs. Synchronic Time (Trompenaars & Hampden-Turner)	Perception and orientation to time, as well as how activities are structured within it.[9]	study 1: score: 4.72 years range: 3.40-5.71 years[10] study 2: score: 5.20 years range: 4.18-6.17 years	Synchronic Time[11]	- Schedules and agendas are made, but viewed as less significant than proper work process, careful decision making, planning, and maintaining relationships both within and outside the company. (Alston, & Takei, 2005, p. 10, Hall, 1987, p.19, 21, 23). - Holistic view of time in which cautious, well considered, long-term planning and decision making are made (Alston, & Takei, 2005, p. 11).	-Time is viewed more cyclically, and activities and tasks are frequently done in a more interchangeable and concurrent manner.

-Individual possession of permanent workstations helps to remove unpredictability in workplace.

-Clear and predictable spatial organization and circulation in the workspace aids in reducing uncertainty.

-Open workspace in which boundaries between different activities and spaces are less defined.

		study 3: score: 5.24 years range: 4.62-6.56 years				
6. Universalist vs. Particularist (Trompenaars & Hampden-Turner)	Precedence given to societal codes and rules vs. relationships[12]	study 1: score: 68% range: 32%-97%[13] study 2: score: 55%[14] range: 24%-75% study 3: score: 64% range: 20%-70%	Particuralist	- A company is perceived by the Japanese as a collection of people working together and possessing relationships with each other as well as the company itself. These relationships are basis for the company's functioning (Nisbett, 2003, p.84). - An employee's character, dedication, loyalty, and ability to get along with the group are often considered more important than work related achievements (Nisbett, 2003, p.37). - Stopping to talk to people encountered while walking through the workplace is considered good manners and important to developing a person's social networks (Alston, & Takei, 2005, p. 137). - Meetings are an important form of communication within a Japanese company and take precedence over more inexpensive and impersonal forms of communication (Alston, & Takei, 2005, p. 92). - Before business negotiations begin, it is important that a relationship is established. This relationship is developed over the first several meetings in which socializing occurs in a room with comfortable seating where tea and snacks are served. The meeting then continues in a more formal conference room where negotiations occur (Alston, & Takei, 2005, p. 94).	-Relationships and related obligations often take precedence over rules, codes, and standards within the workplace. -Establishing a relationship with a client prior to conducting business negotiations is considered important.	-Social/ meeting/ gathering spaces integrated within workspace help to facilitate interaction and communication between employees. -Open workstations both enable and encourage employee interaction in the workspace. -Presence of informal spaces in which socializing can occur with clients before business meetings.
7. Internal vs. External Control (Trompenaars & Hampden-Turner)	Control vs. harmonization with surrounding environment[15]	study 1: score: 19% range: 9%-68%[16] study 2: score: 63%[17] range: 33%-88%	Internal Control	- Maintaining harmony, 'wa' ,is one of the most important objectives within a Japanese company. It influences the company's structure and organization, how employees are managed, employee interactions and relationships, hiring and promotion, and how decisions are made (Alston, & Takei, 2005, p. 14, 15, 16).	-Harmonization with people and surrounding environment is valued.	-Little employee control or individualization of workstation should be provided in order to maintain uniformity.

		- Belief that people should adjust themselves to their environments, and not try to control and change them (Lewis, 2003, p.71). - Careful attention is paid to surrounding people and context as a person will adjust their behavior accordingly in order to maintain group harmony. (Nisbett, 2003, p.86, Davies, 2002, p. 11)

[1] Hall's *High Context vs. Low Context* cultural dimension is included within Hofstsede's *Individualism vs. Collectivism* dimension (Hofstede, 1991), and thus is referred to in order to provide quantitative data to further support Hall's quantitative research.

[2] Hall's *High Context vs. Low Context* cultural dimension is included within Trompenaars and Hampden-Turner's *Specific vs. Diffuse Cultures* dimension (Trompenaars and Hampden-Turner, 1997), and thus is referred to in order to provide quantitative data to further support Hall's quantitative research. Trompenaars and Hampden-Turner conducted two studies in order to assess the degree to which different countries are specific or diffuse cultures (Trompenaars & Hampden-Turner, 1997, p. 90, 95). Trompenaars and Hampden-Turner state that the outcome of the first study is not representative of Japanese values as the as the Japanese do not typically take part in the practice on which the study is based (Trompenaars & Hampden-Turner, 1997, p. 89). Please see Appendix for specific research dilemmas on which these two studies where based.

[3] This definition provides only a simplified description of the dimension, please see Appendix A for a complete list of how Hofstede's *Individualism vs. Collectivism* dimension is expressed in the workplace.

[4] IDV, an abbreviation for *Individualism Index Values*, refers to the index in which 50 countries and 3 regions are ranked by Hofstede on the dimension of *Individualism vs. Collectivism* (Hofstede, 1991, p.53, Table 3.1).

[5] This definition provides only a simplified description of the dimension, please see Appendix A for a complete list of how Hofstede's *Power Distance* dimension is expressed in the workplace.

[6] *"PDI"*, an abbreviation for *Power Distance Index*, refers to the index in which 50 countries and 3 regions are ranked by Hofstede on the dimension of *Power Distance* (Hofstede, 1991, p. 26, Table 2.1).

[7] This definition provides only a simplified description of the dimension, please see Appendix A for a complete list of how Hofstede's *Uncertainty Avoidance* dimension is expressed in the workplace.

[8] *"UAI"*, an abbreviation for *Uncertainty Avoidance Index*, refers to the index in which 50 countries and 3 regions are ranked by Hofstsede on the dimension of *Uncertainty Avoidance* (Hofstede, 1991, p. 113, Table 5.1).

[9] This definition provides only a simplified description of the dimension, please see Appendix A for a complete list of how Trompenaars and Hampden- Turner's *sequential vs. synchronic* dimension is expressed.

[10] Trompenaars and Hampden- Turner conducted three studies within the *sequential vs. synchronic* dimension in order to assess the average time horizons (past, present, and future) of the different countries included in their research (Trompenaars & Hampden- Turner, 1997, p. 131, 132, 133). These average time horizons however proved to be less applicable to the design of the workplace, and therefore was not incorporated into the '*potential expression of cultural dimensions in the design of the workspace*'. Please see AppendixA for specific research dilemmas on which these three studies where based.

[11] Japan's *synchronic time orientation* was derived based on characteristics possessed by country identified as pertaining to dimension, as assignment of dimension was not explicitly stated in the text (please see Trompenaars & Hampden –Turner, 2004, p.128), past present future orientation based on figure 9.1 (Trompenaars & Hampden –Turner, 1997, p.130), long term orientation derived from figure 9.2 (Trompenaars & Hampden –Turner, 1997, p.131).

[12] This definition provides only a simplified description of the dimension, please see AppendixA for a complete list of how Trompenaars and Hampden- Turner's *universalist vs. particularist* dimension is expressed.

[13] Trompenaars and Hampden- Turner conducted three studies in order to assess the degree to which different countries are *universalist or particularist* cultures (Trompenaars & Hampden- Turner, 1997, p. 35, 37, 39). Please see Appendix A for specific research dilemmas on which these two studies where based.

[14] Trompenaars and Hampden- Turner note that the outcome of this study for Japan is inconsistent with the results from the other studies for this dimension, stating the most probable reason for this outcome is the influence of a collectivist dimension in which loyalty to a larger group takes precedence over loyalty to an individual person (Trompenaars & Hampden- Turner, 1997, p. 38).

[15] This is only an abbreviated definition of the dimension, please see AppendixA for a complete list of how Trompenaars and Hampden- Turner's *internal vs. external control* dimension is expressed.

[16] Trompenaars and Hampden- Turner conducted three studies in order to assess the degree to which different countries have a *internal vs. external control* orientation (Trompenaars & Hampden- Turner, 1997, p. 147, 148). Please see Appendix A for specific research dilemmas on which these two studies where based.

[17] Trompenaars and Hampden- Turner note that the outcome of this study for Japan is inconsistent with the results from the other studies for this dimension, stating the most probable reason for this outcome is the influence of a collectivist dimension in which loyalty to a larger group takes precedence over loyalty to an individual person (Trompenaars & Hampden- Turner, 1997, p. 38).

2.1.3.3.3 A Framework of Canadaian Workplace Cultural Research Chart

Cultural Dimensions:	Cultural Dimensions Defined:	Country score/range:	Country Standing:	Supporting Workplace Research:	Key Points Pertaining to Cultural Dimension in the Workplace:	Potential Expression of Cultural Dimensions in the Design of the Workspace:
1. High - Context vs. Low- Context Culture (Hall)	The way information is communicated and understood within a given context [1]	IDV[2]: Score: 80 range: 6–91 (Hofstede) study 1: score: 87% range: 32%–91%[3] (Trompenaars & Hampden-Turner) study 2: score: 77% range: 11%–89% (Trompenaars & Hampden-Turner)[4]	Low- context culture	-Children are taught the importance of clearly communicating information, as the speaker is held accountable for miscommunications (Nisbett, 2003, p.60).[5] -Universally held principles and rules (laws), binding contracts, and documentation of communications are perceived as important in assuring mutual understanding and delegation of responsibly (Nisbett, 2003, p.65).[6]	-Visual communication is less important as information is communicated more explicitly often in written and spoken form (i.e.: documentation, guidelines, description of responsibilities).	-Visual separations can occur between some spaces as the visual aspect of communication is not as necessary between employees.
2. Individualism vs. Collectivism (Hofstede)	Orientation to the individual vs. larger group/ community [7]	IDV[8]: Score: 80 mean: 43 range: 6–91	Individualist	-In a study of Canadian work values, the 'self actualization' motivation in which; achievement, responsibility, opportunity to use initiative, interesting work, and a job that utilizes an individual's abilities was valued the most highly (Nevitte, 1996, p. 169, 184, 198). -A person's value is largely derived from their possession of unique characteristics and abilities that sets them apart from others (Nisbett, 2003, p. 54).[9] -Many North American business models have moved towards a greater team orientation, in which work is done both individually and collaboratively (Herman Miller, 2002, p. 3).[10] -Even with the implementation of team orientated work, credit for successes or failures in workplace performance is still largely assigned to the individual responsible (Herman Miller, 2002, p. 4).[11]	- Allocation of responsibility, decision making, and work is done primarily on an individual basis, however collaborative work is also important in the workplace.	-Employees should work primarily in individual workstations, but also have access to group/team workstations to use if required. -Standard number of meeting rooms available in workspace to accommodate both individual and group decision making.

3. Power Distance (Hofstede)	Presence of equality vs. hierarchy in peoples roles and use of resources [14]	PDI[15]: Score: 39 mean: 57 range: 11-104	Small power distance		
				-Individual private corner offices are considered highly desirable, and usually given to the most prominent and valued employees in an organization (Adler, 1997, p. 32).[12] -Privacy is highly valued in the workplace; private offices are highly sought after, and workstations in open spaces usually contain partitions or dividers between them. Important meetings and discussions are usually held in private rooms (Adler, 1997, p. 32).[13]	-Spatial size and quality of materials used in workstations are consistent across employee seniority levels within a company. -Design of workspace does not require supervision of employees by management.
				- It is believed that rules and principles should apply fairly and equally to everyone. Individuals should not benefit or receive differential treatment based on social connections or personal attributes (Nisbett, 2003, p. 48, 65).[16] -Decentralization and reduction of workplace hierarchies (Betcherman, McMullen, Leckie & Caron, 1994) is becoming an increasingly widely held in management circles in an effort to increase efficiency (Nevitte, 1996, p. 189). -Self-management and autonomy, as a pose to management by others, is becoming increasingly prevalent in workplaces (Herman Miller, 2002, p. 4, Adler, 1997, Appelbaum & Batt, 1994).[17] -It has been observed that creativity, autonomy, and self-expression is valued more highly then status in the workplace (Zanders, 1993, p.130 in Nevitte, 1996, p. 191). -Participation in decision making is becoming increasingly important in the workplace, while "following instructions" is becoming increasingly unpopular (Nevitte, 1996, p. 186, 187).	-Hierarchy and inequalities are increasingly rejected within companies, while equality is increasingly valued. -Presence of symbols representing hierarchies are disapproved of within companies. -Decentralized decision making, employee participation and inclusion are becoming more prevalent. -Employee autonomy and self- management are increasingly encouraged in the workplace.

4. Uncertainty Avoidance (Hofstede)	Comfort level with risk and ambiguity vs. predictability and familiarity in daily life[18]	UAI[19]: Score: 48 mean: 65 range: 8 - 112	Weak uncertainty avoidance	-Many workers no longer posses a consistent personalized workstation; instead they occupy different types of workspaces in different locations depending on availability and need. (Herman Miller, 2002, p. 6).[20]	-Uncertainty in daily life is usually accepted as it is perceived as natural and not a cause of stress or anxiety.	-Temporary unassigned workstations must be reserved by individuals on an as-needed-basis. -Spatial organization within workplace is dynamic and unanticipated.
5. Sequential vs. Synchronic Time (Trompenaars & Hampden-Turner)	Perception and orientation to time, as well as how activities are structured within it.[21]	study 1: score: 4.38 years range: 3.40-5.71 years[22] study 2: score: n/a[23] study 3: score: 5.08 years range: 4.62-6.56 years	Sequential Time	-Activities are performed in a linear manner in which one activity is undertaken and completed before starting the next (Hall, 1987, p. 16, 17).[24] -Time is viewed as almost tangible and can thus be divided into scheduled tasks and activities. These schedules are considered to be very important and difficult to change (Hall, 1987, p. 16, 17).[25] -Activities and people are compartmentalized, often translating spatially into private workspaces in which sound and visibility are limited (Hall, 1987, p. 17, 19).[26] -Emphasis is placed on the present and future, while tradition is treated with less significance (Adler, 1997, p. 30).[27] -Short- time orientation is reflected in the strategic planning of most organizations, use of quarter-term reports, and the shorter-term durations of employment within specific company (Adler, 1997, p. 30).[28]	-Time is viewed more linearly, and activities and tasks are frequently divided in a more linear way; subsequently planning, schedules, deadlines and punctuality are considered very important.	- Separation and segregation of workspace to produce defined boundaries between different areas and activities.

6. Universalist vs. Particularist (Trompenaars & Hampden-Turner)	Precedence given to societal codes and rules vs. relationships[29]	study 1: score: 93% range: 32%-97%[30] study 2: score: 69% range: 24%-75% study 3: score: 66% range: 20%-70%	Universalist	- A company is largely perceived by Canadians as an operational system that effectively and efficiently carries out different functions and tasks. People employed to complete these tasks are in return monetarily compensated (Nisbett, 2003, p. 83). -Relationships and group membership is often seen as "getting in the way" of obtaining personal goals and objectives (Nisbett, 2003, p. 47).[31] -Coordination of personal and group interactions is viewed as constricting, and thus communication is increasingly occurring using technology at different times and locations, rather than through face-to-face interactions (Herman Miller, 2002, p. 3).[32] -Business relationships are typically viewed as short-term and few efforts are made to develop them before beginning business negotiations. Instead these negotiations are made based on a "factual approach" of objective facts and logic (Glenn, Witmeyer & Stevenson, 1977, p.52-66 in Adler, 1997, p. 190).[33] -Decision making is impersonal and based largely on a cost –benefit analysis. Emotions and relationships are viewed as an interference, which may result in conflicts of interest (Adler, 1997, p. 192).[34] -Documentation of negotiations between people is considered important as a record of agreement is used as evidential verification (Adler, 1997, p. 192).[35]	-Rules, codes, and standards often take precedence over relationships in the workplace. -Establishment of a relationship with client is not often as important to business negotiations as objective facts and logic. -Social/ meeting/gathering spaces are separated from workspaces so that socialization does not interfere with work being done (i.e.: perimeter circulation routes, informal seating areas separated from workspaces). -Movable enclosures in workspaces or on workstations allow employees to control their degree of interaction with others. -Presence of client spaces for socialization before business meetings is not required.
7. Internal vs. External Control (Trompenaars & Hampden-Turner)	Control vs. harmonization with surrounding environment	study 1: score: 42% range: 9%-68%[36] study 2: score: 79% range: 33%-88%	External Control	-Domination and control over nature is viewed as necessary in order to produce changes that will advance people's well-being (Adler, 1997, p.23).[37] -Individuals often alter their own behavior and/or try to influence their constituent's behaviors and their environments in order to achieve particular outcomes, standards and goals (Tsui & Ashford, 1994).	-Control over surrounding environment is valued. -Control over where work is done provides employee with a sense of empowerment and autonomy.

		-An individual's actions are perceived as controlled entirely by that individual (Kluckohn & Strodtbeck, 1961), as "free will" is possessed by all people (Kirkman & Shapiro, 1997, p.738).

[1] This definition provides only a simplified description of the dimension, please see Appendix A for a complete list of how Hall's *High context vs. Low Context dimension* is expressed in the workplace.

[2] Hall's *High Context vs. Low Context* cultural dimension is included with in Hofstede's *Individualism vs. Collectivism* dimension (Hofstede, 1991), and thus is referred to in order to provide quantitative data to further support Hall's quantitative research (please see Appendix A for a complete list of how Hofstede's *Individualism vs. Collectivism* dimension is expressed in the workplace).

[3] Trompenaars and Hampden-Turner conducted two studies in order to assess the degree to which different countries are specific or diffuse cultures (Trompenaars & Hampden-Turner, 1997, p. 90, 95). Please see Appendix A for specific research dilemmas on which these two studies where based.

[4] Hall's *High Context vs. Low Context* cultural dimension is included within Trompenaars and Hampden-Turner's *Specific vs. Diffuse Culture* dimension (Trompenaars & Hampden-Turner, 1998), and thus is referred to in order to provide quantitative data to further support Hall's quantitative research (please see Appendix A for a complete list of how Trompenaars and Hampden-Turner's *Specific vs. Diffuse Culture* dimension is expressed in the workplace).

[5] Research is based on Western society's values. While research referring directly to Canadian culture would have been preferable, none was found at the time research was being conducted.

[6] Research is based on Western society's values. While research referring directly to Canadian culture would have been preferable, none was found at the time research was being conducted.

[7] This definition provides only a simplified description of the dimension, please see Appendix B for a complete list of how Hofstede's *Individualism vs. Collectivism* dimension is expressed in the workplace.

[8] IDV, an abbreviation for *Individualism Index Values*, refers to the index in which 50 countries and 3 regions are ranked by Hofstede on the dimension of Individualism vs. Collectivism (Hofstede, 1991, p.53, Table 3.1).

[9] Research is based on Western society's values. While research referring directly to Canadian culture would have been preferable, none was found at the time research was being conducted.

[10] Research is based on North American values. While research referring directly to Canadian culture would have been preferable, none was found at the time research was being conducted.

[11] Research is based on North American values. While research referring directly to Canadian culture would have been preferable, none was found at the time research was being conducted.

[12] Research is based on North American values. While research referring directly to Canadian culture would have been preferable, none was found at the time research was being conducted.

[13] Research is based on North American values. While research referring directly to Canadian culture would have been preferable, none was found at the time research was being conducted.

[14] This definition provides only a simplified description of the dimension, please see Appendix A for a complete list of how Hofstede's *Power Distance* dimension is expressed in the workplace.

[15] *PDI*, an abbreviation for *Power Distance Index*, refers to the index in which 50 countries and 3 regions are ranked by Hofstsede on the dimension of *Power Distance (Hofstede, 1991, p. 26, Table 2.1)*.

[16] Research is based on Western society's values. While research referring directly to Canadian culture would have been preferable, none was found at the time research was being conducted.

[17] Research is based on North American values. While research referring directly to Canadian culture would have been preferable, none was found at the time research was being conducted.

[18] This definition provides only a simplified description of the dimension, please see AppendixA for a complete list of how Hofstede's *Uncertainty Avoidance* dimension is expressed in the workplace.

[19] UAI, an abbreviation for *Uncertainty Avoidance Index*, refers to the index in which 50 countries and 3 regions are ranked by Hofstsede on the dimension of *Uncertainty Avoidance* (Hofstede, 1991, p. 113, Table 5.1).

[20] Research is based on North American values. While research referring directly to Canadian culture would have been preferable, none was found at the time research was being conducted.

[21] This definition provides only a simplified description of the dimension, please see AppendixA for a complete list of how Trompenaars and Hampden-Turner's *sequential vs. synchronic* dimension is expressed.

[22] Trompenaars and Hampden-Turner conducted three studies in order to assess the average time horizons (past, present, and future) of the different countries included in their research (Trompenaars & Hampden-Turner, 1997, p. 131, 132, 133). These studies however are not applicable to the other aspects of dimension as outlined in the chapter written by Trompenaars and Hampden-Turner on *Sequential vs. Synchronic Time* (Trompenaars & Hampden- Turner, 1997, p. 123- 144).

[23] Canada was not listed in Trompenaars and Hampden-Turner study on "Average time horizon: past" (Trompenaars & Hampden- Turner, 1997, Figure 9.3, p. 132), however this may be due to Canada's present/future time horizon.

[24] Research is based on Western society's values. While research referring directly to Canadian culture would have been preferable, none was found at the time research was being conducted.

[25] Research is based on Western society's values. While research referring directly to Canadian culture would have been preferable, none was found at the time research was being conducted.

[26] Research is based on Western society's values. While research referring directly to Canadian culture would have been preferable, none was found at the time research was being conducted.

[27] Research is based on North American values. While research referring directly to Canadian culture would have been preferable, none was found at the time research was being conducted.

[28] Research is based on North American values. While research referring directly to Canadian culture would have been preferable, none was found at the time research was being conducted.

[29] This definition provides only a simplified description of the dimension, please see AppendixA for a complete list of how Trompenaars and Hampden-Turner's *universalist vs. particularist* dimension is expressed.

[30] Trompenaars and Hampden-Turner conducted three studies in order to assess the degree to which different countries are *universalist or particularist* cultures (Trompenaars & Hampden-Turner, 1997, p. 35, 37, 39). Please see AppendixA for specific research dilemmas on which these three studies where based.

[31] Research is based on Western society's values. While research referring directly to Canadian culture would have been preferable, none was found at the time research was being conducted.

32 Research is based on North American values. While research referring directly to Canadian culture would have been been preferable, none was found at the time research was being conducted.

33 Research is based on North American values. While research referring directly to Canadian culture would have been preferable, none was found at the time research was being conducted.

34 Research is based on North American values. While research referring directly to Canadian culture would have been preferable, none was found at the time research was being conducted.

35 Research is based on North American values. While research referring directly to Canadian culture would have been preferable, none was found at the time research was being conducted.

36 Trompenaars and Hampden-Turner conducted three studies in order to assess the degree to which different countries are *universalist or particularist* cultures (Trompenaars & Hampden-Turner, 1997, p. 35, 37, 39). Please see Appendix A for specific research dilemmas on which these three studies where based.

37 Research is based on North American values. While research referring directly to Canadian culture would have been preferable, none was found at time research was being conducted.

The two charts are offered as summaries of the research conducted on the national work cultures of both Japan and Canada. When compared, they identify significant differences between the national-work-cultures of both countries. These differences are based in the empirical standings of each country on the charts seven cultural dimensions, and are supported through the current workplace research. The identification of these differences is important, as they demonstrate the need for a culturally adaptive workplace environment in each country. The potential design implications displayed in the chart (and derived from each of the seven dimensions and supporting workplace research) provides a set of guidelines that informed the design of these culturally adaptive workplaces.

2.1.3.3.3 Criticisms and Limitations of Hofstede & Trompenaars and Hampden-Turner's Cultural Research

Hofstede and Trompenaars and Hampden-Turner's work, although prominent in the field of cross-cultural studies, both contain limitations. Many of the criticisms discussed in reference to Hofstede's work have been derived from outside sources, while many of the criticisms of Trompenaars and Hampden-Turner's work have been observed during the course of this research. These criticisms and limitations will be discussed separately for each researcher(s), followed with brief discussions on why the work is still relevant to this practicum's investigation.

