MONTANA
Department of Transportation

RIGHT-OF-WAY STANDARD NAMING CONVENTIONS

Contents

CONTENTS **1**
OVERVIEW **2**
Process Provenance 2
REFERENCES **2**
STANDARD NAMING CONVENTIONS **3**
Section I. File Naming Conventions 3
Section II. Civil Object Naming Conventions 5
Mainline Alignments 5
Approach Alignments 5
Cross Section Alignments 5
Surface Profiles 5
Alignment and Surface Profile Naming Conventions Table 6

Overview

Guide to all R/W File Names and Conventions for Civil Objects used in Plan Production.

Process Provenance

- Date of development: 11/12/2025
- Revision date: *3/17/2026*
- Application/Tool(s): *AutoCAD / Civil 3D*
- Version(s): *Civil 3D 2024*
- Environment(s): *MDT Civil 3D State Kit r2024 v2.21*
- Contact: *Open a Case*

References

Autodesk Civil 3D Naming Standards, File Types & Referencing Relationships

Standard Naming Conventions

Section I. File Naming Conventions

Right of Way Map CADD Drawings

In-House	*Consultant Design*
XXXXX00XROMAP001.dwg	XXXXX00XROMAPZ01.dwg

Right of Way Cross Section CADD Drawings

In-House	*Consultant Design*
XXXXX00XROXSF001.dwg	XXXXX00XROXSFZ01.dwg

Right of Way Alignment CADD Drawings

In-House	*Consultant Design*
XXXXX00XROALN001.dwg	XXXXX00XROALNZ01.dwg

Right of Way Title CADD Drawings

In-House	*Consultant Design*
XXXXX00XROTTL001.dwg	XXXXX00XROTTLZ01.dwg

Right of Way Ownership Files

CADD Drawings

In-House	*Consultant Design*
XXXXX00XROOWN001.dwg	XXXXX00XROOWNZ01.dwg

Excel Files

In-House	*Consultant Design*
XXXXX00XROOWN001.xlsm	XXXXX00XROOWNZ01.xlsm

Right of Way Plan Files

CADD Drawings

In-House

ROPLN drawings shall be named XXXXX00XROPLN001.dwg and successively increase by one (1) for every additional drawing necessary thereafter.

Consultant Design

ROPLN drawings shall be named XXXXX00XROPLNZ01.dwg and successively increase by one (1) for every additional drawing necessary thereafter.

PDF Plans at Authorization

In-House

ROPLN pdf files shall be named XXXXX00XROPLN000.pdf at authorization for MDT in-house projects.

Consultant Design

ROPLN pdf files shall be named XXXXX00XROPLNZ00.pdf at authorization for consultant design projects.

PDF Aerial Plans

ROPLN Aerial plans pdf shall be named XXXXX00XROPLNA00.pdf for both in-house and consultant projects.

PDF Plans after Authorization

In-House

ROPLN pdf files shall be named XXXXX00XROPLN001.pdf at the first revision memo, and successively increase by one (1) for each revision memo for MDT in-house projects.

Consultant Design

ROPLN pdf files shall be named XXXXX00XROPLNZ01.pdf at the first revision memo, and successively increase by one (1) for each revision memo for consultant design projects.

PDF Aerial Plans

ROPLN Aerial plans are not required to be updated after authorization unless expressly requested by an Acquisition Supervisor or Right of Way Agent.

Section II. Civil Object Naming Conventions

Mainline Alignments

The mainline centerline alignment (formerly known as the Right of Way Baseline [RWBL]) shall be named 'XXXXX00XROALN_RWBL'.

If there are two or more mainline alignments on a project, they shall be denoted by adding a suffix starting at 0 and increasing by 1 for every subsequent mainline alignment.
(ex. 'XXXXX00XROALN_RWBL' when an additional centerline is added to the original mainline project centerline shall be renamed to 'XXXXX00XROALN_RWBL_0' and the additional mainline alignment shall be named 'XXXXX00XROALN_RWBL_1'.

