



Provincie Utrecht

Provinciehuis Utrecht

Utrecht, Netherlands

Underwriting information **PROPERTY DAMAGE
BUSINESS INTERRUPTION**

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1 GENERAL

1.1 General

1.1.1 Group Description

Province of Utrecht, the owner of the building, is one of the 12 provinces in the Netherlands. The province of Utrecht represents the administrative layer between the national government and the local municipalities. Their responsibility is for matters of subnational or regional importance.

1.1.2 Occupation

The 'Provinciehuis Utrecht' is an office building. It houses the headquarters of the Province of Utrecht since 2012. A small percentage of the building is leased to other organizations working for and in the Province of Utrecht, such as supporting services for the regional fire brigade.

It is a high-rise building with 19 above grade office floors and a below grade parking level for 679 vehicles. There is a main server room on the first floor. There are 13 small server rooms on the office floors in the tower.

On the ground floor level is a third-party managed cafeteria with commercial cooking equipment including deep fat fryers.

1.1.3 Figures

The Province of Utrecht is not a commercial organization. There is no revenue generated at this location.

1.1.4 Employees

Approx. 1,200 persons are employed at this location. The building is only manned by employees during office hours. Not all employees are directly employed by the Province of Utrecht.

1.2 Location

The site is located along the ring of Utrecht in a mixed area. The city centre of Utrecht is at approx. 2 km distance.

Direction	Distance M	Adjoining	SprinklerProt	ConstrFacWall
North	25m	Green land and public park	N/A	N/A
East	10m	Public road, Canal and residential area	N/A	N/A
South	30m from parking building 70m from office building	Office building	Yes	Glass facade
West	50m	Public road and office buildings	No	Glass facade

The site is easily accessible. The building is freestanding, and its premises are surrounded by a public road.

The building has a total footprint of about 18,000m² and has a total floor area of 55,884m². Of this 18,000 m² is used for parking. The building was built in 1995 and renovated in 2011 when the Province of Utrecht bought it.

1.3 Management Issues

1.3.1 Risk Management Policy

The building was purpose built in 1995 for the previous owner. The fire safety requirements during the design phase were of high standards. This approach was continued by the Province of Utrecht. As governmental organization they have an exemplary role. Compliance with regulations is a priority.

The company has onsite health and safety staff for this location. They are assisted by external professionals. Management audit systems are in place for health and safety. Housekeeping is at a good level. Smoking is only allowed at a dedicated smoking area outside the building. According to the site representatives no important losses have occurred at the site during the last 5 years. A preventive maintenance program is implemented. All maintenance is outsourced to Engie.

1.3.2 Security

The premises are not fenced in. Access to parking and building is controlled. An access badge is required to enter the building. Parking for visitors is outdoors. There is a reception desk manned by internal staff and security guards. Security guards make a closing round. Two security rounds are made in- and outside the buildings during daytime. This includes all areas. The building is not manned during night-time and weekends. Intrusion detection is provided. CCTV is covering the premises and all entrances. Images are monitored at the reception.

