

tenant design & construction manual



Bankers Hall

335-8th Avenue SW
Calgary, Alberta

Table of Contents

Version 04-12-2022

INTRODUCTION	1
SECTION 1 - CONSULTANTS AND CONTRACTORS	2
1.0 BUILDING INFORMATION	2
1.1 BASE BUILDING CONSULTANTS	2
1.2 APPROVED CONTRACTORS.....	2
1.3 BASE BUILDING CONTRACTORS	2
SECTION 2 - GENERAL INFORMATION	3
2.0 LEGAL DESCRIPTION OF DEVELOPMENT LANDS	3
2.1 LANDLORD'S REPRESENTATIVE	4
2.2 LANDLORD'S WORK	4
2.3 DEFINITIONS	5
SECTION 3 - TENANT'S DESIGN AND WORKING DRAWINGS.....	7
3.0 TENANT'S CONSULTANTS.....	8
3.1 TURNOVER OF TENANT PREMISES	10
3.2 REVIEW OF DESIGN PLANS & SPECIFICATIONS.....	10
3.3 SUBMISSION OF PRELIMINARY DESIGN AND SPECIFICATIONS	11
3.4 APPROVAL OF PRELIMINARY DESIGN PLANS AND SPECIFICATIONS.....	11
3.5 SUBMISSION OF FINAL PLANS AND SPECIFICATIONS.....	11
3.6 REVIEW OF FINAL PLANS & SPECIFICATIONS	14
3.7 INTENTIONALLY LEFT BLANK	14
SECTION 4 - BUILDING DESIGN PARAMETERS	15
4.0 GENERAL	16
4.1 INTENTIONALLY LEFT BLANK	16
4.2 TENANT WORK.....	16
SECTION 5 - CONSTRUCTION PROCEDURES FOR TENANT WORK.....	19
5.0 TENANT'S REQUIREMENTS.....	20
5.1 TENANT'S CONTRACTOR'S REQUIREMENTS.....	20
5.2 COMMENCEMENT OF CONSTRUCTION	22
5.3 PROCEDURES DURING CONSTRUCTION	23
5.4 COMPLETION OF TENANT CONSTRUCTION	25
SECTION 6 - RULES AND REGULATIONS	27
6.0 ALBERTA OCCUPATIONAL HEALTH & SAFETY	30
6.1 WORKPLACE AND PUBLIC SAFETY	30
6.2 POLICING OF MEN, WORK PERMITS AND SECURITY BADGES.....	30

6.3	EMERGENCY CONTACT	31
6.4	WORKING HOURS.....	31
6.5	SECURITY.....	31
6.6	MATERIAL DELIVERIES AND SERVICE ELEVATORS	31
6.7	PARKING AND ACCESS.....	32
6.8	TEMPORARY FLOOR LOADING	32
6.9	WORK AREAS.....	32
6.10	GARBAGE REMOVAL AND EXCESS BASE BUILDING MATERIAL	33
6.11	TEMPORARY SERVICES.....	34
6.12	TEMPORARY FIRE PROTECTION.....	34
6.13	SPRAY FIREPROOFING	34
6.14	FIRE-STOPPING.....	34
6.15	TESTING AND TIE-INS	34
6.16	ACCESS PANELS.....	36
6.17	LANDLORD'S ACCESS TO PREMISES	36
6.18	POWDER ACTUATED DEVICES.....	36
6.19	DRILLING OR CUTTING.....	36
6.20	INTENTIONALLY LEFT BLANK	37
6.21	FIRE ALARMS/DEACTIVATION OF SMOKE ALARMS	37
6.22	FASTENING	37
6.23	DAILY CLEAN-UP	37
6.24	PRE-OCCUPANCY CLEANING	38
6.25	PROTECTION OF BASE BUILDING ELEMENTS	38
6.26	HAZARDOUS MATERIALS.....	39
6.27	ACCESS AND DELIVERIES.....	39
6.28	SYSTEM PROTECTION AND CLEANING	39
6.29	CARPET INSTALLATION.....	39
6.30	WORK CONFLICT	40
6.31	ROOF WORK.....	40
6.32	FINISH HARDWARE/ LOCKSMITHING	40
6.33	AIR BALANCING.....	40
6.34	WATER BALANCING	41
6.35	AIR CONDITIONING UNITS	41
6.36	TENANT'S DESIGN AND CONSTRUCTION GUIDELINES.....	42
6.37	LANDLORD'S TENANT CONSTRUCTION COORDINATOR.....	48
6.38	INTENTIONALLY LEFT BLANK	48
	SECTION 7 - LEED GUIDELINES	49
7.0	LEED GUIDELINES (OPTIONAL)	50
	SECTION 8 - BUILDING CHARGES AND LANDLORD SERVICES	51

8.0	BUILDING CHARGES AND LANDLORD SERVICES	52
8.1	INVOICING OF SERVICES	52
8.2	TERMS AND CONDITIONS OF SERVICES	52
	SECTION 9 – SPECIFIC RETAIL TENANT REQUIREMENTS	53
9.0	OVERVIEW	54
9.1	HOARDING – DURING CONSTRUCTION	55
9.2	METERING	58
9.3	SIGNAGE GUIDELINES.....	58
9.4	EXPANSION JOINTS	58
9.5	RETAIL TENANT DESIGN SUBMITTAL REQUIREMENTS	58
9.6	RETAIL COMMON AREA COMMERCIAL RETAIL UNIT (CRU) DESIGN CONTROL ZONE ...	60
9.7	FOOD COURT CRU (COMMERCIAL RETAIL UNIT)	61
9.8	TENANT HVAC REQUIREMENTS.....	61
9.9	EXHAUST REQUIREMENTS.....	62
9.10	PLUMBING.....	63
9.11	GAS SERVICE	64
9.12	COMMUNICATIONS.....	64
	SECTION 10 - MANUAL REVISIONS	66
10.0	MANUAL REVISIONS	67
	APPENDIX 1 – BUILDING INFORMATION	68
	APPENDIX 2 - BASE BUILDING CONSULTANTS.....	72
	APPENDIX 3 - APPROVED CONTRACTORS	73
	APPENDIX 4 - BASE BUILDING CONTRACTORS	74
	APPENDIX 5 – BASE BUILDING OUTLINE SPECIFICATION	77
	APPENDIX 6 – SERVICE ELEVATOR CAPACITY & DIMENSIONS	99
	APPENDIX 7 - TYPICAL STANDARD DETAILS.....	101
	APPENDIX 8 – HOT WORK PERMIT.....	103
	APPENDIX 9 - SAFE WORK PERMIT	109
	APPENDIX 10 – ACCESS TO ROOFTOP RELEASE FROM LIABILITY AND WAIVER OF LIABILITY AGREEMENT	111
	APPENDIX 11 - SPRINKLER SHUT OFF	112
	APPENDIX 12 – RETAIL TENANT SIGNAGE GUIDELINES.....	114

INTRODUCTION

This Manual is prepared to assist and introduce the Tenant, the Tenant's Consultants and the Tenant's Contractors to the building standards used in the design and construction of this property. This standard also sets out the procedures, practices, rules, and regulations which will be applied to the Tenant's development of the Tenant's Work.

Please refer to Section 9 for additional retail-tenant specific design & construction guidelines. This is to be read in conjunction with all other sections of this manual.

The integrity of the Buildings developed by the Landlord and its manager, together with all their systems and installations, are the result of meticulous care and planning. Therefore, any contemplated changes or alterations of existing designs and conditions must be completely compatible with the Buildings' operational or design specifications and/or established decor. It is imperative that any Tenant Leasehold Improvements - however small or limited in scope - be fully reviewed by the Landlord, before any implementation is permitted or undertaken.

Strict conformity to procedural guidelines for Tenant's Work as specified in the Lease is mandatory. Nevertheless, it must be clearly understood that in the event of any ambiguity of, or omission to the wording in this document, the approval authority to proceed or not to proceed with Tenant's Work will remain solely with the Landlord.

It will also be the Tenant's responsibility to ensure that a copy of this Manual is provided to the Tenant's Consultants and Tenant's Contractors and any person employed by them, and that the Tenant, the Tenant's Consultants and Tenant's Contractors and any person employed by them, adhere fully to the direction provided herein. Failure by the Tenant or the Tenant's Consultants and Tenant's Contractors, or any person employed by them, to comply with any of the general or specific guidelines because of a lack of understanding in, or awareness of, the Manual will not be accepted by the Landlord.

It is recommended that the Tenant and/or the Tenant's Consultants and Tenant's Contractors visit the Site to inspect and verify all Site conditions prior to the commencement of Tenant's Work.

The Tenant is responsible for the production of accurate and complete working drawings for the proposed construction within the Premises. Although the Landlord will supply the Tenant with base building drawings, neither the Landlord nor the Landlord's Representative shall be responsible for the same and the Tenant shall ensure that the Tenant's Consultants and the Tenant's Contractors confirm the accuracy of the dimensions in such drawings prior to the performance of the Tenant's Work.

Subject to Section 10.0 of this Manual, the Landlord reserves the right, from time to time, to add or amend the information, procedures and regulations contained herein.

In the event of an issue and where the Landlord is permitted, in accordance with the provisions of this Manual, to incur costs at the expense of the Tenant or the Tenant's Contractor, the Landlord will do so, but only after providing reasonable notice and reasonable time to allow the Tenant or the Tenant's Contractor an opportunity to remedy the issue. The Landlord will only incur costs on the Tenant's, or its Contractor's behalf, if the Tenant or its Contractor fails to remedy the issue or commence remedying the issue.

The Landlord reserves the right to enter the applicable portion of the Premises to complete Landlord Work. Such access shall be coordinated with the Tenant acting reasonably and in accordance with the Lease.

CONSTRUCTION COORDINATION

SECTION 1 - CONSULTANTS AND CONTRACTORS

1.0 BUILDING INFORMATION

Please refer to Appendix 1.

1.1 BASE BUILDING CONSULTANTS

Please refer to Appendix 2 for a complete list of Base Building Consultants.

1.2 APPROVED CONTRACTORS

Please refer to Appendix 3 for a complete list of Approved Contractors.

1.3 BASE BUILDING CONTRACTORS

Please refer to Appendix 4 for a complete list of Base Building Contractors.

CONSTRUCTION COORDINATION

SECTION 2 - GENERAL INFORMATION

2.0 LEGAL DESCRIPTION OF DEVELOPMENT LANDS

Please refer to Appendix 1.

2.1 LANDLORD'S REPRESENTATIVE

2.2 LANDLORD'S WORK

2.3 DEFINITIONS

2.1 LANDLORD'S REPRESENTATIVE

The Landlord will designate the Landlord's Representative for the Premises whose primary function will be:

- to provide guidance and assistance to the Tenant throughout the process of design and construction of improvements within the Premises; and
- to review, comment upon and approve all Tenant submissions prior to commencement of Tenant's Work within the Premises; and
- to be the liaison between the Landlord and Tenant, the Tenant's Consultants and Tenant's Contractors.

All questions, comments and submissions relative to Tenant's Work are to be addressed to the Landlord's Representative.

2.2 LANDLORD'S WORK

Construction contractors and consultants hired by the Landlord shall abide by all the requirements as outlined within this Manual as they apply to the Tenant.

2.3 DEFINITIONS

Unless otherwise defined in this Manual, capitalized terms used herein shall have the meaning ascribed to them in the Lease. Where the context so requires, defined terms in this Manual importing the singular sense shall include the plural sense and vice versa.

- a. "Addenda" means revisions to the final Issued for Construction documents.
- b. "Applicable Construction Laws" means applicable by-laws, codes, standards, regulations, laws, statutes, rules or ordinances including, without limitation, the current versions of the Alberta Fire Code, the *Building Code Act* and the *Alberta Occupational Health and Safety Act* and the regulations passed under such statutes or codes.
- c. "Approved Contractors" means the contractors identified in Appendix 3 and "Approved Contractor" means any one of them.
- d. "Authorities" means Governmental Authorities having jurisdiction at the location of the Building (including, without limitation, Authorities relating to Applicable Construction Laws).
- e. "Base Building Consultants" means the consultants identified in Appendix 2 and "Base Building Consultant" means any one of them.
- f. "Base Building Contractors" means the contractors identified in Appendix 4 and "Base Building Contractor" means any one of them.
- g. "Base Building Work" means the base building work for the Building as described in this Manual.
- h. "Building" means, as applicable, in which the Premises are or may be located, and as further described in Section 4.0.
- i. "Building Operational Hours" means the hours that a building operator is available on site. Confirm hours with the Landlord Representative.
- j. "Normal Business Hours" means (i) between 6:00 a.m. and 6:00 p.m. from Monday to Friday (inclusive) excluding statutory holidays in Alberta.
- k. "Design Control Zone" means the zone from the Lease line to approximately 6'-0" inside the Tenant's premises.
- l. "Design Process" means the development and completion of the design for the Tenant's Work.
- m. "Fixturing Period" means the period(s) provided for in the Lease.
- n. "Issued for Construction" means, as the term is commonly used in the construction industry, the final documents used for construction of the Premises.
- o. "Landlord" means Bankers Hall LP and bclMC Realty Corporation by their agent (and not as general partner): Brookfield Properties Canada Management LP, by its sole general partner: Brookfield Properties Canada Management Corporation.
- p. "Landlord's Representative" means the entity identified in Section 2.0.

-
- q. "Lease" means the lease and all lease documentation subsequently executed between the Landlord and the Tenant.
 - r. "Manual" means this Tenant Design and Construction Manual.
 - s. "Open for Business" means the first day the Tenant begins the conduct of business in any part of the Premises.
 - t. "Premises" is as defined in the Lease.
 - u. "Project" means all work, coordination, management and activities required to complete the construction of the Development.
 - v. "Project Architect" means that Person identified in Appendix 1.
 - w. "Reviewed Drawings" has the meaning set out in Section 3.2.
 - x. "Safe Work Permit" means a permit that authorizes certain types of work that may be potentially dangerous to building occupants or disruptive to the building services and operations.
 - y. "Site" means the site of the Building.
 - z. "Substantial Performance of the Tenant's Premises" means the date the Tenant's Premises are ready to be used for the Tenant's business or are being used for the Tenant's business.
 - aa. "Tenant" means the occupant and tenant under the Lease, including any Permitted Transferee, any person which has been granted a Sublease and
 - bb. "Tenants" means the tenants of the Landlord in the Building.
 - cc. "Tenant's Construction Manager" means such construction manager as the Tenant may appoint from time to time.
 - dd. "Tenant's Consultants" or "Tenant's Consultant" means the architects, engineers and other consultants, directly or indirectly, retained by the Tenant in connection with the Tenant's Work who shall be licensed or otherwise authorised to practise in Alberta.
 - ee. "Tenant's Contractors" or "Tenant's Contractor" means the contractors and suppliers, directly or indirectly retained by the Tenant in connection with the Tenant's Work including, without limitation, sub-contractors.
 - ff. "Tenant's Work" or "Tenant Leasehold Improvements" includes, without limitation, the Leasehold Improvements as set out in Section 4.2 of this Manual, and any other work performed on behalf of the Tenant in accordance with the Lease.
 - gg. "Turnover Date" means the date in respect of an applicable Fixturing Period which commences in accordance with the provisions of the Lease.
 - hh. "Work Authorization Permit" means a form to control and coordinate access to the Building while maintaining Building security and safe working conditions, as well as to transmit information between Tenants, Building management, Building operations and security.
 - ii. "Working Day" means any day which is not a Saturday, Sunday or statutory holiday in Alberta.

CONSTRUCTION COORDINATION

SECTION 3 - TENANT'S DESIGN AND WORKING DRAWINGS

3.0 TENANT'S CONSULTANTS

3.1 PRE-DELIVERY INSPECTION AND TURNOVER OF TENANT PREMISES

3.2 SUBMISSION AND REVIEW OF DESIGN PLANS & SPECIFICATIONS

3.3 SUBMISSION OF PRELIMINARY DESIGN AND SPECIFICATIONS

3.4 APPROVAL OF PRELIMINARY DESIGN PLANS AND SPECIFICATIONS

3.5 SUBMISSION OF FINAL PLANS AND SPECIFICATIONS

3.6 APPROVAL OF FINAL PLANS AND SPECIFICATIONS

3.7 REVIEW, APPROVAL AND COMMENTS

3.0 TENANT'S CONSULTANTS

- The Tenant shall engage the Tenant's Consultants to prepare dimensioned construction drawings and specifications that are necessary for the construction of the Tenant Leasehold Improvements. The approval by the Landlord of the Tenant's Consultants including, the Tenant's architectural, interior design, mechanical, electrical, fire protection and structural consultants, shall be obtained by the Tenant prior to the Tenant engaging any of its Tenant's Consultants.
- The Tenant may wish to retain the Base Building Consultants under direct contractual arrangement for the production of working drawings. If the Tenant chooses to employ consultants other than the Base Building Consultants for its design work, the Landlord's Representative will have such drawings checked and the construction inspected by the Base Building Consultants to ensure compatibility with the building's systems. The cost of such work by the Base Building Consultants will be charged to and paid by the Tenant. Rates for such reviews are available upon request directly from the Base Building Consultants, prior to the commencement of the Design Process. A list of Base Building Consultants can be found in Appendix 2 of this Manual.
- All drawings, including but not limited to space plans, architectural, structural, mechanical and electrical drawings, must be reviewed by the Landlord prior to the commencement of any Tenant's Work.
- The Landlord, from time to time, may require the Tenant to produce additional or more detailed drawings or information which, in the Landlord's opinion, may be necessary to identify and describe the nature of the intended improvements.
- The Tenant shall ensure its consultants visit the Site to verify the actual Site conditions prior to the commencement of the Tenant's Work.
- By giving approval to the Tenant's plans, the Landlord and its consultants do not waive the Tenant's responsibility to ensure that any and all Tenant Leasehold Improvements meet the requirements of the Lease, this Manual and the Applicable Construction Laws. The Tenant and the Tenant's Consultants shall inform themselves regarding the requirements of the Applicable Construction Laws, as well as this Manual, before preparing the plans and specifications.

The Tenant shall require the Tenant's Consultants to purchase and maintain the following insurance coverage:

Worker's Compensation

<p><u>Minimum Required Limits:</u></p>	<ul style="list-style-type: none"> ▪ Worker's Compensation - Statutory Limits ▪ Employer's liability (where not covered by statutorily imposed Workers Compensation): ▪ \$1,000,000 Each Accident for Bodily Injury by Accident ▪ \$1,000,000 Each Employee for Bodily Injury by Disease ▪ \$1,000,000 Aggregate Policy Limit for Bodily Injury by Disease
---	---

Commercial General Liability: Tenant's Consultant will place and maintain commercial general liability insurance covering all operations by or on behalf of the Tenant's Consultant on an occurrence basis against claims for bodily injury, property damage (including the loss of use thereof), personal injury and advertising injury.

Such insurance will have these minimum limits, terms and conditions:

<u>Minimum Required Limits:</u>	<ul style="list-style-type: none"> ▪ \$5,000,000 Products and Completed Operations Aggregate ▪ \$5,000,000 Bodily Injury/Property Damage Per Occurrence ▪ \$5,000,000 Personal Injury and Advertising Injury Limit ▪ (Limits may be a combination of Primary and Umbrella/Excess policies)
<u>Required Terms and Conditions:</u>	<ul style="list-style-type: none"> ▪ Commercial General Liability Policy (IBC 2100 03/05(R)) ▪ Products and Completed Operations coverage maintained for at least two (2) years after contract completion ▪ Blanket Contractual Liability ▪ Independent Contractors ▪ Broad Form Property Damage ▪ Cross Liability and Severability of Interest ▪ Explosion, Collapse and Underground (XCU) – if work involves digging or excavating ▪ Personal Injury and Advertising Injury ▪ Incidental Medical Malpractice ▪ Landlord and "Additional Insured" described below to be included as additional insured ▪ Waiver of Subrogation in favor of Landlord and all other "Additional Insured" described below ▪ Including non-owned and hired automobile Liability

Automobile Liability: If the Tenant's Consultant operates an automobile in the course of performing work, the Tenant's Consultant will maintain Business Auto Liability covering liability arising out of any auto.

<u>Minimum Required Limits:</u>	<ul style="list-style-type: none"> ▪ \$2,000,000 Combined Single Limit Each Accident
<u>Required Terms and Conditions:</u>	<ul style="list-style-type: none"> ▪ Business Auto Policy or Equivalent

Professional Liability (Errors and Omissions): Tenant's Consultant will purchase and maintain Professional Liability insurance.

<u>Minimum Required Limits:</u>	<ul style="list-style-type: none"> ▪ \$2,000,000 Each Claim and Annual Aggregate
<u>Required Terms and Conditions:</u>	<ul style="list-style-type: none"> ▪ Insured's Interest in Joint Ventures (if applicable) ▪ Punitive Damages Coverage (where not prohibited by law) ▪ Limited Contractual Liability ▪ Retroactive Date Prior to Start of Services ▪ Extended Reporting Period of 36 Months or More ▪ No Pollution Exclusion

Additional Insured:

Bankers Hall LP, Bankers Hall GP Inc., Bankers Hall GP Trust, bcIMC Realty Corporation, Brookfield Properties Canada Management LP, Brookfield Properties Canada Management Corporation, Brookfield Properties (Canada) Inc. and Computershare Trust Company of Canada must be named as additional insured under the contractor's general liability policies.

The foregoing list of "Additional Insured" specified herein may be amended by Landlord from time to time upon reasonable notice in writing to the Tenant to add additional entities including, lenders, tenants, co-owners, joint ventures or other entities having an interest in the Building, as may be reasonably required.

All insurance policies shall be in a form reasonably acceptable to Landlord. The Landlord to provide reasonable written notice in the event of changing such requirements.

3.1 TURNOVER OF TENANT PREMISES

Prior to the Turnover Date of the Premises to the Tenant, the Landlord's Representative will schedule pre-delivery inspections with the Tenant and its agents. The Premises will include base building washrooms, and other on-floor common areas such as electrical and mechanical rooms.

Pre-delivery inspections will occur prior to the planned Turnover Date to review completion of the space against the turnover conditions as required in the Lease. In addition, the Landlord will accommodate access to the applicable portion of the Premises by the Tenant and/or the Tenant's Consultants at any other time prior to the respective Turnover Date, subject to Site conditions (and as determined by the Tenant and the Landlord acting reasonably) for the purposes of space planning and to verify Site dimensions and conditions.

3.2 REVIEW OF DESIGN PLANS & SPECIFICATIONS

- The Tenant's drawings will be reviewed by the Landlord for compatibility with the overall Project; comments and/or review will be marked on one (1) set of drawings or in a letter addressed to the Tenant or its designated representative. The distribution of such comments to the Tenant's

Consultants shall be the responsibility of the Tenant.

- The Tenant's plans shall show Building grid lines, scale, Tenant's Consultant's building code identification number, designer's name and address, engineer's name, address and stamp, date of issue and revision number.
- For the purpose of this Manual, the Tenant's drawings reviewed by the Landlord shall be called "Reviewed Drawings". Any revisions made to the Reviewed Drawings by the Tenant and/or its agents must be submitted to the Landlord for further approval.
- The then-most current set of prints of the Reviewed Drawings must be kept on the Premises for the duration of the construction period and be available to the Landlord's Representative or its authorized representatives upon request.

3.3 SUBMISSION OF PRELIMINARY DESIGN AND SPECIFICATIONS

The Tenant will provide the Landlord with one (1) printed set of preliminary design plans and specifications for all of the Tenant's Work. These shall demonstrate design intent and shall be subject to the approval of the Landlord prior to the Tenant's preparation of final plans and specifications.

Preliminary drawings shall include the following information at a minimum (additional information is encouraged):

- Key Plan showing the location of the Tenant's Premises;
- Preliminary Floor Plans (1:100) indicating interior design (indicate all materials and finishes); Reflected Ceiling Plans (1:100) indicating ceiling materials, ceiling heights, the location, and type of all light fixtures, sprinklers, life safety, music speakers, air grilles, exit lights and signage; Samples and colour chips of all finishes visible in the common areas should be firmly applied to illustration boards (maximum size 216 mm x 356 mm (8 ½" x 14")) and shall be clearly labelled and counter-referenced on the drawings.

3.4 APPROVAL OF PRELIMINARY DESIGN PLANS AND SPECIFICATIONS

Within ten (10) Working Days after receipt of the design plans and specifications, the Landlord shall notify its written approval thereof or indicate any changes required, in which case the Tenant shall resubmit for written approval, amended plans and specifications. Prior to resubmission the Tenant will, if necessary, discuss any required changes with the Landlord.

3.5 SUBMISSION OF FINAL PLANS AND SPECIFICATIONS

At least thirty (30) days prior to the commencement of each respective Fixturing Period, or any Fixturing Period provided for in the Lease, the Tenant shall submit one (1) printed set and one (1) PDF set of final Issued for Construction plans and specifications and such other information as may be necessary for the Tenant's Work to be reviewed. Electrical, mechanical, and structural drawings must be signed and sealed by the engineer responsible for the design.

Each set of final plans and specifications shall be in metric dimensions and be of uniform size not exceeding 610mm x 914mm (24" x 36") to a minimum scale of 1:100 and shall include, but not be limited to, the following:

(Not all the information is required within the specific disciplines listed below as long as all the information is provided within the drawings and specifications as a whole):

a. Architectural Submission

One (1) set of drawings (Scale 1:100 minimum) and a sample board of finishes. The Tenant must include the following:

i. Key Plan

- Where the Premises occupy less than a full floor, plans must be included of the entire floor showing the location (complete with dimensions) of the Premises and their relationship to the elevator lobby, exit stairs, washrooms, Fire Extinguishers, etc.

ii. Floor Plans

- Location of all major fixed elements within the Premises dimensionally related to grid lines and demising partitions;
- Furniture plan with room designation and uses;
- Location, and layouts of rooms of unusual loading concentration such as centralized filing areas, libraries, vaults, etc. (subject to the approval of the Landlord's structural engineer);
- Materials and finishes throughout the Premises;
- The number of people to occupy the Premises;
- Telephone and power outlet plan dimensioned;
- Location of inter-floor stairs if any (subject to the approval of the Landlord's structural engineer).

iii. Reflected Ceiling Plan

- Lighting layout;
- Partition layout;
- Location of any sound baffles above the ceiling;
- The locations of any access panels required to service building systems;
- Ceiling heights;
- Location of proposed special light fixtures, their manufacturer's name and catalogue cut sheets, lamps to be used and mounting details (recessed, surface, etc.);
- General pattern, grilles, diffusers, air transfer ducts, speakers, sprinkler heads, coves and recesses;
- Specify ceiling material by name, thickness and colour, as well as fire rating if required by Applicable Construction Laws.

iv. Sections and Details

- At a suitable scale to indicate partition details, baffles, doors, millwork, etc.

v. Room Finish, Door and Hardware Schedules

- All elements including the keying which must be to base building standard.

b. Mechanical Submission (stamped by Engineer)

One (1) set of drawings (Scale 1:100 minimum) prepared by a registered professional engineer.

