

TRC Inc. SMARTCenter facts:

Transportation Research Center Inc. (TRC Inc.) provides a wide range of engineering, research and development, and compliance and certification testing for the mobility industry. With 40-plus years of engineering expertise and industry knowledge, TRC Inc. serves the needs of industries, governments, trade associations, and educational institutions worldwide. TRC Inc. is located on approximately 4,500 acres of land in East Liberty, OH, 40 miles northwest of Columbus, OH. TRC Inc. operates 24/7 with a variety of facilities including road courses, wooded trails, 7.5-mile High-speed Oval Test Track and a 50-acre Vehicle Dynamics Area. On this expansive facility, TRC Inc. conducts programs designed to test for safety, energy, fuel economy, emissions, durability, performance, noise, crash simulation, and crash-worthiness. Programs evaluate performance of passenger cars, trucks, buses, motorcycles, airplanes, off-road, tracked, alternative-fueled vehicles and its components.

The SMARTCenter (Smart Mobility Advanced Research Test Center) will be a state of the art hub for development and testing of automated and connected vehicles. The facility is comprised of various test surfaces, intersections and connected infrastructure with a centralized control building. The SMARTCenter allows researchers to set-up and replicate a number of real world driving scenarios to test new AV/CV and infrastructure technologies.

- **Facility Objective:** Test highly automated and connected vehicles before deployment on public roads in a safe and controlled environment. The safe environment allows engineers to test challenging, real life, traffic scenarios without the risk to people or property.
- **Dedicated AV/CV Test Facility:** The SMARTCenter is a confidential and secure test area within the existing proving ground designed specifically for AV/CV testing. The test facility can be used as a self-contained area, or in conjunction with TRC's comprehensive existing test facilities
- **High Speed Intersection:** The high speed intersection is six lanes wide in each direction with the North-South leg covering 1.2 miles. At the center is a flexible signalized intersection with multiple traffic detection

systems and an advanced traffic control architecture. The intersection is suitable for high speed testing of passenger and commercial vehicles.

- **Urban Network:** The Urban Network consists of a diverse set of roadways and intersections including a circular vehicle dynamics area for simulation of roundabouts and oblique intersection scenarios. The Urban area is suitable for lower speed testing of a variety of environments
- **Control Building:** A 10,000sqft Control Building provides centralized control and coordination of testing, vehicle preparation and calibration, and office space for TRC's Applied Research Group
- **V2X communications:** DSRC and high speed wireless communications will cover the entire test site
- **Test Support Infrastructure:** An underground power distribution and fiber network will support current and future test technologies. The facility will be complimented by a large investment in test equipment including a variety of targets and data acquisition systems.

Fun Facts:

- \$45 million total funding
- Over 1.1 million square feet of pavement, or 18.5 lane miles
- Over 700,000 cubic yards of earth moved, or 51,000 truck loads
- More than 20,000 linear feet of underground conduits
- 450,000,000 gallons of detention ponds, or 681 Olympic sized swimming pools

Projected Timeline:

- Construction of intersection – complete by end of 2018
- Construction of control building – complete by Spring 2019
- Construction of urban area – start Spring 2019 complete late summer 2019

