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3101 Introduction

3101.1 History of Roadways in Ohio

The following section provides a brief history of the development of Ohio roadways, and the Ohio Department of Transportation (ODOT). It describes the importance right of way plays in the maintenance and construction of Ohio's roadways.

The building of Ohio roads in the past two centuries has been a complex mass of interwoven accomplishments. From the winding, dirt Indian trails of the 19th century, to the huge interstates that span the state today, roads have played key roles in the growth of Ohio.

Until the early 20th century, road building was handled by counties, townships, and private individuals. Then in 1904, the Ohio Department of Highways (ODH) was created. Although this department functioned exclusively in an advisory capacity, it was the first attempt to create a state agency responsible for Ohio's roadways. In 1906, Professor C.E. Sherman of the Civil Engineering Department of the Ohio State University established a road material testing laboratory that helped aid in the production of superior paving materials. With the quick spread of the automobile across the state and country, the need for solid all weather roadways was further emphasized. The speed and weight of automobiles stressed the then-current macadam wearing surface (small or crushed stone usually coupled with a bonding compound like tar). Durable brick and concrete began to gain favor as alternative paving materials, but their high cost meant they were rarely used in rural areas. By 1910, seventy-three percent of the roads in Ohio were still considered dirt roads.

As the transportation demands of the public increased, so did the responsibilities and the size of the ODH. With the passing of the McGuire Bill in 1911, the ODH changed its mission from one of education to the pursuit of active construction. The same bill designated certain Ohio roads as part of the Inter-County Highway System and placed these roads under the jurisdiction of the department. With the passing of the Hudson-Hite Bill in 1913, the state took control of more roadways as established under the Main Market Road System. Both The Inter-County Highway and Main Market Road systems consisted of old county roads appropriated as state roads. Their right of way widths varied from county to county, creating ambiguity within the right of way of the state road system.

The ODH continued to look for new ways to improve the quality and the quantity of roadways in Ohio. With the passing of the Reorganization Bill in 1921, the department divided the state into 11 districts with jurisdiction over eight counties each (a 12th district was added in 1929). The bill also allowed each district office to have a deputy state highway commissioner and state construction workers closely overseeing and monitoring projects in their area. The legislature enacted the Norton-Edwards Highway Bill in 1927, eliminating the previously established Inter-County and Main Market systems. The Bill also provided that all roads on the state highway system be maintained solely at the state's expense. This act established a true state highway system for the first time. By 1928, only 200 of the 11,000 miles of roadway remained unpaved.

The Ohio countryside continued to become more accessible by roadway, and from 1943 to 1949, Ohio took on a large road building program coordinated between all road and street building agencies. By the end of this effort, there were 109,000 miles of roadway in Ohio. In the 1950's and throughout the next several decades, the planning and construction of the interstate highway system dominated the attention of the (ODH). This was the beginning of the modern four and six-lane highways of today.

All of the years of legislation and progress led to what is now called The Ohio Department of Transportation (ODOT). Established in 1972, the department -- together with Federal Highway Administration (FHWA), city, county and township agencies -- control all maintenance and construction of roads and bridges in the state of Ohio.

3101.2 Importance of Right of Way Plans

In today's ODOT, the acquisition of right of way is critical to the development of many projects. Right of way plans provide the basic authority for the expenditure of public funds for the purchase of land and/or property rights from a property owner. All physical items of value, and the effects these takings will have on the remaining residue, are included in the plan to allow an accurate determination of Fair Market Value of compensation indebted to the owner. In cases that include federal funding, right of way plans also serve as records for support in the state's claims for reimbursements. Finally, right of way plans serve as a reference for land professionals and an inventory of the department's land purchases.

3101.3 Objectives of the Right of Way Plan Manual

The purpose of this manual is to be instructive to both the experienced and inexperienced Right of Way Plan Designer and Reviewer, and to promote uniformity and continuity among the ODOT districts and consulting firms. Additionally, this manual serves as a beneficial and informational source for acquisition agents, appraisers and Local Public Agencies. If the basic procedures outlined in this manual are carried out, the entire process should be easier for the many individuals involved in each project, resulting in greater accuracy and efficiency.

3101.4 Objectives of a Surveyor Preparing Right of Way Plans

Right of way plans are a visual representation of property rights and professional surveyors are best suited to identify and locate these rights. In preparing right of way plans, it is the surveyor’s responsibility to show rights and personal property that will be affected by the proposed project. Protection of the property owner's rights and proper compensation for all effected rights is mandated by Federal and State Law. Surveyors are the eyes and ears of the individuals that use right of way plans for property appraisal, negotiation and acquisition. The plans also serve a greater importance for ODOT by conveying rights acquired by the state, and are kept on record forever. Future generations of surveyors will use these plans to retrace the steps of the past and identify rights that were transferred to the state.

3102 Project Development Process

3102.1 The Project Development Process (PDP)

ODOT has developed and implemented a Project Development Process (PDP) that includes constant communication among technical disciplines. The PDP is a project management and decision-making process for transportation projects. The process is a guide that defines project development phases from conception through completion. The PDP encourages a seamless transition between project development phases while providing effective and efficient project management.

Following the PDP should result in quality plans and minimized cost overruns during right of way acquisition and project construction. Depending on project size, complexity, and/or potential impact to the environment, ODOT transportation projects are categorized as Minimal, Minor, or Major. For more detailed information on the PDP Process, please refer to the **Project Development Process Manual and the Location and Design Manual, Volume Three Section 1400**. For information on many commonly used ODOT Reference Materials such as Design Manuals, Specifications and Standard Drawings access ODOT's Design Reference Resource Center (DRRC) at http://www.dot.state.oh.us/drrc/.

3102.2 Project Scope of Services

The Project Scope of Services document outlines planning, environmental, design, right of way and construction requirements for a particular project. It is used for consultant and in-house prepared projects. When a project requires or has the potential to require additional right of way, the Project Scope of Services document will be supplemented with the Right of Way Attachment document. The Right of Way Attachment will outline in more detail the extent of field survey, title research, design and review of right of way plans, and legal descriptions required for the project. Therefore, it is imperative that the Design Agency's Right of Way Plan Designer and the Right of Way Plan Reviewer be familiar with the Project Scope of Services document and Right of Way Attachment, in addition to the information presented in this manual.

3103 Right of Way Plan Development

3103.1 Right of Way Plans

While right of way plans are a definite, integral part of the roadway construction plans, they are developed as a separate entity and thus require a significant amount of specialized knowledge in both the right of way field and the profession of boundary surveying. A right of way plan provides information to define the extent of the right of way required in order to construct and maintain a highway. Right of way plans provide a "picture" showing the information needed to facilitate an accurate appraisal of the proposed taking and serve to expedite the required negotiations leading to the acquisition of the rights required for the highway facility. In addition, right of way plans serve as official public records documenting that which has been acquired, monumented and are referred to by land professionals forever. Also see **Section 3103.6 Survey Requirements**.

3103.2 Right of Way Plan Preparation Requirements

The Ohio Revised Code (O.R.C.) 4733 requires that all appropriate right of way documents (plans, plats, descriptions, reports, etc.) shall be signed and sealed by a Professional Surveyor registered in the State of Ohio.

All consultants performing right of way plan design work shall be pre-qualified with the Department for Right of Way Plan Development.

3103.3 Right of Way Plan Design and Review Responsibilities

The Department distinguishes two distinct areas of responsibility when preparing right of way plans and descriptions.

The Right of Way Plan Designer

The responsibility of the designer includes the design and arrangement of the right of way plan sheets and other right of way plan work as necessary to fulfill the scope of services document, and the Department's Policy and Procedure Manuals.

The Right of Way Plan Designer shall be:

A) A Professional Surveyor registered in the State of Ohio and responsible for signing and sealing the right of way plans and legal descriptions.

Or

B) An individual with knowledge of right of way plans, acting under the direct supervision of a Professional Surveyor registered in the State of Ohio that is responsible for signing and sealing the right of way plans and legal descriptions.

The Right of Way Plan Reviewer

The reviewer shall perform a comprehensive review of the boundary resolution, right of way plans and legal descriptions. The reviewer shall provide a completed Right of Way Checklist **(see Appendix H)** with each review submissions as well as a Right of Way Description Checklist **(see Appendix I)** with the Final Right of Way submission and Right of Way Tracings. The Final Right of Way submittal and the Right of Way Tracings submittal shall include a copy of the ODOT review comments as well as the disposition of each comment.

The Right of Way Plan Reviewer MUST be a Professional Surveyor registered in the State of Ohio.

The Right of Way Plan Designer and Right of Way Plan Reviewer CANNOT be the same person. The initials of the right of way plan designer and reviewer shall be placed in the title block of each right of way plan sheet.

In accordance with the O.A.C. Section 4733-23-01(C) the Professional Surveyor that seals the right of way documents (either the Right of Way Plan Designer or Right of Way Plan Reviewer): “certifies to the accuracy and completeness of the information contained in the sealed document, and by such action, assumes full responsibility thereof.”

3103.4 General Right of Way Plan Requirements

In order to assure the earliest possible commencement of right of way acquisition, the right of way needs must be developed concurrently with the roadway design. Generally, the right of way plan should be developed in phases, the Conceptual Right of Way Plan (if scoped), Preliminary Right of Way Plan, Final Right of Way Plan, and Right of Way Tracings.

