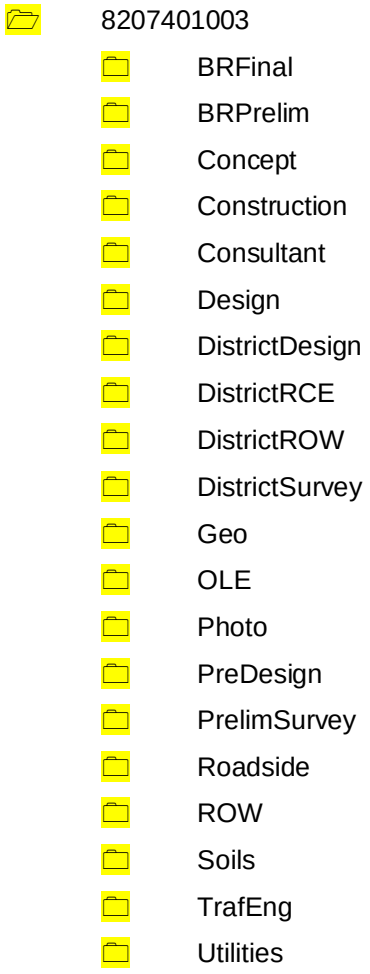
Project Directory Design Folder Structure

Design Manual
Chapter 20
Project Automation Information
Originally Issued: 06-30-11
Revised: 08-30-18

Project Directory Folder

Each Project Directory folder will contain the standard Office subfolders, similar to that shown below.



Design Folder

The Design folder will contain all subfolders and files created by designers within the Office of Design. The folders and file types will be duplicated, as necessary, to accommodate the individual lettings associated with each PIN, as illustrated below with the separate **Grade** and **Pave** folders. For folder naming consistency, the folder structure at the link below should be copied and placed under all new Design folders. Each project may have some variation in folders, but this will provide an equal starting point for all projects. The separate "_(###)_" folders and "Section#" folders shown are intended for projects with multiple lettings and will not be created if there is only one project in a folder.

Link for copying the master Design Subfolder Structure

Example Project Directory subfolder structure for the Office of Design:

- 8207401003 *(an example project directory number)*

  (Project Directory names are created from a rearrangement of the Project Identification Number [PIN]; PIN 03-82-074-010 becomes Project Directory 8207401003.)

  - Design
    - (Section1) *(The parenthesis "( )" are used to force to the top of the sort list.)*
    - (Section2)
    - (Section3)
    - _(160)_Grade
      - AsBuilts
      - Calculations
      - Correspondence
      - Corridor Modeler
      - Design Events
      - Docs
      - Estimates
      - Excel
      - Geopak
      - Layout_Motif
      - PDFsWorking
      - Photos
      - Projdbs
      - Public_Involvement
      - rddbs
      - Staff_TempOnly
      - TabText
      - Utilities
    - _(161)_Pave
      - AsBuilts
      - Calculations
      - Correspondence

- Corridor Modeler
- Design Events
- Docs
- Estimates
- Excel
- Geopak
- Layout_Motif
- PDFsWorking
- Photos
- Projdbs
- Public_Involvement
- rddbs
- Staff_TempOnly
- TabText
- Utilities

Design Subfolder Contents

The contents of the Design subfolders should be similar to the list shown below. Follow the file naming example as closely as possible. This will contribute to the consistency of Design folder contents.

Design

(The project numbers used in the folder and file names below are examples only.)

_Grading_Overview.dsn

(This file will contain references of all the grading design files. It will also contain graphics indicating the limits of each project or section. It will need to be updated as projects are added and as project limits are changed.)

_Paving_Overview.dsn

(This file will contain references of all the paving design files. It will also contain graphics indicating the limits of each project or section. It will need to be updated as project limits are changed.)

PEnumber.dsn

(This is the original Design ".dsn" work file that covers the entire length of the corridor. This file is typically used by the planning group early in the development of a large corridor.)

Section1.dsn

(The limits of individual projects will be unknown during the early development phase of a large corridor, so files are broken down into sections to keep the size manageable and to easily allow more people to work (e.g., Section1.dsn, Section2.dsn, Section3.dsn).)

82074160.dsn

*(As project numbers and limits are defined, design files will be established using the naming format CCRRRPPP.dsn, for the **C**ounty, **R**oute, and **P**arenthesis [paren] number.)*

82074160.3D

(*The 3D file is associated with GEOPAK Corridor Modeler, see below. It is at this level so it can be easily accessed by other Offices.*)

82074161.dsn

_(160)_Grade

(The first main letting folder, named with the "paren" number and work type. As "_(###)_" projects and folders are created, the original ".dsn" project file is modified to reflect the change of length. For more details, see the "_(###)_" section.)

- 82074160.alt

  (Any design alternate files.)

- 82074160a01.sht

  (One of the many MicroStation sheet files)

- 82074160b01.sht

  (One of the many MicroStation sheet files.)

- 82074160c01.sht

  (One of the many MicroStation sheet files.)

- 82074160c02.xlsm

  (Excel C sheet tabulation file.)

- 82074160t01.xlsm

  (Excel T sheet tabulation file.)

