

The Pace of Change

State DOTs Reap Rewards from Autodesk Integration



The pace of change is process dependent. Whereas in architecture design, imaginations are untethered; in civil engineering, the rigors of reality demand they be precise to the point of provability in every possible way. As a technology consultant for an industry-leading AEC technology consulting firm, my work puts me at the problem-solving table with some of the best minds in American transportation. From technology heads at state Departments of Transportation (DOTs) across the country to their counterparts at civil engineering firms large and small, VinZero U.S. CAD concentrates on helping clients get where they want to be with their technology so they can get to where they want to be with their business.

Held to the highest level of accountability—the public—DOTs combine the ever-constant pressure of moving people and commerce

across the state with the high-stakes financial considerations of a mega-corporation, the design and collaboration demands of an engineering firm, and the constant coordination of a statewide maintenance team, all within a politically charged, open-air arena. In that type of development atmosphere, it's not surprising that in civil engineering the tempo of change has been set by clients rather than consultants.

VinZero U.S. CAD works with state DOTs and clients across the full spectrum of civil engineering design and construction to synchronize the many disparate parts and pieces of the infrastructure-building process into a single, fully optimized technology solution. As an Autodesk Authorized Platinum Partner in North America, VinZero U.S. CAD retains a series of elite authorizations that allow us to provide best-in-class customer service and



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support through our dedicated consulting services.

In working with many state and local entities that build and maintain public highways, roadways and bridges, we have found they often operate in silos, where internal and external coordination can be a barrier rather than a boulevard. Although the move from paper to processor has been underway for more than half a century, civil engineering has always trailed architecture in software innovation. Even today, there are file racks and drawers filled with paper plans at DOTs and engineering offices all across America. Be it rigor or resistance, simply put: civil engineering is old school.

Change is coming, however. These days state engineers, designers and builders working on transportation infrastructure are walking finished work with the digital as-built design sets in their hands on tablets. Project files are being shared, reviewed and commented on in the cloud, and troves of existing geospatial data are being integrated into design files to streamline baseline site planning. And time wasted on archaic processes such as driving plans somewhere for a stamp or sending five emails to get utility locates and manually imputing them into the model is being reinvested for a more-productive and fulfilling work/life balance.

VinZero U.S. CAD is proud to point to our partner, Autodesk, as the primary propellant of all this change. Having already played a prominent role in revolutionizing the architectural industry through development and optimization of Building Information Modeling software for vertical construction, Autodesk continues to be a leading figure in 3D modeling and data integration on the civil side.

In 2019, Autodesk announced a partnership with Esri, a global pioneer in GIS-based problem solving, to amalgamate the tremendous volumes of data that already exist into Autodesk's industry-leading software platforms, including the civil engineering components. Today GIS data are being eloquently integrated into 3D models of everything from traditional infrastructure such as highways



and bridges to resiliency-focused regenerative programs that rethink responses to climate change.

VinZero U.S. CAD is proud to partner with DOTs and local government entities across the country in making the migration from disjointed software packages to the fully synchronized suite of solutions available from Autodesk. Leveraging the Autodesk line of products as a design platform, DOTs and their partners can see more, share more, do more and achieve more, all while recording a digital record set of each project's decision-making along the way. And that's just the tip of the iceberg.

Although civil engineering remains old school, the pace of change is picking up.

Learn more about VinZero U.S. CAD at www.uscad.com. **II**

