

Representing CERTIFIED PROPERTY INSPECTORS in British Columbia



HOME INSPECTION CONTRACT		
CLIENT:		(THE "CLIENT")
ADDRESS:		
CLIENT:		
ADDRESS:		
BENEFICIARY:		
ADDRESS:		
<u>INSPECTOR</u> : Nikolas Tanaka	65148	PI0476
Nikolas Tanaka	LICENSE #	ASTTBC PI NO.
HammerHead Inspection Services		
DOING BUSINESS AS:		-
DOING BUSINESS AS.		
Property:		
ADDRESS OF PROPERTY TO BE INSPECTED		
		Send to Realtor
DATE OF INSPECTION	TIME	INITIAL TO GRANT PERMISSION TO
Fees:		FORWARD THE REPORT TO YOUR REALTOR (ONLY IF DESIRED - NOT A
	do.	REQUIREMENT)
BASIC FEE:	\$	
MISC. FEE:	\$	
GST #: 818842031RT0001	\$	
PST #:	\$	Email Address TO FORWARD REPORT TO (IF NOT ALREADY PROVIDED)
TOTAL:	\$	
This Agreement, made and entered into on this the purpose of a pre purchase inspection. The re-	day of , 20 in	, B.C. by the above named Clients for
This Agreement contains terms which limit th		• • •
this Agreement.	e natinity of the inspector. The	ise read carefully before executing
In executing this Agreement, you, the Client, acl	znoveladga that you have had ada	quata time to read the Agreement in its
entirety and, should you choose to do so, to obtain		
immediately below and returning this Agreement		e executing this regreement in the space
minimization out of and returning time rigidential	to the inspector.	
CLIENT (please print) CLIENT	(please print)	BENEFICIARY (please print)
CLIENT (signature) CLIENT	(signature)	INSPECTOR (signature)







TERMS AND CONDITIONS GOVERNING THIS AGREEMENT

1. Scope of Services

- 1.1 The Inspector will perform an inspection of the Property in accordance with the attached Applied Science Technologists and Technicians of British Columbia Property Inspectors (ASTTBC PI) Standards of Inspection approved by the Applied Science Technologists and Technicians of British Columbia (the 'Inspection'). ASTTBC PI is established under the provisions of the Applied Science Technologists and Technicians (ASTT) Act, to represent the professionally Certified House and Property Inspectors in British Columbia.
- 1.2 The Inspection shall be limited to a visual inspection performed by direct observation of existing conditions reasonably apparent at the time of inspection in accordance with the Standards of Inspection and Scope of Inspection.
- 1.3 Following the Inspection, the Inspector will provide the Client with a Report of the Inspection (the 'Report').

2. <u>Limitation of Liability</u>

This section contains the limitations upon any liability that may be imposed in law upon the Inspector arising from the professional services provided to you by that Inspector. Please read carefully.

- Any and all actions, causes of action, contracts, demands or claims, whether in contract, negligence, or otherwise known to law, which you may have arising out of services provided to you by the Inspector, hereinafter referred to as a "Claims" or "Claim", shall be regarded as a single claim subject to the further limitations of liability set out below.
- 2.2 The liability of the Inspector, whether in contract, tort (including negligence) or other cause of action known to law shall be limited to the lesser amount of \$50,000 or the amount of our professional liability insurance in effect as at the date of the Claim being made known to us and only to the extent that such insurance is available to satisfy the Claim. If this limit of liability is insufficient for your purposes, the Inspector would be pleased to discuss with you a different limit which, if greater than \$50,000, may result in our charging a higher fee.
- 2.3 If the Inspector is incorporated, you expressly agree that you will not bring any proceedings in any arbitration or court of any jurisdiction advancing any Claim against our professional staff and employees.
- 2.4 You expressly agree that any liability the Inspector may have to you shall not be joint and several with any other person, but shall be several only, and limited to the percentage or degree of the Inspector's fault in proportion to the fault or wrongdoing of all persons who contributed to the loss arising from the Claim.