In order to allow the acquiring agency sufficient lead time to purchase or acquire the additional right of way needed, the design agency preparing the right of way plans shall initially concentrate on those design items that will most adversely affect individual properties. Those adverse effects might include, but are not limited to, highway design that:

1. Goes through dwellings, outbuildings, wells, septic tanks (systems), or leach fields.
2. Requires a large amount of a subject's property.
3. Eliminates access; creating land locked property.
4. Eliminates a significant amount of parking in commercial areas.
5. Eliminates or reduces the number of access points a property may have.
6. Involves relocation of large private signs or billboards.

To facilitate the earliest acquisition of the remaining properties, the design agency shall continue the right of way plan development process concurrently with the roadway design as outlined in the PDP process.

All abbreviations and symbols used in the right of way plan preparation should conform to the requirements specified in the **Location and Design Manual, Volume Three, Highway Plans** and **CADD Engineering Standards Manual**.

The standard Right of Way plan consists of the following:

- Right of Way Legend Sheet
- Centerline Plat Sheet*
- Property Map Sheet*
- Summary of Additional Right of Way Sheet
- Right of Way Detail Sheet
- Right of Way Topography Sheet
- Right of Way Boundary Sheet
- Railroad Plat Sheet (when acquiring railroad property)

* Supplemental sheets can be added if sheet space requires them and the District Real Estate Administrator approves them.

If specified in the Project Scope of Services document or approved by District Real Estate Administrator a Utility Plan Sheet or Right of Way Schematic Plan Sheet may be required as part of the Right of Way Plan.

The need for a separate Utility Plan Sheet will depend largely on the nature, complexity, number of utilities affected and their involvement with the project. When a project requires a separate Utility Plan Sheet as part of the right of way plan, a copy of the Utility Plan Sheet shall be submitted to the District Utility Relocation Coordinator for review. If a separate Utility Plan Sheet is not required, all utilities and utility easement shall be shown on the Right of Way Plan Detail Sheets and/or the Right of Way Boundary Sheets. The utility ownership information shall be shown on both the general notes of the construction plan and the Right of Way Legend Sheet of the right of way plans. For additional information on utilities refer to the **Real Estate Policies and Procedures Manual, Section 8200**.

As with the Utility Plan Sheet, the need for a Right of Way Schematic Plan Sheet will be dictated by the complexity of a given project. A Right of Way Schematic Plan Sheet serves as a special index to the Right of Way Detail Sheets, Topography Sheets, and/or Boundary Sheets covering complex areas such as interchanges, extensive side or service road involvement, etc., which are so involved as to make it difficult to visualize the overall relationship of the plan sheets. The Right of Way Schematic Plan Sheet delineates the coverage of each plan sheet.

3103.5 Utility Requirements and Relocation Coordination

Refer to the **Real Estate Policies and Procedures Manual, Section 8200** for further details pertaining to utility relocation coordination.

3103.6 Survey Requirements

Right of Way plans are used to transfer property rights, making them part of a boundary survey. Therefore the O.A.C. 4733-37 “Minimum Standards for Boundary Surveys in the State of Ohio”, and any additional county conveyance standards must be followed. In addition the requirements specified in the Survey Manual shall be followed during the performance of all survey work associated with the Right of Way plan development. Particular reference should be made to **Sections 301.5 and 405 of the Survey Manual**. Further specific criteria to be followed in preparing the right of way plan may be found in the Project Scope of Services document and Right of Way Attachment.

3103.6.1 Project Control

The Project Scope of Services "Ongoing Consultant Involvement during the Construction Phase" document will detail specific requirements for post construction monumentation and identify who is responsible for this work.

Consideration must be given to the establishment of project control points in areas that will not be disturbed by construction activities. These project control points will be used during and after the construction phase.

3103.6.2 Data Gathering

The surveyor shall research existing records as per **Section 3104, "Establishing Right of Way & Title/Deed Rights"**. Once this research has been completed, the Professional Surveyor supervising the survey field work should review the Project Scope of Services document, analyze the data and instruct the field crew on which control points to search for and what data to gather.

ODOT survey crews and private consultant survey crews are granted access to private land per O.R.C. 163.03 and O.R.C. 5517.01. Property owner notification is required. Both ODOT and consultant surveyors however are responsible for any damage to crops or personal property of others incurred during the process of their work. Should any damages occur, the survey crew chief shall document the damage and file a report with the District Production office. Please refer to the **Real Estate Policies and Procedures Manual, Section 5307** and **Survey Manual, Section 102.6**. If any damage should occur, the District Production Office shall be informed immediately.

3103.6.3 Data Reduction and Boundary Analysis

Upon completion of the survey field work (refer to the PDP Manual as well as the Scope of Service Document) the Professional Surveyor will:

- Reduce the data gathered
- Select a bearing basis.
- Examine the deeds to resolve and establish the boundaries of the properties within the project limits. When problems are encountered with the deeds (e.g., closure, gaps, and overlaps), a note shall be included on the Property Map Sheet, Right of Way Detail Sheet and/or Right of Way Boundary Sheet. Refer to the sample plans in **Appendix A, Figure 3108.3 "Property Map Sheet"** and **Figure 3108.7 "Right of Way Boundary Sheet"**.

  In addition to the plan note(s), add a statement in the plan submittal letter identifying the title issues that were encountered, including identification of the parcels involved and a brief description of the issues. A detailed report of the title problem should be submitted with the Preliminary Right of Way Plan. This report identifies the documents that were used to identify the conflict and the level of research that was completed will assist the Region in scoping the Title Report.

- When necessary to establish the centerline, right of way lines and property lines, or when required by the County Engineer or the County Conveyance Standards, the surveyor will resolve the location of Virginia Military Survey (VMS) Lines, the original government survey corners and lines, or any other land survey system control lines. The resolution of these lines shall follow the intent of the Original Government Survey. If no land survey system control corner monumentation is found during the course of the survey, the surveyor should consult with the County Engineer's Office concerning the local procedure(s) for establishing land survey system control corners or for witnessing the corner from other record survey monuments to meet the County Conveyance Standards and the O.A.C. 4733-37 "Minimum Standards for Boundary Surveys in the State of Ohio". Also see **Section 3104.4, "Property Lines"**.

3103.6.4 Right of Way Centerline Establishment

Determination of the centerline of existing right of way and its relationship to both the centerline of proposed right of way and the centerline of construction should occur early in the Project Development Process. For Minor Projects, this will occur during Step 3 (Preliminary Engineering Study). For Major Projects, these issues can be covered as early as Step 5 (Conceptual Alternatives Study), but must be addressed no later than Step 6 (Assessment of Feasible Alternatives).

Guidelines governing establishment of the centerline of proposed right of way differ depending on whether or not the proposed roadway follows an existing alignment or is to be relocated onto a completely independent alignment. The intent of this guideline is to use a centerline of right of way that maintains the originally created and controlling centerline of right of way unless this existing centerline of right of way is unlikely to be needed in the future (e.g., vacation of land) or is not feasible to use for right of way acquisition purposes (e.g., large shift in alignment).

The centerline of existing right of way is established based on research of record alignments from petitions, existing plans, recorded subdivision plats and recorded centerline plats used in conjunction with the locations of existing monuments (centerline, reference or right of way) that define/control the alignment.

For projects that are to be constructed close to an existing alignment, the centerline of right of way used to describe proposed acquisition shall match the centerline of existing right of way.

The centerline of construction for projects on existing alignments should match the centerline of existing/proposed right of way except when a separate centerline is needed due to engineering or construction requirements (e.g., when the centerline of right of way consists of series of points of inflection that fall outside the pavement).

The centerline of construction on new alignment projects will be established in accordance with geometric design criteria. For projects located on a new alignment, a new centerline of (proposed) right of way matching the centerline of construction shall be established. At the beginning/ending of the project where the centerline of construction ties into the existing alignment, the centerline of existing right of way should be used.

For New Alignments ONLY, the centerline of construction may contain spirals in addition to simple curves, deflection points and tangent lines. Though spiral curves should generally be avoided in right of way centerlines, spiral curves in the centerline of proposed right of way are acceptable when fee takings along the proposed alignment are being acquired.

In all cases, the relationship(s) between the various centerlines must be clearly identified within the right of way plans.

3104 Establishing Right of Way & Title/Deed Rights

3104.1 Existing Right of Way Limits

Existing right of way lines shall be located based on requirements specified in the O.A.C. 4733-37 "Minimum Standards for Boundary Surveys in the State of Ohio".

It is the responsibility of the surveyor and Right of Way Plan Designer to research the existing right of way lines for all roadways within the project limits. In addition to the information received from the title research/report the existing right of way lines and data shall be researched from all available sources including but not limited to:

ODOT records	county engineers	Ohio Historical Society
county road records	city engineers	Local Historical Societies
commissioner's journals	county and city maps/plats/surveys	Deeds

All existing right of way research shall be to the extent necessary to provide accurate foundation for the existing right of way lines. Keep in mind when performing this research that many State Highways were County Roads prior to becoming state highways and therefore may require a more in depth search. On the Legend Sheet include a Basis of Existing Right of Way Note identifying the type of right of way and the year for which it was acquired "when and where possible" (i.e. existing R/W by fee 1975, existing R/W by easement 1950). Refer to **Appendix C** for additional information on State Highway Right of Way Widths and the years they were established.

3104.2 Existing Easements (Public, Utility and Private)

It is the responsibility of the surveyor and Right of Way Plan Designer to insure that all existing easements are shown on the plans including the type, size, owner(s), and recording data of the easement(s). This is important for the purpose of allocating real estate costs, utility reimbursement costs, and construction cost. It is further important and necessary to know whether utilities that must be moved are occupying their own easement. Keep in mind that not all easements are recorded in the courthouse.