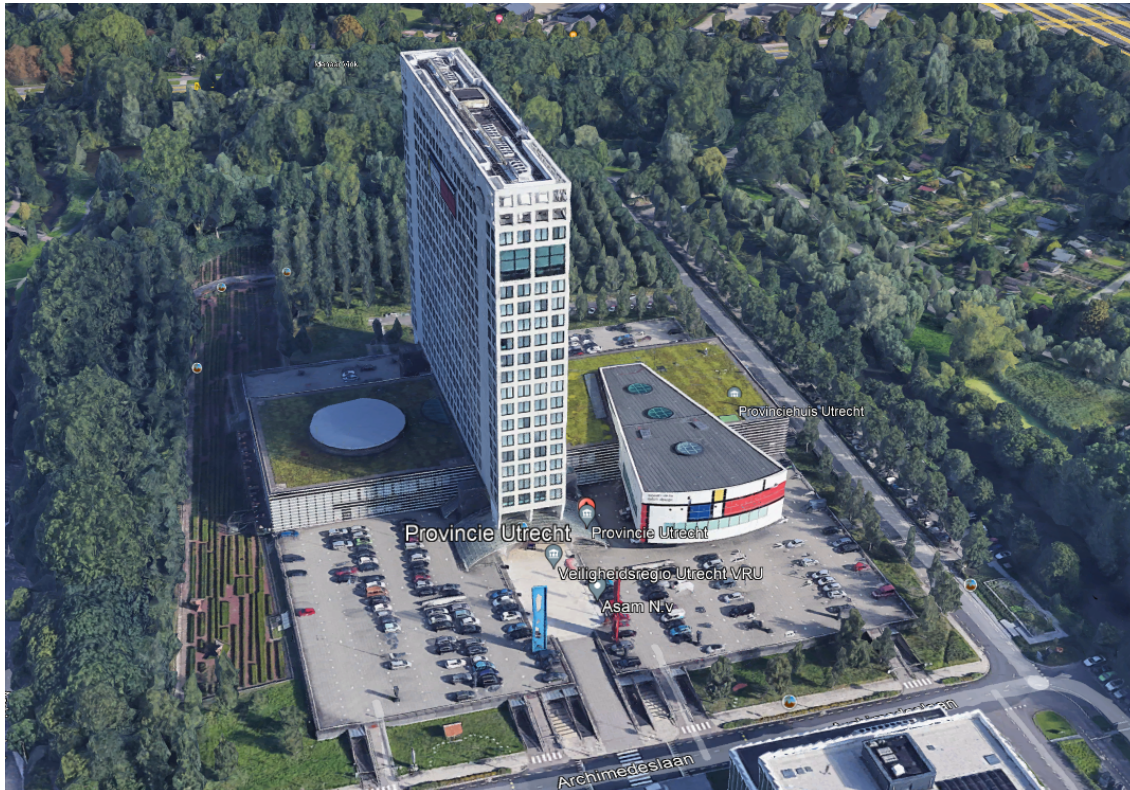
1.4 Recent Changes & Future Plans

The office floors +2 up to +6 are being renovated. The finishing and internal separations will be changed to create a new office environment. The ground and first floor will be renovated in 2022. The impact on fire safety is limited and expected to be positive. The sprinkler protection will be rerouted according to the new separations.

2 PROPERTY DAMAGE

2.1 Construction

The building was erected in 1995 and completely refurbished in 2011. The building has an underground parking level and a twenty-floor high-rise tower. The first two above grade levels of the building are several times larger than a floor level of the high-rise tower. The total floor surface of the building is 55,884m².



The entire building has a concrete load bearing structure with concrete outer walls. Only the first two above grade floor levels have a steel load bearing structure with glass facades. The high-rise tower has concrete exterior walls, a layer of mineral wool insulation and finished with aluminium plating. The windows in the tower cannot be opened with exception of some small vertical windows of 20cm by 75cm. Roofs are of concrete slabs. All false ceilings are of non-combustible materials.

Floor level	Floor Area (m ²)	Constr Class	Outer Walls	Insul Mat W	Roof Constr	Insul Mat R	Vert Supp	Hor Supp	Sto No	Sto Floor
-1	18,185	I	Glass	N/A	N/A	N/A	Concrete	Concrete	1	Concrete
0	5,693	II	Glass	N/A	N/A	N/A	Concrete/Steel	Concrete	1	Concrete
1	6,574	II	Glass	N/A	N/A	N/A	Concrete/Steel	Concrete	1	Concrete
2-19	25,432	I	Concrete	Mineral wool	Concrete	Unknown	Concrete	Concrete	1	Concrete

78 % class I and 22 % class II

2.2 Activities

2.2.1 Occupancy

It is a standard office building with a cafeteria with deep fat fryers and several server rooms. There is one large auditoria for political meetings.

Floor level	Occupancy
-1	Parking for 679 vehicles of which 50% is used by the neighbour
0	Restaurant, meeting rooms, logistics
1	Auditoria, meeting rooms, offices
2-18	Office floors
19	Technical floor

2.2.2 Process

There are no production processes to report.

The main onsite hazards are related to cooking and utilities. There is a commercial kitchen with deep fat fryers on the ground floor level. Sprinkler protection is provided but the extraction hoods above the deep fat fryers is not equipped with an automatic extinguishing system. The extraction duct of this hoods travels through the building in a one-hour fire rated cut off utility riser and exits the building at level 19. Deep cleaning of this duct is done annually.