- 2.5 The Inspector's liability for all Claims you may have or bring in connection with the professional services rendered or arising out of or ancillary to this Agreement shall absolutely cease to exist after a period of two (2) years from the date of:
 - a) Performance of the Inspection;
 - b) Delivery to you of our Inspector's Report;
 - c) Suspension or abandonment of this Agreement; or
 - d) Termination of the Inspector's services pursuant to this Agreement,

whichever shall occur first, regardless of whether you were aware of the potential for making a Claim against the Inspector within that period. Following the expiration of the aforesaid period, you agree that you shall make no Claim against the Inspector, the Inspector shall have no liability to you, and you shall not bring any proceedings of any kind known to law against the Inspector.

2.6 The intellectual material amassed from the Inspections is the property of the Inspector. The Report shall be prepared for the Client's information only and may not be used or relied upon by any other person unless that person is specifically named in this Agreement as a beneficiary of the Report, in which case the Report may also be used by the additional beneficiary named. The Client agrees to maintain the confidentiality of the Report and reasonably protect the Report from distribution to any other person. If the Client directly or indirectly causes the Report to be distributed to any other person, the Client shall indemnify, defend, and hold the Inspector harmless against the claim of any third party.

3. No Warranty

3.1 The Inspection does not constitute a warranty, an insurance policy or a guarantee of any kind.

4. Dispute Resolution

- 4.1 In the event of any Claim arising under this Agreement, the Client shall immediately give notice in writing to the Inspector of all particulars of the Claim and shall give the Inspector all reasonable opportunity to inspect the Property and, where appropriate, resolve the matters in dispute.
- 4.2 The Client acknowledges that any failure on the Client's part to give timely notice of all particulars of the Claim will deprive the Inspector of the opportunity to reasonably investigate and, where appropriate, resolve the Claim. In the event that the Inspector is prejudiced by the Client's failure to give notice of the Claim in accordance with Section 4.1 of this Agreement, then the Client expressly waives any right to recover from the Inspector any losses arising from the Claim.
- 4.3 Any dispute between the Inspector and the Client, except those for non-payment of fees, that in any way, directly or indirectly, arise out of, or relate to this Agreement or to the interpretation of this Agreement, the scope of the services provided to the Client, the Report or any other matter involving the services performed by the Inspector, shall, upon either party's election, be resolved in accordance with the British Columbia Commercial Arbitration Act (the 'Act'), by a single arbitrator appointed in accordance with the Act.







5. Other Provisions

- 5.1 Payment in full is due upon the completion of the Inspection and prior to delivery of the Report.
- 5.2 The validity or unenforceability of any provision in this Agreement shall not affect or impair the validity or enforceability of any other provision. The remainder of this Agreement shall remain in full force and effect.
- 5.3 This Agreement contains the entire agreement between the parties, and shall be binding upon and enforceable by the parties, their heirs, executors, administrators, successors and assigns.
- 5.4 The Client agrees to obtain permission from the seller permitting deactivation of the distribution portion of the electrical panel so that the cover may be safely removed by the Inspector to inspect the interior.
- 5.5 The Client shall ensure the Inspector has access to the property; that a designated party provides security for the property during the inspection process and that someone responsible for the property will ensure that the property is secured upon the Inspector's departure.
- 5.6 This Agreement shall be construed in accordance with, and governed by, the laws of British Columbia.
- 5.7 Where required, the singular shall be read in the plural, and the gender the masculine or feminine.
- 5.8 Time shall be of the essence of this Agreement, save as otherwise specified in this Agreement.





ASTTBC PI STANDARDS OF INSPECTION

Part 1: Glossary (CONTAINS ITALICIZED WORDS IN THIS DOCUMENT)

ASTTBC & ASTTBC PI: ASTTBC - The Applied Science Technologists and Technicians of British Columbia (see

http://www.asttbc.com/ for more information). ASTTBC is the certifying body for the members of ASTTBC PI. Applied Science Technologists and Technicians of British Columbia Property Inspectors

(see www.asttbcpi.org for more information).

COMMON AREA(S): In condominium and some cooperative housing projects, the areas not owned by an individual owner of

the condominium or cooperative residence, but shared by all owners, either by percentage interest or owned by the management organization. Common areas may include recreation facilities, outdoor space, parking, landscaping, fences, laundry rooms and all other jointly used space. Management is by a homeowners' association or cooperative board, which collects assessments from the owners and pays for upkeep, some insurance, maintenance and reserves for replacement of improvements in the common

areas.

DIRECT OBSERVATION: Observation within arm's length.

