



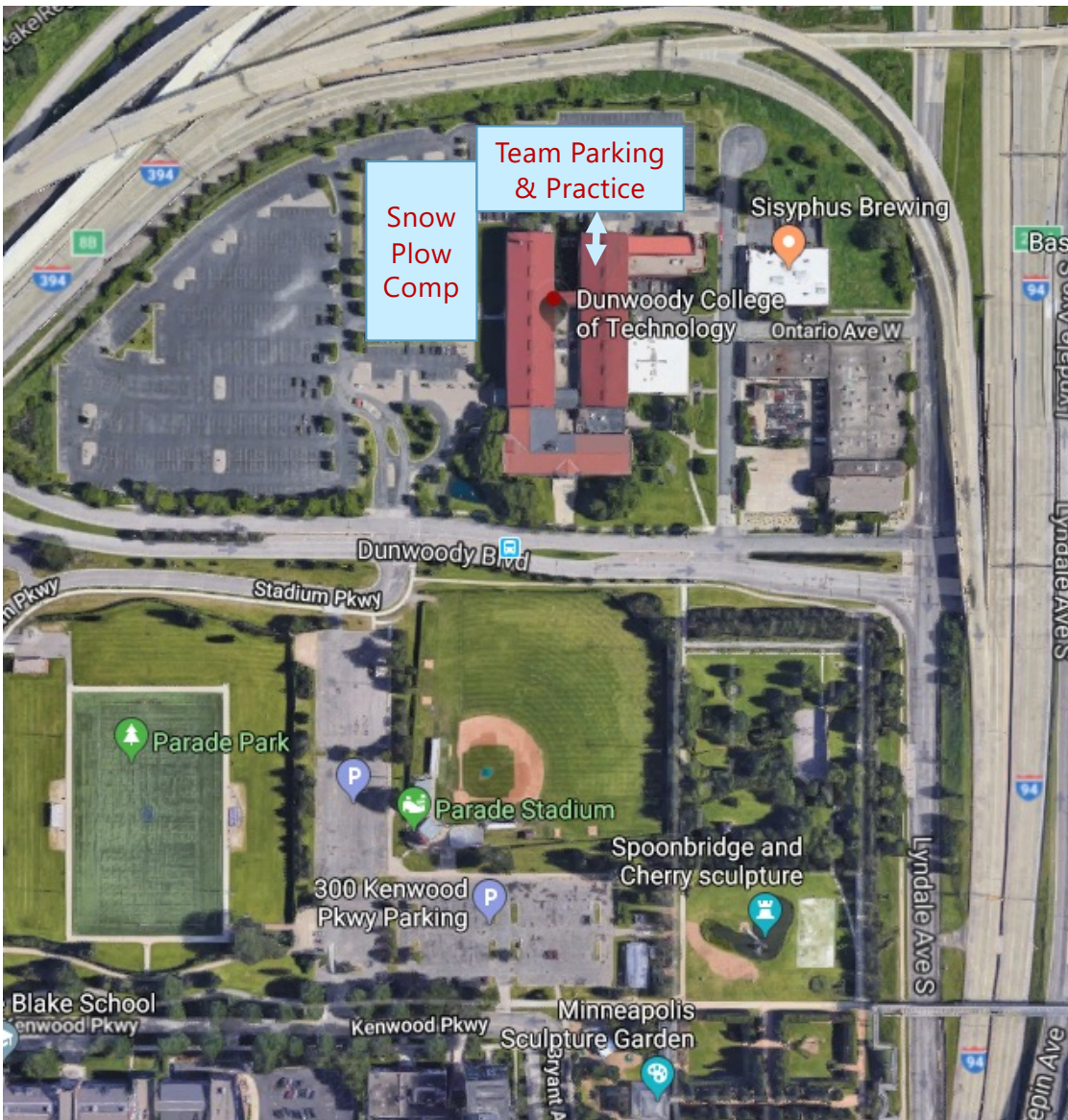
2022 Autonomous
SnowPlow Competition
January 21st – 22nd , 2022

