

# Connected workflows for road & highway projects with the AEC Collection



#### Create with ease

Create high-performing and resillient infrastructure with a set of BIM and CAD tools that support conceptual and detailed design through to construction.

# Explore what's possible

Optimize infrastructure projects with integrated analysis, generative design, and visualization and simulation tools.

#### **Build with confidence**

Improve predictability in the field with tools that maximize constructibility and project coordination.

# **Business Benefits**



Win more work
Access tools that enable you to bid for,

win, and deliver more business.



Improve operational efficiency

Automate tasks to reduce design time and improve handoff with streamlined data exchange.



Deliver more sustainable projects

Deliver projects that exceed performance requirements.



Reduce risk

Increase stakeholder buy-in, while reducing errors and rework.

# Capabilities

Using a connected BIM workflow, road & highway designers and engineers can more seamlessly conceive, model, optimize, and coordinate their designs with AEC professionals across disciplines and throughout the lifecycle of a project.



**Reality Capture** 



**Computational and Generative Design** 



**Conceptual Design** 



**Virtual Reality** 



Visualization



**Documentation** 



**Detailed Design** 



**Multidiscipline Coordination** 

# What the tools in the AEC Collection can do for you



AUTODESK\* Create detailed road and highway corridor models to reflect plans, sections, and quantity estimates.



Visualize existing conditions and create design concepts in their contextual environment and link detailed designs to the model.

## Survey



#### ReCap Pro

Design in-context with realitycapture and 3D scanning software and services, precisely measuring existing conditions.

# Planning & Conceptual Design



#### AutoCAD

Speed documentation, share ideas, and explore 2D and 3D conepts.



#### InfraWorks

Visualize existing conditions and create design concepts in their contextual environment



#### 3ds Max

3D modeling, animation and rendering software for design visualization and engaging virtual reality experiences.

## **Detailed Design**



#### Revit

Intelligent model-based tool to plan, design, construct, and manage infrastructure with support for multidiscipline collaborative design processes.



#### AutoCAD

Speed documentation, share ideas, and explore 2D and 3D concepts



#### Vehicle Tracking

Transportation analysis and design software built for vehicle swept path analysis.



# InfraWorks

Visualize existing conditions and create design concepts in their contextual environment



#### Project Explorer

Project Explorer efficiently navigates, interrogates, and reports on Civil 3D design models.



#### Dynamo

Automate tasks and workflows in a visual programming environment.



#### Grading Optimization

Grading Optimization automates surface terrain grading workflows for site design.

#### Documentation



#### ReCap Pro

Design in-context with realitycapture and 3D scanning software and services, precisely measuring existing conditions.



#### Navisworks

Integrated data from multiple sources to facilitate whole project review, coordination, and quantification.



#### Revit

Intelligent model-based tool to plan, design, construct, and manage infrastructure with support for multidiscipline collaborative design processes.



## Project Explorer

Create and customize detailed reports and summaries for corridors surfaces and other Civil 3D elements.



Simplify team collaboration and data management with a cloud-based common data environment

"The advantages of using Autodesk software go beyond just a common platform...its model-based design approach speeds up everything from the creation of alignments and surfaces to volume and earthwork calculations. And since the design model is dynamically linked to the quantities and documentation, we save considerable time when making design changes."

-Jessica Hunter Project Development Engineer New Mexico Department of Transportation

# Learn about AEC Collection at autodesk.com/aeccollection

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