

What is a Swept Path Analysis?

A Swept Path Analysis is used to confirm that the proposed emergency access route is functional for emergency response vehicles. The Swept Path Analysis simulates the turning movements of the custom model vehicle, and is used to ensure that the length of the access route is unobstructed.

When is a Swept Path Analysis Required?

All Major Development Permit Applications shall include a Swept Path Analysis as part of the Fire Access Plan. Including a Swept Path Analysis with your Development Permit submission package supports a timely review by Fire Services.

What needs to be shown in the Swept Path Analysis?

The analysis should show the turning movements of the GPFD Aerial Platform Ladder Vehicle (inset), along with the swept path encountered by its overhangs. It should clearly show that no obstacles or obstructions exist along the vehicle's movement path. Please ensure all of the following items are considered including "margin of error" for paths:

- Parked vehicles must be considered/shown on narrow roads and shallow stalls.
- If multiple paths cross each other, please use different colors for tires/overhang to improve readability.
- The path must show continuous movement; no "corners" should be seen on the tire/overhang trajectories.
- Carefully review the trajectory inputs - only submit a Swept Path Analysis that confirms unobstructed travel accounting for rear "kickouts" and chamfered front bumper.

National Building Code (Alberta Edition)

A-3.2.5.6(1) Fire Department Access Route:

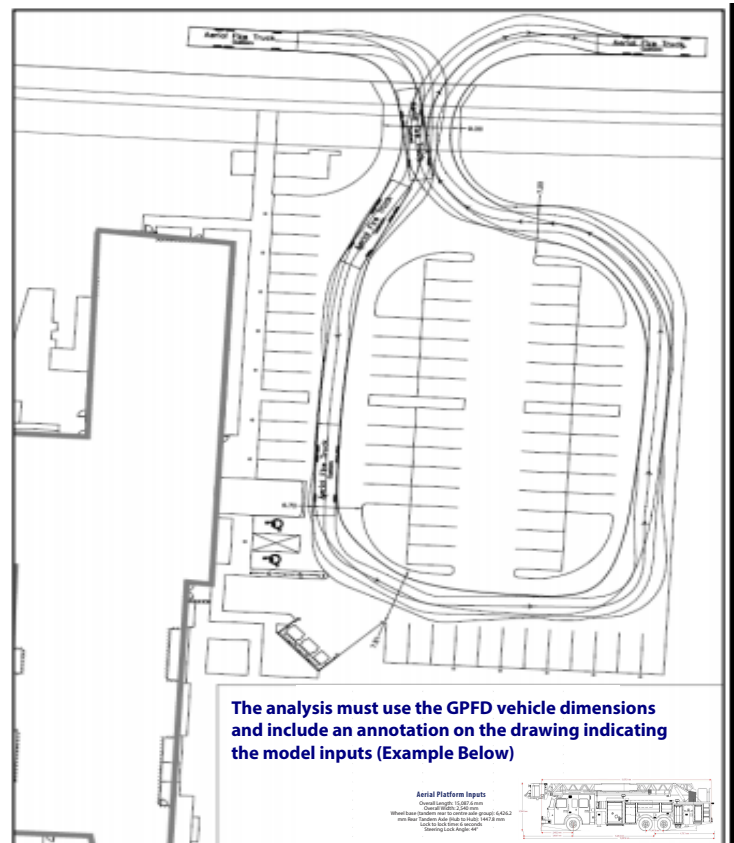
The design and construction of fire department access routes involves the consideration of many variables, some of which are specified in the requirements in the Code. All these variables should be considered in relation to the type and size of fire department vehicles available in the municipality or area where the building will be constructed. It is appropriate, therefore, that the local fire department be consulted prior to the design and construction of access routes.

Aerial Platform Ladder Configurations

- Overall Length: 15,087.6 mm
- Overall Height: 3759.2 mm
- Overall Width: 2,540 mm
- Wheel base (tandem rear to centre axle group): 6,426.2 mm
- Rear Tandem Axle (Hub to Hub): 1447.8 mm
- Lock to lock time: 6 seconds
- Rear Overhang: 4,724.4 mm
- Front Overhang to platform: 3,911.6 mm
- Gross Vehicle Weight Rating (GVWR): 38,919 kg or 85,802 lbs

Aerial Platform Turning Radius

- Turning Radius (100' platform)
- Wall Radius: 12,888 mm or 507"
- Bumper Radius: 12,294 mm or 484"
- Tire Radius: 10,922 mm or 430"
- Rear Axle Radius: 6,248 mm or 246"
- Steering Lock Angle: 44°





Ladder Truck - Dimensions & Turn Radius