3104.3 Title Report / Deed Information and Title Chains

Unless noted otherwise in the Project Scope of Services document, the design agency shall be responsible for submitting a title report / deed information prepared by an ODOT prequalified firm or individual in Title Research for any potential acquisition. The design agency will be responsible for a full title search back to root title (a Warranty Deed or Judicial Decree), with a minimum of 42 year search for each parcel series. All title reports shall include easements, liens, encumbrances, taxes, mortgages, etc. as required by the **Real Estate Policies and Procedures Manual, Section 5100**.

3104.4 Property Lines

Property lines shall be located based on the requirements specified in O.A.C. 4733-37 "Minimum Standards for Boundary Surveys in the State of Ohio" and in accordance with any special requirements of the county(s) in which the project is located. Also see **Section 3103.6.3, "Data Reduction and Boundary Analysis"**.

3104.5 Existing Monuments

As required in O.A.C. 4733-37-02 “Research and Investigation” after all written documents have been analyzed the survey shall be based on a field investigation of the property. The surveyor shall make a thorough search for **ALL** physical monuments, and analyze evidence of monumentation and occupation. In addition, the surveyor shall, when necessary, confer with the owner(s) of the property being surveyed and the adjoining property. All monuments, evidence of monuments and occupation lines shall be shown in the Right of Way Plans. When a non-controlling or uncalled for monument is located, a witness tie from the computed corner to the non-controlling or uncalled for monument shall be placed in the right of way plans.

3104.6 Mineral Rights (Oil, Gas Coal, etc.)

When the title report or other means has identified mineral rights belonging to someone other than the current land owner, it is imperative that all recording information be included on the Summary of Additional Right of Way Sheet. The recording information shall include the name(s) of the individual(s) that holds these rights, the deed, volume and page number(s), if it is currently under contract and/or lease and if so who these contract or lease holders are.

3105 Location of all Topographic Items (Above and Below Ground)

3105.1 Appurtenances

All topography within the project limits will be documented and displayed as outlined in this manual and the Survey Manual. Right of way plans are developed for appraisal and acquisition purposes and as a consequence require a significant amount of topographic detail, which may in some cases have little relationship/impact to the actual roadway construction. However, depending on the Project Scope of Services document, the complexity of the project, and the properties involved, additional topography may be needed to show the impacts of the roadway construction to the property owners.

For example: the project involves a property which has access located along ODOT right of way, and the structures are located 500' from the existing right of way. These structures must be shown accurately on the plans (Property Map Sheet).

All visible or known items within the potential take area beyond the existing right of way must be mapped. These items include but are not limited to:

> Existing pavement, bridges, streams, railroads, right of way lines, driveways (show centerline station intercept, type and size), parking on commercial property and related surfaces, sidewalks, structures, foundations, underground lines, underground storage tanks, easements, wells, cisterns, septic systems, sewers, sprinkler systems, fences, signs, billboards (provide permit number), trees, shrubs, field tiles, drain pipes and drainage structures.

In short, show any item or feature that might be affected by the proposed work or in any way may have an impact on the appraisal of the proposed taking.

3105.2 Structures

When a parcel of land is impacted by the project, all structures within that parcel must be shown on the right of way plans. When the structure is within 100 feet of the proposed right of way line the type, size and a distance from the closest point on the structure to the proposed right of way line must be shown. In addition all porches, overhangs, awnings, and overhead signs that are attached to the structure must be shown accurately.

3105.3 Advertising and Device Controlled Signs

Any sign and/or billboard larger than eight square feet, and located off premise, must be investigated by ODOT's Advertising and Device Control (ADC) section, in the Office of Contracts. A sign advertising something which is not located on the property that the sign is located on is considered an off premise sign. The sign may be located on the property of the sign owner, but if it advertises something which is not happening on that property, it is considered an off-premise sign. When a possible ADC sign is recognized and/or identified, the ADC section should be contacted at 614-728-2007 or toll free at 877-811-4090. They will provide the following information:

> Is the route an ADC controlled Highway?
> Is the billboard permitted by ADC?
> Is the billboard located where it is permitted by ADC?

The designer will then briefly summarize this information within the remarks column of the Summary of Additional Right of Way Sheet. (ADC permit no. #####, Not an ADC controlled Highway, etc.)

3105.4 Encroachments

Encroachments consist of those objects which are located within public right of way and are NOT permitted to be there. All encroachments shall be shown and described on both the construction and right of way plans. These objects may consist of, but are not limited to, permanent structures, portable structures, porches, awnings, ground mounted signs, signs that overhang from a structure, portable signs, parking spaces, vehicles, equipment, fence, post, landscaping, sprinkler heads, etc. Identifying these objects is dependent entirely on the accurate location of highway rights of way. Identify these objects as early as possible in the project development process. Refer to the **Real Estate Policies and Procedures Manual, Section 5312**, for additional information regarding encroachments.

3105.5 Utilities above and below Ground

As outlined in O.R.C. 153.64, the **Real Estate Policies and Procedures Manual, Section 8200 and the Survey Manual, Section 405**, all utilities above and below ground must be located accurately including individual poles and towers, pedestals, regulator stations, transformer stations, service lines, etc. All recorded utility easements shall be shown on the plans as well as all associated recording data. Utilities located outside ODOT right of way and without the benefit of a recorded easement should be contacted for any rights obtained from property owners that were not recorded.

For the purpose of allocating project costs, it is necessary to know whether utilities that must be moved are occupying their own right of way or ODOT's. The plan preparer shall provide a list, including name, address and phone number of all utilities affected by the project showing the particular office to serve as contact for the project. Refer to the **Real Estate Policies and Procedures Manual, Section 8200** for further details pertaining to utility relocation coordination.

For those utilities located below ground the right of way design agency shall confirm that the Ohio Utility Protection Services (OUPS) and the Oil and Gas Producers Underground Protection Services (OGPUPS) have been contacted during the Project Development Process. The design agency should also obtain a confirmation number or letter from either the utility company, the surveyor that performed the work or the roadway engineer assuring that all utilities are shown on the right of way plans. Keep in mind that some utility companies are OUPS limited basis members. Limited basis members must be contacted directly by the design agency due to the limited information available with OUPS and the level of service provided for this type of membership. Additionally there are non-members of OUPS who must be contacted directly by the design agency since OUPS has no information for these utilities.

In addition to OUPS and OGPUPS, the Subsurface Utility Engineering (SUE) process provides data on existing utilities that are below ground and other subsurface structures at the design phase of a project in four quality levels. The accuracy that SUE can provide is necessary on many projects for determining construction conflicts, easement and property rights which ultimately establishing utility relocation and real estate costs. Refer to the **Real Estate Policies and Procedures Manual, Section 8203** for further details on Subsurface Utility Engineering process.

3105.6 Leach Beds, Septic Systems/Tanks, Sprinkler Systems/Heads and Underground Wells

Every effort must be made to identify those properties that have privately owned underground features such as leach beds, septic systems/tanks, sprinkler systems/heads and underground wells, and show them on the plans. This may require but, is not limited to contacting the local Health Department, property owner, and/or landlord in order to accurately locate these items.

3106 Proposed Right of Way

3106.1 Base Map

The base map(s) are the foundation for the entire set of roadway plans. The base map(s) should be used throughout the design of both the construction and right of way plan process and should contain all necessary features (existing and proposed) to successfully complete the acquisition and design of the entire project. Review the **CADD Engineering Standards Manual, Section 300** for more information on base maps as well as file naming conventions for all dgn files.

The right of way base map includes: Existing and proposed centerlines, right of way lines (w/ type of R/W), property lines (w/ PL label), all easements (w/ types), property line control monuments (type and size), section lines, VMS lines and other lines established by original surveys.

The existing base map used by both right of way and roadway designers includes: pavement, above and below ground utility locations (type), structures, out buildings, fences (w/ type), drives (w/ type), all vegetation, shrubs and trees (w/ size), etc.

3106.2 Right of Way Alignment and Boundary Monumentation

Monumentation, with respect to right of way, is needed for two specific purposes:

1. The first is to maintain the physical location of the centerline of right of way as required by law in O.R.C. 5519.05. Monumentation physically defines the centerline of right of way, provides a commencement point for legal descriptions, and facilitates right of way management activities. This should be accomplished by using one of the following two types of monuments:

> CENTERLINE MONUMENTS OR MONUMENT ASSEMBLY - consists of an iron pin set inside a monument box. Is a monument located on the right of way centerline and is normally set at the P.C. and P.T. of curves and at appropriate intervals on longer tangent segments.
>
> REFERENCE MONUMENTS - consists of an iron pin set in concrete. Used for proposed monuments to be constructed in unpaved areas. Is a monument that defines the centerline based on a specific offset from that centerline. Reference monuments are usually constructed in pairs on either side of the centerline, are normally set at ground level, and typically located to reference the P.C. and P.T. of curves and tangent points. In addition, they are located in such a way to support re-establishment of the centerline of right of way, yet not in the path of routine maintenance activities and noise walls.

2. The second is to maintain the physical location of the corners and other points on the boundaries of each parcel of permanent right of way being acquired, satisfying the requirements set forth in O.A.C. 4733-37 “Minimum Standards for Boundary Surveys in the State of Ohio”. All such monuments are to be recited in the legal descriptions for acquisition of these right of way parcels. This is to be accomplished by the use of the following type of monument:

> RIGHT OF WAY MONUMENTS - consists of a monument set along the proposed right of way line (not the centerline) at property corners, property line intersections, and angle points. Right of Way Monuments usually consist of a capped iron pin (without concrete encasement).