A smaller kitchen is on the first floor. This kitchen is used occasionally during events. The setup is similar as described above with exception that the extraction duct exits the building immediately.

The installation of an extinguishing system in both extraction hoods is recommended.

There are 13 small server rooms in the high-rise tower. They are in fire cut off rooms and equipped with pre-action sprinkler protection. The main server room on the first floor is protected with a CO2 gas extinguishing system. The room is adequately sealed to be airtight.

A small woodworking shop is on the ground floor. A few sawing machines with dust extraction is present. It is used occasionally for small repairs. Housekeeping was good.

2.2.3 Auxiliary Processes

There are no auxiliary processes which require reporting.

2.2.4 Storage

A 75m² storage area with palletized office supplies in racks (2.5m storage height) is on the ground floor. Sprinkler protection is provided. The woodworking shops has no important stock of wood.

Material	Storage	StorageConditions	Amount	Location
Office supplies	Racks	Ambient temperature	75m ²	Level 0

2.2.5 Internal Transport

There is no motorized internal transport.

2.3 Utilities

2.3.1 Locality Heating

The entire building is heated with warm water from the district heating. Warm water at 70°C is received from the ENECO district heating. Heat exchangers are at basement level. Warm water is circulating through the building. Office spaces are heated via the air conditioning system.

2.3.2 Electricity

Electricity is supplied by the public utility grid at 10 kV. The power is supplied to the high voltage rooms located on the ground and 19th floor. There are two transformers on the ground floor and three on the 19th floor. Transformers are oil cooled. Transformers are owned and maintained by the utility company. The transformer room was not accessible. However, the presence of containment for oil is expected as this is required by local law.

The general low voltage panel is on the first floor and houses also UPS batteries (120 kVA). There are two other 120kVA UPS battery system on the underground level. An emergency power generator of 800 kVA is on the first floor. It is accordingly sufficient to supply an important part of the building during a power outage.

All electrical rooms are fire cut off and equipped with automatic fire detection.

20% of the low voltage installation is annually subjected to legal inspection according the NEN3140. This includes thermographic inspection. The generator is churn tested twice a month and annually with load.

All portable electrical appliances are inventoried and inspected periodically.

Charging stations for electrical vehicles are outdoors and not in the underground parking.

2.3.3 Process Control

There are no automated processes to report.

2.3.4 Gas

There is no natural gas supply from the public grid. The cooking equipment in the kitchen is electric. The heating is from district heating.

2.3.5 Oil

There is no important amount of oil used or stored at this location.

2.3.6 Compressed Air

There is no centralized compressed air system. The dry sprinkler systems have an individual compressor.

2.3.7 Steam

There is no steam production at this location.

2.3.8 Process Water

There is no process water.

2.3.9 Wastewater Treatment

There is no wastewater treatment unit. Wastewater is evacuated towards public sewer system.

2.3.10 Cooling

Cooling is provided to the air conditioning system via 3 glycol chillers located at roof level. A preventive maintenance schedule is in place. Maintenance is outsourced.

2.3.11 Ventilation

The building has air extraction and pulsation of cooled/heated fresh air in all areas. Air handling units are at different levels throughout the building. The ducts passing through fire walls have fire dampers. The ventilation system is subjected to preventive maintenance by a specialized contractor.

2.3.12 Air Conditioning

The ventilation system has air conditioning. Fresh air is cooled by ice water from the cooling towers (located outside at roof level) or heated by the warm water from the district heating.

2.3.13 Hydraulic Systems

There are no such systems.

2.3.14 Heat Transfer Fluid Systems

There are no such systems.

2.3.15 Inert Gas

There is no use of inert gas at this location. There is a CO2 gas extinguishing system in the main server room.

2.3.16 Flare Systems

There are no such systems.

2.4 Fire Protection

2.4.1 Public Fire Brigade

The nearest fire station to be alerted is the mixed fire brigade of Utrecht (Voordorp) located at 2.8km. The fire station is at a driving distance of approximately 6 minutes. Several other fire brigades are in a 10km radius. The fire brigade response is based on a mutual aid concept. A plan of attack is available. The fire brigade has not held a fire drill on the site.

