

Design &
Construction
Manual



Cadillac
Fairview

TORONTO
DOMINION
CENTRE





INTRODUCTION

The Toronto-Dominion Centre (TDC) Design & Construction Manual is prepared to assist our valued Tenants, their Consultants and Contractors with leasehold improvements for both incoming and existing tenancies. Specifically, this manual contains information about design recommendations, technical specifications and requirements, and will assist contracted personnel planning to renovate leasehold improvements in the Toronto-Dominion Centre (TDC). Moreover, this standard also details the procedures, practices, rules, and regulations which will be applied throughout the project.

The contents of the manual are to be read in conjunction with governing lease documentation and, where applicable, with written agreements between the Landlord and the Tenant. It is the responsibility of the Tenant, their designated Project Manager (if applicable), and their Consultants and Contractors to abide by the contents of this document. Moreover, those same parties must adhere to all relevant Federal, Provincial, and Municipal Codes, Regulations, By-laws, etc.

The integrity of the TDC buildings, together with their systems and installations, are the result of meticulous care and thorough planning. Accordingly, any contemplated changes or alterations of existing designs and conditions must be completely compatible with the TDC's operational or design specifications and/or established decor. It is imperative that proposed projects, however small or limited in scope, be thoroughly reviewed and approved before any work is undertaken. This manual is meant to serve as the basis of the Landlord's approval for all Tenant submissions.

Each leasehold improvement presents its own challenges, unique characteristics, and design team personalities. With such complexities, it becomes critical to ensure all stakeholders are sufficiently engaged in the design process. That is precisely why the Landlord strongly encourages the implementation of the Integrated Design Process. Specifically, the Integrated Design Process advocates multidisciplinary collaboration, including key stakeholders and design professionals.

The Tenant is strongly encouraged to involve the Landlord in the early stages of the design process, in order to capture all relevant requirements and constraints at an early stage where cost implications (if any) are minimized.

The Landlord reserves the right to amend, add or delete the information contained herein at any time and the Tenant is obliged to abide by such changes upon notification thereof. All costs associated with compliance shall be at the Tenant's sole expense. Please visit www.tdcentre.com to obtain the most recent issuances of the Construction Manual and Permit forms.



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LIST OF PERMIT FORMS

Available at www.tdcentre.com/en/service_providers/Pages/Contractor-Forms.aspx or by clicking on the desired form(s).

- FORM 1 – CONSTRUCTION WORK PERMIT
- FORM 2 – SERVICE WORK PERMIT
- FORM 3 – FREIGHT ELEVATOR REQUISITION
- FORM 4 – HOT WORK PERMIT
- FORM 5 – X-RAYING, SCANNING & CORING WORK PERMIT
- FORM 6 – FIRE PROTECTION SYSTEM BYPASS PERMIT
- FORM 7 – BUILDING SYSTEM SHUTDOWN REQUEST



1. TDC GENERAL INFORMATION

Landlord's Project Manager

It is the Tenant's (or the Tenant Designate's) responsibility to notify the Landlord of any and all Leasehold Improvements within the leased premises. Upon notification, the Landlord will appoint an appropriate Project Manager (PM) to oversee, assist, and liaise with the appropriate project parties. The primary functions of the designated PM are:

- To provide guidance and assistance to the Tenant (and/or their designates) and their Contractors during the design, construction, and commissioning/completion phases of their improvements within the leased premises;
- To review and comment upon all drawing submissions and relevant documentation before, during, and after work within the leased premises;
- To act as a liaison between and among the Landlord, the Tenant (and/or the Tenant's designate), the Tenant's Contractor(s), and the Tenant's Designer; and
- To provide guidance and recommendations on TDC approved Contractors, trades, and Base Building Consultants.

For clarity, please note that the drawing review process by both the Landlord and its Base Building Consultants only considers the proposed design impact on the Base Building Systems. The review process does not verify or consider the adequacy of the design whatsoever against applicable and/or relevant building codes, standards, Tenant requirements, etc. Additionally, it does not consider the functionality or performance of the designed systems whatsoever in the installed condition.

Landlord's PM Contact Information

All questions, comments and submissions related to Project Management and proposed Tenant improvements should be addressed to:

TENANT PROJECTS DEPARTMENT
The Cadillac Fairview Corporation Limited
P.O. Box 2, Suite 3800, Toronto-Dominion Bank Tower, 66 Wellington St. W.
Toronto, ON, M5K 1A1
(T) 416 643 6660

Property Consultants

The following list contains the appropriate contact information for the Base Building Consultants and Consulting Engineers. When initiating a Tenant Improvement, Cadillac Fairview recommends retaining the services of those listed below. Should a Tenant opt to solicit the services of alternate providers, Cadillac Fairview will engage those listed below to review the submitted drawings only for their impact on the Base Building Systems, prior to providing the Tenant with authorization to proceed with their intended scope of work. All drawing review costs incurred by Cadillac Fairview will be charged back to the Tenant with a 15% Administration Charge for handling, review, and coordination. For further information on the drawing review process, please see the Drawings Submission & Review section on page 29.

Table 1 – TDC Base Building Consultant Contact Information

Consulting Discipline and Address	Contact Information
Architect	
All TDC Properties	
B+H Architect 481 University Avenue, Suite 300 Toronto, ON, M5G 2H4	Contact: Neal Barkhurst (T) 416 596 2299 (F) 416 586 0599
Structural Engineer	
66, 95,100 Wellington St. W., 77 King St. W.	
Carruthers & Wallace 970 Lawrence Avenue West, Suite 400 Toronto, ON, M6A 3B6	Contact: Roy Flood (T) 416 789 2600 (F) 416 789 3600
Structural Engineer	
79 Wellington St. W., 222 Bay St.	
Entuitive Corporation 1 Yonge Street, Suite 2002 Toronto, ON, M5E 1N4	Contact: Barry Charnish (T) 416 477 5829
Mechanical & Electrical Engineer	
66, 79,100 Wellington St. W., 77 King St. W.	
HH Angus & Associates Ltd. 1127 Leslie Street Toronto, ON, M3C 2J6	Contact: Murray Durante (Mech), Rick Stefanowski (Elec) (T) 416 443 8200 (F) 416 443 8394
Mechanical & Electrical Engineer	
222 Bay St., 95 Wellington St. W., & TDC Concourse	
Hidi Rae Consulting Engineers Inc 41 Yonge Street, Suite 2100 Toronto, ON, M5E 1E5	Contact: Mark Camilleri & Bill Trapper (T) 416 364 2100 (F) 416 364 2276



Consulting Discipline and Address	Contact Information
Environmental Consultant All TDC Properties Pinchin Environmental 2470 Milltower Court Mississauga, ON, L5N 7W5	 Contact: Thong Nguyen (T) 905 363 1424 (F) 905 363 0681
Sustainability Consultant All TDC Properties Halsall Associates Inc 2300 Yonge Street, Suite 2300, Box 2385 Toronto, ON, M4P 1E4	 Contact: Adrien Deveau (T) 416 644 0343 (F) 416 487 9766
TDC Base Building Controls All TDC Properties Johnson Controls Ltd – Controls Group 7400 Birchmount Road Markham, ON, L3R 5V4	 Contact: Stephen Praught (T) 905 474 5423
TDC Commissioning Agent All TDC Properties Hunter Facilities Management (HFM) 209 Dundas Street East, Suite 206 Whitby, ON, L1N 7H8	 Contact: Curt Harrison (T) 905 666 9175 (M) 705 774 1810

Property Contact Information

The following table provides key contact information for the Cadillac Fairview Operations, Security & Life Safety Management, and Project Management departments and property services.

Table 2 – Property Personnel Contact Information

Cadillac Fairview Operations	Contact Information	
Cadillac Fairview/TDC Management Office	(T) 416 869 1144	
Jim Davidson Manager, Operations (Mechanical Systems)	(T) 416 864 6440	jim.davidson@cadillacfairview.com
Elson McCalla Supervisor, Operations (Electrical Systems)	(T) 416 862 5227	elson.mccalla@cadillacfairview.com
Adam Tan Manager, Facility Operations	(T) 416 869 2274	adam.tan@cadillacfairview.com
Suzi Araujo Parking Administrator	(T) 416 864 6465	suzi.araujo@cadillacfairview.com
Building Operation Centre Base Building Engineers (Control Room)	(T) 416 363 7754 (F) 416 869 3652	tdcbocc@cadillacfairview.com
toAssist	(T) 416 862 7747 (F) 416 862 3656	toassist@cadillacfairview.com
Shipping & Receiving 66 Wellington Street West Loading Dock	(T) 416 862 3655 (F) 416 862 3666	
Cadillac Fairview Security and Fire & Life Safety	Contact Information	
Allan Miller Senior Manager, Security & Life Safety	(T) 416 869 2279 (F) 416 862 3652	allan.miller@cadillacfairview.com
Tiffany Dugas Manager, Fire & Life Safety	(T) 416 862 5237 (F) 416 862 3652	tiffany.dugas@cadillacfairview.com
Jason Stokes Manager, Security	(T) 416 869 2286 (F) 416 862 3652	jason.stokes@cadillacfairview.com
Access Control Centre Badges, keys, passcards, and Contractor permits	(T) 416 862 3651	tdcacc@cadillacfairview.com
Life Safety Department (ERT) Approval of Fire Alarm system work	(T) 416 869 2276 (F) 416 862 3652	
Security Supervisors Fines, Security Officer booking, and security related issues	(T) 416 869 2289 (F) 416 862 3652	



Cadillac Fairview Tenant Projects	Contact Information	
Dora Yeoh Senior Manager, Tenant Projects	(T) 416 869 2278	dora.yeoh@cadillacfairview.com
Jadi Wang Manager, Tenant Projects	(T) 416 862 3660	jadi.wang@cadillacfairview.com
June Perea Manager, Tenant Projects	(T) 416 862 3658	june.perea@cadillacfairview.com
Sue Sherban Administrator, Tenant Projects	(T) 416 643 6660	sue.sherban@cadillacfairview.com

TD Centre Required Contractors/Trades Qualification

Contractor Check Required – Third Party Certification

Cadillac Fairview and the Toronto-Dominion Centre requires any contractors or sub-trades doing work on behalf of Cadillac Fairview to be registered and approved by Contractor Check (this does not apply to consultants).

Cadillac Fairview and the Toronto-Dominion Centre will review and approve annually for pre-qualified contractors and sub-trades for TD Centre Projects.

Contact Information:

Contractor Check
RiskCheck Inc.
2235 Sheppard Ave. East
Toronto, ON M2J 5B5
(T) 877-640-2444
(F) 416-640-2445
(email) contractorcheck@riskcheckinc.com
(web) www.contractorcheck.ca

TDC Required Contractors/Consultants

Due to the complexity of various systems at the TDC, and to provide a consistent standard of care and quality of work, the following list of Contractors/Consultants is required for the noted services when undertaking any project at the TDC.

Fire Alarm Contractor	Contact Information
Plan Group Inc. 27 Vanley Crescent Toronto, ON, M3J 2B7	Contact: Kevin Martineau (T) 416 635 9635 (F) 416 631 3087
Air Duct & Induction Unit Contractor	Contact Information
New Air Duct Services Ltd. (Air Duct Cleaning) 40 Freemont Avenue Toronto, ON, M9P 2W3	Contact: Fluvio Visone (T) 416 560 4348 (F) 416 551 4397
Packaged Maintenance Ltd. (Induction Unit Cleaning) 18 Regan Road, Unit 20 Brampton, ON, L7A 1C2	Contact: Ken Johnston (T) 905 846 8588 (F) 905 846 8616
Riser Room Management Firm	Contact Information
Rycom TPM Inc. 6201 Highway 7, Unit 8 Vaughan, ON, L4H 0K7	Contact: Customer Care (T) 1 877 792 6687
Commissioning Agent	Contact Information
Hunter Facilities Management (HFM) 209 Dundas Street East, Suite 206 Whitby, ON, L1N 7H8	Contact: Rade Kostic (T) 905 666 9175 (M)416 876 0172
Base Building Controls	Contact Information
Johnson Controls LP 7400 Birchmount Road Markham, ON, L3R 5V4	Contact: Stephen Praught (T) 905 474 5423 (F) 905 474 5404



The Sprinkler System Contractors shown in the list below are approved to perform work on the Base Building system. When performing sprinkler work at the TDC, the contractor/tenant is required to select a service provider from this list shown below. As part of Base Building services, and quality control/assurance, the TDC sprinkler contractor will perform a site review of all work upon notification of the successfully completed renovation.

Approved Sprinkler Contractors	Contact Information
Classic Fire Protection Inc. 645 Garyray Drive North York, ON, M9L 1P9	Contact: Rick Berwick (T) 416 740 3000 (F) 416 740 2039
Quality Fire Protection Ltd. 190 Don Park Road Markham, ON, L3R 2V8	Contact: King Chen (T) 905 940 8499 (F) 905 940 8604
Simplex Grinnell 2400 Skymark Avenue Mississauga, ON, L4W 5K5	Contact: Ian Folkes (T) 905 212 4400 (F) 905 212 4403

2. DESIGN CONSIDERATIONS

The following sections provide critical information on design requirements for proposed build-outs, as well as TDC Base Building standards. These sections should be thoroughly reviewed, as the Project Team must provide the Landlord with documentation which demonstrates that this strategy is incorporated into the design process, and that requirements are followed where applicable in the construction phase(s).