Specific details and descriptions of each of the above types of monuments can be found in the **Survey Manual, Section 301** and in the **Standard Construction Drawings RM-1.1.**

There are different times within the development of a project that have been selected for setting boundary monuments. Those time periods include before right of way acquisition, after right of way negotiations and after project construction. Each time period can be said to have certain advantages and disadvantages. Boundary monuments should be set with consideration to the O.A.C. 4733-37 “Minimum Standards for Boundary Surveys in the State of Ohio”, which specifies that monuments are to be set upon completion of the survey. Naturally, this would be before transfer of the affected right of way parcels.

Selection of the exact time period at which boundary monuments will be set for a particular project should be determined by the District office with consideration given to both the needs of right of way acquisition personnel and the requirements of the O.A.C.

Refer to the **Construction and Materials Specifications, Section 107.10, “Protection and Restoration of Property”** for further details pertaining to post construction monumentation.

NOTE: Frequent reference is made to "right of way staking" and though sometimes perceived otherwise, it is intended to refer to the delineation of proposed right of way lines and usually consists of flagged-laths placed on angle points, corners and property line intersections on said lines to accommodate the appraisal and negotiation process. This is NOT intended to be the final pinning of right of way.

3106.3 Construction Limits

Construction limits will encompass all anticipated work and will assist in defining the minimum right of way (including temporaries) required. Construction limits are typically drawn +/- four feet beyond the intersection of the proposed back slope or fill slope to the existing ground line and outside the limits needed to complete the work shown on the plan. Special attention should be given where any limited access fencing is being installed. Construction limits will include the removal of any items inside the proposed right of way line (parking areas, trees, signs, structures, etc.) or any excavation or grading (installation of storm sewers, etc.).

3106.4 Establishing Right of Way Lines and Widths

Federal regulations specify that "The State shall acquire rights of way of such nature and extent as are adequate for the construction, operation, and maintenance of a project". The location of the right of way lines are determined, to a large degree, by the construction limits. The right of way line, either permanent or temporary, must encompass all construction limits. The right of way width should be sufficient to accommodate the proposed roadway. Many additional factors must be taken into consideration before final right of way lines are established.

Factors that should be considered in the selection of right of way widths include, but are not limited to: utilities, anticipated traffic volume, stage construction, real estate values, winter snow removal and storage difficulties, flat or rolling terrain, etc. It is essential that the selected right of way width meet all the requirements of the construction and maintenance of the highway.

It is desirable, whenever local conditions will permit, to call for a uniform width of right of way through a specific property, rather than to break it into a series of varying widths. If the road can be built on less than the standard width, in an effort to avoid costly building relocation, the right of way may be "jogged". However, care should be exercised in this practice, many times when the right of way is jogged to miss the buildings or tree they still suffer substantial damages, thus the jogging may not be justified.

Below are a few general rules that should be applied to the determination of right of way lines:

It is recommended that the proposed right of way line be set a minimum of three to five feet beyond or outside the construction limits, unless circumstances dictate otherwise. The proposed right of way lines are to encompass enough right of way to construct and maintain the road. They should also allow room for utilities to be placed within the right of way.

All drainage structures shall be constructed within permanent right of way. If the end of a drainage pipe (including wing walls and the foundation) falls outside the standard width right of way line, then ensure that permanent right of way extends a minimum of 10 feet beyond the pipe ends and 15 feet on each side of the centerline of the pipe for construction and maintenance purposes. Acquire a channel easement for the area of erosion control and other considerations based on future maintenance access needs and terrain.

The right of way lines should be kept parallel or concentric to the centerline when and where possible. Angles in lines should be kept to a minimum.

Angles or breakpoints should not be placed in a road, streambed, drainage channel or driveway. When it is necessary to angle at a stream crossing, angle points should be placed on each bank and connected with a straight line.

In interchange or ramp areas, the right of way should be described from the mainline right of way centerline.

When and where possible, maintain a uniform highway right of way width on each side of the right of way centerline.

Where roadside slopes are necessary to maintain the integrity of the roadway, the cut and fill slopes construction limits are to be acquired uniformly and with as few breaks as possible.

Where width changes in the proposed right of way are required, both right and left offsets, should coincide at the same stationing.

When there is a need for a proposed right of way width change near the beginning or end of a horizontal curve, the offset points shall be made at the P.C. or P.T. stations.

When the alignment contains a spiral curve, the proposed right of way lines shall be designed with a single tangent line struck on the chord at the desired offset from the alignment between the T.S. (Tangent to Spiral), and S.C. (Spiral to Curve), as well as the C.S. (Curve to Spiral), and S.T. (Spiral to Tangent) points.

When right of way is to be acquired at the beginning or end of a project, and those points are within the limits of an individual property ownership, consideration should be given to acquiring right of way through the ownership for uniformity, future development, and so that the owner will not have to be contacted again.

The access rights at interchanges on a limited access highways maybe acquired at a minimum of 600 feet in each direction along the intersecting highway, measured from the outer-most ramp terminal intersections with the highway. For more direction on access control and access management, see the **Location and Design Manual, Volume One, Section 800** and the **State Highway Access Management Manual**.

3106.5 Determining Types of Right of Way Parcel Takes

When determining the type of right of way to acquire, one must understand there are two major types of title ODOT acquires, fee simple and easement. The Project Scope of Services document should outline the type of title to be acquired on a project. In the event it does not, the District Real Estate Administrator shall be contacted for direction on the type of title to acquire. Refer to the **Section 3200, "Types of Title to be Acquired"**.

3106.5.1 Fee Simple vs. Easement

There are political, financial, maintenance, and inventory benefits to acquiring both Fee Simple and Easement. As a Right of Way Plan Designer you must identify which of these types of taking is most beneficial to both the department and the public on any given project. When determining whether to use Fee Simple or Easement consider the following:

- What type of title was the existing right of way acquired with?
- Which type is beneficial to both the property owner and the department?
- Are there any property owner conflicts in the project area?
- What is the projected development of the area?
- What are the state and/or federal funding requirements?
- What is the mood of the property owners that will be affected, etc.
- When acquiring Fee Simple does the property encompass Present Road Occupied (PRO) outside the project limits?

Continuous communication with the District Real Estate Office and Roadway Designer, as well as common sense and experience, will best assist you when determining whether to use Easement or Fee Simple.

3106.5.2 Cost effectiveness of Real Estate Acquisition vs. Construction Design

From the beginning of the project development process until the plans are completed the Right of Way Plan Designer should continually examine the cost effectiveness of real estate acquisition vs. construction design. While in many cases this examination will not involve exact dollar figures, it should involve the evaluation of those situation where real estate cost / impacts are high and construction design can be tailored to reduce the real estate cost / impacts. This requires open and consistent communication between the roadway designer and Right of Way Plan Designer.

3106.6 Total Takes and/or Land Locked Parcels

During Major Step 6 and Minor Step 3 of the PDP process, the design agency shall identify any properties that are likely to be acquired in their entirety (i.e., total takes and/or landlocked parcels) as well as any residential or commercial structures that may need to be acquired. This will facilitate preparation of the environmental document and should allow ODOT to include sufficient time in the project schedule for acquisition of these properties.

In some cases (i.e., protective buys, hardship acquisition, schedule constraints), property will be acquired prior to completion of the full set of right of way plans. In these instances, the right of way plan designer shall prepare plan sheets and legal descriptions that describe the parcel(s) to be acquired. At a minimum, the right of way plans must contain the Summary of Additional Right of Way information, a Right of Way Detail Sheet(s) and Legal Description of the area to be taken.

For partial takes, the construction and right of way plan sheets must be sufficiently developed in accordance with the Ohio Revised Code 163.05 to provide: "… a description of the nature of the improvement … including any specifications, elevations, and grade changes … in sufficient detail to permit a determination of the nature, extent, and effect of the taking and improvement."

The District Real Estate Administrator should be contacted for any questions regarding plan requirements and/or scheduling of right of way acquisition.

3106.7 Sight Distance

When determining the type and amount of proposed right of way takes at intersection or in the vicinity of a horizontal curve, the designer must take into consideration the required sight distance. Then acquire the appropriate amount of right of way as well as the correct type (Limited Access Right of Way if necessary) can assure that the sight distance will not be impeded during and after the project is completed. For more information see the **Location and Design Manual, Volume One, Section 200**.

3106.8 Access Control, Rules and Regulations

ODOT's access rules and regulations are derived from the Ohio Revised Code (ORC) Section 5501.31 and Section 5515.01. It is a goal of ODOT to preserve and manage the state highway system effectively, improve public safety in the development, design and operation of the state highway system as well as maintain and protect the function and ability to move people and goods efficiently and conveniently.

ODOT is committed to implementing access control, access management policies and sound engineering standards that reduce highway congestion, minimize traffic delays, improve traffic flow, preserve highway capacity, and reduce accidents. For more information see the Location **and Design Manual, Volume One, Section 801**, as well as the **State Highway Access Management Manual**.

3106.9 Drives - Industrial, Commercial, Residential and Field

The right of way design agency must identify all existing driveway access points for all properties along the project corridor. The type and existing material used in each driveway (i.e. gravel, asphalt, concrete, etc.), must also be identified in the plans. In addition, the designer must review, evaluate and identify all proposed and relocated drive locations as well as any driveway access points that are to be eliminated. The type of material used for the proposed driveway, the size of the proposed driveway and the location along the centerline station must be identified.

An industrial driveway is identified as serving a substantial number of truck movements (10 or more per day) to and from loading docks of an industrial facility, warehouse, or truck terminal.