INSPECTED UNIT: (Relating to Multi-Family Dwellings) - Individual suite, apartment, or unit being inspected. Does not

include any common area(s).

INSPECTOR: Members of ASTTBC PI having the appropriate technical training, experience, knowledge, and

qualifications and who have been certified by ASTTBC with the designations of Certified House Inspector

(CHI) or Certified Property Inspector (CPI).

MULTI-FAMILY DWELLING: Building or group of buildings on a single lot arranged or designed for occupancy by two or more

families, with separate housekeeping and cooking facilities for each **and** where the individual family units have unique legal addresses. A house with a legal suite is **NOT** considered a Multi-Family Dwelling. The Multi-Family Dwelling usually refers to a condominium but can also refer to buildings under the control

of a Housing Cooperative, Single Owner Rental Apartment Complexes, etc.

QUALIFIED TRADES PERSON: A certified and licensed professional in their field (Plumbers, Carpenters, Electricians, etc.).

REGISTERED PROFESSIONAL: Individuals who are registered members of the Professional Engineers and Geoscientists of BC

(APEGBC) or the Architectural Institute of BC (MAIBC) or Applied Science Technologist – AScT

(ASTTBC) or Certified Technician – CTech (ASTTBC).

SPECIALIST: Individuals having the appropriate technical training, experience, knowledge, and qualifications for

obtaining a provincial license or trade qualification or; a REGISTERED PROFESSIONAL practicing

within their area of specialization.

VISUAL INSPECTION: Observation without the use of any specialized tools or equipment.

Readily accessible: In the sole determination of the inspector, visually observable and able to be examined without requiring

destructive measures; without risk to the inspector or others; without risk of damage to any item of personal or real property; without requiring the inspector to move, remove, damage, or disturb any wall, floor, ceiling, or window coverings; or any interior or exterior claddings or finish treatments; to move, remove, damage, disturb, climb upon, climb over, or straddle any item of personal property; to move, remove, damage, or disturb any landscape elements; or to interrupt the business of occupants, and not requiring disassembly or the use of any special protective clothing or special tools or equipment"





Part 2: Limitations of the Inspection

- 1. The Inspection is a VISUAL INSPECTION performed by DIRECT OBSERVATION of existing conditions at the time of inspection and shall be conducted by a CERTIFIED HOUSE INSPECTOR PROVISIONAL (CHI-P); CERTIFIED HOUSE INSPECTOR (CHI) or CERTIFIED PROPERTY INSPECTOR (CPI) (identified as the INSPECTOR in the rest of this document) acting in accordance to this ASTTBC PI Standards of Inspection approved by ASTTBC.
- 2. The Inspectors with <u>CHI-P and CHI designations</u> are limited to the inspection of single-family dwellings, duplexes, individual townhouse units, single units in apartment buildings and multi-family complexes up to a four units which shall commensurate with their level of certification, qualification, experience and knowledge. Inspectors with a <u>CPI designation</u> can inspect all residential properties as well as commercial, industrial or investment real estate property.
- 3. The Inspection is of a general nature and not that of a SPECIALIST. A SPECIALIST serves to provide additional analysis and opinion of adverse conditions or defects identified, beyond the scope of the inspection. CLIENTS SHOULD BE AWARE OF THE LIMITATIONS OF THIS INSPECTION AND ARE ENCOURAGED TO CAREFULLY CONSIDER ANY RECOMMENDATIONS FOR FURTHER INVESTIGATION, READ AND UNDERSTAND ALL PERTINENT STRATA REPORTS, DOCUMENTS, MINUTES, AND RECORDS, AND SEEK ANY FURTHER INVESTIGATION OR CLARIFICATION PRIOR TO PURCHASE.
- 4. The INSPECTOR shall NOT offer warranties or guarantees of any kind for any building system or component.
- 5. The ASTTBC PI Standards of Inspection does **NOT** cover or require the *INSPECTOR* to identify or report on the presence of asbestos, radon gas, lead paint, urea formaldehyde, toxic or flammable chemicals, and/or soil contamination.
- 6. The *INSPECTOR* is **NOT** required to perform any calculations or analyze any part of the building or components relating to design, engineering or architectural concepts, including, but not limited to the strength and adequacy, methods, materials, the efficiency of any system or component or compliance with any regulatory requirements, laws or bylaws.
- 7. The *INSPECTOR* is **NOT** required to locate, confirm, verify, or comment on property lines, borders and markers or any easements, right of ways, restrictions which may or may not exist against the subject property, buildings, dwelling or dwelling unit.
- 8. The *INSPECTOR* shall **NOT** comment on life expectancy, but may however offer an opinion based on the typical life cycle of a system or component.
- 9. The *INSPECTOR* is **NOT** required to provide cost estimates, quotations or comment on construction techniques and shall **NOT** advertise, or promote an individual contractor or person for any repairs, modifications, or improvements necessary.
- 10. The *INSPECTOR* is **NOT** required to dismantle any item or assembly to gain visible access, or move personal items, furniture, equipment, plant life, soil, ice or snow, insulation, or other debris, which obstructs access or visibility for the inspection. The Inspection Report shall identify by description (and photograph if possible) the obstruction that restricted visual inspection.
- 11. The *INSPECTOR* shall **NOT** perform any task, enter any area, or disturb any existing condition where, in the *INSPECTOR*'s judgment, damage could result, specialized safety equipment is required, or the safety of the *INSPECTOR* is endangered.