Please note that *Project Team* refers to the Tenant and all designates, including project managers, consultants, contractors, suppliers, etc. Ultimately, the Tenant is responsible for their Project Team, and will be held solely accountable for oversights, and/or a failure to adhere to any policies or procedures outlined. All construction projects undertaken at TDC are NOT required to be LEED certified projects. However, the standards listed here are based on LEED EB requirements and can assist Tenant's with LEED for Commercial Interiors (CI) application should they decide to pursue LEED CI certification.

Each leasehold improvement presents its own challenges, unique characteristics, and design team personalities. With such complexities, it becomes critical to ensure all stakeholders are sufficiently engaged in the design process. That is precisely why the Landlord strongly encourages the implementation of the Integrated Design Process. Specifically, the Integrated Design Process advocates multidisciplinary collaboration, including key stakeholders and design professionals.

The Tenant is strongly encouraged to involve the Landlord in the early stages of the design process, in order to capture all relevant requirements and constraints at an early stage where cost implications (if any) are minimized.

For further information regarding the Integrated Design Process and/or the involvement of the Landlord in design coordination meetings, please do not hesitate to contact the Tenant Projects Department.

Note: Project design professionals and builders must ensure that local codes, standards and by-laws are met. This responsibility is not superseded by the sustainable measures or requirements outlined in this plan.

The following sections outline the TDC sustainability requirements and how they should be implemented and documented throughout construction.



Materials

This section of the guide applies to all materials purchased for facility renovations, retrofits and new construction activities greater than 1000 ft² at the TDC.

Requirements

A minimum of 50% of total material purchases (by cost) must meet one or more of the following criteria; materials that meet more than one criterion can be counted for each criterion. This does NOT include furniture, fixtures, equipment, mechanical/electrical fixtures & equipment, plumbing or elevator components. The criteria are:

- Contain at least 10% post consumer or 20% post-industrial recycled material
 - Post-consumer content – material in a product that is recycled from consumer waste (i.e. plastic pop bottles used in carpet); and,
 - Post-industrial (Pre-consumer) content – material in a product that is recycled from manufacturing waste (i.e. wood off cuts from a table used in a desk)
- Contain at least 70% material salvaged from off-site or outside the organization
- Contain at least 70% materials salvaged from on-site, through an internal organization materials and equipment reuse program
 - Contain at least 50% rapidly renewable material
- A material that can naturally be replenished in less than 10 years
- Contain at least 50% Forest Stewardship Council (FSC) certified wood
- FSC is a forest certification and labelling system for paper and wood products that come from responsibly managed forests, and verified recycled sources
- Contain at least 50% material that meets the requirements listed below:
 - The final manufacturing location of the product is within 800km of the project site
- Adhesives/sealants have an VOC content less than the current VOC limits of South Coast Air Quality Management District Rule 1168, or sealants used as fillers meet or exceed the requirements of the Bay Area Air Quality Management District Regulation 8, Rule 51 (<https://aqmd.gov/rules/reg/reg11/r1168.pdf>)
- Paints and coating have VOC emissions not exceeding the VOC and chemical component limits of Green Seal's Standard GS-11 requirements (<http://www.greenseal.org/certification/standards/gs11paintscoatings.cfm>)

- Non-carpet finished flooring is FloorScore-certified and constitutes a minimum of 25% of the finished floor area (www.rfci.com)
 - FloorScore – tests and certifies hard surface flooring and flooring adhesive products for compliance with rigorous indoor air quality emissions requirements
- Carpet and carpet cushion fulfill CRI Green Label Plus Carpet Testing Program requirements
 - CRI Green Label Testing – test carpet, cushions and adhesives to help identify products with very low emissions of VOCs (www.carpet-rug.org)
- Composite panels and agrifiber products contain no added urea formaldehyde resins

Submittals

Documentation must be collected throughout the project and submitted to Cadillac Fairview upon project completion. Cadillac Fairview reserves the right to request and review supporting documentation during the project. At a minimum the documentation must consist of the following:

1. Material log noting individual material costs as well as the total material cost for the project;
2. Sustainability log noting which criterion the material meets from the list above; and
3. Supporting documentation – each material claimed to meet one (or more) of the criterion above must have supporting documentation such as MSDS sheets, Product data sheets, Manufacturer's letter, etc.

Construction & Demolition Waste Management

At the TDC, Cadillac Fairview incorporates procedures to divert construction and demolition debris from landfill and incineration facilities. It is the Landlord's intent to reach a minimum diversion rate of 70% (by volume) to reduce the demand for virgin materials, prevent overburdening of existing landfills, and avoid pollution caused by incineration and ground water.

Requirements

It is the Project Team's responsibility to incorporate the following guidelines and requirements into their designs and construction activities to achieve a minimum of 70% waste diversion by volume. Moreover, they must ensure that these practices are followed on site throughout the project.

All waste must be evaluated for recycling or redirected back to the manufacturing process. Any materials that can be recycled or redirected must be diverted accordingly. The Project Team must designate areas specifically for recycling construction and demolition waste and train workers on recycling protocols and effective container labelling. Moreover, the Project Team should strongly consider innovative ways to recycle materials typically known to be difficult to recycle, to minimize the demand for new/virgin products and materials. A report with supporting documentation detailing the waste diverted must be submitted to the Landlord upon Substantial Completion.



Waste Reduction Strategies

Various waste reduction strategies are outlined in Table 3 – Waste Reduction Strategies (below) in order to increase the diversion rate.

Submittals

The Landlord reserves the right to request and review supporting documentation that demonstrates the specification and implementation of construction waste management strategies. Documentation must outline on-site plans for waste collection. A report with supporting documentation detailing the amount and types of waste diverted, the hauler and the recycler must be submitted to the Landlord upon Substantial Completion.

Table 3 – Waste Reduction Strategies

Item	Reduction Strategy
Design	Review designs and plans to ensure optimal use of material. Where possible, specify materials with a longer lifespan and potential for recycling or reuse after deconstruction.
Planning	Plan and schedule projects efficiently and continuously monitor material quantities to minimize leftovers.
Packaging	Request that suppliers deliver products with minimum packaging. Where possible, order in bulk.
Storage	Store materials as required to prevent damage or contamination. Where possible, order materials on-demand to prevent long storage times and potential damage.
Ordering Errors	Review material quantities carefully to ensure the correct amount is received.
Ordering Excess	Order materials in appropriate quantities. Where possible, order pre-cut pieces or measure and cut accurately and collect and store reusable pieces.
Handling	Handle all materials with care to prevent damage, breakage, or contamination.

Material Reuse Strategies

Throughout the project, all construction materials should be evaluated for reuse on site and/or at alternate sites. Where possible, return materials that cannot be reused to the supplier or manufacturer. Table 4 – Material Reuse Strategies provides suggestions to institute the reuse of common materials during construction.

Table 4 – Material Reuse Strategies

Material	Reduction Strategy
Wood	Salvage off-cuts for bridging, blocking and back framing. Reuse or return palettes to vendors. Inspect wood forms for reuse for other areas of the project or for other job sites.
Metal	Save cuttings for possible reuse. Joist off-cuts can be cut up and used as stakes for forming or for headers around openings in the floor assemblies.
Drywall	Reuse off cuts to finish off gaps, small bulkheads, etc.
Cardboard	Use boxes for storage of tools and materials or floor protection.
Masonry	Crush on site and use for fill or as bedding for driveways.
Rigid Insulation	Use as ventilation baffles.

Air Quality

Maintaining high indoor air quality helps sustain the comfort and well-being of all building occupants and construction workers alike. An Indoor Air Quality Management Plan impacts the choice of paints, coatings, sealants, flooring materials, etc. Any construction activity that produces VOCs and/or dust is considered a source of air pollutants. These pollutants can be created during demolition/repair/construction, by materials that off-gas VOCs, and/or equipment that generates combustion by-products. Table 5 – Pollutant Source Control provides some examples of potential air pollutant sources.



Table 5 – Pollutant Source Control

Products	Sources
Building Materials	Wood, Plaster, Concrete, Roofing, Drywall, Insulation, Engineered Wood, Ceiling Tiles, Cove Base
Wet Products	Paint & Stains, Glazing, Sealants & Coatings, Caulking, Adhesives, Grout, Acid Finishes, Epoxy Coatings
Furnishings	Carpet & Wall Coverings, Wood Flooring, Cabinets, Furniture and Partitions
Solutions	Solvents, Fuels, Cleaning Products, Pesticides
Equipment	Generators & Heavy Equipment, Compressors, Vehicles, Portable Heaters, Welders & Cutting Torches, Soldering Guns

Air Quality Control Measures

To maintain satisfactory levels of air quality, all systems, spaces under construction, and occupied spaces must be protected from dust, odours or other contaminants. Containing the work area, modifying HVAC operations, reducing emissions, and intensifying housekeeping are factors to be considered when preparing the Air Quality Management Program.

Requirements

The Project Team must incorporate all relevant sections of the Sheet Metal and Air Conditioning National Contractors Association (SMACNA) IAQ Guidelines for Occupied Buildings Under Construction, Second Edition, November 2007 into the project Air Quality Management Program. See sections 3.3–3.7, 4.2, and 4.4, for important details.

Upon construction completion, suitable preparations for occupancy (Indoor Air Quality Testing) must be taken.

IAQ Testing Prior to Occupancy

Conduct baseline IAQ testing, after construction ends and prior to occupancy, using testing protocols consistent with the United States Environmental Protection Agency "Compendium of Methods for Determination of Air Pollutants in Indoor Air" and demonstrate that the contaminants listed in the table below are not exceeded, taking remedial actions and repeating procedure until all requirements have been met.

Chemical Contaminate	Maximum Concentration
Formaldehyde	27 ppm
Particulate Matter (PM10)	50 µg/m ³
Total Volatile Organic Compounds	500 µg/m ³
4-Phenylcyclohexene (4-PCH)*	6.5 µg/m ³
Carbon Monoxide (CO)	9 ppm and no greater than 2 ppm above outdoor levels

* Required only if carpets with Styrene Butadiene (SB) latex backing material are installed.

Protect stored on-site or installed absorptive materials from moisture damage.

If permanently installed air-handlers must be used during construction, filtration media with MERV 8 must be used at each return air grille, as determined by ASHRAE 52.2-1999. Replace all filtration media immediately prior to occupancy.

Submittals

The Landlord reserves the right to request and review supporting documentation that demonstrates that these air quality control measures have been specified and implemented.

Prior to construction provide the following documents:

1. Air Quality Management Program that outlines on-site plans to maintain a high level of indoor air quality during construction. Sheet Metal and Air Conditioning National Contractors Association (SMACNA) IAQ Guidelines for Occupied Buildings Under Construction, Second Edition, November 2007 into the project Air Quality Management Program. See sections 3.3–3.7, 4.2, and 4.4, for important details.

The following documentation must be collected throughout the project and submitted to Cadillac Fairview upon project completion:

1. Provide at least six (6) photographs demonstrating the IAQ measures that were implemented during construction;
2. Filter data sheets indicating the MERV rating that was installed during construction; and
3. Air Quality test results demonstrating the project is below the air pollutant thresholds noted above.



Energy & Water Efficiency

Commercial office interior renovations include the installation of mechanical and electrical systems and devices that are beyond the base building supplied standards. Specifically, these installations tend to include elements such as pot lighting, LED lighting considerations, boardroom/conference room A/V equipment, supplemental air conditioning units, fan coil units, kitchen appliances (such as stoves, refrigerators, toasters, etc.), televisions, computer equipment, lavatory fixtures, etc.

With the incorporation of energy efficient technologies, electricity and water consumption can be reduced significantly. This ultimately results in lower operating costs. To minimize the energy demands and impacts on the environment, the Project Team must incorporate energy and water efficient technologies into project designs. This would include, but is not limited to:

- Lighting control systems;
- A minimum of 70% of all new energy star eligible appliances are Energy Star rated;
- Reduce lighting power density by 15% as compared to ASHRAE 90.1- 1999 Temperature and ventilation control systems for each occupant;
- Training sessions/seminars for the Project Team and leased space occupants for equipment and system(s) use;
- Thorough design and planning of expected occupancy demands;
- Commissioning of all new (and if applicable, existing) equipment and systems; and
- Low/Ultra Low Flow lavatory and kitchen fixtures (water closets, faucets, etc.) that consume no more than:
 - WCs 1.6 gpf/6 Lpf
 - Urinals 1 gpf/3.8 Lpf
 - Faucets 0.5 gpm/1.9 Lpm @ 60 psi

Submittals

The Landlord reserves the right to request and review supporting documentation that demonstrates that these measures have been specified and implemented. Specifically, relevant product cut sheets and engineering specifications must be available upon request.

3. BUILDING STANDARDS

The following sections provide design information and design guidance on the buildings of the TDC. Please review the following sections closely to ensure that project drawings comply with the Landlord's recommendations and established standards.

General Building Information

The information presented below represents general information on the TDC buildings. Additional information may be obtained through the Landlord's assigned PM by requesting a copy of the Base Building Technical Specifications.