Drawings are to show all alterations and/or additions to the existing Base Building Work, as well as base building conditions that remain unchanged.

i. H.V.A.C. Layout

- Ceiling plan complete with detailed ductwork layout;

- All duct sizes;
- Location of A/C units or fan-powered-boxes;
- Location of all dampers, grilles, and diffusers;
- Transfer-ducts;
- Thermostats;
- Access doors;
- All other equipment as required;
- Heating load calculations;
- Air quantities required at each diffuser and additional information, if applicable.

ii. **Plumbing Layout**

- Floor plan indicating piping runs for drains, vents and water supply;
- Location of valves;
- Location of clean-outs, grease traps, and back-flow preventers;
- Other special or specific requirements;
- Indicate location of water meter and location of hot water tank, if applicable.

iii. **Sprinkler Layout**

- A dimensioned layout of the sprinkler piping and size indicating all sprinkler heads (new and relocated) is required;
- Sprinkler layout is to include calculations where more than 5 heads are added to the system;
- A dimensioned layout of new or relocated fire extinguishers;
- Pressure Relief Valve (PRV) setting and data is also required.
- Show all Kitchen fire suppression equipment with associated support systems.

c. **Electrical Submission** (stamped by engineer)

One (1) set of drawings (Scale 1:100 minimum) prepared by a registered professional engineer. Drawings are to show all alterations and/or additions to the existing Base Building Work, as well as base building conditions, which remain unchanged.

i. **Electrical Plan**

- Locate light fixtures, emergency and exit light fixtures;
- Specify size, wattage, type and mounting of fixtures;
- Locate all life safety devices including speakers, pull stations, smoke detectors and heat detectors;
- Submit wiring diagram showing circuitry of all electrical elements within the Premises;
- Provide electrical load summary separating lighting, power, and disproportionate/high use loads;
- Tie-ins and extensions to base building security, fire alarm and communication systems must be also clearly shown.
- Any other specific requirements.

ii. **Metering**

- The Tenant shall provide all metering for electrical loads.

d. **Structural Submission** (stamped by engineer)

One (1) set of drawings (Scale 1:100 minimum) prepared by a registered professional engineer. Drawings and specifications are to show all structural modifications and or review of excessive structural floor loading including but not limited to safes, lockers, file systems, and library shelving, to the base building.

e. Specifications

Specifications must be submitted with the working drawings describing the quality and performance standards for all of the Tenant's Work in "CSC (Construction Specifications Canada), 3 part format, Master format numbering system."

f. Signage

i. Standard Signs

- Main office lobby electronic directory (by Landlord). Order forms for the above will be sent directly to the Tenant for completion.

ii. Corporate Identity

- Interior signage seen through a glass entrance must be approved in writing by the Landlord's Representative prior to implementation.
- Signage is to be for corporate identification of businesses, but not for advertising the service(s) offered.
- Design drawings, separate from the standard architectural plans and sample board, if applicable, must be sent in duplicate to the Landlord to initiate the approval process. The drawings must indicate location, size, material, colour, and installation method of all proposed signage.
- Materials not acceptable are leterset, stencils, hand-drawn lettering, computer forms, photocopies, cardboard / gaterboard / chloroplast or plastic sign boards. Signs must be professionally designed and produced.

3.6 REVIEW OF FINAL PLANS & SPECIFICATIONS

Within fifteen (15) days after receipt by the Landlord of the Tenant's final plans and specifications, the Landlord shall provide its review/comments. The Tenant shall revise its drawings to include all the comments and provide the Landlord with a revised set of prints "Issued for Construction" prior to commencing the Tenant's Work. All revisions must be clearly identified on these revised drawings. The Landlord shall not be obligated to change or extend any of the dates contained in the Lease as a result of the drawings being rejected by the Landlord or its consultants, unless such rejection is not in accordance with this Manual or the Lease.

Subject to this Section 3.6, the Landlord's review of the Tenant's plans and specifications shall relate only to general compliance with this Manual and shall not extend to, and shall not be deemed to signify compliance with the Lease, Applicable Construction Laws, applicable laws, building codes or with life safety or emergency requirements of competent Authorities. The Landlord accepts no liability for claims against the Tenant in respect to any of these matters.

3.7 INTENTIONALLY LEFT BLANK

CONSTRUCTION COORDINATION

SECTION 4 - BUILDING DESIGN PARAMETERS

4.0 GENERAL

4.1 INTENTIONALLY LEFT BLANK

4.2 TENANT WORK

4.0 GENERAL

General Overview (Full Block Development)

The overall Bankers Hall Complex occupies the entire city block between 2nd Street and 3rd Streets SW and 9th and 8th Avenues SW. Bankers Hall is comprised of twin 52-storey office towers joined by a spectacular four-level, sky-lit retail gallery integrating the historic Hollinsworth Building, the 24-storey Royal Bank Building and the 15-storey Bankers Court building.

Total office space of East and West Towers contains approximately 1,614,482 rentable square feet.

Total office space of Royal Bank Building contains approximately 330,013 rentable square feet.

Total office space of Hollinsworth Building contains approximately 42,331 rentable square feet.

Total retail space contains approximately 257,000 rentable square feet.

The ground floors contain office tower lobbies, retail spaces and direct connections to the Plus 15 levels.

Bankers Hall is a certified green building with a Gold level of certification in the Leadership in Energy and Environmental Design (LEED®) Existing Buildings: Operations and Maintenance program.

4.1 INTENTIONALLY LEFT BLANK

4.2 TENANT WORK

The Tenant shall, at its expense, complete the Premises in accordance with the standards of other premises in comparable quality buildings of similar type and size in downtown core of Calgary, Alberta, and as reviewed by the Landlord, using new materials, including but not limited to the installation of:

Interior Partitions:	Interior partitioning, including the finishing thereof complete with millwork and fixtures.
Flooring Finish:	All flooring must be reviewed by the Landlord.
Power:	<p>Power distribution within the Premises, to be distributed through partitions and to be carried out at the Tenant's expense.</p> <p>The Landlord will supply an electronic sub-metering system, on a floor by floor basis, approved by Measurement Canada.</p> <p>Tenants occupying space on a multi-tenant floor are required to supply and install receptacle panels, as required, within their own premises and separate electricity meter to meter all general power (plug loads), supplementary HVAC and any non-standard lighting loads. Purchase/installation of new meters must be arranged through the applicable Base Building Contractor.</p> <p>Floor lighting and HVAC electrical loads are metered by the base building meters that will be installed.</p>
Electrical Systems:	<p>The Tenant may affect modification to the Landlord's on-floor electrical system within the Premises as may be required by the Tenant.</p> <p>Tenant will provide an electrical load balance report, to be performed by the Tenant using the applicable Approved Contractor and reviewed by the Landlord.</p>
Mechanical Systems:	<p>The Tenant may affect modification to the Landlord's on-floor mechanical systems within the Premises as may be required by the Tenant.</p> <p>Tenant will provide an air balancing report, to be performed by the Tenant using the applicable Base Building Contractor and reviewed by the Landlord.</p>
Plumbing Connections:	<p>Plumbing distribution within the Premises, to be distributed through partitions and underslab and to be carried out at the Tenant's expense.</p> <p>All equipment serving the Premises, must be noted on the drawings. All domestic water piping and connections to base building valves must be Type 'L' copper or braided steel enforced tubing with threaded fittings.</p> <p>All piping and connections to base building sanitary or vent systems shall be cast iron or DWV copper.</p> <p>PVC, PEX, and ABS are not acceptable.</p>

Fire Hose Connections and Sprinklers:	Modifications to the Landlord's fire safety systems required by Authorities having jurisdiction, which shall be performed by the Tenant using the applicable Base Building Contractor.
Fire Alarm System:	Modification to the Landlord's fire alarm and life safety system required by Authorities having jurisdiction, which shall be performed by the Tenant using the applicable Base Building Contractor.
Signs:	Any common area Tenant visible signage, proposals for which must be presented to the Landlord for written approval. In accordance with Section 3.5(f) of this Manual, only those signs which are compatible with the Building and are tasteful in size, colour and logo will be approved.
Ceiling Tiles:	Installation or relocation of ceiling tiles.
Elevator Lobbies:	Finishing and modifications of the elevator lobby, including but not limited to floors, walls, ceilings, mechanical, electrical, elevator devices, and lighting, where a tenant leases the whole office floor.
Building Automation System:	Any modification to Building controls required as a result of Tenant modifications which will be carried out exclusively by the Tenant using the applicable Base Building Contractor.
Additional Requirements:	Any additional requirements of the Tenant.
Communication Work	From building demarcation point to Tenant communication room. Tenant equipment is not allowed in base building rooms unless reviewed by the Landlord.

CONSTRUCTION COORDINATION

SECTION 5 - CONSTRUCTION PROCEDURES FOR TENANT WORK

5.0 TENANT'S REQUIREMENTS

5.1 TENANT'S CONTRACTORS' REQUIREMENTS

5.2 COMMENCEMENT OF CONSTRUCTION

5.3 PROCEDURES DURING CONSTRUCTION

5.4 COMPLETION OF TENANT CONSTRUCTION

5.0 TENANT'S REQUIREMENTS

The Tenant, at its expense, is responsible for the following:

- a. Execution of the Lease for the Premises.
- b. Insurance:

The Tenant must provide to the Landlord, evidence of insurance coverage for (a) Tenant's insurance as required in the Lease, (b) Tenant's Contractors' insurance (as outlined in this Manual) as amended from time to time by the Landlord, at the determination of the Landlord and with at least thirty (30) days prior written notice to the Tenant, prior to the undertaking of any construction in the Premises and/or any other areas requiring access within the Building and (c) Tenant's Consultants, as described in Section 3 of this Manual, at the determination of the Landlord and with at least thirty (30) days prior written notice to the Tenant prior to commencement of the design development. Insurance coverage shall be at least the minimum stated in the Lease and the Persons listed as "Additional Insured" in Section 3.0 of this Manual shall be named as additional insured.

- c. Obtaining written approval from the Landlord, acting reasonably, for final Issued for Construction documents.
- d. Permits:

The Tenant is responsible for obtaining all necessary permits and approvals from The City of Calgary, and any other Authorities having jurisdiction, in accordance with the Lease. The Tenant shall submit copies of the building permit and any other required permits or approvals to the Landlord, prior to the commencement of the Tenant's Work. The Tenant shall forward all comments from the Authorities to the Landlord's Representative for its review.

Upon receipt of the building permit, the Tenant shall forward one (1) copy of the building permit to the Landlord's Representative. One (1) copy of the stamped building permit drawings must be kept on site.

It is the Tenant's responsibility to have the Premises inspected by the building, electrical, plumbing and HVAC inspectors, ensure that the applications are closed, and provide evidence of permit closure.

- e. Lien Protection:

If a Lien arising from the Tenant or the Tenant's Work is registered against the Site or given to the Landlord, the applicable provisions of the Lease shall apply to such Lien.

- f. The fulfilment of the obligations and responsibilities of the Tenant's Contractors set out in this Manual.

5.1 TENANT'S CONTRACTOR'S REQUIREMENTS

The Tenant is required to engage its own contractors for the purpose of carrying out Tenant's Leasehold Improvements. The Tenant shall ensure that all Tenant's Contractors comply with the following:

- a. The Tenant's Contractors shall, or in the case of items 5.1(a)(iii) the Tenant, prior to commencement of construction, furnish evidence that they are adequately and properly covered by insurance according to the following items:
- i. Commercial General Liability policy to be in force with a limit to any one occurrence of \$10,000,000.00. Such coverage includes products and completed operations liability, blanket contractual liability, personal injury liability, occurrence basis property damage and non-owned automobile liability, owner's and contractor's protective insurance with respect to the Premises and Tenant's Contractor's use of the Tenant's Work and with cross liability, severability of interest and breach of conditions clauses;
 - ii. "All risk" of physical loss or damage policy be provided covering the total contract price for the Tenant's Work and shall include a waiver of subrogation rights against the Landlord, Brookfield Properties (Canada) Inc., Brookfield Properties Canada Management Corporation, Brookfield Properties Canada Management LP, and any person for whom the foregoing persons are legally responsible and an endorsement to the policy stating that such policy is primary;
 - iii. "All risk" of physical loss or damage policy be provided covering the Tenant's Contractors' owned tools, equipment and property and shall include a waiver of subrogation rights against the Landlord, Brookfield Properties (Canada) Inc., Brookfield Properties Canada Management Corporation, Brookfield Properties Canada Management LP, and any person for whom the foregoing persons are legally responsible and an endorsement to the policy stating that such policy is primary;
 - iv. An automobile policy be in force covering all owned vehicles, with a \$2,000,000.00 combined single limit liability for bodily injury and property damage;
 - v. The Landlord and while on Site, all contractors and subcontractors and trades of those insured, engaged in or connected with the construction of the Premises are listed as "Additional Insured" on the policy identified in 5.1(a)(i) above;
 - vi. All policies of insurance relating to Tenant's Work must be in amounts and in form and with insurers acceptable to the Landlord, acting reasonably, including an undertaking by the insurers to endeavor to give at least (30) days written notice of cancellation or material changes to the policy holder and the Landlord. The Tenant shall endeavor to give the Landlord at least thirty (30) days written notice of any material changes to any policy of insurance to be maintained by the Tenant or the Tenant's Contractor;
 - vii. Evidence of the existence of insurance coverage, referred to in this Section 5.1 must be submitted to the Landlord by means of a Certificate of Insurance from the Tenant's or the Tenant's Contractor's insurers or by a certified copy of the actual policy documents before commencement of Tenant's Work.
- b. The Tenant shall retain the Approved Contractors, or those contractors as approved by the Landlord, as applicable, for the performance of the Tenant's Work. Notwithstanding the foregoing, Tenant's Contractors who will be performing physical modification to the Building or to the Building Systems must be reviewed in writing by the Landlord.

The Tenant shall furnish evidence of good standing with the Workers' Compensation Board ("WCB") with a valid WCB Clearance Certificate, to be provided to the Landlord prior to initiation of the Tenant's Work. The Tenant's Contractors shall keep WCB coverage in force at all times for the duration of the Tenant's Work. The Tenant's Contractors will confirm in writing that all employees engaged in the Tenant's Work are covered in accordance with the statutory requirements of the Authorities having jurisdiction over such employees. Where not covered by statutorily imposed

Workers' Compensation, Tenant's Contractor will maintain Employers' Liability Insurance with limits of not less than \$1,000,000.00 per occurrence.

- c. The Tenant shall engage the services of the Approved Contractors including but not limited to Tenant's Work involving fire alarm, sprinklers, fire protection systems, lighting controls, temperature controls, data/communications, roofing, locksmith, x-raying, air balancing, electrical and mechanical work.
- d. The Tenant shall furnish the Landlord's Representative with all information listed in Section 5 of the Manual;
- e. The Tenant shall comply with all Applicable Construction Laws.
- f. The Tenant shall post on Site all permits obtained from Authorities. If the Tenant's Contractor fails to do so, the Landlord, with prior written notice to the Tenant but at its option, may cause the workmen, subcontractors and suppliers of the Tenant's Contractor to stop all work and leave the Premises. If after receiving adequate written notice the Tenant is unable to post all permits, the Landlord, at its option may remove all materials and work installed by the Tenant at the Tenant's expense.

5.2 COMMENCEMENT OF CONSTRUCTION

The Tenant must carry out all Tenant's Work in accordance with the Reviewed Drawings and construction work must comply with all Applicable Construction Laws.

It is the Tenant's responsibility to ensure that the Tenant's Contractors comply with all Applicable Construction Laws and requirements of the Workplace Hazardous Materials Information System ("WHMIS") and the Alberta Occupational Health and Safety regulations, policies and directives of the Landlord, as applicable, in accordance with Section 6 of this Manual, as may be amended in accordance with the Lease.

- a. Construction may proceed only after the following have been complied with:
 - i. The Lease for the Premises has been executed.
 - ii. The Tenant's plans and specifications have been reviewed in writing by the Landlord;
 - iii. The Tenant has provided acceptable evidence of insurance as per the Lease and this Manual, naming the Landlord and Manager and the other entities identified as "Additional Insured" in Section 3.0 above as additional insured; and
 - iv. The Landlord shall issue written notice to the Tenant advising that all the conditions prerequisite to the commencement of Tenant's Work have been complied with to the satisfaction of the Landlord provided such notice is without prejudice to any right or remedy available to the Landlord.
- b. Construction may proceed only after the applicable Tenant's Contractor has complied with the following:
 - i. Provided a copy of application for and issued building permit(s);
 - ii. Posted all required permits on Site, with a copy delivered to the Landlord's Representative;

- iii. Made available at the Premises, a set of prints of the Landlord Reviewed Drawings and building permit drawings for the duration of the construction period for reference by the Landlord's and The City of Calgary Building Department authorized representatives;
- iv. Provided acceptable evidence of insurance for itself and all sub-contractors, as required by Section 5.0, (unless provided by the Tenant) to the Landlord, naming the sub-contractors, Landlord and the Management Company and the other Persons identified as "Additional Insured" in Section 3.0 above as additional insured;
- v. Submitted a construction schedule; and
- vi. Submitted a valid certificate from Workers' Compensation Board; and
- vii. Submitted copies of Addenda; and
- viii. Provided a list of subcontractors indicating contact names and telephone numbers for after hour emergency use; and
- ix. Submitted completed Work Authorization Permit, as provided by the Landlord's Representative prior to any Turnover Date or adjusted Turnover Date.

5.3 PROCEDURES DURING CONSTRUCTION

a. Tenant will submit to the Landlord's Representative during construction:

- i. Copies of all on Site construction meeting minutes;
- ii. Copies of contemplated changes to the Tenant's Work at time of issuance to Tenant's Contractors;
- iii. Copies of all site visit reports by the Tenant's Consultants during the course of construction Tenant's Work;
- iv. Copies of Site reports issued by Authorities having jurisdiction (if applicable); and
- v. Copy of Designated Substance report (if applicable).

b. Inspection of Tenant Premises as required:

- i. Prior to commencement of any Tenant's Work, an inspection of applicable Tenant Premises shall be performed by the Tenant, its agents and the Landlord's Representative.
- ii. Intentionally left blank.
- iii. The Landlord and its agents, architects, engineers and consultants shall have reasonable access, subject to Tenant's permit access process described in the Lease, to the Premises for the purpose of inspecting the Tenant's Work in progress. The Landlord or its consultants may note deficiencies in the Tenant's Work, which shall be corrected by the Tenant promptly.
- iv. The Tenant shall directly engage, at the Tenant's expense, Base Building Contractors, for all mechanical and electrical tie-ins to the base building systems, all sprinkler, fire alarm, and building controls work, and all air and water balancing.

- v. After completion of Tenant's Work another inspection shall be made between the Landlord's Representative and the Tenant for both Tenant areas and the floor, as well as the floors immediately above and below. Any damages caused by the Tenant's Contractors to the base building in the execution of the Tenant's Work shall be repaired by the Landlord's Representative at the Tenant's expense (see Section 8.0 of this Manual).
- c. Interface with base building:
 - i. Prior to commencement of any Tenant's Work which will connect to or interface with the base building systems and services such as water, electricity, fire services, and air handling, the Tenant shall:
 - a. Advise the Landlord that such connection or interface is necessary; and
 - b. Provide details of the work required to be performed; and
 - c. Provide a schedule as to when such work is anticipated to be performed; and
 - d. Provide the names of the Tenant's Contractors who will be performing the interconnection or interface work.
 - ii. The Tenant shall not proceed with any such interconnecting or interfacing work without first getting the approval of the Landlord as to the scope and timing of the interconnection and interfacing work and such work shall only be conducted by Base Building Contractors as set out in this Manual in Appendix 4. The commissioning, testing or inspection of Base Building Work services may occur during times when the Tenant's Contractors are performing Tenant's Work in which case the interconnection and interfacing work will not be permitted to proceed in a way that interrupts or impedes completion of testing, commissioning or inspections of the Base Building Work services.
- d. Safe Work Permit

A Safe Work Permit is a permit that authorizes certain types of work that may be potentially dangerous to building occupants or disruptive to the building services and operations. It can be obtained during Building Operational Hours.

All construction work involving, but not limited to the following requires a Safe Work Permit: (Refer to Appendix 8)

- Welding and open flame work (See Appendix 8)
- X-raying
- Drilling or cutting
- Lock-out or disabling of base building systems
- Fire alarm systems Sprinkler system modification (See Appendix 11)
- Dust producing activities
- Confined space entry
- Life Safety System testing or verification.

All contractors and Tenants must be aware that both the sprinkler and fire alarm systems, such as smoke detectors, cannot be simultaneously disabled or bypassed in a single work area at any one time during Tenant construction. The Tenant and their contractor are responsible to schedule their work in such a way that only one of these systems will be affected at any one time, and shutdowns will be scheduled accordingly.

5.4 COMPLETION OF TENANT CONSTRUCTION

- a.** Upon completion of the construction and prior to opening for business within the applicable portion of the Premises, the Tenant will submit the following closing documentation to the Landlord's Representative:
 - i. Certificate of Substantial Performance of the Tenant's Premises (as applicable and available); and
 - ii. Confirmation from the Tenant that all electrical panels have been tagged and circuit directories updated; and
 - iii. Confirmation from Tenant that all surplus base building equipment and material such as (but not limited to) ceiling components, doors, door frames, hardware, light fixtures, speakers, etc., which the Tenant removes with the approval of the Landlord's Representative, remain the property of, and must be turned over to, the Landlord's Representative in working order; and
 - iv. Verification report of fire alarm devices; and
 - v. Material & test certificates for sprinkler and standpipe work; and
 - vi. One (1) copy of consultant's approved air balancing report prepared by contractor from Landlord's Approved Contractors list; and
 - vii. One (1) copy of consultant's approved electrical load balance report prepared by contractor from Landlord's Approved Contractors list; and
 - viii. Final Electrical Safety Authority certificate of inspection; and
 - ix. Verification of all required meter installations; and
 - x. Final engineers' and architects'/designers' inspection reports.
- b.** Within 90 days of opening for business within the applicable portion of the Premises, or as noted below, the Tenant will submit the following to the Landlord's Representative:
 - i. Complete set of "as built" drawings (610mm x 914mm or 24" x 36" hard copy, PDF, and Auto CAD drawing format – most current version) approved by Tenant's Consultants to be provided within 90 days of being Open for Business in the applicable portion of the Premises; and
 - ii. Proof of closing of permit. Copy of clearance letter from The City of Calgary, indicating that the applicable Premises have been "completed substantially in accordance with plans issued with the permit(s)" and providing completion dates; and
 - iii. Executed statutory declaration from the Tenant and the Tenant's Contractors stating that all monies owing to their suppliers and subcontractors have been paid and that no Liens have been registered against the Lands; and
 - iv. Valid WCB Certificate from the applicable Tenant's Contractors; and
 - v. Proof of maintenance agreements for Tenant's supplementary equipment (as applicable); and

- vi. Operations & maintenance manuals divisions 1 to 16; and
- vii. Electrical load balance report.

A deficiency inspection will be carried out jointly by the Tenant and Landlord's Representative upon completion of the installations. Such inspection shall be scheduled by the Tenant with the Landlord's Representative.

CONSTRUCTION COORDINATION

SECTION 6 - RULES AND REGULATIONS

- 6.0 ALBERTA HUMAN RESOURCES OCCUPATIONAL HEALTH AND SAFETY ISSUES**
- 6.1 WORKPLACE AND PUBLIC SAFETY**
- 6.2 POLICING OF MEN, WORK PERMITS AND SECURITY BADGES EMERGENCY CONTACT**
- 6.3 EMERGENCY CONTACT**
- 6.4 WORKING HOURS**
- 6.5 SECURITY**
- 6.6 MATERIAL DELIVERIES AND HOISTING**
- 6.7 PARKING ACCESS**
- 6.8 FLOOR LOADING**
- 6.9 WORK AREAS**
- 6.10 GARBAGE REMOVAL AND EXCESS BASE BUILDING MATERIAL**
- 6.11 TEMPORARY SERVICES**

6.12 TEMPORARY FIRE PROTECTION

6.13 SPRAY FIREPROOFING

6.14 FIRE-STOPPING

6.15 TESTING AND TIE-INS

6.16 ACCESS PANELS

6.17 LANDLORD'S ACCESS TO PREMISES

6.18 POWDER ACTUATED DEVICES

6.19 DRILLING OR CUTTING

6.20 WELDING AND OPEN FLAME WORK

6.21 FIRE ALARMS / DEACTIVATION OF SMOKE ALARMS

6.22 FASTENING

6.23 DAILY CLEAN-UP

6.24 PRE-OCCUPANCY CLEANING

6.25 PROTECTION OF BASE BUILDING ELEMENTS

- 6.26 HAZARDOUS MATERIALS
- 6.27 ACCESS AND DELIVERIES
- 6.28 SYSTEM PROTECTION AND CLEANING
- 6.29 CARPET INSTALLATION
- 6.30 WORK CONFLICT
- 6.31 ROOF WORK / ACCESS
- 6.32 FINISH HARDWARE / LOCKSMITHING
- 6.33 AIR BALANCING
- 6.34 WATER BALANCING
- 6.35 AIR CONDITIONING UNITS
- 6.36 TENTANT'S DESIGN AND CONSTRUCTION GUIDELINES
- 6.37 LANDLORD'S TENANT CONSTRUCTION COORDINATOR
- 6.38 CO-ORDINATION

6.0 ALBERTA OCCUPATIONAL HEALTH & SAFETY

Each of the Landlord and Tenant will, and will cause their respective contractors to, cooperate and coordinate their work to ensure compliance with the *Occupational Health and Safety Act* (Alberta) and the regulations passed under such statute.

In order to clearly identify that neither the Landlord nor the Tenant shall incur obligations as the “prime contractor” (as defined in the *Occupational Health and Safety Act* (Alberta)) in connection with the performance of the Landlord's Work or the Tenant's Work, as applicable, the Landlord and the Tenant will each cause their respective Construction Managers and/or Approved Contractors or Tenant's Contractors to be separate prime contractors for their respective work/construction projects.

More specifically, the Tenant acknowledges and agrees that pursuant to the *Occupational Health and Safety Act* (Alberta), for any Tenant's work that is undertaken, it is responsible for meeting the Landlord/building owner's obligations as an owner and further that it is a person in control of the work site.