A commercial driveway is identified as providing access to an office, business, retail or institutional building, or residential facility having five or more units. These driveways are customarily serviced by trucks as an incidental drive rather than a principal driveway. Industrial plant driveways, whose primary function is to serve administrative or employee parking are considered commercial driveways and not industrial driveways.

A residential driveway is identified as providing access to a single family residence or duplex.

A field driveway is identified as access to an agricultural or undeveloped tract of land.

3106.10 Drainage

When determining the amount and type of proposed right of way, the designer must review the proposed drainage design and its impact to the affected property. Some major drainage items of concern are: open water courses (ditches), channels, storm sewers, catch basins, manholes, culverts, headwalls, agricultural drainage tiles, erosion control, and post construction storm water management controls (sediment basins , swirl separators). For more information on drainage design see the **Location and Design Manual, Volume Two**. The Right of Way Plan Designer should contact the drainage designer during the project development.

3106.11 Utility Conflicts and Relocation

With utilities involved as early as the Red Flag Summary (Step 1 - Minor Projects and Step 2 - Major Projects), many major conflicts and relocation issues are identified prior to Stage 1 Detail Design. However continual attention must be given to utility conflicts and relocation during development of the right of way plan and Stage 1 Detailed Design. Many utility conflicts and relocation issues are not clear until detailed roadway design is complete. These conflicts may have a major impact on the type of right of way acquired as well as the amount of land acquired. For more information on Utility Conflicts and Relocation see the **Real Estate Policies and Procedures Manual, Section 8200**.

3106.12 Railroad Property

When railroad property falls within the work limits of the proposed project, a construction work agreement must be obtained from the railroad/railway company. This agreement should be coordinated with the ODOT Central Office railroad coordinator. The construction agreement and acquisition of railroad property are two independent steps. ODOT must initiate railroad coordination with the railroad company during the Red Flag Summary (Step 1 - Minor Projects and Step 2 - Major Projects).

It is the responsibility of the right of way design agency to prepare the railroad plat when the acquisition of the railroad property is necessary. Before preparing the plans or acquiring either operating or non-operating railroad right of way, an extensive title search is necessary. The title search is to determine what title the railroad company holds to the real estate. The search involves a report of liens and obtaining a copy of the conveyance that first transferred the real estate to a railroad. The conveyance must be reviewed to determine whether the railroad has fee title or if they only have an easement right to the real estate. If, after reviewing the conveyance, it is not clear what interest or rights the railroad holds, it should be brought to the attention of the District Real Estate Administrator and Railroad Acquisition Unit in the Office of Real Estate. See **Section 3108.8, "Railroad Plat Sheet"** for detailed information on how to prepare a railroad plat.

3106.13 Adherence to the Environmental Document

In order for the Environmental Document to be approved, a fairly accurate location of all proposed permanent and temporary right of way must be identified. This information must be provided during the Assessment of Feasible Alternatives Step 6 Major Projects (PDP) and Preferred Alternative Verification Activities Step 7 Major Projects (PDP) and the Preliminary Engineering Study, Step 3 Minor Projects (PDP). Resources within the proposed permanent and temporary right of way will be studied to determine impact levels.

On those projects that use federal funds for right of way acquisition, the environment document must be approved prior to federal authorization for reimbursement.

The Right of Way Plan Designer must maintain coordination and communication with the project manager and the Office of Environmental Services during the right of way plan development process for possible changes to the location of proposed permanent and temporary right of way relative to sensitive environmental resources. Changes that occur in temporary or permanent right of way may lead to different resource impacts than those approved in the environmental document. When this occurs a re-evaluation of the environmental document is required. A proactive approach including effective communication with the District Environmental Coordinator and the Office of Environmental Services can minimize project delays and scope creep when the right of way limits change. For more information contact the Office of Environmental Services.

3107 Standard Right of Way Plan Format

3107.1 Numbering of Ownerships

Ownership is defined as the area of all contiguous lands having a common owner. "Common owner" is further qualified, in that, in the case of multiple deed references, the owners names must be identical.

An ownership number shall be assigned to each ownership on a project as soon as it is determined that the property will be impacted by the project. This number is limited to four numerical characters and one letter character and is to be a whole number without dashes. Each new number/letter combination shall indicate another ownership as being required. Ownership numbers are generally numbered following the same direction as the stationing of the project. The numbering can bounce from side to side but over the length of the project should increase sequentially.

When an out sale from an ownership occurs during the right of way plan development process, producing a new ownership required by the project, two options exist: (1) assign a new number to the split-out or, if this is impractical, (2) add an letter/alphabetical suffix to the original ownership number. Examples: 12 is one ownership in the name of John Jones, 12A is one ownership in the name of Jack Smith and 12B is one ownership in the name of Sara Smith.

To further clarify the issue, the letter/alphabetical suffix is used to identify an ownership not required or not in existence at the time of initial numbering and to avoid using a number totally out of sequence. A numerical suffix is used to identify additional parcels of the same type within a contiguous ownership **(see Section 3107.02, "Parcel Identification")**.

The ownership number, once assigned, shall remain with that ownership throughout the project development and acquisition process. It becomes the basic identification for file maintenance, plans and billing.

If ownerships merge, the higher ownership number should be canceled and subsequent transactions posted to the lower ownership number involved in the merger.

When acquisition starts or ends on a property line, the adjoining ownership should be assigned and listed on the Summary of Additional Right of Way Sheet with the volume and page number and marked "NO ADDITIONAL R/W REQUIRED."

When the work being performed effects only the Present Road Occupied (PRO) area of the property, the property owner should be listed and marked "NO ADDITIONAL R/W REQUIRED", unless we are acquiring Fee Simple Title for the PRO area.

3107.2 Parcel Identification

A parcel identifier shall be assigned to each individual parcel required from an ownership which indicates the type of title to be acquired. When a contiguous ownership has multiple parcel identifiers (title) of the same type the parcel identifier shall be followed by a number(s) starting with number "1"

- Example (1) Owner 23 has two separate types of takes (parcel identifiers) a Standard Highway Easement and a Temporary therefore the ownership would be 23-SH and 23-T,
- Example (2) Owner 23 has one type of take (parcel identifier) but in three separate locations within the ownership therefore the ownership would be 23-SH1, the second 23-SH2, and the third 23-SH3.

A parcel identifier and number combination once assigned to an ownership shall remain with that ownership throughout the right of way plan development and acquisition. If the parcel is no longer required, its identifier is deleted from the ownership.

A "V" parcel identifier should be used when acquiring parcels in the name of an entity other than ODOT, such as other state agencies and local political agencies. For example: if a piece of land was purchased as a WD (Fee Simple with Reservation of Access) by the department for the city of Columbus the identifier should appear as WDV. The remarks column of the Summary of Additional Right of Way Sheet shall show the name in which the parcel is being acquired.

When or if the type of title to a parcel changes, the old identifier is deleted and a new parcel identifier assigned.

For more information on parcel identifiers see **Section 3200, "Types of Title to be Acquired"**.

3107.3 Numbering of Right of Way Plan Sheets

The right of way plan sheets are numbered with two sets of numbers. The first set of sheet numbers is shown in a circle in the lower right corner and includes both the construction plan and right of way plan sheets. The second set of sheet numbers is located just above the circle in the lower right corner and includes the right of way plan sheet numbers only, beginning with the Right of Way Legend Sheet as Sheet Number One. For more information on sheet numbering, see the **Location and Design Manual, Volume Three, Section 1201.5.2**.

3107.4 CADD Engineering Standards

For specific guidance on the project directory structure, electronic file naming, text size, fonts, line styles, plan notes, cells or symbols used throughout the right of way plan design, see the **CADD Engineering Standards Manual**.

3107.5 Match Lines and Cross References

Wherever the right of way plan sheets are continued on another plan sheet, a match line should be shown, the station given, and the sheet number it cross references. The right of way plan sheets that are cross referenced may contain details of the main line, ramps, intersections, service roads, relocated intersecting roads, and railroads.

3108 Right of Way Plan Sheets

Each section below contains a list of reference numbers and letters that are exhibited as balloon references in **Appendix A,** "**Sample Plans"**. The reference numbers and letters in the following sections contains either the actual text that must be on the plan sheets or explain what information is required on the plan sheets. Refer to **Appendix A, Figures 3108.1 thru 3108.8**.

3108.1 Right of Way Legend Sheet

The Legend Sheet is a collection of notes, symbols, and detailed project information that is referenced throughout the plans.

Listed below and referenced to the sample Right of Way Legend Sheet in **Appendix A, Figure 3108.1**.

1A - Title Block

Located on the right side of the sheet and contains:

a. Sheet Numbers (Overall sheet numbering and right of way sheet numbering)
b. County, Route, Section
c. Sheet Title
d. Initials of Right of Way Plan Designer and Right of Way Plan Reviewer
e. Project Identification (PID) Number
g. Federal Project Number

1B - Sheet Heading

The Sheet Heading shows and identifies the county(s), political township(s), original government survey(s), and the city(ies) or village(s) that fall within the project limits.

a. County
b. Civil Township
c. Section / Township Tier / Range / VMS numbers
d. City or Village, if applicable

1C - Structure Key

Provide a key indicating the different types of structures, e.g., residential, commercial, outbuildings, etc. Differentiate the types of structures by hatching, shading, etc.

1D - Utility List and Note

Provide a list, including name, address and phone number of all utilities affected by the project showing the particular office to serve as contact for the project. Include also the underground utility note as shown on the sample sheet and as appears in the general notes of the construction plan. If a separate Utility Plan is not required, all utility ownership information shall be shown on the Legend Sheet.

