

**STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION**

subject: CTDOT Standard Sheets
CTDOT Guide Sheets
CTDOT Guide Details

memorandum

FROM THE DESK OF
JAMES H. NORMAN
date: July 23, 2008

to: Mr. John F. Carey
Mr. Thomas A. Harley
Mr. Joseph J. Obara
Manager of State Design

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James H. Norman
Acting Engineering Administrator
Bureau of Engineering and
Highway Operations

As part of a continuing effort to streamline the Office of Engineering's contract development process, Engineering Applications, working under the Office of Quality Assurance, has proposed new procedures and terminologies for the development of CTDOT standard sheets (and frequently used non-standard detail sheets).

The new procedures have been developed due to a recent statement from the FHWA CT office indicating they will not sign CTDOT standard drawings going forward. Thus, the Department will transition from FHWA-approved standard sheets to CTDOT standard sheets. Additional incentive for adopting the new procedures is to address the difficulties experienced in accessing standard or other frequently used drawings by both staff and consultant engineers. Varied discipline practices, nomenclatures and terminologies of drawings contribute to the difficulties of obtaining the current CTDOT standard drawings.

Currently, the Office of Engineering follows a lengthy process of approvals from both CTDOT and FHWA for standard drawings. Some disciplines have resisted, or ceased, development of standard drawings due to the lengthy and difficult process.

The goals of the revised practices going forward are as follows:

1. Better Department-wide inventory and management of standards
2. Simplify access to project development information
3. Reduce project review and approval time
4. Reduce project design costs (by eliminating redesigns of common project details)
5. Facilitate negotiations (due to a better understanding of CTDOT-supplied information)
6. Develop simplified Web pages to allow each discipline to manage their own standard sheets, guide sheets and details
7. Improve control of revisions

The process going forward will introduce three categories of frequently used contract drawings:

- **CTDOT Standard Sheets**
- **CTDOT Guide Sheets**
- **CTDOT Guide Details**

CTDOT Standard Sheets will replace the current **FHWA Standard Sheets**. These sheets will be digitally signed by the Principal and Manager from the discipline issuing the standard sheet. A new CTDOT Standard Sheet numbering system will be developed, along with a CTDOT Standard Sheet Index. This Index sheet will be included in all contract plans residing after the title sheet and will indicate which CTDOT Standard Sheets are included within the contract plans. The standard

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sheets will be obtained by the engineer from the Internet and inserted at the end of the contract plan set. The CTDOT Standard Sheets should be included with the semi-final design submission.

Each discipline will be required to determine which of the above categories their existing "Standards" will fall into. It is recommended that the majority of the existing sheets become CTDOT Standard Sheets. Again, this will streamline project development and allow the Department to achieve the goals noted above.

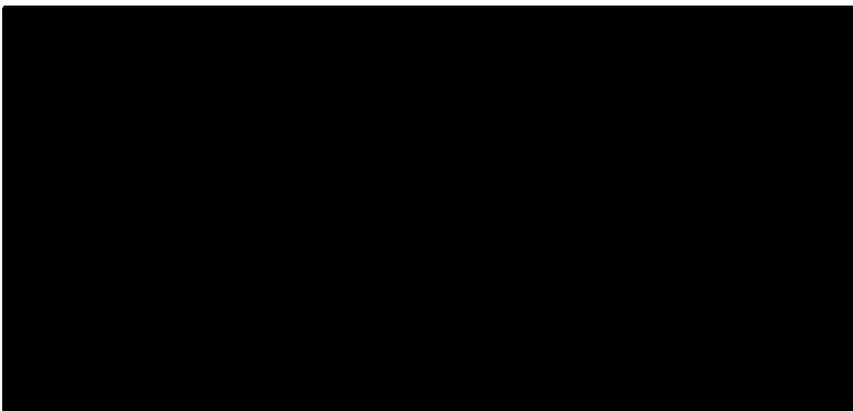
The process of developing and approving the content of CTDOT Standard Sheets, Guide Sheets and Guide Details will be the responsibility of the Principal Engineer who is issuing that sheet or detail. The process of publishing, digital signing and formatting the associated Standards will be developed by Engineering Applications.

We are anticipating a **January 1, 2009** launch date. Engineering Applications will develop an Internet/Intranet area for publishing Standard and Guide Sheets. The CTDOT Standard Sheets are to be developed first, with the CTDOT Guide Sheets and Details to follow. Additional technical documentation will be developed describing the workflows for the development and publishing of these standards.

Engineering Applications will be overseeing this migration. Eric Bergeron (Ext. 3152) and Tony Servidone (Ext. 3478) will be administering this effort. Engineering Applications has a temporary employee (summer help) who has been very efficient in producing these drawings. She will be available for developing CTDOT Standard Sheets throughout the summer.

Please designate representatives from your office to participate in this effort by August 14, 2008. You and your designees will be invited to a kick-off meeting on this initiative.

Should you have any questions concerning this matter, please contact William S. Pratt at 594-3320.



Definitions:

CTDOT Standard Sheets:

- CTDOT Standard Sheets are a formal digitally signed document that establishes uniform engineering or technical criteria used for the construction of standard infrastructure features.
- Determined by discipline lead to express the Department's intent to have a feature constructed in a specific manner
- Sheets requiring signatures by Consumer Protection regulations. Consumer Protection regulations require any sheets within a project that have "appurtenant structures" to be signed individually. **See Section 20-300-10 (License Seals and Stamps).**
- CTDOT Standard Sheets will be indexed off of a second title sheet and located at the end of the contract plans.
- The new CTDOT Standard Sheet will incorporate a new CTDOT border that will accept the use of digital signatures.
- CTDOT Standards will be provided on the Web in the form of a digitally signed PDF file along with the accompanying MicroStation Sheet Model.
- All CTDOT Standard Sheets are to be dual dimensions (English/Metric).

CTDOT Guide Sheets:

- CTDOT Guide Sheets will have associated details needing modifications per project requirements.
- CTDOT Guide Sheets will be inserted into the main body of the contract plans and located within the discipline's drawing set. The Engineer of Record assumes responsibility for the content of this sheet. CTDOT Guide Sheets may need to be signed by the Engineer of Record per Consumer Protection Regulations.
- CTDOT Guide Sheets will be provided on the Web in the form of a PDF file along with the accompanying MicroStation Sheet Model.
- All CTDOT Guide sheets are to be dual dimension (English/Metric).
- Any additional work required by the Engineer of Record after insertion into the contract plans only requires the project's current units of measure.

CTDOT Guide Details:

- CTDOT Guide Details are those miscellaneous details that are technically correct but may not have enough associated details to make up an entire sheet. Each discipline can keep a library of these details as individual cells collected in a manner to reference or copy as easy as possible into a CAD Sheet Model.
- Guide Details will be used to assemble contract plan sheets
- Guide Details in Discipline Manuals (Bridge, Drainage, Highway, etc.) are to be made available by the authoring discipline and are to be contract plan ready.
- CTDOT Guide Details are to be provided on the Internet in the form of a PDF file and its accompanying MicroStation cell library