



DESIGN STANDARDS MANUALS & SPECIFICATIONS

JAMES T. GLAVIN, PE, PMP, LEED AP BD+C
MANAGER OF SYSTEMS
OCTOBER, 2020



AGENDA

- Design Standards Manuals (DSMs) – What & Where
- Working with DEN Specifications
- The DEN update process
- 2020 DSM Updates
- Upcoming changes
- Q & A

DSM AVAILABILITY



- <http://business.flydenver.com/bizops/bizRequirements.asp>

The screenshot shows the DEN Business Services website. The navigation bar includes 'Travelers', 'Business', 'About DEN', 'Westin Hotel', and 'DEN Real Estate'. Below the navigation bar is a menu with 'ARFF Academy', 'Business Services', 'Commerce Hub', 'Concessions', 'Contracts', and 'Future Opportunities'. The main content area is titled 'Business Requirements — Business Services' and features a section for 'Operating Your Business at DEN'. Underneath, there are several categories of requirements: 'Construction Contract Requirements', 'Professional Services Contract Requirements', and 'Employee Identification/Badging Requirements'. A specific section titled 'AIRPORT GUIDELINES & POLICIES' is highlighted, containing a list of links. A red box highlights the 'Design Standards Manuals' sub-section, which lists various manuals such as 'Civil Infrastructure', 'Sustainability', 'Standards and Criteria', 'Architectural', 'Communications & Electronic Systems', 'Digital Facilities & Infrastructure/BIM', 'Electrical', 'Life-Safety', 'Mechanical', 'Structural', and 'Fueling Systems'. A red arrow points from this box to the right-hand list.

- Design Standards Manuals
 - [Civil Infrastructure](#) (Adobe PDF)
 - [Sustainability](#) (Adobe PDF)
 - [Standards and Criteria](#) (Adobe PDF)
 - [Architectural](#) (Adobe PDF)
 - [Communications & Electronic Systems](#) (Adobe PDF)
 - [Digital Facilities & Infrastructure/BIM](#) (Adobe PDF)
 - [Electrical](#) (Adobe PDF)
 - [Life-Safety](#) (Adobe PDF)
 - [Mechanical](#) (Adobe PDF)
 - [Structural](#) (Adobe PDF)
 - [Fueling Systems](#) (Adobe PDF)

USE AND REFERENCES

- DSMs are not to be referenced in construction docs

The Design Standards shall not be quoted, copied, or referenced in any bidding or construction contract documents. All information contained in these standards must be fully explained and shown in all bidding and contract documents.

- DEN standard specifications intended to compliment
 - See hidden editing instructions in each specification section
- DSM Updates identified with **Green** or **Blue** text. Example:

This document lists the **Digital Facilities and Infrastructure (DFI)** requirements for any DEN project or operation whether created in-house or by external consultants. The DEN DFI Design Standards Manual (DFI DSM) is both a stand-alone document for staff and consultants to understand the DEN DFI specific requirements for starting projects, as well as a resource used to inform a project execution plan.

DFI encompasses the use of **Building Information Modeling (BIM)** and **Civil Information modeling (CIM)** tools and processes and their integration with **Asset Management (AM)** through the delivery and operational phases of the lifecycle of DEN assets and/or properties.



SPECIFICATION AVAILABILITY

- Editable format for use in design projects (.rtf)
- Request copies from the DEN Project Manager
- Must obtain new copies for every project
- Sections may be updated frequently
- **Use tracked changes** on all projects

UPDATE PROCESS AND SCHEDULE

- DSMs: Semi-annual updates – generally Q2 and Q4
 - Internal stakeholder review
 - Review and publication
- Specifications: Updated as needed
 - Always request new specifications at project start



DSM UPDATES IN 2020

- Content updates
- Finding and resolving conflicts
- Align standards with large projects
- New DSMs:
 - Civil Infrastructure
 - Sustainability

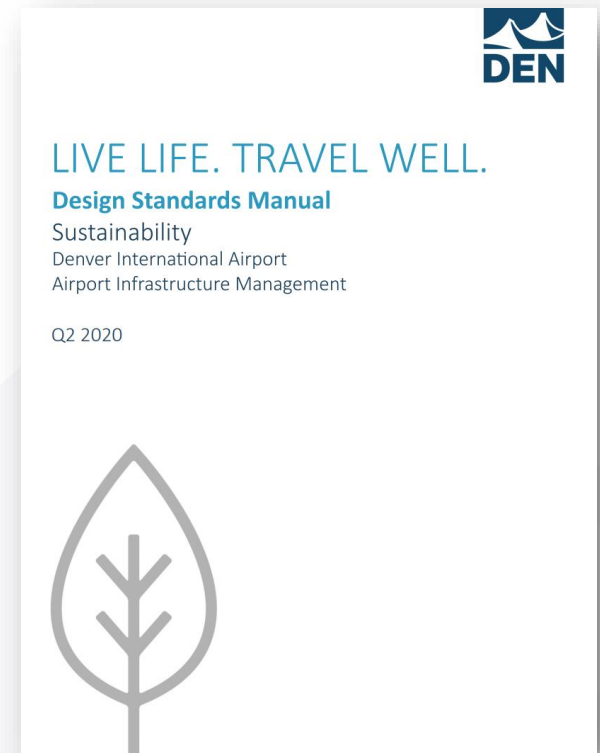
- Civil and Infrastructure Requirements
 - Airfield
 - Landside Roadways and Bridges
 - Parking Facilities
 - Utility Distribution
 - Geotechnical



DSM SUSTAINABILITY



- Sustainability Requirements
 - References to applicable ordinances
 - Overview of project phases
 - Stakeholder engagement
 - High-performance design
 - Commissioning
 - LEED Compliance





DENVER INTERNATIONAL AIRPORT

DEN