- CM82074160_2DLinework.dsn

  (Linework used to control GEOPAK Corridor Modeler points in the plan view.)

- job160.gpk

  (Binary database file containing all GEOPAK geometric elements.)

- xs_*chain*.dsn

  (One of the many cross-section files, replace "chain" with the associated chain name.)

- AsBuilts

  (This folder normally contains links to the AsBuilts folder located directly under the Design folder.)

  - Shortcut

- Calculations

  (*Any files associated with final quantity calculations that cannot be incorporated into the Excel tabulation file.*)

- Correspondence

  (*Storage for project relevant e-mail.*)

  - Log.xlsm
  - Decisions

    (*E-mail storage for final project decisions that will be linked into the log file.*)

    - *file*.msg

      (*Converted to pdf's for submittal to ERMS.*)

  - Pending

    (Storage for project relevant e-mail with pending decisions.)

    - *file*.msg
  - PDFs

    (*Storage for pdf files that designers have attached as links to e-mail. All received messages should retain attachments.*)

- Corridor_Modeler

  (*The associated CCRRRPPP.3D file should be at the same level as the ".dsn" file, see above.*)

  - 82074160.rdp

    (Road Design preferences.)

  - 82074160.ird

    (Inroads design file.)

  - 82074160.itl

    (Template Library.)

    - *ChainName*_Labels.xlp

      (There will be one file for each ChainName.)

  - Surfaces

    (Surface files generated by GEOPAK Corridor Modeler.)

- Design Events

  (*Each event folder will contain a pdf of the event letter and the pdf plan sheets for that event.*)

  - D2

    (*If a project number has not been assigned at the D2 time, the files listed below should be named with the associated "Section" name, e.g. D2_Section1_Plan.pdf, D2_Section1_Cost.pdf.*)

    - D2_82074160_Plan.*pdf*
    - D2_82074160_Cost.*pdf*
    - D2_82074160_DesignCriteria.*pdf*
    - D2_82074160_Letter.*pdf*
    - D2_82074160_Cost.*xlsm*
    - D2_82074160_DesignCriteria.*xlsm*
    - D2_82074160_Letter.*docx*

  - D3
  - D4
  - D5

    - D5_82074160_Plan.*pdf*

      (This should be the most up to date D5 plan set.)

      - Original

        (Contain the original submittal if revisions are made.)

      - Revision_2050_01_01

        (This folder will contain the specific sheet changes for this revision.)

      - Revision_2050_02_01

  - DM5

    - DM5_82074160_Plan.*pdf*
    - DM5_82074160_Cost.*pdf*
    - DM5_82074160_DesignCriteria.*pdf*
    - DM5_82074160_Letter.*pdf*

. . DM5_82074160_Cost.*xlsm*

. . DM5_82074160_DesignCriteria.*xlsm*

. . DM5_82074160_Letter.*docx*

. . DM5_82074160_PlanTurnInChkLst.*docx*

. D6thru9

(This folder should be renamed to the specific final event for the project; e.g, D6, D7, D8, D9.)

. . 82-0741-160_Complete_Current_Plan_(PDFs)

(1. This folder will be used even with the initial Contracts turn in, that way a single link in an e-mail will locate the most up-to-date Contracts plans.

2. For the purpose of Contracts turn-in, this folder and all contents can be temporarily copied at this location, renamed using only the "Contracts ID" number, then moved (using "cut and paste) to the "…\Contracts\PlanTurnIn folder".)

. . . 82-0741-160_C.pdf

(*The most current multipage pdf of the plans, not including the cross sections.)*

(*The most current multipage pdf of the cross sections.)*

. . . Index.dat

(*File used for color printing.)*

. . 82-0741-160_Contracts_2011-05-27_Initial_Turn_in

. . . 82-0741-160_C.pdf

. . . Index.dat

. . 82-0741-160_Contracts_2011-06-10_Changes

. . . 82-0741-160_C.pdf

(Multipage pdf containing all updated sheets.)

. . . Index.dat

(If needed, revised index file submitted to Contracts.)

. . 82-0741-160_E_Files_(DataFiles)

(*Files in this folder are only present at final Contracts turn-in.* See Section 20B-71 for more details. *Files in this folder should not include information beyond the limits of this project.*)

. . . Alignment_Data_Files

. . . . hv_dsn_*parennumber*.xml

. . . . job *parennumber*.gpk

. . . . control_points_*parennumber*.xml

. . . CADD_Files

. . . . 82074160.3D

. . . . 82074160ML.dxf

(A ".dxf" file is an Autodesk file format, created for the contractors. It is created from the 3D file by using the "Save As" command. Several may exist per project.)

