



Standards for Developing Standards: A How-to for Busy CAD Managers

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Introduction

- Welcome
- A bit about me
- Who this class is for
- Class surveys
- AUGI General Meeting

Class summary

This class will show you the way, including knowing when it is right for you to create standards, identifying which standards are needed, and deploying new CAD standards for your organization.

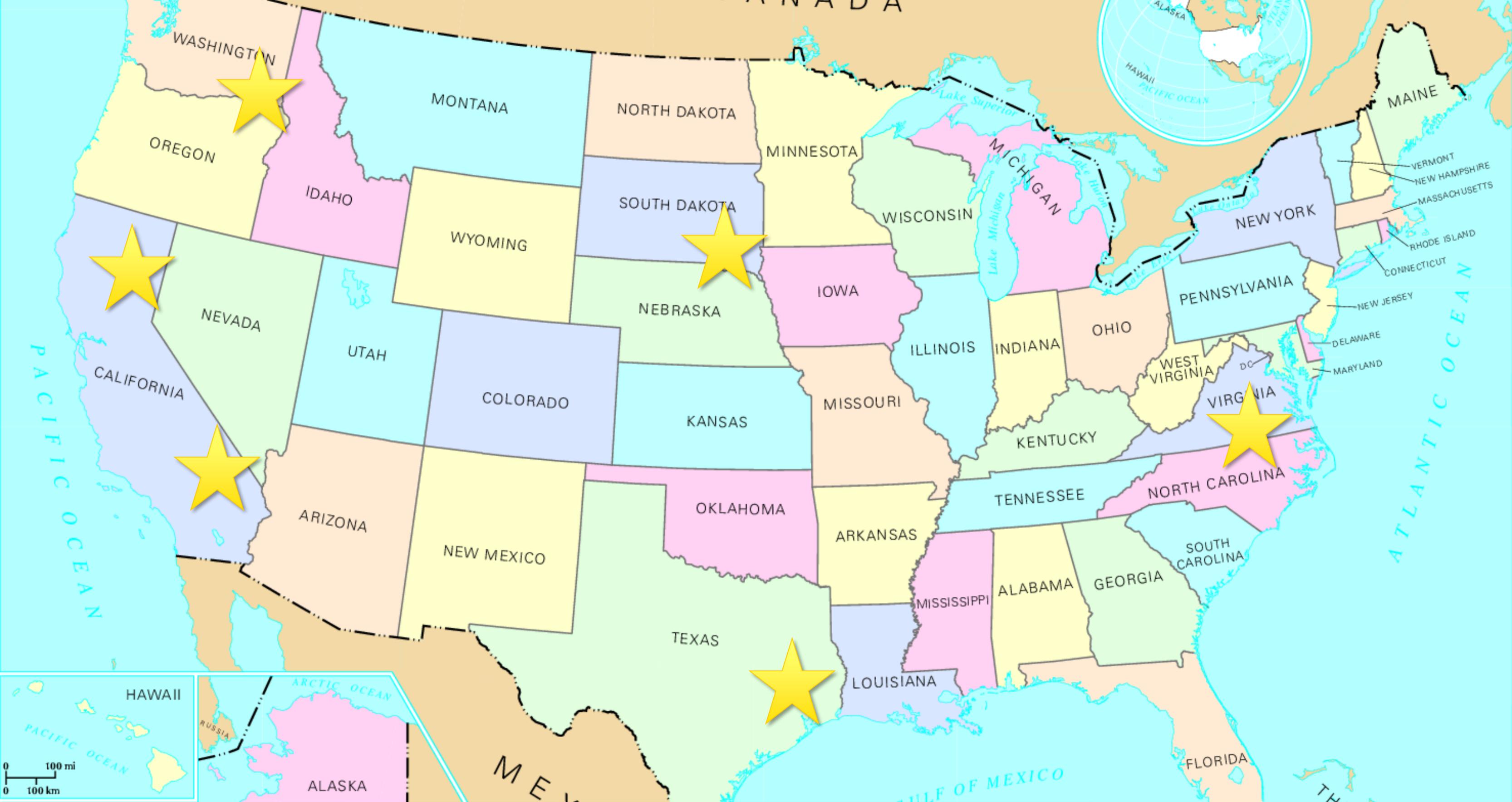
Key learning objectives

- Learn to identify who should develop a CAD standard, how to develop a standard, and what to do to deploy it
- Outline major milestones necessary to develop your own 1.0 release of your CAD standard, and then track subsequent versions
- Learn how to bring important stakeholders into the development process to gain input, buy-in, and added vetting assistance
- Learn how to identify and avoid the major pitfalls of development, deployment, implementation, and maintenance of valuable CAD standards

The Importance of CAD Standards



We Want Standards!