2.4.2 Alarming

Activation of the sprinklers or gas extinguishing system automatically generates an alarm transmitted directly to the central alarm station of the fire brigade and a commercial alarm receiving station. Alarm of the automatic fire detection system are transmitted to the commercial alarm receiving station of Securitas who will verify the alarm during idle periods.

2.4.3 Water Supply

Two hydrants connected to the public water supply are near the main entrance of the building. Additional water for firefighting purposes can be obtained from the open water at 150m of the building. The total quantity of water is regarded to be sufficient for firefighting purposes. The sprinkler protection system has a dedicated water supply.

2.4.4 Private Fire Brigade

The Province of Utrecht disposes of a first response team trained in first aid, evacuation and the use of portable extinguishers. The team practises annually. The tenants must set up their own first response team.

2.4.5 Handheld Appliances

A sufficient number of hand extinguishers and fire hoses is installed throughout all floor levels. The equipment is maintained annually. Their visibility is adequate. Dry risers are provided in the high-rise section. The connections for the fire brigade are near the main entrance.

2.4.6 Automatic Sprinkler Systems

The entire building, with exception of electric rooms, is sprinkler protected. The tower and building were provided with sprinkler protection in 1994 according to VAS standard. The sprinkler protection in the underground parking level was retrofitted in 2011 according to NEN 12845, NEN 1073 and NFPA addendums.

There are four different sprinkler system densities:

- Dry system on the underground level: 5 mm/min over 270m²
- Dry system on the parking area of the underground level: 6.1 mm/min over 180m² (OH 1)
- Wet system on the low-rise floors: 5 mm/min over 216m² (NIII)
- Wet system on high rise floors: 5 mm/min over 72m² (6 heads) (NI)

The sprinkler system has 7 wet alarm valves, 6 dry alarm valves and several pre-action alarm valves. All valves are equipped with tamper monitoring.

There is an electric and a diesel booster pump at ground floor level to feed two 25m³ buffer tanks, both located on the 19th floor level. These booster pumps (1,700lpm) take suction from a 183m³/h public water supply feed.

A B-inspection was done on the buffer tanks in 2021. Some repairs were made following the inspection.

The underground level up to the 10th floor level are supplied from the buffer tanks without the help of pumps (gravity). All other floors have sprinkler supplied from two electric pumps located on 19th floor level. One is supplied by the emergency generator. The electric pumps (make Van Wijk & Boerma) have a capacity of 1,000 lpm at 4 bar.

The automatic sprinkler installation is inspected annually by Bureau Veritas. During these inspections the design adequacy of the sprinkler protection system is verified as well as the maintenance, water supply (pumps), etc. The most recent inspection result was positive. Bi-weekly inspection and testing is done by a specialized contractor. Logbook was present.

2.4.7 Automatic Fire Detection System

Automatic fire detection is installed in all evacuation routes. The closing of the fire doors is triggered by the automatic fire detection system. Emergency manual push buttons are provided throughout. The system is inspected and maintained annually.

2.4.8 Other Detection Systems

The parking is equipped with LPG detection. Mechanical ventilation is activated in case of alarm.

2.4.9 Partitions

There is only one building on the premises.

The underground parking level is considered as one large fire compartment. It was divided in two fire compartments before the sprinkler protection was provided. This fire separation is no longer present. The first two above grade floor levels are considered as each a separate fire compartment. 30-minute fire rated glass is at several locations on the ground and first floor.

The upper floors are horizontally fire cut off from each other. The floor-to-floor height of the tower levels is 3.85m. There are no large windows which can be opened. A horizontal protection against an external vertical fire spread is not provided. The façade has mineral wool insulation. A spandrel height is estimated to be 1.2m. These elements are sufficient to prevent a vertical external fire spread under normal conditions.

Technical rooms and storage rooms are fire cut by 60-minute rated fire walls. The ventilation shafts that pass through fire walls are equipped with fire dampers. The tower has one compartment with several elevator shafts and two fire cut off staircases.

