Guidance for SUR-Utility.dgn and SUR-Alignment.dgn File Development during Design-Level Survey Stage (1SY1)

As of 04/30/2025, TDOT will no longer require overall roadway existing ground profiles in the **SUR-Alignment.dgn** file during stage **1SY1** to show all existing drainage and utility (D&U) and survey control graphics via the following workflows:

- Profile run projections
- Profiled element projections
- 3D cut crossings

The **SUR-Utility.dgn** file should be completed with nodes, conduits, and profile runs (where required). This file should also contain all existing D&U and survey control features at the correct ground, invert, assumed vertical offset, and known vertical offset elevations based on the applicable node and conduit feature definitions to match the survey data from the SUR-Model.dgn file.

Where scoped on specific projects, bridge sketches, flood plain sections, stream profiles, and railroad profiles are required in the **SUR-Alignment.dgn** file during stage **1SY1**.

The **SUR-Utility.dgn** and **SUR-Alignment.dgn** files, in addition to all other survey deliverable files, will be reviewed and revised in a Context/Scoping (Stage 1) Quality Check before advancing to Roadway Design during the Develop Functional Design Plans stage (**2RD1**).

Proposed vertical alignments will be designed by Roadway Design during the Develop Functional Design Plans stage (**2RD1**) in the respective **DES-Alignments.dgn** files. **SUR-Utility.dgn** file information will be referenced and annotated by Roadway Design onto design profiles via existing D&U profile run projections, existing utility profiled element projections, and existing 3D cut crossings of D&U and survey control graphics.

SHT-Proposed Profiles.dgn, **SHT-Proposed Ramp Profiles.dgn**, and **SHT-Proposed Sideroad Profiles.dgn** files will be completed by Roadway Design and reviewed during Functional Design (Stage 2), Plan-in-Hand (Stage 3), and PS&E (Stage 4) Quality Checks.

Any referenced information discrepancies discovered in the **SUR-Utility.dgn** file during Stage 2, Stage 3, or Stage 4 plan production or equivalent Quality Checks will be resolved by the project's Geodetics Lead in the **SUR-Utility.dgn** file. The project's Geodetics Lead will then notify the project's Roadway Design Lead when revisions are completed in the SUR-Utility.dgn file and ready for incorporation by the Roadway Design Lead in the impacted **DES .dgn** and **SHT .dgn** files.

In all **.dgn** file exchanges, please remember that ORD versioning is very important and must always be taken into consideration. The ORD software version should be documented for all Geodetics and Roadway Design .dgn files in the **Comments** section of the **Survey Deliverable Checklists** (by the project's Geodetics Lead) and in the **Project Notebook** (by the project's Roadway Design Lead), respectively.

Please note references to Geodetics and Roadway Design in this guidance is also extended similarly to Geodetics Consultants and Roadway Design Consultants, external to TDOT.