Five main limitations or criticisms of Hofstede's work include the following:

1) The Potential for More Cultural Dimensions

Hofstede, in his book, *Cultures Consequences; International Differences in Work-Related Values* (1980), acknowledges that the four cultural dimensions he identified may not constitute the only cultural dimensions that exist between national

cultures. He states, "other dimensions related to equally fundamental problems of mankind which were not found….because the relevant questions simply were not asked" (p. 313-314). Schwartz (2004) further discusses this limitation, stating "without an a priori theory of the fundamental issues that confront humankind, it is difficult to specify the items needed to reveal all significant value dimensions of cultural variation" (p. 88). Hofstede's dimensions are therefore not exhaustive, due to the difficulty in identifying a complete set of dimensions without knowledge of all the different issues or problems that faced by mankind. The *Comparison of Cultural Research Chart* (see p. 45) identifies a number of unique dimensions or concepts developed by a researcher and not shared by the others, which would suggests this limitation is encountered broadly in cross-cultural research.

2) The Potential for Different Cultural Dimensions

Hofstede has been criticized for limiting his research to one large multinational corporation operating in different countries. It has been suggested that using a more diverse sample population in each of these countries would have derived different cultural dimensions and/or different country rankings within these dimensions (Schwartz, 2004). While this may be true for research looking at culture more generally, this sample population is appropriate for this practicum as it provides cultural dimensions consistent with the primary users of the designed workplace.

3) Cultural Dimensions containing a Western Bias

Hofstede's theoretical dimensions have been criticized for possessing a Western bias as they are based on empirical data which was collected and analyzed by researchers from Western Europe and the United States (Magala, 2005, p.77). It has been suggested that dimensions possessed by local cultures may have been

overlooked or encompassed in already existing dimensions as a result of this bias (Magala). It has also been suggested however, that instead of overlooking cultures, Hofstede's dimensions have increased awareness in the differences that exist between cultures. Further, his development of "intellectual instruments" has potentially enhanced identification and understanding of these different cultures (Magala, p. 79).

4) Methodological Problems in Research

Hofstede's methods of research have also been called into question. The appropriateness of Hofstede's surveys to the study of culture, as well as the reliability of the sample populations which completed them, have been disputed (Tayeb, 1996). The influence of IBM's organizational culture, as well as specific occupational cultures within the company on the sample population have also been challenged (McSweeney, 2002). Hofstede has refuted many of these questions in his second publication of *Cultures Consequences; Comparing Values, Behaviors, Institutions, and Organizations Across Nations* (2001) as well as in more recently published articles (Hofstede, 2002).

Further, six replications of Hofstede's studies done between 1990-2002 corroborated Hofstede's dimensions (please refer to Hofstede, & Hofstede, 2005, p. 26 for list of studies), and over 400 substantial correlations have been found between other studies and Hofstede's research. More recent studies have also shown no decrease in the validity of Hofstede's five dimensions, indicating they are relatively stable over time (please refer to Hofstede, 2001, p. 503-520).

Four main limitations or criticisms of Trompenaars and Hampden-Turner's work include the following:

1) Lack of Academic Rigor and Detail

Trompenaars and Hampden-Turner's book, *Riding the Waves of Culture; Understanding Diversity in Global Business* (1997) was written primarily for a business audience as appose to an academic audience. As such, it does not apply the same degree of rigor in its descriptions and discussions of its cultural dimensions, which consequently lack somewhat in detail and clarity (Chanchani & Theivanathampillai, 2002). In addition, many of the dimensions are supported through anecdotal evidence rather than through other literature or further discussion of the conducted research (Chanchani & Theivanathampillai).

2) Methodological Problems in Research

In some instances, the dilemma survey questions used to rank the different countries within the dimensions did not encompass all of the aspects defined under the dimension. Often these definitions were complex and multifaceted but were not explored through the surveys. An example of this is Trompenaars and Hampden-Turners (1997) "sequential vs. synchronic time" dimension, in which the concept of past/present/future orientation was explored through the survey questions, but not the concept of how tasks are accomplished in relation to time. This raises questions as to whether entire dimensions are empirically supported by the survey questions administered.

3) Explicit Assignment of Dimensions to Countries

Trompenaars and Hampden-Turner rank countries on dimensions based on their responses to dilemma survey questions. However in their book, *Riding the Waves of Culture; Understanding Diversity in Global Business* (1997), countries are not explicitly assigned a dimension (i.e., China assigned as a collectivist culture on the

"individualism vs. collectivism" dimension). Subsequently the reader must rely on references in the written text to determine the dimension orientation a country possesses. This in-text reference system proved to be inefficient when attempting to find information on the different dimensions orientations. For some dimensions, specific countries were not discussed in the text, which proves to be problematic in applying the research.

4) The Potential for Different Cultural Dimensions

Similar to Hofstede, Trompenaars and Hampden-Turner's decision to limit their research to respondents working within different multi-national corporations could be questioned. A more diverse sample population in each country may have resulted in a different country ranking within the dimensions, or a different set of cultural dimensions altogether. However, like Hofstede, this sample population serves the objectives of this practicum's research more specifically then a more diverse sample population would have, and thus this criticism does not apply to this investigation.

Despite these criticisms, Trompenaars and Hampden-Turner's research was used in the section's investigation based on three criteria. These criteria are as follows: 1) the research was both quantitative and cross-cultural in nature, 2) the research was based in the workplace and derived from multinational companies, and 3) the research has been widely acknowledged and sited within the field of cross-cultural communications, and more broadly in the social sciences. The research produced by Trompenaars and Hampden-Turner met each of these requirements, in a way that other research did not. The utilization of the research was thus deemed appropriate in the practicum's investigation.

2.1.4 Cultural Change

Cultural change is an outcome of internal and external influences (Ferraro, 1998), and is an important consideration when designing culturally adaptive workplaces. It is generally accepted that continuous change occurs in all cultures over time (Ferraro). This cultural change was compensated for in the practicum's investigation through the identification of themes in cultural research that had been obtained over a period of fifty years. The identification of these themes was done with the intent of providing a more stable and enduring set of dimensions that would inform the design of culturally adaptive workplace.

The issue of cultural change is also significant to this practicum in terms of changes that could occur in the future. In order to serve the objectives of increasing productivity and maintaining cultural integrity within a country, the design must respond to the current work-culture that exists within a country now and in the future. A culturally adaptive workplace design should not be implemented and then left indefinitely. Rather it must be reexamined at regular intervals to ensure its relevance. In order for this reexamination to occur, the quantitative data informing country rankings on Hofstede and Trompenaars and Hampden-Turner's country rankings must be updated according to the changes that occur within cultures. This practicum suggests that this should occur at approximately ten year intervals, as this would be a feasible amount of time to conduct research while remaining attentive to this cultural change. Further, these updates would provide a record of cultural change within countries, which could potentially enable future changes in the culture to be predicted more easily. This ten year increment is also consistent with the suggested life span of an interior space, as workplace interiors are generally recommended to be refurbished every eight to ten years. Therefore strategic planning of the interior design in accordance with the updating of cultural research

would allow for a workplace to remain culturally adaptive in the long-term.

2.1.5 Overview of Section

The literature review on *Cultural Adaptation in the Design of the Workplace* began with an examination of Hofstede's theoretical framework of the "mental program." It was discovered that the mental programs of different national cultures each possess their own patterns of thoughts, feelings, and behaviors. This examination inferred that the expression of these patterns in the workplaces of different national cultures should be supported by culturally adaptive design.

Four models of culture were identified in order to more comprehensively examine the compositions of the mental programs of national culture. Spencer-Oatey's (2000) model, with its inclusion of the "systems and institutions" layer, positioned the workplace within this framework of national culture. It was concluded that a design of a workplace that is consistent with the values, assumptions, and behaviors of a national culture, would allow people to function most effectively, thus enabling productivity to be increased within the workplace.

A review of the qualitative and quantitative research of Hall, Kluckhohn, Hofstede, Trompenaars and Hampden-Turner, and Schwartz was done in order to create a framework that would examine the national-work-cultures of both countries. Seven cultural dimensions were identified for this framework which included: 1) high context vs. low context culture, 2) individualism vs. collectivism, 3) power distance, 4) uncertainty avoidance, 5) sequential vs. synchronic time, 6) internal vs. external control, and 7) universalism vs. particularism. These seven dimensions provided the foundation for two charts, one examining Japanese national-work-culture, the other examining Canadian national-work-culture. These charts provided two functions; they offered a comparison of the two national-work-

cultures in order to access the need for culturally responsive design in the workplace, and they were used to inform the workplace designs for both countries.

The two charts identified significant differences between the national-work-cultures of Japan and Canada. Upon review of these charts, it becomes apparent that these two work-cultures ideally should not both be supported through the implementation of one standard workplace design.

2.2 Standardized Corporate Identity in the Design of the Workplace

The literature review on *Standardized Corporate Identity in the Design of the Workplace* informed two different workspace environments: one for Japan, and one for Canada. The review will begin with an overview of corporate identity; in terms of what it is and why it is important to an organization. The visual component of corporate identify, also known as "corporate visual identity," is then examined in reference to the design of the built environment. This is followed by a discussion of the standardization of this corporate visual identity in the workplace, and the functions and advantages it provides for a multinational company possessing a culturally adaptive workplace design. The application of this standardized corporate visual identity in the workplace of the practicum's client company, *Torrent*, is then examined in order to provide a rationale for the practicum's final design.

2.2.1 Corporate Identity

Corporate Identity is the communication of an organization's identity to its various stakeholders. While there exists no one definition of corporate identity (Alessandri, 2001; Balmer, 2001; Hatch & Schultz, 2000), Sue Westcott Alessandri (2001), a professor and researcher in the School of Public Communications at Syracuse University, conceptually defines corporate identity as:

A firm's strategically planned and purposeful presentation of itself in order to gain a positive corporate image in the minds of the public. A corporate identity is established in order to gain a favorable corporate reputation over time.

(p. 177)

A corporate identity is therefore a planned and controlled representation of an organization in order to gain long-term benefits. These benefits often take the form of a positive organizational image and an increase in market share and profit margins. A corporate identity is created based on how the organization desires to be perceived, and therefore represents an ideal condition (Napoles, 1988).

The term "corporate identity" is often confused with "corporate image," however the two terms possess very different meanings. A corporate image is the result of both planned and unplanned visual and verbal elements as well as external influences (Gregory & Wiechmann, 1999). The image is a reflection of how an organization is viewed in actuality, and therefore is based in reality. Therefore, a corporate identity is controlled by the company, whereas a corporate image is not.

Unlike the brand of a product or service which represents only one aspect of a company to an external consumer audience, a corporate identity communicates the overall identity of the organization to all of its different stakeholders, both internally and externally (Olins, 1990; Hatch & Schultz, 2008). These stakeholders often include: customers, employees, investors, partners, suppliers, distributors, governments, and the surrounding community (Hatch & Schultz, 2008).

2.2.2 Corporate Visual identity

Two schools of thought have been identified within the broader concept of corporate identity. These include the "verbal identity model," also known as the "strategic school" (Balmer, 1995), and the "visual identity model," also entitled the

"visual school" (Balmer, 1995; Borja De Mozota, 2003). The verbal identity model is primarily concerned with the organization's purpose, vision, and philosophy (Olins 1990; van Reil, 1995), and is more closely associated with organizational theory (Melewar & Saunders, 2000). This model is studied predominantly in business schools (Borja De Mozota, 2003), examining corporate identity at a more theoretical level, with the objective of identifying both what the organization is and what it desires to become (Hatch & Schultz, 2000). The visual identity model is primarily concerned with the "visible and tangible manifestations of what a company is" (Hatch & Schultz, p. 13). It includes the design of both graphic and spatial elements such as the organizations name, logo, color, style, and slogan as well as design of its buildings, products and packaging (Borja De Mozota, 2003).

The visual identity model of corporate identity, also known as a "corporate visual identity," is the focus of this section as it deals with the visual communication of a company through architecture and interior design. One of the first examples of the expression of corporate visual identity in the design of a company's buildings was the Allgemeine Elektrizitats-Gesellschahaft (AEG) in the beginning of the twentieth century. German architect, Peter Behrens, was selected as the "design advisor" for the German electrical company in 1907, and with a design team which included Walter Gropius and Mies van der Rohe, developed a coherent corporate visual identity for the company. This identity was expressed consistently in the design of AEG's buildings, communication materials, and products, and allowed the company to further expand in the market both locally and internationally (Woodham, 1997). The company was destroyed during the First World War (Olins, 1990), however it's coherent corporate visual identity influenced companies such as Olivetti and International Business Machines (IBM) (Woodham). These companies have been widely recognized for the expression of their corporate identities in their products and buildings.

Following the end of the Second World War, corporate identity became a more important segment within the design profession, largely due to the development of multinational corporations (Woodham). Many of these corporations recognized design as part of a strategy in creating a global presence, and began implementing corporate design programmes (Woodham). In recent years corporate architecture has become a more prominent element within a corporation's corporate identity strategy (Messedat, 2007). As such, the physical environment is increasingly being used to express an organization's mission and values (Messedat). This is appropriate as the built environment possesses a strong capability to communicate the values of the organizations that inhabit them (Duffy, 1997). It has been suggested that this communication occurs, whether conscious or unconscious, by an organizations built environment (Lambert, 1989). A strong corporate visual identity could allow an organization to use this environment more consciously to its advantage.

Interior design allows a corporate identity to be expressed more dynamically then many other forms used (i.e., letterhead or brochures). This more dynamic expression is derived from its three dimensional form and use of different mediums. For example, if an organization's identity valued environmental sustainability, this could be expressed through the materials, fixtures, and equipment selected in the interior design of its workplace. Values for environmental sustainability could also be expressed through different design approaches, for example, integration of the exterior natural environment with the interior work environment, or the use of symbolic organic forms. As such, interior design provides an ideal means for the communication of a company's corporate identity in the workplace.

2.2.3 Standardization of Corporate Visual Identity

The expression of a standardized corporate visual identity for a company is

important in ensuring the communication of a clear coherent message to the company's stakeholders (Olins, 1990). This standardized identity, however, is even more significant when a multinational company desires to have culturally adaptive workplaces. The cultural adaptation alone would produce very different workplace environments around the world, and result in little coherence or unity for the overall company. A standardized corporate visual identity provides two significant benefits for these companies: 1) the visual representation of the company's identity through the design of its interior workplace environment, and 2) the provision of regularity and consistency in the company's workplaces that help to unify them as part of a greater whole.

2.2.3.1 Representation of Company Identity

The expression of a corporate identity through the design of a company's workplaces could facilitate a better understanding of the company in terms of who it is, what it values, and therefore how it differs from its competitors, for both its internal stakeholders (employees) and external stakeholders (clients, potential clients, and potential employees). The following benefits are said to result from a company's expression of a corporate identity more generally: 1) increased recognition of the organization (Smith, 1990), and 2) increased awareness of the organization's business capabilities, the products and services it offers, and how these products and services differ from others available in the marketplace (Downey, 1986). These benefits are increasingly important for multinational corporations who must compete in a global marketplace. It has been suggested that over the long-term, the intense competition in the global marketplace will result in increasingly similar products as only the best designs are able to survive (Olins, 1990). As well, the increasing rate of change in products and technology are resulting in ever shorter shelf-lives (Balmer,

1995). As a result, a company's identity is becoming an increasingly larger determinate in consumers purchasing decisions (Olins). Consumers are no longer buying a product or service, rather, they are buying the company who produces them (Melewar & Saunders, 2000).

A strong corporate identity can also provide many benefits to the company internally. Increased identification of employees with the company could occur if the employee's values and aspirations are consistent with those of the company (Bouchikhi & Kimberly, 2008). It has been suggested that this identification could encourage employees to become ambassadors of the company and increase loyalty and commitment to the company over the long-term (Bouchikhi & Kimberly). In addition, a study conducted by Belt and Paolilb (1982) found that corporate identity enhanced a company's recruitment of highly competent staff and enhance overall moral in the company (Melewar & Saunders, 1998). Gray and Smeltzer (1987) have gone on to note that easier recruitment and retention of staff as well as enhanced overall moral are associated with higher company sales, and assert that a strong corporate identity can therefore significantly contribute to enhanced profitably of a company (Melewar & Saunders).

2.2.3.2 Unification of Company through Corporate Identity

Standardization of a corporate visual identity in a company's workplace is important to ensuring the consistent communication of this identity to the company's different stakeholders. Standardization ensures that the same identity and values are communicated in the same way in each of the company's workplace environments. This enables the transmission of one clear and coherent message to the company's stakeholders in all different parts of the world. It also reduces possible exclusions and contradictions in the message, both in, and between a company's different

subsidiaries. This coherence would be of particular significance to a company's multi-national-client companies, which may utilize several of the company's subsidiaries operating within different countries. This coherence would also promote a stronger global presence for the company among the general public, especially as people increasingly travel internationally.

In addition, the consistency provided by standardization enhances the company's corporate identity as it prevents the company from appearing "fragmented, confused and disorganized" (Dickinson, 2000, p. 76). Rather, it allows the company to communicate a more capable and sophisticated image. Paul Dickinson, author and Director of Research at brand and digital media consultant company *Rufus Leonard* based in the United Kingdom, states, "achieving absolute consistency in the implementation of a corporate design style demonstrates that the corporation is disciplined and organized and pays real attention to detail" (2000, p. 76).

Standardization of the corporate visual identity also serves to unite the company's different workplaces together into a unified whole (Olins, 1990). This is of particular significance to a multinational company, and provides it with several benefits both externally and internally. Cees B. M. van Riel and John M. T. Balmer, professors of corporate marketing and communication as well as prolific writers on the topic of corporate identity, have also noted that externally, this consistency in visual communications can enable a company to develop a "reliable, recognizable, and distinctive portrait" of the company to its stakeholders (Hatch & Schultz, 2000, p. 14). Additionally, a study on the standardization of a "Corporate Visual Identity System" (CVIS), a system of the graphic design used to support the firm's visual identity, suggested that standardization increased consumer awareness of the company as well as its products (Melewar & Saunders, 1998). It was also perceived

that consumers held more favorable perceptions of the company and were more receptive to the company and the products it provided as standardization increased (Melewar & Saunders, 1998). The study's outcomes were based on the perceptions of senior level employees in several different multinational companies. This unification helps the multinational company create a global presence through greater awareness, recognition, and receptivity to a company and its offerings in the marketplace. As a result it is able to increase its prominence in the marketplace.

Internally, this unification can create a sense of community for the employees working for the company. In turn, employees can develop feelings of belonging and membership to the company, which could ultimately result in increased loyalty and commitment (Bouchikhi & Kimberly, 2008). Standardization can also provide a multinational corporation with more control and stability in its workplaces, as it can serve as a regulating element in the companies different subsidiaries. Standardization of corporate identity is often centrally controlled within the company (Melewar & Saundars, 1998).

Standardized corporate identity therefore provides a counterbalance to the cultural adaptation within the design of the workplace, allowing the company to respond to the cultures in which it operates, while expressing its identity and maintaining a connection with the company's greater whole.

2.2.4 Corporate Visual Identity in the Design of the Workplace

The expression of corporate identity in the design of the workplace must serve two objectives: 1) to visually represent the identity of the company, and 2) to standardize this visual representation across the company's interior work environments. The visual representation of a company's corporate identity can be done in several ways. A company's identity can be represented through the display of

its logo, typography, and slogan in its workspace. This approach, however, is somewhat limited in its expression of the company's identity and values, and is easily replicated. A more comprehensive approach involves the intentional expression of the company's core values in the design of the work environment.

In order to visually represent the identity of the company, the design of Torrent's workplace involves both the expression of it's logo as well as it's core values in the workplace design. As previously mentioned, Torrent's core values include: 1) global community orientation, 2) research based knowledge, and 3) creating client value through improved business performance. While the expression of Torrent's logo in the workplace is somewhat straight forward, the expression of the company's values is more complex. In order to express these values in the interior work environment in a conceptual manner, representation and symbolism are used to communicate these value's central concepts (community, research, and performance) through the physical composition of the space. This physical composition can be better understood through an examination of the design elements and principles identified by Allen, Jones, & Stimpson (2003). These design elements and principles include: space, line, shape and mass, texture, color, light, pattern, scale and proportion, balance, rhythm, emphasis, and harmony. A number of these design elements and principles are used to communicate the previously identified central concepts in the final design outcome. The design of these elements results in a unique workplace environment and atmosphere that expresses Torrent's core values, and distinguishes the company from its competitors.

The second objective in the expression of corporate identity in the design of the workplace involves the standardization Torrent's identity across the company's interior work environments. This will be achieved through a uniform application of the company logo as well as designed spatial elements that express the company's core

values in each of Torrent's workplace environments. This will insure the consistent communication of Torrent's core values in the design of the workplace, and provide a similar aesthetic and atmosphere in each of these spaces.

2.2.5 Overview of Section

The literature review on *Standardized Corporate Identity in the Design of the Workplace* began with an examination of the term "corporate identity." It was established that corporate identity is the planned and controlled expression and representation of an organization to its different stakeholders. The purpose of corporate identity is to encourage favorable perceptions from these stakeholders, and to increase the company's financial returns.

Two models pertaining to the study of corporate identity have been identified, the "verbal identity model" and the "visual identity model." This investigation is primarily concerned with the visual model, also known as "corporate visual identity," as it deals more directly with the expression of corporate identity in the built environment. The expression of corporate identity within architecture and design has existed since the beginning of the twentieth century, however only more recently has this expression taken a more prominent role as a business strategy.

Standardization of a company's corporate visual identity is of particular significance in this practicum, as it provides a counter balance to the culturally adaptive workplace of a multinational company. As such, it provides two important functions: 1) communication of a company's identity in the design of its workplaces, and 2) unification of these workplace designs in the company's different subsidiaries around the world.

In order to communicate the corporate identity of the multinational client company, *Torrent*, the company's three core values have been communicated through

the design of its interior workplace environments. Further, this corporate identity is standardized through the consistent communication of these core values in the design of Torrent's Japanese and Canadian workplaces.

2.3 Achieving a Balance Between Cultural Adaptation and Standardized Corporate Identity in the Design of the Workplace

Borja de Mozota in her book *Design Management; Using Design to Build Brand and Corporate Innovation* (2003) discusses two elements encompassed in the design of the work environment in which she calls "physical structure" and "symbolic artifacts." The physical structure of the workplace "influences interactions, relationships and behaviors" (p. 154). This structure includes the organization of the space and furniture. Symbolic artifacts comprise "aspects of the physical environment that individually or collectively guide the interpretation of the social space" (p. 154). These artifacts can enhance an understanding of the nature of work that occurs in the space and the people who work there (Borja de Mozota). These artifacts can exert an influence on the recruitment of employees and behaviors within the space (Davis, 1984).

The identification of these two elements is important as they allow us to better comprehend the purpose of cultural adaptation and standardized corporate identity in the design of Torrent's workplace. The culturally adaptive design serves as the "physical structure" in the workplace as it is largely responsible for how people behave, interact and function within the workplace. The standardized corporate identity serves as the "symbolic artifacts" as it provides a more interpretive role that allows people to understand the company. Therefore, the two themes each perform distinct purposes within the design of the workplace.

In order to achieve a balance between the themes of culturally adaptation and

standardized corporate identity in the design of the workplace, a sequence of priorities must be developed. The reason for this is that both themes are based on values: in cultural adaptation the values are those of the national-work-culture, in standardized corporate identity the values are those of the overall company. This practicum asserts that cultural adaptation should take precedence over standardized corporate identity in the design of the workplace. This precedence is based on the predetermined nature of national culture and its basis in the human values of the company's employees. Comparatively, corporate identity is more flexible in its determination as it is based on the fabricated values of a company, and exists externally from the values of the employees working within it.

The spatial elements which are essential for responding to national workplace culture are therefore given precedence over elements communicating corporate identity in the design of the workplace. Further, it is suggested that the cultural adaptation theme should be only addressed through the "physical structure" of the space, rather than the "symbolic artifacts" which are often used to express a culturally responsive design. The use of physical structure allows the potential of increased productivity in the workplace as the design of the workplace supports the existing human values and behaviors of the people that work there. This assignment of priority and restriction to physical structure removes unnecessary conflicts in the design of the workplace. The integration of cultural adaptation and interior design is also most appropriate, as design is also based on the advancement of human value (Borja de Mozota, 2003).