Table 6 – General Building Architectural Information

Tower	Storeys Above Grade	Crossover Floors	Building Sprinklered	Length of Fire Hose in Cabinets
66 Wellington St W	56 Above Grade 3 Below Grade	3, 6, 9, 14, 19, 24, 29, 33, 38, 44, 49, 54	Yes	22.9 m (75')
79 Wellington St W	39 Above Grade 2 Below Grade	5, 10, 16, 20, 24, 29, 34	Yes	22.9 m (75')
95 Wellington St W	23 Above Grade 4 Below Grade	2, 6, 10, 14, 16, 21	Yes	22.9 m (75')
100 Wellington St W	32 Above Grade 3 Below Grade	2, 7, 12, 18, 23, 28, 32	Yes	22.9 m (75')
77 King St W	46 Above Grade 3 Below Grade	2, 7, 12, 15, 20, 24, 28, 33, 37, 42	Yes	22.9 m (75')
222 Bay St	31 Above Grade 3 Below Grade	5, 9, 14, 19, 24, 29	Yes	22.9 m (75')

Architectural Finishes/Features

Ceilings

Where gypsum wallboard ceilings are not used, ceiling systems will consist of lay-in acoustic panels in a T-bar suspension system. Fastening partitions, millwork, etc. to the ceiling grid is strictly prohibited. Tenants shall utilize the slotted reveals provided in the ceiling grid system to stabilize such elements. Each grid member is designed only to support the acoustic tile and lighting fixtures.



Table 7 – Ceiling Grid Information

66 Wellington St. W. – TD Bank Tower

Armstrong Fine Fissured (14 ¾" x 59 ½" x 5/8")
 Armstrong Fine Fissured (22" x 59 ½" x 5/8")

77 King Street West

Armstrong Fine Fissured (14 ¾" x 59 ½" x 5/8")
 Armstrong Fine Fissured (22" x 59 ½" x 5/8")

100 Wellington Street West

Armstrong Fine Fissured (12 ½" x 59 ½" x 5/8")
 Armstrong Fine Fissured (23 ¼" x 59 ½" x 5/8")

79 Wellington Street West – TD Waterhouse Tower

Armstrong Fine Fissured (19 5/8" x 59 ½" x 5/8")

222 Bay Street – Ernst & Young Tower

Armstrong Fine Fissured (19 5/8" x 59 ½" x 5/8")

95 Wellington Street West

Armstrong Georgian Square Lay-In (39 3/16" x 39 3/16" x 5/8")

Base Building Doors & Frames

Entrances to electrical rooms, janitorial closets, washrooms, stairways, etc. shall be hollow metal doors in pressed steel frames, painted to the base-building standard (Flecto Varathane #96 Satin Black Polyurethane). The base building corridor doors and frames will be solid core wood doors with mahogany veneer and finished with mahogany stain. For leased premises on multi-tenant floors, a sample must be submitted to the Landlord's Project Manager for approval for all suite entrance doors.

Prior to the commencement of construction, for all glass doors visible from common area corridors, CGI White Opaque Privacy Film must be applied. The film is to be applied on the interior face of the doors and may be removed after the completion of construction work.

Tenant Doors & Frames

All locks installed by the Tenant at entrance and interior doors must be keyed to the Building Master Keying System. The required hardware is mortise. The system allows complete freedom to the Tenant with respect to locking arrangements for offices, while concurrently providing access to each office at all times for both normal cleaning procedures and emergency situations. The Landlord's Locksmith Department maintains the Master Keying System and records on key coding and distribution. External locksmiths or lock manufacturers are not permitted whatsoever to change the keying of any locks.

Demising Walls

All interior demising walls shall be constructed with metal studs, acoustic insulation and gypsum wallboard running from the floor to the underside of the suspended ceiling. The partitions, which separate one Tenancy from another, will be acoustically attenuated from the suspended ceiling to the underside of the structural slab. All services penetrating demising walls are to be fire stopped in accordance with all relevant building codes and standards. In cases where the Tenant's work uncovers/encroaches on areas that do not comply with this requirement, it is the Tenant's responsibility to ensure that such elements do comply at the Tenant's sole expense.

Perimeter Window Blinds

All perimeter windows are equipped with horizontal venetian blinds. These blinds are an essential component of the building's HVAC system, and may not be removed. When operated properly, they assist the HVAC system with heating and cooling tenant premises efficiently. Consistent and proper use of these blinds is especially important for workspaces with southern or western exposures.

During winter and summer, the sun's low angle allows its rays to shine directly into workspaces. Lowering blinds and slanting the lower edges of the slats toward the window will help keep workspaces at a comfortable temperature.

With the Landlord's approval, Tenants may add sunshades, provided these are of a type and material that will not interfere with the normal operation of the perimeter induction/radiation units.

Exterior/Perimeter Walls

In order to maintain the integrity of the building vapour barrier, penetration of the interior surface of exterior wall assemblies or of window frames and mullions is strictly prohibited. Partitions abutting a mullion shall be sealed with double-sided closed cell PVC tape.

Signage

Tenant identification signs on main floor/lobby directories, elevator lobbies and adjacent to Tenant entrance doors must be in accordance with Cadillac Fairview's design criteria for items such as style, location and size. The cost of the aforementioned signage is charged to the Tenant's account. All requests for signs must be submitted in writing to the Tenant Relations Department indicating the exact wording and spelling required. Requests should be submitted approximately one month in advance of the actual signage requirement date.



Control Systems

All control system modifications are to be submitted to the Landlord prior to construction to verify compatibility with the base-building standards. All new and existing controls in renovated areas are to be verified and/or commissioned for proper operation. Commissioning is mandatory, and is handled by the TDC Base Building Commissioning agent (See TDC Required Contractors/Consultants on page 6). The following table provides information about the TDC's Control Systems.

Table 8 – TDC Building Control Systems

66 Wellington St. W. – TD Bank Tower

- Electronic VAV boxes
- Electronic induction unit valves
- Pneumatic smoke dampers
- Integrated lighting controls with phone codes

77 King Street West

- Electronic VAV boxes
- Electronic induction unit valves
- Pneumatic smoke dampers
- Integrated lighting controls with phone codes

100 Wellington Street West

- Two main pneumatic static control pneumatic valves for north and south. Both main pneumatic valves on the floors have smoke mode override for safety
- Floors are constant volume off of the pneumatic valve air stations
- Perimeter induction units have electronic induction unit valves and/or pneumatic induction unit valves
- Integrated lighting controls with phone codes.

79 Wellington Street West – TD Waterhouse Tower

- Pneumatic and electronic interior VAV boxes
- Pneumatic smoke dampers
- Integrated lighting controls with phone codes

222 Bay Street – Ernst & Young Tower

- Compartment unit fan system with pneumatic VAV controls
- Integrated lighting controls with phone codes

95 Wellington Street West

- Compartment unit fan system with pneumatic VAV controls
- Integrated lighting controls with phone codes

Control Lines

Control lines must be capped to prevent loss of control air from affecting other building operations.

Static Sensing Lines

Water and air system static sensing lines must remain intact to ensure proper building operations.

Communication Trunk

The Communication Trunk layout for the Building Automation System can be obtained from the Landlord. Any additions to these systems must be documented and reflected in revised drawings, then returned to the Landlord before Tenant occupation. All communication wiring must be colour coded for identification purposes.

Smoke Mode

Prior to whole floor demolition, smoke damper lines must be capped in the riser room at the solenoid. After demolition, the smoke lines must be made safe and tested for air leaks. These activities must be coordinated by the contractor and relevant subtrades, and a signed statement in writing is to be submitted to the Landlord stating that the smoke system was made safe.

Structural

Floor Load Design

The concrete floor slabs at 66 Wellington St. W., 77 King St. W., and 100 Wellington St. W. have each been designed to handle 125 pounds per square foot live load, including partitions. At 79 Wellington St. W. and 222 Bay St., the concrete floor slabs have been designed to handle 100 pounds per square foot live load, including partitions.

Unusually heavy loading situations such as central filing areas, high-density file storage units, storage areas, vaults, safes, etc., must be specifically indicated on the project drawings, and details of the projected floor load conditions must be supplied to the Landlord for approval. Plans for such situations are subject to the approval of the Landlord's Base Building Structural Engineer. Live loads may not exceed the load limit for the floor slabs without the Landlord's prior approval.

Base Building Structural Work

Any alterations and/or additions to the Base Building structure that may be required to accommodate the Tenant's design shall be subject to the approval of the Landlord and its Base Building Engineer(s). This work may be carried out by the Tenant's contractor (subject to the Landlord's approval), but must be done under the supervision of the Landlord's Base Building Engineer. All associated costs are at the Tenant's expense. If the Landlord coordinates the work on the Tenant's behalf, any costs incurred will be charged back to the Tenant, plus a 15% administration fee.



Electrical Systems

Metering & Specifications

The Tenant is responsible for all costs associated with the installation of all electrical and mechanical metering consumption devices for the entire Leased premises. Submeters are required for all services, including receptacles, lighting, supplementary HVAC units, water, etc. Electronic metering and requirements must be determined by Carma Industries.

The Electrical Contractor is to supply and install Carma Industries digital sub-metering for all Tenant Power and Lighting as outlined below:

- a) Sub-metering equipment and services must be supplied by Carma Industries;
- b) The Tenant's Contractor is responsible for the following:
 - i. Conduit(s) for the communications Local Area Network (LAN);
 - ii. Conduit for CT and PT leads (CT-Current Transducer, PT-Potential Transformer);
 - iii. Connectors, fasteners, and junction boxes for conduit;
 - iv. Provide, and mount PT enclosures for housing PTs and fuse blocks in 10"x10"x4" D- Box;
 - v. Install all CTs on the phases corresponding to their assigned PTs as per the EMP wiring chart and individual CT serial numbers;
 - vi. Ensure that the white dot on the CTs points toward the power source;
 - vii. Connect line-side of PT fuse block to CT source using red, black and blue 12 gauge wire;
 - viii. Where step-down CTs over 400 amps are required, provide and mount enclosures for housing 5 Amp Transducers and Shorting Terminals in an 10"x10"x4" D-Box. Shorting Terminals will be supplied by Carma Industries;
 - ix. Where step-down CTs over 400 amps are required, mount Shorting Terminals and connect current transformer secondaries using red, black, blue and white 12 gauge wire;
 - x. Ensure that CTs and PTs are accessible by Measurement Canada inspection personnel;
 - xi. Perform any corrections or tracing deemed necessary by Carma Industries;
 - xii. Coordinate access to EMPs enclosures that are Measurement Canada sealed with Carma;
 - xiii. All conduit connections to EMPs will be installed in a water-tight manner; and,
 - xiv. All electrical loads must be balanced.
- c) Acquire all sub-metering installation details from Carma Industries and comply with all requirements outlined in the Installation Details Sheets;
- d) The Contractor is responsible for the removal of all redundant cabling to the original source; and
- e) Modifications to the base building trench system are prohibited, including cutting, drilling, and coring. Cable layouts are to coincide with the original base building drawings.

Lighting & Lighting Control

Lighting systems at 66 & 100 Wellington St. W. and 77 King St. W. are provided by means of one lamp, recessed air handling fluorescent fixtures, including electronic ballast and parabolic lenses.

Lighting in 79 & 95 Wellington St. W. and 222 Bay St. is provided via two tube recessed fixtures with acrylic lenses. Light fixtures are complete with support clips over the t-bar grid, and must be maintained. The Contractor must ensure that clips are properly installed whenever the fixtures are removed or relocated for any reason.

Lighting power in all towers is 347 volts. All lighting fixtures have an electro connect wiring system for the exception of 95 Wellington St. W. which is cable plug-in. It is the Contractor's responsibility to maintain the base building standard zoning.

The two perimeter rows of fixtures contain two lamps. The grid members may support single fixtures. Clusters of two or more fixtures are to be independently supported from the concrete floor slab, as are hallway fixtures.

If additional fixtures are required, the Tenant may order them through the Landlord's manufacturer (see the section entitled Recommended Contractors). The Tenant and/or the Tenant's Contractor are responsible for any and all costs for damages to lighting fixtures.

All tenant luminaires located, whether whole or in part, within 15 feet of the perimeter glazing must be connected to the Base Building lighting relay control system, or alternately, an occupancy sensor based lighting control system in compliance with ASHRAE 90.1-2007 must be incorporated.

Data, Communications, & Telephone

To ensure and maintain security in telecom spaces, including the main telephone rooms, riser rooms, and rooftop, all work must be approved by the property's Telecom Riser Management firm RYCOM TPM (see TDC Required Contractors/Consultants on page 6) in advance. The Client/Contractor is responsible for all associated costs, and must submit drawings to RYCOM TPM for approval before work may begin. All requests require 48 hours advanced notice.

All telecommunication work performed within the TD Centre must conform to [ANSI/TIA/EIA](#) telecommunication cabling standards, Ontario Electrical Code (OEC) , [National Fire Protection Association](#) (NFPA) and [Occupational Safety and Health Administration](#) (OSHA). In addition to these codes and standards, contractors must use industry best practices as published by [BICSI](#) and follow the most current release of the [Telecommunication Distribution Methods Manual](#).

Outside Plant work which details conduits and telecommunication cabling outside of the building is the responsibility of the Telco Provider to design, engineer, and obtain permits for. Final Entrance Facility location should be reviewed and approved by TDC. The contractor designing the work shall provide all drawings over to TDC for comment and review. RYCOM TPM will review the drawings and provide onsite project management which will be at RYCOM TPM's current billable rate.



