

## Mn/DOT CADD DATA STANDARDS

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### FILE NAMING FOR Mn/DOT CREATED FILES – BY FUNCTIONAL GROUP

Mn/DOT's file naming convention utilizes four components (1) an identifier for the owner functional group; (2) the state project or identifier number; (3) the file type designator and (4) the base file or sub file identity. The tables following describe the application of component (1) and (2). Consultants use the same system with the addition of a preceding "C" as defined in the second table.

The list below defines the first character(s) that will be applied to a CAD file names when creating files that contain information and data controlled by the functional group indicated.

First Character(s) in file name	Followed by:	Functional Group
A	State Project #	State Aid
BR	Bridge #	Bridge
C	State Project #	Construction
D	State Project #	Detail or Final Design
F	State Project #	Maintenance
G	State Project #	GIS
H	State Project #	Hydraulics
LA	State Project #	Landscape Services
M	State Project #	Soils/Materials
P	State Project #	Transportation Planning or Preliminary Design
PH	State Project #	Photogrammetrics
R	State Project #	Right of Way
S	State Project #	Surveys
S	Plate/Plan #	Design Standards (used no State Project number) - Generated by Mn/DOT internal only.
SD	State Project #	Site Development
T	State Project # (TMS, Lighting, Signing, Work Zone) or Intersection master/system # (Signals)	Traffic

Example: D999977\_cpA01.dgn = Design construction plan (cp), Base File (A), Sub-File (01) for project 999977

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### FILE NAMING FOR CONSULTANT CREATED FILES – BY FUNCTIONAL GROUP

The list below defines the first character(s) that will be applied to a CAD file names when Consultants create files that contain information and data controlled for the functional group indicated.

First Character(s) in File Name	Followed by:	Functional Group
CA	State Project #	State Aid
CBR	Bridge #	Bridge
CD	State Project #	Detail or Final Design
CF	State Project #	Maintenance
CG	State Project #	GIS
CH	State Project #	Hydraulics
CC	State Project #	Construction
CLA	State Project #	Landscape Services
CM	State Project #	Soils/Materials
CP	State Project #	Transportation Planning or Preliminary Design
CPH	State Project #	Photogrammetrics
CR	State Project #	Right of Way
CS	State Project #	Surveys
CSD	State Project #	Site Development
CT	State Project # (TMS, Lighting, Signing, Work Zone) or Intersection master/system # (Signals)	Traffic
Example: <b>CD</b> 999977_ <b>cp</b> A01.dgn = <b>C</b> onsultant <b>D</b> esign <b>co</b> nstruction <b>p</b> lan (cp), Base File (A), Sub-File (01) for project 999977		

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### FILE NAMING – FILE TYPE DESIGNATORS

Mn/DOT's file naming convention utilizes four components:

- (1) one to two character functional group identifier (S= surveys , D= design)
- (2) four to seven digit state project ID number. Typically a 4 digit control section and 3 digit state project tail OR traffic intersection number or bridge number)
- (3) an under score as a spacer
- (4) two to three character, lower case alpha, file type designator
- (5)\* one to four character base file or sub file identity – not commonly used.
- (6) period
- (7) dgn extension which triggers the association with the MicroStation application

\* Note:

- Base files and sub files extend the primary file type designators in very large projects. Base files represent major divisions of the project as deemed necessary by engineering staff and are identified by upper case alpha characters. Sub files are divisions of the base files identified by numerals.
- If all appropriate data can be contained and shared in a single working file (d934521\_cp.dgn), then the base and sub designators are not used.
- If the project is complex or large enough, it may be necessary to split the single project data into two or more project base files (d934521\_cp.dgn becomes d934521\_cpA.dgn, d934521\_cpB.dgn).
- SUB files further subdivide the base files. (d934521\_cpA.dgn becomes d934521\_cpA1.dgn, d934521\_cpA2.dgn, d934521\_cpA3.dgn).

All functional groups will use the same V8 file designators in common. For example, any functional group that needs to create an "As built" plan will name it with the "\_ab.dgn" designator. Example: Traffic = t283917\_ab.dgn, Design = d283917\_ab.dgn.