The tower has 4 technical risers which are fire cut off and have a fire resistance of 60-minutes. Electrical shafts are horizontally fire cut off at each floor level. Shafts with water pipes and air ducts are horizontally fire cut at every 4th floor level.

Fire sealing around cable and pipe penetrations can be rated good. An annual inspection is done by a specialized contractor.

2.4.10 Earthing/bonding

There is no need for earthing and bonding of equipment with exception of the roof top equipment. The earthing and bonding of it is inspected during annual lightning protection system maintenance.

2.4.11 Lightning Protection

The high-rise tower has been provided with lightning conductors. The lightning conductor system has been designed and installed in accordance with NEN 1014. Maintenance is performed once per year.

2.5 Management Aspects

2.5.1 Smoking Regulations

There is a formalized smoking ban in the entire building. There is a designated smoking area near the main entrance. This area will most likely disappear soon. "No smoking" signs are present. No illicit smoking was found during our site tour.

2.5.2 Waste Handling

The collected waste is located near the back entrance of the building in closed containers at approx. 5m from the buildings. The containers are emptied on a regular basis by Van Ganssenwinkel. The arrangements are adequate.

2.5.3 Hot Work Permit System

There is no formal hot work permit system. However, precautions are taken in case hot work must take place inside the building. This is managed by the technical department.

2.5.4 Self Inspection

Two security rounds are made in- and outside the buildings during daytime. This includes all areas. These inspection rounds are focussed on security, safety and housekeeping. The infractions are formally reported.

2.5.5 Emergency Organisation

The site has a first response team ("Bedrijfs Hulp Verlening") which is trained to act in case of emergencies (extinguishing, evacuation, first aid). Training programs are kept annually. An emergency plan is present. Evacuation exercises are held annually.

2.6 Other Perils

2.6.1 Explosion

There are no potential explosion sources at this facility. There is no gas, except the potential presence of LPG cars.

2.6.2 Impact, Collision

There is an impact risk at ground floor level due to a visitors parking in front of the main entrance. Vehicles drive directly along the glass façade without any mechanical protection.

2.6.3 Burglary

The building is not fenced in. The electronic intruder alarm system comprises of door contacts on all exterior doors and passive infrared detection. Alarms are transmitted to a commercial alarm receiving station who will send a security patrol. Closing rounds are made by a security company. CCTV is provided around the building. There are no theft attractive goods.

2.6.4 Riot, Civil Commotion, Vandalism, Malicious Mischief

The building is in a quiet area which does not increase the exposure. This type of events may occur in case the Province of Utrecht or other public entities are targeted. The likelihood is low, but it cannot be excluded.

2.6.5 Aircraft

The nearest airport is a military airport (Soesterberg), located at approx. 5 km, northeast of the building. The facility is not located in the direction of one of the take-off / landing lanes.

2.6.6 Collapse

The risk of collapse is considered minimal. The building was constructed in 1994 and is of a solid concrete construction. The earthquake exposure in the area is very low.

2.6.7 Windstorm

There is a moderate possibility of a windstorm hazard in the area. The building is in a Swiss Re Windstorm zone 5. Windstorm zone 1 is considered as the lowest exposure and windstorm zone 9 the highest. The building is not highly susceptible to windstorm damage. The premises are clear of loose objects and debris that could be turned into projectiles by a stray gust.

2.6.8 Earthquake

There is no possibility of an earthquake hazard in the area of the site. The Earthquake Zone is Zone 1 per the Swiss Re EQ maps. Zone 1 is considered the lowest possible exposure.

2.6.9 Flooding

The building is in a flood zone with a return period of 100 year ('Middelgrote Kans') according to local flood maps, which are considered more accurate than Swiss Re flood maps. Only the parking level will be flooded as the ground floor level is raised a few meters. Most of the utilities with exception of the heating and sprinkler system are on the ground floor level or higher.

2.6.10 Water

The site has not suffered from losses due to heavy rainfall in the past. The content is moderately susceptible to water damage. There is no high value equipment susceptible to water damage with exception of IT equipment in server rooms.

2.6.11 Subsidence

The site is located on flat land, there are no signs of potential subsidence. There are no mining activities in the neighbourhood.