1E - Conventional Symbols

Commonly used symbols and line styles throughout the right of way plans shall be displayed here. It is the responsibility of the Right of Way Plan Designer to update the Conventional Symbols for each set of plans prepared. Standard symbology as per the **CADD Engineering Standards Manual** should be used.

1F - Index of Sheets

The index serves as a table of contents for the right of way plans. It is extremely important that the index of sheets agrees exactly with the right of way plan sheet numbering system to ensure that the plan is complete. Should a sheet need to be added after the Right of Way Tracing are submitted or just before, sheets may be inserted into the plan by alphabetizing (Example: current sheet = 10, new sheets = 10A, 10B, etc.) All alphabetized sheets must be shown in the index of sheets.

1G - Project Description

The Project Description consists of a brief note describing the primary purpose of the improvement and the project length. The description should use words and phrases such as; resurfacing of; widening and resurfacing of; reconstruction of; relocation of; construction of; rehabilitation of; replacement of; etc. This description should mirror the project description listed on the title sheet of the construction plans.

1H - Project Control Information

The Project Control Information shall include State Plane Grid Zone, Combined Scale Factor, and Horizontal Datum Used,. For more information on these items see the Survey Manual. If the Project is referenced to State Plane Coordinates or tied to any Horizontal Datum, make note as to the assumption of the coordinates for project use only.

1I - Plans Prepared By

Provide the date in which the right of way plans were completed. The completion date is the date the design agency has complied with all review comments and submitted the plans as the Right of Way Tracings. The individual that performs the field review shall provide their signature and the date in which the review was performed. The designer shall sign and date the day they completed updating the ownership information which must be within 15 working days of submitting the Right of Way Tracings.

1J - Survey Certification

Provide a surveyor's certification statement identifying the surveyor(s) name, registration number, a brief description of what is being certified, and the surveyor's signature and seal.

For more detailed information on Surveyor's Certification review **Appendix C** and the Project Scope of Services document.

1K - Parcel Identifier Legend

The Parcel Identifier Legend denotes the abbreviation for each parcel identifier used in the plan, and presents the full name of each abbreviation.

The following item is NOT shown in **Appendix A, Figure 1308.1**, however it is required when encounter on a project.

Limited Access Declaration

If the project is limited access, show the following Limited Access Declaration:

> THIS IMPROVEMENT IS ESPECIALLY DESIGNED FOR THROUGH TRAFFIC AND HAS BEEN DECLARED A LIMITED ACCESS HIGHWAY OR FREEWAY BY ACTION OF THE DIRECTOR IN ACCORDANCE WITH THE PROVISIONS OF SECTION 5511.02 OF THE REVISED CODE OF OHIO.

3108.2 Centerline Plat Sheet

The Centerline Plat serves two major purposes. First purpose is to define the proposed centerline and relate it accurately and precisely to it's geographical location. Clearly show the relative location and measurement information of the proposed centerline to the Original Government Survey Lines, recorded subdivision corners or any other acceptable commencement point/lines. Verify that this information is acceptable to the County Engineer and Auditor for the project location. Provide ample data to enable the County Engineer and/or Auditor to locate the new alignment as well as sufficient information to re-establish the centerline alignment(s) in the future, should the centerline monuments become lost or obiltered. The plat must clearly show what monuments and/or record information was used to define the existing alignments and Original Government Survey Lines. The Plat shall meet any applicable requirements of O.A.C. 4733-37 “Minimum Standards for Boundary Surveys in the State of Ohio” and requirements (Also see ADDITIONAL ITEMS at the end of this Section).

The second purpose of the Centerline Plat is to show the exact location of new monuments that are set for the purpose of maintaining the physical location of the centerline. Since considerable amount of funding is used to establish the location of centerline(s), it is important that ample monumentation be incorporated as part of every project. Refer to the **Survey Manual, Section 301** for further details related to monumentation. Due to the make up of the Centerline Plat and the fact that this sheet is recorded at the local county recorder's office, it is the ideal sheet for showing the exact location of all proposed or found centerline monuments or centerline reference monuments.

Listed below and referenced to the sample Centerline Plat Sheet in **Appendix A, Figure 3108.2**.

2A - Title Block

Located on the right side of the sheet and contains:

a. Sheet Numbers (Overall sheet numbering and right of way sheet numbering)
b. County, Route, Section
c. Sheet Title
d. Initials of Right of Way Plan Designer and Right of Way Plan Reviewer
e. Project Identification (PID) Number
f. Scale
g. North arrow

2B - Sheet Heading

The Sheet Heading shows and identifies the county(s), political townships, original government survey(s), and the city(ies) or village(s) that fall within the project limits.

a. County
b. Civil Township
c. Section / Township Tier / Range / VMS numbers
d. City or Village, if applicable

2C - Monument Table

Tabulate centerline monuments and/or reference monuments by station. For reference monuments, show offset, right and left, as well. Format for this table is flexible, relative to the needs of each project. If required by the Project Scope of Services document and/or the Right of Way Attachment, state plane grid and project coordinates for the proposed monuments, all centerline alignment curves, and deflection points shall be shown. A pay item shall be shown on the General Summary sheet of the construction plans when new monuments are to be set. See **Section 3106.2 “Right of Way Alignment and Boundary Monuments”** for more information.

2D - Monument Legend

Show a graphic depiction of monuments appearing in the plan clearly distinguishing between those found (existing) and those to be set (proposed).

2E - Basis for Bearings

Provide information regarding the basis for bearings used on the centerline. If they are based on a prior project, cite the county, route and section and recording data for its Centerline Plat. Bearings are preferred to be based on State Plan Coordinates or to assumed bearings relative to recorded documents.

2F - Basis of Existing Centerline of Right of Way and Right of Way Width

Provide a note that describes the source(s) which were used to establish the Basis of Existing Centerline and the Right of Way Width. For example, the bearings could be based off another right of way plan, another survey, an old road record, deed description, etc. While the Right of Way Width may come from sources such as: existing right of way plans, old construction plans, county commissioners journal, county engineers road record books, Intercounty Highway System, plats, etc.

2G - Centerline of Right of Way Data

Define the centerline of right of way data for all roadways showing the bearing and distance along each tangent section, labeling the curve points along the centerline as well as the curve elements and data for each curve at least once per sheet on which the curve appears. Refer to the **Location and Design Manual, Volume Three, Figures 1303-1 through 1303-3,** for the required elements and data of curves and spirals. In addition provide the chord bearing and chord distances for both curves and spirals. The maximum superelevation (e-max) is NOT necessary.

NOTE: For New Alignments ONLY, the centerline of construction may contain spirals in addition to simple curves, deflection points and tangent lines. Though spiral curves should generally be avoided in right of way centerlines, spiral curves in the centerline of proposed right of way are acceptable when fee takings along the proposed alignment are being acquired.

When a project involves more than one centerline, e.g., of right of way, of construction, etc., the primary concern on the plat should be showing clearly, graphically and mathematically, the distinction and the relationship between these centerlines. In many cases, this can be best accomplished by an exaggerated scale diagram. It should also clearly define which of the centerlines the proposed right of way, etc., will be referenced.

2H - Centerline Stationing

Under normal circumstances, the centerline stationing on a project should closely reflect the straight line mileage shown in the "section." Centerline Stationing can come from existing monumentation, bridges and prior projects, but should reflect the straight line mileage or what was called for in the Project Scope of Services document. Refer to the **Location and Design Manual, Volume Three, Section 1300** for details pertaining to straight line mileages, stationing and project identification. Any deviation from this format or any special circumstances must be approved by the District Real Estate Administrator.

Centerline Stations are normally displayed at 500-foot intervals, with intermediate ticks every 100 feet. Centerline stationing should normally read from left to right and bottom to top on all plan sheets.

Station equations along the proposed centerline of right of way are normally required when the proposed centerline of right of way ties into the existing centerline of right of way at the beginning and/or end.

2I - Intersections with the Centerline of Right of Way

Identify the station of intersection and offset distance if necessary, where Political Subdivisions, Original Government Surveys, Recorded Subdivisions, side roads and railroad centerlines intersect the centerline of right of way, identifying each by name and/or number and show direction/bearing where appropriate.

Stationing of lines that intersect/cross a spiral curve are permitted.

2J - Political Subdivisions, Original Government Survey and Recorded Subdivision Monumentation and Lines

Show and identify all monumentation found, in relation to the establishment and location of:

Political Subdivisions – State, County, Township or Corporation lines. Corporation lines shall be labeled clearly, leaving no question as to the area of incorporation and adjoining political entities. Show and identify any Political Subdivision lines of record, including names. Recording data for this information shall also be shown, if available.

Original Government Survey – Show rectangular land survey and Virginia Military Survey system lines. Clearly label each line as to Original Government Survey information (i.e. Section, Town Range, Lot Number, Quarter Section, VMS patent Number, etc.).

Recorded Subdivisions – Show lot lines (with lot information) and recorded subdivision boundaries. Clearly label each line as to interior lot lines (with lot information) and recorded subdivision boundaries (with phase or section and recording information).

Monuments shall contain descriptive information as referenced in O.A.C. 4733-37 “Minimum Standards for Boundary Surveys in the State of Ohio” (i.e. 1/2" Iron Pipe Found, 5/8" Rebar with red plastic cap marked Surveyor Name, Surveyor Number Found), unless the monument legend clearly indicates this information. Station and Offset referenced to the centerline of right of way shall be clearly shown on all monuments found and deflection of these lines. Bearing and distance information shall also be shown on these lines. There shall be a clear representation and retraceable relationship between the centerline of right of way and these lines.