Pathways are spaces that allow telecommunication cabling to run from a source to a destination location. These spaces consist of conduit and sleeves. Pathways can be installed through parking levels, concourse levels, lobbies, riser rooms, and common areas. Listed below are the specific requirements for pathways within the TDC:

- a) Telecommunication cabling shall be installed within conduit located within the parking garages, concourse levels, and common areas extending from the riser room to a tenant suite. Cabling is permitted to be run free air within the riser space provided that best industry practices are followed and the installation conforms to section 2.0 Cabling. It should be noted that any damage done to a cable running free air within the property shall be the responsibility of the owner to fix and replace. TDC will not be held responsible for any damages done or revenues lost.
- b) Should the Tenant or Telco provider want to install conduit within the riser it should be reviewed and approved by the onsite riser manager. It is recommended that the conduit is sized for the expected growth and not just the smallest or largest sized conduit installed.
- c) Conduits, connectors, couplers, pull boxes, and covers that are located in the parking garage area and throughout other common visible areas must be painted powder coat white. This must be done offsite, and no other form of paint will be accepted.
- d) When conduits are running horizontal, labels shall be placed approx. every 15 linear feet. (examples would be through the parking garage area).
- e) Conduits and cabling must be labeled on both sides of each wall, floor penetration, and at both ends of a termination point.
- f) Conduits running vertically in the riser system shall be labeled near the top, in the middle at eye level and one near the bottom close to the core hole. This label will provide a means of quick and accurate identification.
- g) Labels shall clearly identify the ownership of the conduit. TDC recommends additional items such as source and destination locations as well as a contact phone numbers.
- h) Any pre-existing conduits that are not currently labeled and have a single ownership should be labeled with the company who owns the pathway. (Common pathways with multiple ownerships do not need to be labeled.)
- i) Any type of x-raying, scanning, or coring must have a permit which is assigned by the TDC project management team. Permit forms can be downloaded from the TDC website located under the Manuals, Forms & Permits section. www.tdcentre.com
- j) All concrete structures require x-raying prior to any core drilling taking place. If the Contractor decides to use a TDC preferred Contractor for this work, then the x-ray and coring can take place in the same night. No cutting of the structural steel and/or rebar shall be permitted or tolerated. Contractor is to have available on request a copy of the x-ray for the TDC representative to review.

k) It's the contractor's responsibility to insure that all vertical and horizontal holes their pathway and/or cabling passes through is correctly fire-stopped.

l) Where the cabling enters into a conduit or connector it's the contractor's responsibility to provide fire-stopping of the conduit as well as the hole the conduit passes through the fire rated wall.

m) TDC requests that any time work must be carried out on the concourse level ceiling titles the contractor wear white gloves and take great care in handling the ceiling titles. Should any damage occur to the ceiling titles TDC will ask that the contractor performing the work repair and or replace the ceiling title.

Telecommunication cabling allows a service to be transported from a source to a destination location. These cables primarily come in copper and fibre and can be shielded or unshielded with different fire ratings.

a) All telecommunication cabling running free air within a plenum or non-plenum space shall have a minimum fire rating of FT6. This includes both tenant and riser space. Cabling that is routed within conduit for the entire length can have a minimum fire rating of FT4.

b) Telecommunication cabling entering from the street and into the building is typically unlisted cabling. There are (2) statements that Telco providers must meet in order to route there unlisted cabling from the point of entry to their POP facilities.

c) If the entry point (source location) of the unlisted cabling is located within the same room as the destination location, the unlisted cabling can be free aired to the destination without the need for conduit provided that the room is sealed off and has a minimum 1 hour fire rating.

d) If the entry point (source location) of the unlisted cabling is located in a different room or the room is not sealed and/or doesn't contain a minimum 1 hour fire rating the Telco Provider is allowed by the Ontario building code to only have 3 meters of exposed unlisted cabling installed. The cabling can be extended to the destination location provided that the unlisted cabling is completely encased within conduit or a splice can is installed to transition from unlisted to a minimum FT6 fire rated cable.

e) Telecommunication cabling servicing rooftop antennas or devices located external to the building shall be Outside Plant Rated (OSP). If the OSP cable has an FT4 or lower fire rating it shall be encased within conduit for the entire length.

f) Copper cabling or conductive cabling entering the building from the outside shall be bonded to ground and copper pair cabling shall contain a surge protector. All dielectric non-conductive cabling does not require surge protection or bonding.

g) Shielded cabling should be bonded to ground.



Spaces are places where telecommunication gear is located. This can include accumulation panels, passive equipment, active equipment, Telco gear, tenant telecommunication rooms or tenant gear.

- a) No active components requiring electrical power shall be permitted to be installed within the riser rooms. These spaces are meant to be common, and are to house equipment and components that serve base building systems and deliver Telco services to the tenants.
- b) Tenants will only be permitted to install demarcation extension cables inside riser rooms or to gain access to the cellular floor system. Under no circumstances shall they be permitted to install or terminate any station cabling within these riser rooms or place active gear.
- c) Telco providers are permitted to set up Point-Of-Presence (POP) spaces within TDC. These spaces require design drawings from an engineering firm. Telco Providers that are setting up these spaces are required to contact the base building riser manager, RYCOM TPM, to perform site review services. These site review services are billable back to the Telco provider at RYCOM TPM's current rates.
- d) Consultants and designers are required to obtain the services of RYCOM TPM any time a piece of hardware is to be installed or mounted within the riser room. RYCOM TPM will provide written documentation notifying of our recommendations and find and assign the correct amount of space required. These site review services are billable at RYCOM TPM's current rates.

If the Contractor fails to implement the above guidelines then they will be asked to perform remedial action to correct the deficiencies. Failing to take corrective action, the Contractor will be barred from performing any work on the property until all deficiencies are corrected.

Power

Capacity for the wiring of power and telephone systems is provided by means of an under floor raceway system. Power for duplex outlets at 120/208 volts is available on each floor at a design capacity of two (2) watts per square foot of leased space. Supply, installation and connection of outlets are the Tenant's sole responsibility.

Life Safety Systems

The TDC utilizes an Edwards EST3 Fire Alarm addressable system. The Tenant's Contractor is responsible for any and all associated costs with the re-mapping and re-verification of the Life Safety systems and its components due to modifications, at both the beginning and end of the renovation.

Elevators

All work involving modifications to the elevators (e.g. call buttons, cab indicator strips, etc.) must be done by the base building elevator contractors (see Recommended Contractors). Any and all costs are to be borne solely by the Tenant.

Mechanical Systems

Heating, Ventilation, & Air Conditioning (HVAC) Systems

a) 66 & 100 Wellington St. W., 77 King St. W.

Perimeter areas are served by induction systems with freestanding, continuous floor enclosures located at the floor perimeter. Interior areas are conditioned by a central floor mechanical room and variable air volume systems (constant volume for 100 Wellington) that supply and return air to and from the space through slotted fluorescent lighting fixtures; ceilings serve as return-air plenums. Chilled water is available in at 42°F and 30 pounds differential, in the summer and 46°F and 30 pounds differential in the winter.

b) 79 Wellington St. W.

A central, variable air volume system with hot-water radiation at the floor perimeter provides air conditioning in this tower. Conditioned air is supplied to the space through slotted fluorescent lighting fixtures, and the ceiling space serves as a return-air plenum. Condenser water is available for computer installations and equipment installations that require supplementary cooling.

c) 222 Bay St. and 95 Wellington St. W.

Air conditioning in this tower is provided by “on floor” compartmental fan units with variable air volume. Heat is provided by hot water radiation at the floor perimeter. Conditioned air is supplied to the space through slotted fluorescent lighting fixtures and is returned through the ceiling space, which serves as a return-air plenum. Condenser water is available for computer and equipment installations that require supplemental cooling. All condensation piping for supplementary cooling units must be insulated.

Type K Copper

Plumbing installations must be carefully considered, and the appropriate material must be selected. Plastic piping will not be permitted, including, but not limited to coffee maker supply lines, water filter systems, refrigerators, etc.

For plumbing installations, the following criteria must be followed:

1. Type K copper for plumbing installations where the flow is under pressure;
2. Type K copper for all restroom facility installations (i.e. toilets, urinals, etc); and,
3. The appropriately specified Type as mandated by codes having jurisdiction, engineering design, or experienced professional judgment.

Perimeter Installations

In installations at the perimeter where humidity is added, an additional glazing wall must be installed so that the existing induction units are contained between the perimeter windows and the new glazing wall. Access doors for service and maintenance must be installed at every column bay.



Pre-Operational Cleaning Procedures

All Mechanical Contractors shall clean, flush, and charge any and all new piping for "Closed Systems" utilizing the following methods: Ferroquest FQ7103 and Corrrshield MD4102, or by a Landlord approved equivalent. Once the cleaning and flushing has been completed, a "final flush water" sample shall be taken for Cadillac Fairview to confirm system cleanliness. Once accepted by Cadillac Fairview, the new piping shall be charged with Corrrshield MD4102 to achieve a Molybdenum level of 100ppm or better. Only after approval shall the new piping be connected to the existing systems.

Contamination of any "existing systems" by means of an improperly cleaned and/or charged retrofit system(s) will be the responsibility of the Tenant. They will bear the cost of rectification, as determined by Cadillac Fairview, and all associated costs will be charged back to the Tenant's account.

a) Application

Effective removal of iron oxide corrosion products, oil, grease and dirt from new heat exchangers auxiliary equipment and piping can be successfully accomplished by 1°C to 80°C using Ferroquest 7103 (GE Technologies – Neutral pH Iron Cleaner).

b) Typical Dosage

A typical dosage requirement of Ferroquest 7103 as a pre-operational cleaner is at least a 1% solution or 10kg/1000L or 100lbs/1000IG. A Ferroquest concentration should always be at least 1%. Below this the cleaner level may still successfully remove corrosion products off of the metal surface; however, it may not prevent the objectionable "flash rusting" reaction from occurring during the draining and flushing operation of the cleaned system.

Factors affecting the dissolving rate of the deposit on the metal surface are the following:

- i. Concentration of Ferroquest 7103;
- ii. PH of the cleaning solution;
- iii. Temperature of cleaning solution;
- iv. Type of iron oxide deposits;
- v. Percent of non-iron oxide constituents in the deposit;
- vi. Thickness of the deposit; and,
- vii. Surface condition (hard or soft) of the deposit.

The use of either softened or un-softened makeup water has no affect whatsoever on the dissolving rate of the corrosion products in the system. A preferred minimum of 72 hours is required to completely remove the rust deposits and dissolve the oily film on the surface of the metal in a system with an ambient temperature of 16°–24°C (60°–75°F). For optimum effect, Ferroquest 7103 should be continuously circulated during the entire cleaning operation.

Field experience has shown that using a system's re-circulating pump throughout the entire cleaning operation has been satisfactory, with no operating problems encountered. Upon completion, the system should be drained and flushed. After the spent pre-operational cleaning solution has been effectively removed from a cleaned system, it should immediately be refilled with makeup water and the required concentration of corrosion inhibitor to protect it from corrosion attack.

c) Water Balancing Verification

All water balancing reports are to be submitted to the Landlord upon completion of the Tenant work on both open and closed water systems. The reports must be done by the Landlord's approved Contractor (see the Recommended Contractor) at the Tenant's expense.

Plumbing & Drainage

All plumbing material must be CSA/ULC approved. Plumbing tie-ins to the main domestic cold-water supply, and connections to the sanitary drain and vent risers, are provided to allow for the addition of a limited number of private washrooms in leased premises (subject to the Landlord's approval); for these washrooms, the Tenant's Consultant is responsible to ensure that floor drains are added and properly sloped to meet floor drains. Tenants requiring hot water for kitchens must provide hot-water tanks.

Fire Protection

66 & 100 Wellington St. W. and 77 King St. W. have been retrofitted with automatic-sprinkler risers. The buildings are equipped with a smoke exhaust system designed to remove smoke from office floors through designated smoke shafts. Additional fire hose cabinets may be installed to allow for required coverage to occupied areas, at the Tenant's sole expense.

Each floor is provided with fire hose cabinets, portable fire extinguishers, smoke detectors, and automatic sprinkler systems. 222 Bay St. also has interior window sprinklers on the south and west perimeter from the 2nd to the 16th floor. Additionally, 222 Bay St. and 95 Wellington W. are provided with one alarm valve on each floor.

Chilled Water, Standpipe & Sprinkler Lines

The use of Victaulic couplings will not be permitted on any chilled water, standpipe, or sprinkler lines in 66 and 100 Wellington St. W., 77 King St. W., and 222 Bay St. **All couplings must be welded.** The use of Victaulic couplings is permitted in 79 & 95 Wellington St. W.

Induction Units

Induction units are to remain base-building standard black, (Flecto Varathane #96 Satin Black Polyurethane) unless otherwise approved by the Landlord in writing.

The Landlord's maintenance staff must have complete access to the perimeter induction units. Leasehold improvements at the induction unit locations must permit full access for service and maintenance.



4. TENANT DRAWINGS

Consultants

The Tenant is permitted to select their design team for any proposed construction project, subject to the Landlord's final approval (it is advisable to review with the Landlord the proposed Consulting team, prior to engaging their services). When not prepared by the TDC Base Building Consultants, all drawings received by the Landlord will be forwarded to the relevant Base Building Consultant for review of impacts on the Base Building and its systems. The Tenant will be responsible for any and all incurred costs associated with the review process.

For clarity, please note that the drawing review process by both the Landlord and its Base Building Consultants only considers the proposed design impact on the Base Building Systems. The review does not waive the Tenant's design team's requirement to verify or consider the adequacy of the design against applicable and/or relevant building codes, standards, Tenant requirements, etc. Additionally, if during the course of construction the Landlord deems it necessary for the Base Building Consultant to verify the work in progress, the cost of doing so will be charged to the Tenant in full plus a 15% administration fee.