Minneapolis, MN

DUNWOODY
COLLEGE OF TECHNOLOGY

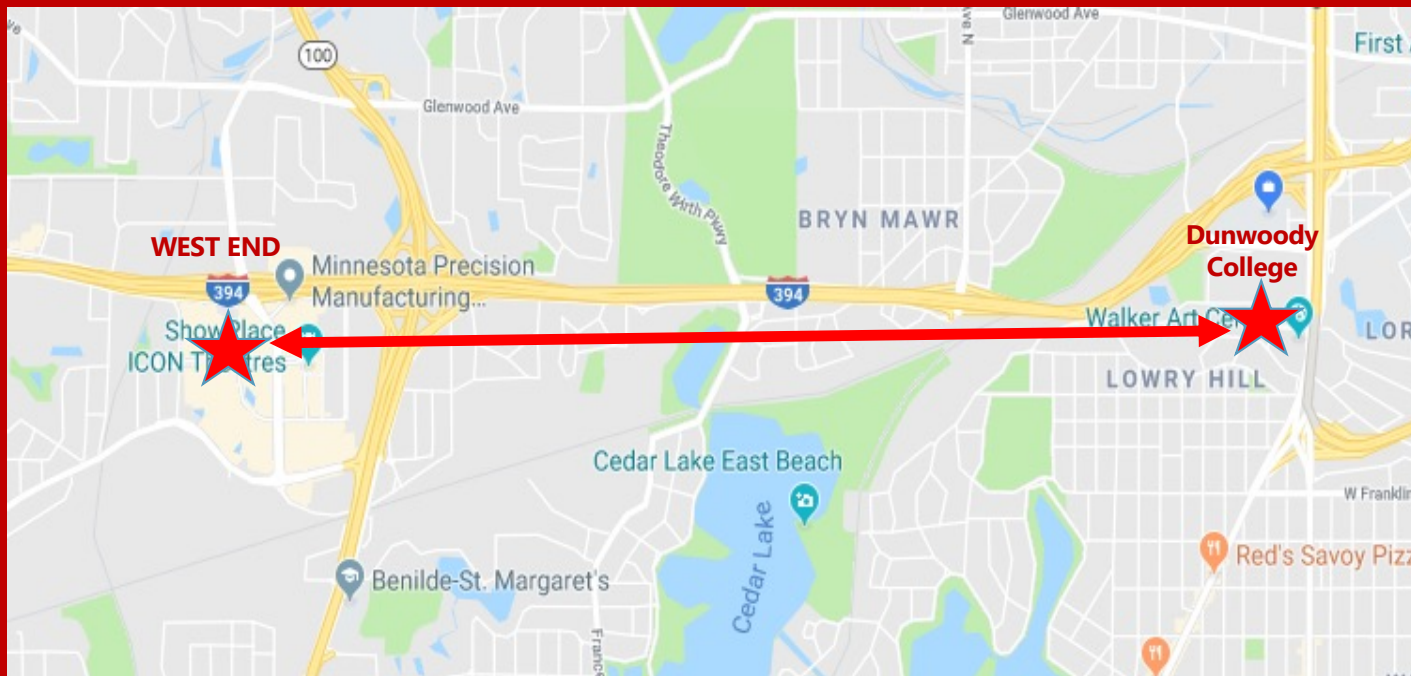
Venue

Dunwoody College
818 Dunwoody Blvd
Minneapolis, MN



Hotels, Restaurants, etc.