 The Inspection Report will contain a description (and photograph where possible) to confirm the presence of these conditions.
- 12. The *INSPECTOR* shall **NOT** comment on any system that is mechanically or electrically disconnected, including any equipment that is in the off position or is otherwise not operational. The Inspection Report will provide a limited description (if possible) of the system condition that prevented inspection.
- 13. The *INSPECTOR* shall **NOT** accept compensation, financial or otherwise, from more than one interested party for the same service without the consent of all interested parties.
- 14. The *INSPECTOR* shall **NOT** directly or indirectly offer, advertise or promote any other professional services relating to the advertising, sale, appraisal, or lending, of the subject building or property.
- 15. The *INSPECTOR* shall provide the Client a copy of the Engagement Contract, the Standards of Inspection and the Scope of Inspection in adequate time to review and approval prior to the Inspection. The Inspector shall not begin the inspection until the Client has communicated approval of the document.
- 16. The Inspector shall retain a copy of the Engagement Contract, the Standards of Inspection and the Scope of Inspection for his records that has been signed and initialed by the Clients.





Part 3: Scope of Inspection

Special Limitations to Scope:

- 1. In the case of *MULTI-FAMILY DWELLINGS*, it is the Client's responsibility to arrange access to all building *COMMON AREAS* requiring inspection. The *INSPECTOR* will not inspect any secured *COMMON AREA(S)* unless permission has been granted and access provided by an authorized building representative (Property Manager, Caretaker, Council Member, etc.).
- 2. Any component not directly identified on the individual *INSPECTED UNIT* as part of title and is generally believed in the real estate industry, as being maintained by the STRATA is defined as part of the *COMMON AREAS*. The inspection of *COMMON AREAS*
 - a) is limited to a cursory review of easily accessible *COMMON AREAS* appropriate in the circumstance and subject to any limitations; and
 - b) terms or conditions established by the recognized building representative. Identification of what is *UNIT ENTITLEMENT* and what is *COMMON AREA* is not the responsibility of the Inspector.

	An Inspector is <u>REQUIRED</u> to Inspect and Report on:	An Inspector is <u>NOT REQUIRED</u> to Inspection and Report on:
ROOFING		
SINGLE FAMILY	Roofing components and roof coverings Roof penetrations and flashings Roof drainage components, including gutters and downspouts Chimneys Report on any observed evidence of current/past water penetration and/or condensation	Accessories that do not make up part of the roof system, such as lightning arrestor systems, antennae, solar heating systems
MULTI-FAMILY/STRATA	As per single family dwellings except for those components located in COMMON AREAS outside of the INSPECTED UNIT Offer comments only of a general nature based on a limited observation of accessible roofing components located in COMMON AREAS outside of the INSPECTED UNIT	As per single family and; Roofing components (inc. chimneys) contained in a COMMON AREA not directly attributable to, and of sole use by the INSPECTED UNIT Observe and report evidence of water penetration that is beyond the interior of the INSPECTED UNIT
EXTERIOR		1
SINGLE FAMILY	Exterior wall surfaces, eaves and trim Doors, windows and flashings Garages and carports All entrances such as porches, decks, balconies, including stairs, guards and railings Observe and report on the impact of lot grading, landscaping, retaining walls, walkways, and driveways on the building. Test the operation of power operated garage door openers, including the stop and automatic - reverse function	Seasonal accessories such as removable storm windows, storm doors, screens and shutters. Storage sheds, yard fencing, and other structures not related to the building Any items or facilities not directly related to the building structure, such as recreational rooms, swimming pools, saunas, hot tubs, tennis courts, etc. Ground and soil conditions