The practicum further suggests that the establishment of the company's core values and the incorporation of a standardized corporate identity into the workplace design should occur subsequent to cultural adaptation. The company's core values should be chosen in reference to the seven dimensions provided in the cultural

framework chart in order to ensure that conflict between the two sets of values does not occur. This is important both in the design of the workplace, as well as more generally in the company's management and structure, in order to avoid disrespect and failure in the host countries in which it is located. The standardized corporate identity should also be designed secondarily to the culturally adaptive physical structure of the workspace to insure they also do not interfere with one another in the design of the workplace. While corporate identity is often evident in the physical structure of a company's workplace, it must be restricted to the symbolic artifacts of the space, so that a balance between the two themes can exist.

A balance between the two themes was achievable, and insured that the benefits gained from both themes were realized for a multinational company. It should also be noted that design of the workplace is only one opportunity to express cultural adaptation and standardized corporate identity. For cultural adaptation, other opportunities would include implementation in the management and structure of a company. For standardized corporate identity other opportunities would include all visual and verbal model elements. The design outcomes of this literature review will be further explained in chapter five.

Finding a Balance

Chapter 3 . Precedent Analysis

3.1 Nicola Valley Institute of Technology

Client: Nicola Valley Institute of Technology/ University College of the Caribou

Architect: Busby Perkins + Will

Size: 4, 500 square meters (48,437 square feet)

Figure 5. Exterior view of the front of the building.

Figure 6. Building's interior courtyard.

Figure 7. Exterior view of the building's main entrance.

Completed in December of 2001, the Nicola Valley Institute of Technology (NVIT) is an example of how traditional aboriginal cultural values and architectural structures can inform the design of a modern commercial building.

> NVIT reveals its cultural context not as an assemblage of symbols and metaphors, but through the embodiment of intrinsic cultural values. Equally important, it reinterprets traditional architecture archetypes not simply as formal elements but as functional systems.

> (Taggart, 2002, p. 1-2)

The three storey building is located on a south facing slope of a forty-three acre campus on the periphery of Merritt, British Columbia, Canada. The 7.6 million dollar building encompasses classrooms, faculty offices, labs, social spaces, a cafeteria, bookstore, and library.

NVIT's culturally adaptive design is expressed in two primary ways: 1) through

consideration given to traditional aboriginal cultural values, and 2) through application of traditional aboriginal structures and designs. These will each be discussed in greater detail.

Traditional aboriginal cultural values were considered both in the buildings overall form and organization and in its relationship with its environment. The architects of the building affirm "the Institute's semi-circular shape is the first gesture towards a circular master plan that was chosen because of the cultural significance of the circle" (Busby Perkins + Will, 2008). The buildings overall orientation and layout also takes into consideration traditional aboriginal culture. The building is orientated on the compasses four cardinal access points, and possesses a main entrance on the east axis in order to signify the significance of the sunrise in aboriginal culture. Beyond this entrance, in the interior of the building, a central circular fireplace serves as both a focal point and gathering area for students and staff, while symbolizing the aboriginal tradition of gathering around a fire. Cultural values for stewardship of the land and the resources it provides are demonstrated in the environmentally sustainable design of the building. This design incorporates strategies for energy efficiencies in terms of ventilation, heating and cooling, and thermal insulation. Value for harmonization with the natural environment is evident in the buildings integrated design into the slope of the land and in the buildings partial roof garden of native plants and shrubs.
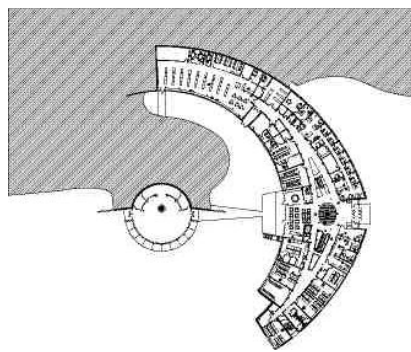
Figure 8. Building's floor plan.

Traditional aboriginal structures and materials were also applied in the design of the NVIT. Structures such as the "teepee" and "pit house" as well as materials such as wood and animal skin were used in the design of the overall building and its interior spaces. The teepee structure allowed for effective ventilation of interior spaces. Without duplicating the aesthetic form of the teepee, principles of this structure were applied in the design of the building to provide it with a more natural and energy efficient ventilation system. Environmental principles where also taken from the pithouse and informed the building's design in terms of its southern orientation and land mass coverage, in order to reduce thermal heat loss in the winter.

The Nicola Valley Institute of Technology informs Torrent's workplace design with regards to cultural adaptation in the built environment. Cultural adaptation is expressed in the design of the NVIT building through consideration of traditional aboriginal cultural values and the application of traditional aboriginal structures and designs. The precedent however is most valuable to this practicum in its demonstration of how cultural values are expressed within a commercial built environment.

Through this application of the cultures values to the modern design of the building, traditional cultural behaviors are recreated. This can be seen in the design of a central fireplace in creating a meeting and gathering place for people, and in environmentally sustainable building that brings people closer and in greater harmony through its integration into the landscape and its use of more natural building systems. The design of the NVIT therefore demonstrates how the design of a building based on cultural values can support and facilitate the culture's behaviors. The NVIT also serves as an example of how cultural respect and the preservation of cultural beliefs and traditions can occur through the design of the built environment,

two of the primary objectives of this practicum.

　　While a culturally adaptive design based on modern day national-work-culture and their values and behaviors would have been more relevant in informing the practicum's design on this theme, no work on this subject was found relating to the disciplines of architecture or interior design. These findings, or lack thereof, may indicate the innovative nature of this topic of study, and further, support the need for this research to be undertaken.

3.2 Mother Advertising Agency

Client: Mother

Architects/ Designers: Clive Wilkinson Architects

Size: 3,902 square meters (42,000 square feet)

Figure 9. Staircase integration with table to provide one continuous form. Photograph taken by Adrian Wilson.

Figure 10. Employees working at concrete table. Photograph taken by Adrian Wilson.
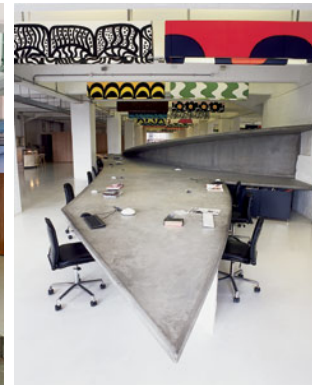
Figure 11. End of concrete table. Photograph taken by Adrian Wilson.

Mother's London office is an example of how the corporate identity of a company can be expressed through its interior workplace environment. Mother, a prominent advertising agency based in London, moved into their new workplace in 2004. The new workplace occupies three floors in an existing warehouse building in Shoreditch, on the east side of London. As the space was designed specifically for Mother, it provided an opportunity for an original design solution that expressed the identity and values of the agency.

The third floor of the warehouse was chosen to be the center of Mother's operations due to its high ceilings (thirteen feet in height) and open space concept. A large concrete table was constructed as the focal point on the floor, and circulates

through the space in one continuous oval form. Visual continuity is maintained in

the form, despite breaks in the table that allow for circulation and the integration of

a staircase, through the continuation of concrete from the table onto the floor. The

table, 76 meters (250 feet) in length, was inspired by the renowned 1910 race track

located on top of the Fiat factory in Turin, Italy (Myerson & Ross, 2006). The table

represents the "speed and mobility" of work-life at the agency (Myerson & Ross,

p. 50). The table also symbolizes the "kitchen table ethos" of the agency

(Myerson & Ross, p. 50), which was implemented in its beginnings in the 1990's, and

speaks to concepts of family as well as a communal and collaborative work

process. The table's scale and concrete construction of 7.6 centimeters (3 inches) thick

cast-in-place slabs, was chosen to express durability and longevity in the firm, within

the unpredictable and continually changing industry of advertising and

communications (Myerson & Ross).

Above the table, lamp shades hang to provide the space with adequate light-

ing and sound absorption. Each 2.1 meter (7 foot) long shade is constructed of a

brightly colored bold vintage fabric, originating from the 1950's and 1960's (Cohen,

2005). The shades express a playfulness, warmth, and creativity in the agency through

their

display of bright colors and whimsical designs. The lamp shade design coupled with

use of fabric helps to offset the robust cool concrete structure below.

A large open space with ample natural light and clean white surfaces provides

the back drop for these bold elements creating an art-studio like atmosphere (Cohen).

This atmosphere in turn expresses the artistic nature of the advertising industry and

what the agency does. White leather ottomans and random vintage furniture pieces

create a breakout area in the interior of the oval table, and display an unconventional,

informal, and modern dimension to the space (Cohen). Folding oak doors are used to

conceal storage and electronics along the perimeter of the workspace, maintaining a simple clean aesthetic (Cohen).

Mother serves as a precedent for this praticum's final design because it utilizes different design elements and principles within its workplace in a representative and symbolic capacity to communicate the company's corporate identity. For example, Mother's desire for a family like atmosphere and collaborative work process are expressed through the large oval concrete table located centrally in the workspace. Mother's durability and longevity in the marketplace are symbolized through the tables large solid concrete construction. Mother's playful, warm, and creative character are expressed through the vibrant and whimsical fabric design of the lamp shades that hang over the workspace. The design therefore informs the design of Torrent's workplace by demonstrating how different design elements can communicate a company's corporate identity.

3.3 Starbucks Coffee Company

Client: Starbucks Coffee Company

Architect/Designer: Starbucks Coffee Company

Size: ranges from 304.8 – 457.2 square meters (1,000 – 1,500 square feet) (Thompson & Gamble, 1997)

Figure 12. Seating area & product display.

Figure 13. Seating area.

Figure 14. Ordering counter.

Starbucks is an example of a multinational company that expresses a standardized corporate identity through the interior design of its stores. The company currently possess over 4,500 stores in 47 countries (Starbucks, 2008), and is the largest specialized coffee brewer in North America, with a market value of approximately 23 million dollars (Fortune 500, 2007). Starbucks does very little advertising yet has expanded quickly into different national markets and enjoys high levels of awareness and recognition (Thompson & Gamble, 1997). This can be largely attributed to the company's efforts in expressing a consistent corporate identity through the design of its store environments.

In order to ensure that these stores express a uniform corporate identity across the company's different locations, Starbucks established an in-house group of

architects and designers in 1991 (Thompson & Gamble, 1997). The stores are each custom designed due to the fact that the company buys or leases space in existing buildings, rather than constructing new buildings to house their stores (Thompson & Gamble, 1997). Each of the stores however, possess a number of standardized design elements that provide the company with a unified identity and image. "Its [Starbucks] biggest success lies in the standardization of its ambiance. Standardized design elements allow Starbucks to retrofit to all retail space and sizes" (Alvarez & Gilsdorf, 2007, p. 13). This standardization has been done with the intention of creating a consistent experience for the customer across its different geographic locations. Howard Schultz, the company's CEO, and Dave Olsen, head of store operations, describe this experience as follows:

> An authentic coffee experience that conveyed the artistry of espresso making, a place to think and imagine, a place where people could gather to meet over a great cup of coffee, a comforting refuge that provides a place of community, a third place for people to congregate between work and home, a place that welcomed and rewarded people for coming, and a layout that could accommodate both fast service and quite moments.

> (Thompson & Gamble, 1997)

This experience is accomplished through a consistent overall layout of space, materials and furnishings. The layout of these spaces typically include a main counter as the focal point in the space, similar types and configurations of furniture; consisting of tables and chairs as well as oversized comfortable seating usually positioned in collective seating arrangements, and product displays containing coffee and coffee related merchandise. In terms of materials and furnishings the stores are also very consistent, containing materials comprised largely of wood, stone, and comfortable textiles such as velvet and leather, a color pallet composed primarily of warm earth tones, soft dim lighting, and artwork and signage relating to coffee and its production.

Starbucks was chosen as a precedent for the practicum's final design for two reasons. First, it serves as an example of a multi-national service company which has achieved a strong global presence in part through the standardization of corporate identity in the design of it's store environments. Secondly, similar to the practicum's hypothetical company *Torrent*, Starbucks leases space within existing buildings located in different countries. Therefore, Starbucks serves as an example of a company who has implement a consistent corporate identity within a range of different buildings and interior spaces.

While Starbucks serves as a good example of a company whom possesses a strong standardized corporate identity in the design of its stores, it does not provide an example for culturally adaptive design. Further investment and exploration in this area could provide several benefits to Starbucks in terms of employee moral and productivity, as well as the demonstration of cultural respect to the countries in which it operates in. It could also be argued, however, that culturally adaptive design plays a more significant role in companies and industries that rely on more intellectually based work. This is due to the greater impact of the way in which this work is done on a more varied outcome.

Finding a Balance

Chapter 4 . Design Programme

1.0 Introduction

1.1 Project Description

Two workplaces will be designed for the multinational corporation, *Torrent*. Each workplace design responds to the work-culture of either Japan or Canada, and expresses a standardized corporate identity for the company. While these workplaces exist hypothetically within each of these countries, the Winnipeg based Manitoba Hydro office building provides the context for both designs. Within this office building, the workplaces occupy leased space within a new construction, and will inhabit one full floor of the building.

One design programme has been created for the design of Torrent's workplace in both Japan and Canada. However, due to differences that exist in the needs and requirements of these two countries, certain sections of the programme have been subdivided in order to be specific to each country. These subdivisions will be indicated in a short paragraph at the beginning of each pertinent section.

1.2 Building & Site Description

The office building in which the design is based is located at 360 Potage Avenue in downtown Winnipeg, Manitoba, Canada. The newly-constructed office building is 695,742 square feet in size and is classified as "Class A" real-estate office building.

1.3 Client & User Description

Torrent, the client company, is a hypothetical global management consulting, technology services and outsourcing company that provides businesses around the world with services that enable them to improve their performance. These services

include; management consulting and research, technology services, and outsourcing of client company operations. Torrent's headquarters is based in Chicago, Illinois.

1.4 Project Goals

The practicum has two primary goals for the design of Torrent's workplace. These goals are as follows:

- Cultural adaptation: cultural adaptation in the design of the two workspaces will be based upon the *Framework of Workplace Cultural Research* charts developed for both Japan and Canada in the literature review (see Chapter 2). The "potential expression of cultural dimensions in the design of the workspace" column in both charts will be used as guidelines for the design of the culturally adaptive workplaces for both countries. The objective of this design is to produce a workplace that responds to and supports the cultural values, assumptions, and behaviors within each of these national-work-cultures. Potentially, this approach will produce a more productive and respectful workplace for employees.

- Standardized corporate identity: a standardized corporate identity in the design of the two workspaces will be based on a consistent expression of Torrent's three core values in the company's two culturally adaptive workspaces. This standardized corporate identity will serve two purposes. First, to communicate Torrent's identity and values to its internal and external stakeholders. Second, to unify the company's different global subsidiaries in order to create a greater sense of community among its employees, and to increase recognition and awareness of the company in the global marketplace.

2.1 Site Description

The design is based in a newly-constructed building located between Portage Avenue (north), Carlton Street (east), Graham Avenue (south), and Edmonton Street (west). Portage and Graham Avenues, two of the busiest streets in Winnipeg in terms of vehicular and public transit circulation, enable the site to be easily accessed by vehicle and Winnipeg transit. The site is also easily accessible by pedestrian traffic as cross walks and sidewalks are located on all streets and intersections surrounding the building. The site is located in close proximity to a variety of facilities and services such as conference centers, hotels, restaurants and cafes, fitness facilities, child care facilities, and healthcare centers.

Figure 15. Building Site Location in Downtown Winnipeg, Manitoba

2.1.1 Access to Site & Building

- Public transport: The building is surrounded by some of the most highly serviced transit routes in Winnipeg. Four Winnipeg Transit stops are located directly adjacent to the building on Portage and Graham Avenue **(please see Figure 16 for these locations).**

- Vehicular & Parking: Portage Avenue and Graham Avenue serve as two major vehicular channels through the city, thereby providing ample access to the site and office building. Sufficient parking to meet the requirements of the office buildings users is provided by surrounding parkades and surface area parking. In addition, underground parking for one hundred and fifty two cars is available beneath the building.

- Pedestrian: Outdoor and indoor pedestrian access is available to the site and building.
    - o   Outdoor crosswalks can be found on all four intersections surrounding the buildings site. These crosswalks connect the sidewalks of the buildings four surrounding streets. Due to the prevalence of sidewalks on the majority of Winnipeg's downtown streets, employee pedestrian transportation can occur easily to and from downtown residences and surrounding businesses and amenities.
    - o   An indoor pedestrian "skywalk" can be found on the northeast corner of the building's second floor. This enclosed skywalk connects the building to Portage Place, one of the city's main shopping centers. Further indoor pedestrian access is available to surrounding businesses and buildings through Portage Place.

- Proximity to Airport: Approximately 16 minute drive from the Winnipeg

  International Airport.

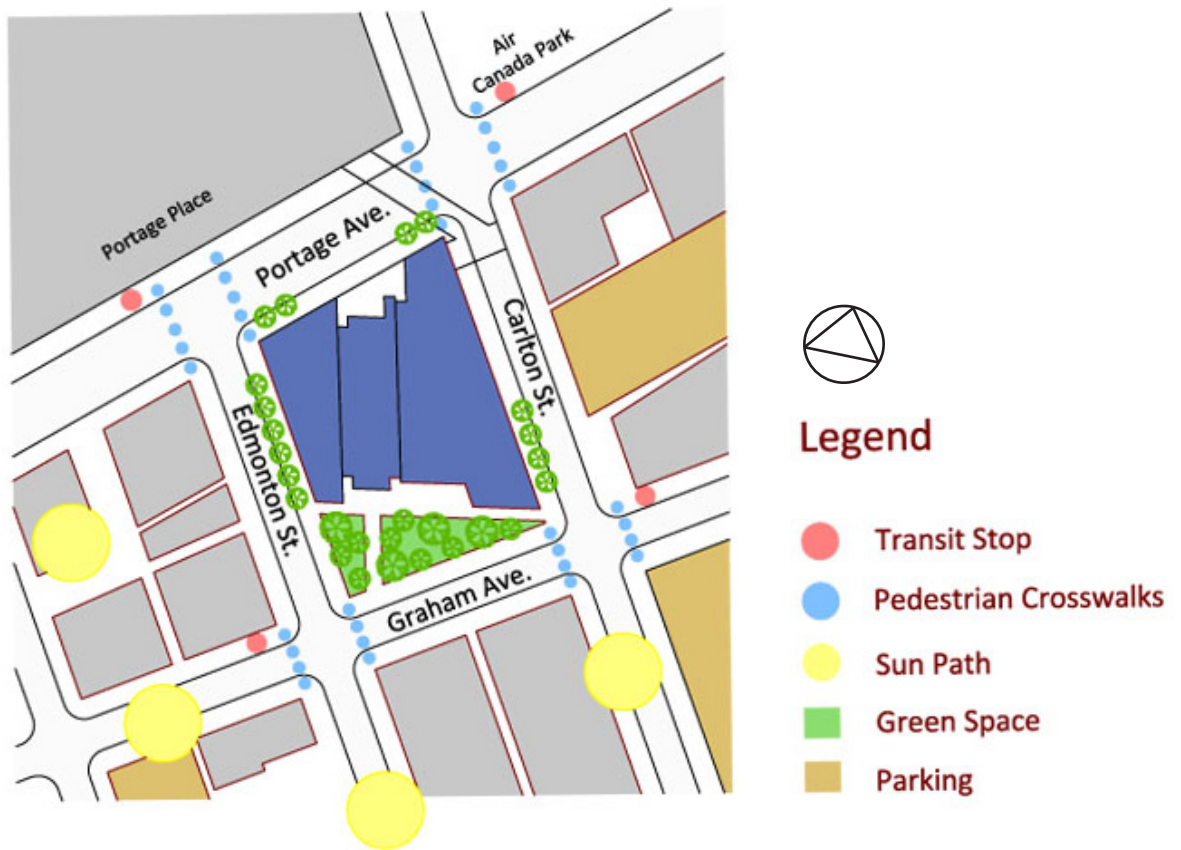Figure 16. Building Site in Downtown Winnipeg, Manitoba

2.1.2 Surrounding Business & Amenities

- Conference Centers: conference centers located within a 5 minute drive of the

   office building include:

   o   The Winnipeg Convention Centre - 375 York Ave, Winnipeg, MB

   o   The Millennium Centre - 389 Main Street, Winnipeg, MB

   o   The Radisson Hotel - 288 Portage Avenue, Winnipeg, MB

- Hotels: hotels located within a 5 minute drive of the office building include:

    o The Radisson Hotel - 288 Portage Avenue, Winnipeg, MB

    o The Fort Garry Hotel - 222 Broadway, Winnipeg, MB

    o Delta Winnipeg - 350 St Mary Avenue, Winnipeg, MB

    o The Marlborough Hotel - 331 Smith St, Winnipeg, MB

    o Place Louis Riel - 190 Smith St, Winnipeg, MB

    o Holiday Inn Hotel & Suites - 360 Colony Street, Winnipeg, MB

    o Best Western Charterhouse Hotel Downtown Winnipeg - 330 York Ave, Winnipeg, MB

    o The Fairmont Winnipeg - 2 Lombard Place, Winnipeg, MB

    o Inn At The Forks - 75 Forks Market Road, Winnipeg, MB

- Restaurants & Cafes: restaurant(s) and café(s) are planned to occupy some of the leasable space on the ground floor of the office building. Other alternatives located within a 10 minute walk of the office building include:

    o Tim Hortons (coffee & deli) - Portage Place Shopping Centre, Winnipeg, MB

    o Starbucks (café)- Portage Place Shopping Centre, Winnipeg, MB

    o Second Cup (café) - 254 Edmonton St, Winnipeg, MB

    o Volia Café - 252 Edmonton St, Winnipeg, MB

    o Twist Cafe - 392 Graham Ave, Winnipeg,

    o The Fyxx Espresso Bar (café) - 110-330 Portage Avenue, Winnipeg, MB

    o The Computer Lounge - 251 Vaughan Street, Winnipeg, MB

    o Subway - Portage Place Shopping Centre, Winnipeg, MB

    o Rink Side Restaurant - 354 Portage Avenue, Winnipeg, MB

    o Paragon Restaurant & Bar - 220 Carlton Street, Winnipeg, MB

    o MTS Center: Moxie's Restaurant, Charlie Biggs, Gondola Pizza, TCYB (ice

cream & frozen yogurt), The Exchange Restaurant & Beer Market, Tavern United Pub -300 Portage Avenue, Winnipeg, MB

- Fitness facilities: fitness facilities located within a 6 minute drive of the office building include:

    o Broadview Fitness 2000 - 120 Donald St, Winnipeg, MB

    o Assiniboine Athletic Club - 401-83 Garry Street, Winnipeg, MB

    o Focus Fitness & Conditioning Inc. - 200 River Avenue, Winnipeg, MB

    o Winnipeg Winter Club - 200 River Avenue, Winnipeg, MB

- Child care: a daycare is planned to occupy leasable space in the southwest corner of the office buildings second floor. Other alternatives within a 5 minute drive of the building include:

    o Day Nursery Centre - 355 Kennedy St, Winnipeg, MB

    o Sister MacNamara Preschool and Infant Daycare Inc. - 126-460 Sargent Avenue, Winnipeg, MB

    o Yours & Ours Child Care Inc. - 500 Balmoral Street, Winnipeg, MB

    o Knox Day Nursery - 406 Edmonton Street, Winnipeg, MB

- Healthcare: health clinics/centers and hospitals located within a 6 minute drive of the office building include:

    o Women's Health Clinic - 419 Graham Avenue A, Winnipeg, MB

    o MFL Occupational Health Centre - 102-275 Broadway, Winnipeg, MB

    o After Hours Medical Clinic - 878 Main Street, Winnipeg, MB

    o Nine Circles Community Health Centre - 705 Broadway, Winnipeg, MB

    o Health Sciences Centre -820 Sherbrook Street, Winnipeg, MB

o   St. Boniface General Hospital - 409 Tache Avenue, Winnipeg, MB

2.2 Recent Trends

• Reduction in vehicular dependency due to increasing environmental concerns and rising oil prices is resulting in an increasing reliance on public transit, pedestrian, and bicycle transport to and from the workplace.

• The revitalization of Winnipeg's downtown has gained increasing attention in recent years.

2.3 Opportunities & Constraints of Site

Opportunities:

• High visibility of building due to location on one of Winnipeg's busiest streets, Portage Avenue.

• Close proximity to other businesses and services and amenities.

