

# 2 Data Transfer, Review, and Acceptance

## 2.1 Introduction

Section 2 defines requirements for the transfer, review, and acceptance of WSDOT electronic data deliverables. The requirements include what information is to be transferred, who is expected to provide the information (the supplier), who will receive the information (the customer), and who will approve the information.

Department suppliers refer to persons directly employed by WSDOT. Consultant suppliers refer to consultant firms hired to provide engineering services for WSDOT.

Following are several examples of electronic data transfers:

- A WSDOT Survey Group or consulting firm (the supplier) provides a InRoads survey dataset to a Design Group or consulting firm (the customer) for use in the design of a project.
- A Design Office or consulting firm (the supplier) provides an InRoads Design dataset to a Construction Office (the customer) for use during construction of a project.
- A consulting firm (the supplier) provides a InRoads dataset and MicroStation PS&E dataset for Stages I & 2 of a project to the WSDOT Headquarters (HQ) Design Office for use during Stage 3 of a project.

While this list is not all-encompassing, it does give examples of some of the electronic data transfers throughout the project development process.

## 2.2 Preparation and Transmittal of Electronic Data

Requirements for the submission of electronic data are as follows:

- The supplier shall provide the customer with the information in electronic format as described in the appropriate section of this document.
- Consultant suppliers shall submit files through the WSDOT office administering their contract. The WSDOT office receiving the data may ask WSDOT CAE Support to assist in reviewing any electronic data set for compliance.
- WSDOT suppliers shall submit files to department customers by making the electronic data available on a WSDOT network resource that is common to both parties and notifying the customer of that location.
- All electronic files shall be checked for computer viruses by the supplier immediately prior to submission. The supplier shall include a dated log file and a written verification of this virus check. The verification will include the name and version of the virus check software used and the date the virus check was performed. Files found to contain viruses will not be accepted.
- For every deliverable, a transmittal letter to the customer shall be prepared in Word format. This letter shall include the following:
  - Project information including name, project numbers, and description.
  - A submission number and date (e.g., Submission #1, 12/22/2004). Revisions shall be submitted under the original submission number and include a revision number and revision date (e.g., Submission #1, Revision #1, 1/7/2005).
  - The checklist appropriate for the product(s) being delivered as defined in this document.
  - A contents listing and location of the electronic data being transferred.
- All electronic data submissions shall be compatible with the current versions of CAE software in use by WSDOT as defined in the Level Playing Field standards.
- In general, all submissions shall be in accordance with the standards detailed in the current version of this document. However, with approval from WSDOT, consultant suppliers may submit electronic files that conform to previous versions of this document. The files must be compatible with WSDOT current CAE software standards. Written approval must be obtained from WSDOT in regard to the WSDOT electronic data standards that the consultant supplier is using for the submission. Requests for approval to use

previous versions of WSDOT standards shall be directed to and approved by the Project Manager/Consultant Liaison as applicable.

- The supplier shall ensure that the contents of all electronic files are the same as any “hard copy” information submitted (e.g., survey notes, paper plots, scanned images, or PDF files).
- The supplier shall name the files as stated in the appropriate section of this manual.

## 2.3 Acceptance of Electronic Data Submittals

### 2.3.1 All Files

The supplier is responsible for adherence to all standards and should use the same methods and guidelines as the customer to evaluate conformance prior to submittal.

The customer shall use the following guidelines in the evaluation of all electronic files:

- The customer may review and comment on the information submitted by the supplier to ensure conformance with WSDOT standards.
- The customer will run a virus check on every submittal prior to any other review. If a virus is encountered, the submission will be returned immediately and the supplier will be notified about what virus was found and what software package was used to discover it.

### 2.3.2 Drafting Files

The customer shall use the following guidelines in the evaluation of graphics files:

- Graphic files may be reviewed on a level-by-level basis to ensure adherence to WSDOT standards as described in this document, the *WSDOT Plans Preparation Manual (PPM)* and the *CADD Standards for MicroStation using Expanded Levels* supplement.
- Graphic elements may be analyzed using commands within MicroStation for conformance with the prescribed level, size, weight, style and other designated attributes.
- The customer may check submitted files for inconsistencies by reviewing tie points, stationing and dimensioning to ensure accuracy and consistency with the design data generated by other applications used on the project.

### 2.3.3 Survey Files

The customer shall use the following guidelines in the evaluation of survey files:

- The customer may review the data files for compliance with current WSDOT standard feature code usage.
- The customer may verify that the coordinate ranges are consistent with the project coordinate system including Northing, Easting, and Elevation values.
- The customer may verify that the calculation and application of the combined factor used are correct.

### 2.3.4 Surface Models

The customer shall use the following guidelines in the evaluation of Digital Terrain Models (DTMs):

- The customer may display features to look for inconsistencies between features in the DTM surface and elements shown in corresponding MicroStation base/proposed mapping files.
- The customer may generate contours and look for inconsistencies or anomalies.
- DTMs may be viewed from several view rotations (including isometric, front, and side views) to identify elements at incorrect elevations. Elements at incorrect elevations are not acceptable.
- The customer may generate profiles along the approximate centerline of all major roads and streams. The customer will review the profiles for unusual slopes and/or breaks.
- The customer may generate cross sections from the approximate centerline of all major roads and streams. Cross sections will typically be done at 10-foot intervals in most areas, and 1-foot intervals in

the vicinity of bridges and culverts. The limit of each section will be the approximate limit of survey. These sections will be reviewed for unusual slopes and/or breaks.

- The customer may display the triangles in a file to ensure that erroneous triangles have not been included.
- The customer may verify surface elevations using methods consistent with the accuracy attainable by the original method of collection.

### **2.3.5 Alignment Files**

The customer shall use the following guidelines in the evaluation of any alignments provided:

- The customer may display the alignments and coordinate geometry points in the design application to verify that they appear in the correct location in relation to the topography.
- The customer may generate InRoads/CAiCE report files based on the alignments and coordinate geometry points and compare them against the survey notes or plans submitted by the supplier for accuracy.

### **2.3.6 ASCII Files**

The customer may review ASCII files to ensure they are in a format consistent with the file content.

## **2.4 Rejection of Electronic Data Submittals**

Any data or files submitted that do not meet the requirements outlined in this document shall be returned to the supplier for correction. With the return of any data or files, the customer will provide a written explanation of all areas that do not conform to this document. The supplier shall be responsible for finding the source of the errors, correcting the errors, and resubmitting the files.

Any contacts between a consultant supplier and WSDOT will be done through the Project Manager or Consultant Liaison as applicable.