	An Inspector is <u>REQUIRED</u> to Inspect and Report on:	An Inspector is <u>NOT REQUIRED</u> to Inspection and Report on:
MULTI-FAMILY/STRATA	As per single family dwellings except for those components located in COMMON AREAS outside of the INSPECTED UNIT Offer comments only of a general nature based on a limited observation of accessible exterior components located in COMMON AREAS outside of the INSPECTED UNIT	As per single family and; Any Exterior component contained in a <i>COMMON AREA</i> not directly attributable to, and of sole use for the <i>INSPECTED UNIT</i>
STRUCTURE		
SINGLE FAMILY	Foundations and Framing Attics & Roof structure Crawl Spaces Adverse conditions in interior walls, ceilings, and floors	Observe and report on any evidence of water penetration, condensation, or mould Observe and report any evidence of deterioration from insects, rot or fire Observe and report as to the adequacy of any structural component or system
Multi-Family/Strata	As per single family dwellings except for those components located in COMMON AREAS outside of the INSPECTED UNIT Offer comments only of a general nature based on a limited observation of accessible structural components located in COMMON AREAS outside of the INSPECTED UNIT	As per single family and; Any Structural component contained in a COMMON AREA not directly attributable to, and of sole use for the INSPECTED UNIT
INSULATION & VENTIL	ATION	
SINGLE FAMILY	Insulation and vapour barrier in accessible attics, crawl spaces and unfinished basements Ventilation of attics and unheated crawlspaces	Concealed insulation, air and vapour barrier systems
Multi-Family/Strata	As per single family dwellings except for those components located in COMMON AREAS outside of the INSPECTED UNIT Offer comments only of a general nature based on a limited observation of accessible insulation and ventilation components located in COMMON AREAS outside of the INSPECTED UNIT	As per single family and; Any Insulation and Ventilation component contained in a COMMON AREA not directly attributable to, and of sole use for the INSPECTED UNIT





	An Inspector is <u>REQUIRED</u> to Inspect and Report on:	An Inspector is <u>NOT REQUIRED</u> to Inspection and Report on:
ELECTRICAL		
SINGLE FAMILY	Service entrance cable and location Main service panel and auxiliary panels Panel & Branch circuit over-current protection and system grounding Branch circuit wiring Amperage and voltage ratings of main service panel Inspect inside panels with readily accessible and removable panel covers designed for homeowner access Randomly select and operate a representative number of permanently installed light fixtures and outlets Outlets noted above are to be checked for polarity and grounding All exterior outlets and those within five feet of plumbing fixtures will be checked for polarity and grounding Verify presence and test the operation of ground fault circuit interrupters and arc-fault breakers	Secondary wiring systems such as security systems, low voltage wiring, telephone wiring, cable television wiring, etc. Insert or remove fuses, or operate circuit breakers Provide or remove power for equipment An Inspector is not to remove a circuit panel cover in the main or any auxiliary panels unless they have received permission from the owner to do so and have safely de-energized the system by means of the main breaker or are wearing appropriate personal protective equipment
MULTI-FAMILY/STRATA	As per single family dwellings except for those components located in COMMON AREAS outside of the INSPECTED UNIT and not including the testing of smoke detectors Offer comments only of a general nature based on a limited observation of accessible electrical components located in COMMON AREAS outside of the INSPECTED UNIT	As per single family and; Any Electrical component contained in a COMMON AREA not directly attributable to, and of sole use for the INSPECTED UNIT Test the operation smoke detectors forming part of a fire suppression system subject to annual inspection and certification by others Remove a circuit panel cover in the main or auxiliary panels where the INSPECTED UNIT does not contain a main breaker to safely de- energize the electrical system in the INSPECTED UNIT