DESIGNATOR	DESCRIPTION
_ab.dgn	As built
_abt.dgn	Abutments details and reinforcement
_al.dgn	Alignment
_apl.dgn	Annotated planimetric, annotated topography
_app.dgn	Bridge approach panels
_atb.dgn	Alignment tabulation
_atr.dgn	Automatic traffic recorders
_aut.dgn	ROW authorization map
_bdg.dgn	Building sketches
_bdr.dgn	Plan sheet borders for plotting
_bip.dgn	Bridge Input sheet, bridge survey sheet with grid embedded not referenced
_bp.dgn	Bypass plan
_bpp.dgn	Bypass plan profile
_brm.dgn	Building removal sheet

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DESIGNATOR	DESCRIPTION
_bs.dgn	Bridge sign design
_cc.dgn	Control cabinet (r)
_cl.dgn	Color layout shapes for preliminary design plotting
_cn.dgn	Contours 2d/3d proposed or in place by level
_cny.dgn	County map
_cp.dgn	Construction plans
_cty.dgn	City map
_dd.dgn	Details, Functional group Details B-Details, standard sheets, systems (Power, lighting, phone, signals), As-Built bridge data sheet
_des.dgn	Caption blocks
_dl.dgn	Detour layout
_dr.dgn	Drainage plans with profiles
_dsa.dgn	Drainage summary, casting Assemblies summary
_dt.dgn	Drainage tabulations & profile
_dtm.dgn	Digital terrain model (Binary/Graphical)
_ec.dgn	Erosion control environmental documentation tabulations, permanent erosion control & turf establishment plans
_est.dgn	Estimated quantities
_erw.dgn	Existing Right of Way
_exh.dgn	Exhibit data mapping and general graphics - base and sub-files
_exm.dgn	Exhibit plan mapping data only
_exp.dgn	Expansion device details
_fe.dgn	Fencing plans
_fea.dgn	Existing and proposed site features
_fip.dgn	Field Input file (surveys origin), land corners-
_fmp.dgn	Final R/W maps
_fs.dgn	Freeway signing
_gl.dgn	General layout
_gm.dgn	Geometric layout base plan
_gr.dgn	Guard rail
_hyd.dgn	Drainage design information, areas and notes
_hyo.dgn	Drainage design information from non-Mn/DOT sources
_hyp.dgn	Drainage analysis profile graphics
_in.dgn	Intersection details - plan and profile
_ind.dgn	Index map
_ip.dgn	Interconnect Plan based on Master ID
_ld.dgn	Lighting details
_lid.dgn	Limits of LIDAR coverage for GIS use
_lim.dgn	Const. limits
_lit.dgn	Composite lighting file for small project areas may incorporate the Id#, Il# and archiving of completed projects
_ll.dgn	Lighting layouts
_ln.dgn	Landscaping
_map.dgn	ROW plat layout map

## Mn/DOT CADD DATA STANDARDS

DESIGNATOR	DESCRIPTION
_md.dgn	Soils boring, material data,
_ml.dgn	Matching of extended plan data for Traffic Signals
_mod.dgn	3d model of proposed surface (may have in place)
_obs.dgn	Obscured area or voids file
_ord.dgn	Title map (for attorneys), graphic commissioner order
_orw.dgn	Original Right of Way
_pa.dgn	Cross section pattern file
_par.dgn	ROW parcel sketch
_pcb.dgn	Concrete beam details
_pho.dgn	Limits of project coverage for GIS use
_pir.dgn	Pier details and reinforcement
_pj.dgn	Pavement plan for bituminous and concrete – for concrete include joint layout
_plc.dgn	Traffic sign placement
_pln.dgn	Photogrammetric and surveys planimetric data
_plt.dgn	R/W b-corner file, or (Final mapping) used to house a collection of r/w plat documents from districts, work in progress, or (Metro) ROW plat
_ply.dgn	polygons or shapes with attached GIS tags
_pm.dgn	Pavement marking plan for Traffic
_pr.dgn	Profile file
_pre.dgn	Preliminary bridge plan
_prp.dgn	Property location file
_ps.dgn	Permanent signing (C & D signs)
_pst.dgn	Staging profile
_pt2.dgn	TMC graphics file
_qm.dgn	Quantities manager elements also to hold funding splits
_qud.dgn	Digitized U.S.G.S. topographic maps
_r.dgn	Signal plans
_ral.dgn	Railing, median details
_rcn.dgn	Reconveyance map for Right of Way
_rdl.dgn	Redline
_rdp.dgn	Roadway Designer Preference file.
_rem.dgn	Removals
_rep.dgn	Repair
_rm.dgn	Ramp metering
_row.dgn	ROW final map
_s12.dgn	General plan and elevation, bridge layout, variable super charts, quantities
_sch.dgn	Traffic management schematic plan
_scn.dgn	Soils and construction notes. May include swamps and SWPPP data.
_sd.dgn	Signal details
_se.dgn	Superelevation, charts, profiles, Hatching
_sgl.dgn	Signal Plans that include layout, wire diagram, signing for signals, details, matchline, interconnect plan for an entire project in one file
_sgn.dgn	Signing plans
_sh.dgn	GEOPAK™ pavement superelevation/Slope mapping shapes
_sig.dgn	Composite signal file for archiving, etc

