



Medicine Hat Fire Service

Fire Prevention Branch
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Aboveground Flammable & Combustible Liquid Storage Tanks (AST)

Information Required on Submitted Drawings

One set of drawings stamped and signed by an engineer licensed to practice in the Province of Alberta – Alberta Fire Code Division “C” 2.2.3.1. for all tanks over 230 litres; inclusive of all piping and transfers systems requiring excavation. Unless otherwise specified all references are to the Alberta Fire Code 2006.

The following should form all or part of the submitted drawings

- Overall Site Plan Showing the site relative to adjacent streets and buildings.
- Site Finished Grades Indicating a spill is designed to stay on the property.
- Mechanical Site Plan Showing underground drainage (catch basins, piping, oil/water separator).
- Electrical Site Plan Emergency shutdown, horns, strobes, communication devices, etc.
- Piping System Underground layout, sumps and associated details.
- Tank Sections & Details Distances, tank size, product, supporting slab, collision protection, vent rack, static protection, spill containment

General Information to be included on the drawings or attached documents;

1. List of applicable codes and standards, product and tank size.
2. Dimensions, distances to tanks, buildings, property lines, dispensers.
3. Site classification – card lock, self-serve, full serve.
4. Emergency shutoff, communication devices.

Note: All drawings need to be complete & submitted no later than 30 days prior to the intended project start date. This will ensure there are no delays.

Detailed Check Sheet for what the Medicine Hat Fire Service requires on all drawings.

- | | |
|---|--|
| <input type="checkbox"/> Distance to property lines, buildings, propane tanks, adjacent tanks | AFC 4.3.2.
AFC 4.3.2.2.
AFC 4.3.2.3.
AFC 4.3.7.4. |
| <input type="checkbox"/> Collision protection (type & distance) | AFC 4.3.3.4. |
| <input type="checkbox"/> Venting including emergency vents | AFC 4.3.5.3. |
| <input type="checkbox"/> Provision for removing liquid from secondary containment | AFC 4.3.7.8. |
| <input type="checkbox"/> Piping & transfer systems, schematic drawing (listing the standards piping is designed to meet, c/w with identification as per CPPI standards) | AFC 4.3.1.7.
AFC 4.5.2.1.
AFC 4.5.3.1.
AFC 4.5.4.1.
AFC 4.5.5.2.
AFC 4.5.6. |
| <input type="checkbox"/> Statement that tank is installed in accordance with manufacturer's instructions | AFC 4.3.1.9. |
| <input type="checkbox"/> Spill control @ dispensing area – tank & vehicle | AFC 4.1.6.1.
AFC 4.3.7.1. |
| <input type="checkbox"/> Dispenser hose & dispenser sump details (ULC standards, shear detail, anti-syphon provision, etc.) | AFC 4.6.3.1.
AFC 4.6.3.3. |
| <input type="checkbox"/> Transition Sump detail (If applicable) | AFC 4.5.2. |
| <input type="checkbox"/> Line leak detection method (If applicable) | AFC 4.4.4.2. |
| <input type="checkbox"/> Fire Department access | AFC 4.3.2.4. |
| <input type="checkbox"/> Secondary containment to be used | AFC 4.3.7. |
| <input type="checkbox"/> All dike details (If applicable) | AFC 4.3.7. |
| <input type="checkbox"/> Tank support detail (see special note below) | AFC 4.3.3.1. |
| <input type="checkbox"/> Location of emergency shut off and communications device | AFC 4.6.4.
AFC 4.6.8. |
| <input type="checkbox"/> Identify what the site is to be used as (Cardlock, self-serve etc.) | AFC 4.6.8. |

- Bonding & grounding AFC 4.7.4.5.
- Valve details c/w identification as per CPPI standards AFC 4.5.7.
AFC 4.5.7.6.
- Applicable signage (No Smoking, Ignition Off, Tank contents – signage on 2 sides, etc.) AFC 4.6.8.8.

Special Note 1: Tank Support Detail – AFC – Subsection 4.3.3.

Within the City of Medicine Hat jurisdictional boundaries: “A gravel or ground support base for aboveground flammable & combustible storage tanks is not acceptable in the location of the tank(s) or dispensing system area”

The acceptable support for an aboveground tank is to be a **hard surfaced material** (concrete or asphalt) and not porous in any nature. It is to be designed (by an engineer) to carry the load of the tank when full.

The hard surface area is to include the storage tank system (*storage tank system: means a system for the storage and dispensing of flammable and combustible liquids and is not limited to storage tanks, associated piping, vents, pumps and dispensing equipment etc.*).

The hard surface area is to be sloped to a central location, within the hard surface area, to prevent accidental product spillage from leaving the area or site. This is an environmental concern and is designed to prevent seepage onto the surface and into underground area in an around the tank and dispensing area.

Exception: A ground or gravel support base is acceptable in a temporary situation AFC Division “C” 2.2.5.1. Temporary to the code is less than one year. This is to be submitted with a letter outlining the temporary dates and specifying the date the tank is to be removed from the site.

Once Complete all documentation needs to be submitted to the Medicine Hat Fire Service for Review. Failure to include items on this checklist may result in delays to the permit process.