	An Inspector is <u>REQUIRED</u> to Inspect and Report on:	An Inspector is <u>NOT REQUIRED</u> to Inspection and Report on:
HEATING, MECHANICA	L VENTILATION & COOLING SYSTEMS (PERMANENTI	y Installed)
SINGLE FAMILY	Heating and Cooling distribution systems, including where applicable fans, flue piping, vents, chimneys, dampers, pumps, supports, filters, ducts, piping, registers, radiators, and convectors Heat Recovery Ventilators The presence of manufacturer's built-in safety controls The presence of heating source in each room. Test systems using the thermostat or other similar standard operating controls Operate the individual exhaust fan ventilation systems Will recommend to Client to have any gas appliance present serviced by a licensed gas Contractor ASAP if documentation cannot be presented showing the unit has been serviced in the last calendar year	Portable heating units or cooling units such as window air conditioning units, portable humidifiers, and portable dehumidifiers Buried or underground fuel storage tanks or piping Ignite or extinguish pilot lights, change settings or conditions on equipment Observe if the heat and air distribution in the building is balanced or adequate
Multi-Family/Strata	As per single family dwellings except for those components located in COMMON AREAS outside of the INSPECTED UNIT Offer comments only of a general nature based on a limited observation of accessible Heating and Cooling systems located in COMMON AREAS outside of the INSPECTED UNIT	As per single family and; Any Heating & Cooling system component contained in a <i>COMMON AREA</i> not directly attributable to, and of sole use for the <i>INSPECTED UNIT</i>
PLUMBING		
SINGLE FAMILY	Main water supply piping into dwelling and any distribution piping, pipe supports, and any leaks in above piping systems Fixtures, faucets, and isolating valves Drain, waste and vent piping, pipe supports and insulation Hot Water heaters, including if present, fuel supply piping, flue piping, vents, chimneys, and verify the precence of required safety devices Interior sumps and pumps	Any item or facilities not directly related to the plumbing such as swimming pools, saunas, hot tubs, solar systems, etc. Any Water-treatment devices Automatic air vents Foundation drainage system and yard piping. Irrigation or fire sprinkler systems Observe the quantity and quality of water supply, and whether public or private Observe outdoor waste disposal systems located on the property or determine whether public or private





	An Inspector is <u>REQUIRED</u> to Inspect and Report on:	An Inspector is <u>NOT REQUIRED</u> to Inspection and Report on:
	PLUMBING CONTINUED: Water volume and pressure should be tested by opening the faucets to obtain a reasonable flow of one or more fixtures simultaneously, and at various locations in the dwelling Water drainage should be tested by draining one or more fixtures simultaneously, and at various locations in the dwelling Observe and report on the presence of crossconnections that could contaminate the potable water.	Operate any valve other than those used on a regular or daily basis by an /the occupant Ignite or extinguish pilot lights, change settings, or conditions on equipment
Multi-Family/Strata	As per single family dwellings except for those components located in COMMON AREAS outside of the INSPECTED UNIT Offer comments only of a general nature based on a limited observation of accessible Plumbing components located in COMMON AREAS outside of the INSPECTED UNIT	As per single family and; Any Plumbing component contained in a <i>COMMON AREA</i> not directly attributable to, and of sole use for the <i>INSPECTED UNIT</i>
INTERIOR		
SINGLE FAMILY	Floors, walls, ceilings, and trims Fire separating walls and party walls Stairs, guards, and railings Solid fuel burning appliances, including fireplaces and wood stoves Observe and report on the presence of smoke/heat/CO detectors and/or fire sprinklers Observe the condition of permanently installed counters and cabinets Randomly select and operate, where reasonably accessible, a representative number of doors and windows Observe and report on any evidence of water penetration and condensation	Treatments such as paint, wallpaper, carpeting, blinds, drapes, and other similar treatments Kitchen, bathroom, and laundry appliances Ignite or extinguish fires Observe fireplace insert installation Also see Exterior excluded seasonal accessories and excluded accessory buildings
Multi-Family/Strata	As per single family dwellings except for those components located in COMMON AREAS outside of the INSPECTED UNIT and not including the testing of smoke & heat detectors Offer comments only of a general nature based on a limited observation of accessible Interior components located in COMMON AREAS outside of the INSPECTED UNIT	As per single family and; Any Interior component contained in a <i>COMMON AREA</i> not directly attributable to, and of sole use for the <i>INSPECTED UNIT</i> Test the operation of smoke/heat/CO detectors and/or fire sprinklers