Each of the Landlord and Tenant will, and will cause their respective contractors to, notify the Landlord immediately in writing of any OH & S incidents of any kind, including Near Misses, that occur on site.

6.1 WORKPLACE AND PUBLIC SAFETY

It is the Tenant's responsibility to ensure that the Tenant's Contractors observe and comply with all applicable laws. Should the Tenant, Tenant's Contractors, or Tenant's Consultants fail to comply with applicable construction safety regulations or applicable laws, the Landlord's Representative shall give written notice to the Tenant of incident date, time, name of individual(s) involved and circumstances and incident details and a compliance directive. Should failure to comply result in any base building construction delay, the Tenant will be held responsible for all resulting reasonable, direct and verifiable costs in accordance with the Lease. The Tenant's Contractors shall provide and maintain adequate first aid facilities during the completion of the Tenant's Work.

All stairwell doors are to be kept closed at all times during construction for fire and safety reasons. Any construction site found to have stairwell doors propped open will be assigned a security guard, at the Tenant's Contractors' expense, until the situation is resolved.

Notice must be given in writing by the Tenant to the Landlord's Representative, in advance, as noted in Section 5.3 of this Manual, of any proposed disruption to the Building's air, power or water supply to be caused by the Tenant or the Tenant's Contractors. In addition to the above systems, the integrity of the Building's life safety or fire protection and security systems must be preserved at all times, no exceptions allowed.

The Landlord's Representative will co-ordinate with the Tenant's Contractors, the preparation of a scheduled shutdown of any of the aforementioned systems in order to safeguard the Building and its occupants.

6.2 POLICING OF MEN, WORK PERMITS AND SECURITY BADGES

The Tenant's Contractor will be responsible for the safety and actions of its tradesmen and delivery people. Any individual found performing an unsafe act or exhibiting disregard for existing work, or disrespect towards Tenants or other people on the Project will be promptly removed from the property and not permitted to return.

Work Authorization Permit and Security Badges:

The Tenant shall complete Work Authorization Permits in advance of the Tenant's Work. Prior to the Turnover Date, the Landlord will provide a Work Authorization Permit number to be used by all Tenant's

Contractors, and identify a location on Site where Tenant's Contractors will obtain security badges for sub-trade personnel for the Project on a daily basis.

Only authorized companies named on the Work Authorization Permits will be allowed to sign out badges as well as keys and/or access cards. Badges, keys and access cards are to be surrendered to security at the end of each day. The badges must be worn in plain view while on Site. Any workman on Site without a badge will be escorted off the Site.

The Tenant's Contractors will be required to assume full responsibility for all keys, access cards and badges signed out to them and/or their subcontractors and shall be responsible for all direct costs associated with the replacement of such keys and the re-keying of any locks necessitated by the loss of same by the Tenant's Contractors.

Access cards remain the property of the Landlord. No markings or defacing of any kind will be permitted.

6.3 EMERGENCY CONTACT

The Tenant's Contractor must provide the Landlord's Representative with the name, address, and 24 hr telephone number of the person to be contacted in case of an emergency on Site.

6.4 WORKING HOURS

Subject to the restrictions set out in this Manual, the Tenant's Work can be carried out within the Tenant's Premises during Normal Business Hours. All noisy, disruptive and odorous work must be completed outside of Normal Business Hours.

6.5 SECURITY

The Tenant and its Tenant's Contractors shall be fully responsible for the physical security of the Premises and the contents thereof, throughout the Tenant's Work period, which shall be deemed to have commenced at the time of the Turnover Date for each applicable portion of the Premises to the Tenant for construction of Tenant's Work.

6.6 MATERIAL DELIVERIES AND SERVICE ELEVATORS

Tenant's Contractors shall contact the Landlord's Representative who will advise of the times that service elevators and/or loading dock areas are available. Tenant's Contractors shall plan on doing the majority of deliveries, including garbage removal, outside of Normal Business Hours. Use of the service elevators will be allowed in accordance with the instructions outlined below, and in accordance with the Lease.

The service elevator will be equitably shared by all Tenants and their contractors performing construction activities within the Building. The Building service elevators are the only elevators that serve the tower floors from the truck loading dock and are available for small deliveries during the day on a first come first serve basis.

The Tenant Contractor shall notify the Landlord's representative for all deliveries. A minimum of forty-eight (48) hours advance notice is suggested for small deliveries and seven (7) days' notice is required for truck loads. Deliveries will only be received at the loading dock and shall be immediately delivered to the floors where the material is to be used. There shall be no stockpiling of materials permitted at or in the vicinity of the loading dock. Unscheduled deliveries shall be refused, and any material left unattended at the loading dock will be removed and costs assessed to the Tenant's Contractor.

All large material deliveries, for both Landlord and Tenant, brought into the Building by the service elevator must be scheduled after Normal Business Hours. To ensure efficient use of the service elevator these times must be coordinated in blocks. Large deliveries shall be defined as deliveries that require exclusive use of the service elevator for one or more lifts.

All materials shall be delivered through the loading dock facilities. Truck sizes are restricted and are to be confirmed with the Landlord's Representative. Any Tenant's Contractor found moving materials into the Building in an unauthorized manner will be removed from the Building. Workmen are required to use the designated service elevators: under no circumstances are the passenger elevators to be used for construction material deliveries. Any damage verified as being caused by the Tenant or the Tenant's Contractors, whether or not reported, will be repaired by the Landlord at the Tenant's cost. Critical dimensions and load information for the service elevator cabs is provided in Appendix 6.

6.7 PARKING AND ACCESS

All required parking by Tenant's Contractors is the responsibility of the Tenant's Contractors, together with applicable parking fees. Under no circumstances are vehicles to impede or block access to the parking facilities or loading dock facilities or be parked in the underground parking facilities.

Vehicles found in violation of the above will be towed away with all costs borne by the owner of the vehicle.

Parking at the loading dock is not permitted except for delivery purposes as approved by the Landlord's Representative.

6.8 TEMPORARY FLOOR LOADING

The Tenant's Contractors shall generally distribute material evenly across the floor and shall stack material over main building structure. Drywall piles are not to exceed 300mm in height so as to prevent over-loading of the slab.

6.9 WORK AREAS

All construction materials, tools, equipment and workbenches must be kept within the Premises throughout the Tenant's Work construction period. All public lobbies, washrooms and stairs shall be kept clean and clear of construction materials. The building washrooms shall not be used for the cleaning of tools or the disposal of materials.

Any damage verified as being attributable to Tenant's Contractors will be repaired by the Landlord's Representative at the reasonable and direct cost of the Tenant.

No materials or tools shall be kept or stored inside base building rooms, unless used for work inside these rooms. No material shall be stored in the service elevator lobbies or in any other fireman's access route.

The Landlord's Representative will, without notice, remove such materials and back charge the Tenant's Contractors for the cost of this service.

The Landlord is not responsible for the safekeeping of tools/equipment/material.

6.10 GARBAGE REMOVAL AND EXCESS BASE BUILDING MATERIAL

It is the Tenant's responsibility to ensure that all Tenant's Contractors, including telephone companies, remove all garbage and construction debris in proper containers and leave the Premises in a broom swept condition on a daily basis.

All garbage removal must be performed after Normal Business Hours via the service elevator. The Tenant's Contractors and the Tenant are required to remove garbage directly from the Site without the use of a container unless approved as per below. All garbage must be staged on the floors until the Tenant's Contractor removal truck has arrived at the Site. Garbage may not be staged on the dock in anticipation of a disposal truck.

All excess and like new Building standard materials (i.e. uncut ceiling tiles, ceiling grid cross tees, light troffers, and light fixtures) provided by the Landlord for installation by the Tenant's Contractors shall be relocated to the designated storage by the Tenant's Contractors. The Landlord's Representative will advise the Tenant and the Tenant's Contractors of designated storage on Site.

Should the Landlord's forces be required to remove the Tenant's Contractor's garbage, the Tenant's Contractor will be charged for all associated costs.

Only approved waste disposal contractors will be allowed on Site. Arrangements for placing disposal bins must be made in advance through the Landlord's Representative. Disposal bin should be placed on ¾" plywood to protect the loading dock finishes.

Construction Waste Policy

The Landlord is committed to minimizing potential adverse effects on the environment while promoting the use of efficient management systems and tenant practices in its buildings. Compliance with this environmental commitment is the responsibility of all parties employed or contracted by Brookfield Properties.

Through the adoption and adherence to the principles of reduce, reuse and recycle, Brookfield Properties together with its Tenants and contractors will strive to minimize the potential negative environmental impact of excessive construction waste generation. We are committed to conducting construction in our buildings in accordance with all applicable laws, and where no law exists, to voluntarily adopt our own standards, where appropriate.

Construction and demolition work should be planned and managed in accordance with the Landlord's Construction Waste Policy, to be provided by the Landlord to the Tenant:

- Reduce the materials brought to the Site to the minimum required to construct the work and to the minimum required to package and transport the material; and
- Reuse material where appropriate on renovations or changes to existing work; and
- Recycle material by separation of recyclable material and diverting it to an appropriate recycling facility.

- Contractors shall provide confirmation of proper disposal of construction waste in keeping with regulations and guidelines in effect in the Province of Alberta and The City of Calgary.

6.11 TEMPORARY SERVICES

The Tenant's Contractors are responsible for the distribution of temporary power within the Premises during the construction period. Exposed electrical cords are not permitted outside the Premises. Tenant's Contractors are also required to provide temporary filters (MERV 8) for the HVAC system during the construction period of the Tenant's Work.

6.12 TEMPORARY FIRE PROTECTION

The Tenant and the Tenant's Contractors are responsible for providing operable fire extinguishers in the Premises throughout the construction period. These extinguishers must be sufficient in number and of suitable types to combat a potential (type A, B, or C) fire in the work area and to suit the requirements of The City of Calgary.

The base building fire extinguishers are not to be used for the above purpose.

6.13 SPRAY FIREPROOFING

Removal or dislodgment of spray fireproofing material from steel decks, beams, trusses, and columns must be avoided wherever possible. When fireproofing has been disturbed, the Tenant's Contractors must notify the Landlord's Representative. All fireproofing must be replaced with a suitable and approved fireproofing material. The replacement material must be installed in accordance with applicable building and fire codes. In no case may the original level of protection be reduced. Spray fireproofing shall be reinstalled by the Landlord's Representative, at the Tenant's expense.

Note: The Landlord reserves the right to request from the Tenant, an independent inspection of the fireproofing by a qualified consultant at the Tenant's expense.

6.14 FIRE-STOPPING

The Tenant's Contractors must ensure that all fire-stopping is reinstated where penetrations are required between building fire separations. The replacement material and method for reinstallation must meet the applicable building code and FM Global requirements. A CSA-ULC and FM Global approved material (i.e., "Firestop") must be used to seal all core and floor penetrations. All pipes passing through a floor penetration must be sleeved, caulked and waterproofed. If the Tenant's Contractors fail to undertake the appropriate provisions, the Landlord will complete the work at the Tenant's expense.

6.15 TESTING AND TIE-INS

The Tenant must obtain the Landlord's permission, prior to any testing or the installation of any tie-ins to mechanical, electrical, fire protection, security or life safety systems. The Tenant will be held fully responsible for any damages which may result from tie-ins performed by the Tenant or its Tenant's Contractors and be charged for any necessary repairs. All reasonable, direct costs associated with such tie-ins shall be at the Tenant's expense.

All tie-ins are to be done by the Tenant using Base Building Contractors only. Where the Tenant intends to tie into a closed-loop system, the Tenant's system shall be flushed, cleaned, and certified clean by the Landlord prior to the first connection. A summary of the potential tie-ins follows:

a. Sprinkler and Standpipe System

Scheduled interruptions to Tenant's life safety systems work, including but not limited to sprinkler and fire alarm, may be necessary to accommodate base building testing and approvals, and shall be scheduled in consultation with the Tenant with reasonable notice. All revisions to the base building sprinkler and standpipe system must be reviewed by the Landlord. After completion of all Tenant modifications the Tenant's system must be water pressure tested at 200 psi for two hours. An IAO test sheet must be witnessed by the Landlord's Representative, and the sprinkler system will be reactivated once the test has been approved. The Tenant must provide hydraulic calculations for all modifications required to the base building system. Requests for the sprinkler shutdowns must be processed through the Landlord's Representative in advance, as noted in Section 5.3 of this Manual. The costs for drain down and recharging of the sprinkler system testing and making this final connection by the base building sprinkler contractor will be billed to the Tenant's account.

To the extent that the sprinkler systems are energized no more than one standpipe will be drained down at a time. Riser system will not be open for more than ten minutes before it is reconnected or capped off.

b. HVAC Shutdown

All requests for air system shutdowns must be submitted by the Tenant in writing to the Landlord's Representative for approval in advance, as noted in Section 5.3 of this Manual.

c. Electrical Power Shutdown

All requests for electrical power shutdowns must be made by the Tenant in writing and submitted to the Landlord's Representative for approval in advance, as noted in Section 5.3 of this Manual.

d. Domestic Water Shutdown

All requests for water system shutdowns (fire line, chilled, heating, condenser, standpipe, sprinkler, domestic water, etc.) must be submitted by the Tenant for approval to the Landlord's Representative in advance, as noted in Section 5.3 of this Manual.

e. Revisions to Fire Alarm Speakers

All verification work on the fire alarm system will be done between the hours of 8:00 p.m. to 6:00 a.m., and on weekends. The Tenant shall provide advance notice to the Landlord's Representative, as noted in Section 5.3 of this Manual of proposed dates to the Landlord's Representative for approval.

Tenant's Contractor must make prior arrangements with the Landlord's Representative for any Tenant's Work to be performed that will affect the integrity of the life safety systems.

All modifications to the base building fire alarm speakers must be reviewed by the Landlord.

f. HVAC Controls

Request for additional controls or modification to control wiring must be made to the Landlord's Representative and carried out by the Tenant using the applicable Base Building Contractor, as set out in this Manual in Appendix 4, at the Tenant's expense.

g. Metering

All additional meters, except as specified in the Lease, required by the Tenant shall be supplied

and installed by the Tenant using the applicable Base Building Contractor. Associated costs shall be borne by the Tenant. Metering to be based upon Landlord approved equipment products. Tenant is to coordinate connection to the BAS with the base building controls contractor.

6.16 ACCESS PANELS

The Tenant must provide access panels in floors, walls and ceiling construction of sufficient size as directed by its engineering consultants or the Landlord and as required by Applicable Construction Laws to permit necessary access to service and equipment by the Landlord or its agents. This includes all necessary structures to access such equipment. The design and location of access panels must be reviewed by the Landlord. Tenant shall perform access panel walk-through with building operations prior to installing ceiling system. All tenant and base building systems shall remain accessible.

6.17 LANDLORD'S ACCESS TO PREMISES

The Landlord and its representatives, consultants and contractors shall have unencumbered access to the Premises subject to proper notice to the Tenant, and in accordance with the Tenant's access permit process, at all times for the purpose of inspecting work. Copies of reports and/or minutes of such inspections shall be provided to the Tenant.

6.18 POWDER ACTUATED DEVICES

Powder actuated tools must not be used to secure fasteners which support ceiling suspension systems or equipment suspended from the underside of slabs.

6.19 DRILLING or CUTTING

The Tenant's Contractors are prohibited from drilling, cutting or chase openings of any description in any part of the building structure without the prior approval of the Landlord's Representative.

Where such work as described above is deemed to be necessary and acceptable to the Landlord's Representative (and the Landlord's structural engineers, if necessary), it will be carried out by the Tenant using the Approved Contractors at the expense of the Tenant. Prior to cutting, core drilling, or chasing openings of any size through the building's structure, the Tenant's Contractors must first mark the locations and have them reviewed by the applicable Landlord's consultant. Work of this type shall require x-ray inspection of the slab in addition to the Landlord's consultant's review, prior to cutting or drilling. The Tenant shall be responsible for all reasonable, direct and verifiable costs relating to such work including, without limitation, all of the reasonable consulting services provided by the Landlord's structural consultant and the cost of any x-ray required.

Precautions must be taken to ensure that cores do not fall on occupants or contents of the floor below and that all water is vacuumed away before draining to the floor below.

Subject to approval and with five working days advance notice by the Landlord's Representative, x-raying is to be performed after 10:00 p.m. and before 6:00 a.m.

Any damage to cast-in electrical wiring or plumbing will have to be repaired by the Tenant using the Approved Contractor at the Tenant's cost.

The Tenant's Contractors shall provide temporary firestop material in any penetrations through fire-rated walls or slabs to maintain appropriate smoke/fire separations during construction. Fire separations are to be restored to base building condition.

The Tenant's Contractors shall re-establish removed or damaged fire and smoke separations and baffles within the same working day (8 hours maximum) and shall provide permanent and/or temporary separations and baffles to maintain the base building design standards.

Subsequent removal and disposal of temporary facilities, including making-good of effected work, remains the Tenant's Contractors' responsibility.

6.20 INTENTIONALLY LEFT BLANK

6.21 FIRE ALARMS/DEACTIVATION OF SMOKE ALARMS

Prior to carrying out work which results in heat or fumes being generated, including but not limited to welding and cutting with a torch, all open flame work, all grinding, spray painting, cutting (wood, steel, floor, etc.), sweep dusting near a smoke detector, sanding, core drilling, draining and filling of sprinkler systems and testing of mag locks or other devices added to the fire alarm system, the Tenant or its Tenant's Contractor must give the Landlord's Representative daily notice, so that smoke alarms on the necessary floors can be deactivated.

In the event that the Tenant or its Tenant's Contractor neglects to notify the Landlord's Representative regarding the above-noted work and a fire alarm is activated resulting in a false alarm caused by the Tenant or its Contractors, the Tenant will be charged with the fire department's cost and all associated costs incurred. A subsequent alarm will result in the removal of the offending Tenant's Contractor from the property and the imposition of additional life safety management measures as required by the Landlord. All fines and charges will be the responsibility of the Tenant.

Since some time could elapse between the occurrence and the fire department invoice, the Tenant will be advised in writing immediately after the alarm that one of its Tenant's Contractors was responsible and that charges will be forthcoming. It is the responsibility of the Tenant to recover such costs from the Tenant's Contractor responsible.

In the event the Tenant does not pay such aforementioned amount within thirty (30) days after demand, the Landlord shall have the right, without limitation to any other right or remedy for the collection of such amount, to deduct such amount from the Leasehold Improvement Allowance owing to the Tenant, or any advanced rent deposit or security deposit being held.

Once work has been completed by the Tenant's Contractor in an area where a request was made for the fire alarm to be isolated, it is the responsibility of the Tenant's Contractor to contact the Landlord's Representative to have the zone(s) restored. If the Tenant's Contractor leaves the Site unsupervised and without fire protection, the Tenant will be charged the cost associated with restoring the zone(s).

6.22 FASTENING

The Tenant's Contractors are not permitted to use mechanical fastenings into curtain walls, window frames, or walls which may contain air/vapour barriers or special fire rated structures. Clips in lieu of screws must be used to fasten interior walls to the ceiling grid.

6.23 DAILY CLEAN-UP

Drains, including janitor's sinks may not be used to dispose of materials such as drywall compound, concrete or paint, which may clog or hamper flow through the drainage system. Tenant's Contractors must make arrangements to dispose of such materials off-Site. If the drainage system becomes clogged or restricted and is verified as being caused by the Tenant or the Tenant's Contractors, the Landlord may undertake, at the Tenant's expense, a full cleanup program.

6.24 PRE-OCCUPANCY CLEANING

Upon completion of Tenant's construction, the Tenant is to ensure that Tenant's Contractors clean up and remove all construction debris from the Premises, together with all equipment and tools and the Premises are left clean and in move-in condition. In addition, all public lobbies, circulation corridors, and stairwells must also be given a post-construction cleaning if affected by the Tenant's Work.

Prior to regular office cleaning procedures, the following items must be cleaned at Tenant's cost within the Premises:

- Light fixtures and lenses;
- Ceiling grid and ceiling tiles;
- Carpets and all other floor coverings;
- Public areas and service areas affected by the Tenant's work: corridor walls and doors, service rooms, utility rooms, stairwells and lobbies;
- All washrooms;
- Perimeter fan coil units, if applicable;
- Building supplied window coverings;
- Interior and perimeter supply air diffusers;
- Return and exhaust air grilles;
- Heating coils (cleaning shall be carried out by the Tenant using the Landlord's base building cleaners and charged to the Tenant's account);
- Inside faces of all exterior glazing including window frames and mullions;
- All interior partition glazing.

The Landlord's Representative will inspect the pre-occupancy cleaning to ensure that the Premises are acceptable for occupancy. In the event cleaning is not performed by the Tenant's Contractors to the Landlord's satisfaction acting reasonably, and the Tenant fails to remedy after reasonable notice, the Landlord's cleaning contractor may, at the option of the Landlord, perform such work as deemed necessary prior to move in, at the Tenant's expense.

6.25 PROTECTION OF BASE BUILDING ELEMENTS

Any damage verified as being caused by the Tenant or the Tenant's Contractors, or anyone for whom the Tenant is responsible in law shall be repaired forthwith to the reasonable satisfaction of the Landlord by the Tenant or, at the Landlord's option, by the Landlord at the Tenant's expense.

The Tenant and the Tenant's Contractors shall take great care to protect all Base Building Work elements accessible from within the Premises including, but not limited to, the following:

- a. **Public Area:** The Tenant shall be responsible for cleaning and making good, at the Tenant's expense, any damage verified as being made by the Tenant or its Tenant's Contractors in all public areas. In particular, this includes, but is not limited to, any damage to glazing, wall and floor finishes including sidewalks, laneways, and base building fixturing.
- b. The Tenant shall protect all Base Building Work within the Premises with appropriate protection materials and shall obtain the Landlord's Representative approval of the protection procedure proposal prior to commencing work, moving construction materials or equipment across or within public areas.
- c. **Mechanical and Electrical Rooms:** The Tenant shall be responsible for cleaning and making good, at the Tenant's expense, any damage to the mechanical and electrical rooms caused by the Tenant's Contractors.

- d. Washrooms: The Tenant shall be responsible for cleaning and making good, at the Tenant's expense, any damage verified as being made by the Tenant or the Tenant's Contractors to the washrooms designated for Tenant use during Tenant's Work. The Tenant or the Tenant's Contractors shall not use the washrooms for cleaning of construction tools, such as paint brushes, etc. and dumping of liquids and garbage.
- e. Stairs and Access Areas: The Tenant is responsible for cleaning and making good damage, at the Tenant's expense, to stairs and areas used for access during Tenant's Work. Fire doors in stairs shall not be wedged open by the Tenant or the Tenant's Contractors.
- f. Elevators: The Tenant shall use only those service and passenger elevators designated by the Landlord for vertical transportation of construction personnel, material, and equipment. Any damage verified as being made to the elevator cabs, mechanisms, doors and frames caused by the Tenant or the Tenant's Contractors, shall be repaired by the Landlord at the Tenant's expense.

6.26 HAZARDOUS MATERIALS

All waste of a hazardous chemical or flammable nature must not be allowed to accumulate. Such waste must be removed from the Site as quickly as possible, or when directed by the Landlord's Representative, but no later than the same day, in accordance with the material's Material Safety Data Sheet, (MSDS).

6.27 ACCESS AND DELIVERIES

Personal access and material deliveries to the Premises are to be only by routes designated by the Landlord's Representative and as indicated in Section 6.6 and 6.7. The handling of items which, due to weight or dimension, require special treatment must be reviewed and arranged with the Landlord's Representative. The Tenant's Contractors and/or Tenant are responsible to unlock the Premises each day for their trades' access. The Landlord shall not be responsible to unlock Tenant's Premises doors.

6.28 SYSTEM PROTECTION AND CLEANING

No work shall commence until arrangements have been made with the Landlord for the protection of on-floor air conditioning units. It will be the Tenant's responsibility, at the Tenant's expense, to return them to their original state, as determined at Tenant Turnover and in accordance with the Landlord's reasonable specifications.

Supply and install temporary filters at all mechanical return air openings to the compartment room, shafts and equipment. This shall include but not be limited to; compartment units, air handling units, induction units, fan coil units, heat pumps etc. Replace media throughout construction. Remove temporary filters prior to air balance and re-occupancy. Seal all open-ended ducts during construction and remove prior to connection or occupancy. Seal all open plumbing pipes and floor drains to prevent construction debris from entering piping systems during construction. Only remove upon completion of final cleaning of space.

6.29 CARPET INSTALLATION

Carpets may not be glued to the floor, except where a "quick-release" type of glue is used and Landlord's written approval has first been obtained.

Note: The Landlord reserves the right to approve other methods of application.

6.30 WORK CONFLICT

Tenant's Contractors' work shall be performed in a manner that will not unduly interfere or conflict with any activities of the Landlord, the Landlord's Representative, or other tenants. Other than pursuant to the requirements of this Manual, the Landlord shall not unduly interfere with the Tenant's Contractors work.

6.31 ROOF WORK

For any roof access, an Access To Rooftop Release from Liability and Waiver of Liability Agreement must be filled out and orientation provided by Operations. For a copy of the waiver form, please refer to Appendix 10.

6.32 FINISH HARDWARE/ LOCKSMITHING

The Tenant will provide a hardware schedule to the Landlord's Representative. All door hardware on both entrance and interior doors must have locks which are compatible with the Building master keying system and may be opened by the master keys for the Building. Only the Landlord's locksmith may produce master keys (see list of Base Building Contractors).

6.33 AIR BALANCING

The Tenant must provide the Landlord with an air balancing report upon completion of all Tenant's Work. The report must be completed by the Tenant using the Landlord's designated air balancing company, at the Tenant's expense, and must be reviewed by the Landlord's consultant prior to final submission to the Landlord's Representative. The report is to include the following:

- a. CFM at each light troffer and diffuser outlet when the thermostat is calling for full cooling and full heating; and
- b. Temperature at furthest light troffer and diffuser; and
- c. CFM, static pressure and temperature at AC-unit outlet when thermostat is calling for full cooling; and
- d. CFM and static pressure at exhaust grille and/or air boot outlet; and
- e. Supply and return air CFM, static pressure and temperature at main duct leaving and returning to mechanical room when thermostat is calling for full cooling; and
- f. Design and actual readings in all cases.

Any change to fan powered boxes shall be noted on an adhesive label showing original and revised minimum and maximum CFM. This label shall be at least 100mm x 50mm and placed in a readily visible location near the VAV controller. Also to be indicated on this label are corresponding differential pressure valves for revised minimum and maximum.

All changes to piping, duct work, and equipment shall be recorded in a record set of drawings and kept on-Site at all times.

Any and all work to re-balance or adjust air within Premises that is caused by base building testing or balancing work completed by the Landlord after the Tenant has completed its final balancing shall be at the cost of the Landlord.

