LaDOTD Software and Deliverable Standards for Electronic Plans (2013-3)

Function	LaDOTD Software Standards	Consultant Software Standards	Deliverables	Comments
CAD Drafting	Bentley MicroStation V8.11.07.443 (V8i SS2) or V8.09 (XM) *AutoCAD where specifically authorized	Bentley MicroStation V8.11.07.443 (V8i SS2) or V8.09 (XM) or Autodesk AutoCAD 2008-2013**	MicroStation DGN	** MicroStation (one license) is required to translate all AutoCAD drawings to MicroStation format. _At DOTD's discretion (when specified in the contract) MicroStation may be required for the entire plan production process, and translations from AutoCAD format will not be allowed. _Consultants must upload MicroStation plan submittals directly into the ProjectWise discipline 'Plans' folder.
CAD Standards Management	Altiva CADconform (MicroSta.) V7.1.4 Altiva CADconform (AutoCAD) V7.3.84 *AutoCAD where specifically authorized	Altiva CADconform (MicroSta.) V7.1.51 Altiva CADconform (AutoCAD) V7.3.84	MicroStation DGN with Valid CADconform Certification Stamp	_Drawings may be created using the MicroStation or AutoCAD versions of CADconform. _If AutoCAD is used to produce the drawings; use MicroStation, with the appropriate translation tables, to produce deliverable DGN files. Then 'Certify' the DGN files as DOTD CAD Standard Compliant (indicated by valid compliance stamp) using CADconform running on MicroStation.
CAD Standards Quality Authentication	Altiva ContrlCAD> 'Check CAD Standards' (Administered by LaDOTD in ProjectWise)	Altiva ContrlCAD> 'Check CAD Standards' (Administered by LaDOTD in ProjectWise)	Approved ControlCAD Microsoft Excel Report	_DOTD reviewers use the ControlCAD 'Check CAD Standards' function to check for valid CADconform certification stamps; and for several other compliance factors. Output status reports must reflect 100% compliance by 60% 'Final Plans', or sooner if specified by the Project Manager. Substandard deliverables must be approved and documented (as to reason) by the Project Manager and Design Automation Manager.
CAD Indexing	ProjectWise Properties 'Attributes' Page (ControlCAD Indexer upon Request)	ProjectWise Properties 'Attributes' Page	Completed Document Attributes Values	_Consultants that produced XML index files using ControlCAD Indexer before CAD Standards Version 3.0 must upload these files(along with MicroStation DGN plans) according to guidelines in the 'LaDOTD Plan Delivery Transition Guide' (available on the CADconform menu).
CAD Attributes Quality Authentication	Altiva ContrlCAD> 'Check Attributes' (Administered by LaDOTD in ProjectWise)	Altiva ContrlCAD> 'Check Attributes' (Administered by LaDOTD in ProjectWise)	Approved ControlCAD Microsoft Excel Report	_DOTD reviewers use the ControlCAD 'Check Attributes' function to check for completed indexing attribute values. _Status reports must reflect 100% compliance by 60% Final Plans; unless substandard deliverables are approved and documented as to reason by the Project Manager and Design Automation Manager.
CAD Printing (As Needed)	Bentley ProjectWise InterPlot Organizer V8.11.07 (V8i SS2) or V8.09 (XM)	Bentley ProjectWise InterPlot Organizer V8.11.07 (V8i SS2) or V8.09 (XM)	Paper Format Drawings (Local Printer)	_Once PDF deliverables are fully implemented, the LaDOTD printshop will deliver 11x17 paper on as-needed basis. _22x36 paper will be delivered to a short distribution list, and when otherwise needed. _PDF deliverables, available for review in Falcon and ProjectWise, will render large (catch-all) distribution lists obsolete.
Electronic Plans Publishing	Bentley 'Publish to PDF' (Integrated with ProjectWise)	Bentley 'Publish to PDF' (Integrated with ProjectWise)	PDF Format Drawings in ProjectWise Output Folder	_PDF format drawings will become the formal electronic deliverable (Phasing in 2013). _Consultants must import (managed refresh) MicroStation format drawings into the appropriate ProjectWise discipline 'Plans' folder (for each plan delivery milestone) so that they will be able to publish their PDF plan submittals. (Download a '.MSI' setup file)
Road Design	Bentley Inroads V8.11.07.615 (V8i SS2)	Bentley Inroads V8.11.07.615 (V8i SS2) (See Comments' Column)	Road DGN Graphics + ALG DTM	_DOTD allows versions of the Inroads suite that run on the MicroStation platform only. _Inroads "preference files" (.XIN) are not provided for AutoCAD. _Users of Inroads v 8.9 (XM) may continue until work on current projects is finished, if needed.
Hydraulics Drafting (Optional)	Bentley Inroads Storm & Sanitary V8.11.07.615 (V8i SS2) (See 'Comments Column)	Bentley Inroads Storm & Sanitary V8.11.07.615 (V8i SS2) (See Comments' Column)	Hydraulics DGN Graphics	_Bentley Storm and Sanitary is currently recommended for generating graphics only. _DOTD requires Inroads Storm and Sanitary to be run on the MicroStation platform only. _The current design standard is Hydrwin, which is used to check hydraulic designs.
Electronic Survey	Bentley Inroads Survey 08.11.07.615 (V8i SS2)	Bentley Inroads Survey 08.11.07.615 (V8i SS2) (See'Comments Column)	Survey DGN Graphics + FWD, DTM, ALG, ASCII	_Data collection tools and methods that produce the required deliverable content and accuracy are acceptable. _DOTD feature codes must be used during data collection to enable output of CAD survey graphics, and associated Tag Data. _Users of Inroads v 8.9 (XM) may continue until work on current projects is finished. _DOTD requires Inroads Survey to be run on the MicroStation platform only.
PDF Plan Reader	Adobe Acrobat Reader V9.5 'Standard' or 'Professional' Edition (Required for Digital Signatures)	Adobe Acrobat Reader V9.5 or V11.0 'Standard' or 'Professional' Edition (Required for Digital Signatures)	N/A	_Digitally signed PDF format drawings will become the formal plan deliverable (Phasing in 2013).
Digital Signatures	Silanis ApproveIt Desktop V7.0	Silanis ApproveIt Desktop V7.2	Digitally Signed PDF	_Engineers will need an *'ePersona'* to be able to sign plans using ApproveIt Desktop. *EPersona* request forms are available on the DOTD website home page under *Doing Business with DOTD>Electronic Standards for Plans*. _The *ePersona* will have to be loaded into theApproveIt Desktop 'Capture' folder on the Engineer's computer. _A '.REG' setup file, which is delivered with the ePersona file, will need to be executed.
Collaboration Platform	Bentley ProjectWise Explorer V8.11.07.133 (V8i SS1) (SS4 coming later in 2013)	Bentley ProjectWise Explorer V8.11.07.133 (V8i SS1) (Ss4 coming later in 2013)	Project Plans and Associated Documents	_Consultants are required to manage their plan submittals within DOTD's ProjectWise system (Phasing in 2013). _Use the managed *Export>Export* (Locks File) and managed *Import* functions to manage CAD development between PDF submittals. This prevents unauthorized changes and loss of attribute indexing. _The ProjectWise Explorer application is provided free of charge for consultants working on LA DOTD projects. The Bentley Passport License required to run ProjectWise will be the Consultant's responsibility to purchase.