It is recommended that the Tenant and/or the Tenant's design Consultants visit the site to inspect and verify all site conditions prior to the commencement of all design work. All drawings should be sent to the following address:

TENANT PROJECTS DEPARTMENT
The Cadillac Fairview Corporation Limited
P.O. Box 2, Suite 3800, Toronto-Dominion Bank Tower, 66 Wellington St. W.
Toronto, ON, M5K 1A1
(T) 416 643 6660

Drawings Submission & Review – Office

Drawings and Specifications

The Tenant must submit to the Tenant Projects Department one (1) set of 600 mm x 900 mm (24" x 36") prints and a CD with soft copies of all project plans (CAD & PDF) and related documentation in one complete package. In conjunction with the drawings, a sample board of proposed materials and finishes must also be provided. Any revisions to the approved drawing set must be re-submitted for subsequent approval.

Cadillac Fairview reserves the right to request additional information, for purposes of definition or clarification, before giving approval. The drawing submission should include complete Architectural, Structural, Mechanical, Sprinkler, Electrical, Building-Automation, Security System and Life-Safety System drawings.

These drawings must show all proposed work and all parts of the base-building system that remain unchanged. Tie-ins and extensions to base-building security, fire alarm and communications systems must also be shown.

Failure to observe any TDC requirements when preparing drawings may result in a request for revision by the Landlord, or by the Landlord's Base Building Consultant. The Landlord reserves the right to alter any section of this Design & Construction Manual information without notice, which may necessitate a further submission by the Tenant.

The Landlord requires up to ten (10) business days to review drawings and provide comments and/or approval. Resubmissions also require up to ten (10) business days for review. When submitting drawings, the Tenant and/or the Tenant's design team should consider the turn-around time required, and plan accordingly. The Landlord will not be held responsible for any delays in the project which may result from tardy or incomplete submissions, drawings requiring resubmission, etc.

Environmental/Sustainable Document Submissions

As part of our commitment to environmentally sustainable practices, we require that the following documents are submitted in conjunction with the drawing set:

1. A waste management plan for any and all construction debris;
2. An IAQ management plan;
3. Material & product data sheets; and,
4. Project schedule indicating when IAQ testing will take place.

Base Building Technical Data

Please contact the assigned PM should specific Base Building Technical Data be required.

Structural Drawings

Structural drawings should be provided where special conditions warrant their production (e.g. openings in slabs, high density file storage areas, etc.). Should openings of any kind in the concrete floor be required, it is recommended that the Tenant engage the Landlord's Base Building Structural Engineer in advance of the drawing submission, to review and approve the proposed renovations. The Landlord's Base Building Structural Engineer must review and approve all renovations having a structural impact.

Reflected Ceiling/Lighting Plans

Reflected ceiling/lighting plans should include:

- a) Lighting layout (including fixture types and counts), pattern, materials and suspension details;
- b) The locations of all access panels required to service building systems.



Floor Plans

Where the Leased Premises occupy less than a full floor, plans must show the entire floor plan identifying the location of the premises and their relationship to the elevator lobby, exits, washrooms, etc. Floor plans should include the following information:

- a) The locations of all major fixed elements within the leased premises dimensionally related to grid lines and demising partitions;
- b) Room names and uses, including the location and layout of rooms with unusual loading concentrations; and
- c) Materials and finishes throughout the premises.

Approved Drawings

A set of prints of the approved permit drawings must be kept on the premises for the duration of the construction period, so as to be available for reference purposes to the Landlord's authorized representatives.

Construction Schedule

The landlord must be provided with an approved Construction Schedule outlining the date work is to begin and hours of work. The schedule must be provided in a Gantt chart format showing milestones and be broken down by trade and the duration of their work.

Typical Fee Structure

Drawing reviews carried out by any of the Landlord's Base Building Consultants (Mechanical, Electrical, or Structural) will be subject to the following fees. Please note that these costs will be charged back to the Tenant, plus a 15% administration fee, as per our standard Lease agreement.

- | | |
|-------------------|--|
| a) Architectural | Approximately \$700/drawing set |
| b) Electrical | Approximately \$700/drawing set |
| c) Mechanical | Approximately \$700/drawing set |
| d) Telecom | Approximately \$700/drawing set |
| e) Sustainability | Approximately \$700/drawing set |
| f) Structural | Dependent upon complexity of structural work |

Engineering drawings and site inspection fees can vary from each project, and are subject to change without notice. Should the Tenant elect to engage any Base Building Consultant, the corresponding fee shall be waived.

Drawings Submission & Review – Retail

The following section provides cursory information with respect to proposed retail Tenant's construction/renovation projects. Though it serves as a reference for such submissions, all proposed projects must be in strict accordance with the requirements of the Retail Design Criteria Manual which can be found at www.tdcentre.com.

General Guidelines

All renovations and new construction intended to be performed by the Tenant or its Contractors must be completely and accurately detailed in working drawings, prepared by a qualified interior designer or a registered architect, whose selection has been approved by the Landlord and submitted to the Landlord a minimum of one month prior to possession. The drawing set must be submitted to the Landlord for approval, which must be given in writing by means of the Landlord's signature of approval on the Tenant's drawings, prior to the commencement of any proposed construction.

The drawing submission must be in accordance with the schedule stipulated in governing lease documentation and/or the drawings due date given by the Landlord. Should the Premises be incomplete at the time drawings are required for submission, the Tenant must base its drawings on available information, including outline drawings provided by the Landlord, and must confirm the accuracy of its drawings when the Landlord's work has been completed.

Any delay by the Tenant in providing such information may affect the Possession date, but shall not affect the term Commencement date.

The Landlord will supply to the Tenant outline plans, if available, for the designer's information and use. These plans will be in the form of the Property's Base Building drawings or working drawings provided by the previous occupant of the premises. For clarity, the Landlord does not guarantee, in any way, the accuracy of the information contained in such drawings. It is the Tenant's responsibility to ensure that site conditions are accurately reflected in the drawing set.

Please note that the Design Criteria supersedes all notations on reviewed drawings. The Tenant and its designer are obligated to conform to the set design criteria.

All drawings and samples must be submitted with a properly noted transmittal and/or letter. Information on transmittal/letter to include but not limited to the following:

- a) Contact information (designer, architect, etc.) full name (initials will not suffice), company name, company address, phone number and/or email address
- b) Reviewed drawings to be returned to (if different from above): full name, company name, company address, phone number and/or email Address



Submission Requirements

The following documents must accompany all retail project drawing submissions sent to the Landlord's PM (i.e. the Tenant Projects Department):

- a) Two (2) sets of the preliminary Architectural drawings;
- b) Two (2) sets of the final Architectural drawings (material sample board must accompany the Architectural drawing submission for final approval);
- c) Two (2) sets of the storefront Sign shop drawings; and
- d) Three (3) sets of Mechanical and Electrical drawings sent directly to the Property's respective Base Building Mechanical and Electrical engineering Consultants.
- e) One CD containing as-built architectural, mechanical and electrical drawings.

Preliminary Submission

A preliminary drawing submission is recommended as a part of the drawings approval process. Its purpose is to provide the Landlord with an opportunity to comment on the proposed design concept so that the Landlord's requirements may be incorporated into the final working drawings and so that site conditions are appropriately addressed in a timely manner. If at any time the project team requires any clarification on project and/or drawing requirements, the project lead is strongly encouraged to contact the Landlord's PM for assistance.

The preliminary submission should be labelled "Preliminary Set" can be emailed as in PDF format (or two (2) sets of prints) that include, but are not limited to, the following:

- a) An outline plan of the store, at a suitable scale and paper size (no less than an 11"x17"), showing the general merchandising layout;
- b) A thoroughly dimensioned demolition plan, floor plan, reflected ceiling plan, storefront and interior elevations, and sections through the storefront, at a suitable scale sufficient to allow understanding of design details;
- c) Definitive storefront and interior sign information;
- d) A complete and comprehensive material sample board which accurately displays all finish materials and colours to be used (materials to be keyed to the drawings); and
- e) A colour rendering of the storefront or other store photos of similar concepts.

Note: Preliminary approval is for concept only. Final submission is required for commencement of construction or the manufacturing/ordering of materials, store fixtures and signage.

Architectural Submission

All Architectural drawing packages must include all of the following, and are subject to a Drawing Review Fee.

- a) Demolition plan of existing interior partitions and fixtures where applicable;
- b) Floor plans showing dimensions related to lease lines and centre lines of demising partitions, storefront configurations, general merchandising and fixture layout, and flooring material throughout the premises;

- c) Grille closure details: full specifications and drawings are required including locking device details.
- d) Reflected ceiling plans showing ceiling materials, locations and types in legend format of all light fixtures, location of all special electrical equipment, and location of mechanical diff users and return air grilles; location of access panels. Lighting specifications, including category numbers, wattage levels and lamp types, are also a requirement;
- e) Storefront and interior elevations, storefront cross-sections, and related details;
- f) Signage details showing elevation and section, size and dimensioned location at storefront, colours and materials, mounting and lighting details. Sign shop drawings must also be submitted from the sign manufacturer for final Landlord approval.
- g) Material, illumination and construction specifications;
- h) Colour picture and/or a rendering of the storefront with new signage;
- i) If an existing sign to be replaced, a picture and/or rendering of the existing storefront is to be submitted along with a superimposed picture of the new storefront signage;
- j) Specifications and identification of all materials and interior finish schedule.
- k) A complete material sample board, which displays fully and accurately all finish materials and colours to be used, keyed to the drawings. The sample board should clearly and accurately identify the major finishes to be used in the store.

Please Note:

- i. The submission of a sample board is mandatory; final drawing/project approval will not be granted without its provision;
- ii. Anticipate changes to drawing submission. If sufficient changes are required, the Tenant Coordinator will require the drawings be resubmitted for final approval; and,
- iii. "Approved" drawings will be stamped by the Tenant Coordinator, where drawing approvals are valid for six months from date stamped.

Sample Board Submission

The material sample board must fully and accurately displaying all finish materials and colours to be used (keyed to the drawings), and is required for the final submission (drawing/project approval will be not granted without a material sample board). Samples are to be mounted onto a rigid board (loose samples are not permitted), and should consider the following:

- a) Identification of clearly and accurately major finishes to be used in the store;
- b) Scanned photos or digital images of materials and samples will not be accepted; and
- c) Samples mailed to the Tenant Coordinator must to be packaged and shipped properly to avoid damage (i.e. broken items).



Mechanical & Electrical Submission

The Mechanical and Electrical drawings are to include all of the following:

- a) Detailed ductwork layout, diffuser layout, and proposed location of thermostat(s);
- b) Complete heat gain/loss calculations;
- c) Details and location of any required roof opening and related roof-mounted equipment;
- d) Sprinkler layout showing pipes, size and head location;
- e) Plumbing layout indicating fixture specifications, hot water tank, drains and any other equipment and materials;
- f) Single line riser diagram with an electrical load summary on the basis of watts per square foot showing connected and demand loads, and electrical panel schematics; and
- g) Location of all electrical equipment and light fixtures, including night, emergency and exit lights (specify size, wattage, type and mounting).

Note: Mechanical and electrical drawings are reviewed by the Landlord's consultants and therefore any inquiries should be directed to the Landlord's Representative.

Typical Fee Structure

Drawing reviews carried out by any of the Landlord's Base Building Consultants (Mechanical, Electrical, or Structural) will be subject to the following fees. Please note that these costs will be charged back to the Tenant, plus a 15% administration fee, as per our standard Lease agreement.

- | | |
|-------------------|--|
| h) Architectural | Approximately \$700/drawing set |
| i) Electrical | Approximately \$700/drawing set |
| j) Mechanical | Approximately \$700/drawing set |
| k) Telecom | Approximately \$700/drawing set |
| l) Structural | Dependent upon complexity of structural work |
| m) Sustainability | Dependent upon complexity of structural work |

Engineering drawings and site inspection fees can vary from each project, and are subject to change without notice. Should the Tenant elect to engage any Base Building Consultant, the corresponding fee shall be waived.

Hoarding

The tenant shall be permitted to install, at its sole expense, its own storefront hoarding provided it meets with the Landlord's design criteria.

5. CONSTRUCTION PROCEDURES

a. Construction in Planning

The following subsections contain information regarding the documents required by the Landlord prior to the commencement of any work. The Tenant and the Tenant's Designer are strongly encouraged to review the information contained herein, so that the submission package is complete, and so that the Landlord can expedite any required revisions and approvals.

General Requirements

Appointment of the Contractor

The Tenant is required to engage its own Contractors (and sub-contractors where applicable) for the purpose of carrying out its construction work. All contractors:

- a. Are subject to approval by the Landlord;
- b. Must be in good standing with the provincial Workers' Safety & Insurance Board;
- c. Must ensure that the work performed by each unionized trade does not conflict with the work that other unionized trades are legally entitled to do by virtue of their collective agreements;
- d. Must utilize subcontractors for Automation, Mechanical, Electrical and fire-alarm approved work that are familiar with the base building systems; and
- e. Must utilize Base Building required Contractors where directed by the Landlord in this document.

The Recommended Contractors section provides contact information for Contractors of various disciplines that are experienced with the TDC's construction policies and procedures. This list is meant to serve as a recommendation only, and Cadillac Fairview assumes no responsibility whatsoever for the use or selection of any Contractor and their workmanship or their behaviour while working at the TDC.

Trades

For all project work at the TDC, the Tenant must employ union affiliated contractors, subcontractors, etc., and ensure that the work performed by each unionized trade does not conflict with that of other unionized trades legally entitled to do so by virtue of their collective agreements. The trades must have union affiliation compatible with that of the Landlord's contractors. The Tenant is solely responsible for all damages (and associated repair costs) that may result from its Contractors' failure to comply with this requirement.

The Tenant is permitted to use non-unionized trades only for painting, furniture moving/setting, and audio/visual installations/work.