• Highly accessible by public, vehicle, bicycle and pedestrian transport.

• Assists in the revitalization of Winnipeg's downtown core by bringing over 2,150 employees into the area on a daily basis and supporting existing retailers in the area (Manitoba Hydro, 2007).

Constraints:

• Increased security requirements for both the building and employees due to downtown location.

• Little or no opportunity for future building expansion.

• Commute times increased due to downtown rush hour traffic.

2.4 Summary

Overall, the site offers an ideal location for Torrent's workplace in Winnipeg, as it provides the company with several advantages and opportunities. The sites central downtown location, easy accessibility by various forms of travel, and close proximity to numerous relevant facilities and services (i.e., daycare, fitness, healthcare) may help Torrent be more competitive in attracting skilled employees. The site's high visibility, and close proximity to other business in downtown Winnipeg may help the company in acquiring new clients, outsourcing services more efficiently, and accessing facilities and resources more easily (i.e., conference centers, hotels for employees travelling, restaurants for business lunches, etc.). In addition, the sites central downtown location and high visibility may assist in increasing Torrent's public awareness and recognition.

3.0 Building Analysis

Figure 17.
Day time view from
Portage Ave.
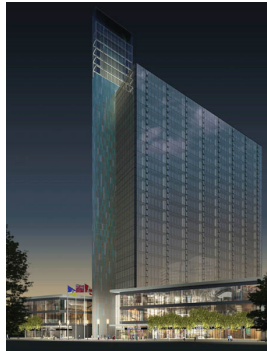
Figure 18.
Night time view from
Portage Ave.

Figure 19.
Day time view from
Graham Ave.

Figure 20.
Night time view from
Graham Ave.

3.1 Building Description

Construction of the Manitoba Hydro building began in August of 2005 and is expected to be completed in spring of 2009. The new skyscraper is comprised of twenty-two stories as well as an underground parkade. The first three stories of the building are called "podium floors" and are comprised of both retail and office space. From the exterior, these floors have been scaled to street level in order make the buildings surroundings more pedestrian friendly. In the interior, these floors are divided into two parts by a three floor atrium that runs from the north to south end of the building. These two parts are connected by two concrete walkways that run across the atrium from east to west on the buildings second and third floors.

Figure 21.
Exterior view of podium floors looking southeast.

Figure 22.
Interior view of atrium separating podium floors.

The ground level floor will be used primarily as retail space. This space will be occupied by the Royal Bank of Canada as well as other retailers, restaurants, and cafes. The second floor will contain both office and retail space. This floor contains two outdoor terraces which will be used seasonally by the buildings employees, as well as the pedestrian "skywalk." The Third floor will be comprised of a corporate meeting centre as well as office space.

Entrance to Loading Docks

Leasable Retail / Office Space

North Entrance

Atrium

Greenspace

Leasable Retail / Office Space

South Entrance

Figure 23.
Podium Level One Floor Plan

Eighteen "tower floors' are located above these three podium floors. These floors, consisting of floors four to twenty-three (floor thirteen was eliminated from the building during its design development phase), are narrower in size from east to west. Floors four to twenty-two and are comprised entirely of office space and have an open floor plan with a central enclosed core. This core encompasses elevators, stairs, and washrooms, as well as the building's primary plumbing stacks and electrical, data, and mechanical rooms. Each of the floors also contain a north and south atrium. These atriums are shared among three floors, and are accessed either directly off the workspace (they are located on the same floor) or by a stairway (they are located on a different floor). Each floor also has a raised flooring system and a double façade. Floor to ceiling glazing, combined with the buildings high ceilings (3310 mm/ approximately 10 and a half feet on the tower floors), maximizes the amount of daylight in the space. The buildings highest floor, the twenty-third floor, is used to house mechanical equipment.

North Atrium

South Atrium

Building Core
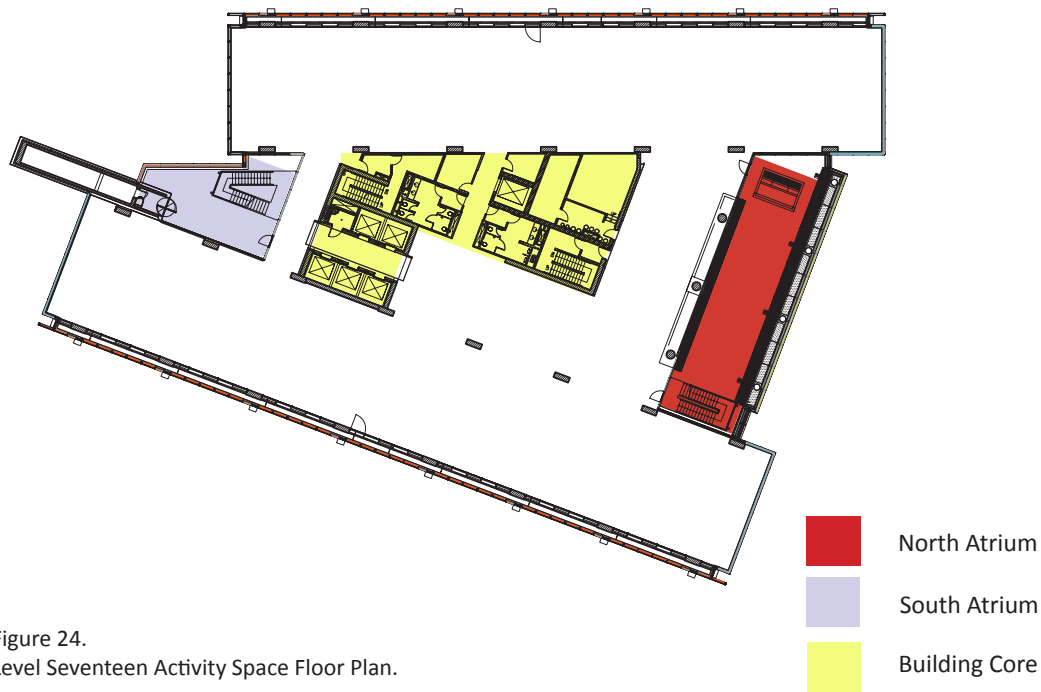
Figure 24.
Level Seventeen Activity Space Floor Plan.

The exterior of the building features a solar tower on its northwest side. This tower, in combination with a geothermal heat pump, is responsible for supplying the building with passive ventilation heating and cooling systems. Consequently, the building's energy requirements will be 60% lower than the Model National Energy Code for Buildings (Stoyko, 2007). A landscaped green space and courtyard will also be located on the exterior of the building's south side off of Graham Ave. This space was designed to be used both by the buildings users as well as the general public.

The practicum's two designs will be situated on the seventeenth floor of the building. This floor was selected because it contains only one elevator unit (instead of two, as is the case on several other tower floors) and has north and south atriums located at floor level (atriums are not located on all floors because they are shared by three floors). As a result, the seventeenth floor contains more floor space in which to base the practicum's design. The floor is approximately 2597.8 square meters or 27, 963 square feet including the north and south atriums.

Figure 25.
View of east side of building looking south

Figure 26.
View of north atrium looking northeast

Figure 27.
View of south atrium looking southeast

Figure 28.
View on south side of the building looking east

3.2 Building Structure

• Foundation: the building has a caisson foundation made of concrete.

• Exterior building envelope: a double glass façade provides an energy efficient barrier to outdoor temperatures. The interior wall of the façade contains operable windows, allowing for access to natural ventilation. The glass is encased in steel framing, and is low in iron to enhance clarity.

• Interior wall assembly: constructed from wood frame and plaster facing.

• Ceiling assembly: ceiling is composed of exposed radiant concrete in order to help maintain temperatures in the building. Concrete slab beams run east to west between the building's enclosed core and structural columns. These slab beams drop down approximately 10 inches below ceiling height.

Figure 29.
Concrete ceiling beams.

Figure 30.
Double glass facade on west side of building.

- Roof assembly:

  o The podium floors roof assembly is primarily a green-roof system in which plant material is grown on top of a concrete slab.

  o The tower floor roof assembly is also comprised of a concrete slab base which is covered with a rubberized asphalt membrane, a rigid insulation layer, gravel ballast, and covered with a wood deck on sleepers.

  o The roof assembly over the south atrium is made from steel deck and structural steel framing, tapered insulation, rubberized asphalt membrane, a rigid insulation layer, with a topmost layer of gravel ballast.

  o The mechanical penthouse is made from steel deck and structural steel framing, tapered insulation, rubberized asphalt membrane, a rigid insulation layer, protection boards, and the topmost layer consists of pavers.

3.3 Building Systems

- Electrical: electricity comes into the building through the basement and runs through the core of the building to a generator on the twenty-third floor. Electrical and data rooms are located in the interior core of each floor of the office tower. Electrical and data wiring is distributed from these rooms under an 18 inch raised floor of concrete tile.

- Mechanical:

  o Heating & cooling systems:

    - A geothermal heat pump is located beneath the building. During the winter it extracts heat from the ground to heat the building. During the summer it returns this heat to the ground in order to cool the building. The heated or cooled air is distributed in the building through floor vents.

- The geothermal heating and cooling system is further supplemented during winter months with natural gas boilers located on the twenty-third floor of the building. The heat or cooling produced is distributed by piping through exposed radiant concrete ceilings on each floor.

- Solar heat gain on the south side of the building is also used to passively warm air which is brought up through the south atrium. The heat is circulated through the building and exhausted through the buildings solar chimney. Heat is taken from the exhausted air in the solar chimney and used to pre-heat the air entering the atriums and parkade during colder months.
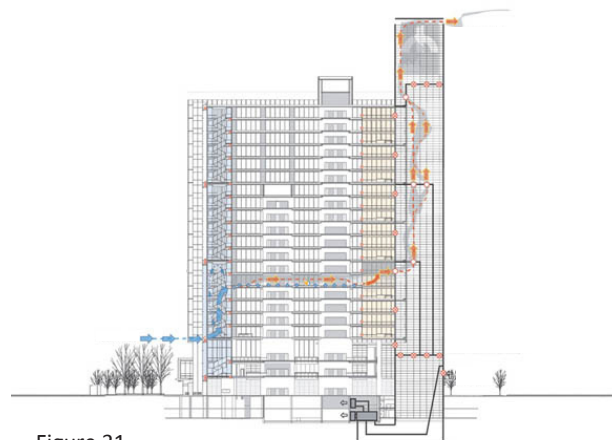
Figure 31.
Building section displaying air ventalation in office space.

o Ventilation system:

- Fresh air is collected in the south atrium and then circulated through the raised flooring system and is distributed into the different spaces through floor vents. The air is then exhausted through the solar chimney.

- Plumbing:

o Four plumbing stack runs through the core of the building.

They are as follows:

- 1 plumbing stack runs through the mechanical room

- 1 plumbing stack runs through the janitor rooms

- 1 plumbing stack runs through the men's washroom

- 1 plumbing stack runs through the women's washroom

o Plumbing also services two coffee areas on the floor which include:

1) located on the north wall of the core opposite the north atrium

2) located between the south wall of the core opposite the south atrium

o The south coffee station uses the plumbing stack in floors mechanical room. The north coffee station uses a plumbing stack located in the janitor's room.

o The buildings podium and tower floors are sprinklered throughout.

Figure 32.
Portage Avenue building entrance.

Figure 33.
Graham Avenue building entrance.

3.4 Circulation

- Entrances:

o Primary entrances/exits: Two primary entrances exist on the north and south ends of the building. These entrances are connected by an atrium that extends to the height of the buildings three podium floors.

- o   Secondary entrances/exits: Four secondary entrances also provide access from the building. Two are located on the east side of the building, and two are located on the west side of the building. Only the exit located near the south corner of the west side of the building also provides access into the building.

- o   Loading Dock: Three loading docks are accessible by a ramp located near the south corner of the east side of the building.

- Elevators: There are two units of elevators (5 elevators in each unit, and 10 elevators in total) that are accessible from the atrium space located on the ground level. A security desk and turn-styles restrict access to these elevators and the floors they access. The two sets of elevators provide access to different floors;

  - o   "high elevators": located towards the northern side of the building and provide access to the podium floors 1-3 and tower floors 14-22.

  - o   "low elevators": located towards the southern side of the building and provide access to tower floors 1-14.

- Stairways: There are nine stairways located throughout the building. They are as follows:

  - o   Two main stairways run through the core of the building, the south stairway is accessible by all of the podium and tower floors 1-22 , the north stairway is accessible by floors 3- 22 only.

  - o   Four stairways access the exterior of the building and are accessible by the podium floors (1-3).

  - o   Two stairways run through the north and south atriums of the tower floors (4-21).

o   One stairway located by the main north entrance of the building provides

    accesses the podium floors (1-2) as well as the underground parkade.

Figure 34.
Level Seventeen Circulation Floor Plan.

■	Stairs
■	Elevator
■	Freight elevator
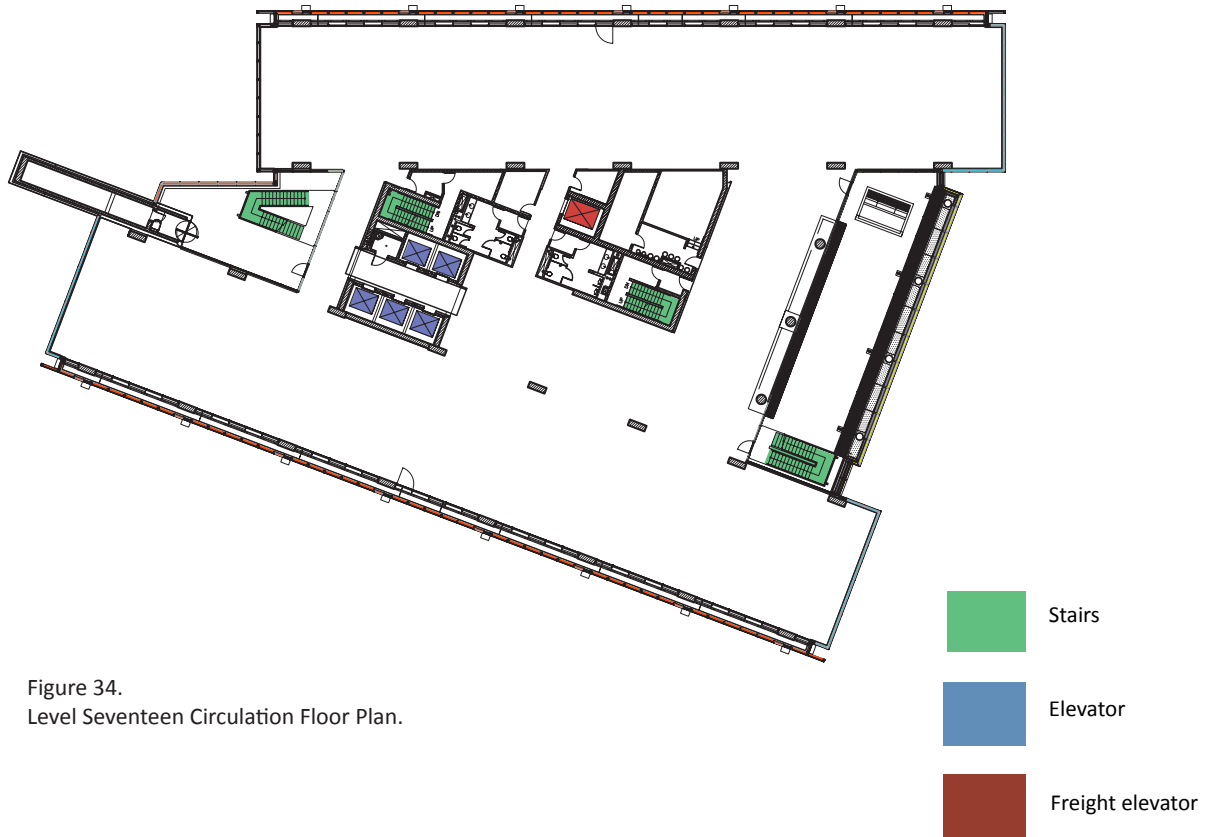
3.5 Benefits & Constraints of Building

- Benefits:

    o   Sustainable building consistent with Torrent's value for "global community

        orientation."

    o   State of the art modern building design is consistent with Torrent's values

        for research and performance, and provides company with prominence

        and high visibility in downtown center.

    o   Universally accessible design throughout building.

    o   Large floor plates with few columns accommodate a variety of spatial

designs and functions.

o   Maximized natural daylight and natural ventilation provided a healthy
     working environment in workspace for employees, consistent with
     Torrent's objective for creating a productive workplace environment.

o   Atriums and outdoor green space provide environments for informal
     gatherings, alternative work areas, or break areas in which employees can
     regenerate.

o   Good views of downtown Winnipeg available from seventeenth floor.
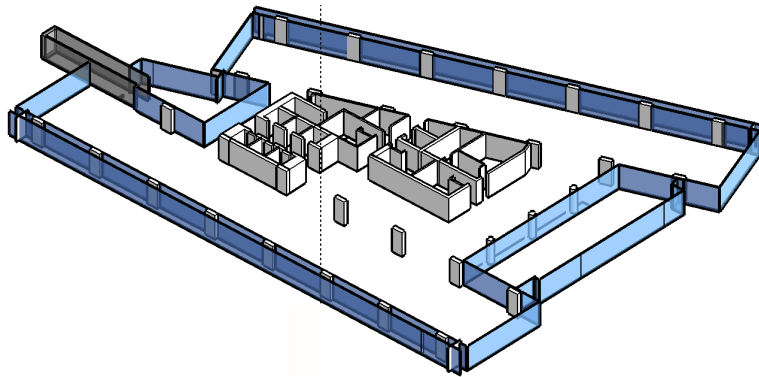
Figure 35.
Level Seventeen 3- Dimensional Floor Plan Looking East.
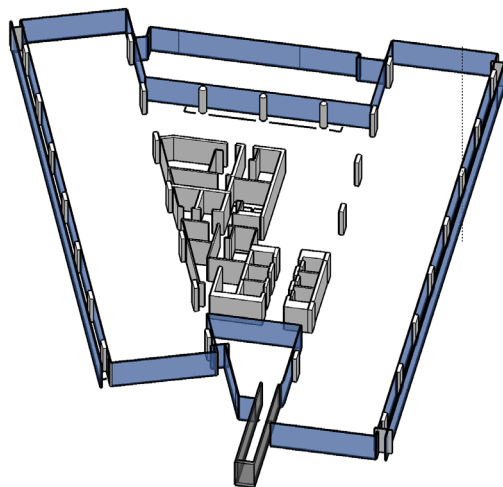
Figure 36.
Level Seventeen 3-Dimensional Floor Plan Looking South.
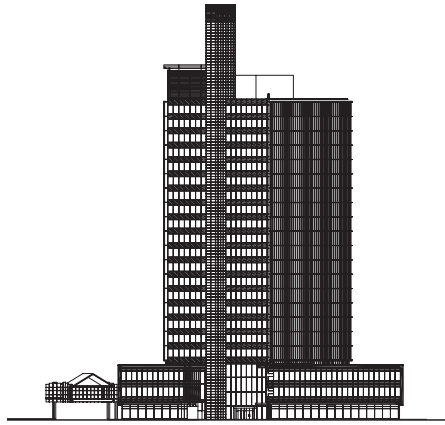
Figure 37.
North Exterior Building Elevation.
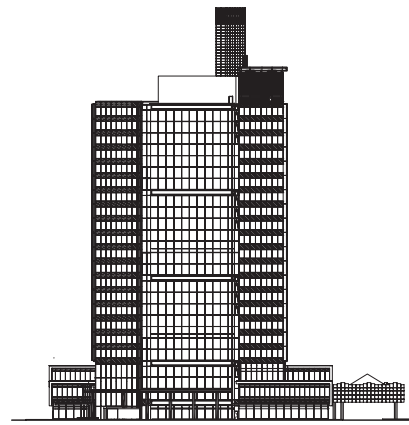
Figure 38.
South Exterior Building Elevation.
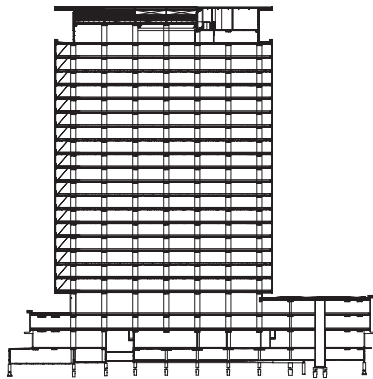
Figure 39.
Interior Building Section of East Wing Looking West.
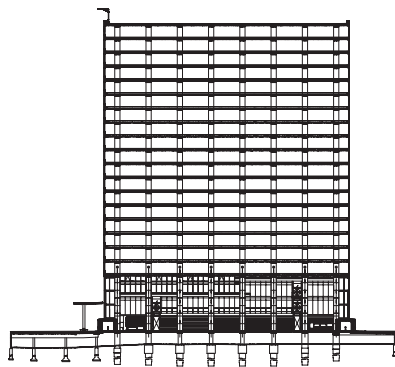
Figure 40.
Interior Central Atrium Building Section Looking West.

3.6 Natural Light Studies

Each day the sun follows a path from east to west on the south side of the building (please see figure 16). Winnipeg boasts over 2,300 hours of sunshine per year (Environment Canada, 2007).