6.34 WATER BALANCING

Water balancing by a Base Building Contractor is required for all tie-ins to base building water systems. The following items must be noted in the final report:

- a. GPM at each piece of equipment;
- b. Pressure drop at each column;
- c. Entering and leaving water pressures and temperatures;
- d. Final marked position of balancing valves;
- e. GPM at main service;
- f. Other balancing as directed by Landlord's Representative.

Each piece of equipment tied into a base building water system must be equipped with a circuit-balancing valve.

6.35 AIR CONDITIONING UNITS

Where air conditioning units are disconnected so that Tenant's Work may take place, the units must be fully serviced by the Tenant before being reconnected to the Building system. Prior notice of such disconnections must be submitted in writing to the Landlord's Representative. After the work is completed, the mechanical systems (chilled water, heating and condenser) must be flushed (both new and used lines) and samples must be provided to the Landlord.

Additional air conditioning units shall only be installed where required. Units may be added to the base building tenant chilled water system where available. All piping shall be pressure tested at 150% of operating pressure; tests shall be witnessed by the Landlord's Representative. All piping is to be chemically cleaned and flushed to the Landlord's Representative's satisfaction. The Base Building Consultant for water treatment shall supervise the cleaning process at the expense of the Tenant. Two (2) samples shall be required for testing and acceptance of cleaning as follows:

- i. with chemical cleaner added, after circulation as specified;
- ii. after flushing for a time as prescribed by the Base Building Consultant.

All products used for cleaning must be acceptable to the Base Building Consultant. Prior to tie-in to the base building system the above samples must be tested and accepted, and pressure testing completed, after which the Tenant must obtain prior written approval from the Landlord's Representative, allowing the tie-in to take place. Failure to do so may result in the Landlord's Representative causing a chemical cleaning of the building piping as well as cleaning of the associated building system at the Tenant's expense. For this reason, Tenant's Contractors are urged to work closely with the Base Building Consultant for water treatment. All piping circuits shall be equipped with isolation valves at the system riser and at each piece of equipment, suitably tagged and identified.

All piping is to be properly labeled identifying system and direction of flow every 6 meters and where piping passes through floors or walls. Each piping circuit shall be complete with circuit balancing valves for balancing purposes and future use. All chilled water, condenser water piping and condensate piping shall be insulated when installed enclosed in ceiling spaces, etc. Supplemental air conditioning units installed in electrical, communication and like areas shall be equipped with full coverage drip trays, piped to drain.

Domestic water connections for backup purposes must be complete with back flow preventers per plumbing code requirements and be valved at the A/C units (tagged and labeled). Backflow prevention devices shall be installed in accordance with Applicable Construction Laws including CAN/CSA-B64.

Backflow prevention devices shall be field tested in accordance with CAN/CSA-B64.10-94. Such testing shall be witnessed by the applicable Base Building Consultant or another individual as may be designated by the Landlord in advance of the scheduled testing date. Upon completion of the testing, the Base Building Consultant shall, at the Tenant's expense, issue to the Landlord's Representative a letter to confirm the testing. Such testing shall be coordinated by the Tenant and shall take place prior to the system being put into service.

Automatic switch over valves are not permitted, a control sequence must be provided for change over from condenser water to domestic water and only where the use of domestic water for such purposes is permitted by the City of Calgary. The control sequence will be verified during A/C unit commissioning and thereafter approved by the Landlord's Representative. A framed schematic, together with a control sequence and instructions for valve position during switch over, chemical cleaning and normal operation must be placed adjacent to the A/C unit for future reference. All valves must be permanently labeled or tagged.

If domestic water back-up feed is required then the Tenant shall provide a water meter complete with remote read-out, which must be installed without exception. A/C units utilizing domestic water as a primary cooling medium are not permitted due to their environmental impact and City of Calgary Bylaw 40M2006.

The Tenant or the Tenant's Contractors shall submit unit specifications, catalogue cuts, etc., to the Landlord's Representative for approval. The maintenance and upkeep of Tenant owned A/C units shall be the Tenant's responsibility. A maintenance contract, with an Approved Contractor, must be maintained at all times by the Tenant, at the Tenant's expense. The Tenant or the Tenant's Contractors shall forward a copy of the contract to the Landlord's Representative, for its records. All units using a condensate pump shall be wired such that if the condensate pump fails, the air conditioner cannot run.

6.36 TENANT'S DESIGN AND CONSTRUCTION GUIDELINES

Standard of Workmanship and Material: All Tenant's Work is to meet all Applicable Construction Laws. All work by the Tenant and the Tenant's Contractors within the Premises shall be completed with materials of high quality and shall be based on environmentally responsible designs which minimize environmental impacts of the construction process and during the Tenant's Work. All workmanship and materials shall be equivalent to the base building standard and quality as characterized by the plans and specifications. Inferior installed materials and workmanship, which do not meet the aforesaid standards or conform to Applicable Construction Laws, shall be replaced, by the Tenant, at the Tenant's expense. The Tenant shall ensure that the Tenant's Contractors comply with the following requirements:

a. Architectural

- i. Partitions and workstations should not prevent access to mechanical equipment, fan-powered boxes, controls, thermostats or other items that require periodic service. Further, partitions should align with window mullions and perimeter columns. Where applicable, to facilitate the removal of exterior windows, removable filler panels are to be used in order to extend partitions to the window mullions (see Appendix 7 of this Manual).
- ii. Mechanical fastening to T-bars or curtain walls or any mechanical enclosures are not permitted. Tracks are to be clipped to T-bar or mullion with non-staining gasket.
- iii. Obstructions to exterior glazing are not permitted.
- iv. Alterations to roller blinds are not permitted.

- v. Solid ceilings are to be provided with access panels to allow maintenance of plumbing connections, reheat coils, dampers, light fixtures, electrical junction boxes, alarm bells and other equipment with the potential for future access for maintenance or adjustment. The Landlord's Representative must be consulted for an inspection prior to solid ceilings being closed.
- vi. The Tenant's Contractors are responsible for the cleaning of fan powered box filters, once the Tenant's Work has been completed. Such Tenant's Work must be to the satisfaction of the Landlord's Representative or his delegate.
- vii. Partition changes will often necessitate a review and revision to the air handling system, i.e. supply and return ductwork, ceiling baffles and balancing, in order to achieve tenant comfort. Partition changes will often necessitate a review and revision to the sprinkler system to provide suitable coverage.
- viii. Locations requiring heavy loads, i.e. libraries, large filing systems, concentration of filing cabinets, safes and/or vaults, should be identified on drawings and loading checked and accepted by the Landlord's structural engineer. Any fees associated with this approval will be at the Tenant's expense.
- ix. All kitchens, serveries and washrooms are to have floor drains installed. All added mechanical spaces must be concrete-curbed, floors water-proofed and floor drains installed. The Landlord reserves the right to have areas relocated during the design phase, as not to cause potential damage to sensitive areas below. The Tenant may be required to add protective devices as applicable (i.e. drains pans, water sensors, etc.)
- x. Full height partitions in tenant spaces require return air openings suitably sized for the required air volume.
- xi. Keying of locks to be done by Building locksmith. (see Appendix 4)
- xii. Only water-based sealers are to be used for wood or stone flooring. No solvent sealers are to be used.
- xiii. All exposed metal furring at air slots is to be painted to match adjacent surface.
- xiv. Where drywall baffles occur above ceiling, they are to extend across door openings and glazing.
- xv. Baffles are to be tightly fitted and caulked around ductwork and piping joints are to be taped.
- xvi. Ceiling system modification: Keep the ceiling in the Premises at the building standard height. No holes are to be drilled or punched in the base building T-bar system. Removal, relocation and/or replacement of installed ceiling tiles will be the responsibility of the Tenant at its expense. Ceiling tiles should be handled carefully to prevent damage. Any change in the base building ceiling height or material must be reviewed by the Landlord in writing prior to the commencement of work. Follow all code requirements where fixtures are relocated or new fixtures added adjacent to one another, i.e. the fixtures shall be self-supporting, independent of the ceiling.
- xvii. Partitions perimeter wall: Double sided tape must be used where Tenant partitions abut to perimeter curtain wall and ceilings. Fastening shall be accomplished without screws or bolts. All partitions which abut the curtain wall must be centered on the window mullions.

- xviii. Above ceiling baffles: The area above the finished ceiling acts as a return air plenum for the HVAC equipment. Care must be taken when introducing products and elements to this area. The use of fiberglass insulation for soundproofing, baffles, demising and air transfers, is subject to approval of the Landlord. Any fiberglass installed above the t-bar ceiling should be complete with an air/vapour barrier, sealing in all fiber. As an alternate, foil wrapped fiberglass with the unsealed edges painted (sealed) could be utilized. All to meet requirements of Applicable Construction Laws relating to flame spread and fiber retention.

b. Electrical, Communications and Cabling

- i. Conduit is to be used in all inaccessible areas, the ceiling plenum and for all home runs. BX cable is acceptable for short runs of not more than 10 linear feet and must be accessible and not visible from below the plenum space. Conduit must be secured to the structure. Conduit hung from other conduit, ceiling components or equipment will not be permitted.
- ii. Daisy chaining of light fixtures is not permitted.
- iii. All work by electrical and/or communications contractors will include zone conduit and/or cable tray for voice/data communications, a/v, security or similar low voltage cabling. The use of free-air cables is not allowed with the exception of fire rated cable per applicable code, which shall be neatly and securely fastened either in cable tray or appropriate cable supports and harnesses with maximal intersupport cable sag of 6" from the underside of floor slab above and spaced a maximum of 6' apart. All cables shall be completely supported by the harnesses so that no weight is transferred to any other existing non-structural fixture or ceiling cable structure. Cable supports are not to be supported from T-Bar support system. Provide cable installation and suspension details in addition to cable specifications.
- iv. If required, work in other Tenants' Premises is to be arranged through the Landlord's Representative. All such work must be coordinated for a mutual acceptable time frame. Security supervision, if applicable, may be required at all times, the cost of which will be at the Tenant's expense.
- v. Unused electrical/telephone floor holes must be properly filled with concrete and a suitable plastic cup/plug. The Tenant's Contractor will remove any abandoned wires in raceways or ceilings.
- vi. Not more than six (6) duplex outlets are to be installed on any one 15-amp circuit. All wiring shall be copper. Panel loading is subject to Landlord's approval.
- vii. The Tenant's Contractor will ensure that electrical panels, disconnects, and meters are properly sized and identified immediately upon completion of the Tenant's Work. Provide mechanically attached lamicoid nameplates to all equipment. Lamicoids to match base building standards.
- viii. Occupancy sensors are recommended for all private areas, open office areas and low use areas.
- ix. No bare wire is acceptable in ceiling spaces used as return air plenums. The Tenant's Contractor will ensure that wires shall be carried in EMT or flexible metallic jackets. All conduits up to and including 4" (100mm) size shall be EMT thin wall with steel set screw couplings and connectors. Provide flexible metal conduit for connections to motors and

transformers. All conduits must be installed to conserve headroom, parallel and perpendicular to building lines. Do not caddy clip conduits to ceiling hangers.

- x. Where plenum rated communication cables are used, they must not be attached to the suspension wires supporting the T-bar. Laying the cable on top of the acoustic tiles is not acceptable or permitted. The Landlord will not assume any responsibility for damage which may result from the failure of the Tenant's Contractor to observe this requirement.
- xi. The Tenant's Contractor will be responsible for ensuring that openings, through walls or floors, are properly sealed, to safeguard the fire rating of electrical rooms and other spaces. Replacement fire stopping will be installed in accordance with Applicable Construction Laws. Under no circumstances shall the level of fire protection be reduced.
- xii. Upon completion of all electrical work, an electrical inspection is required and is to be obtained by the Tenant's Contractor. The Tenant's Contractor will co-ordinate same through the Landlord's Representative.
- xiii. The Tenant's Contractor will be responsible for ensuring the need for any special grounding for computer connections and that proper interfaces are used to avoid false alarms.
- xiv. New panel boards, disconnect switches, splitters and meters are subject to the Landlord's approval, acting reasonably.
- xv. Tenant data and voice telecommunications equipment must not be installed in base building telephone rooms.
- xvi. No telephone, communication, data, security, computer or other cables may be installed in the Building without the prior approval and consent of the Landlord's Representative. In any event, no wiring of any kind shall be installed without the required conduit; nor shall any loose wire or cabling be allowed to remain without a casing or unpanelled in the ceiling plenums unless approved for such installations and installed in a manner reasonably acceptable to the Landlord.
- xvii. No Tenant panels, transformers or distribution equipment shall be installed in the base building electrical rooms except as reviewed by the Landlord acting reasonably (exact location must be provided at the completion of the Landlord's schematic design phase). Any additional distribution equipment required by the Tenant shall be installed within the Tenant's leased space.
- xviii. All telephone communication cables must be identified at every floor level within the communication riser. Each cable or group of cables must be identified with the name of the Tenant, the installing Tenant's Contractor's name, telephone number and the date of installation. The installation of all infrastructure cabling within base building risers shall be in accordance with the base building cabling infrastructure management specifications, to be provided by the Landlord on completion of riser design, and requirements of the Landlord. Before proceeding, contact the Landlord's Representative who will arrange for access to Telephone Rooms.
- xix. All Tenant's Work to be done in the telephone rooms and infrastructure will be carried out exclusively by the applicable Approved Contractor.
- xx. All sound masking cabling and speakers will be supported independently from the ceiling.

- xxi. **Fire Alarm System**
Scheduled interruptions to Tenant's Life Safety Systems work, including but not limited to sprinkler and fire alarm, may be necessary to accommodate base building testing and approvals. Any changes to the fire alarm or life safety systems must be installed and verified by the Landlord's Base Building Contractors as per National Standards of Canada specification CAN/ULC-S524-M91 and CAN/ULC-S537-97 respectively, to preserve the integrity of Life Safety Systems. This includes any security door locks interface (electromagnetic locks) to the fire alarm system. The Tenant's Contractors will familiarize themselves with the appropriate municipal requirements for the installation of electromagnetic locks and provide verification from the base building electrical consultant.
- xxii. **Smoke Detectors**
Smoke detectors and duct-mounted smoke detectors will be isolated when work in an area may activate a smoke alarm (i.e. open flame, cutting or sanding).
- xxiii. **Heat Detectors**
Heat detectors will be isolated when work in an area may activate a heat detector alarm (i.e. open flame).
- xxiv. **Electromagnetic Locking Devices (EMLD's)**
The Tenant's Contractors must comply with all requirements of the Alberta Building and Fire Code as they apply to the installation, testing and commissioning of EMLD's, which must be tied into the base building fire alarm system. All final connections and verification of EMLD's that are to be connected to, and released by the alarm system, must be made by the fire alarm manufacturer at the Tenant's expense.

c. HVAC and Plumbing

- i. Tenant's Consultant is to verify that the fire hose coverage is code compliant.
- ii. Tenant's Contractor to install temporary filter medium (MERV 8) over pleated filters in compartment units and/or fan-powered box filters prior to start of the construction of the Tenant's Work as well as a temporary filter (MERV 8) on return air openings to prevent the migration of dust into all systems and areas of the Building and building equipment. At the completion of the Tenant's Work, the Tenant or the Tenant's Contractor shall remove and dispose of filters, clean diffusers, grills, vents, etc. clean fan-powered boxes and compartment unit and above ceiling air plenums and other areas as required by the Landlord's Representative.
- iii. Exhaust from printing machines, or kitchens are not to be connected to the sanitary exhaust system. The Tenant's Contractor will ensure that careful consideration is given to the inclusion of ecology units or special ductwork in kitchen exhaust systems.
- iv. Tenant's Contractor will ensure that each perimeter office, at a minimum, either shares a VAV box with its neighbour or has an individual unit. Each perimeter office should also have individual overhead linear diffusers or light troffer(s) as may be applicable for cooling. Consideration should be given to the placement of control thermostat locations and the tenant's furniture layout. Do not install thermostats where they will be affected by heat generating equipment or items, or where radiant sun will affect proper operation.
- v. The Landlord's Representative requires that the thermostats be protected in order to prevent potential damage from airborne particles during the drywall sanding stages. All work in this regard, will be carried out by the Tenant at the Tenant's expense.

- vi. Both the Tenant and the Tenant's Contractor should give consideration to the provision of sufficient air to interior conference rooms in order to prevent overheating. Exhaust fans are a minimum requirement. A separate or dedicated fan powered box is more effective for tenant comfort.
- vii. The supplementary air conditioning units shall be inspected by the manufacturer's service representative upon installation at the Tenant's expense to ensure proper operation by the Tenant. Thereafter, at the request of the Tenant, inspection and servicing can be done under contract by the Landlord's forces as a contracted service at the Tenant's expense. All supplementary air conditioning units shall be installed in accordance with building standards and Applicable Construction Laws.
- viii. Tenant's Contractors will hire an air balancing company to re-balance the air system upon completion of work and provide a balancing report to the Landlord. System balancing is subject to the approval of the Landlord's Representative and will be accepted following review and approval by the applicable Base Building Consultant.
- ix. All internal plumbing and services are the responsibility of the Tenant. All equipment serving the Premises, must be noted on the drawings.
- x. All domestic water piping and connections to base building valves must be Type 'L' copper or braided steel enforced tubing with threaded fittings.
- xi. Confirm colour coding and labelling requirements with the Landlord.
- xii. All piping and connections to base building sanitary or vent systems shall be cast iron or DWV copper. PVC, PEX and ABS are not acceptable. XFR may be acceptable in some areas of the Complex and the Tenant must request review and acceptance by the Landlord, prior to design submission.
- xiii. Subject to the outline specifications in Appendix 5, potable water supply lines, drain lines, and vent risers will be provided with valved and capped connections by the Landlord to support future connections. All tie-ins required by the Tenant shall be completed with isolation valves and service designation.
- xiv. Tenant's Contractor will ensure that flexible ducts are secured to rigid ducts by mechanical fasteners and tape or sealant. (tape alone is NOT acceptable). No joints will be allowed on flex.
- xv. Tenant's Contractor will ensure that piping and ductwork is installed according to industry standards and to the standards of the building construction (i.e. from slab or structure and not from existing piping or ductwork). Contact with ductwork or other piping/conduit is not allowed under any circumstances; all installations must be free from vibration.
- xvi. Tenant's Contractor will ensure that no dissimilar metals come in contact with piping and that electric connectors are used where required.
- xvii. Provision must be made for the inclusion of a water check meter for all domestic water use.
- xviii. Tenant's Contractors will ensure that supply piping has shut-off valves and backflow preventers where required by Applicable Construction Laws (i.e. City of Calgary water backup and

- computer A/C units). The Tenant or the Tenant's Contractor shall provide backflow preventer field tests that are witnessed by the Landlord's Representative and associated reports prior to placing systems into operation. At no time will base building systems be tied into, operated or manipulated in any way without compliance with Section 5.3 of this Manual.
- xix. All kitchens, serveries and washrooms constructed within the Premises are to have floor drains installed by and at the expense of the Tenant.
 - xx. All mechanical spaces added within the Premises must be concrete-curbed, floors water-proofed and floor drains installed by the Tenant or Tenant's Contractor. The Landlord reserves the right to have areas relocated during the design phase so as not to cause potential damage to sensitive areas below.
 - xxi. With respect to any water sourced installations, the Tenant may be required to add protective devices as applicable. This may include the following; waterproofing membranes, drains pans, water sensors, automatic water shutoffs, and B.A.S connections as may be required for leak detection and containment.
 - xxii. Tenant's Contractor will fill holes with concrete after removal of pipes or drains. Large openings shall be treated in accordance with the requirement of the Landlord's Representative following review by the applicable Base Building Consultant for structural engineering at the expense of the Tenant.
 - xxiii. Tenant's Contractor will caulk and seal new installations of floor pipes and drains to prevent water leakage and to maintain the fire rating of the assembly penetrated
 - xxiv. It is the responsibility of the Tenant's Contractors pursuant to this Manual to seal any openings through walls or floors to safeguard the fire rating assembly in question.
 - xxv. The Tenant is responsible for the supply and installation of electric hot water heaters. A leak detection system must be installed as a part of the hot water tank installation.

6.37 LANDLORD'S TENANT CONSTRUCTION COORDINATOR

At the Landlord's option, the Landlord may designate a Tenant Coordinator to coordinate Tenant's construction activities with the work and access of other tenants. In no event shall the involvement of the Landlord or the Tenant Coordinator constitute the Tenant Coordinator, the Landlord or the Landlord's Representative as a prime contractor under Applicable Construction Laws.

6.38 INTENTIONALLY LEFT BLANK

CONSTRUCTION COORDINATION

SECTION 7 - LEED GUIDELINES

7.0 LEED GUIDELINES (OPTIONAL)

7.0 LEED GUIDELINES (OPTIONAL)

A LEED guideline for the benefit of those tenants who choose to pursue a LEED Commercial Interior (LEED-CI) certification for their Premises will be provided by the Landlord upon the Tenant's request.

CONSTRUCTION COORDINATION

SECTION 8 - BUILDING CHARGES AND LANDLORD SERVICES

8.0 BUILDING CHARGES AND LANDLORD SERVICES

8.1 INVOICING OF SERVICES

8.2 TERMS AND CONDITIONS OF SERVICES

8.0 BUILDING CHARGES AND LANDLORD SERVICES

The Tenant shall pay the following to the Landlord with respect to services ("Services") which the Landlord performs at the written request of the Tenant or other expenses arising pursuant to any obligation of the Tenant expressly required by this Manual.

The total costs and expenses (collectively, the "Costs") incurred or paid by the Landlord to third parties in connection with the Services including, without limitation, the following:

- i. Charges levied by Authorities in relation to the Services,
- ii. All taxes, and duties related to the Services,
- iii. For greater certainty, certain components of the costs shall be based on the applicable rates set out in Section 8.2 of this Manual, and
- iv. An administrative fee of 15% of the Costs ("Fee").
- v. In the case where the Landlord incurs costs as indicated within this Manual associated with damages, misconduct, and/or non-compliance caused by the Tenant or the Tenant's Contractor hereunder, and where the Tenant has failed to remedy or make reasonable efforts to commence remedy of the same, after reasonable notice has been given by the Landlord, an administration fee of fifteen percent (15%) shall apply to the Landlord's reasonable, direct and verifiable out of pocket expenses.

8.1 INVOICING OF SERVICES

The Landlord may submit invoices to the Tenant on a monthly basis. Each invoice shall be itemized for the Costs incurred or paid to date during the payment period, and the applicable Fee related to such Costs. The amounts set out in the invoice submitted by the Landlord shall be paid by the Tenant within thirty (30) days after submittal of the invoice to the Tenant.

In the event of a dispute or upon the Tenant requiring additional details with respect to invoiced charges, the Landlord shall provide such detailed back up within thirty (30) days of receiving the Tenant's written request. Such requests shall not preclude the Tenant's obligation to make payments for invoices as prescribed above, but Tenant shall have the right to dispute accuracy of statement, acting reasonably, and if there was an error in the statement, to recover costs from Landlord.

8.2 TERMS AND CONDITIONS OF SERVICES

Any work, equipment or services provided by the Landlord at the written request of the Tenant shall be authorized in writing by the Tenant and shall be paid by the Tenant as follows:

- a. Thirty-five percent (35%) of the amount payable by the Tenant as estimated by the Landlord shall be paid to the Landlord by the Tenant at the time the Tenant authorizes the provision of such work, equipment or services by the Landlord.
- b. On an incremental basis, the Tenant shall pay the balance of the amount payable by the Tenant for such work, equipment or services forthwith upon receipt of Landlord's invoices which shall be issued in conjunction with the incremental progress of the provision of such work, equipment or services work and be inclusive of all applicable hold backs deducted at source to the Landlord's contractors and consultants.

CONSTRUCTION COORDINATION

SECTION 9 – SPECIFIC RETAIL TENANT REQUIREMENTS

9.0 OVERVIEW

The information in this section are requirements to ensure the successful completion of your project. This is important information for you to share with your design, engineering, and construction teams. This section must be read in conjunction with the remainder of the Tenant Design and Construction Manual (TDCM). All requirements as outlined in the other sections of this Manual shall take precedent and shall apply as if included herein.

STEP 1: Start-up meeting.

During this start up meeting, we review with you the key elements of the property and your Premises, the Landlord Work (LLW) if applicable, projected LLW and Tenant work schedule, and provide as built drawings where available.

Please bring the following to this meeting:

- Tenant concept design drawings including finishes, inspirational images, preliminary space and elevations;
- Questions about the Bankers Hall complex and this Manual;
- Key contact list for your build out, including tenant representative, designer, contractor etc.

STEP 2: Planning

Ensure your design and construction teams are familiar with Schedule C Landlord Work from the Lease and have been provided a link to this Manual. Plan to have site visits as required with the Landlord.

STEP 3: Design submittal

Review and understand paragraph 9.5 “Retail Tenant Design Submittal Requirements” below and ensure that the submittal package is complete in order to avoid delays to receiving your Work Authorization Permit. Without limiting the foregoing, the following items should be included:

- Drawings are to include all information regarding the common areas and base building connections and interfaces.
- Signage design.
- Finishes selections.

STEP 4: Construction

Prior to planning a construction start date, ensure that Section 4 “Building Design Parameters” and Section 5 “Construction Procedures for Tenant Work” of this Manual are reviewed with the General Contractor. Also:

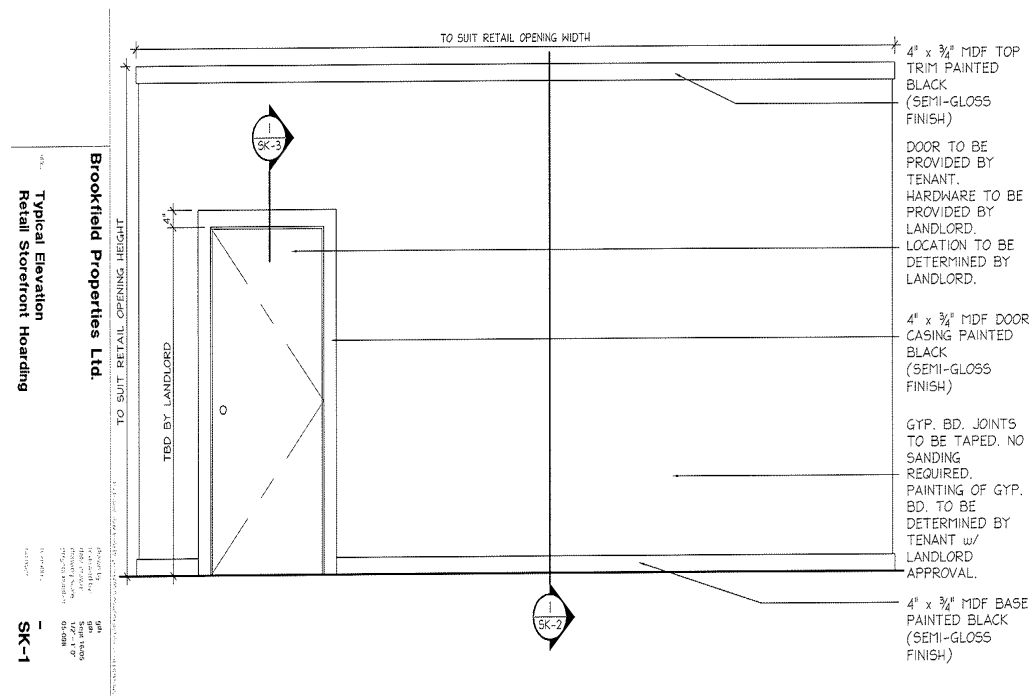
- Ensure Tenant insurance is in place and correct;
- Review the approved subtrades list for the property with the general contractor;
- Ensure contractor insurance and WCB are in good standing and include correct additional named insured;
- Ensure a project and construction schedule has been provided.