2.6.12 Landslide

The site is located on flat land, there are no signs of potential landslide.

2.6.13 Loss Estimates

Date: 15-9-2021

Line	Section	Indemnity Period	Value	Currency	Value Source	EML(%)	MPL(%)	LE Source
Property	Buildings		116,303,000	EUR	Insured value	1.5	50	Risk Engineer
Property	Business Interruption	12 months	0	EUR	Insured value	/	/	Risk Engineer
Property	Equipment		8,847,000	EUR	Insured value	1.5	50	Risk Engineer
Property	Stocks		0	EUR	Insured value	/	/	Risk Engineer

Section	EML (%)	MPL (%)
Material Damage	1.5	50
Business Interruption		
Combined (Property)	1.5	50

Section	Definition	Scenario
EML (%)	See Estimated Maximum Loss Definition (CEA 1999)	Any fire will be detected and controlled by the sprinkler protection system. The alarm response and fire brigade response are good. We assume a fire in the non-protected deep fat fryer at the commercial kitchen at ground floor level. The extraction hood is not protected. The sprinkler protection will not be activated promptly. We expect the fire to spread vertically into the extraction duct (up to level 19), but to be contained within the 1hr fire-rated service riser. The sprinkler protection in the kitchen will be activated once the fire/heat spreads out in the kitchen. The fire brigade will respond quickly and control the fire. The kitchen and extraction will be severely damaged. We assume a building and content damage of 1.5%. The impact on the office activities is very limited.
MPL (%)	See Maximum Possible Loss Definition (CEA 1999)	In this scenario we assume the entire sprinkler protection system is impaired. A fire on the parking level can in this case only be detected at a late stage by staff. The fire brigade will be alerted and respond quickly. We assume the fire will be fully developed by the time the fire brigade arrives. The fire brigade will not be able to extinguish/control the fire on parking level under MPL conditions. We assume a vertical fire spread to the ground floor and first floor will occur. The fire brigade will only be able to control the fire at first floor level before it spreads to the tower. This because of the non-combustible construction, fire separations and limited fire load. We assume a partial collapse of the steel structure of the ground floor and first floor level. We do not expect a structural collapse of the concrete construction. The structure of the tower is a standalone concrete structure. About 45% of the floor surface is damaged by fire and another 20% by smoke. There is a limited salvage potential for the concrete constructions damaged by fire. The overall building damage is estimated at 50%, the content damage at 50%. The rebuilding time is expected to take up to 6-9 months.

2.7 Photos



Parking entrance (south view)



Main entrance



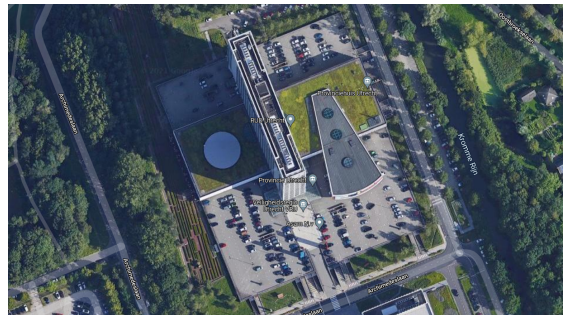
Parking



Ground floor



View from east side



Aerial view

2.8 Site Overview



3 BUSINESS INTERRUPTION

3.1 General Financial Information

The Province of Utrecht is not a commercial organization. There is no revenue generated at this location.

A small part of the spare offices is let to organization working in or with the Province of Utrecht. This is however not the core activity.

3.2 Buildings

The replacement value of the building is € 116,303,000. The total building surface is 55,884 m². The total rebuilding time is estimated at 24 months.

3.3 Utilities

The main utility that could affect the activities is electricity. The power supply is however highly reliable and there is an emergency power generator for an important part of the building.

3.4 Administrative Data Processing

All server rooms are adequately protected by adequate fire extinguishing systems. A back up power supply is available. Adequate back up procedures are in place.