Seasonal Light Studies of the 17th Floor:
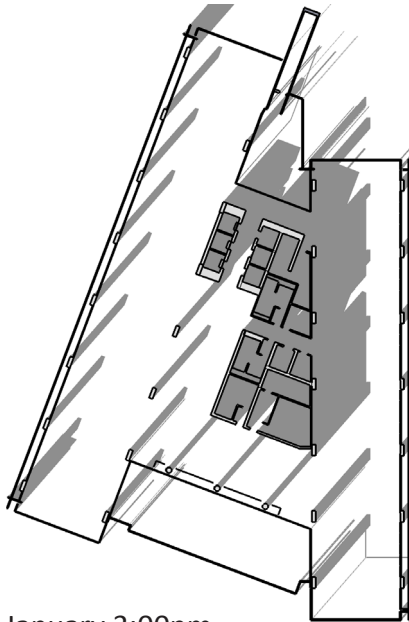
January 3:00pm
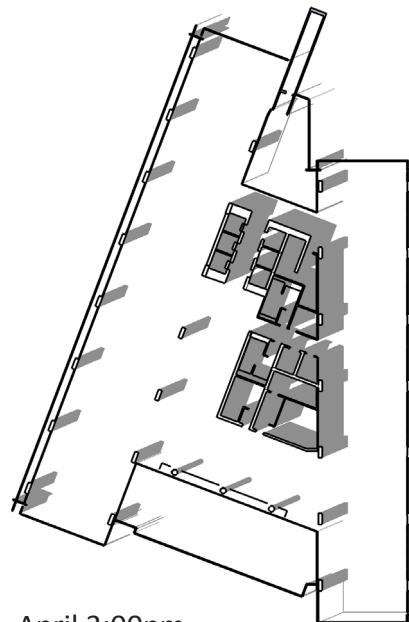
April 3:00pm
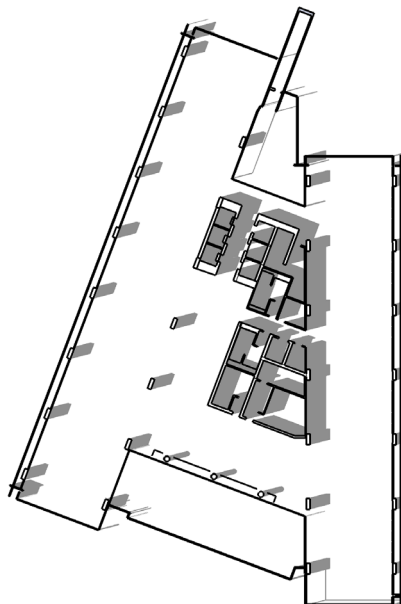
July 3:00pm
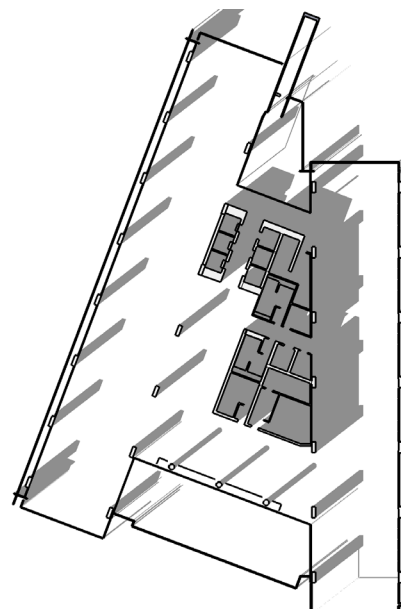
October 3:00pm

Daytime Light Studies of the 17th Floor:
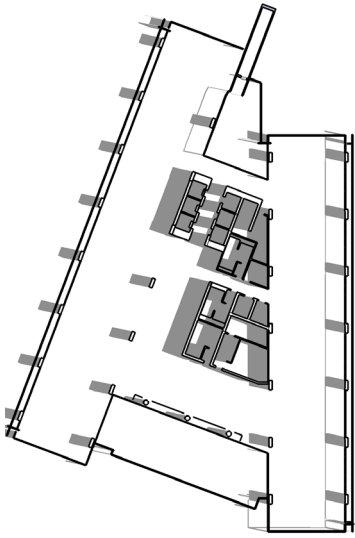
July 9:00am
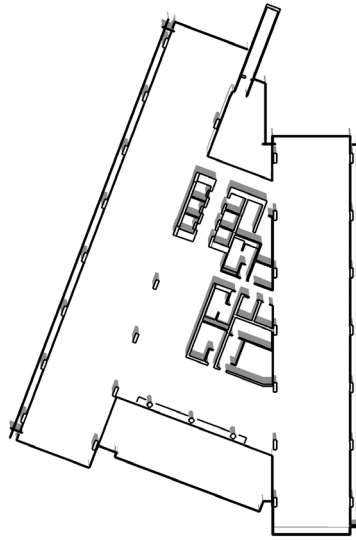
July 12:00pm
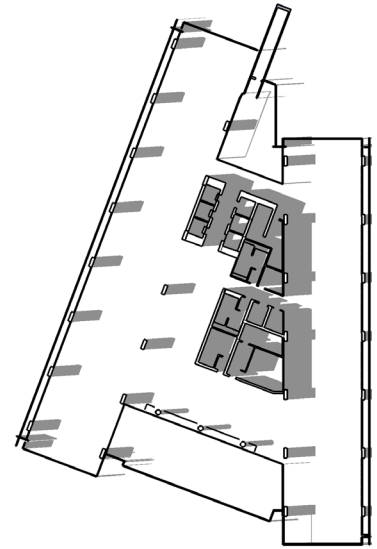
July 4:00pm
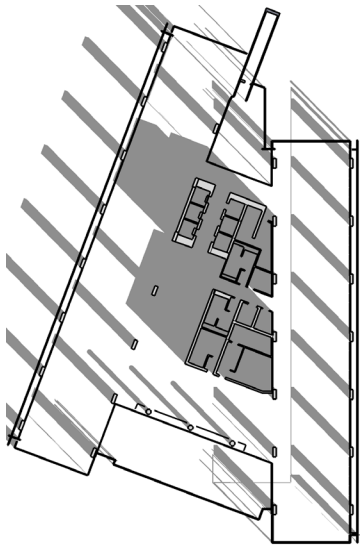
January 9:00am
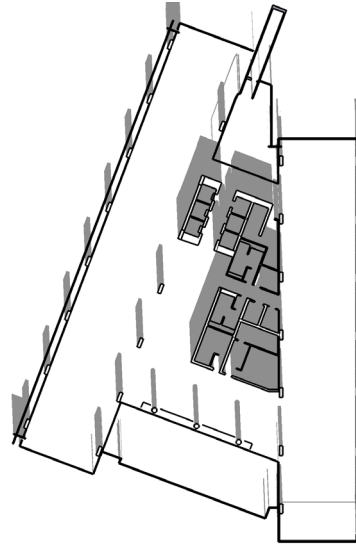
January 12:00pm
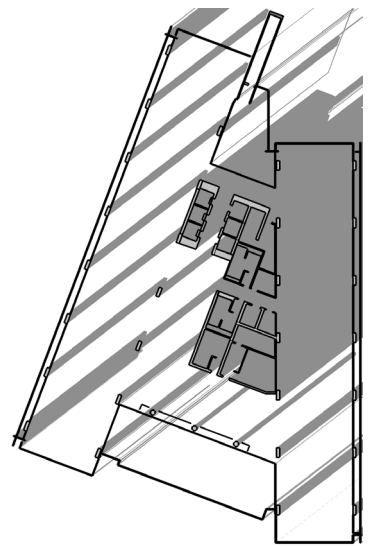
January 4:00pm

3.7 Views from Building

Figure 41.
View from south of building looking southeast.

Figure 42.
View from west of building looking southwest.

Figure 43.
View from east of building looking southeast.

Figure 44.
View from south of building looking northeast.

Figure 45.
View from south of building looking southeast.

4.0 Human Factors Analysis

4.1 Client Profile

Torrent is a hypothetical global management consulting, technology services, and outsourcing company. Torrent's mission is to assist its client companies in improving their performance, thus increasing their value, market share, and profitability in the marketplace. Torrent has developed a set of core values in order to better assist its client companies, as well as itself, in improving overall business performance.

4.1.1 Core Values

Torrent's decision making, strategic planning, and growth are guided by three core values. These values are as follows:

1) Research Based Knowledge- Consulting services to be informed by leading edge research in order to provide relevant and tested solutions for Torrent's client companies. Conducted by an internal research department comprised of researchers with academic backgrounds in business and related fields. Research is conducted in the areas of business strategy, IT, marketing, organization and culture, workplace environment studies, and talent and leadership development.

2) Global Community Orientation- To operate internationally in different parts of the world as part of a greater global community of companies, non-profit organizations, and people. To operate from a global mind set in which initiatives that benefit the well being of the global community are supported, and in which cultures and people are respected, valued and utilized in order for their full potential to be realized.

3) Enhanced Business Performance- Continual improvement of business processes in order to perform and provide services in a more effective, efficient and productive manner.

4.1.2 Torrent's Clients & Services

Torrent currently has offices in 33 cities and eight different countries throughout North America, Europe, and Asia. Torrent's clients are also located within these geographic regions. These clients predominately include companies in the following industries; automotive, banking, communications, energy, electronic and high-tech, financial and insurance services, and transportation. These companies tend to be large and complex organizations, many of them are also multinational companies that derive services produced by Torrent in several of its different global subsidiaries. The services provided by Torrent include:

- Management consulting & research services:
    - o Development of corporate strategy
    - o Financial management
    - o Supply chain management
- Technology services:
    - o Technological support and maintenance, upgrades, streamlining systems and applications
- Outsourcing services: (for client company operations)
    - o Finance & accounting (accounts payable, accounts receivable, general accounting, taxation)
    - o Workforce (performance management, recruitment, education and development, compensation and benefits)

  o Human resource management

4.1.3 Current Needs & Future Goals

- Current needs:

  o Workspace where employees can work effectively and efficiently.

  o Meeting and waiting spaces for the company's existing and potential clients.

  o Interview and waiting spaces for potential employees of the company.

- Future goals:

  o Continued expansion of company, particularly throughout Asia.

  o Increased hiring and retention of valuable skilled employees.

  o Enhanced employee productivity and improved business processes.

  o Increased awareness and recognition of company in the global marketplace.

4.1.4 Workplace Types

  The company has two workplace types that vary in terms of location, size, services provided, and cost of operation. These workplace types allow the company to operate efficiently and cost effectively in different types of marketplaces around the world. These two workplace types include:

- Consultation Center

  o Located predominately in large markets (more than 2,000,000 people) typically in urban business centers where company is highly visible and in close proximity to other businesses (i.e., New York, Tokyo, London, Shanghai, Toronto).

  o Approximately 30,000 - 50,000 square feet in size.

  o All three of Torrents main services; management consulting and research, technology services, outsourcing services for client company operations are

provided in this workplace type.

o High operation cost.

• Service Center

o Located in medium to small markets (2,000,000 to 500,000 people) in urban

business centers where company is highly visible and in close proximity to

other businesses. Alternatively, location can be based on close proximity

to a important client company that is both valuable and well established

(i.e., Calgary, Denver, Sendai, Hamburg).

o Approximately 10,000 - 30,000 square feet in size.

o Technology services and outsourcing services for client company operations

are provided in this workplace type.

o   Relatively low operation cost.

The "service center" workplace type will provide the basis for the workplace design

for Torrent. This selection was based on the information obtained from an existing

global management consulting company as well as the scope desired for the

practicum's spatial design.

4.1.5 Figure 46. Organizational Structure: Torrent's Global Organizational Chart

Legend

Headquarters Departments
Overseas Subsidiaries
Company Headquarters

Board of Directors

Chairman & CEO

Operations | Strategy & Corporate Development | Outsourcing | Systems Integration & Technology and Delivery | Business Research | Managment Consulting | Marketing & Communicatins | Finance & Accounting | Human Resource Managment

Director of International Opperations

North America

Canada

Western Canada — Vancouver, Calgary, Winnipeg

Eastern Canada — Toronto, Montreal

United States

Western U.S. — Seattle, San Diego, San Francisco

Central U.S. — Kansas City, St. Louis, Denver

Eastern U.S. — New York, Boston, Atlanta, Pittsburgh, Chicago

Europe

United Kingdom

Great Britian — London, Birmingham

Mainland Western Europe

France — Paris

Germany — Berlin, Frankfurt, Hamburg

Switzerland — Zurich, Basel

Asia

China

Southern China — Hong Kong, Guang-zhou

Northern & Central China — Beijing, Shanghai, Tianjin

Japan

Northern Japan — Sapporo, Sendai

Central Japan — Tokyo, Yokohama

* Developed for the hypothetical company *Torrent* based on information gathered regarding existing global management consulting company(s).

4.1.5 Figure 47. Organizational Structure: Torrent's Service Centre Organizational Chart
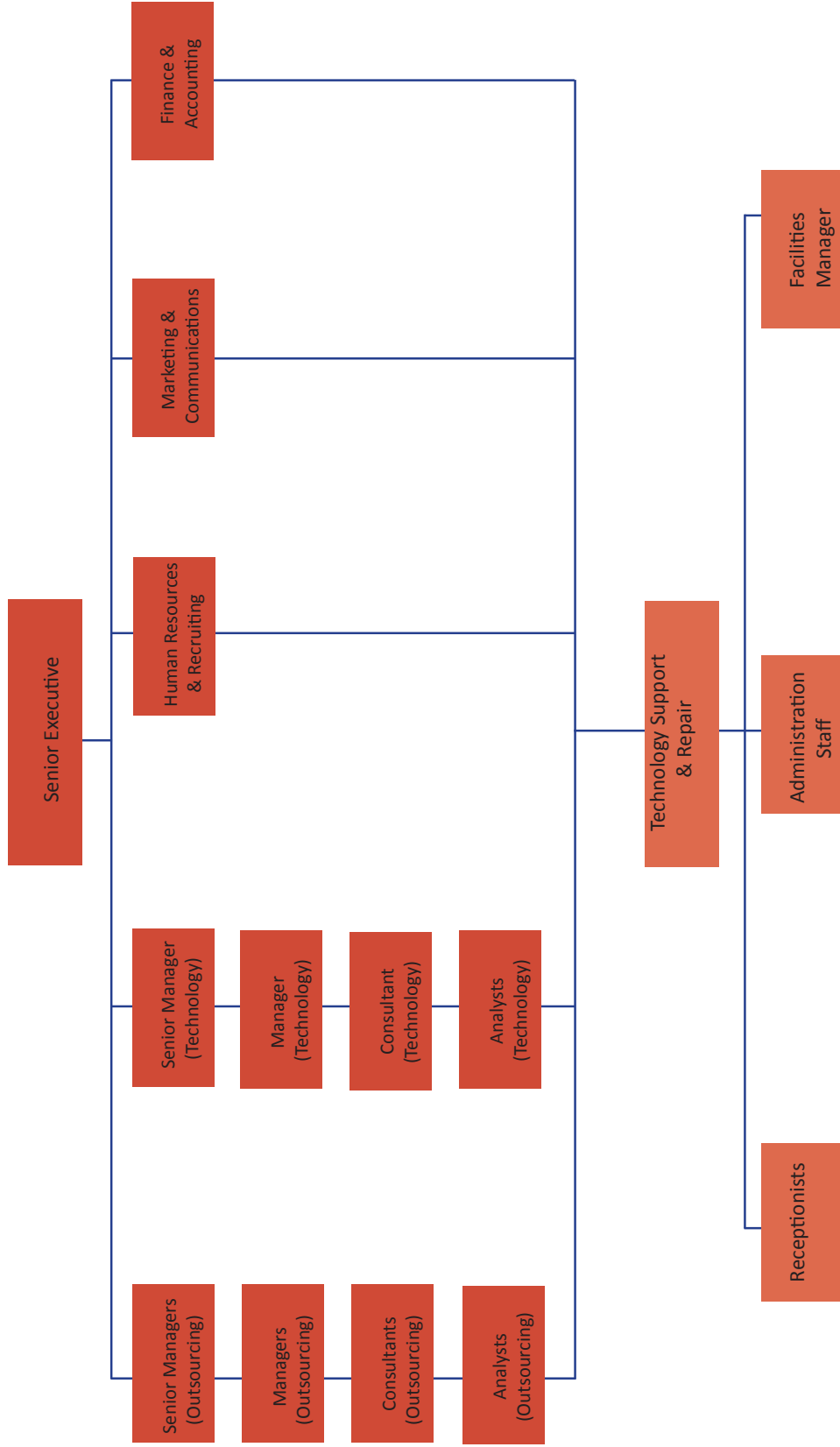
Legend
- Departmental Staff
- Support Staff

Senior Executive

Finance & Accounting

Marketing & Communications

Human Resources & Recruiting

Senior Manager (Technology)

Manager (Technology)

Consultant (Technology)

Analysts (Technology)

Senior Managers (Outsourcing)

Managers (Outsourcing)

Consultants (Outsourcing)

Analysts (Outsourcing)

Technology Support & Repair

Facilities Manager

Administration Staff

Receptionists

* Developed for the hypothetical company *Torrent* based on information gathered regarding existing global management consulting company(s).

4.2 User Profiles

Two user profiles have been developed; one for Japan, and the other for Canada, and are represented in a chart format in the sections that follow. The employee positions and activities remain largely consistent, as they would be across all of Torrent's subsidiaries around the world. The user's behavioral needs, however, are different in each country.

4.2.1 Japan's User Profile

4.2.1.1 Primary Users: Torrent's Employees in Japan: Users & Activities

User	# of Users	Description	Activities	% of Time	Location	Behavioral Needs
Sr. Executive	1	Attract and retain new clients, planning for and overseeing current projects	Meetings Monitoring production Administrative work Break	70% 10% 15% 5%	Conference rooms Workstation Workstation Refreshment & gathering areas	-conference rooms- should include a space for informal socialization to occur before business negotiations take place -conference rooms- acoustic privacy for confidential meetings and reduced disruptions -workstation -increased privacy for confidential phone calls and increased concentration when reading and writing -workstation- individual permanent workstation due to high quantity of confidential information possessed -workstation- distinguishable yet in close proximity to managers to allow for supervision and consultation
Sr. Manager (Outsourcing)	1	Plan and manage projects	Meetings Monitoring Production Administrative work Break	60% 25% 10% 5%	Conference rooms Workstation Workstation Refreshment & gathering areas	-workstation- distinguishable yet in close proximity to managers and analysts to allow for supervision and consultation -workstation- individual possession of a permanent workstation to reduce uncertainty
Manager (Outsourcing)	2	Plan and manage projects	Meetings Monitoring Production Administrative work Break	50% 25% 20% 5%	Conference rooms Workstation Workstation Refreshment & gathering areas	-workstation- distinguishable yet in close proximity to analysts to allow for supervision and consultation -workstation- individual possession of a permanent workstation to reduce uncertainty
Consultant (Outsourcing)	7	Works with clients to design and implement business strategies and solutions	Meetings (on site) Meetings (off site) Production (on site)	10% 40% 10%	Conference rooms Client offices Workstation & gathering areas	-workstation- facilitate interaction and visual and verbal communication among employees -workstations- facilitate collective group work among employees

Role	#	Description	Activities	%	Spaces	Workstation notes
			Production (off site)	15%	Client offices	-workstation- individual possession of a permanent workstation to reduce uncertainty
			Training	10%	Training rooms	
			Administrative work	10%	Workstation	
			Break	5%	Refreshment & gathering areas	
Analyst (Outsourcing)	21	Design, manage, and carry out day-to-day activities pertaining to clients key business functions	Meetings	5%	Conference rooms	-workstation- facilitate interaction and visual and verbal communication among employees -workstations- facilitate collective group work among employees -workstation- individual possession of a permanent workstation to reduce uncertainty -gathering spaces -integration of informal gathering spaces with workstations
			Production	80%	Workstations & gathering areas	
			Training	10%	Training rooms	
			Break	5%	Refreshment & gathering areas	
Sr. Manager (Technology)	1	Plan and manage projects	Meetings	60%	Conference rooms	-workstation- distinguishable yet in close proximity to managers and analysts to allow for supervision and consultation -workstation- individual possession of a permanent workstation to reduce uncertainty
			Monitoring Production	25%	Workstation	
			Administrative work	10%	Workstation	
			Break	5%	Refreshment & gathering areas	
Manager (Technology)	1	Plan and manage projects	Meetings	50%	Conference rooms	-workstation- distinguishable yet in close proximity to managers and analysts to allow for supervision and consultation -workstation- individual possession of a permanent workstation to reduce uncertainty
			Monitoring Production	25%	Workstation	
			Administrative work	20%	Workstation	
			Break	5%	Refreshment & gathering areas	
Consultant (Technology)	5	Works with clients to design and implement business strategies and solutions	Meetings (on site)	10%	Conference rooms	-workstation- individual possession of a permanent workstation to reduce uncertainty
			Meetings (off site)	40%	Client offices	
			Production (on site)	10%	Workstation & gathering areas	
			Production (off site)	15%	Client offices	
			Training	10%	Training rooms	
			Administrative work	10%	Workstation	
			Break	5%	Refreshment & gathering areas	

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Role	No.	Responsibilities	Activities	%	Spaces	Design considerations
Analyst (Technology)	24	Build, test, install and maintain computer software, and provide information technology knowledge and skills on projects	Meetings Production Training Break	5% 80% 10% 5%	Conference rooms Workstations & gathering areas Training rooms Refreshment & gathering areas	-workstation- facilitate interaction and visual and verbal communication among employees -workstations- facilitate collective group work among employees -workstation- individual possession of a permanent workstation to reduce uncertainty -gathering space -integration of informal gathering spaces with workstations
Human Resources	2	Responsible for employee relations; recruitment, development, performance evaluation, compensation and benefits and maintenance of individual records.	Interviews Meetings Presentations (to new employees and current employees) Production Break	20% 15% 20% 40% 5%	Interview rooms Conference rooms Conference rooms Workstation & gathering areas Refreshment & gathering areas	-workstations- facilitate collective group work among employees -workstation- individual possession of a permanent workstation to reduce uncertainty
Marketing & Communications	1	Responsible for communications with media channels and local community.	Meetings Presentations (to potential clients) Production Break	15% 30% 50% 5%	Conference rooms Client conference rooms Workstation& gathering areas Refreshment & gathering areas	-workstations- facilitate collective group work among employees -workstation- individual possession of a permanent workstation to reduce uncertainty
Finance & Accounting	2	Responsible for maintenance of financial records, taxation, and cost expenditures and revenues.	Meetings Production Break	5% 90% 5%	Conference rooms Workstation Refreshment & gathering areas	-workstations- increased privacy for work requiring high concentration -workstation- individual possession of a permanent workstation to reduce uncertainty
Technologist	1	Responsible for technical support and repair	Computer repair Employee assistance Administrative work Break	45% 40% 10% 5%	Technology room Employee Workstation Technology room Refreshment & gathering areas	-workstation –easily accessible by employees in workspace

Role	#	Description	Tasks	%	Location	Notes
Receptionist	1	Primary intermediary between employees and visitors, guests, clients, and potential employees	Filing & office work Phone calls Greeting Clients	40% 30% 30%	Reception Reception Reception	-reception - facilitate interaction and visual and verbal communication
Administrative Staff	2	Responsible for administrative paper work, mail distribution, ordering and stocking supplies and miscellaneous tasks that need to be done in the workplace	Filing & office work Preparing & clearing meeting rooms Preparing & stocking refreshment area Ordering & stocking office supplies Mail distribution Organizing media library Break	60% 10% 5% 5% 10% 5% 5%	Workstation Conference, assembly & training rooms Refreshment area Service room, storage room Mail & logistics room Media library Refreshment & gathering areas	-workstation- individual possession of a permanent workstation to reduce uncertainty
Facilities Manager	1	Responsible for maintaining secure areas within the workplace and general building maintenance on the floor	Building repairs Implementing & Monitoring security systems Administrative work Break	30% 60% 5% 5%	Overall floor Security room Security room Refreshment & gathering areas	-workstation- enclosed area to insure privacy of security information
Total employees	74					

* Developed for the hypothetical company *Torrent* based on information gathered regarding existing global management consulting company(s).

