



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

ROY COOPER  
GOVERNOR

JAMES H. TROGDON, III  
SECRETARY

August 14, 2018

**MEMORANDUM**

TO: Division Engineers  
Business Unit Heads  
Multi-Modal Division Directors

FROM: T. M. Little, PE  
Chief Engineer

SUBJECT: OpenRoads Designer (ORD) Migration

For the last two years, the Department has been engaged in the migration of its CADD operations to OpenRoads Designer (ORD). ORD is a comprehensive, multi-discipline 3D modeling application that advances the delivery of roadway projects from conceptual design through construction. It blends traditional engineering workflows for plan, profile, and cross sections with 3D parametric modeling to enable the model-centric creation of design deliverables. Since it is 3D model-centric design, many of the Department's current applications and workflows do not translate directly into the new software.

**Implementation Timeframe**

NCDOT has tentatively set the ORD implementation timeframe to be the first quarter of 2019. This should provide sufficient time to pilot a few projects to address remaining configuration and workflow issues, develop internal training content, and allow for a couple more ORD quarterly updates that will help mature the product.

**Training**

CADD Services will provide general ORD training for all internal users. Some units may provide their own unit-specific training, if necessary. Also, Bentley provides anytime online training that is freely available to all NCDOT users through the Bentley LEARN server.

No general ORD training for external private engineering firms (PEFs) is planned. PEFs are encouraged to explore the capabilities of Bentley LEARN online training as a resource for ORD training. There may be NCDOT specific ORD workflow training provided at NCLUG events or at any time as deemed necessary.

**More information to come**

There are still some significant items that need addressing prior to implementation, such as if all projects will be migrated to ORD or if nearly-complete projects will remain in SS2/SS4. If some remain, it will imply a transition period where both software versions (SS2/SS4 and ORD) are

maintained. This scenario seems likely at this point. Furthermore, workflows and deliverables will need to be scrutinized, and choices made on software customization versus workflow changes.

An ORD implementation presentation was given at the NCLUG conference and will also be given at the upcoming ACEC/NCDOT conference to be held September 18, 2018.

Thank you for your attention to this matter.

TML:tc

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