Documentation

The following documents/information must be submitted to the Landlord's assigned PM, and is required before any proposed work can proceed:

- a) Landlord written acceptance of Tenant Drawings/Specifications;
- b) A Construction Schedule;



- c) Base Building Consultant approval of all relevant drawings;
- d) All General Contractors must provide a copy of their Health & Safety Policies, and a letter which indicates that their policy will blanket all sub-trades;
- e) All relevant TDC Permit Forms must be completed to the best of the Contractor's ability. Updated TDC Work Permits can be obtained from www.tdcentre.com.
- f) Comprehensive Contact Information Sheet showing all of the Contractor's and Subcontractor's employees designated to work on the project. Emergency contact numbers and email addresses should also be included;
- g) A copy of all relevant City of Toronto Building Permits (i.e. Mechanical, Electrical, etc.);
- h) A copy of the Notice of Project (if applicable);
- i) A copy of the Health Department Approval (if applicable);
- j) Valid WSIB Clearance Certificate;
- k) MSD Sheets (if applicable);
- l) Certificate of Insurance with complete coverage and additional insured parties named; and
- m) A letter on signed company letterhead indicating that the contractor has read this entire document, and agrees to abide by the terms and conditions as stated herein.

Health & Safety

The Tenant and their Contractor are responsible to ensure strict compliance with OHSA and any other applicable health and safety regulations. The Tenant and their Contractor shall take all necessary precautions to safeguard workers and the public from injury and accident, while preserving the integrity of all private and public property.

Routine site visits will be performed by a Landlord representative to review the project progress, workmanship, general safety requirements, and conformance with the Landlord's Contractors Rules and Regulations. The Landlord reserves the right to cease all work until unsafe work conditions or practices are resolved without penalty.

TDC Permits

Various construction activities require special TDC specific permits. Specifically, permits are required for: General Construction Work, Hot Work, Scanning & Coring Work, Fire Protection System Work, and Service Work. Additionally, whenever a reservation for the Service Elevator is required, a TDC Elevator Requisition Permit must be completed.

Permit forms are available from the TDC website and must be submitted to the email addresses as shown thereon. If for any reason you require clarification or assistance with the completion or submission of any Permit, please speak to the assigned Cadillac Fairview PM.

Failure to submit a completed Permit for any cited activities may result in a Construction Violation, and may be subject to a Fine. Please see the Construction Violations on page 47 for further information.

Insurance Requirements

Evidence must be provided, in a form acceptable to the Landlord, that the Contractor has General Liability Insurance for a minimum of \$5.0 million. Insurance coverage must include the following names as additionally insured parties:

Table 9 – Additionally Insured Parties

66 & 100 Wellington St. W. & 77 King St. W.

- The Cadillac Fairview Corporation Limited
- Ontrea Inc.

79 Wellington Street W. – TD Waterhouse Tower

- The Cadillac Fairview Corporation Limited
- Ontrea Inc.
- Canadian Pacific Hotels Corporation

222 Bay St. – Ernst & Young Tower

- The Cadillac Fairview Corporation Limited
- Ontrea Inc.
- The Corporation of the City of Toronto

95 Wellington St. W.

- The Cadillac Fairview Corporation Limited
- Ontrea Inc.
- 95 Wellington West Leaseholds Limited
- The Toronto Club

If a company is a subsidiary of another firm, proof of adequate insurance must be provided in the form of either an actual Certificate of Insurance as outlined above, or, a letter and Certificate of Insurance from the parent firm indicating acceptance of responsibility for the subsidiary's work.

Construction Deposit

The Landlord will require a Construction Deposit (cheque payable to Toronto Dominion Centre Leaseholds Limited for TD Bank Tower, 77 King Street, 100 Wellington Street, TD Waterhouse Tower and Ernst & Young Tower; cheque payable to 95 Wellington West Leaseholds Limited for 95 Wellington Street) between \$1,000 and \$10,000 per floor per project, to be held in a non-interest generating bank account. The assigned PM will provide the Contractor with the determined value of the deposit. These monies will be held until all close out documentation is received, and if they are not received, the monies will be applied against obtaining said documents.

Additionally, if for any reason the Contractor fails to rectify any outstanding deficiencies at the project completion, or repair any damage to the TDC premises, the deposit will be used by the Landlord to execute the work on the Contractor's behalf.

Unused monies will be refunded, in full, to the Contractor.



b. Construction in Progress

The following subsections contain critical information for the Contractor and subtrades to observe while conducting work on the TDC premises. Specifically, information on checking-in/checking-out, construction procedures, Service Costs, Loading Dock procedures, etc. is provided. The Contractor and all subtrades must abide by all of the policies, procedures, and guidelines contained herein. It is also the Tenant's responsibility to ensure that their project team abides by these rules.

Permit Forms

The TDC is a very large and intricate complex. In order to manage the daily activities throughout the complex, the Landlord has created various permit forms to create a line of communication between the contractor and the facility operations. The following list provides a description of the various forms and when they should be used. To obtain form(s), **click** on the desired form(s) (listed below) or go to www.tdcentre.com/en/service_providers/Pages/Contractor-Forms.aspx.

Table 10 – Permit Forms Descriptions

Permit	Description
Construction Work Permit	This permit must be filled out and submitted to the Landlord prior to the execution of any work. Fields such as Tenant, project location, contractor info, etc. are required. In addition to the permit, a detailed Trades sheet must be attached. This sheet must provide the names and contact numbers of all personnel that will work on the project (i.e. GC and subtrade personnel).
Service Work Permit	This permit is used for service contracts between Tenants and Contractors. This form permits a contractor access to a Tenant space to perform service and maintenance work.
Freight Elevator Requisition	This form is used to secure the exclusive use of the service elevator.
Hot Work Permit	This permit is used to notify the Fire & Life Safety department of any work using propane equipment.
X-raying, Scanning & Coring Work Permit	This permit is used to schedule x-raying, scanning and coring work (typically for plumbing and electrical floor penetrations).
Fire Protection System Bypass Permit	This permit is used to notify the Fire & Life Safety department of any work on Fire Protection systems (e.g. sprinkler systems, fire alarms, etc.).
Building Systems Shutdown Request	This permit must be filled out and submitted when a power shutdown for electrical HVAC, chilled water, steam, domestic water & heating water tie-ins is required.

Business Hours

Normal business hours at the TDC are generally between 0700 and 1900, Monday through Friday.

Keys & Identification Badges

While on site, all construction personnel must obtain and carry (on their person) a building identification badge at all times. Badges are issued daily at the Access Control Centre (ACC), and must be signed out individually at the beginning and end of each shift. All construction personnel must have proper, Government Issued, personal ID, and proof of employment with a Contractor or union affiliation. Similarly, all keys and access cards must be signed out at the ACC, and are available on a first come first serve basis. The aforementioned forms of identification must be available for review by Landlord representatives at any time, upon request. Failure to adhere to this policy may result in the issuance of a fine (please see Table 13 – Construction Violations & Associated Fines).

Roof-top Access

In addition to the daily sign-in/sign-out process, if a Contractor requires access to any roof-top area at the TDC, the Contractor must sign a waiver form at the ACC and present proper fall-arrest certification documents for review. Approval to access a roof-top area is subject to the discretion of the Security staff, and should be indicated on all Permit forms in advance of performing the work/requesting access.

Noise & Sensitive Work

Construction may take place within the leased premises during normal business hours, but if the work is deemed too noisy, Cadillac Fairview reserves the right to immediately reschedule all work to the evenings (1800 to 0700 hrs) at the sole expense and responsibility of the Tenant. All noise generating work (i.e. demolition, hammering, drilling, cutting, etc.) must be carried out between 1900 to 0700 hours, Monday to Friday, and anytime during weekends. Working hours must be communicated to, agreed upon, and arranged with the assigned Project Manager. Any work outside of the leased premises must be enclosed by full-height plywood hoarding painted to match the surrounding finishes.

Sensitive work is defined as work which causes odours, vibrations, noise or other undesirable effects that emanate from the premises which, in Cadillac Fairview's opinion, are objectionable or cause any interference with safety, comfort or convenience for the building and its occupants. Sensitive work shall take place outside of normal business hours.

Temporary Services

The contractor is responsible for the distribution of temporary power and telephone service within the work areas. Exposed electrical cords are not permitted outside the occupied areas.



Construction Services

The following table (Table 11 – Construction Service Costs) shown below, contains costing information for various services required in typical construction projects. These services must be requested via the TDC Permit Forms, and can be found on the TDC website.

Table 11 – Construction Service Costs

Service	Cost
Hydrostatic Test	\$200/day*
Drain Down	\$678/day (includes HST)
Standpipe Drain Down	\$678/standpipe/zone/day
Cancellation of Any of the Above	50% refund of payment
Audit – Contractor Logs or Pass Cards	\$50/hour
Freight Elevator Requisition	Self Operated: \$50/hour Operator Assisted: \$85/hour

* Note: If included with drain down, no additional charge. All H-tests to be witnessed by base building sprinkler contractor.

All cheques pertaining to sprinkler/standpipe system drain downs or H-tests must be hand delivered to a representative of the Emergency Response Team, or the assigned PM, 72 hours in advance of the scheduled work.

Cheques for all properties must be made out to: The Cadillac Fairview Corporation Limited.

Shipping & Receiving

There are three Loading Docks at the TDC. They are located at:

- 66 Wellington Street West;
- 79 Wellington St. W. with access via Piper Street (at York St. & Wellington); and
- 95 Wellington St. W. with access via Piper Street (at York St. & Wellington)

Deliveries and pick-ups at the TDC Loading Dock are permitted between 0700 and 1900 hrs, and will be allowed 45 minutes for loading/unloading. Arrangements must be made for all deliveries outside of these hours. Passenger vehicles or passenger type vans without commercial plates will be denied entry. All vehicles entering the Loading Dock are subject to vehicle inspection or search, and must render shipment manifests and delivery destinations. The maximum clearance is 3.65 m (12 feet); vehicles exceeding this height will be turned away. Under no circumstances should the building waste compactor or equipment be blocked by bins or vehicles or be used for construction materials. Failure to comply with the stated conditions will result in a vehicle ban and towing from the TDC at the owner's sole expense.

The Shipping and Receiving access ramp is restricted and considered a "Security Zone". Only Security Personnel and CF staff conducting work or carrying out maintenance duties have access.

Construction disposal bins are permitted between 1700 and 0700 hrs Mon. to Fri., all Sat., Sun. and holidays. Placement of the bins should be in designated areas only.

Deliveries & Hoisting

Equipment and/or material deliveries to the construction site must be via designated routes, and Contractor may not use Landlord's equipment (i.e. bins, dollies, etc.). All materials and equipment must be brought to the site via the Loading Dock and freight elevators only. Construction materials may not be delivered to the Loading Dock Monday to Friday 0800 to 1800 without prior permission and movement of material through the concourse is prohibited between 0800 and 0930, 1100 and 1430, and 1630 and 1800. Arrangements for handling heavy or bulky items requiring special handling or hoisting must be made.

Loading Dock facilities and Freight Elevators should be reserved in advance (service charges will apply and must be paid by certified cheque in advance; outstanding balances must be paid before further reservations can be arranged), and require 48 hours notification. Reservations may be made via toAssist. The Contractor must notify TDC Security of their arrival and completion of work via two-way intercom speaker at the Access Control Centre (ACC) that is connected to the Security Operations Centre (SOC).

Contractors, service personnel and Tenants must take all necessary precautions to minimize damage to or marring of elevator walls, doors, floors and ceilings. The Tenant and Tenant's Contractor will be responsible for all costs associated with repairs to damaged items/finishes. Contractors are expected to report any property damage to Security immediately to ensure accountability.

Site Work

The Tenant and their Contractor must ensure that all construction work is carried out in strict accordance with the Approved Drawings. Similarly, they must also ensure that all construction work complies with all applicable laws, by-laws, codes and regulations, including all applicable construction safety regulations including, but not limited to O.H.S.A. and W.H.M.I.S.

The follow subsections detail various requirements for other typical workplace construction activities.

Building Automation System (BAS) Work

The Tenant's Project Team is responsible for providing the Landlord's PM with an itemized list of all systems that will be tied into the TDC Building Automation System (BAS). This includes items such as temperature sensors, access control card readers, etc. The list provided by the Project Team will ensure that connections are appropriately captured so as to mitigate potential oversights upon commencement of Tenant operations within the leased premises.



Drilling, Cutting, and X-raying

Any and all drilling or cutting into the building's concrete structure must be reviewed and approved by both the Landlord and the Landlord's Base Building Structural Engineer. Drilling or cutting without authorization is strictly prohibited.

Prior to drilling or cutting, the Contractor is to engage the Base Building X-Ray Contractor (or Landlord approved equivalent) to locate all embedded material via an x-ray of the slab in the immediate location of the proposed hole. All drilling/coring locations shall be submitted in drawings, accompanied by the corresponding film, for review and approval by the appropriate parties at the Tenant's sole expense.

Drilling, Coring, and X-Ray work must be performed during off-business hours, with 7 days advance notice to the Landlord.

Electrical Power Shutdowns

All requests for electrical-power shutdowns must be made in writing and submitted to the assigned PM for approval four (4) weeks prior to the scheduled date. Shutdowns may take place between 0000 and 0600 hrs on weekends only. (See Building Systems Shutdown form.)

Riser Room Access/Work

Access to the riser rooms throughout the TDC is managed by Rycom (see TDC Required Contractors/Consultants on page 6). The Tenant's Contractor is responsible for coordinating access to the riser rooms, and must supply any requested documentation to Rycom in advance of performing the work.