4.2.1.2 Secondary Users: Torrent's Clients, Potential Clients, & Potential Employees in Japan: Users & Activities

User	# of users	Description	Activities	% of time	Location	Behavioral Needs
Clients	-	Companies that are current consumers of Torrents services	Waiting Meetings	5% 95%	Reception area Client conference room	-reception- comfortable seating area away from workplace activity and confidential information -conference rooms- should include a space for informal socialization to occur before business negotiations take place in order for relationship development -conference room- private both acoustically and visually as to limit distractions
Potential Clients	-	Companies that may become future consumers of Torrents services	Waiting Meetings	5% 95%	Reception area Client conference room	-reception- comfortable seating area away from workplace activity and confidential information -conference rooms- should include a space for informal socialization to occur before business negotiations take place in order for relationship development -conference room- private both acoustically and visually as to limit distractions
Potential Employees	-	Applicants desiring to gain employment with company	Waiting Interview	5% 95%	Reception area Interview room	-reception- comfortable seating area away from workplace activity and confidential information

4.2.1.3 Tertiary Users: Janitorial & Maintenance Staff in Japan: User & Activities

User	# of users	Description	Activities	% of time	Location	Behavioral Needs
Janitorial Staff	2	General cleaning of floor	Retrieving & storing Cleaning	5% 95%	Janitor closet Overall floor	-centrally located janitorial closet for easy access to supplies

4.2.2 Canada's User Profile

4.2.2.1 Primary Users: Torrent's Employees in Canada: Users & Activities

User	# of Users	Description	Activities	% of Time	Location	Behavioral Needs
Sr. Executive	1	Attract and retain new clients, planning for and overseeing current projects	Meetings Monitoring production Administrative work Break	70% 10% 15% 5%	Conference rooms Workstation Workstation Refreshment & gathering areas	-conference rooms- acoustic privacy for confidential meetings and reduced disruptions -workstation -increased privacy for confidential phone calls and increased concentration when reading and writing -workstation- no visual distinction with analyst workstation with the exception of size
Sr. Manager (Outsourcing)	1	Plan and manage projects	Meetings Monitoring Production Administrative work Break	60% 25% 10% 5%	Conference rooms Workstation Workstation Refreshment & gathering areas	-workstation- no visual distinction with analyst workstation -workstation- individual permanent workstation due to high quantity of confidential information possessed
Manager (Outsourcing)	2	Plan and manage projects	Meetings Monitoring Production Administrative work Break	50% 25% 20% 5%	Conference rooms Workstation Workstation Refreshment & gathering areas	-workstation- no visual distinction with analyst workstation -workstation- individual permanent workstation due to high quantity of confidential information possessed
Consultant (Outsourcing)	7	Works with clients to design and implement business strategies and solutions	Meetings (on site) Meetings (off site) Production (on site) Production (off site) Training Administrative work Break	10% 40% 10% 15% 10% 10% 5%	Conference rooms Client offices Workstation Client offices Training rooms Workstation Refreshment & gathering areas	-workstation- unassigned workstations -workstation- mobility between individual workstations and workrooms -gathering space - separation of gathering spaces from workstation

Role	Number	Description	Activities	%	Spaces	Workstation notes
Analyst (Outsourcing)	21	Design, manage, and carry out day-to-day activities pertaining to clients key business functions	Meetings Production Training Break	5% 80% 10% 5%	Conference rooms Workstations Training rooms Refreshment & gathering areas	-workstation- mobility between individual workstations and workrooms -workstation- unassigned workstations -gathering space - separation of gathering spaces from workstation
Sr. Manager (Technology)	1	Plan and manage projects	Meetings Monitoring Production Administrative work Break	60% 25% 10% 5%	Conference rooms Workstation Workstation Refreshment & gathering areas	-workstation- individual permanent workstation due to high quantity of confidential information possessed -workstation- no visual distinction with analyst workstation
Manager (Technology)	1	Plan and manage projects	Meetings Monitoring Production Administrative work Break	50% 25% 20% 5%	Conference rooms Workstation Workstation Refreshment & gathering areas	-workstation- individual permanent workstation due to high quantity of confidential information possessed -workstation- no visual distinction with analyst workstation
Consultant (Technology)	5	Works with clients to design and implement business strategies and solutions	Meetings (on site) Meetings (off site) Production (on site) Production (off site) Training Administrative work Break	10% 40% 10% 15% 10% 10% 5%	Conference rooms Client offices Workstation Client offices Training rooms Workstation Refreshment & gathering areas	-workstation- unassigned workstations -workstation- mobility between individual workstations and workrooms -gathering space - separation of gathering spaces from workstation
Analyst (Technology)	24	Build, test, install and maintain computer software and provide information technology knowledge and skills on different projects	Meetings Production Training Break	5% 80% 10% 5%	Conference rooms Workstations Training rooms Refreshment & gathering areas	-workstation- unassigned workstations -workstation- mobility between individual workstations and workrooms -gathering space - separation of gathering spaces from workstation
Human Resources	2	Responsible for employee relations; recruitment, development, performance evaluation, compensation and benefits and maintenance of individual records.	Interviews Meetings Presentations (to new employees and current employees) Production	20% 15% 20% 40%	Interview rooms Conference rooms Conference rooms Workstation	-workstation- individual permanent workstation due to high quantity information possessed

			Break	5%	Refreshment & gathering areas	
Marketing & Communications	1	Responsible for communications with media channels and local community.	Meetings Presentations (to potential clients) Production Break	15% 30% 50% 5%	Conference rooms Client conference rooms Workstation Refreshment & gathering areas	-workstation- individual permanent workstation due to high quantity information possessed
Finance & Accounting	2	Responsible for maintenance of financial records, taxation, and cost expenditures and revenues.	Meetings Production Break	5% 90% 5%	Conference rooms Workstation Refreshment & gathering areas	-workstation- individual permanent workstation due to high quantity information possessed -workstations- increased privacy for work requiring high concentration
Technologist	1	Responsible for technical support and repair	Computer repair Employee assistance Administrative work	50% 40% 10%	Technology room Employee Workstation Technology room	-workstation –easily accessible by employees in workspace
Receptionist	1	Primary intermediary between employees and visitors, guests, clients, and potential employees	Filing & office work Phone calls Greeting Clients	40% 30% 30%	Reception Reception Reception	-reception - facilitate interaction verbal communication
Administrative Staff	2	Responsible for administrative paper work, mail distribution, ordering and stocking supplies and miscellaneous tasks that need to be done in the workplace	Filing & office work Preparing & clearing meeting rooms Preparing & stocking refreshment area Ordering & stocking office supplies Mail distribution Organizing media library Break	60% 10% 5% 5% 10% 5% 5%	Workstation Conference, assembly & training rooms Refreshment area Service room, storage room Mail & logistics room Media library Refreshment & gathering areas	-workstation- individual permanent workstation due to high quantity information possessed

* Developed for the hypothetical company *Torrent* based on information gathered regarding existing global management consulting company(s).

User	# of users	Description	Activities	% of time	Location	Behavioral Needs
Facilities Manager	1	Responsible for maintaining secure areas within the workplace and general building maintenance on the floor	Building repairs; Implementing & monitoring security systems; Administrative work; Break	30%; 60%; 5%; 5%	Overall floor; Security room; Security room; Refreshment & gathering areas	-workstation- enclosed area to insure privacy of security information
Total employees	74					

4.2.2.2 Secondary Users: Torrent's Clients, Potential Clients, & Potential Employees: Users & Activities

User	# of users	Description	Activities	% of time	Location	Behavioral Needs
Clients	-	Companies that are current consumers of Torrents services	Waiting; Meetings	5%; 95%	Reception area; Client conference room	-reception- comfortable seating area away from workplace activity and confidential information; -conference room- private both acoustically and visually as to limit distractions
Potential Clients	-	Companies that may become future consumers of Torrents services	Waiting; Meetings	5%; 95%	Reception area; Client conference room	-reception- comfortable seating area away from workplace activity and confidential information; -conference room- private both acoustically and visually as to limit distractions
Potential Employees	-	Applicants desiring to gain employment with company	Waiting; Interview	5%; 95%	Reception area; Interview room	-reception- comfortable seating area away from workplace activity and confidential information

4.2.2.3 Tertiary Users: Janitorial & Maintenance Staff: User & Activities

User	# of users	Description	Activities	% of time	Location	Behavioral Needs
Janitorial Staff	2	General cleaning of floor	Retrieving & storing; Cleaning	5%; 95%	Janitor closet; Overall floor	-centrally located janitorial closet for easy access to supplies

5.1 Figure 47. Functional & Aesthetic Spatial Requirements

Activity Area	Description	Occupancy	No. Req.	Sq. Ft.	Total Sq. Ft.	Furniture/ Fixtures / Equipment	Electrical Req.	Color & Material Req.	Spatial Character
Workstations	Supports work done individually and in teams (2- 8 people)	1 person	72	20 (2.5'x4.5')	1,440	-work surface (2.5'x4.5') -ergonomic task chair -waste & recycling basket -lock points for laptops -numbering or labeling visible on each station -telephone	-direct/indirect fluorescent lighting on work surface -pendant also an option in rooms with ceilings higher than 9' -1 in 6 will be an emergency light fitting -1 duplex receptacle above workstation -1 duplex receptacle below workstation -1 voice point -1 data point -1 integrated data and cable raceway	-durable chair upholstery -durable work surface material -sound absorbent flooring -sound absorbent ceiling	-access controlled enclosed area at clients request
Work room	Supports focused project meetings	2-4 persons	2	100 (10'x10')	200	-writable wall surface -tackable surface -phone -4 task chairs -freestanding work surface -waste & recycling basket	-direct/indirect fluorescent lighting on work surface -2 power outlets -2 data points -2 duplex receptacles	-sound absorbent flooring -sound absorbent ceiling	-non-lockable floor to ceiling enclosure for acoustical privacy -transparent enclosure indicates room availability (used on drop-in basis)
Small conference room	Support meetings and conference calls	8 persons	1	150 (10'x15')	150	-projection surface -2 large writeable or tackable wall surfaces -credenza for storage & beverage service	-dimmable direct/indirect fluorescent lighting (2x2, 2x4 pendant) -network connectivity on table top	-sound absorbent flooring -sound absorbent ceiling	-enclosed floor to ceiling providing acoustic separation and privacy

Room	Purpose	Capacity	Quantity	Area	Furniture	Technology	Sq ft	Finishes
					-8 ergonomic task chairs -video conference may be required -modular furniture for mobility -waste paper basket	-2-4 input jacks on table top -2 voice points on table top -2 data points on table top -4 power points in/on table top		-enclosed insulated floor to ceiling providing acoustic separation and privacy
Large conference room	Support meetings and conference calls	10-18 persons	1	300 (15'x20')	-projection surface -2 large writable or tackable wall surfaces -credenza for storage & beverage service -18 ergonomic task chairs -video conference may be required -modular furniture for mobility -waste paper basket	-dimmable direct/indirect fluorescent lighting (2x2, 2x4 pendant) -network connectivity on table top -2-4 input jacks on table top -2 voice points on table top -2 data points on table top -4 power points in/on table top	300	-sound absorbent flooring -sound absorbent ceiling
Client conference room	Used for larger formal meetings & client presentations	20+ persons	1	875 (25'x35')	-motorized window coverings -projection surface -2 large writable or tackable wall surfaces -small lecturer table to place papers and/or laptop (will need data and network connection) -20 executive conference chairs -8-10 additional chairs -credenza for storage, food & beverage service (2 receptacles nearby) -conference phone	-dimmable direct/indirect pendant lighting (2x2, 2x4 pendant) - network input jacks on table top for each person - extra network input jacks on the wall -1 voice points on table top -1 data points on table top -2 duplex receptacles on opposing walls	875	-high quality materials should be used -sound absorbent flooring -sound absorbent ceiling -enclosed floor to ceiling providing acoustic separation and privacy -accommodate food and beverage catering while minimizing disruption -access to wet pantry (refrigerator, microwave, coffee machine, storage)

						-ceiling mounted projector -ceiling mounted retractable projection surface - waste baskets			-showcase facility & brand imagery
Training room	Used for employee training	20-24 persons + 1 trainer	1	600 (20'x30')	600	-projector -projection surface -large writable surfaces and tackable surface on either side of projection surface -20-24 modular training desks with keyboard tray (900mm wide x 600mm deep) -20-24 ergonomic task chairs -trainer desk/podium with storage for materials -desktop computer for each seat -wall mounted speakers -manual window coverings -large writable surface located directly outside room for candidate training lists	-dimmable direct/indirect pendant lighting (2x2, 2x4 pendant) -down lights can be used for presentation walls -lighting should not conflict with projection surfaces -2 duplex receptacles on opposing walls -1 voice points on table top per position station -1 data points on table top per position station -cat 6 cables with RJ45 connection points	-sound absorbent flooring -sound absorbent ceiling	-enclosed floor to ceiling providing acoustic separation and privacy -access to natural light -located in public security zoned area
Training storage	Storage of furniture, equipment, stationery etc.	-	1	100 (10'x10')	100	-full-height metal shelving or racking -oversized door	-direct fluorescent lighting	-durable hard flooring -sound absorbent ceiling	-must be secured area either integrated with training room

Room	Description	Capacity	Quantity	Area	Area	Furniture/Equipment	Lighting/Electrical	Flooring/Finishes	Notes
Assembly room	Multipurpose space often used for orientation, in-house meetings, & social gatherings	50 persons	1	600 (20'x 30')	600	-modular mobile reconfigurable furniture -stackable seating -ceiling mounted projector -projection surface -large writable surface or tackable surface -speaker podium -stool/chair for speaker podium	- dimmable direct/indirect lighting -down lights may be used to highlight presentation walls -2 duplex receptacles on opposing walls	-sound absorbent flooring -sound absorbent ceiling	-enclosed room with ample storage space for furniture not in use (furniture storage) or in an adjacent room
Interview room	Used for candidate interviewing and one-on-one meetings	2-3 persons	1	64 (8' x 8')	64	- small table (60"/ 1524 mm wide x 30"/762mm deep) -2-3 mobile chairs -telephone	-direct/indirect pendant lighting(2x2, 2x4 pendant) -network input jacks -2 duplex receptacles on opposing walls	-durable chair upholstery -sound absorbent flooring -sound absorbent ceiling	-enclosed floor to ceiling providing acoustic separation and privacy -brand name imagery
Shared print/fax/ copy area	Shared area for small print jobs located in client/ project space or in open work space	-	2	9 (3'x3')	18	-waste & recycling basket -office supplies (stapler, hole punch etc.) -storage or shelving recommended for paper -layout paper space -printer x 2 (black & white, color) -fax machine -photocopier	-2 duplex receptacles on opposing walls	-durable hard flooring	-visibly located in workspace

Service center	Shared area for large reprographic print jobs	-	1	100 (10'x10')	100	-waste & recycling basket -office supplies (stapler, hole punch etc.) -layout paper space -printer -fax machine -photocopier -large tackable surface -millwork cabinets & shelving for paper and supply storage	-direct/indirect pendant lighting(2x2, 2x4 pendant) -2 duplex receptacles on opposing walls	-durable hard flooring -sound absorbent ceiling	-enclosed floor to ceiling providing acoustic separation
Server room	Support of all voice & data Communica-tion	-	1	750 (25'x30')	750	-raised floor slab contains thermal insulation & cutouts for access to floor stands -installation to comply with local in-country regulations -sound absorbent ceiling -6 freestanding tables (762mm x 1542mm)	-1 non- UPS standard duplex receptacle (240 volts, 50 Hz, 1Ph, 3W) above raised floor on the walls every 6 meters -hardware connects to separately to 2 different colored circuits -direct fluorescent lighting -1 in 3 fittings is a emergency light fitting	-durable hard flooring (i.e.: vinyl tile)	-cabling & electrical distribution run bellow raised floors -secure room that is accessed by key pad code entry -min. 2 hour fire rated construction -24 hour air supply to support heat load
Data room	Contains panels for network and communica-tion cables for distribution to work area	-	1	100 (10'x10')	100	-instillation of raised flooring -no freestanding furniture	-direct fluorescent lighting -1 in 3 will be an emergency light fitting	-concrete floors to be covered with an epoxy resin- an anti-dust floor sealer	-accessed by key card entry -enclosed floor to ceiling secure room to provide acoustical separation

Room	Description	Occupancy	No.	Area	Area	Furniture	Electrical/Lighting	Flooring/Ceiling	Security
Telecommunications room	House telecommunication/server racks	–	1	100 (10'x10')	100	-no freestanding furniture	-direct fluorescent lighting	-concrete floors to be covered with an epoxy resin- an anti-dust floor sealer -sound absorbent ceiling	-enclosed floor to ceiling secure room to provide acoustical separation -accessed by certain employees (key card entry)
Technology workroom	Computer support and repair room	1-2 persons	1	150 (10'x15')	150	-modular freestanding workstations or benches -ergonomic task chair -overhead storage -millwork unit with surface workspace and drawers for part storage -3 drawer lateral file cabinet (36"/915mm wide) -telephone -computer	-direct fluorescent lighting -2 duplex receptacles at each workstation -1 voice points at each work station -2 data points at each workstation -2 duplex receptacles at each workstation -1 voice points at each work station -2 data points at each workstation	-durable hard flooring	- secure room -parts storage should be efficient, and meet access and security requirements -staff drop off/ pick up window may be incorporated
Security room	Monitors and houses security system on the floor (key pad entry, security cameras)	1 person	1	100 (10'x10')	100	-1 modular freestanding workstation or work benches positioned for viewing of video monitor screens -1 ergonomic task chair -3 drawer lateral file cabinet (36"/915mm wide) -media safe (825x825mm) -telephone -computer -video monitoring equipment	-direct fluorescent lighting -2 duplex receptacles at each workstation -1 voice points at each work station -2 data points at each workstation -2 duplex receptacles at each workstation -1 voice points at each work station -2 data points at each workstation	-durable hard flooring	-enclosed floor to ceiling secure room that is accessed by key pad code entry

Reception	Entry area where clients, employees, potential employees, and visitors are received	1-2 persons	1	400 (25'x35')	400	-reception desk -1 task chair -lounge seating and side tables -fax machine -multi-line telephone -computer -printer	-indirect down lights -decorative lighting can also be used -4 power points for reception desk -additional power points located uniformly around reception area -1 voice points -2 data points	-high quality creative materials -durable lounge seating materials	-located at entry -brand name imagery -adjacent secure space for luggage, coats, laptops for travelers visiting
Refreshment area	Break area & access to hot & cold drinks	-	1	100 (10x10)	100	-backsplashes required -work-top counter & storage (wheel chair/ handicap accessible) -waste disposal & recycling - may include counter-height seating -microwave -coffee service -refrigerator/freezer -ice maker -dishwasher -sink with plumbing -drainage	-indirect lighting -accent/ decorative lighting -network connectivity at countertop -2 duplex receptacles on opposing walls	-durable hard flooring	
Mail/ logistics room	Mail distribution, shipping, receiving, & storage	-	1	150 (10'x 15')	150	-oversized door for large packages -sorting table -mail slot millwork large enough to hold A4 sized packages -1 ergonomic task chair -heavy duty metal shelving	-direct fluorescent lighting	-durable, hard, non-slip flooring -sound absorbent ceiling	-enclosed floor to ceiling for limited accessibility

Room	Purpose	Occupancy	Size	No.	Area	Requirements	Lighting	Flooring / Ceiling	Notes
						-mail stack trolleys -whiteboard and tackable space			
Storage room	Storage of furniture, equipment, stationery etc.	–	150 (10'x15') Can be 10'x10'	1	150	-sound absorbent ceiling -full-height metal shelving or racking -oversized door	-direct fluorescent lighting	-durable hard flooring	- secured enclosed room free of obstacles
File room	Storage of files not used on a regular basis	–	200 (10'x20') -files can also be stored off site depending on size	1	200	-file systems -2 freestanding work tables (30"/762mm wide x 60"/1524mm deep) -2-4 ergonomic task chairs -air-conditioning to maintain cooler temperatures in room -telephone	-direct fluorescent lighting	-sound absorbent ceiling -durable hard flooring	-enclosed floor to ceiling - secured room
Coat closet	Storage of guest and employee coats & jackets	–	100	1	100	-rack & hangers to hang coats -overhead storage area for gloves, scarves etc. -floor level storage for shoes & boots			-easily accessible
Phone room	Private rooms for business & personal phone calls	1 person	36 (6'x6') Standing if not enough room	2	72	-built in work surface -chair (no ergonomic req.)	-direct/indirect pendant lighting	-sound absorbent flooring -sound absorbent ceiling	-insulated enclosed floor to ceiling providing acoustic separation and privacy

Media library	Provides Access to periodicals, publications, & reference books	1- 8 persons	1	150 (10'x15')	150	-millwork shelving -lounge chairs with table arms -telephone -audio/visual equipment can be included	-indirect lighting -2 duplex receptacles on opposing walls	-durable material used on lounge chairs	-enclosed floor to ceiling providing acoustic separation
Gathering spaces	Informal meeting and gathering space for employees	8- 20+ persons	2	100 (10x10)	200	-comfortable seating -surfaces to place laptops, paperwork, food and beverage	-2 duplex receptacles on opposing walls	-durable stain resistant materials	

* Developed for the hypothetical company *Torrent* based on information gathered regarding existing global management consulting company(s).

5.2 Figure 48. Spatial Adjacency Matrix

	Workstation	Small conference rooms	Large conference rooms	Client conference room	Training rooms	Training storage	Assembly room	Interview rooms	Print/fax/copy areas	Service Center	Server room	Data room	Telecommunications room	Security room	Technology room	Reception	Refreshment areas	Mail/logistics room	Storage room	Files areas	File room	Coat rooms	Phone rooms	Media library	Water closets	Freight elevator
Workstations																										
Small conference	●																									
Large conference	●																									
Client conference	X																									
Training rooms																										
Training storage					●																					
Assembly room																										
Interview rooms	X																									
Print/fax/copy	●																									
Service center																										
Server room																										
Data room																										
Telecommunications room																										
Security room																										
Technology room																										
Reception				●	●			●																		
Refreshment Areas	O							●																		
Mail/logistics room																	O									
Storage room																										
Files area	●																									
File rooms																										
Coat room				●												●										
Phone rooms	●															●										
Media library	O																									
Water closets	O	O	O	●			O									●										
Freight elevator																		●								
Primary circulation	O	O	O				O				X	X	X	X									O	O		

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6.0 Life Safety Requirements

       Access and life safety requirements, as outlined in the *National Building Code of Canada* (12th ed., 2005), were reviewed prior to the development of the practicum's workplace designs. The Building Code is issued by the *Canadian Commission on Building and Fire Codes* and the *National Research Council of Canada*.

Requirement	Requirement Specifications	Requirement as Applied In Current Office Building
Major Occupancy Classification	-'Business and personal services occupancies' (3.1.2).	Major occupancy classification Group 'D' ('Division –').
Occupancy Load	- 9.30 square meters per person (offices) (3.1.17.1).	Approx. 200 occupants at full capacity based on an estimated 1,865.8 square meters of usable space.

Building Fire Requirements (floor area sprinklered throughout)	Fire Exits:
	
	-Floors intended for occupancy must contain at least 2 fire exits (2.4.2.1).
	
	-Door swings on these exits must be located on the vertical axis and open in the direction of exit travel (3.4.6.11).
	
	-45 minute to 2 hour fire separations must separate these exits from the rest of the building (3.4.4.1).
	
	Minimum Distance Travelled to Fire Exits:
	
	-Minimum travel distance between 2 exits on a floor is one half the maximum diagonal dimensions of the floor area, however;
	    - not more than 9 m if located on a public corridor (3.4.2.3).
	    - not less than 9 m in all other areas (3.4.2.3).
	
	-A maximum of 40 m travel distance from any location on the floor to the nearest exit is required in "Business and personal services occupancies" (3.4.2.5).	

	Fire Alarm & Detection Systems: -A single or two stage fire alarm and detection system is required (3.2.4.1). -Smoke detectors are required in each public corridor and exit stair shaft (3.2.4.11).	

Lighting & Emergency Power Systems	-Emergency lighting to provide a minimum illumination of 101 x at floor or tread level (3.2.7.3).
	
	-Emergency lighting must be available by/in;
	    -exits
	    -principle circulation routes enabling access to an exit
	    -open areas and service rooms
	    -corridors accessible by classrooms
	    -public corridors (3.2.7.3)
	
	-Lighting provided in all public areas is to be controlled by wall switches or wall panels (9.34.2.7)
	
	-Emergency power supplied by batteries or a generator must last a minimum of 30 minutes (3.2.7.4).
	
	-Emergency power is to be provided for the fire alarm system, and must provide supervisory power for a minimum of 24 hours, and full emergency power for a minimum of 30 minutes (3.2.7.8).	

Washroom Requirements	-3 plus 1 water closet stall is required for every 50 people in addition to 50 people, for each sex (3.7.2.2). - Two thirds of these water closets stalls can be substituted with urinals in male washrooms (providing more than two water closets are required) (3.7.2.2).	4 water closets stalls (two of which can be urinals in the men's washroom) are required for each sex, 8 water closets stalls are required in total.
Public Corridors	-Corridors must be a minimum of 1,100 mm or 3.6 feet in width (3.3.1.9). -Obstructions located within 1980 mm of the floor cannot horizontally project more than 100 mm into the public corridor (3.3.1.9). -Obstructions located within 680 mm or 2.2 feet of the floor cannot project more than 100 mm 03 0.33 feet into the public corridor (3.3.1.9).	

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Transparent Doors & Panels	-Doors must contain non-transparent hardware and be visually apparent (3.3.1.19). -Must be constructed of laminated tempered safety glass or wired glass (3.3.1.19).	
Barrier-Free Requirements	Barrier- Free Path of Travel (3.8.1.3) -Required on all floors that are served by an elevator or other type of lifting device. -Unobstructed width of not less than 920 mm or 3 feet. -Contain no opening that will permit a sphere more than 13 mm in diameter. -Contain no elongated openings orientated approximately perpendicular to direction of travel. -Should be stable, firm, and slip-resistant. -Ramps, elevators, and elevating devices must be used in areas where changes in level occur. -Ramps and sloped floors to be used when change in level exceeds ½ inch. -Maximum slope of ramps or sloped floors is 1 in 2 at changes in level not more than ½ inch. Doorways & Doors (3.8.3.3) -Doors located on a barrier free path of travel must have a minimum width of 800 mm or 2.6 feet when open. Water Closet Stalls - A minimum of 1 stall is required to be barrier- free (1500 mm or 4.92 feet wide by 1500 mm or 4.92 feet deep, minimum door width of 800 mm when open, outward door swing, equipped with grab bars, seat located between 400 mm and 460 mm above floor) (3.8.3.8). - A minimum of 1 barrier-free urinal in male washroom (wall mounted, rim located between 488 mm and 512 mm above floor level) (3.8.3.10).	

| | Counters (3.8.3.14)

-Counters longer than 2 m that serve the public must have a barrier-free section that is a minimum of 760 mm and centered over a knee space.

-The counter should not be located higher than 865 mm above the floor level.