2K - Centerline Monuments Note

Show the note referring to monumentation details as per standard construction drawings. (Notification of, and approval by the County / City Engineer, when involved, would be included in this note)

2L - Recording Block

Provide a block or space for recording data appropriate to the county(s) in which the project is located. Contact the county recorder's office to determine their requirements.

2M - Survey Certification

Provide a surveyor's certification statement identifying the surveyor(s) name, registration number, a brief description of what is being certified, and the surveyor’s signature and seal.

For more detailed information on Surveyor’s Certification review **Appendix C** and the Project Scope of Services document.

3108.3 Property Map Sheet

The purpose of a Property Map is to present a good overall picture of the right of way requirements for the project and show the relationship of the proposed right of way to each entire ownership. It should also provide a clear picture of the extent of ownership in each property, the relationship of properties to one another and the effects of the project on access and structures. In accomplishing these purposes, the following guidelines should be followed:

The entire periphery of each ownership must be shown. If space precludes doing so at the prevailing scale, show with broken lines or provide an inset at a scale that will permit showing the whole property.

Delineate extent of ownership clearly by generous use of property line symbols and ownership hook symbols.

Show the owners name(s) and ownership number together, within the property if at all possible. For ownerships with multiple auditors permanent parcel numbers, clearly indicate the portion of the ownership with the auditors permanent parcel numbers.

Show all buildings and drives on affected ownerships.

Identify landlocked parcels and residues.

Beyond those uses cited above, the Property Map also provides a basis for determining:

The need for service roads and/or access drives
The possibility for landlocked and "E" parcels

Listed below and referenced to the sample Property Map Sheet in **Appendix A, Figure 3108.3**.

3A - Title Block

Is located on the right side of the sheet and contains:

a. Sheet Numbers (Overall sheet numbering and right of way sheet numbering)
b. County, Route, Section
c. Sheet Title
d. Initials of Right of Way Plan Designer and Right of Way Plan Reviewer
e. Project Identification (PID) Number
f. Scale
g. North arrow

3B - Sheet Heading

The Sheet Heading shows and identifies the county(s), political townships, original government survey(s), and the city(ies) or village(s) that fall within the project limits.

a. County
b. Civil Township
c. Section / Township Tier / Range / VMS numbers
d. City or Village, if applicable

3C - Station Limit Flags

Station Limit Flags delineating the Begin and End stations for ACQUISITION shall be shown with the staff directed to the appropriate point ON the centerline. If applicable, show same for LIMITED ACCESS, right and left, if the two differ.

The limits for ACQUISITION should be shown in a similar manner on side roads if the proposed right of way is referenced to the side road centerline. This aspect is identified by stations along (longitudinal) the centerline of construction and/or right of way.

BEGIN and END ACQUISITION - determined from the right of way plans as the stations opposite the extreme points of new right of way, permanent or temporary, to be acquired for the project.

3D - Revision Block

A revision block showing the completion date and providing space to list revisions following the completion date shall be shown. Prior to Final Right of Way Plans being submitted for acquisition, changes can be made to the plan without noting any revisions in this block. After the plans have been submitted to the acquiring agency, any necessary revisions needed after that date are noted in the revision block and shall indicate specifically what was changed, the date of the correction or addition and the initials of the person that made the revision. Formal communication indicating the revision(s) made shall be sent by the District Production Office to the acquiring agency and shall include a copy of the revised plan sheets to verify the changes. To facilitate additional entries, the revision block is to read from the bottom up.

3E - Ownership Name and Number

Show the owner(s) of record exactly as he/she (they) appear on the instrument(s) conveying title and the ownership number together within the property, if at all possible. When there are multiple owners, all such names shall be spelled out here and elsewhere in the plan, as space dictates.

For those ownerships with multiple Auditors Permanent Parcel Numbers, clearly show the Auditor's Permanent Parcel Numbers within each individual tract. Use leaders when space is limited.

In most cases, individual right of way parcel identifiers (i.e. WD, SH, etc) need not be shown.

3F - Centerline Stationing

Under normal circumstances, the centerline stationing on a project should closely reflect the straight line mileage shown in the "section." Centerline Stationing can come from existing monumentation, bridges and prior projects, but should reflect the straight line mileage or what was called for in the Project Scope of Services document. Refer to the **Location and Design Manual, Volume Three, Section 1300** for details pertaining to straight line mileages, stationing and project identification. Any deviation from this format or any special circumstances must be approved by the District Real Estate Administrator.

Centerline Stations are normally displayed at 100-foot intervals. Centerline stationing should normally read from left to right and bottom to top on all plan sheets.

Station equations along the proposed centerline of right of way are normally required when the proposed centerline of right of way ties into the existing centerline of right of way at the beginning and/or end.

3G - Proposed Right of Way and Pavement

Show the proposed permanent right of way including standard highway easements and channel easements (other easements need not be shown unless they are the only "taking" proposed), be sure to adequately label all right of way lines (existing and proposed). Show the existing and proposed edges of pavement, including the mainline and side road pavement, ramps and structures (i.e. culverts & bridges).

3H - Structures

Show all structures, including residential, commercial and outbuildings on every ownership affected by the project. Location should be accurate as possible. Aerial photographs and other available sources may be used to locate structures outside the surveyed area.

3I - Political Subdivisions, Original Government Survey and Recorded Subdivision Lines

Political Subdivisions – State, County, Township or Corporation lines. Corporation lines shall be labeled clearly, leaving no question as to the area of incorporation and adjoining political entities. Show and identify any Political Subdivision lines of record, including names. Recording data for this information shall also be shown, if available.

Original Government Survey – Show rectangular land survey and Virginia Military Survey system lines. Clearly label each line as to Original Government Survey information (i.e. Section, Town Range, Lot Number, Quarter Section, VMS patent Number, etc.).

Recorded Subdivisions – Show lot lines (with lot information) and recorded subdivision boundaries. Clearly label each line as to interior lot lines (with lot information) and recorded subdivision boundaries (with phase or section and recording information).

3J - Property Lines

All property lines within the area of concern shall be shown and clearly labeled with the appropriate property line symbol.

3K - Utility Easements

Show and identify all utility easements, including the type of easement, the width of the easement and all recording data for the easement.

3L - Driveways

All driveways shall be shown as accurately as possible, with special attention to those that provide the sole source of access to a property and could have a bearing on whether a parcel or residue is landlocked. This may require aerial photos to determine the location of drives for properties that extend beyond the field surveyed area of the project corridor.

3M - Side Roads, Waterways, Lakes and Railroads

Show and label all side roads and their existing right of way, clearly identifying each road (include the State Route, County Route, Township Road Numbers, etc.) which intersect or are in the project limits. Provide the names of lakes, streams and/or waterways, and railroads. Provide a flow arrow identifying the direction of flow for all streams and/or waterways. Identify the railroad company that retains the property rights as well as the name(s) of the railroad company that is operating on the rail line.

3N – Closures, Gaps and Overlaps

When problems are encountered with the deeds (e.g., closure, gaps, and overlaps), a note shall be included briefly explaining the circumstances.

The following items are NOT shown in **Appendix A, Figure 1308.3** however they are required when encountered on a project.

Adjoining Project Data

Where ownerships and/or right of way have been effected or will be acquired as part of an adjacent project, show the ownership numbers and the "proposed" right of way with dashed lines and cite the county/route/section of the adjoining project.

Match Lines

When you have more than one Property Map Sheet, identify and label match lines clearly as to the station and sheet number they match. For more information about match lines see **Section 3107.5, "Match Lines and Cross References"**.

3108.4 Summary of Additional Right of Way Sheet

The Summary of Additional Right of Way Sheet is a tabular listing of all parcels and all aspects of those parcels. It identifying the types of takings from each ownership, and summarizes all aspects of the areas involved in the acquisition.

Listed below and referenced to the sample Summary of Additional Right of Way Sheets in **Appendix A, Figure 3108.4**.

4A - Title Block

Is located on the right side of the sheet and contains:

a. Sheet Numbers (Overall sheet numbering and right of way sheet numbering)
b. County, Route, Section
c. Sheet Title. If more than one Summary of Additional Right of Way sheet is used identify the Parcels shown on the sheet.
d. Initials of Right of Way Plan Designer and Right of Way Plan Reviewer
e. State Job Number
f. Project Identification (PID) Number
g. Federal Project Number

4B - Ownership Numbers and Parcel Identifiers

As more specifically described in **Section 3107.1, "Numbering of Ownerships"** ownership numbers shall be assigned to each ownership on the project. As described in **Section 3107. 2, "Parcel Identification"** a parcel identifier shall be assigned to each individual parcel required from an ownership which indicates the type of title to be acquired. When there is more than one parcel identifier per ownership, list in order of significance, fee takings, permanent easements, temporary easements, work agreements, etc. A frequently overlooked item is the accounting for all ownership numbers in a sequence, e.g., if numbering is started at 10, identify number 1-9 as "NOT USED" or, if within a sequence, a parcel is eliminated, identify it in like manner. In short, account for all ownership numbers within the project sequence as described in **Section 3107.1, "Numbering of Ownerships"**.

4C - Ownership Name

Show owner(s) of record EXACTLY as he/she (they) appear on the instrument(s) conveying title. When there are multiple owners, all such names shall be spelled out here and elsewhere in the plan, as space dictates. Other terminology - et al, et alii, aka, fka, etc., should be defined here. The existence of land contract in an ownership must be addressed, usually by noting "fee" in parentheses after the owner's name and listing the land contract holder's name on the line below and noted (L.C.). See **Section 3107.1, "Numbering of Ownerships"** for more information on ownerships.