The West End of St Louis Park
3.4 mile drive to Dunwoody campus



Work Space

Indoor Pits

Tool Crib

Machine Shop

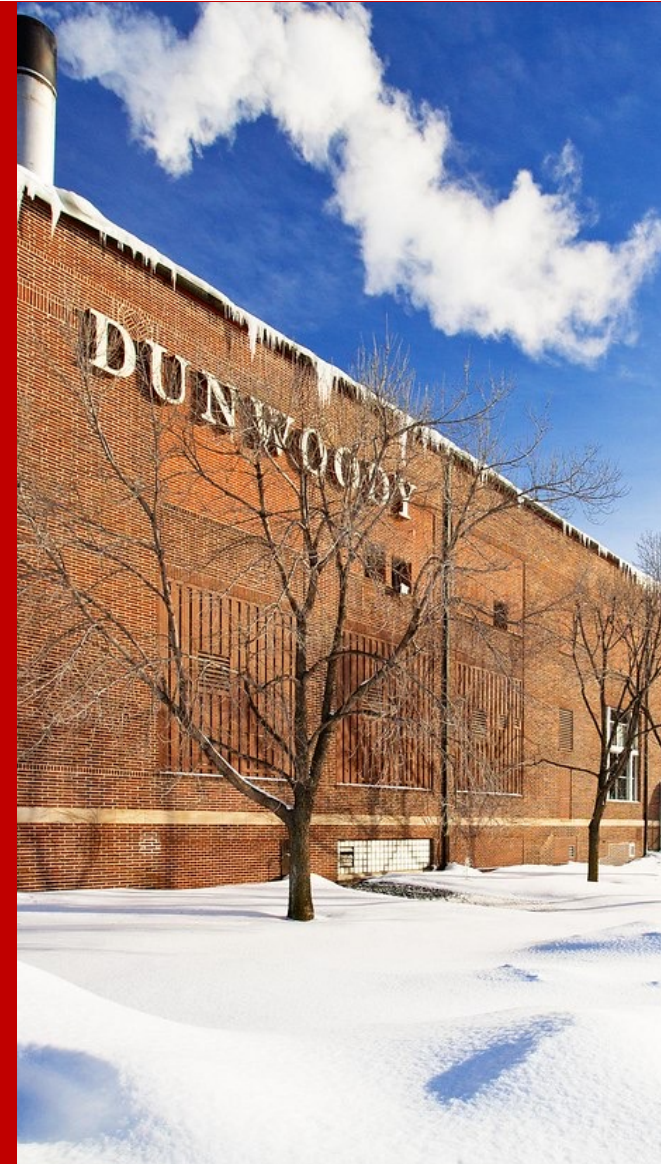
Food

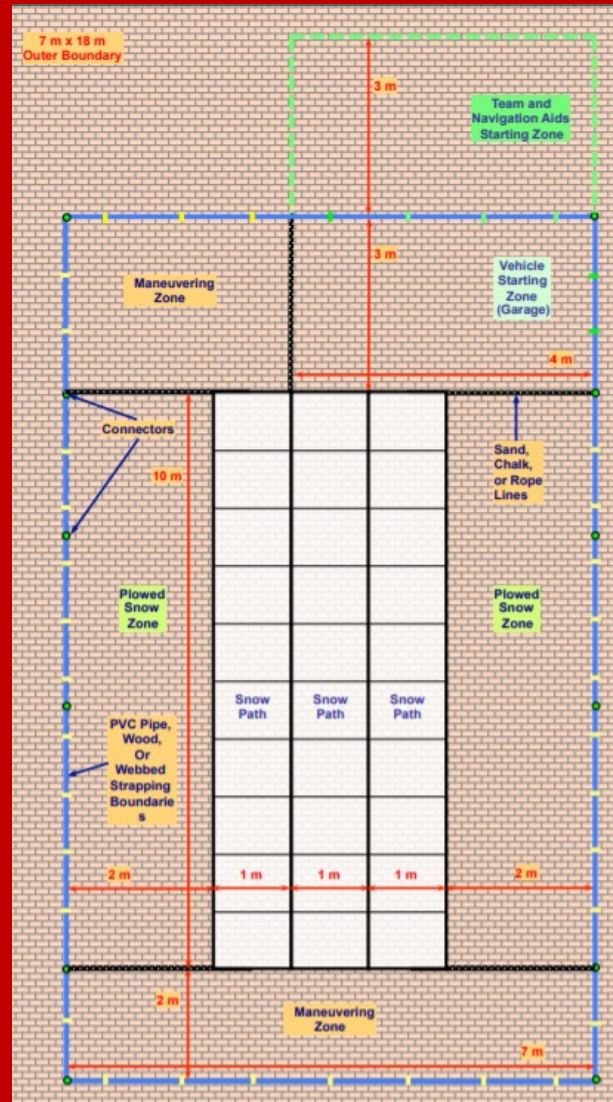
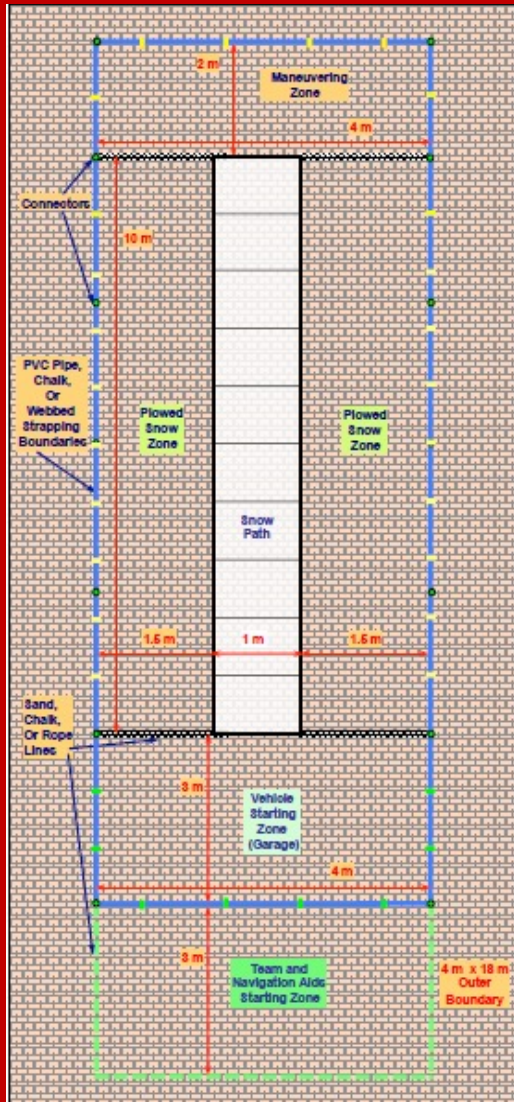


