

County: \_\_\_\_\_ Hwy: \_\_\_\_\_ Design: \_\_\_\_\_ Date: \_\_\_\_\_  
C-S-J: \_\_\_\_\_ ID#: \_\_\_\_\_ Check: \_\_\_\_\_ Date: \_\_\_\_\_

## 3D Model Completeness Checklist

The intent of this checklist is to ensure that all TxDOT 3D models are accurate, complete, and consistent on a statewide level. Statewide accuracy, completeness, and consistency are particularly important to contractors who partner with TxDOT on constructing projects, especially since contractors work in multiple districts. It is understood that not all projects will be the same size, but the checklist will help ensure proper accounting of applicable items within the scope of the current project at hand. To realize 3D modeling's full value potential, it is intended that the functions needed to complete this checklist will be performed by someone with a commensurate knowledge of the design software.

1.  N/A  OK Ensure all files (dgn) have the correct Geographic Coordinate System applied. (This is required when reviewing 3D models using a Web App.)
  
2.  N/A  OK Horizontal and Vertical Geometry files
  - 2.1.  N/A  OK Apply the appropriate Geometry Feature Definition respectfully e.g.:
    - 2.1.1.  N/A  OK Baseline
    - 2.1.2.  N/A  OK Frontage Rd
    - 2.1.3.  N/A  OK Intersecting Rd
    - 2.1.4.  N/A  OK Railroad Tracks
    - 2.1.5.  N/A  OK Retaining Walls
  
3.  N/A  OK Corridor files
  - 3.1.  N/A  OK Include all applicable Corridors files for the entire project:
    - 3.1.1.  N/A  OK Main Corridors (BL, ML, FR etc.)
    - 3.1.2.  N/A  OK Intersection Modeling files
    - 3.1.3.  N/A  OK Linear template modeling files, if applicable
  
4.  N/A  OK Bridge model files (OBM) [Note: the bridge input file can be generated to verify the below items]
  - 4.1.  N/A  OK Include Master Bridge model with bridge models referenced in
  - 4.2.  N/A  OK Include individual bridge models
  - 4.3.  N/A  OK Include bridge class culverts (created in ORD)
  - 4.4.  N/A  OK All bridge models seamlessly align with the corridor model
  - 4.5.  N/A  OK In each bridge model verify:
    - 4.5.1.  N/A  OK Span/unit widths and lengths

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- 4.5.2.  N/A  OK Support lines stations
- 4.5.3.  N/A  OK Number of beams
- 4.5.4.  N/A  OK Number and height of columns
- 4.5.5.  N/A  OK Number, size, and length of foundations
- 4.5.6.  N/A  OK Length of abutment and bent caps
- 4.5.7.  N/A  OK Rail type
- 4.5.8.  N/A  OK Approach slab, if applicable
  
- 5.  N/A  OK Terrain files (Existing & Proposed)
  - 5.1.  N/A  OK Existing ground terrains
  - 5.2.  N/A  OK Top of surface Terrains
  - 5.3.  N/A  OK Alternate surfaces upon request
  
- 6.  N/A  OK Superelevation files
  - 6.1.  N/A  OK Superelevation CADD Design files
  - 6.2.  N/A  OK Reports providing all superelevation data for ALL geometry requiring superelevation data
  
- 7.  N/A  OK Corridor Reference
  - 7.1.  N/A  OK Provide all relevant corridor refence files used for the entire project, e.g.:
    - 7.1.1.  N/A  OK EOP Files
    - 7.1.2.  N/A  OK Ditch Geometry
    - 7.1.3.  N/A  OK R.O.W.
  
- 8.  N/A  OK Corridor Stage Feature Definition
  - 8.1.  N/A  OK Ensure the Corridor Stage Feature Definition is set to a "Final Stage":
    - 8.1.1.  N/A  OK Final
    - 8.1.2.  N/A  OK Final w/Contours
    - 8.1.3.  N/A  OK Final w/Breaklines
  
- 9.  N/A  OK Title Sheet

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10.  N/A  OK Typical Sections

11.  N/A  OK Cross Sections sheets that encompass the entire project:

Include all Cross sections for ALL roadbeds for cross checking the 3D model

12.  N/A  OK Drainage models (DU)

12.1.  N/A  OK Labeled nodes (Station, offset, type, etc.)

12.2.  N/A  OK Drainage networks are shown in cross sections

13.  N/A  OK Utility model – if available

13.1.  N/A  OK Proposed utility model

13.2.  N/A  OK Existing utility model

13.3.  N/A  OK All utilities are shown in cross sections