-Counters used as a work surface must include a knee space that is 760 mm wide, 685 mm high, and 485 mm deep. | |

7.0 Design Guidelines

The design guidelines in this section pertain to the two primary goals stated earlier in the programme; cultural adaptation and standardized corporate identity. The design guidelines pertaining to cultural adaptation are discussed in two different sections; one for Japan, and one for Canada. The design guidelines pertaining to standardized corporate identity comprise only one section, as these guidelines will apply to both the Japanese and Canadian workplaces.

8.1 Guidelines for Cultural Adaptation in the Design of the Japanese Workplace

1) **Issue:** Cultural Adaptation; High Context Culture

Objective: The workplace designs should allow for visual communication between employees.

Concept: Consider using an open plan that reduces the visual separations between employees while working.

Concept: Consider the use of circulation paths and informal gathering spaces to encourage face-to-face communication between employees.

2) **Issue:** Cultural Adaptation; Collectivist Culture

Objective: The workplaces design should encourage collective work practices as well as decision making based on consensus and consultation with others.

Concept: Consider grouping together workstations to enable work to be done in a collective and team oriented manner.

Concept: Consider increasing the number of meeting and conference spaces to facilitate consensus based decision making.

3) **Issue:** Cultural Adaptation; Power Distance

Objective: The workplace design should reflect the presence of hierarchy within the workplace, as well as limited employee autonomy and self-management.

Concept: Consider variations in the size and materials used in the workstations for different levels of employee seniority in company.

Concept: Consider a workplace design that facilitates supervision of employees by management.

4) **Issue:** Cultural Adaptation; Strong Uncertainty Avoidance

Objective: The workplaces design should accommodate the avoidance of uncertainty in daily life in an effort to reduce employee anxiety.

Concept: To reduce unpredictability in workplace, consider the possession of permanent workstations by individual employees.

Concept: To reduce uncertainty in workplace, consider a clear and predictable layout of the workspace.

5) **Issue:** Cultural Adaptation; Synchronic Time Orientation

Objective: The workplace design should reflect a view of time and activities that are structured in a more cyclical and non-linear way.

Concept: Consider an open plan in which boundaries between different activities and spaces are less defined.

6) **Issue:** Cultural Adaptation; Particularist Culture

Objective: The workplace design should encourage the development and maintenance of relationships within the workplace.

Concept: Consider integrating social, meeting, and gathering spaces within

workspace.

Concept: Consider the use of circulation paths in facilitating informal employee interaction.

Concept: Consider open workstations that allow for employee interaction to easily take place.

Concept: Consider providing spaces where socialization can occur between clients and employees.

7) **Issue:** Cultural Adaptation; Internal Control Orientation

Objective: The workplace design should facilitate harmonization of employees with their surroundings.

Concept: Consider providing limited control and personal individualization of work stations by employees in order to maintain uniformity.

8.2 Guidelines for Cultural Adaptation in the Design of the Canadian Workplace

1) **Issue:** Cultural Adaptation; Low Context Culture

Objective: The workplaces design should allow for visual separations between employees, as visual communication between employees is not critical.

Concept: Consider the use of visual separations between working stations (as necessary).

2) **Issue:** Cultural Adaptation; Individualist Culture

Objective: The workplaces design should primarily facilitate employee work and decision making done individually, but also accommodate work done as part of a group.

Concept: Consider providing both individual and grouped workstations to allow

employees to work either independently, or as part of a group.

Concept: Consider using only the required number of meeting and conference spaces in the workspace.

3) **Issue:** Cultural Adaptation; Small Power Distance

Objective: The workplace design should reflect equality within the workplace, while encouraging employee autonomy and self-management.

Concept: Consider using the same size and materials for workstations regardless of employees' level of seniority within the company.

Concept: Consider a workplace design that enables employees to act autonomously, and not require supervision by management.

4) **Issue:** Cultural Adaptation; Weak Uncertainty Avoidance

Objective: The workplaces design should accommodate uncertainty, as it is largely accepted by employees in daily life.

Concept: Consider temporary unassigned workstations to be reserved by employees on an as-needed-basis.

Concept: Consider a less predictable and more dynamic layout of the workspace.

5) **Issue:** Cultural Adaptation; Sequential Time Orientation

Objective: The workplace design should reflect view of time and activities that are structured in a linear and sequential way.

Concept: Consider a design in which boundaries between different activities and spaces are more strongly defined.

6) **Issue:** Cultural Adaptation; Universalist Culture

Objective: The workplace design should emphasis a precedence given to rules and standards in the workplace over relationships.

Concept: Consider the separation of social, meeting, and gathering spaces from workspaces.

Concept: Consider the use of circulation paths to reduce unnecessary informal employee interaction.

Concept: Consider workstations that allow for employee to control their degree of interaction with others.

7) **Issue:** Cultural Adaptation; External Control Orientation

Objective: The workplace design should allow employees a degree of control over their work environment.

Concept: Consider employees ability to individualize workstations in order to provide a sense of empowerment and autonomy.

Concept: Consider providing a range of different workstations and areas in which employees can choose to work.

8.3 Guidelines for Standardized Corporate Identity in the Workplace

1) **Issue:** Corporate Identity; Research based knowledge

Objective: Expression of core value "research based knowledge" in the design of the workplace.

Concept: Consider creating an atmosphere similar to that of a place in which research is typically done (i.e.: laboratory, library).

Concept: Consider expressing qualities and characteristics associated with 'research' in the design of the workplace (i.e.: utilitarian, serious, practical, professional).

2*)* **Issue:** Corporate Identity; Enhanced business performance

Objective: Expression of core value "Enhanced business performance" in the design of the workplace.

Concept: Consider expressing qualities and characteristics associated with 'performance' in design of workplace and selection of materials and furniture (i.e.: progressive, serious, intelligent, state of the art, modern, professional).

3) **Issue:** Corporate Identity; Global community orientation

Objective: Expression of core value "global community orientation" in the design of the workplace.

Concept: Consider expressing qualities and characteristics associated with community in the design of the workplace (i.e. interconnection, belonging, warmth, and part of a greater whole).

Concept: Consider use of global imagery on surfaces and walls within workplace (i.e., reception area).

4) Issue: Corporate Identity; Standardization

Objective: Expression of standardized corporate identity in the design of the workplace.

Concept: Consider consistent use of unique design features and atmosphere in all workplaces.

Concept: Consider consistent use of color palette in all workplaces.

Concept: Consider consistent use of materials in all workplaces.

Concept: Consider consistent use of furniture scale in all workplaces.

Chapter 5 . Design Outcomes

5.0 Design Outcomes

The practicum's final design solution has been based on the investigation of research based literature, precedent analysis, and the programmatic requirements of the building and client corporation, *Torrent*. The intention of this solution was to demonstrate how cultural adaptation and standardized corporate identity could be achieved simultaneously in the interior design of a workplace environment. In order to illustrate how this balance can occur for a multinational corporation possessing work environments in different national cultures, two designs were completed, one for Japan, and one for Canada.

The final design solution was derived from two phases in the designs development. The first phase, pre-design, involved the selection of the site and building, and the application of programmatic information to a preliminary design. This phase resulted in the overall spatial adjacencies and design layout. This layout is consistent for the designs of both countries as it is based on the user, spatial, and functional requirements of the multinational client company, *Torrent*. Further, design layout was used to carry the corporate identity, and therefore, would remain largely consistent for all of Torrent's workplaces around the world.

The second phase of design development involved the application of theoretical research on the practicum's two themes, cultural adaptation and standardized corporate identity, to this preliminary workplace design. At this point, the two designs diverge based on the theme of cultural adaptation. The degree of divergence for Japan and Canada was significant, as the countries differed on each of the dimensions included in the *Framework of Workplace Cultural Research Chart* developed in chapter two (see p. 55-67). These differences are primarily manifested within the workspaces, however, also influence the design of various other spaces within each country's workplace design.

Consistent with the previous chapters, cultural adaptation and

standardized corporate identity have been examined separately in their application to

the practicum's final design solutions. The theme of cultural adaptation is comparative

in nature, and its design outcomes are discussed separately for Japan and Canada. The

theme of standardized corporate identity is consistent in both designs, and therefore

is discussed only once. It is important to note that these design solutions serve as only

one of many possible solutions, and should not be considered absolute in their

determination.

5.1 Culturally Adaptive Japanese Workplace Design

A culturally adaptive design for Torrent's Japanese workplace has been based

upon the seven cultural dimensions outlined in the *Framework of Japanese Workplace*

*Cultural Research Char*t (see p. 55-60) A discussion of this design centers primarily on

the workspace, in which work is conducted, but goes on to encompass Torrent's

overall workplace.

The workspace within Torrent's Japanese workplace was designed as an open

plan in which visual barriers were minimized and separate rooms were enclosed in

transparent glazed walls. An open plan concept responded to a number of cultural

dimensions outlined in the previously mentioned framework developed in chapter

two. Within this framework, Japan was identified as a *high context* culture, relying

primarily on context and non-verbal cues for the communication of information. An

open plan workspace was designed to facilitate visual connections between

employees allowing for implicit communication of information based on non-verbal

cues (i.e., body language, facial gestures, and intuitive understandings). The open plan

design also responds to Japan's *collectivist* orientation within the cultural

framework, as it allows for consultation and communication to occur more easily

between employees, and thus supports a more collective work environment. The open plan design also supports Japan's *particularist* orientation, in which relationships are valued more highly than rules or societal codes. It encourages frequent interactions between employees which could foster the building and maintaining of relationships in the workplace.

Within this open plan, the workstations were grouped and located around a central circulation path. The organization of workstations into groups supports Japan's *collective* orientation in which work, decision making, responsibility, and recognition are largely group and/or team based. Furthermore, these workstation groups were designed so that different groups, or parts thereof, could connect together to create larger groupings if, for example, a project changes in scale. Within these groupings, the workstations were positioned diagonally from one another in order to provide more face-to-face contact, and to encourage a greater degree of communication between employees.

A central circulation path was designed through these groupings of workstations, in order to create one main circulation route, as opposed to several smaller routes, through the space. Informal gathering areas were placed where this main path intersects with the pathways leading into the room. Both of these design gestures create opportunities for interaction and relationship building consistent with Japan's *particularist* orientation. In addition to these informal gathering areas, two conference rooms were integrated into the workspace, further supporting the particularist and collectivist dimensions. These gathering areas and conference rooms are in addition to the number of meeting spaces required by the company, and provide additional spaces in which group work, consultation, and consensus based decision making can take place. The integration of these different types of activity spaces within the overall workspace is consistent with Japan's

synchronic time orientation, in which time is viewed more cyclically and tasks and activities are done in a more interchangeable and concurrent manner.

The workspace also responds to the dimension of uncertainty avoidance, in which a lack of comfort is associated with uncertainty, ambiguity, and unpredictability in daily life. Primary circulation paths through the workspace were clearly delineated by ribbons of wood that run on either the ceiling or floor of the space. Moreover, groups of workstations were divided into sections laid out along the central circulation path, at regular intervals. These design gestures help to reduce unpredictability when navigating through the workspace. The standardization of workstations across levels of seniority in the company, as well as the assignment of workstations to individual employees, further decreases unpredictability and uncertainty in the workplace. In addition, the standardization of workstations helps to maintain uniformity and harmony with the overall workplace environment, which also supports Japan's *internal control* orientation.

The organization and selection of workstations also pertain to Japan's *large power distance* orientation. Management workstations have been located centrally in the workspace in order to facilitate the supervision of employees. The senior executive's workstation was enclosed in floor to ceiling transparent glazing to allow for increased acoustic privacy, while not obstructing supervision. The mangers workstations are located on either side (north and south sides) of the senior executive's workstation, in order to allow for their supervision by the senior executive. This position also allows them to supervise the consultants and analysts, as well as human resource, marketing, accounting and administrative personnel. The allocation of space and quality of materials provided for these workstations were also based on these levels of seniority within the company (i.e., senior executive, management, other remaining employees).

Many of the design interventions used in the workspace were also used in other areas of the overall workplace. The gathering areas located on the north and south sides of the building also possesses an open floor plan in which visual barriers have been minimized and fixed seating and tables are positioned in collective configurations. The media library also utilized an open plan with fixed furniture in collective seating and working configurations. The secure work room was designed consistently with the larger workspace, utilizing an open floor plan, group/ team workstations, and smaller informal gathering spaces. This area also contains a printing station, in order to maintain the confidentiality of information in this space. A client social space was adjoined to the client conference room, so that employees and potential or existing clients could engage in informal relationship building, before moving into the boardroom. The social space supports Japan's *particularist* cultural orientation.

5.2 Culturally Adaptive Canadian Workplace Design

Similar to Japan's culturally adaptive workplace design, a culturally adaptive design for Torrent's Canadian workplace was achieved by responding to each of the country's cultural dimensions outlined the Framework of *Canadian Workplace Cultural Research Chart* (see p. 61-67). The design of Torrent's Canadian workspace is examined next, followed by a discussion of the company's overall workplace.

The design of Torrent's Canadian workplace is more segregated in its layout and organization than in the Japanese workspace. The workspace is comprised almost entirely of workstations. Informal gathering areas were located externally from the workspace in order to support Canada's *universalist* orientation in which work, rules, and standards take precedence over relationships. This separation of workspace from other activity spaces is consistent with Canada's *sequential time* orientation, in which

time is viewed more linearly, and activities are performed separately from one another. Canada's *individualist* orientation supports a more independent work process then would be found in a collectivist country such as Japan. This individual work process involves greater independent initiative and decision making, individual assignment of responsibility and credit, and less supervision by senior levels of management. This work process is supported in a number of ways in the design of the Canadian workspace. Enclosed individual workstations provide a degree of visual and acoustic separation, reduce interactions with other employees, and encourage work to be completed on a more individual basis. The identification of Canada as a *low context culture*, in which information is communicated more explicitly (i.e., often in written or spoken form), does not restrict the use of visual separations as it does in the Japanese workspace. The enclosed workstations also reduce employee supervision by more senior management, in part due to the visual and acoustical separation of the enclosure. This reduction in supervision is consistent with Canada's *small power distance* orientation, in which hierarchy and inequalities in the workplace are largely rejected. The primary circulation path was placed around the perimeter of the workspace in order to reduce interactions with working employees. Two "work rooms" were included in the workspace design, as a spatial requirement of the company, and provide small four person meeting spaces which can be used on an as-needed-basis.

The workstations within Torrent's Canadian workplace environment are consistent in terms of space allocation, and the types of materials used in their construction, across all levels of company seniority. The senior executive's workstation is an exception to this consistency in terms of spatial allocation, as it is larger in size then the other workstations. This exception, however, has been based on the need for increased storage space, rather than an expression of hierarchy in the workplace.

Overall, the consistency in workstation design responds to Canada's *small power distance* orientation. This consistency is also important as the workstations are not assigned to individual employees (with the exception of management and support staff), and must be reserved over Torrent's computer system on an as-needed-basis.

Consistency in the workstations helps to insure that this reservation process occurs smoothly, as one workstation is less likely to be desired over another. This reservation system is in keeping with Canada's *low uncertainty avoidance* orientation, in which unpredictability in life does not result in stress or anxiety. This reservation system also provides employees with a degree of autonomy and control, as they are able choose where they work in the workspace, and therefore supports Canada's *external control* orientation, in which control over ones environment is desired. A degree of control is also provided within each workstation, as each is equipped with a translucent sliding door and window coverings which can be open or closed depending on the user's desired degree of interaction and privacy. The orientation of theses workstations was configured randomly in order to create a more dynamic layout, and less predictability in the workspace, in response to Canada's *small uncertainty avoidance* orientation.

Canada's culturally adaptive design further extends into other areas of the overall workplace. The gathering spaces contain mobile partition walls and furniture that provide users with a degree of control over their interactions with others, and control over the space itself. The media library also possesses mobile seating, so that reading or work can be done in solitude or with others, as well as a work surface comprised of individual workspaces where independent work can be done. The design of the secure workspace is consistent with the larger workspace, and includes enclosed randomly configured individual workstations and perimeter circulation path. This area also contains a printer to maintain the confidentiality of the information and

work in this space.

Spaces which include file storage, service center, security room, interview room, phone rooms, mail and storage rooms remain largely consistent in the culturally adaptive Japanese and Canadian workplace designs, as they are intended to serve specific functions and are utilized for only short periods of time. The training room and assembly room are comprised entirely of mobile furniture which is regularly changed based on how they are being used (i.e., conferences, seminars, computer/ technology training, social gatherings, etc.). The design of the reception and conference rooms are also consistent based on the function they serve, and the standardized corporate identity they are intended to communicate. This standardized corporate identity is the subject of the next section.

5.3 Standardized Corporate Identity in the Design of Torrent's Workplace

The design of a workplace which expresses a standardized corporate identity for the multi-national corporation Torrent, has been based upon the company's three core values. These values included: 1) global community orientation, 2) research based knowledge, and 3) enhanced business performance. An examination of the design will begin with a discussion of how these three core values have been communicated through the interior design of Torrent's workplace, and follow with an overview of the aspects of the design that should be standardized in all of Torrent's workplace environments.

5.3.1 Corporate Identity in the Design of Torrent's Workplace

The practicum's precedent of the London based advertising firm *Mother*, provided an example of how the design of interior spatial elements, materials, textures, and colors can communicate a company's identity through their workplace

environment. Torrent's core value for a *global community orientation* is expressed through a prominent design element that takes the form of rectilinear ribbon of wood that runs continuously throughout the workplace. The workplace can be said to be comprised of three main parts: the east wing, the core, and the west wing. These parts can be distinguished by their different orientations as well as how they extend from the building. A "ribbon" constructed of Brazilian cherry wood plays a unifying role in the workplaces design, as it connects these different parts, as well as the different rooms and spaces within them. Moreover, the floors, walls, and ceilings within these rooms are also connected by the ribbon as it weaves through the space transitioning between the ceiling and floor. The integration of the ribbon in the design of the workplace is intended to communicate the concept of community through the conceptual expression of the qualities of connection, unification, and commonality. Like a community, the ribbon acts as a common thread woven between individual elements in order to form a greater whole.

The concept of community is further supported by the material from which this ribbon is constructed. Wood was selected for the construction of the ribbon based on its unique qualities, as no two pieces of wood are identical in their grain, composition, and distribution of color. More specifically, *jotoba*, commercially known as *Brazilian cherry*, was chosen to highlight this distinction as it contains a significant variation in color. When put together, *Brazilian cherry* possesses a mélange of distinct and identifiable pieces. This characteristic was important in the design, as the ribbon conceptually expresses the different unique individual elements that comprise a larger community. The warmth of a community is also expressed through the woods deep shades of red and brown, which are further emphasized when contrasted with the neutral color pallet found in the space.

The direction in which the ribbon's wood runs also acts as a unifying element

in the space, further supporting the concept of community. The planks and grain of the wood runs east to west, in keeping with the direction of the three main circulation pathways that connect the three different parts of the workplace. The direction of the wood's planks and grain are consistent throughout the workplace, regardless of the buildings different orientations. This direction also provides a standard orientation for the furniture, walls, and circulation within the workplace. As such, the ribbon provides continuity in the overall workplace design, a quality shared with the concept of community.

The ribbon also supports the concept of community through its use in the entrances of rooms in which people gather or meet (i.e., conference rooms, training room, assembly room, and workspace). The walls of these and other rooms that face the reception area of the building, are constructed of a glazing comprised of a mylar window film. Two feet (650 mm) of this glazing is transparent on the lower and upper parts of these walls, providing a view of the ribbon interweaving through these different spaces. The center part of these walls contain the mylar film, which provides a semi-translucent visual barrier into these spaces. This was done in order to allow the natural light to penetrate into the building, while maintaining a degree of privacy from the public reception space. A partial mylar film glazed display wall is also located in the reception area, and conceptually depicts an image of different countries in order to further communicate Torrent's value for a global community orientation.

Torrent's value for a global community orientation is also expressed through other aspects of the workplaces design. Flooring materials found in the reception space "bleed" into surrounding rooms in order to further strengthen the connection of the overall space. Lines are carried from different materials used in the space to reinforce an overall continuity. Consideration has been given to the selection of environmentally sustainable materials where possible. For instance, the ribbon is

constructed from engineered wood with a no-VOC finish, and certified by the Forest Stewardship Council. Many of the carpets and fabrics selected for the workplace have either a reduced environmental impact or are made from recycled materials. Surface materials such as 3Form 100% made from 100 percent post-consumer recycled products were also specified for the workplace.

Torrent's core values of *research based knowledge* and *enhanced business performance* are communicated in the workplaces design through a spatial aesthetic characteristic of an environment in which research is done. This aesthetic is expressed through a simplistic, utilitarian, and modern design which includes hard smooth surfaces, a cool neutral color pallet, and simple rectilinear lines. Furniture, fixtures, and materials found in a research laboratory environment have been used throughout the workplace design in order to strengthen the connection to these values. These furniture, fixture, and materials include raised laboratory bench surface and seating areas, which have been integrated into both the employee kitchen and into the informal work/meeting space (located at the end of the workplace's north corridor). Stainless steel counters, used in labs for their sanitary and durability, have been integrated into the design of the guest beverage service area (located in the reception area on the south side of the coat storage), in the informal work/meeting space (located at the end of the north corridor), in the employee kitchen, and along the west wall of both the Japanese and Canadian workspace. Stainless steel laboratory sink faucets and fixtures have been specified for the employee kitchen and water closets. Stainless steel workstation backings, also often found on the wall of laboratory workstations, have only been used in the Canadian workstations, as the Japanese workstation is not enclosed.

5.3.2 Standardization of Corporate Identity in the Design of Torrent's Workplace

As demonstrated in the *Starbucks* precedent, a standardized corporate identity can be achieved in the design of interior space, even when located in different buildings around the world. This standardized corporate identity can be attained through the display of a uniform brand name, as well as the consistent implementation of design elements, colors, materials, furniture, fixtures, and equipment in the design of the workplace.

In the case of Torrents workplace design, it is important to specify the design elements which should be standardized over its different workplace environments. The reception area, in terms of its furniture, materials and spatial organization, should remain as consistent as possible within the contexts of the different buildings where they are located. The display of the company's brand name upon entering the building should remain consistent in terms of the style, size, and materials in which it is constructed. The glazed partial wall displaying the world's different countries should also be used in the reception area of Torrent's different workspaces.

The ribbon is an important design element that should be applied to each of Torrent's workplaces in a consistent way. This would include its use in major circulation pathways, its connection through different spaces through the floor, wall, and ceiling planes, as well as its use in entrances of rooms used as gathering or meeting spaces. The width of the ribbon should also remain consistent, as should its construction from *jatoba Brazilian cherry* wood. The transparent/semi-translucent glazed walls providing a view of the ribbon on the different rooms should also standardized in the design of Torrent's different workplaces.

Steelcase was specified as the manufacturer for the majority of the furniture found in Torrent's workplace. This was done for two reasons. First, Steelcase in an

international furniture systems, technology and lighting company with over six hundred dealer locations around the world. The company's headquarters are in North America, however it also services the Europe and Asia Pacific regions in which Torrents subsidiaries are located. This will insure that the same furniture pieces can be accessed and used consistently across Torrent's different workplace environments. Secondly, acquiring the majority of its furniture from one manufacturer is beneficial for Torrent both in terms of efficiency and overall cost.

Materials, fixtures and equipment used in the different workplaces should also be consistent in terms of color, texture, and overall aesthetic. If certain brands are not available in some countries, brands equivalent in cost and quality can be supplemented, but must first be reviewed by the company. Equipment such as computers, projection screens, printers, and fax machines, should be consistent where possible, however this is not imperative.

Beyond the interior design of the workplace, it is important that the company develops a set of guidelines regarding the type of buildings it will occupy. This is important if a similar interior atmosphere is to be created in each of Torrent's workplaces. These guidelines might include criteria such as high ceilings, large windows and ample natural light in the interior space, and a contemporary building design. A building which is sustainable and energy efficient would also be beneficial in supporting the company's values. The layout of space within the building would be determined by the culturally adaptive design required for the national culture in which it was located.

It would be expected that Torrent would have a design office in which it would commission the design of all its workplaces worldwide. The use of a consistent design office would help to insure consistency in the communication of corporate identity in their workplace environments. However the development of a set of design standards

for the company would also be useful in this respect. Ideally, the design office would work in conjunction with local designers whom are more closely acquainted with the culture, to develop the culturally adaptive portion of the design. This would help to achieve an even greater level of cultural adaptation in the workplace, and respond more immediately to changes within the country's national culture.