SAFETY GLASSES
REQUIRED

Important Dates

- 11/8/2022 ASC Kickoff Meeting
- 11/29-12/3 PDR Presentations
- 1/20/2022 Out of Town Teams Arrive
- 1/21/2022 FQR Inspections (9am-3pm)
- 1/21/2022 Posters & Reception (4pm-7pm)
- 1/22/2022 Single-I (8am-12pm)
- 1/22/2022 Lunch (12pm-1pm)
- 1/22/2022 Triple-I (1pm-5pm)
- 1/22/2022 Awards (5pm-6pm)





Competition Fields

Individual Single-I
Collaborative Triple-I

Vehicle Qualification

Final Qualification Review Vehicle Demonstration and Safety Inspection Checklist

Team: _____

Category	Initial Inspection	Additional Inspection
Snowplow Vehicle Physical Dimensions		
Length: ≤ 2 m		
Width: ≤ 2 m		
Height: ≤ 2 m		
Snowplow Vehicle: Tires		
Tires: rubber; plastic or rubber augmentations		
Snowplow Vehicle Speed Limit		
Software review (printout): ≤ 2 m/s		
Snowplow Vehicle Power & Ground		
Power Source: combustible fuel and/or batteries		
Electrical Ground		
Snowplow Vehicle Safety: Physical Kill Switch		
Color: red		
Diameter: ≥ 40 mm		
No protruding objects within 30 cm of Switch		
Vehicle Stop: ≤ 3 m from Switch activation		
No Single Point of Failure: demonstrate Switch routing to motor power cut-off		

Snowplow Vehicle Safety: Wireless Kill Switch		
Range: ≥ 50 m		
Vehicle stop: ≤ 3 m from Switch activation		
No Single Point of Failure: demonstrate Switch routing to motor power cut-off		
Snowplow Vehicle Safety: Navigation Sensors		
Sensors: lasers eye-safe (Class 1)		
Laser Harness: lasers safely mounted and secured		
Laser Boresight: points towards ground; angle at or below the local horizontal plane of device		

Navigation Aiding Sources: Operation		
Fluids or objects expelled by aiding source		
Navigation Aiding Sources: Power & Ground		
Power Source: batteries		
Electrical Ground		
Navigation Aiding Sources: Navigation Sensors		
Sensors: lasers eye-safe (Class 1)		
Laser Harness: lasers safely mounted and secured		
Laser Boresight: points towards ground; angle at or below the local horizontal plane of device		
Vehicle Operation		
Autonomous Operation		
Fluids or objects expelled by vehicle		

Questions