Any work in the riser rooms must be done in accordance with all relevant and applicable building codes and standards. Specifically, all floor slab penetrations must be smoke stopped and fire sealed. If a Tenant's work infringes on a conduit/penetration that does not comply with relevant codes and standards, it is the Tenant's responsibility to ensure that measures are taken to meet said requirements. Penetrations that are not compliant will not be "grandfathered"; all performed work must be completely compliant.

Security Electrical Contractor

Only approved Contractors may work on the Security & Life Safety Systems (i.e. card readers, cameras, etc.). Please see TDC Required Contractors on page 6.

Air System Shutdowns (HVAC)

Requests for air system shutdowns must be submitted for approval with at least 48 hours advance notice. All requests must be directed to the assigned PM for approval. A Tenant's request for extra air conditioning will take precedence over a Contractor's shutdown request. (See Building Systems Shutdown form.)

Sprinkler Systems

The Landlord must approve all revisions to the base-building sprinkler system. The sprinkler-control valve will be closed and the line(s) will be drained until the completion of work on a given floor. Upon completion of all work, the system must be water-pressure tested at 200psi for two hours, and H-tests must be performed when twenty (20) or more heads have been altered as per NFPA 13. It is imperative that test certificates are forwarded to the Fire & Life Safety Manager within 24 hours of testing. The sprinkler system will be reactivated once all tests have been approved.

During Construction, when ceiling tiles are removed, existing sprinkler heads must be temporarily removed and upright heads must be installed in accordance with relevant codes and standards. Upon installation of the ceiling tiles (i.e. construction completion), the original sprinkler heads must be reinstated in accordance with relevant codes and standards.

Water System Shutdowns

All requests for water system draindowns (e.g. fire system, domestic water, etc.) must be submitted with a minimum of 72 hours advance notice, and standpipe shutdowns must be submitted with 96 hours advance notice to the TDC Fire & Life Safety Department. Cancellation notification for shutdowns must be provided to the Life Safety Department with at least 24 hours advance notice. The Contractor will be charged 50% of the full draindown cost upon failure to provide cancellation notification to TDC Fire & Life Safety staff. (See Building Systems Shutdown form.)

Plumbing

Where plumbing is removed within the leased premises, all lines and connections must be removed from the ceiling spaces back to the core riser and properly capped. This is applicable even if the plumbing runs through other occupied areas before reaching the core riser.

Access Panels

Access panels in finished walls, ceilings and floors must be provided to permit access to equipment or services. Access panels must be a minimum of 600 mm x 600 mm (24" x 24").

Power-Activated Devices

Power-activated fasteners may not be used to fasten materials to the metal deck.

Revisions to Life Safety Systems

The authorities having jurisdiction must approve all revisions to the base building Life Safety Systems. Revisions to the Fire Alarm System must be approved by the Landlord, and any proposed revisions must equal or exceed the standard level of protection and detection throughout the TDC.



Any person working on the Fire Alarm System must have on their person a valid Canadian Fire Alarm Association (CFAA) certificate. At no time is the Fire Alarm System to remain in Trouble Mode after work is completed, and at no time is any work on the system to impair detection or communication with adjacent or satellite areas. The Contractor is solely responsible to clear all Trouble Alerts from the system. The Tenant must use the TDC Required Contractors as shown on page 6.

Electromagnetic Locking Devices

Electromagnetic locking devices and related signage shall be installed in conformance with the Ontario Building Code. The Landlord has no authority to respond to requests for deviations.

Prior to the activation of electromagnetic locking devices, the installers/owners certificate required by the City of Toronto Fire Department must be completed by the installing contractor and verified by the Landlord's Fire Alarm Service Contractor. The Contractor is solely responsible to make all arrangements with the Landlord's Fire Alarm Service Contractor seven (7) business days in advance of such work. All required form(s) must be submitted to the Life Safety Department at the time the request for verification by the Landlord's fire alarm service contractor is made. All verification paperwork must be submitted to the Manager of the Fire & Life Safety Department within 24 hours of completion.

Voice-Communication Speakers

At no time may a floor be occupied during normal office hours if the speaker system is out of operation. All revisions must be performed during the night shift and co-ordinated to ensure that the system is fully operational and checked out by the start of business the following day.

Peripheral Devices

Fire alarm peripheral devices are not to be modified/tampered with without prior approvals from the Landlord. This includes, but is not limited to, Pull Stations, Smoke/Thermal heat detectors, Speaker Systems, and Pre-action Systems. Additionally, the Base Building EVC speakers may only be painted using a ULC compliant paint, verified by ULC and GE upon completion of all work. Alarm speakers must not be painted; speakers that have been painted will be replaced and reverified at the Tenant's sole expense.

Fire System Work

For any work on the TDC Fire Protection System, the Contractor is responsible to employ the TDC Required Contractor (please see the section entitled TDC Required Contractors) to re-map the fire system upon commencement and conclusion of work. This includes for items such as the temporary or permanent deletion or removal of smoke alarms, manual pull stations, speakers and/or heat detectors, etc. Failure to do so will result in all rectification costs to be charged back to the Contractor and/or the Tenant.

Fireproofing Material

All removed fireproofing material (either through construction, deconstruction, or if found to be non-existent on structural steel elements and floor penetrations) must be reinstated with a suitable and approved fireproofing material. This replacement material must be installed in accordance with pertinent building and fire codes, and is the sole responsibility of the Contractor.

The Landlord approved fire resistive material is CAFCO 300SB. This material is specially designed for the retrofit construction market.

Fire Watch

During a required fire watch, the relevant area must be patrolled once per hour and reviewed for potential fire hazards and signs of fire. Patrols should be documented for the purpose of inspection by the presiding authorities, and are to remain in place for one hour after any hot work is completed.

A Hot Work Permit must be completed and submitted as required, in advance of any hot work being performed. The approved permit must be on-hand and displayed at the project location(s) and be available for review by the TDC staff upon request.

Common Area Restrooms

The Tenant's contractor may not use common area restrooms. Only where the Tenant occupies a full floor may the Tenant's contractor use the restroom on that floor. Public restrooms are available on the concourse level.

Site Protection

All building finishes, including window film (where applicable) and carpets must be adequately protected to prevent damage. Damage to the building finishes will be repaired by the Landlord at the Contractor's expense. The following protection is required:

- The Contractor must supply and protect carpet finishes with plywood and plastic sheets;
- Dust control mats must be placed at all construction exit points; and
- When handling TDC Retail Concourse ceiling tiles, all trades must wear clean white gloves to prevent stains or damage. Damaged tiles will be replaced by the Landlord at the Contractor's expense at a rate of \$1500 per occurrence.



Window Film

At the TDC, window film has been installed in various locations to assist the HVAC systems manage the solar gains in leased premises. The following table details the location of installed window film.

Table 12 – Window Film Location

Building	Location
66 Wellington St. W.	South & East Facades – Floors 14 to 55
79 Wellington St. W.	South, East, & West Facades – Floors 4 to 11 & 24 to 33
95 Wellington St. W.	None
100 Wellington St. W.	All Sides; All Floors
77 King St. W.	South & West Facades – Floors 14 to 46
222 Bay St.	None

Construction Violations

In an effort to educate, promote, and ensure that proper construction policies, procedures, and guidelines are followed throughout the project lifecycle, the Landlord performs periodic cursory site visits to review general health & safety and construction practices. Of course, delinquent behaviour, poor construction practices, unsafe workplace health and safety practices, etc. are not tolerated whatsoever. The Tenant's project team is encouraged to engage the Landlord in discussions that would help promote the safe execution of their project while concurrently abiding by all applicable guidelines, policies, and this Design & Construction Manual.

The Tenant's Contractor is responsible for the actions of all project tradesmen and delivery people. Any person found to be performing an unsafe act or exhibiting a blatant disregard for existing work, or disrespect towards Tenants or other people at the TDC will be promptly removed from the premises and not permitted to return.

The Landlord will perform the noted random reviews to record such transgressions, and will issue fines/warnings according to the tables listed below. Each offence will be recorded and documented by TDC staff. Incidents will remain recorded for 18 months. Any costs associated with these offences will be billed back to the contractor.

Continued neglect for the stated construction guidelines and expectations may result in a temporary or indefinite ban from performing work in the Cadillac Fairview Toronto Office Portfolio.

The Toronto-Dominion Centre has a zero tolerance policy to any Provincial and/or Federal Code Regulation violations. Fines will be automatically generated based on the violation it pertains to. Continued disregard will result in an escalation amount of 50%.

Table 13 – Construction Violations & Associated Fines

Construction Violation	Fine Per Occurrence
Cause of fire. Any incurred damages will be added to this fine.	\$10,000
Open flame work without a Hot Work Permit and an ABC 10 lb. extinguisher within 10 feet. Non-functional extinguishers will be confiscated.	\$3,000
Negligent or deliberate disconnection of the fire alarm system without authorization or Contractor Certification, or activation of fire alarms (i.e. tones and/or no tones)	\$3,000
Leaving the TDC premises without reinstating the fire alarm system bypass.	\$3,000
Obstruction of any fire equipment (e.g. pull stations, hose stations, etc.)	\$1,500
Improperly stored compressed gas cylinders while not in use.	\$1,500
Failure to comply with the National or Provincial Fire Code, Building Code, OHSA, ESA or any other relevant code regulation, or applicable act.	Up to \$5,000
Failure to post all Building Permits, WSIB, WHMIS, H&S Policy in visible location.	\$500
Storage of combustibles in common areas, or unsafe accumulation of refuse.	\$500
Obstructing or “wedging open” any mean of egress.	\$500 per door
Smoking while on the TDC premises.	Automatic removal from TD Centre
Storing equipment in areas other than the construction site (including Riser Rooms)	\$1,500 per Riser Room
Failure to return badges, keys, or pass cards to the Access Control Centre	\$200
Failure to wear appropriate/required PPE as required by OHSA	\$250 to General Contractor
Three Strike Policy Construction Violations	
The use of passenger elevator by contractors.	
Unauthorized parking welding, sawing, and/or cutting in the Loading Dock.	
Unauthorized garbage disposal at Shipping & Receiving-Loading Dock	
Improper implementation of dust control measures at entrance and exit areas.	
Failure to use wooden support for construction bins in the Loading Dock.	
Failure to return badges, keys, or pass cards to the Access Control Centre	\$200
Failure to wear appropriate/required PPE as required by OHSA	\$250 to General Contractor



The Landlord will not be held responsible for the costs resulting from the ban of a Contractor and/or an employee from the TDC premises.

During the course of a project, where the action(s) of a contractor results in a cost to the Landlord, the contractor will be held solely responsible for all costs plus a 15% administration fee. The Landlord will make appropriate and reasonable notifications and issue invoices accordingly.

Site Cleanliness

Cleanliness

Contractors must ensure that the construction site and common areas are completely free of debris. Daily removal of dirt and marks from common areas is required. Arrangements with the base-building cleaners should be made.

All work near the elevator lobbies and air handling equipment requires the installation of adequate protection to ensure that infiltration of dirt and debris does not enter the air handling or elevator shaft (e.g. a plastic sheet taped around elevator door perimeter to ensure a tight seal).

Where special cleaning is required to maintain neat appearance, such cleaning will be done at the Contractor's expense.

Safety precautions must be undertaken when extension cords are required. Where possible, the extension cord must be run through the ceiling to the desired location.

Garbage & Waste

The Contractor is solely responsible for the removal of all generated construction debris, and must remember to avoid the accumulation of large amounts within the construction premises to avoid fire hazards. The Freight Elevator must be reserved to remove such debris. As space in the Loading Dock is limited, disposal bins are only allowed to remain in designated areas between 1700 and 0700 hours Monday through Friday, and all hours on Saturday, Sunday and holidays.

Arrangements for disposal bin delivery must be made through the Shipping and Receiving Department. A list of Authorized companies to deliver disposal bins is available from the Shipping & Receiving Department. Bins must be placed upon wooden supports in designated areas, and upon removal of the bins, the Contractor shall leave the area in a tidy swept condition.

For recycling information purposes, the disposal bin provider bin will be required to submit a copy of the materials weight scale ticket to the Facilities Operations Manager. The materials weight scale ticket must be submitted within 24 hours.

Please refer to the Construction & Demolition Waste Management guidelines outlined in Section 10: Design Considerations for your reference and incorporation into all project documents.

c. Construction Completion

Before work is deemed substantially complete, the Landlord's approval must be obtained in writing. This approval indicates that work has been carried out in a satisfactory and acceptable manner. If approval is not obtained, the Landlord may be required to complete or revise various portions of the work in order to bring it into line with TDC standards. Any and all such work will be done at the Tenant's sole expense.

Premises Cleaning

Upon construction completion, the leased premises must be left in a clean "move-in" condition. In addition to the foregoing obligations, Tenants are responsible for ensuring, before premises are occupied or reoccupied, that the following areas and/or items are cleaned:

- All light fixtures and lenses;
- Ceilings and ceiling tiles;
- Floor tiles and carpets;
- Corridor walls and doors immediately adjacent to the occupied premises;
- Perimeter radiation or induction units (both inside and outside);
- Lint screens and coils;
- Intake grills, discharge grills, lint screens, coils, drains (as applicable) for induction units;
- Convector grills and fins for hot water heating/radiation systems;
- Interior face of perimeter windows (where window film is installed, the Landlord's contractor will perform this work at the Tenant's expense);
- Electrical trench header ducts, including those adjacent to the occupied premises;
- All service rooms;
- Venetian blinds (cleaning of the blinds shall be carried out by the base-building cleaning company, and charged to the Tenant's account); and
- In instances of full floor occupancy, all restroom facilities;
- All plumbing drains be flushed and cleared to the main plumbing stack.

