

Test Course Capabilities

Who is GS Engineering?

GS Engineering, Inc. is an agile small business delivering advanced engineering solutions to military and commercial transportation markets through high value research, design, development, and correlated testing services.

What sets GS Engineering apart?

Our testing services are unmatched in the industry, featuring test teams of highly experienced engineers and analysts capable of on-site interpretation of initial data, quick reaction to adapt test plans in the field to solve our client's most difficult problems, quick-look briefings within one day of testing, and adaptability to dynamic programs. We have a proven history of delivering superior test efficiency, and minimizing clients' field test time and effort. GSE specializes in the planning, conduction, and analysis of complex vehicle tests, performed at military proving grounds, customer facilities, and our corporate test site located in Houghton, MI.

Test Course Features

- 423 Acres w/ gated access
- Build to suit terrain/obstacles
- Rugged, rocky terrain
- Multiple terrains for endurance testing, customizable to specific mission profiles
 - Fragmented Mine Rock
 - Embedded Rock & Rock Ledges
 - Sand Whoops
 - Trails
 - Improved & Unimproved Gravel Roads
 - Frame Twist / Deep Ditch
- Vehicle Maintenance & Repair
- Secure Storage Building
 - Locked Facility
 - Compressed Air
 - Vehicle maintenance/retrofit capable
- Data Acquisition & Reporting
- Weekend Support for Expedited Schedule
- Two shift operation (12 hour/day)



Off-road Vehicle Testing

- Absorbed Power, Paved 1" & 2" RMS – 500 ft
- 4", 6", 8", 10" & 12" Half Rounds w/ paved entry & exit ramps
- Multiple 6" & 12" Individual Half Rounds for customized course setup
- Paved Side Slopes – 20%, 30% & 40%
- Paved 60% Longitudinal Slope
- 15, 20, 30, 40 & 60% Gravel Slopes
- 18", 24" & 36" Vertical Steps
- Frame Twist & Deep Ditch
- Multiple terrains for endurance testing



GS Engineering utilizes Houghton County Memorial Airport for paved dynamic testing

Paved Area Features

Runway 13/31

- 6,501 ft x 150 ft grooved pavement
- Gradient 0.5%

Runway 7/25

- 5,196 x 100 ft grooved pavement
- Gradient 0.5%

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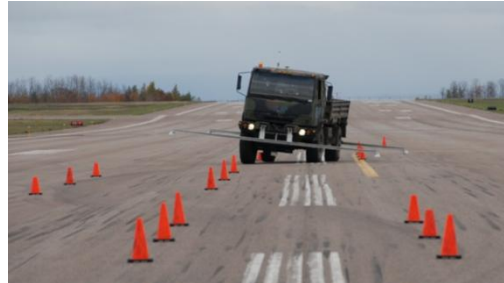
- 6,501 ft x 70 ft smooth pavement
- Runs parallel to runway 13/31

NW Ramp

- 870 ft x 374 ft total area
- Pavement type mixed

Hangar #2

- Used for vehicle maintenance, component swaps, weighing, sensor zeroing & outrigger install/removal



Paved Vehicle Testing

- Double Lane Change
- Sinusoidal Steer
- Constant Radius Circular Steer
- Ramp Steer
- Braking (FMVSS 105 & 121)
- Vibration Testing
- Maximum Speed
- Acceleration/Dash Speed
- Fuel Economy (Metered Flow)
- Turning Diameter
- Paved Endurance

Our team of experienced engineers is poised to work with you to meet your testing needs.

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