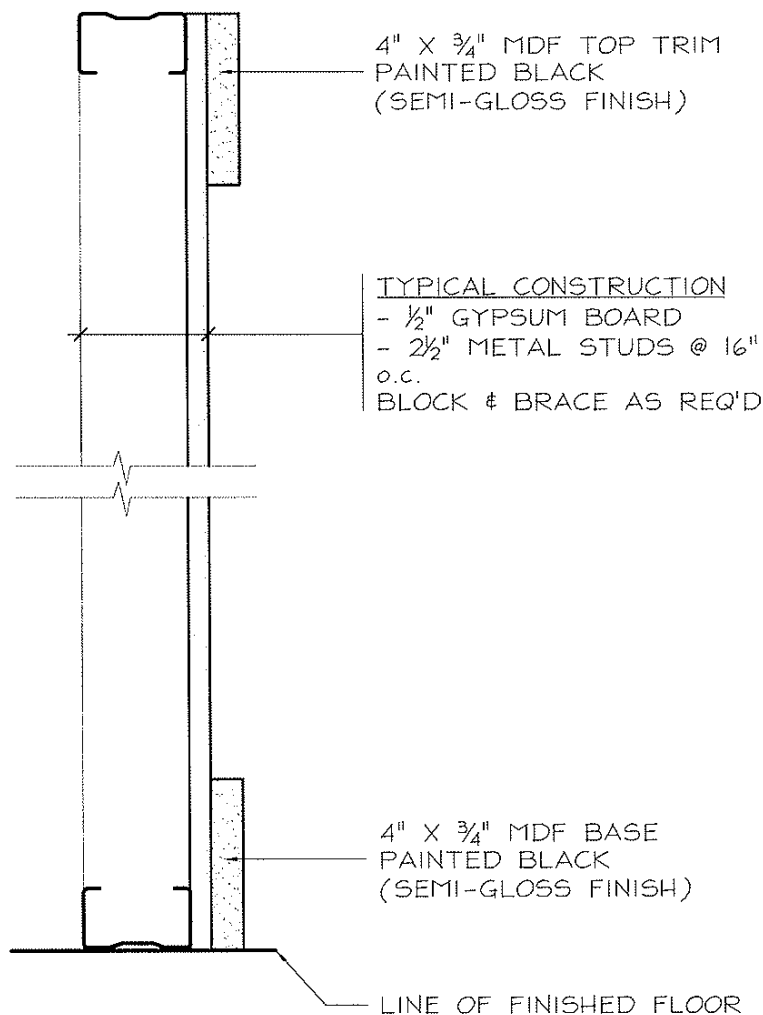
STEP 5: Project Close-outs and Leasehold Improvement Allowance request

Review your Lease to understand the expectations of the Landlord for the closing of your project and the requirements to collect your Leasehold Improvement Allowance if applicable. The Landlord's representative will meet with you prior to the submittal of this package to ensure it is complete and correct. This will prevent any delay in the payment to the Tenant of the Leasehold Improvement Allowance.

9.1 HOARDING – DURING CONSTRUCTION

- If applicable the Tenant will be required to supply and install a solid hoarding consisting of painted drywall with masking-taped joints, 4" wood base and no visible fasteners as per the detail outlined below.
- Dust prevention measures are to be made at the entrances to the jobsite and any openings to the common areas.
- The Tenant will be responsible for providing temporary vinyl graphic signage during construction as required by the Landlord.
- If applicable the Tenant will be required to provide a 42" wide metal door and frame for access to their premises during construction.
- The keying of the hoarding door will be coordinated through the base building locksmith.
- If the storefront is a glass storefront the Tenant will be responsible for the having the storefront glass filmed to obscure the view from the public side of the space during construction. See the following drawings SK-1 for exact specifications.



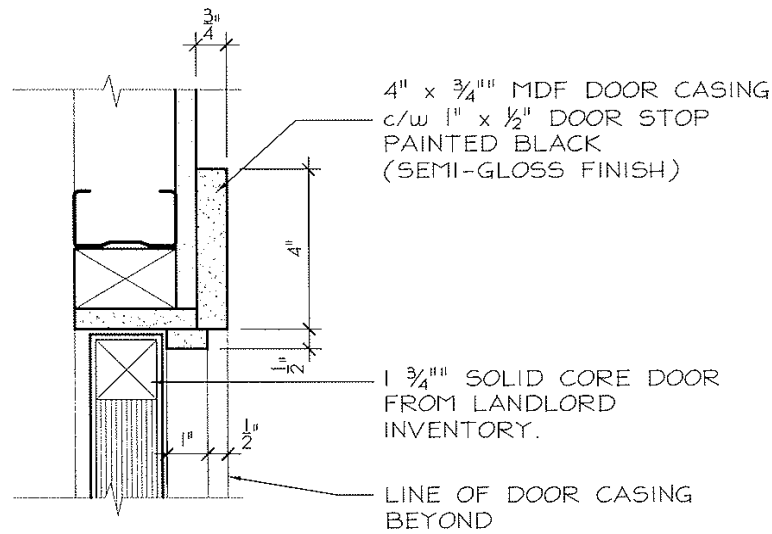


Brookfield Properties Ltd.

Typical Wall Section

drawn by: gth
reviewed by: gth
date drawn: Sept 16/05
drawing scale: 3" = 1'-0"
project number: 05-098

revision: -
number: SK-2



10. Reproduced from version 05.04 of the Bankers Hall Tenant Design Manual

Brookfield Properties Ltd.

drawn by: gth
reviewed by: gth
date drawn: Sept 16/05
drawing scale: 3" = 1'-0"
project number: 05-098

hbc

Typical Door Header

revision

-

number

SK-3

9.2 METERING

The Tenant is responsible for the supply and installation of consumption meters of electricity, gas, chilled water, and domestic water. The Tenant Contractor will be responsible for engaging the base building metering representatives to supply, install and commission the required meters. The Tenant Contractor shall provide the commission reports and ensure that the Tenant has this documented as part of the close out submittals to the Landlord.

9.3 SIGNAGE GUIDELINES

Please refer to Appendix 12 “Bankers Hall Retail Tenant Signage Guidelines”.

Additional Signage

Within the Design Control Zone, the Tenant is not permitted to install any additional signage without the prior written approval of the Landlord. Please be advised that additional signage includes but is not limited to the following: temporary signage, menu boards, seasonal signage, promotional signage and banners.

9.4 EXPANSION JOINTS

The Tenant must be aware that there may be expansion joints located within their Premises. If an expansion joint is located within a Tenant’s Premises, the Tenant will be responsible to ensure that their design accommodates for and does not impede the function of the expansion joint.

9.5 RETAIL TENANT DESIGN SUBMITTAL REQUIREMENTS

All Tenants are required to submit to the Landlord complete architectural and engineering drawings for the proposed construction. All drawings shall be prepared, sealed, and signed by design professionals licensed in Alberta.

In certain situations, and if the work is only decorative, and with no changes to be made to the mechanical and electrical systems, the Landlord may review alternative submittals and documentation. Please reach out to your Landlord’s Representative to discuss further.

The construction drawing submittal package shall include one complete PDF document and one complete hard copy set in no larger than A0 in size. The submittal shall consist of, but is not limited to the following:

a. Architectural:

- Key Plan showing the location of the demised premises within the project envelope;
- Demolition plans, if applicable;
- Final floor plans. Include the customer service area location and configuration. Locate the partitions, fixtures, shelving, racks, counters and signs by dimension and location. All materials, colors, and finishes. Specific details and sections are to be noted for cutting into the floor slab, demising walls, or ceiling. Indicate queuing configurations, if applicable;
- Final fixture plan and final details, including sections, elevations and finishes for all store fixtures;
- Final customer service area and elevation and section showing relationship to Lease line and to the Landlord’s construction elements. Indicate door sizes, construction details, type and direction of opening;
- Final details of all signage including elevations, shop drawings, sections, letter style, and size of all graphics. Show detailed signage locations and dimensions, lighting

requirements, all colors, materials, methods and colors of illumination, wattage requirements, and complete mounting details;

- Final menu boards indicating all locations, materials, graphics, and fabrication details;
- Reflected ceiling plan / lighting plan indicating the ceiling materials, suspension systems, heights, light fixture locations, fixture manufacturer names and model and mounting details;
- Show general patterns, grilles, diffusers, speakers, sprinkler heads, coves, recesses, and access panels;
- Interior elevations. Specify wall and fixture finishes indicating the colours and materials on the materials sample board;
- Interior finish schedule or FF&E Schedule as applicable;
- One complete material finishes board.

b. Mechanical:

- Floor plan and / or reflected ceiling plan including all duct work, exhaust systems, hoods, piping, and equipment;
- Equipment schedules;
- Controls sequence of operations;
- Heating, cooling, and ventilation load calculations;
- Chilled water piping diagram indicating line sizes;
- Show new air volumes for general, washroom exhaust along with existing air volumes serving other tenant spaces as the general & washroom exhaust risers are common for multiple CRU's. Note: Associated exhaust fans may require rebalancing;
- Show Kitchen Exhaust & Kitchen Make-up air ductwork if applicable to fit-up space.

c. Plumbing:

- Floor plan including all piping, floor drains, and slab penetrations, and equipment. Piping drawings shall indicate size, slope, connection points and all areas requiring future access for service;
- Riser diagrams for sanitary, gas, domestic and waste piping;
- Equipment schedules;
- Material and equipment specifications.

d. Electrical:

- Electrical floor plan;
- Reflected ceiling plan for lighting;
- Electrical riser diagram including the size of feeders, fuses, disconnect switches and main breakers;
- Electrical panel schedule, including the circuit breaker sizes, and all connected load calculations;
- Lighting fixture schedule, including the type, lamps, mounting, wattages quantities;

- Fire/ smoke alarm system controls and inter-connections;
- HVAC control schematic details;
- Electrical load summary including all connected and demand load calculations;
- Equipment and materials specifications;
- Smoke-exhaust fan control and connection details.

e. Sprinkler Layout:

- A dimensioned layout of the sprinkler piping and size indicating all sprinkler heads (new and relocated) is required;
- Sprinkler layout is to include calculations where more than 5 heads are added to the system;
- A dimensioned layout of new or relocated fire extinguishers;
- Pressure Relief Valve (PRV) setting and data is also required;
- Show all Kitchen fire suppression equipment with associated support systems;
- Kitchen Type 'K' fire extinguishers are required for fit-ups that have elements of kitchens.

9.6 RETAIL COMMON AREA COMMERCIAL RETAIL UNIT (CRU) DESIGN CONTROL ZONE

The Landlord has located a zone from the Lease line to approximately 6'-0" inside the Tenant's Premises; referred to as the Design Control Zone. Within this zone the Landlord shall approve all aspects of the Tenant's design. The following controls must be maintained in the Design Control Zone:

Storefront:

The design of the Tenant's storefront will be subject to the review and approval of the Landlord. The Tenant is responsible for the cost to design, supply and install their storefront.

Demising Walls:

When exposed to the public area and within the Design Control Zone the demising walls will be required to be finished in either base building materials or an alternate Tenant finish approved by the Landlord. Where base building materials are required in these instances they will be supplied by the Landlord at the Tenant's expense. The Tenant will be responsible for the installation of these materials. The Tenant is responsible to ensure that the construction of the demising wall complies with the current Building Code requirements.

The Tenant may propose a specific, high-quality finish to the public side of the Tenant's demising walls for Landlord review and approval.

Showcases:

Within the Design Control Zone, the Tenant may provide fixed showcases or portable showcases fixed into position within their Premises, subject to the approval of the Landlord. Showcases shall be in approved materials and shall be internally illuminated.

Interior Tenant Lighting:

Tenants are responsible to ensure a high level of interior illumination within the Design Control Zone and the remainder of the Premises. Please note the following guidelines:

- All fixtures to be approved by the Landlord;
- Fluorescent and incandescent lighting not permitted;

- Neon may be permitted; exposed neon tubing must be protected if accessible to the public;
- Base lamps must have a baffle to shield the lamps from the public walkway area; the Landlord reserves the right to adjust such baffles after installation has been completed;
- Energy efficiency must be a consideration when determining light fixtures to be used in Tenant's premises.

Demising Cap (where applicable)

The Tenant must maintain the demising cap detail. Where the Tenant's finishes meet the demising cap, the Tenant must ensure that an appropriate transition material is installed, subject to the approval of the Landlord.

9.7 FOOD COURT CRU (COMMERCIAL RETAIL UNIT)

The design of the food court units is subject to the review and approval of the Landlord.

In order to maintain a visually open vista across the tenant storefronts, a series of stepped demising walls separate each food court Tenant and no closure systems will be allowed.

A continuous counter front is located along the Lease line and sits between 1447mm (4' 9") high stepped demising caps. Recessed ceiling lights in the drywall ceiling behind the Lease line provide countertop lighting. A finished drywall ceiling is set at 2743mm (9' 0") above the finished floor and extends into the leased Premises. The extent of the Landlord ceiling determines the depth of the Design Control Zone for each Tenant.

Counter fronts and tray rails have been provided by the Landlord. The menu board suspension system and a finishes frame, countertop lighting and demising wall finishes within the Design Control Zone have been detailed and constructed by the Landlord.

For kiosk tenants, the decorative metal grille described above is suspended beneath a backlit translucent canopy in front of the lease line. Tenant signs are set within a sign frame similar to the in-line storefronts. Counter fronts are similar in design to the in-line units. Downlighting behind the metal grille will provide countertop illumination. The suspended decorative metal grille, sign band, suspended canopy, menu board suspension system and frame, recessed ceiling lights and the kiosk counter fronts have been provided by the Landlord. The Landlord's Design Control Zone extends the full depth of the kiosk.

Design Guidelines

All tenant finishes should be durable and of good quality such as porcelain, ceramic, metal, glass, wood veneer, stone or other materials approved by the Landlord.

Tenant counters are to be constructed behind the Lease line. Tenants are required to keep all supplies and stock out of public view and behind a rear stockroom wall.

Suspended promotional material will not be allowed including, wall mounted or suspended advertising slogans, product identification and/or promotion will not be permitted.

All Tenant menu boards are subject to the Landlord's review and written approval prior to fabrication.

9.8 TENANT HVAC REQUIREMENTS

The Tenant shall complete the heating, ventilating and air-conditioning system to suit the Premises consisting of all necessary ducts, duct insulation, diffusers, controls, including thermostats required for the

maintenance of required conditions in sales areas, show windows, work and storage areas and as required for the removal of any air not suitable for re-circulating, such as fumes and vapours.

The Tenant shall provide all interior air distribution and diffusers.

It will be the Tenant's responsibility to confirm color coding and labelling requirements with the Landlord.

Retail Fan Coil Units

Each retail CRU has Fan coil unit(s) in the ceiling above their space to provide cooling. Cooling accounts for 1 ton of cooling per 400 square feet of space. Each fan coil unit comes complete with thermostat control. Thermostats and fan coil unit(s) are not connected to the base building automation system BAS.

The Tenant is responsible for modifying the location of the fan coil unit(s) to suit their fit-up along with the distribution of required of the ductwork throughout the Premises.

Base Building Heating

CRU's with perimeter glazing have base building finned tube radiation complete with metal enclosures mounted on perimeter walls below glazing.

Tenant modifications shall be reviewed by the Landlord prior to producing design documentation. Modifications to controls of perimeter heating cabinets are subject to review by the Landlord.

9.9 EXHAUST REQUIREMENTS

The Tenant shall supply and install systems/equipment for the exhaust of all air, fumes & vapours created by operating their business that is not suitable for re-circulating. The Tenant shall be responsible to ensure all systems and equipment conform to all applicable code requirements.

Smoke Exhaust

The retail common area is equipped with a smoke exhaust system with each CRU having an open-ended smoke exhaust duct. The smoke evacuation system draws from the tenant ceiling plenum thus pulling air to replace it with from the retail common area.

For this to operate as designed, the Tenant design must allow for an opening above the bulkhead, connecting the CRU and the retail common area. The opening must be sized for a minimum of 6 air changes per hour in the CRU. All opening sizes are subject to review by the Landlord.

Miscellaneous Exhaust (General Exhaust)

A miscellaneous exhaust duct (General Exhaust) is capped in each CRU for the Tenant to connect to remove general exhaust odours. The Landlord will require the Tenant to supply and install a NFPA 96 rated hood for steam related cooking (Type 2) to assist with mitigating odours.

Note: Capped connection size will limit flowrate of general exhaust.

Washroom Exhaust

Each CRU has a capped washroom exhaust available for the Tenant to connect a washroom, should that be included within the Premises.

Food Court Tenant Kitchen Exhaust

The food court CRUs, where applicable, in Bankers Hall are tied to a central kitchen exhaust system.

All food court CRUs where cooking in which grease laden vapours will occur and as per authorities having Jurisdiction the Tenant will supply and install an NFPA 96 rated grease hood (Type 1).

The grease hood shall consist of a stainless-steel kitchen exhaust hood with continuous water spray, water wash-down type or UV type, equal to "Halton - KVC-WW - Water Wash hood" or "Halton - KVC-UV - UV hood". Wash down schedules shall be coordinated with the Landlord if applicable. It shall also include a

control panel in accordance with NFPA 96. Fire suppression systems at the exhaust canopy shall also be supplied and installed by the Tenant and connected to the base building fire panel.

In addition, each Tenant's grease hood is to be connected to an ecology filter module before connection to the central exhaust. The Tenant will be responsible for providing an appropriately sized ecology filter module at each location, and modifying the ductwork and system as required in accordance with NFPA 96.

The complex has multiple make-up air supply capped ducts for Tenants requiring kitchen exhaust. The Tenant is responsible for adding supply fans and device(s) (duct heaters, make-up air unit) for raising outside air temperature to acceptable supply temperatures to prevent cooling/heating issues within the building.

In the event the Tenant's grease exhaust rates are considered excessive, the Premises may require additional make-up air capacity to accommodate the excessive capacity. If additional make-up air is required, the Tenant will be required to supply and install the required capacity at their expense.

All interlocking of kitchen exhaust fans, make-up air units, fire suppression system & fire panels systems are the responsibility of the Tenant. The Tenant shall complete all control connections from the Tenant space to the base building infrastructure at the Tenant's expense.

At the substantial completion of the Tenant's work, the Tenant shall rebalance the entire exhaust system at the Tenant's expense.

9.10 PLUMBING

All internal plumbing and services including the supply and installation of a water meter and back flow devices per the Landlord and Authorities having Jurisdiction, are the responsibility of the Tenant. All testing and certifications are the responsibility of the Tenant and must be provided to the Landlord.

All equipment serving the Premises, must be noted on the drawings.

Access to all clean outs within the Tenant Premises must be above grade and unobstructed.

All domestic water piping and connections to base building valves must be Type 'L' copper or braided steel enforced tubing with threaded fittings.

Confirm colour coding and labelling requirements with the Landlord.

All piping and connections to base building sanitary or vent systems shall be cast iron or DWV copper.

PVC, PEX and ABS are not acceptable.

XFR may be acceptable in some areas and the Tenant must request review and acceptance by the Landlord, prior to design submission.

Hot Water Tank

The Tenant is responsible for the supply and installation of electric hot water heaters. A leak detection system must be installed as a part of the hot water tank installation.

Grease Interceptor

The Tenant is responsible for the supply and installation of a grease interceptor to suit the design of the Tenant's Premises and the requirements per Alberta building code and Authorities having jurisdiction. The Tenant is responsible for and must provide evidence of regular maintenance of all grease interceptors or set up service through the Landlord.

Tenant Domestic Water Filtration Equipment

For Tenant supplied domestic water filter systems, pressure regulators and safety relief valves are required to be installed and shall be compliant with *CSA B64 "Selection and installation of backflow preventers/maintenance and field testing of backflow preventers" and supportive literature.*

Piping and connections from water supplies up to the required pressure regulator and safety relief valve shall be soft copper with threaded fittings.

Plastic tubing with threaded connections and an operating pressure rated at 200 psi is acceptable downstream of the regulator/safety valve to the filtration unit[s] and or chillers, provided this piping is not installed within a ceiling plenum or shafts.

All plastic piping shall meet smoke development and fire spread ratings of local authority having jurisdiction.

Safety relief valves shall be piped to drain with an approved air gap. If the safety relief valve drain connection is piped to a sink P-trap the relief drain connection shall not interfere with normal access to the sink P-trap.

All installations shall be reviewed by the Landlord prior to occupancy.

Waterproofing

The Landlord may require the Tenant to waterproof all or a portion of the slab including penetrations in their Premises to avoid leakage into the Premises below, especially in kitchen areas or where large water use is anticipated. This will include waterproofing along the walls as well as the flooring. The Landlord will review the Tenant's waterproofing specifications.

For all sanitary and storm serving tenancy and hung in ceiling space below tenancy, the cleanouts shall be up turned and through slab and only accessible from Tenant's space of occupancy.

Firestopping

The Tenant's Contractor is responsible to ensure that all penetrations through fire rated assemblies are immediately sealed in accordance with approved building standards. Contractor shall perform a walk through with building operations for review of all sealed penetrations upon completion.

9.11 GAS SERVICE

Gas connections are only available to certain Tenant Premises within the retail common area.

The Tenant is responsible to confirm capacity and available pressure, as well as for the supply and installation of a meter and any pressure reducing devices & venting required by the Landlord and Authorities having Jurisdiction.

Connection of Tenant meters to base building metering systems are to be completed by the responsible Base Building Contractor at the Tenant's cost.

9.12 COMMUNICATIONS

Tenants are to contact their telecom provider of choice to arrange their data and voice needs. The Tenant will be responsible for all costs associated with supplying and installing the telecom cabling from the Landlord's or telecom provider's pop site to the Tenant's Premises.

Telephone

The cables and all other work required to provide telephone service from the Landlord's telephone room to each Premises will be the Tenant's responsibility.

Fiber Optics

The Tenant will be responsible for running fibre from the provider of their choice to their site and terminating it behind their Lease line.

Satellite Telecommunication Capability

Access is available for Tenants to install satellite communication as per fit up.

Coax Cable for Data Transmission / Cable TV is available to Tenants from the provider of their choice to their site and terminating it behind their Lease line. This is also at Tenant's cost.

CONSTRUCTION COORDINATION

SECTION 10 - MANUAL REVISIONS

10.0 MANUAL REVISIONS

10.0 MANUAL REVISIONS

All changes shall be consistent with the construction of comparable quality buildings of similar type in the downtown core of Calgary, Alberta, including but not limited to design elements, finishes, materials, products, systems, functionality, efficiency, sustainability, and space usability aspects. Revisions shall also be consistent with the Lease, all relevant ancillary documents, and the existing Manual provisions such as respective Landlord and Tenant obligations and responsibilities, completion responsibilities, specifications, plans, reporting, payment obligations, communications. Changes shall not result in a reduction of services, communications and updates, and/or specifications, including without limiting the generality of the foregoing, those outlined in the appendices attached to this Manual.

CONSTRUCTION COORDINATION

APPENDIX 1 – BUILDING INFORMATION

Landlord

Bankers Hall LP and bcIMC Realty Corporation
by their agent (and not as general partner):
Brookfield Properties Canada Management LP, by its sole general partner:
Brookfield Properties Canada Management Corporation

Address: 1210, 225 – 6th Ave. SW
Calgary, Alberta T2P 1N2
Telephone: (403) 770-7025
Fax: (403) 770-7030

Legal Description of Development Lands

BANKERS HALL EAST TOWER

PLAN A

BLOCK 65
LOT 12 AND THE MOST WESTERLY 20 FEET
THROUGHOUT OF LOT 13
EXCEPTING THEREOUT:
THOSE PORTIONS OF SAID LOTS WHICH LIE
WITHIN LOTS 42, 46 & 47 IN BLOCK 65 ON
PLAN 8611014
EXCEPTING THEREOUT ALL MINES AND
MINERALS

PLAN A

BLOCK 65
LOTS 13, 14 & 15
EXCEPTING THEREOUT:
(A) THE MOST WESTERLY 20 FEET
THROUGHOUT OF LOT 13
(B) THOSE PORTIONS OF LOTS 13, 14 & 15
WHICH LIE WITHIN LOT 47 IN BLOCK 65 ON
PLAN 8611014
EXCEPTING THEREOUT ALL MINES AND
MINERALS

PLAN A

BLOCK 65
LOTS 16 AND 17
EXCEPTING THEREOUT:
THOSE PORTIONS OF THE SAID LOTS WHICH
LIE WITHIN LOT 47 IN BLOCK 65 ON PLAN
8611014
EXCEPTING THEREOUT ALL MINES AND
MINERALS

PLAN A

BLOCK 65
THAT PORTION OF LOTS 18, 19 AND 20 WHICH
LIES TO THE NORTH OF THE SOUTHERLY 40
FEET THROUGHOUT THE SAID LOTS

PLAN A

BLOCK 65
THE MOST SOUTHERLY 40 FEET
THROUGHOUT OF LOTS 18, 19 AND 20
EXCEPTING THEREOUT:
THAT PORTION OF LOT 20 WHICH LIES
WITHIN LOT 48 IN BLOCK 65 ON PLAN 8611014
EXCEPTING THEREOUT ALL MINES AND
MINERALS

PLAN A

BLOCK 65
LOTS 21, 22 AND 23
EXCEPTING THEREOUT:
THOSE PORTIONS OF SAID LOTS WHICH LIE
WITHIN LOT 49 IN BLOCK 65 ON PLAN 8611014
EXCEPTING THEREOUT ALL MINES AND
MINERALS

PLAN A

BLOCK 65
LOTS 24 TO 29 INCLUSIVE
EXCEPTING THEREOUT:
THOSE PORTIONS OF SAID LOTS WHICH LIE
WITHIN LOTS 44, 49 AND 50 IN BLOCK 65 ON
PLAN 8611014
EXCEPTING THEREOUT ALL MINES AND
MINERALS

PLAN 8611014

BLOCK 65
LOT 45
EXCEPTING THEREOUT ALL MINES AND
MINERALS.