To avoid possible conflict with the building's cleaning program, Tenants/Contractors are requested to employ the TDC Housekeeping Services provider (see the Recommended Contractor) for post-construction cleaning.



Premises HVAC Systems

To minimize cleaning costs, it is highly recommended that any HVAC systems affecting your work area be protected by supplementary filtration and periodic cleaning during the construction schedule.

Prior to the Tenant occupying the space, the following items must be completed and verified at the Tenant's sole expense by the TDC recommended and/or required service providers/contractors:

- Consolidated Air Balancing Report (including perimeter induction units and VMA on open area)
- Calibration of all induction unit controls and VAVs;
- Cleaning of all perimeter induction unit with steamed cleaning process;
- Duct cleaning (Supply, Return, Exhaust and Transfer) for Base Building distribution systems as well as additional base building terminal equipment (e.g., Fan Coil Units);
- Equipment cleaning of Fan Coils, Heat pumps, Exhaust Fans and/or any other air handling equipment including replacement air filters and/or coil cleaning as determined to be necessary by Operations**;
- Dedicated Floor Compartment Fan units;
- Pressure sensing equipment (e.g., Duct Static Sensors);
- Condensate drains for HVAC equipment having such to the point of termination;
- Verification of all HVAC systems (refer to Commissioning on page 52).

** to be determined during initial project kick off meeting

Note: Service calls post move in that are determined to be caused by lack of cleaning will be charged back to the respective tenant(s).

Commissioning

Commissioning is a structured and documented process aimed at ensuring that mechanical and electrical systems are designed, installed, functionally tested, and capable of being operated and maintained according to the owner's operational needs. The commissioning process confirms the design criteria with respect to achieving business functionality and occupant comfort. Ensuring that the HVAC and electrical systems will perform as designed and intended is paramount to the Tenant's satisfaction with the leased premises over the duration of the term.

It is essential to understand the fundamental differences between commissioning processes and the standard services provided by engineering consultants. The following table provides this information.

Table 14 – Commissioning Process

Program Phase

- Review & verify documentation of Owner's Requirements (Design Intent – DI)
- Review & verify documentation of Designers' Basis of Design (BD)
- Develop a Commissioning Plan

Design Phase

- Review & verify that the schematic design satisfies the DI and DB
- Refine the Commissioning Plan
- Review & verify commissioning specifications for construction documents
- Review & verify that the construction documents satisfy the DI and DB

Construction Phase

- Review & verify that any design changes satisfy the DI and DB
- Refine the Commissioning Plan
- Review and verify that the Contractor's submittals satisfy the DI and DB

Acceptance Phase

- Review & verify installation approval given by design consultants
- Review & verify start-up and checkout approval given by design consultants
- Review & verify functional testing approval given by design consultants
- Review & verify Operation and Maintenance Manuals and staff training
- Prepare a report on the results of the commissioning
- Prepare a Systems Manual (DI and BD and commissioning benchmarks)
- Undertake a resolution of any outstanding deficiencies

Commissioning the leased premises prior to move in, is a required construction practice at the TDC. All Commissioning is handled by the Base Building Commissioning Agent (see Property Consultants), and all associated costs of commissioning are at the Tenant's sole expense.



Required Close-Out Documentation

Project close-out documentation is a requirement for every Tenant project. The Tenant and the Tenant's Contractor/Consultant are required to provide all close-out documents within four (4) months of the completion of site work. The following documentation must be provided to the Landlord's satisfaction in order for a project to be considered substantially complete:

- Certificate of Occupancy;
- WSIB Certificate;
- As-Built Drawings (one (1) hard copy and all project CAD & PDF format files on CD or DVD);
- Engineer, Electrical, Structural letter sign-offs/approvals of as-built drawings;
- All equipment Operation and Maintenance Manuals;
- Letter of Substantial Completion;
- Proof of either publication in the Commercial Daily News or Certificate of Last Supply (if applicable);
- Verification of all required Meter installations;
- Statutory Declaration and/or Certificate of Substantial Performance;
- Air Balancing Report;
- IAQ Test Reports (if applicable);
- Waste Diversion Log and Waybills (if applicable);
- Sustainable Purchasing Log;
- Fire Alarm Verification Reports;
- Copies of performance and product Warranties and Extended Warranties;
- City of Toronto, ESA, and all other relevant permit closure documents;
- Final copy of Site Visit and Deficiency Reports from the Consultant(s); and
- Completed Commissioning Report.

If for any reason any of the listed items are not provided to the Landlord's satisfaction and within sixteen (16) weeks of Substantial Completion, the Landlord will contact the Tenant to coordinate the delivery of said documents. If the documents are not delivered to the Landlord within an acceptable period as agreed upon by both the Landlord and Tenant, the Landlord will carry out the required measures to substantially close the project. Any and all costs for this work will be charged to the Tenant's account, including a 15% administration fee.

6. RECOMMENDED CONTRACTORS

The following lists provide contact information for Contractors of various disciplines that are experienced with the TDC's construction policies and procedures. This list is meant to serve as a recommendation only. Cadillac Fairview assumes no responsibility whatsoever for the use or selection of any Contractor and their workmanship or their behaviour while working at the TDC. Additionally, this list does not preclude alternate Contractors from bidding on or performing proposed project work, subject to the approval of the assigned PM.

General Contractors	Contact Information
Centre Leasehold Improvements Ltd. (CLI) 77 King Street West, Suite 2410 Toronto, ON, M5K 1H6	Contact: Ray Martin (T) 416 363 6131 (F) 416 363 7094
Claybar Group Ltd. 91 Melford Drive, Toronto, ON, M1B 2G6	Contact: Tony Temelkovski or Michael Callanan (T) 416 298 1144 ext 345 (F) 416 642 0198
Greenferd Construction Inc. 70 East Beaver Creek Rd., Unit 42 Richmond Hill, ON, L4B 3B2	Contact: Scott Hledin (T) 905 763 4200 (F) 905 763 6766
Jesslin Interiors 25 Faulkland Road Toronto, ON M1L 3S4	Contact: Karen Nakao (T) 416-757-8280 (F) 416-757-2106
Marant Construction Ltd. 200 Wicksteed Avenue Toronto, ON, M4G 2B6	Contact: Gino Vettoretto (T) 416 425 6650 (F) 416 425 3868



Electrical Contractors	Contact Information	
Ainsworth Inc. 131 Bermondsey Road Toronto, ON, M4A 1X4	Contact: Klass Tensen (T) 416 751 4420 (F) 416 751 9031	
Ehrlich Electric Company 6741 Columbus Road, Unit 5 Mississauga, ON, L5T 2G9	Contact: Tim Hill (T) 905 795 8099 (F) 905 795 8063	
Guild Electric Ltd. 470 Midwest Road Toronto, ON, M1P 4Y5	Contact: Andrew Lengyel (T) 416 288 8222 (F) 416 288 0884	
Plan Group Inc. 27 Vanley Crescent Toronto, ON, M3J 2B7	Head Office 24 Hour Service Line Head Office Fax	416 635 9040 416 635 9050 416 635 9764
Mechanical Contractors	Contact Information	
Adelt Mechanical Works 2640 Argentia Road Mississauga, ON L5N 6C5	Contact: Keith Davidge (T) 905 812 7900 (F) 905 812 7907	
Ainsworth Inc. 131 Bermondsey Road Toronto, ON, M4A 1X4	Contact: Klass Tensen (T) 416 751 4420 (F) 416 751 9031	
CMS (Commercial Mechanical Services) 2721 Markham Road, Unit 10 Toronto, ON, M1X 1L5	Contact: Joe Capicotto (T) 416 609 9992 (F) 416 609 9597	
H. Griffiths Company Ltd. 99 Strada Drive Woodbridge, ON, L4L 5V9	Contact: Tammy Docherty (T) 905 850 7070 (F) 905 850 7091	
Impact Electrical & Mechanical Ltd. 4540 Eastgate Parkway, Unit 6 & 7 Mississauga, ON, L4W 3W6	Contact: Don Gorman (T) 905 219 0008 (F) 905 219 0078	
Plan Group Inc. 27 Vanley Crescent Toronto, ON, M3J 2B7	Contact: David Anderson (T) 905 771 0777 (F) 905 771 0717	

X-raying, Scanning & Coring Contractor	Contact Information
Daly Concrete Coring Limited 8-1288 Ritson Rd. North Oshawa, ON, L1G 8B2	Contact: Mike Daly (T) 416 717 7791
The Graff Company ULC (Graff X Ray) 25 Hale Road Brampton, ON, L6W 3J9	Contact: Customer Service (T) 905 457 8120 (F) 905 457 8944
Flooring Contractors	Contact Information
Maple Group 16 Nixon Rd. Bolton, ON, L7E 1K3	Contact: Tony Tedesco (T) 905 857 6006 (F) 905 857 6010
Terrazzo, Mosaic & Tile Co. Ltd. (TMT) 900 Keele St. Toronto, ON, M6N 3E7	Contact: Enzo Costantino (T) 416 653 6111 (F) 416 653 2594
York Marble 2 Sheffield St. Toronto, ON, M6M 3E6	Contact: Robert Roppa (T) 416 235 0161 (F) 416 235 1247
Window Film Installation Supplier	Contact Information
Convenience Group Inc 307 Bering Ave. Toronto, ON, M8Z 3A5	Contact: Jeff Green (T) 416 233 6900 (F) 416 233 1215
Base Building Lighting	Contact Information
Metalumen Manufacturing Inc. (Manufacturer) 570 Southgate Drive Guelph, ON, N1G 4P6	Contact: Michael J. McNeill (T) 1 800 621 6785 x 253 (F) 519 822 4589
STL Lighting Group (Distributor) 24 Hawthorne Road Cambridge, ON, N1S 3J9	Contact: Steve Takacs (T) 416 540 3093 (F) 519 620 9137
Electrical Metering Provider	Contact Information
Carma Industries Inc. 1 Dundas St. W., Suite 2109, Box 25 Toronto, ON, M5G 1Z3	Contact: Steve Howard (T) 416 260 4264 ext 201 (F) 416 205 9907

**Security System Contractors****Contact Information**

Intercon Security Ltd.
40 Sheppard Ave. West
Toronto, ON, M2N 6K9

Contact: June Callaghan
(T) 416 229 6811
(F) 416 229 1207

Johnson Controls LP
Fire & Security Branch 886
7400 Birchmount Road
Markham, ON, L3R 5V4

Contact: Ralph Staffiere
(T) 905 474 5475
(F) 905 474 5404

Drywall Contractors**Contact Information**

Four Seasons Drywall Systems & Acoustics Ltd.
200 Konrad Cres.
Toronto, ON, L3R 8T9

(T) 905 474 9960
(F) 905 477 6696

Maxan Drywall Ltd.
2770 Brighton Road
Oakville, ON, L6H 5T4

Contact: Roxanne St-Denis
(T) 905 829 0070 ext. 227
(F) 905 829 8177

Strap Drywall Systems Inc.
65 Ram Forest Road
Gormley, ON, L0H 1G0

Contact: Anthony Raponi
(T) 905 841 8862
(F) 905 841 4078

Tran-Ontario Ceiling & Wall Systems Inc.
237 Millway Avenue, Unit 11
Concord, ON, L4K 3W7

Contact: Neil Arbour
(T) 905 669 0666
(F) 905 669 0669

Painting Contractors**Contact Information**

American Colours Painting Inc.
115 Woodstream Boulevard, Unit 20
Woodbridge, ON, L4L 8K5

Contact: Ralph Paparelli
(T) 905 264 8674
(F) 905 264 9308

Urban Painting & Decorating Ltd.
131 Whitmore Road, Unit 10
Woodbridge, ON, L4L 6E3

Contact: Angela Rossi
(T) 905 856 9598
(F) 905 856 7940

Riser Room Management Firm**Contact Information**

Rycom TPM Inc.
6201 Highway 7, Unit 8
Vaughan, ON, L4H 0K7

Contact: Customer Care
(T) 1 877 792 6687

Housekeeping (Cleaning) Services	Contact Information
Omni Facilities Services Canada Corp. 99 Regis Crescent North Toronto, ON M3J 1Y9	Contact: Nick Parlozza/Delia Simas (T) 416 364 7364
Security Escort Provider	Contact Information
Intelligarde International Inc. 55 Unwin Avenue Toronto, ON, M5A 1A2	Contact: Customer Service (T) 416 760 0000
Elevator Service Contractors	Contact Information
Thyssen Krupp Elevator Ltd. 410 Passmore Ave. Unit 1 Toronto, ON, M1V 5C3	Contact: Sean Ranger (T) 416 599 3349 ext. 2402 (F) 416 599 4837
Demolition & Environmental Contractors	Contact Information
Biggs & Narciso Construction Services Inc. 181 Bentley St. Unit 14 Markham, ON, L3R 3Y1	Contact: Luis Narciso (T) 905 470 8788 (F) 905 470 9102
I & I Construction Services Ltd. 70 Newkirk Road, Unit 6 Richmond Hill, ON, L4C 3G3	Contact: Edward Barron (T) 905 884 1290 (F) 905 884 3267
Air Balancing Contractors	Contact Information
ACE Commercial Inc. 4 Charger Lane, Unit 1 Brampton, ON, L7A 3B2	Contact: Ajay Jhajj (T) 416 727 2009 (F) 905 216 5222
Design Test Balance Inc. 70 East Beaver Creek Road Toronto, ON, L4B 3B2	Contact: Surrinder Sahota (T) 905 886 6513