. . . . 82074160.dsn

. . . . XS_*ChainName*.dsn

. . . Machine_Control_Surfaces

. . . . prop_surf_*description_parennumber*.xml

. . . . existing_surface_*parennumber*.xml

. . . Tabulations_and_Calculations

. . . . 82074160c02.xlsm

. . . PDF Scrolls

. . . . Pub82074160_24X109.pdf

. . . . Stg1_82074160_36X120.pdf

. . . Addendum_2011-06-20

. . . Revision_2011-08-15

. Docs

(*Contains all the base documents for any project related submittals. The pdf of any document is the official document. These are retained for ease of update.*)

. . D2sub.doc

. . ProjectDocumentation_82074160.xlsm

. . *Use folders for topics containing more than one document*

. Estimates

(*Contains all annual estimates and non-event related estimates and links to event estimates.)*

. Excel

(*Various spreadsheets used for project development that do not belong in other folders.*)

. Geopak

. . Drainage

. . Earthwork

. . Input

. . Output

. . Sheeting

(Sheet libraries, preferences, etc.)

. Layout_Motif

(Contains all GEOPAK Sheeting "Layout and Motif" files. See Section 21B-1 for details.)

. PDFsWorking

(This folder is used for working copies of plan sheets. It should be cleared after each design event.)

. . *(Folder names should contain the associated date.)*

. Photos

. . *(Folder names should contain the associated date.)*

. Projdbs

. Public_Involvement

. . *(meeting type and date)*

. . . Pub82074160_24X109.pdf

. rddbs

(*Contains files automatically generated by GEOPAK Corridor Modeler.*)

. . *.alg, .xml, .xin files*

. Staff_TempOnly

(*This folder will be used for temporary copies of information. Files will periodically be deleted out of this folder to minimize server space usage.)*

. . *(Userfolder)*

. TabText

(*Files associated with the tabfill program. This folder will eventually be obsolete.*)

. Utilities

(*This folder will contain files submitted from any utility company.*)

_(161)_Pave

(A second letting folder, named with the "paren" number and work type.)

"_*(###)*_" Folders

As the limits are defined for new projects and the project numbers are assigned, new *"_(###)_WorkType*" Project Directories (e.g. "**_(160)_Grade**") will be created under the original Project Directory folder. A new design ".dsn" file is created for the new "_*(###)*_" project folder by copying and modifying the "parent" design ".dsn" file. When this is done, the portion of the new "_*(###)*_" design ".dsn" file that is not part of the new project limits should be deleted from the new file. The portion of the parent design ".dsn" file that has become the new "_*(###)*_" design file should be deleted from the parent file. Simplified, this means that the same design limits and information should not exist in two different design files.

OpenRoads CADD Files Organization

OpenRoads projects will have many additional MicroStation files because of the nature of the OpenRoads workflow. For this reason, OpenRoads projects will have an additional **CADD_Files** subfolder. Refer to Section 20D-101 for a description of OpenRoads files. Below is an example of how OpenRoads MicroStation files should be organized within the Design CADD_Files subfolder. This folder is only to be used in OpenRoads projects.

- PO_CCRRRPPPGGG.dgn

  (This file is the project overview file for the project, directly under the Design folder or Paren folder.)

- CADD_Files
  - PLN_CCRRRPPPGGG.dgn

    (This is the plan drafting file for the entire project.)
  - SHD_CCRRRPPPGGG.dgn

    (This file will contain shading elements for the project.)
  - Corridor_Files
    - COR_*Alignment*_CCRRRPPPGGG.dgn

      (Corridor file for the specified alignment.)
  - Cross_Sections
    - XS_*Alignment*_CCRRRPPPGGG.dgn

      (Cross Section file for the specified alignment.)
  - Drainage
    - DRN_CCRRRPPPGGG.dgn

      (Drainage file for the project.)
  - Geometry
    - GEO_*Alignment*_CCRRRPPPGGG.dgn

      (Geometry file for the specified alignment.)
    - GPK

      (This folder is to contain the working GPK file used for various Geopak tools. This GPK file should not to be used by other offices. Geometric information should be gathered from the OpenRoads geometry within the GEO files.)
  - Public_Involvement
    - PUB_CCRRRPPPGGG.dgn

      (This is the public involvement file for the project.)
  - Sheet_files

    (This folder will contain all MicroStation Sheet files, both created by CopySeed and by Geopak.)
    - Motif

      (This folder will contain the Motif files used for Geopak Plan & Profile sheeting tools.)
  - Staging
    - STG_*Stage*_CCRRRPPPGGG.dgn

      (Staging file for specified stage.)

Superelevation

. SUP_*Alignment*_CCRRRPPPGGG.dgn

(Superelevation file for the specified alignment.)

Terrains

. TRN_*Alignment*_CCRRRPPPGGG.dgn

(Terrain file for the specified alignment.)

Text_Files

. TXT_*Alignment_Scale*_CCRRRPPPGGG.dgn

(Text file for the specified alignment.)

Chronology of Changes to Design Manual Section:

020B-044 Project Directory Design Folder Structure

8/30/2018	Revised Not producing separate X sections for plan turn-in.
5/9/2017	Revised Added section for OpenRoads MicroStation file organization.
10/13/2014	Revised Updated structure to reflect additional and removed folders since last update.
11/30/2011	Revised Added DM5_CCRRRPPP_X-SEC.pdf file to DM5 folder.
9/30/2011	Revised Repaired the Folder and File hierarchy on pages 4 and 5. Everything from the Design Events folder down was shown as one level too deep.
7/8/2011	Revised Added master design subfolder structure link
6/30/2011	NEW New