BANKERS HALL WEST TOWER

PLAN A

BLOCK 65
LOTS 6 AND 7
EXCEPTING THEREOUT:
A) THAT PORTION OF LOT 6 WHICH LIES
WITHIN PLAN 6208 J K
B) THOSE PORTIONS OF SAID LOTS WHICH
LIE WITHIN LOT 46 IN BLOCK 65 ON PLAN
8611014
EXCEPTING THEREOUT ALL MINES AND
MINERALS

PLAN A

BLOCK 65
LOTS 8 AND 9
EXCEPTING THEREOUT:
THOSE PORTIONS OF SAID LOTS WHICH LIE
WITHIN LOT 46 IN BLOCK 65 ON PLAN 8611014
EXCEPTING THEREOUT ALL MINES AND
MINERALS

PLAN A

BLOCK 65
LOTS 31 TO 36 INCLUSIVE
EXCEPTING THEREOUT THOSE PORTIONS OF
SAID LOTS WHICH LIE WITHIN LOTS 43 AND 50
IN BLOCK 65 ON PLAN 8611014
EXCEPTING THEREOUT ALL MINES AND
MINERALS

PLAN 8611014

BLOCK 65
LOT 42
EXCEPTING THEREOUT ALL MINES AND
MINERALS

PLAN 8611014

BLOCK 65
LOT 43
EXCEPTING THEREOUT ALL MINES AND
MINERALS

PLAN 8611014

BLOCK 65
LOT 44
EXCEPTING THEREOUT ALL MINES AND
MINERALS.

ROYAL BANK BUILDING

PLAN 6208 JK

BLOCK 65

LOT 41

EXCEPTING THEREOUT AL MINES AND
MINERALS.

BANKERS HALL WEST PARKADE

PLAN 3395 JK

BLOCK 65

LOT 15

EXCEPTING THEREOUT ALL MINES AND
MINERALS.

Manager

**Brookfield Properties Canada Management
Corporation**

Address: 1210, 225 – 6th Ave. SW
Calgary, Alberta T2P 1N2
Telephone: (403) 770-7025
Fax: (403) 770-7030

**Landlord's
Representative**

Contact: Manager, Construction Services
Telephone: (403) 770-7200

Security Control Centre:

403-237-5658

Locksmith:

Please refer to Appendix 4

Loading Dock/Freight Elevator Booking:

403-237-5658

CONSTRUCTION COORDINATION

APPENDIX 2 - BASE BUILDING CONSULTANTS

Project Architect:	Dialog Contact: Gerry Doering Email: GDoering@dialogdesign.ca Address: Suite 300, 134 – 11 th Avenue SE, Calgary, AB T2G 0X5 Telephone: (403) 541-5456
Electrical & Fire Alarm	Mulvey & Banani International Inc. Email jaycee.elliott@mbeng.ca Address: Suite 700, 110 – 12 th Ave. SW, Calgary, AB T2R 0G7 Telephone (403) 262-7400
Mechanical:	Smith + Andersen Email: hans.rohmann@smithandandersen.com Address: Suite 1205, 330 – 5 th Ave. SW, Calgary, AB T2P 0L4 Telephone: (403) 261-8897
Structural Engineers:	Read Jones Christoffersen Ltd. Email Calgary@rjc.ca Address: Suite 500, 1816 Crowchild Trail NW, Calgary, AB T2M 3Y7 Telephone: (403) 283-5073
Code Consultant:	Jensen Hughes Consulting Canada Ltd. Contact: Michael Bonder Email: mbodnar@jensenhughes.com Address: Suite 106, 5855 – 9 th Street SE, Calgary, AB T2H 1Z9 Telephone: (403) 984-5801

CONSTRUCTION COORDINATION

APPENDIX 3 - APPROVED CONTRACTORS

Subject to further review or discussion with Tenants, the Approved Contractors shall be limited to the following:

Mechanical HVAC:	Arpi's Industries Ltd. Trotter & Morton Windmill Mechanical Services Chisholm Industries
Mechanical Plumbing:	Arpi's Industries Ltd. BCK Mechanical Systems Chisholm Industries Ltd. Trotter & Morton
Sprinklers:	Constant Fire Protection DT Fire Tyco Integrated Fire & Security Canada (Simplex Grinnell) Vipond Inc.
Electrical:	CANEM Systems Ltd. Custom Electric Ltd. O'Dell Electric Ltd. Trotter & Morton Electrical Western Electrical Management Ltd.

Note: *Only joint ventures between Approved Contractors will be permitted.*

CONSTRUCTION COORDINATION

APPENDIX 4 - BASE BUILDING CONTRACTORS

Mechanical:

Not applicable

Contact:
Email:
Address:
Telephone:

Electrical:

Western Electrical Management Ltd.

Contact: Rick Parkinson or Steve Barker
Email: rparkinson@westernelectrical.com
Address: 3770 – 12th St. NE, Calgary, AB T2E 8H9
Telephone: (403) 291-2333

Fire Alarms:

Western Electrical Management Ltd. (Chubb Edwards)

Contact: Rick Parkinson or Steve Barker
Email: rparkinson@westernelectrical.com
Address: 3770 – 12th St. NE, Calgary, AB T2E 8H9
Telephone: (403) 291-2333

Sprinklers:

Constant Fire Protection

Contact: Wade Weatherbee
Email: reception@cfps.ca
Address: 5442 56 Avenue SE, Calgary, AB T2C 4M6
Telephone: (403) 279-7973

Mechanical Controls:

Building Control Guys Inc.

Contact: Brian MacPherson
Email: bmac@buildingcontrolguys.com
Address: 3919 3a Street NE, Calgary, AB T2E 6S7
Telephone: (403) 403-277-6700

Siemens Building Technologies Ltd.

Contact: Ashley Carvalho
Email: Ashley.carvalho@siemens.com
Address: #24, 1930 Maynard Road SE, Calgary, AB T2E 6J8
Telephone: 403-259-3404

Air Balancing:

Hydro-Air Technical Services

Contact: Allan Reid
Email: hydroair@telus.net
Address: 9832 Fairmont Dr. SE, Calgary, AB T2J 0S1
Telephone: (403) 252-5549

FloWest Testing Balancing & Adjusting Services Ltd.

Contact: Kerry Hornseth
Email: flowest@telus.net
Address: 340 Mt Douglas Place SE, Calgary, AB T2Z 3P3
Telephone: (403) 251-2787

**Locksmith
(Keying):**

Brookfield Properties Canada Management Corporation

Contact: Sam Sheronick
Email: Sam.sheronick@brookfieldproperties.com
Address: Suite 327, 111 5th Ave. SW, Calgary, AB T2P 3Y6
Telephone: (403) 213-5372

Elevators:

Thyssenkrupp Elevators (East Tower)

Contact: Troy Prusky
Email: troy.prusky@tkelevator.com
Address: Unit 5, 2419 52nd St. SE, Calgary, AB T2C 4X7
Telephone: (403) 259-4183

Otis Canada Inc. (West Tower, Hollinsworth and Royal Bank Building)

Contact: Kevin Brittner
Email: Kevin.Brittner@otis.com
Address: #7, 777 – 64th Avenue SE, Calgary, AB T2H 2C3
Telephone: 403-461-6938

**Water
Treatment &
Balancing:**

Suez Water Technologies

Contact: Alison Darling
Email: alison.darling@suez.com
Address: Suite 2220, 335 – 8th Avenue SW, Calgary, AB T2P 1C9
Telephone: (403) 461-3950

**Security
Systems:**

Stanley Security Systems

Contact: Ernie Harty
Email: ernie.harty@sbdinc.com
Address: #13, 1305 – 33 Street NE, Calgary AB T2A 5P1
Telephone: 403-648-8405

In order to protect the integrity of base building systems within the Building, the following work must be performed by the above-named Base Building Contractors:

The Base Building Electrical Contractor must perform the following electrical work, unless approved otherwise at the discretion of the Landlord:

- All modifications to the Base Building fire alarm system;
- All final connections and installation of the equipment within the riser rooms to the base building bus duct riser.

The Base Building Security Contractor must perform the following work:

- All final connections to the Base Building security systems including programming, commissioning, testing and verification.

The Base Building Mechanical Contractor must perform the following mechanical work:

- Not applicable.

The Base Building Sprinkler Contractor must perform the following sprinkler work:

- Not applicable.

The Base Building Contractors must also perform the following other work:

- Mechanical control work must be performed by the mechanical control work Base Building Contractor;
- Air and water balancing must be performed by the air and water balancing Base Building Contractor;
- Chemical water treatment and cleaning must be performed by the chemical water treatment and cleaning Base Building Contractor.

CONSTRUCTION COORDINATION

APPENDIX 5 – BASE BUILDING OUTLINE SPECIFICATION

GENERAL

This outline specification describes, in general terms the Bankers Hall Complex in Calgary, Alberta. All elements in this outline specification (unless otherwise noted) are base building items.

1. Architectural

a. General Overview

- The overall Bankers Hall Complex occupies the entire city block between 2nd Street and 3rd Street SW and 9th and 8th Avenue SW. Bankers Hall is comprised of twin 52-storey office towers joined by a spectacular four-level, sky-lit retail gallery integrating the historic Hollinsworth Building, the 24-storey Royal Bank Building and the 15-storey Bankers Court building.
- Total office space of East and West Towers contains approximately 1,614,482 rentable square feet.
- Total office space of Royal Bank Building contains approximately 330,013 rentable square feet.
- Total office space of Hollinsworth Building contains approximately 42,331 rentable square feet.
- Total retail space contains approximately 257,000 rentable square feet.
- The ground floors contain office tower lobbies, retail spaces and direct connections to the Plus 15 levels.
- Bankers Hall is a certified green building with a Gold level of certification in the Leadership in Energy and Environmental Design (LEED®) Existing Buildings: Operations and Maintenance program.

b. Below Grade

i. Parking Levels

- Parking levels P1 to P6 contain approximately 641 parking spaces comprised of both reserved and unreserved stalls. Loading dock is located at the P3 level.
- Minimum headroom clearance is 1981mm to any obstruction).
- A separate reserved parking area is designated within the parkade, accessible by separate card access.

- Suspended slabs in the garage slope to drains and have a traffic topping membrane protection system complete with waterproof membrane, which extends 150mm up columns and concrete walls. Driving aisles, loading dock areas and turning radius areas have a heavy duty traffic topping system.
- Perimeter walls, core walls, partitions, columns, mechanical service lines and underside of structure in parking areas are painted gloss white for security and maintenance.
- Mechanical service lines are labeled. Columns with assistance stations are colour coded. Columns are banded with colour coding to identify levels.
- Parking stalls and traffic markings are applied with yellow traffic paint.
- Parking spaces for the disabled are provided adjacent to shuttle elevator lobbies. These parking spaces are identified by signage and wheelchair pictograms in blue paint. Underground parking for bicycles is provided on the P4 and P5 parkade levels.
- A parking signage system is extended throughout parking areas.
- Stairwells have a sound activated notification system connected to the CACF.
- Storage areas located on the parking levels have concrete floors with, concrete block, fencing or gypsum board walls with painted exposed concrete ceilings. Storage areas are not air conditioned. Typical storage rooms are not provided with electrical outlets.
- Electrical service rooms have painted, fire retardant plywood mounting and painted, ceilings and walls.
- Mechanical service rooms have painted, ceilings and walls.
- Exit stairs are cast-in-place concrete, with painted steel balustrades and handrails. Walls and ceilings are smooth finish painted concrete or gypsum board.
- Entry to elevator vestibule on parking levels is through clear, wired glazed hollow metal doors within glazed metal screens, with power operators for wheelchair access. Elevator lobbies have painted gypsum board ceilings, painted walls and vinyl flooring.

ii. Loading and Garbage Handling

- Ten large loading bays and nine small vehicle bays are provided. Use is restricted to loading and unloading only.
- Two compactors are provided to serve all office and retail tenants. The compactors compact garbage at a 4:1 ratio, with the second one provided to accommodate recyclable waste. The compactor, recycling, disaster recovery, dock lock up and hazardous/special waste rooms are air conditioned with epoxy floors and base. Walls are concrete block with epoxy paint. The ceiling and exposed structure is painted.
- A refrigerated organic storage room complete with a wash down area is provided.

- A recycling room is provided off the loading area for sorting and storage of paper, cardboard, glass and metal containers. Recycling containers are provided to serve all office and retail tenants.
- A laydown area is provided for the staging of materials and the pickup of construction waste. This area is located at the entrance to the Royal Bank Building lower plaza.
- A scissor lift is provided off the loading bay to accommodate deliveries/pickups by undersized vehicles that cannot utilize the hydraulic dock plates. Bays 2, 3 and 4 have hydraulic dock plates for use by larger vehicles.
- Contractor garbage bins (up to 30 cubic yard) must be placed in bays 8 or 9 and must have plywood sheets laid down to protect the parking deck membrane. Plywood sheets are provided by the building. These must be delivered after 18:00 and be removed by 07:00, Monday to Friday. Bins can remain over the weekend or holidays.

c. Office Tower

i. General

- The typical East Tower and Royal Bank Building office tower floor to ceiling height is 2.59m.
- The typical West Tower office tower floor to ceiling height is 2.66m.

ii. Building Envelope

- The East and West Towers are a combination of granite faced precast concrete panels with window units cast in. Glass fibre insulation in double drywall frame including air sea / vapour barrier.
- The East Tower consists of silver semi-reflective glass, double-glazed sealed units in clear anodized frames.
- The West Tower consists of gold semi-reflective glass, argon filled, double-glazed sealed units, in clear anodized aluminum frames.
- The Royal Bank Building is a combination of insulated spandrel panels and glass and aluminum fascia panels.

iii. Main Floor Directory

- An interactive freestanding computerized directory LCD screen is incorporated in the lobbies of each Tower.

iv. Public Washrooms

- Floors and walls are porcelain tiles.
- Ceilings are suspended painted gypsum board, painted with light coves indirect lighting over vanity, toilets and urinals. Gypsum board coves over vanities have indirect lighting. Coves act as supply and return air plenums to eliminate ceiling grilles or louvers. Sprinkler heads are concealed, finish to match ceiling color.

- Vanities are polished quartzite material. All services below vanities are concealed from reasonable view.
 - Pre-finished metal toilet partitions are floor mounted and overhead braced.
 - Brushed stainless steel recessed washroom accessories.
 - Floor drains are provided in all washrooms.
 - Urinals, water closets, and lavatories are high efficiency, low flow fixtures with electronic flush valves and control. Electronic flush valves and faucet controls are hard wired. Refer to building LEED criteria for plumbing fixture performance
- v. Central Alarm and Control Facility
- The central alarm control facility ("CACF Room") is located on the ground floor.
 - The CACF room contains the following facilities:
 - Emergency voice communication system
 - Elevator emergency recall panel
 - Fire alarm annunciator panel
 - Sprinkler system flow signal panel
 - The CACF room has carpet tile flooring and cove base, painted gypsum board walls, and acoustic tile ceiling.
- vi. Typical Single Tenant Floors
- The Landlord finishes service areas including the service elevator lobby, exit stairs, and base building mechanical, electrical, and telephone rooms.
 - All base building electrical and communications rooms at and above grade have painted floors, walls, and gypsum ceiling above. Backboards are fire retardant.
 - All dry mechanical spaces at or above grade have epoxy finished concrete floor, painted walls and exposed structure above. Wet mechanical areas have fuel-resistant waterproof flooring with integral cove base. Floors slope to drains as required. Curbs are provided around wet mechanical areas to contain spillage, where practical.
 - Core walls include stud framing, gypsum board taped, sanded and primed and electrical outlets. Installation of finishes is the responsibility of the tenant. At passenger elevator lobbies Landlord provides gypsum board ceilings and concrete floors ready to receive floor finishes by the tenant. Sprinklers, emergency lighting and all life safety devices are installed in existing ceiling tiles by the Landlord to meet code requirements for occupancy permit. Relocation of these services and additional distribution to the suit tenant layout is the responsibility of the tenant.
 - Doors to services rooms and exit stairs are fire rated and 2100mm hollow metal doors in pressed steel frames.
 - Landlord tapes, sands and primes paint column enclosures, with finishes by the tenant.

- Ceilings beyond the core in the East and West Towers is 1500 x 1500mm with a 500 x 1500mm ceiling tile module. The Royal Bank Building is a 2'0" X 5'0" tile (some field cutting may be required). Landlord installs ceiling grid and tiles around life safety devices. Remaining tiles are placed in the Premises for installation by the tenant at their expense.
- Ceiling height in the East Tower and the Royal Bank Building office areas is approximately 2.59m above the finished floor on typical floors; the ceiling height in the West Tower is approximately 2.66m.
- Light fixtures installed on floors are for emergency lighting only. Lights beyond core are recessed LED luminaire fixtures complete wiring to electric distribution panels. All other lighting fixtures are placed in on-site storage for delivery and installation by the tenant at their expense. Refer to electrical outline specification section for further details.
- Floors beyond core are concrete with steel troweled finish, ready to receive floor finish by tenant.
- Window treatment consists of:

BHE

Vertican Chain Operated Roller Shades, Fabric: Mermet M-Screen, 3% open fabric, colour Pearl Linen complete with clear anodized fascia

RBB

Vertican Chain Operated Roller Shades, Fabric: Mermet M-Screen, 5% open fabric, colour Pearl Linen. Fascia not required.

BHW

Nysan Bottom Up Tension Shade, Fabric: Supertwill, 3% open fabric, colour Linen/Pewter/Bronze complete with top and bottom clear anodized fascia; side channel – clear anodized.

- Sprinklers in tenant areas are semi-recessed type to suit base building open concept layout. Alterations to suit tenant layout is by the tenant.

vii. **Base Building Washrooms**

Royal Bank Building

Floors are porcelain tile.

Walls are porcelain tiles part way up with painted gypsum board above.

Ceilings are suspended painted gypsum board, with indirect lighting over vanity, toilets and urinals. Sprinkler heads are concealed, finish to match ceiling colour.

Vanities are polished quartzite material. All services below vanities are concealed from reasonable view.

Full width mirror above vanity includes LED strip back lighting.

A full-length mirror is also provided beside the vanity in the women's washroom, and across from the vanity in the men's washroom.

Pre-finished metal toilet partitions are floor mounted.

Brushed stainless steel washroom accessories.

Floor drains are provided in all washrooms.

Urinals, water closets, and lavatories are high efficiency, low flow fixtures with electronic flush valves and control. Electronic flush valves and faucet controls are hard wired. Refer to building LEED criteria for plumbing fixture performance.

East and West Towers

Floors are granite tiles.

Walls are partial height granite tile with vinyl wallcoverings above.

Ceilings are suspended t-bar with indirect lighting over vanity, toilets and urinals.

Vanities are polished granite. All services below vanities are concealed from reasonable view. Full width mirror above vanity and full length mirror on wall.

Pre-finished metal toilet partitions are floor mounted and overhead braced.

Brushed stainless steel washroom accessories.

Floor drains are provided in all washrooms.

Urinals, water closets, and lavatories are high efficiency, low flow fixtures with electronic flush valves and control. Electronic flush valves and faucet controls are hard wired. Refer to building LEED criteria for plumbing fixture performance.

viii. Exit Stairs

- Tenants are permitted to use exit stairs to travel between floors
- There are two clearly marked exit stairs on each floor; in the both the East and West Towers and the Royal Bank Building.
- In the Hollinsworth Building, there are 2 clearly marked exits on the 5th Floor, and one clearly marked exit on the 6th Floor.
- Exit stairs are cast-in-place concrete (painted with nonslip finish), painted steel balustrades and handrails. Walls and ceilings are smooth finish painted concrete.

ix. Cross Over Floors

- The East Tower crossover floors are as follows: 5, 10, 16, 21, 26, 31, 34, 37, 41, 44, 46, 50
- The West Tower crossover floors are as follows: 5, 9, 15, 20, 25, 30, 35, 40, 45, 50

- The Royal Bank Building crossover floors are as follows: 5, 10, 16, 21, 23

x. Hardware

- Finish hardware is heavy duty commercial mortise type with lever handles. The threaded cylinder must be either a Schlage or Sargent to fit the mortise cases. Finishes in public areas are brushed stainless steel. Lever handles are required and must be either Schlage or Sargent types for the lock cores to be able to work with the hardware.
- All locks and cylinders on perimeter Tenant doors must be keyed to the building master key system, Medeco B-3 Series.
- All locks will be installed by the Tenant's contractor at the Tenant's expense. The cylinders with the above noted keyways will be turned over to the Landlord's representative no later than two (2) weeks prior to the tenant's occupancy date. The Landlord's representative will re-pin the locks to the master key system. Once the locks have been re-pinned the Tenant contractor has the option of installing these locks themselves or to have the Building Locksmith provide a quote to have this work done for them.
- Washroom locks use the 2000 E-Plex keypads.

xi. Elevators and Escalators

East and West

- Passenger elevator cabs have granite flooring, glass wall finishes with stainless steel trim. Ceilings are stainless steel, with cove lighting. Doors and car operating panels are clad in brushed stainless steel.
- Service elevator entrances have painted finish

Royal Bank Building

- Passenger elevator cabs have granite flooring, glass and laminate wall panels. Ceilings are stainless steel with recessed pot lights. Doors and car operating panels are clad in brushed stainless steel.
- Car 5 acts as both a freight and passenger elevator in the Royal Bank Tower.

Retail

- Escalators have high quality finishes - stainless steel (skirt, front plate, comb, decking and covers), black Teflon handrails, clear glass balustrade, silver aluminum steps.

xii. Public Art

- The Landlord incorporates a public art component in accordance with the Landlord's City of Calgary development permit requirements.

d. Mechanical Floors

i. General

- East and West Tower mechanical rooms are located on level 5/4.
- Royal Bank mechanical room is located on the 4th floor.

ii. Mechanical Space Finishes

- The mechanical and electrical spaces have a poured concrete floating acoustic isolation floor where required, with walk on pedestrian traffic topping with waterproof membrane in the mechanical areas.
- Walls are concrete block or gypsum board, with paint finish. Ceilings are exposed structure (all fire rated as required). Mechanical piping is painted and colour coded with banding.

iii. Building Maintenance System Main Façade

- East and West Tower building façades are maintained by a powered roof car on tracks mounted above the penthouse roof surfaces. The roof cars have fixed booms. The roof cars are stored on the roofs.
- The Royal Bank Building has an outrigger beam and tieback anchor system.
- Swing stages are used to access the main curtain wall façades.

iv. Power and Water

- Power and water are provided at the ground floor. All hose bibs are non-freeze type.

e. Signage

i. General

- The Landlord has a consistent signage program and specifications are used throughout the office tower common areas, Plus 15, parking levels and exterior areas.

ii. Exterior Signage

- Building entrance signage
- Municipal address
- Siamese connection signage
- Prohibitive signage

iii. Office Tower, Concourse and Plus15 Level Signage

- Main building (computerized) directory - 1 per tower

- Common area directional signage
- Base building room identification signage
- On floor directory and tenant signage – multi tenant floors only
- Washroom signage
- Code related signage at elevator lobbies, exits, fire alarm devices
- Room number identification signage on multi-tenant floors

iv. **Parking Garage Signage**

- Entrance signage
- Directional and instructional signage
- Painted markings, including parking space numbering (all spaces)

2. Structural

a. Fire Ratings

- The structure is designed for a 2 hour fire rating for the columns and 2 hours for floors and walls unless noted otherwise.

b. Description of Structural Systems

Retail

- The beams that support the typical floor slabs and parking deck slabs contain ‘post-tensioned strands’.
- Special procedures are to be followed when installing slab openings or penetrations near the post-tensioned strands.
- Wet coring or wet sawcutting will not be permitted unless approved by the base building structural engineer.
- Suspended items, including ceiling systems, cannot be fastened to the underside of beams without review and written approval of the base building structural engineer.

East and West Towers

- Main floor consists of 180mm to 300mm thick concrete slab containing steel reinforcing supported on beams containing steel reinforcing.
- Floors two (2) through four (4) below the tower areas consist of a 180mm to 220mm thick concrete slab containing steel reinforcing supported on beams containing steel reinforcing. The retail area consists of a 260mm thick flat concrete slab with drop panels around columns.
- The 5th Floor consists of a 230mm thick concrete slab containing steel reinforcing supported on beams containing steel reinforcing.

- The typical office floors are 130mm thick concrete slabs containing steel reinforcing supported on beams containing steel reinforcing, with 150mm to 250mm thick concrete slab containing steel within elevator core wall areas.

Hollinsworth

- The Hollinsworth floor slabs consist of a concrete slab and beam system containing reinforcing steel bars with clay block formwork present between the beams. The floor slabs are supported by steel beams and columns encased in fireproofing.

Royal Bank Building

- Main floor consists of conventional 3" thick concrete floor slab over drop pan joists and contains steel reinforcing bars and welded wire mesh.
- The typical office floor consists of conventional 4½" thick concrete floor slabs, containing steel reinforcing bars or welded wire mesh, supported by concrete beams that contain post-tensioned strands. Special procedures are to be followed when installing floor openings near the post-tensioned beams.
- The elevator core areas consist of conventional 6" thick concrete floor slabs, containing steel reinforcing bars.

3. Mechanical

a. General

- Plumbing, fire protection, heating, ventilation and air conditioning are provided in accordance with the requirements of the latest applicable codes, standards and local requirements of the City of Calgary.

b. Design Criteria

- Heating and cooling systems are designed to maintain space temperatures as follows;

Summer	Temperature Range (dry bulb)	75°F – 77°F
	Humidity (Maximum)	55% RH
Winter	Temperature Range (dry bulb)	72°F – 74°F
	Humidity (Maximum)	15% RH

- Condenser water is available for tenants to connect air conditioning equipment to provide supplemental cooling.

c. Description of HVAC and Fire Protection System

i. Typical Office Floors

- Thermostats and automatic control valves are provided to each typical office floor. Additional controls can be added to suit Tenant requirements.
- Heating is provided by boilers located in the east and west mechanical rooms on level 5/4. Boilers are both gas fired low-pressure steam and hot water types. In the East tower, steam is piped to all major mechanical rooms where the heat is transferred to hot water heating systems in steam to hot water heat exchangers. In the Royal Bank Building and the West Tower, hot water is the primary heating medium.
- Cooling is provided by centrifugal chillers located on the 5th level mechanical rooms and cooling towers located on the 52nd floor.
- East and West Towers have perimeter induction air distribution from six primary air handling units, two located in the mechanical penthouse and four in the 5th level mechanical room. Primary air is distributed through high-pressure sheet metal duct risers to each office floor.
- A typical office floor is provided with 74 perimeter induction units, one approximately every ten lineal feet of exterior, located above the ceiling, and provided with a diffuser. The induction units are supplied with primary air from the six primary air handling units in each tower. Each induction unit induces a secondary air flow through a secondary air cooling coil. The primary and secondary air streams are mixed downstream of the secondary cooling coil and discharged through slot diffusers.
- Royal Bank Building air is distributed via north and south ducts from the fourth floor mechanical room. Primary air is distributed through high-pressure sheet metal duct risers to each office floor which feeds their respective portion of the floor.
- The air feeds VAV (variable air volume) boxes throughout the floor.