Approach Alignments

All side and approach alignments that will be a baseline for acquisition of R/W Shall be named XXXXX00XROALN_*, where the '*' is the signed street name of the intersecting road.

For Example, Granite Creek Rd alignment shall be named XXXXX00XROALN_GraniteCreekRd.

No Spaces or special characters besides underscores '_' and hyphens '-' shall be used.

Cross Section Alignments

Preface

Road design utilizes the R/W linework to create marker points in cross-section files for existing and proposed R/W linework. For road design to efficiently and accurately place R/W linework in the cross section, it has been deemed that R/W will supply data to the designers so that any changes to the R/W limits are edited by R/W and accurately updated in RD files. All R/W limits are to be created as alignments, including existing R/W, RR R/W, Proposed R/W, Construction Permits, Highway and Non-Highway Easements, Licenses, Permits, etc.

Surface Profiles

Surface Profiles are utilized to daylight the existing ground topography with the R/W Cross Section Alignments. The Naming Standard follows The Approach Alignment name with an additional ‘_EP_’ as shown on Table 1.

Alignment and Surface Profile Naming Conventions Table

Table 1: R/W Alignment and Surface Profile Naming Standards			
Layer Name	**Alignment Name**	**Alignment Properties Object Style (Alignment Style)**	**Surface Profile Naming Standard**
Existing R/W	XXXXX00X_RO_EXRW-*-(LT/RT)	MDT ROW E-Right of Way	XXXXX00X_RO_EP_EXRW-*-(LT/RT)
Existing R/W Apparent	XXXXX00X_RO_EXRW-A-*-(LT/RT)	MDT ROW E-Right of Way Apparent	XXXXX00X_RO_EP_EXRW-A-*-(LT/RT)
Existing Railroad R/W	XXXXX00X_RO_EXRR-EXRW-*-(LT/RT)	MDT ROW E-Railroad Right of Way	XXXXX00X_RO_EP_EXRR-EXRW-*-(LT/RT)
Existing Railroad License	XXXXX00X_RO_EXRR-LICN-*-(LT/RT)	MDT ROW E-Railroad License	XXXXX00X_RO_EP_EXRR-LICN-*-(LT/RT)
Existing Highway Easement	XXXXX00X_RO_EXHI-EASE-*-(LT/RT)	MDT ROW E-Easement Highway	XXXXX00X_RO_EP_EXHI-EASE-*-(LT/RT)
Existing Non-Highway Easement	XXXXX00X_RO_EXNH-EASE-*-(LT/RT)	MDT ROW E-Easement Non-Highway	XXXXX00X_RO_EP_EXNH-EASE-*-(LT/RT)
Proposed R/W	XXXXX00X_RO_RWAY-*-(LT/RT)	MDT ROW Right of Way	XXXXX00X_RO_EP_RWAY-*-(LT/RT)
Proposed Highway Easement	XXXXX00X_RO_HIWY-EASE-*-(LT/RT)	MDT ROW-Easement Highway	XXXXX00X_RO_EP_HIWY-EASE-*-(LT/RT)
Proposed Non-Highway Easement	XXXXX00X_RO_NHWY-EASE-*-(LT/RT)	MDT ROW-Easement Non-Highway	XXXXX00X_RO_EP_NHWY-EASE-*-(LT/RT)
Proposed Construction Permit	XXXXX00X_RO_PMIT-*-(LT/RT)	MDT ROW-Construction Permit	XXXXX00X_RO_EP_PMIT-*-(LT/RT)
Proposed Railroad License	XXXXX00X_RO_LICN-*-(LT/RT)	MDT ROW-Railroad License	XXXXX00X_RO_EP_LICN-*-(LT/RT)

NOTES:

1. All “*” will start with 0 and sequentially increase by one for each Alignment/Surface Profile segment. The Alignment and Surface Profile Name must be identical in numbering.
    a. E.g. The alignment 6138000_RO_RWAY-0-LT must equal the surface profile name of 6138000_RO_EP_RWAY-0-LT.
2. EP stands for Existing Profile
3. RO is the R/W work group in Data Shortcuts
4. (LT/RT) - pick either one or the other without parenthesis.