Standard Classification	
Introduction The objective of the Standard Classification Building Construction is to categorize major types of construction primarily on their relative fire hazard and resistance. The classification, into six classes, offers a view of the building's fire resistance, combustibility, and contribution to fire spread and its additional fuel loading to the contents of the building. The majority of buildings fit in one of the six classes. In exceptional cases where a construction type does not fit neatly into one of the six classes, its characteristics are expressed by a combination of the two nearest classes (E.g. class III/IV). The six classes are defined below, including examples of type of constructions fitting in the particular category.	
CLASSIFICATION	EXAMPLES
Class I: Fire Resistive (F.R.) Completely non-combustible building construction of which the walls and roof(s) including the load-bearing construction will withstand a fire to be expected - under MPL circumstances - within the building for at least two hours without structural failure. If applicable, building insulation is non-combustible. In principle all (storey) floors and partition walls are non-combustible and have fire resistance ratings of not less than two hours.	Brick and/or (cellular) concrete walls. Roofs of reinforced (cast) concrete or prefabricated (cellular) concrete slabs. Cast-in-place or pre-stressed concrete columns and beams or laminated timber columns and beams having at least a two hours fire rating. Where pre-stressed concrete elements or protected steel-frame construction is used, a sufficient thick concrete cover over respectively the preloaded cables and the structural steel is applied to achieve at least two hours fire rating. Where steel tension rods are fitted, these are protected to withstand a fire for at least two hours without structural failure. (Storey) floors and partition walls are concrete or brick. A limited quantity of combustible and/or less fire resistive material in floors, partition walls, ceilings etc. is allowed if this will have no effect on the overall fire resistance of the building.
Class II: Non-Combustible (N.C.) Building construction according to class I, however with a load-bearing construction which will <u>not</u> withstand a fire to be expected - under MPL circumstances - within the building for two hours. Combustible insulation material <u>on top</u> of the roof(s) is permitted in those cases where a fire originating on the roof cannot in any way spread into the building concerned or to any adjacent roofs/buildings.	Walls and roofs according to class I, however a load-bearing construction of exposed steel (or fire resistively encased) or laminated timber, of less than two hours fire resistance.
Class III : Light Non-Combustible (L.N.C.) A (almost entirely) non-combustible construction of which the building materials do not (or hardly) contribute to fire spread. It does not contribute significantly to a fire originating in the contents of the building. The construction will not withstand fire temperatures for more than a few minutes without damage or structural failure. In principle all (storey) floors and partition walls are non-combustible. A limited quantity of combustible material in floors, partition walls, ceilings etc. are allowed, only if it has hardly any effect on fire spread in the building.	Walls of brick, (cellular) concrete, steel/aluminium panels with non-combustible insulation. A roof of corrugated asbestos, steel/aluminium sheets or plain wood wool-cement etc. Roofs insulated with non-combustible insulation on top or underneath the roof do fall in this category. (Exposed) steel load-bearing construction.
Class IV: Masonry (M) A building construction of which the walls are non-combustible and the roof is made of combustible material. Also a non-combustible roof <u>with combustible insulation</u> having fire behaviour at least comparable to a plain combustible roof falls in this category. (Storey) floors, partition walls, etc. may be of wood. Where in view of overall combustibility and fire spread, the configuration of combustible building interior is a dominating factor to an extent comparable with class VI construction, the building construction is classified as class VI.	Walls of brick, cellular concrete or (non-combustible insulated) steel/aluminium sheets. A roof made of timber or steel/aluminium sheets provided on top with combustible insulation material. (Exposed) steel or timber load-bearing construction. Also one or more wooden floors/mezzanines can be present. In this classification the combustible roof and possible wooden floors are the major differences in comparison with class III.
Class V: Light/Combustible (M/C) Building construction according to class IV, however in which <u>in</u> the walls <u>unexposed</u> (in cavity or intermediate layer in steel/aluminium sandwich panels) combustible insulation is present.	Similar to class IV, however in which the walls have also combustible elements, but shielded off by non-combustible cladding or wall panel.
Class VI: Frame (F) All other type of building construction, such as (almost) entirely wooden buildings or those buildings in which exposed combustible insulation contributes to a rapid fire spread comparable to completely wooden buildings.	Entirely wooden frame buildings and interior. Within this category are also buildings of which walls and roof are insulated with <u>exposed</u> combustible material, like in cold stores, in spite of their actual building construction.

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