- Central humidification is provided via the perimeter induction air handling system in the East Tower, via the fresh air makeup to the compartment air handling system in the West Tower, via the tower air handling fans in the Royal Bank Building.
- Thermostats controlling perimeter and interior HVAC must be located in close proximity to the HVAC equipment they control. No control zone will be permitted to bridge more than one Tenant. The thermostats are Siemens models.
- Supplemental air conditioning units (if required) must be approved by the base building mechanical engineer prior to incorporation into the documents. There is a tenant condenser system in the East and West tower that is treated water. The Royal Bank tenant condenser system is treated glycol water.
- Any Tenant contractors connecting air conditioning units to the base building condenser system will be required to complete a pressure test on the Tenant piping for 24 hours at a pressure 1.5 times greater than the system pressure or a minimum of 150 PSI. Please be advised that the Tenant's contractor is responsible to contact the Landlord to arrange to have a member of the Landlord's staff review the pressure at the start of the test and again after the test. Once this is completed to the satisfaction of the Landlord the Tenant's contractor will be required to contact GE Water to arrange to have the piping cleaned and the water tested by a water treatment company to confirm that the pipe is clean of all oil's, contaminates and cleaners.
- A copy of the report must be forwarded to the Landlord. The Tenant's contractor must contact the Landlord prior to filling the Tenant's system as the Landlord must arrange for a member of the maintenance staff to be present.
- The following VAV Tag Labelling Standard for the Complex must be followed for all new VAV's: SYSTEM-FLOOR -NUMBER e.g.: VAV-22-002
- The Tenant shall complete the heating, ventilating and air-conditioning system consisting of all necessary ducts, duct insulation, diffusers, controls, including thermostats required for the maintenance of required conditions, work and storage areas and as required for the removal of any air not suitable for re-circulating such as fumes and vapours.
- The Tenant shall provide all interior air distribution and diffusers.

ii. Description of Proposed Ventilation System

- Each floor is provided with washroom and general exhaust ventilation systems designed to expel air from each floor. Up to 90% of the outdoor air supply quantity is removed to result in a net positive pressurization of each floor during normally occupied periods.
- Air is transferred from the office area ceiling return plenum to vent through openings in each washroom.
- General exhaust air shafts are provided within the core with ducted outlet into the ceiling plenum of each floor. General exhaust connections on each floor are provided with VAV boxes to regulate floor pressure based upon the demand based ventilation airflow added to each floor. Ductwork may be provided by the tenant to directly connect general exhaust to areas requiring ducted venting. This system cannot be used for grease-laden vapours and the capacity of the system may vary over the seasons. The general and toilet exhaust fans are provided with variable frequency drives to provide control of Building pressurization.
- Exhaust systems for the tower are split at the mid height and the lower portion drawn down to the third floor fan room for discharge. The upper half discharges to the top of the Building.

iii. Special Cooling and Heating Requirements

- Elevator machine, telephone and communication, and fire control rooms are mechanically cooled.
- Tenant cooling requirements beyond that provided in the base building air conditioning system are provided from valved chilled water connections within the core of the Building. Approximately 17 kW (5 tons) per floor is available. Metering of consumption required by the Landlord.
- All non-air-conditioned interior Building spaces are heated to maintain 21°C (70°F) minimum temperature with thermostatically controlled hydronic unit heaters, fan coils, convectors or wall-fin radiation.
- On-floor Electrical/COMM rooms are cooled through the use of louvres installed in the door.

iv. Smoke Control Ventilation Provisions

- The fire alarm system initiates smoke control consisting of smoke venting to aid firefighting. Fan and damper positions are monitored and controlled from the fire alarm system.
- The fire floor is automatically exhausted under control by the fire alarm system. The ventilation air riser and a smoke exhaust fan located in the mechanical penthouse are used for smoke exhaust. Low leakage smoke dampers located on the fresh air shaft are used to control smoke exhaust on each floor. Damper open and closed status are monitored and transmitted to the fire alarm system.
- Smoke control fans, dampers and controls are on emergency power and controlled from the CACF room.
- Tower exit stairs are pressurized in an emergency. Fresh air is tempered and introduced from the top and bottom of the building. Pressurization shafts are fire rated and air is injected on every 5th floor. Pressure control modulates the air volume to maintain a slight positive pressure in the stairwell.
- Stair pressurization fans and ductwork are provided to each stair extending below grade. Air is supplied at the lowest stair level and relieved to the outdoors at the highest stair level.
- Vestibules separating below grade stairs from parking areas are continuously pressurized with fresh air to prevent ingress of car fumes.

v. Fire Protection Measures

- Each office floor is sprinklered in accordance with the Alberta Building Code and NFPA-13 requirements for an open office plan, changes to suit tenant layout are tenant's responsibility. The office sprinkler classification is Light Hazard with semi-recessed pendant heads located one per 20.9 square meters. Retail and lobby areas are Ordinary Hazard Group 2 classified. Parking levels and loading dock are Ordinary Hazard classification systems. (All Hazard classifications and groupings indicated reference NFPA requirements.)

- A hydraulically designed combined sprinkler and standpipe system is provided. Risers are provided in each tower stair well and cross connected for redundancy. Fire pumps provide the necessary flows and pressures under emergency conditions.
- Fire department connections at 2.5 inches are provided in stairwells for each floor. Fire extinguisher cabinets are provided throughout the building to suit code requirements.
- Ten pound dry chemical fire extinguishers are provided in all extinguisher cabinets.
- All contractors and Tenants must be aware that both the sprinkler and fire alarm systems, such as smoke detectors, cannot be simultaneously disabled or bypassed in a single work area at any one time during Tenant construction. The Tenant and their contractor are responsible to schedule their work in such a way that only one of these systems will be affected at any one time, and shutdowns will be scheduled accordingly.
- Modification to the sprinkler system within the Tenant space shall be performed by the Landlord's approved contractor at the Tenant's expense. The installation shall conform to NFPA 13. Permanent fire extinguishers shall be provided by the Tenant and installed to conform to building codes.
- Tenants will be responsible for ensuring any Tenant installed fire alarm systems (generally within computer/server rooms) are tied into the base building fire alarm system and are tested annually, per the Alberta Fire Code. The Landlord must receive a certified copy of all fire alarm system verification and inspection reports for all systems tied into the base building fire alarm system annually. Per the Alberta Fire Code, failure to comply "...may be subject to fines of not more than \$15,000 and/or imprisonment for a term not exceeding 6 months, as per the Alberta Safety Codes Act Section 68(1)."

d. Plumbing System

i. Plumbing – Tenant

All plumbing clean outs must be in the Tenant's own space and located above the floor slab; all hot water heaters must be equipped with an overflow pan piped directly to the nearest drain. The relief valve shall be piped directly to a drain. A leak detection system must also be installed which should be connected in such a way as to turn off the water supply to the heater tank.

ii. Plumbing – Base Building

Tie-ins to base building sanitary and cold water are provided on each floor. All distribution and heating elements are the Tenant's responsibility.

Hot and cold water is supplied to the washrooms on each floor in the office towers. The following capped connections are available at the core for the tie-in of Tenants services and/or washrooms:

- ¾" connection for domestic cold water. Hot water tanks, if required, are the Tenant's responsibility
- 2" connections for vents; and
- 4" connection for sanitary drains.

iii. Venting

All toilet exhaust systems, plumbing vents, mechanical or ventilation equipment, exhausts and cooking exhausts which are not part of the standard heating, ventilating and air-conditioning system provided by the Landlord under the heading "Landlord's Work" are the Tenant's responsibility. All openings, supporting structures, curbs, flashing, water-proofing, ducts, vents and grilles for such Tenant-installed equipment shall be the Tenant's sole responsibility and installed in accordance with the Landlord's building standards. The Tenant shall also provide all make-up air systems necessary to offset the Tenant's exhaust systems. The Landlord's engineer shall determine the need for make-up air systems.

The Tenant is required to exhaust all odours or substances that are determined by the Landlord to be objectionable. Make-up air systems may be required to offset such exhausts based on the recommendation of the Landlord and the base building mechanical engineer.

Prior to the start of Tenant construction, the Landlord will dispatch the appropriate person who will determine and advise the contractor of any valves that need to be shut off and identify the locations for any tie-ins. Running plumbing lines through the electrical rooms of the building is strictly prohibited. The base building mechanical contractor must perform all base building shut-off and tie-in work at the Tenant's expense.

Following is the Valve Tag Labelling Standard for the Complex: TOWERFLOOR-SYSTEM-NUMBER e.g.: W20-DCW-1

New pressure reducing valves shall be installed upstream of water heaters and all Tenant installed kitchen equipment which is fed by the domestic cold water system (i.e. water filtration systems, refrigerators, coffee machines, etc.).

All equipment using domestic water must be installed using copper tubing, regardless of whether it is upstream or downstream from a water filtration system. No flexible tubing will be allowed.

iv. Tenant Installed Equipment

The Tenant will be solely responsible for the monitoring, repair and regular maintenance of all special equipment installed for their use. This includes, but is not limited to, UPS systems, air conditioning systems and alarm systems.

Under no circumstances will Tenant owned equipment be connected to the base building automation system.

e. Emergency Generator

Diesel generators, independent of all outside services, provide 347/600 3-phase 4 wire emergency power to energize life safety systems, emergency lighting and essential services. Emergency power comes online automatically in the event of a normal power failure and re-transfers upon the return of normal power. The following essential services are provided with emergency power:

- Egress Lighting
- Life Safety Systems
- Security Systems
- Telephone
- Building Automation System
- Elevators (selective)

- Essential Mechanical Loads i.e.: fire pumps

f. Controls and Monitoring

- i. Siemens “Apogee” computerized management system for building automation (BAS). We also use Angus for tenant services and preventative maintenance.
- ii. The BAS is separate from lighting, fire and other functions, but will have status links to these systems.
- iii. All programming has operator adjustable parameters and is capable of trending to permit fine tuning by building operators based on operational experience.

4. ELECTRICAL

a. General Overview

- i. The electrical system is designed to offer ease of operation, maintenance and flexibility.
- ii. All components are of a modular construction for fast and efficient servicing and to provide flexibility for on-going reconfigurations.
- iii. All electrical work complies with or exceeds the minimum requirements of the applicable codes, rules and regulations of the latest:
 - Alberta Building Code
 - Electrical Safety Code
 - Local Electrical Codes and Requirements
 - CSA Standards
 - IEEE Standards
 - IES Standards
 - ASHRAE Standards

b. Life Safety Systems – Emergency Power

- i. Diesel generators, independent of all outside services, provide 347/600 3-phase 4 wire emergency power to energize life safety systems, emergency lighting and essential services. Emergency power comes online automatically in the event of a normal power failure and re-transfers upon the return of normal power. The following essential services are provided with emergency power:
 - Egress Lighting
 - Life Safety Systems
 - Security Systems

- Telephone
- Building Automation System
- Elevators (selective)
- Essential Mechanical Loads i.e.: fire pumps

c. Exit Lighting

- i. Illuminated exit signs are provided at all means of egress and paths leading to such means. Power supply is from the emergency power system described above. All exit signs are energy efficient LED type.

d. Emergency Lighting

- i. Selected lighting fixtures are connected to normal/emergency system so that on failure of utility source power these will provide a minimum of 10 lux average illumination along all means of egress and paths leading to these.

e. Power To Tenant Spaces, Typical Floor Office

The Tenant may be responsible to supply and install the following: extension from the disconnect switch including, but not limited to the supply and installation of panels, breakers, meter, conduit, wiring, junction boxes, switches, lighting, smoke detectors, electrical distribution within the Premises, all receptacles and connections to electrical loads such as the HVAC equipment and all other work within the premises.

i. Power

- The existing system is metered, or sub metered, with a Carma metering system. Confirm that the metering system is adequate with the construction manager. All Tenant loads must be metered by the Carma metering system. All meters and connections shall be connected at the lighting bus duct. No Tenant shall connect to the mechanical bus duct unless written permission by the Landlord.
- All panel directories must be updated with a typewritten panel schedule. Kroy Tape must be used for all labelling at all outlets and lamacoid for enclosures.
- Transformers may be located in the electrical rooms; however, panels will be located in the Tenant space. Transformers shall be minimum 95% efficient Maximum size is 45KVA per floor.

ii. Emergency Power

Diesel generators, independent of all outside services, provide 347/600 3-phase 4 wire emergency power to energize life safety systems, emergency lighting and essential services. Emergency power comes online automatically in the event of a normal power failure and re-transfers upon the return of normal power. The following essential services are provided with emergency power:

- Egress Lighting
- Life Safety Systems

- Security Systems
 - Telephone
 - Building Automation System
 - Elevators (selective)
 - Essential Mechanical Loads i.e.: fire pumps
- iii. Design Capacities
- East Tower – 2 watts per sq.ft. for tenant use
 - West Tower – 5 watts per sq.ft. for tenant use
 - Royal Bank Building – 2 watts per sq.ft. for tenant use
- iv. Voltage
- East Tower and West Tower power supply is at 25 Kv primary voltage transformed to 347/600 volts, 3 phase, 4 wire for distribution to building services with local sub-transformation to 3 phase, 4 wire 120/208 volt for incandescent lighting, convenience outlets and small appliances.
 - RBB power supply is at 480v primary voltage with 3 phase, 4 wire distribution to building services providing 3 phase, 4 wire 277/480 volt for lighting and 3 phase, 4 wire 120/208 volt for convenience outlets and small appliances.

v. Lighting

Following are the standard base building fixtures in each Tower.

- i. East Tower - The typical office floor fixture is a plug in 500 X 1500 fixture complete with 3500K T8 lamps. A distribution grid in the ceiling will be complete with conduits, boxes and receptacles.

Should the Tenant wish to install LED fixtures in lieu of the standard fixture, they must contact the Landlord for the approved LED fixture.
- ii. West Tower - The typical office floor fixture is a plug in 500 X 1500 fixture complete with 3500K T8 lamps. A distribution grid in the ceiling will be complete with conduits, boxes and receptacles. Lighting control will be affected by the provision of motion sensors dedicated to each light fixture and mounted directly to the fixture with exception of emergency power fixtures.
- iii. Royal Bank Building - The typical office floor fixture is a 1' X 5' fixture complete with 3500K LED lamps and integrated motion sensors. A distribution grid in the ceiling will be complete with conduits and boxes.
- iv. Hollinsworth - The typical office floor fixture is a plug in 500 X 1500 fixture complete with warm white T12's (3500K equivalent) metric lamps. A distribution grid in the ceiling will be complete with conduits, boxes and receptacles.

The building's standard fixtures, complete with lamps and lighting grid wiring system, have been installed in the base building contract. Any alterations or additions are the responsibility of the tenant. Additional building standard fixtures can be purchased from the Landlord. Fixtures removed and not reused shall be turned over to the Landlord.

The existing lighting patterns within the first two building modules of the perimeter of the building must not be altered.

Light fixtures, including the light lens, shall be washed and cleaned at the end of the construction period. Light lenses are fragile and must be handled carefully. Damage to light lenses is the responsibility of the contractor and a charge will be levied for replacement of damaged units.

f. Telecommunications Infrastructure

Prior to proceeding with any proposed data and communications installations the Tenant is required to contact the Technical Services, Administrative Assistant at 770-7048 and notify the Base building electrical contractor. The Base building electrical contractor will complete the work and ensure that the Complex's records are updated accordingly.

The Tenant will be responsible for the costs associated with supplying and installing the communication cabling from the Landlord's termination blocks to the Tenant's premises, as well as removing all unused, redundant cabling.

All Tenant owned telecommunication and data equipment must be Industry Canada and Safety Code approved as required.

i. Telephone

- The cables and all other work required to provide telephone service from the Landlord's telephone room to each Premises will be the Tenant's responsibility.

ii. Fiber Optics

- Landlord fiber optic cabling is installed within conduit in a riser cabinet with termination cabinets on every 5th floor. The Tenant will be responsible for the costs of extending fiber optic cabling to the Tenant premises.
- For Tenant owned fiber, the fiber will be run from the vendors' POP site to inside the Tenant's Lease line at the Tenant's cost.
- All interconnecting fiber optic cables between Tenant server rooms will require special permission from Landlord to utilize base building riser room.

iii. Satellite Telecommunication Capability

- Access is available for Tenants to install satellite communication as per fit up.
- Conductors for data transmission / cable TV is available to Tenants through the Landlord's riser rooms. The cost to connect to the desired service is the Tenants.

g. Fire Alarm and Detection Systems

- i. A computerized zoned, non-coded, modified two stage system is provided. This system is designed to fully integrate with other life safety, sprinkler, security and smoke exhaust systems.
- ii. The system employs fully programmable addressable devices, each with its own unique address allowing the building operators to specifically identify the detector in alarm.

- iii. The primary means of detection/suppression is the automatic sprinkler system; however, in certain critical areas this system is supplemented by the following types of early warning detection:
 - Electrical & telecommunication rooms - smoke detector.
 - Stairwells - photo-electric smoke detectors every 3rd floor.
 - Elevator shafts - heat or smoke detectors are located at the top of each elevator shaft
 - Air handling systems - duct mounted air sampling smoke detectors.
- iv. A complete emergency voice communication system is provided for fire-fighter monitoring and control of egress.
- v. Speakers to be used for audibility.
- vi. A central control and annunciator panel is located on the ground floor, in the CACF room.

h. Security System

- i. The CACF room is the security command centre for the entire Building.
- ii. Security system is provided with a fully integrated intelligent distributed architecture approach utilizing a central control with fully standalone remote processing units located throughout the Development.
 - The system automatically controls card access readers, electro-magnetic locks, strikes, door contacts and is connected to the fire alarm system.
 - Computerized card access control allows the building operator to restrict movement or access to many parts of the building to only those authorized to do so.
 - Card readers are provided in the building at critical points including all exterior doors, elevators, and other critical areas restricted to the public.
 - Tenant is responsible for security installation within its own office facilities including access doors to their premises
 - Rough-in for card readers, door contacts, electro-magnetic locks and signal bells are provided at all exit stair doors in the tower to allow access control devices installed at these locations by tenant occupying single or multiple floors.
- iii. Surveillance/CCTV system is provided to monitor critical points including public areas, building perimeter, parking entrances, ground floor exits, loading areas and building main entrances. All CCTV monitors are located within the security control room.
- iv. Tenant to review base building CCTV and surveillance plans, designs and specifications in advance of the same being finalized. Tenant to view all as-built drawings and specifications of the same as well as review physical system once constructed, fully installed and operational.

- v. Defibrillator stations are located on each level of retail and in the CACF room.

i. Building Lighting Control

- i. A microprocessor based low voltage lighting control and energy-monitoring system is provided to control all lighting in the Building. Exterior lights, ground floor, and typical office floor lighting are controlled by points in the system.
- ii. In addition to the low voltage lighting control system, occupancy sensors are provided throughout the Building including washrooms and typical floor rentable areas.

j. Tenant Electrical Metering

- i. A microprocessor based electronic metering system is provided to allow accurate distribution of utility costs. All on floor electrical loads are metered.
- ii. A metering 'riser' is established in the building to accommodate additional metering points (for multi-tenant floors for example). All metering data is centrally accumulated for proper allocation.
- iii. Each typical office floor includes one meter for metering plug loads.

5. ACOUSTICS AND VIBRATION

a. General Overview

- i. Ceiling tiles on typical tenant floors are Armstrong Fine Fissured 500x1500x19mm having a Noise Reduction Coefficient (NRC) of 0.55.
- ii. Average operating sound levels from base building mechanical and electrical equipment on typical tenant floors do not exceed NC-40 within 3.0 m of the core, and NC-35 elsewhere.

6. CONVEYING SYSTEMS

b. Elevator Systems

East Tower – A total of 15 Thyssen Krupp elevators serve the East Tower as follows:

- There are five elevators serving the low rise (floors G,7 – 21)
- There are six elevators serving the mid-rise (floors G, 21 – 37)
- There are four elevators serving the high rise (floors G, 37 - 45)
- The freight elevator serves floors P3 to 50

West Tower – A total of 15 OTIS passenger elevators serve the West Tower as follows:

- There are five elevators serving the low rise (floors G,7 – 20)
- There are six elevators serving the mid-rise (floors G, 20 – 38)
- There are four elevators serving the high rise (floors G, 39 - 47)
- The freight elevator serves floors P3 to 50

Royal Bank Building – A total of 6 OTIS passenger elevators serve the Royal Bank Building as follows:

- There are six elevators serving the main floor to floor 24
- Cab #5 also services the Loading Dock
- Cab #1 has a ceiling that can be modified to receive longer items (i.e. 10' drywall)

Fire-fighter's Elevator

The service/freight elevators are designated as the fire-fighter's elevator, with the capability to use the passenger elevators for additional back up.

i. Additional Equipment:

- Central Control Station: All elevators, with single LCD monitor, keyboard control, and master intercommunication station.
- Fire Control Station: All elevators, as required by code.
- Counterweight Safeties: Provided as required by code.

c. Escalator Systems

i. Description of Systems:

- Escalators No. 1 - 10:
 - Quantity: 10
 - Size: 1004mm Step Width
 - Step Speed: 30m/minute
 - Floors Served: Ground, Plus15, Plus 30 and Plus 45 Levels
 - Balustrade: Glass
 - Number of Flat Steps: Three, Upper & Lower

ii. Finishes:

- Balustrade: Structural glass w/o mullions; joints vertical.
- Decking & Molding: Stainless steel finish.
- Skirt Panels: Manufacturers' standard low friction material.
- Handrails: Teflon

CONSTRUCTION COORDINATION

APPENDIX 6 – SERVICE ELEVATOR CAPACITY & DIMENSIONS

The freight elevators cannot be locked off during normal working hours from 6:00am to 6:00pm Monday to Friday. All after hours' bookings must be made through the security control centre at 403-237-5658. Any damage caused by or cleaning necessitated by the contractor's use of the freight elevator will be rectified by the Landlord and charged back to the contractor.

Bankers Hall East and West

One freight elevator is available in each of the East and West Towers for the use of moving tools, equipment and materials. The dimensions and weight restrictions are as follows:

Door:	
Height	96"
Width	52"
Cab:	
Height	144"
Width	64"
Depth	106"
Weight Allowance – East Tower	4497lbs
Weight Allowance – West Tower	4499lbs

RBB Freight Elevator

One freight elevator is available for the use of moving tools, equipment and materials. The dimensions and weight restrictions are as follows:

Door:	
Height	6' 11 3/4"
Width	3' 5 3/4"
Cab:	
Height	7'6" at lowest elevation 10' at highest point (20" deep X 5'6" tall within that extra height)
Width	5'6"
Depth	4'8"
Weight Allowance	3500 lbs

There is also a manlift from the P3 Level to the Lower Plaza level, which accesses the above noted freight elevator. The dimensions and weight restrictions are as follows:

Door:	
Height	80"
Width	44.5"
Cage:	
Height clearance	12'
Width	45"
Depth	74"
Weight Allowance	2000 lbs

CONSTRUCTION COORDINATION

APPENDIX 7 - TYPICAL STANDARD DETAILS

All standard details shall reflect and include design elements, finishes, materials, products, systems, functionality, efficiency, sustainability, and space usability that are found within comparable quality buildings (commonly rated as Class AA) of similar type and size in the downtown core of Calgary, Alberta.

1. Window Coverings

BHE

- Vertican Chain Operated Roller Shades, Fabric: Mermet M-Screen, 3% open fabric, colour Pearl Linen complete with clear anodized fascia

RBB

- Vertican Chain Operated Roller Shades, Fabric: Mermet M-Screen, 5% open fabric, colour Pearl Linen. Fascia not required.

BHW

- Nysan Bottom Up Tension Shade, Fabric: Supertwill, 3% open fabric, colour Linen/Pewter/Bronze complete with top and bottom clear anodized fascia; side channel – clear anodized.

2. Window Mullion / Exterior Glazing Coordination

- All interior partitions must be of non-combustible construction and shall not interfere with base building systems, with supply air troffers or light fixtures. Partitions must terminate at a window mullion with adequate access to the perimeter radiation as required for building maintenance.
- No fasteners will be permitted to penetrate at the exterior wall of the building.
- To facilitate the removal of exterior windows, removable filler panels are to be used in order to extend partitions over the induction units or fan coils up to the window mullions.
- Screws are not to be used to anchor to window mullions or induction unit or fan coil enclosures.
- Where walls are installed over hand-holes or trench-covers, for under floor duct systems, suitable access is to be provided.
- The location and length of the fasteners used to attach the partition walls to the concrete floor slabs shall be reviewed by the base building structural engineer.
- Drywall framing around the exterior windows form part of the building envelope system. These areas may only be finished using a paint product. The use of wall coverings is not permitted. Furthermore, the stacking of files, books, binders, etc. on these window sills is prohibited.

- Where Tenant furniture systems and or millwork run parallel to radiation cabinets, heating convectors or any other base building HVAC system, the furniture system must allow both access to the cabinets and valves for maintenance purposes, and be designed such that it does not interfere with the normal operation of the equipment.

CONSTRUCTION COORDINATION

APPENDIX 8 – HOT WORK PERMIT

Hot Work Permits (HWP) are available at the CACF room. The Hot Work Permit process will ensure that any hot work done at a Property will be conducted in the safest manner possible. Cutting, grinding, brazing, welding, soldering, thawing pipe, torch applied roofing are all examples of hot work which includes any operation that involves open flames or could produce heat and/or sparks.