_ This spreadsheet is best reviewed in 11x17 paper format.   _Standards are subject to change based on project circumstances and other issues.   _DO NOT USE BENTLEY V8i SS3 PRODUCTS UNLESS AUTHORIZED.

_Software versions posted herein are the latest supported version as of this document publishing. _We will seek to keep this document as up to date as possible as we move forward.

_**Contact Hollis Ward** at hollis.ward@la.gov (225-379-1079) for general information and assistance regarding LaDOTD electronic standards, ProjectWise workfow; and electronic plan delivery, authentication and publishing.

_**Contact David Ringuette** at david.ringuette@la.gov (or call 225-379-1880) for general information and assistance regarding ProjectWise, PDF publishing setup and eSign Desktop setup.

_**Browse to http://www.dotd.la.gov; and then select Doing Business with LaDOTD > Electronic Standards for Plans**, for links to all DOTD electronic standards and software downloads.

_**Browse to http://www.altivasoft.com/downloads/CADconform** for the latest CADconform software downloads and related CAD/OS platform compatibility information.

_**Contact support@altivasoft.com** (or call 281-295-2254) for information and assistance regarding installation of LaDOTD CAD Resources and Altiva CADconform software.

_**Contact Altiva Software** to purchase CADconform. _**Contact Silanis** to purchase ApproveIt Desktop. _**Contact Bentley Systems** to purchase MicroStation, ProjectWise InterPlot Organizer and Inroads products.