Finding a Balance

5.4 Design Drawings

Within the context of globalization, a multi-national client company has emerged and, with it, a new set of challenges have been created within the ever more competitive global marketplace. This practicum set out to address several of these challenges through a reconsideration of the design of the workplace environment. This reconsideration involved a design that adapted to the cultures in which the company was located in order to better support their indigenous values, understandings, behaviors and practices. The design also involved the communication of a standardized corporate identity in order to improve the company's recognition and differentiation within this increasingly large and competitive marketplace. The objective of the practicum was to demonstrate how both of these themes could be achieved through the design of a workplace environment, and further, to demonstrate the balance that must be struck, in order to achieve these themes simultaneously.

An analysis of research in the areas of anthropology, cross-cultural research and management resulted in the development of two charts, one for each of the national cultures of Japan and Canada. These charts served two purposes: they compared and identified significant differences between Japanese and Canadian national work cultures, and they provided a synthesis of quantitative and qualitative research used to inform the culturally adaptive workplace designs in both countries.

An examination of research in the areas of management, architecture and interior design identified the visual identity model or corporate visual identity as the expression of corporate identity within the built environment. The standardization of this corporate visual identity served two primary objectives: 1) the communication of a company's identity in the design of its workplace, based on the company's core values, and 2) the unification of the company's multi-national subsidiaries.

Two design solutions were developed for the multinational company *Torrent.* These solutions were based on research-based literature, precedent analysis, and the design programme. Each design solution demonstrates a balance between cultural adaptation and the standardized corporate identity. Further, the design solutions provide a comparison of two culturally adaptive designs, and demonstrate the difference in workplace design when a country's cultural values are supported. The designs also demonstrate that regardless of how different this culturally adaptive design is between workplaces, a company's corporate identity can still be communicated in a consistent and recognizable way. It is important to note however, that these designs provide only one of several possible solutions regarding the expression of cultural adaptation and corporate identity. Further areas of research on this subject matter would include the design of transition spaces which could help employees from other cultures integrate into the new work culture and culturally adaptive workplace environment. Also, further research is needed on the degree to which these environments affect employee productivity.

In achieving a balance in the design of Torrent's workplace, this practicum created a scenario in which all parties could potentially benefit. For the interior designer, it provides an opportunity to play an important and relevant role in the ever changing landscape of commercial workplace design. For the employee, it could enable a greater sense of belonging, comfort, and well-being when at work. For the host country, it demonstrates cultural respect and promotes the endurance of indigenous national culture. Finally, for the multinational corporation, this balance provides the potential for increased competitiveness in the global marketplace.

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Figure 6. Building's interior courtyard. Photograph property of Busby Perkins + Will Architects. Copyright permission obtained November 14, 2008. Photograph retrieved from http://www.busby.ca/clients/9907NVIT/Index.htm.

Figure 7. Exterior view of the building's main entrance. Photograph property of Busby Perkins + Will Architects. Copyright permission obtained November 14, 2008. Photograph retrieved from http://www.busby.ca/clients/9907NVIT/Index.htm.

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Figure 9. Staircase's integration into table to provide one continuous form. Photograph taken by Adrian Wilson. Photograph property of Clive Wilkinson Architects. Copyright permission obtained February 4, 2009. Photograph retrieved from http://www.clivewilkinson.com/.

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Figure 11. End of concrete table. Photograph taken by Adrian Wilson. Photograph property of Clive Wilkinson Architects. Copyright permission obtained February 4, 2009. Photograph retrieved from http://www.clivewilkinson.com/.

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Figure 18. Night time view from Portage Ave. Image property of Manitoba Hydro. Copyright permission obtained November 6, 2008. Image retrieved from http://www.hydro.mb.ca/projects/downtown/downtown_design/index. html#17.

Figure 19. Day time view from Graham Ave. Image property of Manitoba Hydro. Copyright permission obtained November 6, 2008. Image retrieved from http://www.hydro.mb.ca/projects/downtown/downtown_design/index. html#17.

Figure 20. Night time view from Graham Ave. Image property of Manitoba Hydro. Copyright permission obtained November 6, 2008. Image retrieved from http://www.hydro.mb.ca/projects/downtown/downtown_design/index. html#17.

Figure 21. Exterior view of the podium floors looking southeast. Image property of Manitoba Hydro. Copyright permission obtained November 6, 2008. Photograph retrieved from Manitoba Hydro.

Figure 22. Interior view of the atrium separating podium floors. Image property of Manitoba Hydro. Copyright permission obtained July 8, 2008. Image retrieved from Manitoba Hydro.

Figure 23. Podium Level One Floor Plan. Image property of Manitoba Hydro. Copyright permission obtained November 6, 2008. Image retrieved from http://www. hydro.mb.ca/projects/downtown/downtown_design/index.html#17.

Figure 24. Level Seventeen Activity Space Floor Plan. Drawing property of Manitoba Hydro. Copyright permission obtained September 29, 2008.

Figure 31. Building section displaying air ventilation in office space. Image property of Manitoba Hydro. Copyright permission obtained November 6, 2008. Image retrieved from http://www.hydro.mb.ca/projects/downtown/downtown_ design/index.html#17.

Figure 32. Portage Avenue building entrance. Image property of Manitoba Hydro. Copyright permission obtained November 6, 2008. Image retrieved from http://www.hydro.mb.ca/projects/downtown/downtown_design/index. html#17.

Figure 33. Graham Avenue building entrance. Image property of Manitoba Hydro. Copyright permission obtained November 6, 2008. Image retrieved from http://www.hydro.mb.ca/projects/downtown/downtown_design/index. html#17.

Figure 34. Level Seventeen Circulation Floor Plan. Drawing property of Manitoba Hydro. Copyright permission obtained September 29, 2008.

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Figure 38. South Exterior Building Elevation. Drawing property of Manitoba Hydro. Copyright permission obtained July 8, 2008.

Figure 39. Interior Building Section of East Wing Looking West. Drawing property of Manitoba Hydro. Copyright permission obtained July 8, 2008.

Figure 40. Interior Central Atrium Building Section Looking West. Drawing property of Manitoba Hydro. Copyright permission obtained July 8, 2008.

Appendix A. Hofstede's 'Cultural Dimensions' found in the Japanese and Canadian 'Framework of Workplace Cultural Research Chart(s)' and identified in terms of influence within the workplace. Copyright permission obtained July 13, 2009 from Geert Hofstede.

Appendix A. Trompenaars & Hampden–Turner's 'Dimensions of Culture' found in the Japanese and Canadian 'Framework of Workplace Cultural Research Chart(s)' and identified in terms of influence within the workplace. Copyright permission obtained July 31, 2009 from The McGraw-Hill Companies, Inc..

Appendix A

Hofstede's 'Cultural Dimensions' found in the Japanese and Canadian '*Framework of Workplace Cultural Research Chart(s)*' and identified in terms of influence within the workplace.

Chart created by Lauren Bachynski and based on information provided in: Hofstede, G. (1991). *Cultures and Organizations; Software of the mind.* Reproduced with the permission of the G. Hofstede.

Dimension	Cultural expression in workplace	Canadian workplace culture	Japanese workplace culture
Power Distance	**Country/ region score range: 1 – 53** **Power Distance Index (PDI) range: 11 – 104** **Mean: 57**	**Country/ region score: 39** **Power Distance Index (PDI): 39** **Small power distance (see graph p. 54)**	**Country/ region score: 33** **Power Distance Index (PDI): 54** **Large power distance (see graph p. 54)**
	1. presence of inequalities between people	1. minimal	1. wanted and expected
	2. relationship dependency between less and more powerful people	2. interdependency	2. dependency and counter-dependency of less powerful people on more powerful people
	3. role of hierarchy in organizations	3. purpose and convenience	3. inequality between less powerful and more powerful people
	4. distribution of power	4. decentralized	4. centralized
	5. salary range	5. small range between employees at different levels of organization	5. large range between employees at different levels of organization
	6. subordinate involvement in decision making	6. consultation is expected from subordinates in decision making	6. direction is expected by subordinates after decisions have been made
	7. ideal role of the boss/leader	7. "resourceful democrat"	7. "benevolent autocrat"
	8. presence of status symbols and privileges	8. disapproved of	8. expected and accepted
		(all points adapted from list on p. 37)	(all points adapted from list on p. 37)

	Country/ region score range: 1 – 53 Individualism Index (IDV) range: 6 - 91 Mean: 43	Country/ region score: 4/5 Individualism Index (IDV): 80 Individualist (see graph p. 54)	Country/ region score: 22/23 Individualism Index (IDV): 46 Collectivist (see graph p. 54)
Individualism vs. Collectivism	1. personal identity	1. based on individual and immediate nuclear family	1. based on extended family and social group/network person belongs to
	2. communication of personal opinion	2. accepted and perceived as truthful	2. not accepted if interferes with group harmony
	3. communication context	3. low-context communication	3. high-context communication
	4. employer-employee relationship	4. agreement of mutual advantage	4. moral relationship viewed much the same as a family
	5. basis for hiring and promotion	5. company requirements and person's skill set	5. consideration is given to the group in which the person belongs
	6. management of people	6. "management of individuals"	6. "management of groups"
	7. significance of relationship vs. task	7. task predominates over relationship	7. relationship predominates over task
		(all points adapted from list on p. 67)	(all points adapted from list on p. 67)
Uncertainty Avoidance	Country/ region score range: 1 – 53 Uncertainty Avoidance Index (UAI) range: 8 - 112 Mean: 65	Country/ region score: 41/42 Uncertainty Avoidance (UAI): 48 Weak uncertainty avoidance (see graph p. 129)	Country/ region score: 7 Uncertainty Avoidance (UAI): 92 Strong uncertainty avoidance (see graph p. 129)
	1. perception of uncertainty in life	1. natural and accepted in life	1. a continuous danger which should be avoided in life

2. stress level caused by uncertainty	2. low stress level - general feeling of comfort	2. high stress level - general feeling of unease
3. display of aggression and emotion	3. should not be displayed	3. can be displayed at appropriate times and places
4. comfort level with risk and uncertain situations	4. comfortable with both	4. familiar risks are tolerated - unfamiliar risks and uncertain situations are avoided
5. approach to difference	5. perceived with curiosity	5. perceived as dangerous
6. preference in learning situations	6. "open-ended learning situations"	6. "structured learning situations"
7. objectives in learning situations	7. high-quality discussions	7. correct answers
8. perception of rules and guidelines	8. no more rules then required	8. rules are required emotionally
9. innate work ethic	9. work hard only when necessary - comfortable with not working	9. hard work is self-motivated
10. perception of precision and punctuality	10. learned	10. innate
11. attitude towards innovative ideas and behaviors	11. accepted	11. avoided
12. sources of motivation	12. accomplishment, respect, and/or belonging	12. security, respect, and/or belonging
	(all points adapted from list on p. 125)	(all points adapted from list on p. 125)

Trompenaars & Hampden–Turner's 'Dimensions of Culture' found in the Japanese and Canadian '*Framework of Workplace Cultural Research Chart(s)*' and identified in terms of influence within the workplace.

Chart created by Lauren Bachynski and based on information provided in: Trompenaars, F. & Hampden–Turner, C. (1998). *Riding the Waves of Culture; Understanding Diversity in Global Business.* (2nd Ed.). New York: McGraw-Hill. Reproduced with the permission of the McGraw-Hill Companies.

Dimension	Cultural expression in workplace	Canadian workplace culture	Japanese workplace culture
Universalist vs. Particularist	**Country/ region study:**	**Country/ region score:**	**Country/ region score:**
	Dilemma study 1: "The car and the pedestrian" *"Percentage of respondents opting for universalist system rather than a particular social group"* (p. 35) scale: 1-100%, percentage range: 32-97%	**Dilemma study 1:** Score: 93%	**Dilemma study 1:** Score: 68%
	Dilemma study 2: "The bad restaurant" *"Percentage of respondents who would not write a false review or give no right to friend to expect to be helped"* (p.37) scale: 1-100%, percentage range: 24-75%	**Dilemma study 2:** Score: 69%	**Dilemma study 2:** Score: 55%
	Dilemma study 3: "The doctor and the insurance company" *"Percentage of respondents who would not tone down their doubts in favour of their friend"* (p.39) scale: 1-100%, percentage range: 20-70%	**Dilemma study 3:** Score: 66%	**Dilemma study 3:** Score: 64%
	Overall dimension of culture for country: 1. precedence given to rules vs. relationships	**Universalist (p. 40)** 1. precedence is given to societal codes, rules, standards, and values (p. 31, 32)	**Particularist (p. 38, 40)** 1. precedence is given to obligations, unique circumstances, and relationships (p. 31, 32, 40)

2. significance and application of rules	2. rules apply equally to all members- to make exceptions would be to weaken the rule and jeopardize the system (p. 31)	2. rules exist in order to determine how people relate to one another- however exceptions will be made to the rule if it compromises a relationship (p. 31)
3. basis for contractual agreements	3. legal contracts are used as a record of agreement- outlining the agreement's parameters and parties it involves (p. 39, 40)	3. personal relationships serve as the basis for agreements- parameters are less defined leaving room for accommodation and adjustment (p. 40)
4. time period required for contractual agreements	4. a short period of time is required before agreements are made (p.40, 41)	4. a long period of time is required to establish a relationship between parties before agreements are made (p. 40, 41)
5. employer – employee relationship	5. weak sense of commitment and loyalty exist between employer and employee (p.41)	5. strong sense of commitment and loyalty exists between employer and employee (p. 41)
6. employment evaluation and promotion	6. based upon objective evaluation of qualifications and performance (p. 42)	6. based upon subjective evaluation of person's appropriateness for position (p. 43)
Specific vs. Defuse Cultures **Country/ region study:** **Dilemma study 1: "Paint the house"** *"Percentage of respondents who would not paint the house"* (p. 90) scale: 1-100%, percentage range: 32-91%	**Country/ region score:** **Dilemma study 1:** Score: 87%	**Country/ region score:** **Dilemma study 1:** Score: 71% *said not to be representative of dimension, as Japanese do not paint houses (p. 89)

		Dilemma study 2: Score: 77%	Dilemma study 2: Score: 45%
	Dilemma study 2: "Should the company provide housing?" *"Percentage of respondents who disagree"* (p.95) scale: 1-100%, percentage range: 11-89%		
	Overall dimension of culture for country:	**Specific (p. 93, 96)**	**Diffuse (p. 93, 96)**
	1. public vs. private sphere	1. public sphere is larger then private sphere- public sphere is easily entered, private sphere is more difficult to enter (p. 83, 84, 85)	1. private sphere is larger then public sphere- pubic and private sphere are not easily entered, but once entered are admitted into all layers of an individuals life (p. 83, 84,85)
	2. analysis of elements	2. elements are analyzed separately, and then in terms of how they relate together to form a whole (p. 92)	2. elements are analyzed in terms of how they relate together as a part of a whole, and then as separate elements (p.92)
	3. high context vs. low context cultures	3. low context culture (p. 92)	3. high context culture (p. 92)
	4. organization of personal activities	4. the activities in a persons life are separated into several different compartments - only one can be entered at a time (p. 93, 94)	4. the activities in a person's life are not separated but integrated - several compartments can be entered at a time (p. 93, 94)
Sequential vs. Synchronic Time	**Country/ region study:** **Study 1: "Long-versus short-termism: time horizon"** (p. 131) scale: 0.00- 7.00 years, range: 3.40-5.71 years	**Country/ region score:** **Dilemma study 1:** Score: 4.38 years	**Country/ region score:** **Dilemma study 1:** Score: 4.72 years

Study 2: "Average time horizon: past" (p.132) scale: 0.00-7.00 years, range: 4.18-6.17 years	**Dilemma study 2:** Score: (not specified)	**Dilemma study 2:** Score: 5.20 years
Study 3: "Average time horizon: future" (p.133) scale: 0.00-7.00 years, range: 4.62-6.56 years	**Dilemma study 3:** Score: 5.08 years	**Dilemma study 3:** Score: 5.24 years
Overall dimension of culture for country:	**Sequential (p. 126)**	**Synchronic ***
1. perception of time	1. time is perceived as moving forward in a linear progression (p.123, 126)	1. time is viewed as moving more cyclically, for example with the earth's seasons and natural rhythms (p.126)
2. structuring of activities and tasks	2. one task is done at a time, another task is not started until the last one is completed (p. 127, 128)	2. activities and tasks are frequently done in a more interchangeable and concurrent manner (p.127)
3. structuring of time	3. commitments, planning, schedules, and promptness are considered important (p. 128, 139)	3. Schedules and agendas are important, but viewed as less significant than relationships and giving "adequate time" to other obligations that may arise (p.128)
4. significance of periods of time (past/ present/ future)	4. present/ future oriented (derived from figure 9.1 on p. 130)	4. past/ present/ future interrelated (p.123, derived from figure 9.1 on p. 130)
5. time orientation	5. short term orientation (derived from Figure 9.2 on p. 131)	5. long term orientation (p. 132, derived from Figure 9.2 on p. 131)

Internal vs. External Control	Country/ region study:	Country/ region score: Internal (p. 150)	Country/ region score: External (p. 150, 153)	* assignment of dimension was not explicitly stated in the text, but was derived based on characteristics possessed by country identified as pertaining to dimension (please see Trompenaars & Hampden –Turner, 2004, p.128)
	Dilemma study 1: "Controlling nature" *"Percentage of respondents who believe it is worth trying"* (p. 147) scale: 1-100%, percentage range: 9-68%	**Dilemma study 1:** Score: 42%	**Dilemma study 1:** Score: 19%	
	Dilemma study 2: "The Captains of their fate" *"Percentage of respondents who believes what happens to them is their own doing"* (p. 148) scale: 1-100%, percentage range: 33-88%	**Dilemma study 2:** Score: 79%	**Dilemma study 2:** Score: 63%	
	Overall dimension of culture for country:			
	1. view of nature	1.nature viewed as mechanistic - can be controlled and dominated by man (p.145,)	1. nature is viewed as organic – exist in harmony with man (p.145)	
	2. direction of actions	2. 'inner directed' - a person directs and is responsible for their actions (p. 145, 155)	2. 'outer directed' - a persons actions are a result of adaptation and external forces (p. 145, 155)	

Appendix B

Furniture & Fixtures Selection

Seating
Manufacturer: Think Global
Product: Wind
Location: reception
Attributes:
-for commercial use
-clean simple design
-stainless steal detailing

Task chair
Manufacturer: Steelcase
Product: Think
Location: workspace (Japan & Canada), management & Sr. executive
 workstations (upholstered in leather - Japan), conference rooms, client
conference room (upholstered in leather), technology work room, security
room, file room, training room
Attributes:
-several ergonomic features include a back flexors track, adjustable arms,
flexible seat edge, comfort settings dial

Work surface
Manufacturer: Steelcase
Product: Ellipse
Location: workspace (regular workstations in laminate,
management worktations in wood veneer- Japan),
training room
Attributes:
-technology routed directly to user with integrated wire
and cable management
-side-by-side and ninety-degree connections, and junc-
tion tops create a range of training room configurations
configurations
-ergonomic adjustability through crank height-adjustable
work surfaces

Under work surface storage
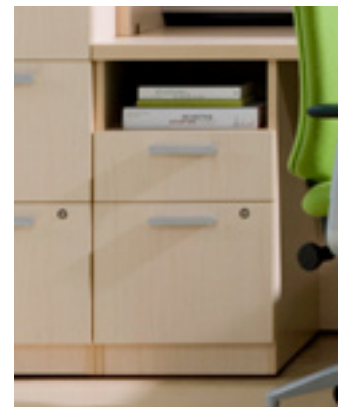Manufacturer: Steelcase
Product: Currency
Location: workspace (Japan)
Attributes:
-fixed under work surface storage
-lockable drawer
-clean simple design
(*selection differs somewhat from image)

Lateral file storage
Manufacturer: Steelcase
Product: Currency
Location: workspace (Japan)

Storage
Manufacturer: Steelcase
Product: Currency
Location: workspace (Japan)

Workstation
Manufacturer: Steelcase
Product: Unsion
Location: Sr. executive workstation (Japanese workspace)

Lounge seating
Manufacturer: Steelcase
Product: Circa
Location: workspace (Japan)
Attributes:
-pieces can connect to one another
-available with side tables of different heights

Workstation
Manufacturer: Steelcase
Product: Kick
Location: workspace (Canada)
Attributes:
-slidding door:
-provides user control over privacy
-integrated handle
-reduces amount of space required
-lockable

Mobile pedestal storage
Manufacturer: Steelcase
Product: Kick
Location: workspace (Canada)
Attributes:
-mobile with handle
-lockable drawer
-soft top surface for seating

Conference table
Manufacturer: Steelcase
Product: E-Table
Location: conference rooms (Japan & Canada)
Attributes:
-technology routed directly to user with integrated wire and cable management

Stackable chair
Manufacturer: Steelcase
Product: Max Stacker
Location: assembly room
Attributes:
-stackable for easy storage

Storable meeting table
Manufacturer: Steelcase
Product: Workgroup storable meeting table
Location: assembly room
Attributes:
-mobile wheels and collapsible for easy storage

Lounge seating
Manufacturer: Steelcase
Product: Archipelago
Location: media library, gathering spaces, secure workroom (Japan)
Attributes:
-available with either casters or legs
-available with upholstered arm option or tablet

Raised seating
Manufacturer: Steelcase
Product: Kart
Location: assembly room, training room, hallway seating, hallway kitchen
Attributes:
-pneumatic height adjustment
-mobile

Polished chrome-plated double laboratory faucet
Manufacturer: Zurn AquaSpec
Product: Z826B2
Location: Employee kitchen, water closets
Attributes:
-vandal-resistant color-coded metal four arm handles
-furnished with a 2.2 GPM [8.3 L] pressure compensating
aerator

Pendant lighting
Manufacturer: Lightolier
Product: FD02 Pendant with Outerglass
Location: client conference room
Attributes:
-used with dimmable highly energy efficient MR-161R
inferred lamps

Down lighting
Manufacturer: Lightolier
Product: Nelio Lycaster MR-16 downlights
Location: reception area, workspace (Japan & Canada)
Attributes:
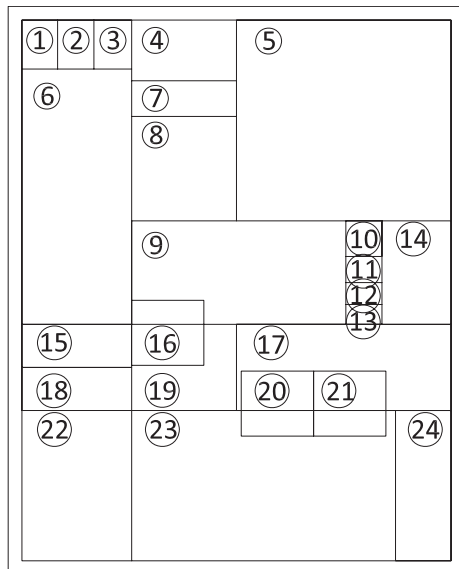-used with dimmable highly energy efficient MR-161R
inferred lamps

Appendix C

Material Board for Japan's & Canada's Workplace Design.

Material Location in Japan & Canada's Workplace Design

1. Reception wall

2. Reception walls , workspace walls

3. Reception walls, support space walls, workspace walls

4. Reception seating

5. Reception floor, assembly room floor, file room floor, training room floor, phone rooms) floor, media library floor

6. Reception wall, workspace wall(s)

7. Reception seating

8. Reception display wall

9. Ribbon

10. Reception counter top

11. Reception desk

12. Phone room work surface, file room work surface

13. Employee kitchen cabinets

14. Employee kitchen counter top , hallway space work surface, reception beverage area, work space west wall work surface

15. Conference room seating, workspace work room seating (Canada)

16. Water closet counter

17. Reception floor, support space floor, workspace floor

18. Workspace seating, workspace informal gathering space seating (Japan)

19. Water closet floor, janitorial room floor, storage room(s) floor, service center floor, mail room floor

20. Reception glazed walls, support room(s) glazed walls, workspace glazed walls

21. Reception glazed walls, support room(s) glazed walls, workspace glazed walls

22. Workstation floor, gathering area(s) floor

23. Workspace floor

24. Water closet(s) walls