The following hot work procedures are to be followed at all times:

- 1) The Hot Work Worker (collectively known as “Worker”) will sign in at the designated location and inform the property of the work to be completed. The Property will assess the work required and will follow the process and recommend alternatives to hot work. Every request for hot work should be evaluated for risk and alternative options should be explored. Hot work completed in a high hazard area must not be permitted or must be at the discretion of the Designated Hot Work Manager and be completed with increased safety precautions.
- 2) The Worker which is the person completing the hot work is responsible for:
 - Following all of the procedures and the requirements contained in this policy and the permit;
 - Ensuring that hot work is completed in the safest way possible;
 - Taking all reasonable efforts to prevent false or nuisance fire alarms;
 - Conducting a fire watch in conformance with this policy and the insurance provider for the entire duration of the work including any breaks and for up to at least 1 hour after work has been completed;
 - Notifying the appropriate person(s) at the property of any hot work to be completed on the premises and the context of the work that is to be completed as well as expected start and end times. The Designated Hot Work Manager or designate will review the type of work and determine if fire alarm or other fire detection or protection system are to be bypassed or shut off;
 - Informing the appropriate person(s) at the property when any work has been completed or if circumstances have changed. The Worker will notify the appropriate person(s) at the property when it can return fire detection or protection systems to normal operations;
 - Providing accurate information to fill out the permit, ensuring the permit is completely filled out and signing the permit;
 - Ensuring that equipment used for hot work is in good working order and that all the required codes and standards are followed;
 - Transporting and storing pressurized gas cylinders in accordance with the applicable codes, standards and safety requirements;
 - Providing metal guards or fire retardant tarpaulins if required for the work;
 - Ensuring the appropriate fire hose or fire extinguisher is available for use during hot work.
- 3) If hot work is required, the Property and the Worker will fill out the left portion of the hot work permit. Under “Permit Expires”, the expiry must be after the hot work task is completed and before the end of the Workers shift. No hot work for the task is permitted after the permit expires.
- 4) The Property will review the hot work permit for accuracy and completeness. The Property will not sign off on the permit until a pre-inspection is completed.

- 5) The Property will assess based on the work to be completed whether fire protection or detection systems (smoke detectors, heat detectors, etc.) need to be bypassed or shut off. The Property will also contact the Fire Department and Monitoring Agency (if applicable) for impairments and according to any requirements in the Fire Safety Plan.
- 6) The Property will not allow the Worker access to the work location unless they have all of the required permits (ex. Safe Work Permit).
- 7) The Worker can now access the work location and start preparing it for hot work by removing combustibles within 35 feet, sweeping the area clean and checking all of the other safety precautions listed on the permit. Just preparations. No hot work is allowed until the property completes an inspection and signs off on the permit.
- 8) The Worker will inform the property that they are ready for the pre-inspection. A Property representative (Security/Operations) also known as a Hot Work Inspector will conduct a pre-inspection of the space ensuring that all of the safety precautions listed on the permit have been met and that the permit is complete. If the property representative is satisfied that all the requirements have been met they will sign off on the permit. All of the sections of the permit must be completed.
- 9) The stringed copy of the permit will be posted in the work area.
- 10) The hot work may now begin. The Worker will follow all precautions listed on the permit and conduct a continuous fire watch while hot work is being completed.
- 11) The person(s) conducting the fire watch are responsible for:
 - Must be separate individual(s) than the person performing the Hot Work;
 - Patrolling the affected area, the area above, the area below and any adjacent areas or rooms at pre-determined intervals during hot work and after hot work has been completed and for the entire duration of any impairment. A continuous fire watch is required during and for up to 1 hour after hot work has been completed;
 - Completing a Fire Watch Patrol Log Sheet which will detail the person completing the patrols, the date, the start and end time, the areas patrolled and any comments;
 - Notifying emergency services if fire, smoke or other dangerous occurrence is found;
 - Pulling a fire alarm pull station or alerting occupants by other means if fire or smoke is discovered;
 - Extinguishing any small fire as long as the person feels comfortable doing so, is adequately trained and is not in danger;
 - Inform the appropriate persons or departments at the property if any unsafe or other notable occurrences are discovered;
 - Stopping hot work and any other work if a fire occurs or fire alarm tones are heard.
- 12) The Worker will notify the property once hot work has been completed. The Worker must remain on site for at least 60 minutes after the hot work has been completed and conduct a continuous fire watch.
- 13) When hot work has been completed and after the 60 minutes of fire watch the Worker will notify the property that they are ready for the post inspection. A Property representative

(Security/Operations) or Hot Work Inspector will conduct a post inspection of the hot work space checking the work area, the area above and the area below for any indication of fire or unsafe condition.

- 14) After ensuring that work has been completed the property will return any fire detection and detection systems (smoke detectors, heat detectors, etc.) to normal operations. Be aware that any sweeping, sanding, dusting or other work may trigger a fire alarm and the proper precautions should be taken to avoid false or nuisance fire alarms.
- 15) The Property will conduct a fire watch for an additional 3 hours making sure to complete a fire watch log sheet. The fire watch conducted by the property will be at the discretion of the Designated Hot Work Manager and shall be based on the nature of work and hazards involved. A fire watch must be completed for the entire duration of any impairment.
- 16) The Property will retrieve the permit and file it in the appropriate location.

Additional requirements:

- Contractors found not to be following the policy may be subject to work stoppages, removal from site and/or subject to costs associated with false fire alarms and other expenses;
- The Contractor may enquire with the Security Department about hiring Security Personnel to conduct the fire watch. Any associated costs are the responsibility of the Contractor. The Property has the right to refuse based on any unsafe work conditions or other limitations;
- The Contractor may not at any time begin hot work without first notifying the Property, filling out the appropriate forms and ensuring the appropriate life safety systems are by-passed/shutoff. The Contractor will be liable for any costs associated with non-compliance.
- Contractors are responsible for having fire extinguishers, metal guards and fire retardant tarpaulins as required;
- Personal protective equipment supplied by the property must be worn by employees or contractors hired to work on behalf of the property when entering construction space;
- A fire alarm that occurs in hot work space will suspend all work including hot work until the alarm is investigated and the all clear is given;
- Hot work is not permitted in areas occupied by tenants or the public as it would create a hazard. Reasonable effort should be made to control access to the hot work area;
- Hot work should not be permitted in high hazard areas such as areas not protected by sprinklers or other fire suppression systems either by design or because of impairment. If hot work must be completed in the space, then the Designated Hot Work Manager must create additional safety precautions and contact the fire department and insurer to ensure the work is completed in the safest way possible. Additional safety precautions must be taken.
- Hot work is not permitted in high hazard areas that store flammable liquids or gas or areas that have an explosive atmosphere (due to dust, vapours, etc.)



Global Asset Protection Services, LLC


DANGER PREVENT FIRES

TO REPORT A FIRE SHOULD ONE OCCUR:

PHONE: _____

OR USE ALARM BOX LOCATED AT: _____

© 2011 Global Asset Protection Services, LLC




Global Asset Protection Services, LLC

HOT WORK PERMIT

<p>Date: _____ Time: _____</p> <p>Permit: _____</p> <p>Work By: <input type="checkbox"/> Employee <input type="checkbox"/> Contractor _____</p> <p>Start Time: _____ Expected Completion: _____</p> <p>Location: _____</p> <p>Work to Be Done: _____ _____ _____</p> <p>Person Doing Hot Work: _____</p> <p><i>I understand the area shall be monitored for 60 minutes after completion of the job and thoroughly inspected at the end of the 60 minutes.</i> After the 60 minute period, additional intermittent patrols should be made for an additional three hours (four hours total after hot work ceases). If your corporate guidelines specify another time interval or fire watch procedure, the corporate guideline takes precedence.</p> <p>Fire Watch Signed: _____</p>	<p>Check the box when the item has been completed. Permit shall not be issued until the following precautions have been checked.</p> <p>Yes N/A</p> <div style="display: flex;"> <div style="flex: 1;"> <input type="checkbox"/> Means other than Hot Work or moving to a safer location have been considered. <input type="checkbox"/> Hot work equipment in good repair. <input type="checkbox"/> Sprinklers, where provided, are operational and will not be taken out of service while this work is being done. <input type="checkbox"/> There are no combustible fibers, dusts, vapors, gases, or liquids in the area. Tanks and equipment previously containing such have been purged. Where normally present, the absence of gases or vapors has been verified by a combustible gas detection instrument. If there is a possibility of a leak developing in nearby piping, equipment, or tanks, this area is being continuously monitored. <input type="checkbox"/> The work will be confined to the area or equipment specified on this permit. <input type="checkbox"/> Surrounding floors have been swept clean, and if combustible, wet down where possible. <input type="checkbox"/> Ample portable extinguishing equipment such as hose lines or extinguishers have been provided. Located: _____ <input type="checkbox"/> All combustibles have been relocated 10 meters (35 ft) (further for elevated work) from the operation including areas on opposite sides of walls if heat can be transferred to them through the work piece, any which cannot be moved are protected with metal guards or fire retardant tarpaulins. <input type="checkbox"/> All walls, ceilings, or floors being worked on are of noncombustible construction (including internally). <input type="checkbox"/> All floor and wall openings within 10 meters (35 ft) of the operation have been tightly covered. <input type="checkbox"/> A fire watch has been assigned to watch for fires or the potential for fires in the work area, on floors above and below, and on the opposite side of walls. This watch shall continue during any lunch or rest period and for at least one hour after the work has been completed. </div> </div>
<p>Precautions listed on the right column have been taken, the work area has been examined and the permit is authorized for this Hot Work.</p> <p>Issuing Individual Signed: _____</p> <p>Supervisor Signed: _____</p>	<p>This job has been reviewed with the area supervisor and Hot Work has been determined to be the only method available to complete this job. <i>(Required if work is in "high hazard area")</i></p> <p>Area Supervisor Signed: _____</p>
<p>MAINTAIN PART 2 IN A CONSPICUOUS LOCATION WITHIN THE WORK AREA DURING THE HOT WORK. ISSUER SHALL COMPLETE AND RETAIN PART 1.</p>	
<p>PERMIT EXPIRES</p> <p>Time: _____ Date: _____</p>	
<p>To Report a Fire, Phone: _____</p> <p>Or Use Alarm Box Located at: _____</p>	

1477_01/2012


Global Asset Protection Services, LLC

HOT WORK PERMIT

Date: _____ Time: _____

Permit: _____

Work By: ☐ Employee
☐ Contractor _____

Start Time: _____ Expected Completion: _____

Location: _____

Work to Be Done: _____

Person Doing Hot Work: _____

I understand the area shall be monitored for 60 minutes after completion of the job and thoroughly inspected at the end of the 60 minutes.

After the 60 minute period, additional intermittent patrols should be made for an additional three hours (four hours total after hot work ceases).

If your corporate guidelines specify another time interval or fire watch procedure, the corporate guideline takes precedence.

Fire Watch Signed: _____

Precautions listed on the right column have been taken, the work area has been examined and the permit is authorized for this Hot Work.

Issuing Individual Signed: _____

Supervisor Signed: _____

This job has been reviewed with the area supervisor and Hot Work has been determined to be the only method available to complete this job.

(Required if work is in "high hazard area")

Area Supervisor Signed: _____

FINAL CHECK: Work area and all adjacent areas to which sparks and heat may have spread including floors above and below and on opposite sides of the walls were inspected after the final patrol (four hours after the hot work ceases) is made.

Signed: _____ Completed: _____

PERMIT EXPIRES

Time: _____ Date: _____

Check the box when the item has been completed. Permit shall not be issued until the following precautions have been checked.

Yes N/A

- ☐ Means other than Hot Work or moving to a safer location have been considered.
- ☐ Hot work equipment in good repair.
- ☐ Sprinklers, where provided, are operational and will not be taken out of service while this work is being done.
- ☐ There are no combustible fibers, dusts, vapors, gases, or liquids in the area. Tanks and equipment previously containing such have been purged.
Where normally present, the absence of gases or vapors has been verified by a combustible gas detection instrument. If there is a possibility of a leak developing in nearby piping, equipment, or tanks, this area is being continuously monitored.
- ☐ The work will be confined to the area or equipment specified on this permit.
- ☐ Surrounding floors have been swept clean, and if combustible, wet down where possible.
- ☐ Ample portable extinguishing equipment such as hose lines or extinguishers have been provided.
Located: _____
- ☐ All combustibles have been relocated 10 meters (35 ft) (further for elevated work) from the operation including areas on opposite sides of walls if heat can be transferred to them through the work piece, any which cannot be moved are protected with metal guards or fire retardant tarpaulins.
- ☐ ☐ All walls, ceilings, or floors being worked on are of noncombustible construction (including internally).
- ☐ ☐ All floor and wall openings within 10 meters (35 ft) of the operation have been tightly covered.
- ☐ ☐ A fire watch has been assigned to watch for fires or the potential for fires in the work area, on floors above and below, and on the opposite side of walls. This watch shall continue during any lunch or rest period and for at least one hour after the work has been completed.

To Report a Fire, Phone: _____

Or Use Alarm Box Located at: _____

1477_01/2012

CONSTRUCTION COORDINATION

APPENDIX 9 - SAFE WORK PERMIT

Safe Work Permits are available at the CACF room and must be filled out for any work that requires the fire alarm zones to be disabled. This includes but is not limited to: dust generating work, coring, and painting.

Brookfield

SAFE WORK PERMIT

PROPERTY			Permit No.
Section 1 - PROJECT DESCRIPTION & PARTICIPANTS			
DESCRIPTION OF WORK TO BE PERFORMED (Permit Valid for Day of Issue Only Unless Extension Approved by Brookfield Management - Max 5 days)		Date of Work (DD/MM/YY)	
		Start Time: (24 Hour Clock)	
Location of Work (within property)		End Time: (24 Hour Clock)	
WORKER NAME	PHONE NUMBER	COMPANY	
SECTION 2 - HAZARDS ASSOCIATED WITH WORK TO BE PERFORMED			
<input type="checkbox"/> Electrical <input type="checkbox"/> Welding, Cutting, Hot Work <input type="checkbox"/> Flammables / Explosives <input type="checkbox"/> Confined Space <input type="checkbox"/> Fall Hazard	<input type="checkbox"/> Dust, Mist, Fumes <input type="checkbox"/> Noise <input type="checkbox"/> Automatic Machinery <input type="checkbox"/> Working Alone <input type="checkbox"/> Others:	<input type="checkbox"/> Public Safety <input type="checkbox"/> Vehicle Traffic <input type="checkbox"/> Roof Work (Sign Annual Roof Waiver) Wind Speed : _____ km/h <input type="checkbox"/> Electromagnetic Hazard - Narda Needed	
SECTION 3 - SPECIAL PRECAUTIONS REQUIRED			
<u>GENERAL WORK SITE</u>	<u>LOCK-OUT / TAG-OUT</u>	<u>SPECIAL</u>	<u>WORKING ALONE</u>
<input checked="" type="checkbox"/> Site Inspection Performed <input checked="" type="checkbox"/> House Keeping <input checked="" type="checkbox"/> First Aid Kit on Hand <input type="checkbox"/> Ladder/Scaffold Use <input type="checkbox"/> Work Area Cordoned Off <input type="checkbox"/> Warning Sign Posted <input type="checkbox"/> Supplementary Illumination	<input type="checkbox"/> Electrical Switches <input type="checkbox"/> Valves <input type="checkbox"/> Machinery <input type="checkbox"/> Pneumatics <input type="checkbox"/> Others:	<input type="checkbox"/> Crane/Hoist/Rigging <input type="checkbox"/> Man-Lift <input type="checkbox"/> Confined Space Permit <input type="checkbox"/> Fall Protection Plan <input type="checkbox"/> Buddy System Required <input type="checkbox"/> Others:	<input type="checkbox"/> Radio <input type="checkbox"/> Telephone Contact # _____ Brookfield Security Phone Number (403) 444-2888 In an emergency call 9-1-1 then inform Brookfield Security
Fire System Notice: No Smoke & Flow Points are to be disabled at same time on the same floor	SMOKE HEADS DISABLED	GREEN TAG #	
	FLOWZONES DISABLED	RED TAGS #	
	OTHER PRECAUTIONS	IMPAIRMENT #	
The completion of the Special Precaution or Protection check lists in whole or in part does not limit the worker or contractor's safety measures, control and procedures required to complete this project. Any work arising from this project must be performed in full accordance with the applicable Occupational Health and Safety Act and provincial Regulations for this Jurisdiction. This Permit does not replace all other work permits required under legislation.			
SECTION 4 - PERSONAL PROTECTIVE EQUIPMENT (PPE) REQUIREMENTS			
<input type="checkbox"/> Safety Boots <input type="checkbox"/> Safety Glasses/Goggles <input type="checkbox"/> Gloves	<input type="checkbox"/> Hearing Protection <input type="checkbox"/> Hard Hat <input type="checkbox"/> NARDA Alert	<input type="checkbox"/> Traffic Vest <input type="checkbox"/> Chemical Clothings / Suit <input type="checkbox"/> 2-Way Radio / Phone	<input type="checkbox"/> Respirator - Type <input type="checkbox"/> Safety Harness/Lines <input type="checkbox"/> Others
SECTION 5 - AGREEMENT TO THE SAFE WORK PERMIT			
By signing below you agree to abide by the conditions outlined above in this safe work permit and to the RULES AND REGULATIONS outlined on the back of this sheet. RANDOM CHECKS WILL BE PERFORMED TO ENSURE PRECAUTIONS ARE BEING TAKEN AND PPE IS PROPERLY USED AS PER THE REQUIREMENTS AGREED UPON ABOVE.			
CONTRACTOR ACKNOWLEDGEMENT		OCCUPATION / TITLE	
Name	Signature		
BROOKFIELD REPRESENTATIVE		PERMIT EXTENSION	
Name	Signature	Number of Days: _____ Management Signature:	

CONSTRUCTION COORDINATION

APPENDIX 10 – ACCESS TO ROOFTOP RELEASE FROM LIABILITY AND WAIVER OF LIABILITY AGREEMENT

Brookfield

ACCESS TO ROOFTOP

RELEASE FROM LIABILITY AND WAIVER OF LIABILITY AGREEMENT

**THIS AGREEMENT EFFECTS YOUR LEGAL RIGHTS,
PLEASE READ THIS AGREEMENT CAREFULLY BEFORE SIGNING.**

- TO:** ☐ For **BANKERS HALL COMPLEX**, including the Royal Bank Building, Bankers Hall East Tower, Bankers Hall West Tower, Bankers Hall Retail, The Hollinsworth Building and the West Parkade use: Bankers Hall LP, Bankers Hall GP Inc., Bankers Hall GP Trust, bolVC Realty Corporation, Brookfield Office Properties Management LP, Brookfield Office Properties Management Corporation, Brookfield Properties Ltd. and Computershare Trust Company of Canada, and, each such corporations' respective directors, officers, employees, agents, principals, partners, successors and assigns and, all persons for whom any of the foregoing persons are legally responsible (collectively, the "Company")
- ☐ For **BANKERS COURT** use: Brookfield Properties (BHT) Ltd. and bolVC Realty Corporation, Brookfield Office Properties Management LP, Brookfield Office Properties Management Corporation, Brookfield Properties Ltd. and The Standard Life Assurance Company of Canada and, each such corporations' respective directors, officers, employees, agents, principals, partners, successors and assigns and, all persons for whom any of the foregoing persons are legally responsible (collectively, the "Company")
- RE:** ☐ For **BANKERS HALL WEST rooftop**, use: Access to the Roof of Bankers Hall West, 866 - 3rd Street SW, Calgary, Alberta (the "Building")
- ☐ For **BANKERS HALL EAST rooftop**, use: Access to the Roof of Bankers Hall East, 855 - 2nd Street SW, Calgary, Alberta (the "Building")
- ☐ For **BANKERS HALL RETAIL rooftop**, use: Access to the Roof of Bankers Hall, 315 - 8th Avenue SW, Calgary, Alberta (the "Building")
- ☐ For **HOLLINSWORTH BUILDING rooftop**, use: Access to the Roof of Bankers Hall, 301 - 8th Avenue SW, Calgary, Alberta (the "Building")
- ☐ For **BANKERS COURT rooftop**, use: Access to the Roof of Bankers Court, 950 - 2nd Street SW, Calgary, Alberta (the "Building")
- ☐ For **ROYAL BANK BUILDING rooftop**, use: Access to the Roof of The Royal Bank Building, 335 - 8th Avenue SW, Calgary, Alberta (the "Building")

In consideration of the Company permitting the undersigned access to the roof of the Building and other good and valuable consideration (the sufficiency and receipt of which is hereby acknowledged by the undersigned), the undersigned, on his or her own behalf and on behalf of his or her heirs, executors, administrators, insurers, spouse, civil partner, children, attorneys, successors and assigns hereby waives, and hereby releases the Company of all liability, obligation and responsibility for or with respect to, any and all lawsuits, actions, claims, proceedings of any nature or kind, judgments, interest awards, damages, penalties, fines, losses, legal and other professional fees, charges and disbursements, and amounts paid in settlement (collectively, "Claims"), against the Company which may result from, or may arise directly or indirectly as a consequence of or be related to, or may be due to, the undersigned being granted access to the roof of the Building or from the granting by the Company of this permission and, the undersigned, on his or her own behalf and on behalf of his or her estate, executors, administrators, insurers, attorneys, successors and assigns, agrees to indemnify and save harmless the Company from, against and in respect of any personal injury (including, without limitation, bodily injury, injury resulting in death, personal discomfort, mental anguish, shock, sickness or disease), death, or, any loss of, damage to, disappearance of, or destruction of, property of any nature or kind, which may result from, or may arise directly or indirectly as a consequence of or be related to, or may be due to, the undersigned being granted access to the roof of the Building or from the granting by the Company of this permission.

The undersigned acknowledges that hazards exist on the roof of the Building, which hazards include, without limitation, tipping hazards, low head-room, heavy winds, temperature extremes, lightning and birds.

DATED this _____ day of _____, 20____

SIGNED, SEALED and DELIVERED in the presence of:

Company Name

Name of Witness:

Name and Title

CONSTRUCTION COORDINATION

APPENDIX 11 - SPRINKLER SHUT OFF

1. Sprinkler Shut Off Tags (RSVP – Restore Shut Valves Promptly) are available from the Landlord and must be filled out for any work requiring isolation of sprinkler lines. Please note the following: Only one impairment is allowed at a time;
 - Cease hazardous operations in the affected area. During isolation of sprinkler lines, the fire alarm system must remain active.
 - Remove, whenever possible, combustible materials from the affected area.
 - Take emergency measures to limit the area of impairment as much as possible.
 - Ensure that the impairment lasts for as short a time as possible.
 - Ensure all materials, equipment and labour is on hand ready to complete the work quickly.
 - If it is necessary to leave the work, re-commission the system; and
 - Maintain a continuous watch during the period of impairment.

APPENDIX 11 - SPRINKLER SHUT OFF
Page 113 of 121

CONSTRUCTION COORDINATION

APPENDIX 12 – RETAIL TENANT SIGNAGE GUIDELINES

Prepared by Lemay.



BANKERS HALL

RETAIL tenant signage

guidelines

APRIL 16, 2020





RETAIL SIGNAGE DESIGN INTENT

This Retail Tenant Signage Design Guideline is to ensure tenant signage is in alignment with the Bankers Hall overall signage design intent. In pursuit of consistent design language within Bankers Hall, this guideline for tenant signage sets out requirements, recommendations and materiality parameters to ensure compatibility with other tenants as well as the overall design philosophy for the future vision.

The Design Guidelines are a set of tools that the tenant is required to work with and expand upon. By establishing a common point of departure, freedom of expression for each retail tenant is encouraged as we collaborate to create an effective retail statement and holistic shopping experience for customers.

THE GUIDELINES

Tenants are encouraged to develop aesthetically pleasing, professionally manufactured signage subject to the Landlord's approval, to further enhance the overall Banker's Hall future vision concept. Regardless of registered trademarks, the text of the Tenant's sign is limited to store name and / or logo as permitted and approved by the Landlord. The Landlord reserves the right to approve sign presentations on an individual basis and reject proposed signage based on composition, colour, content or other aesthetic criteria. Promotional materials are unacceptable unless otherwise approved by Landlord.

Tenants are required to install at least one storefront identification sign. All tenants may be permitted to install an additional sign to suit the Storefront location. The Tenant cannot erect or affix any sign or advertisement to the exterior face of the leased retail unit including windows and doors without the Landlord's approval, inclusive of temporary signage. Size and letter height is subject to Landlord's approval. All sign letter fastening devices, electrical devices, sign company name, ULC stickers and identification labels must be completely concealed. All illuminated signage must be an LED source and CSA approved. Conformance is the sole responsibility of the Tenant.

A complete set of signage drawings must be submitted to the Landlord in Electronic (PDF) format. Drawings must include plans, elevations, sections, size, letter style, colors, materials, fabrication detail, and installation detail. In addition, anchorage details and method of illumination is required for Landlord's approval. All submitted drawings must be drawn to scale and shown in conjunction with the Storefront elevation they will conform to. Samples required at Landlord's request. All signage must be professionally installed. Provide maintenance detail to Landlord.



ACCEPTED MATERIALS + SIGN TYPES

- Individual raised profile letters illuminated and non-illuminated
- Back illuminated, halo illuminated, or face illuminated
- Blade panel in partnership with main storefront signage
- Pin letters

UNACCEPTABLE SIGN TYPES

- *Uniform box signage*
- *Paint on glazing*
- *Animated portions, flashing or auditory advertising*
- *Movable displays or signage*
- *Exposed or surface mounted box or cabinet type signs*
- *Sandblasted glass/wood signs*
- *Descriptive or promotional material affixed to glazing as main signage*
- *Foam, cloth, paper, cardboard*
- *Pylon or pole signs*
- *Visible screws, ballast boxes, transformers, crossovers, fasteners, or conduit*
- *Window painting is not acceptable*
- *Vinyl letters, subject to landlord's approval, may be accepted as supplementary signage*



Internally Lit Box Signage



Paper Signage



Third Party Advertising



Vinyl Applique + Sheet Signage

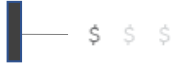


Handwritten Signage



Flashing + Animating Signage

TIER
ONE



*Metal Foil & Vinyl Lettering**



Serif Dimensional Lettering



Vinyl Lettering & Blade Signage*



Vinyl Lettering & Product Showcase*



*Minimalist Vinyl Lettering**

** Vinyl Lettering may be used as a Supplementary Signage (Acceptable Vinyl)*

- *Avery Series 900 Supercast Metallic and Ultra Metallic, or similar*
- *Avery Series 900 Supercast Opaque, or similar*
- *Avery Series 900 Ultimate Cast Translucent, or similar*
- *Specialty films, including silver, gold, fluorescent and special effects at discretion of the landlord*
- *Avoid using Economy or Intermediate vinyl film, High Performance required*

TIER
TWO



Channel Letters



Illuminated Blade Signage



Embossed Metal Blade Signage



Acrylic Signage + Dimensional Lettering



Illuminated Channel Signage



Metal Pin Letters



Sculptural + Illuminated Blade Signage



Halo Illuminated Pin Letters



Individual Illuminated Channel Letters



Suspended Illuminated Dimensional