## Mn/DOT CADD DATA STANDARDS

DESIGNATOR	DESCRIPTION
_sit.dgn	Existing and proposed site base map
_sl.dgn	Signal layouts
_sp.dgn	Sign panels
_spn.dgn	Standard plans
_sq.dgn	Signal quantities
_ss.dgn	Signal signing
_ssd.dgn	Standard sign drawings
_std.dgn	Standard details
_stg.dgn	Staging plans
_stl.dgn	Steel: beams, framing detail, etc.
_stp.dgn	Striping plans
_str.dgn	Structure details
_sup.dgn	Superstructure, deck plan, framing plan, beams, railings, standard and b-detail sheets, Integral diaphragm, deck transverse and longitudinal sections, sidewalk and median sheets
_sur.dgn	Bridge survey: plan and profile
_svz.dgn	Site-GEOPAK visualized features including ponds, lots, facilities
_sw.dgn	Sanitary, Water profiles tabulations
_sys.dgn	Systems: power, lighting, phone, signals, TMC, etc
_tb.dgn	Tabulations, Index of standard plates, General Notes
_tbk.dgn	ROW turnback map
_tc.dgn	Traffic control and traffic control for Work Zone
_te.dgn	Turf establishment
_tie.dgn	Tie sheets
_tmc.dgn	Traffic TMC graphics file
_top.dgn	Topographic file
_tpg.dgn	Test point graphics
_tr.dgn	Trees - protection, transplants, etc
_trk.dgn	Truck station
_ts.dgn	Typical sections
_tsh.dgn	Title / cover sheet
_tsm.dgn	Title spotting map
_tum.dgn	Title and utility map
_ut.dgn	Utilities and utilities tabulations. Existing utilities not located by Mn/DOT Surveys or Design squad adjusted utilities location information from non-Mn/DOT source.
_wd.dgn	Wiring diagrams
_wkm.dgn	ROW/District work map
_wn.dgn	Walls - noise including profiles, tabulations, details etc.
_wr.dgn	Walls – retaining including profiles, tabulations, details, etc.
_wrn.dgn	Water resource notes
_wet.dgn	Legally delineated wetland areas including NWI/DNR information
_xp.dgn	Cross section plotting or "Sheet" files
_xse.dgn	Extended Cross section runs (culverts, entrances. Intersections) that will not be plotted to sheets
_xs.dgn	Cross section files - cross section files

## Mn/DOT CADD DATA STANDARDS

DESIGNATOR	DESCRIPTION
_xsl.dgn	Cross section layout

### Additional File Extensions Related to CAD Projects

DESIGNATOR	DESCRIPTION
.cel	MicroStation cell library
.cri	GEOPAK criteria file (Ascii text)
.dat	XYZ coordinates (Binary or ASCII)
.dgn	General design files
.dgnlib	V8 level library
.drf	Drainage file ascii text (reports)
.dxf	Auto-Cad design file
.dwg	Auto-Cad design file
.gpk	GEOPAK Geometric database file(Binary)
.inp	Input file Ascii text english
.ips	Interplot Organizer settings files
.lps	Landscape Plant Selector
.mnp	Input file Ascii text metric
.mnu	MicroStation function key menu
.plt	Plot driver for MicroStation file (not a Design file)
.rsc	MicroStation font or line style resource file, GEOPAK dialog box entries resource
.smc	GEOPAK Site Modeler Criteria
.tin	Triangulated Irregular Network (binary digital terrain model)
.var	GEOPAK Variables file Ascii text

## FILE NAMING FOR CAD FILES STORED TO ELECTRONIC DOCUMENT MANAGEMENT SYSTEMS AS RECORDS

The following naming standards are designed to address a requirement to insert records of project development benchmarks into the electronic document management system (EDMS). Two types of documents are currently identified to be inserted into the EDMS. They are the 1) Staff Approved Layouts and 2) Final Plan Sets. Below are the formal naming conventions that will be used.

### **Staff Approved Layouts saved as PDF format files for EDMS.**

These will be saved as a PDF file format with the following naming convention:

#### ***SPSPSPSP\_Staff\_Approved\_Layout.PDF***

The "SPSPSPSP" represents the state project number. The entire Staff Approved Layout will be saved as a single PDF file representing what would normally be printed as a single roll plot. When it is deemed necessary to create two (or more) separate

plots of the project data (long projects or curved projects for example) each of those separate plots will be included as separate pages in a single PDF.

**Final Plan Sets saved as PDF format files for EDMS.**

These will be saved as a PDF file format with the following naming convention:

***SPSPSPSP\_Final\_Plan\_Set.PDF***

The “SPSPSPSP” represents the state project number. The entire Final Plan Set will be saved as a single PDF file with individual pages for each sheet of the plan set.

For both the Final Plan Set and the Staff Approved Layout, tracking of versions or later submissions of updated information will be done through the EDMS.