Valid benefits to justify the creation of CAD standards:

- Sustainability of design quality
- Reduced training time
- Cross project participation
- Document control
- Reduced IT costs
- Significantly shorter production time
- Reduction of duplicated work
- Reduced network strain
- Higher level of confidence in production staff
- Way more than I can type!

Efficiency & Continuity



Efficiency

Gabriel Dolgado



Consistency

Who Should Develop CAD Standards?



Brian Neudorff - 2014

Who?

“Any organization, large or small, employing any number of CAD professionals producing production designs or plan sets will benefit from CAD standards.”

What Are CAD Standards?

“CAD standards” is an umbrella concept that can encompass any number of specific facets such as:

- Uniform layering configurations
- Documented production processes
- Standardized detail block assets
- Universal file naming conventions



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The Stages of CAD Standard Development

The Stages of CAD Development

- Meta stage
- Development stage
- Execution stage



The Meta Stage



Good News / Bad News

The “Who(s)”

The Coordinator



Brian Neudorff - 2014

Who?

CAD Coordinator



The important traits of a coordinator / organizer

- **Management Aptitude** – Creating a new CAD standard is a large-scale project that requires research, attention to detail, and the ability to work with others
- **Adaptability** – Creating a new CAD standard is literally about change
- **Enthusiasm** – Creating a new CAD standard is not fun

No Committees



The Support Team



Stakeholders CAD Leaders

History



Existing Assets



The End of Meta

When the Meta Stage is complete:

- Who is responsible for the CAD standard (the coordinator)
- Who will review and approve the CAD standard (the management)
- Who will help develop the CAD standard (the CAD leaders)
- What already exists (current standard or assets)

The Beginning

What is “The Beginning”



Communicate

Tough Questions

**“Standardize plot styles
and practices to produce
identical plan set plots.”**

The First Milestone

At your first milestone go to your stakeholders and report:

- A full listing of management stakeholders who will oversee what aspects of the new standard
- A wide list of areas that require focus in the development of your standard
- A general breakdown, or roadmap, of how your standard will be developed so initial efforts have the greatest impact
- The area identified as the cause of the greatest hindrance to CAD production

Beyond the Beginning



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Some tried and true “should-haves”

- File Structure
- File Naming Standard
- Layering Standard
- Annotation Standard
- External Reference Standard
- Plot Standard

Resources for technical information:

- [YouTube.com](https://www.youtube.com)
- [Cadapult-Software.com](https://www.cadapult-software.com)
- [Vimeo.com](https://www.vimeo.com)
- [GlobaleTraining.ca](https://www.globaletraining.ca)
- [CADTeacher.com](https://www.cadteacher.com)
- [CAD-Notes.com](https://www.cad-notes.com)
- [RevitClinic.com](https://www.revitclinic.com)

The Shape of Standards

Common components in a standard:

- **Drawing Templates** – “Seed” files that are used to set initial, standardized configurations, of CAD drawings that speed production
- **Best Practice Documents** – Written documents that catalog and detail an organization’s approved method for CAD production
- **Detail Libraries** – Standardized, reusable CAD drawings that represent water, paving, structural, and other design details that are used across multiple projects for greater design information

The Existing Standards

Common components in a standard:

- Collect all multiple instances of existing details
 - Review the full collection and select the best, most suitable file

Common components in a standard: (Con't)

- Check the linework
 - Eliminate duplicate linework
 - Convert connected lines into single polylines
 - Check hatches

Common components in a standard: (con't)

- Check the text
 - Check font styles and sizes
 - Convert all existing text to Mtext and spell check
 - Check all callouts and dimensions for accuracy
 - Verify layering
 - Verify justification

Common components in a standard: (con't)

- Check the layers
 - Reduce existing layers to bare minimum
 - Normalize layer settings and nomenclature
 - Enter layer descriptions

- Check the detail's insertion point

Deploy the Standard





(catalog)

Shopp

with

save ✓

print ✓

share ✓

Things to document in your deployment notes include:

- Server directory location(s) to be deployed to or updated
- Necessary support paths to be added to workstation installations
- List of deployed standards and / or detail libraries
- Last update date
- Contact information for CAD leaders to be notified on updates
- Any special log-in credential required
- Date of next schedule update

Broadcast The Good News





Am I done?



MVP



**Repeat.
Over.
And Over ...**

Reward Yourself!



Conclusion

Session Feedback

- Via the Survey Stations, email or mobile device
- AU 2015 passes given out each day!
- Best to do it right after the session
- Instructors see results in real-time



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