In the case of multiple parcels to be acquired from an ownership, show the owners name with the first parcel only and if the name requires more than one line, show subsequent parcels below those lines.

When railroad property is involved on a project, show the name of the operating railroad company, and the railroad company that retains the property rights. Due to the peculiar nature of operating railroad ownerships, show the area needed to the nearest square foot for the proposed right of way.

Note any lease holders on a separate line below the fee owner of a particular parcel.

4D - Sheet Number

Show the Right of Way Detail, Topography, and/or Boundary Sheet number(s) where the corresponding parcel is located in the plan set. If the plan has multiple Property Map sheets, also indicate the sheet number(s) of the Property Map that the parcel is shown on. This will include recorded leases on the property to be acquired.

4E - Owners Record

List the Deed Volume and Page, Official Record (O.R.) drawer, micro fiche and/or any other recording information appropriate to the county in which it was obtained from. This should account for all interest in the property.

4F - Auditor's Permanent Parcel Number

The Auditor's Permanent Parcel Number is a number given to each parcel by the county Auditor's Office in which it exists. For each property owner show the appropriate Auditor's Permanent Parcel Number(s) that the County Auditor has assigned.

When an ownership has multiple Auditor's Permanent Parcel Numbers, record areas and take areas shall be split out by the appropriate Auditor's Permanent Parcel Numbers as shown for 8-WD.

4G - Record Area

The area established and reported by the County Auditor's Office. The County Auditor's reported record area will account for out sales, splits and/or acquisition that may not be reflected in the deeds, exhibits and/or legal descriptions. Various county auditors exempt the road right of way from the record area. Be sure to verify what method the county auditor uses. When the existing road right of way area is exempt from the County Auditor's Record Area, a symbol with a note shall be added to indicate the exemption. The note should appear in the Remarks Column and read as follows: The subtraction of the Total PRO area is not part of the Net Residue formula.

Areas are to be shown to the nearest thousandth of an acre, though in urban or other areas of high land valuation, it may be more appropriate to show these areas to the nearest square foot. Whichever the case, label clearly. The record area is NOT the area reported in the deed, exhibit and/or legal description unless that is the only source available. If the record area is unavailable through various sources, it may have to be calculated. When calculated, provide an explanation in the Remarks Column.

4H - Total Present Roadway Occupied (P.R.O.)

Present Roadway Occupied (P.R.O.) is defined as the area in which the property owner holds the underlying fee title, but is currently encumbered by either ODOT or County Standard Highway Easement (SH) or Limited Access Easement (LA). Show the total P.R.O. within an ownership. This figure should reflect ALL road frontage, not just that involved in the proposed taking. In some cases these areas may have to be calculated. If so, indicate by a note on the Summary Sheet. Verify that the Auditor’s area is not already adjusted to account for the exempt road right of way.

4I - Gross Take

The gross take (i.e. entire area of taking) is the area enclosed within a parcel of proposed right of way, this area includes existing right of way where underlying fee extends into the existing easement or where the proposed right of way overlaps existing lesser rights of way. Show the gross take area for each proposed right of way parcel, if the parcel extends into several Auditor's Permanent Parcel Numbers, be sure to identify the area of gross take for each Auditor's Permanent Parcel Number. See parcel 8 as an example.

4J - P.R.O. In Take

The area of existing road right of way included within a parcel of proposed right of way that will be acquired as a fee take. Determine the area of P.R.O. In Take and show the area with respect to the parcel and Auditors Permanent Parcel number(s).

4K - Net Take

The area of the proposed taking excluding any existing right of way. This area is calculated by subtracting the P.R.O. In Take from the Gross Take and the remainder being the net take. The net take area includes ONLY Fee Takes, Standard Highway Easements and Limited Access Easement. Calculated as follows:

NET TAKE = GROSS TAKE - PRO IN TAKE

4L - Structures

This column is used to identify whether the take area has any structures (a.k.a. improvements) or any signs that are not for roadway purposes. An improvement is defined as something that is man-made, that is located within the proposed take area and is not part of the roadway (i.e. a bridge owned by ODOT is not a improvement, however a bridge owned by the property owner would be an improvement). Improvements must be identified as they will be considered in an appraisal or will be relocated. A "YES" in this column indicates the involvement of an improvement in the take area. An "S" indicates the presence of a non-roadway sign to be dealt with during appraisal and acquisition. If there is more than one sign, show the number of signs in parentheses "S(3)". See **Section 3105.3, "Advertising and Device Controlled Signs"** for (ADC) signs and/or any signs larger than eight square feet.

Do not show "S" for signs that are encroachments.

4M - Net Residue

The area of land the property owner(s) retains after the project acquisition completed. Net take includes ONLY Fee Taking, Standard Highway Easements and Limited Access Easement to be subtracted from the record area in determining the NET RESIDUE. Show the net residue areas remaining left and/or right of the proposed acquisition. Calculate as follows:

RECORD AREA - TOTAL PRO - NET TAKE = NET RESIDUE

When the Net Residue is Landlocked the label "LL" shall be placed next to the residue area.

4N - Type Fund

Identify the type of funds which will be used to acquire each parcel. If the funding is the same for the entire project or large portions thereof, it is not necessary to identify funding for each parcel. Label the top and bottom of each column with such and show a vertical line between the two.

4O - Remarks Column

A brief description MUST be given for those parcels that have special or unique requirements, which include but are not limited to:

Encroachments - for parcels having encroachments, show an asterisk (*) and a one or two word description of the encroaching object. The District Production Office should be notified of the encroachment and will add a note spelling out disposition of the encroachment prior to the filing of final tracings.

Temporary Easements - describe what the Temporary Easement is being used for, e.g. grading or to remove shed etc.

Property Right Parcels - describe what the Property Right is being acquired for, e.g. private drive easement.

Grantee - when parcels are acquired in the name of an agency other than the grantee identified in the "Grantee Note", list that agency in the remarks column.

Improvements - provide a brief description of any improvements in the take area, if improvement is linear (i.e. fence) give the length.

Work/Special Agreements - briefly describe the need for any Work Agreements or Special Agreements.

Land Contract/Lease - when involved in a parcel, so indicate along with the appropriate recording data in the remarks column.

Overlap - Indicate area of overlap with existing easements.

Deeds - identify those deeds used to create the existing property lines that do not close.

ADC Signs – identify the ADC permit no. #####, or Not an ADC controlled Highway, etc.

4P - As Acquired

Record the appropriate entry for the instrument of each parcel acquired and recorded. This will be performed by ODOT after the instruments are recorded in the County Recorder's Office.

4Q - Temporary Parcel Duration

When Temporary Easements are to be acquired, provide a Temporary Parcel Duration Note showing the duration of all temporary parcels. The duration shall be in six (6) month increments.

4R - Restriction of Use Note

On all projects utilizing Temporary Easements, provide the following note.

NOTE: UNDER NO CIRCUMSTANCES ARE TEMPORARY EASEMENTS TO BE USED FOR STORAGE OF MATERIAL OR EQUIPMENT BY THE CONTRACTOR UNLESS NOTED OTHERWISE.

4S - Total Number of Tabulation

On the first Summary of Additional Right of Way sheet only, show for the entire project, the quantities for the following:

a. Ownerships (Not including "no takes")
b. Parcels
c. Total takes (where the entire ownership is to be acquired)
d. Ownerships with structures involved in the taking (Not including signs)

4T - Parcel Identifier Legend

The Parcel Identifier legend denotes the abbreviation for each parcel identifier used in the plan, and presents the full name of each abbreviation.

4U - Revision Block

A revision block showing the completion date and providing space to list revisions following the completion date shall be shown. Before Final Right of Way Plans are submitted for acquisition, changes can be made to the plan without noting any revisions in the revision block. After the plans have been submitted to the acquiring agency, any necessary revisions needed after that date are noted in the revision block and shall indicate specifically what was changed (ie. the date of the correction or addition and the initials of the person that made the revision.) Formal communication indicating the revision(s) made shall be sent by the District Production Office to the acquiring agency and shall include a copy the revised plan sheets to verify the changes. To facilitate additional entries, the revision block is to read from the bottom up.

The Summary of Additional Right of Way sheet shall have a revision block showing a signature and date of when the field review was performed and when the ownership data was verified.

The following item is NOT shown in **Appendix A, Figure 1308.4** however it is required when encountered on a project.

Grantee Note

The "Grantee note" identifies the name of the grantee of the right of way and is only used when V parcels (parcels acquired in the name of an entity other than the Ohio Department of Transportation, such as other State Agencies, LPA's and Political subdivisions) are shown on the plan.

GRANTEE: ALL RIGHT OF WAY ACQUIRED IN THE NAME OF THE CITY OF COLUMBUS UNLESS OTHERWISE SHOWN.

3108.5 Right of Way Detail Sheet

The Right of Way Detail Sheet is a compilation of all topographic and boundary information.
The information outlined on the following pages shall be sufficient in nature to support the take, provide enough information for an appraisal, supply sufficient information to discuss the acquisition with the property owner, support and prepare all legal descriptions. The Right of Way Detail Sheet also serves to document exactly what area was acquired.

The Right of Way Detail Sheet is the preferred method of displaying all plan items necessary for appraisal, acquisition and survey. However, when directed in the Project Scope of Services document, or when approved by the District Real Estate Administrator, separating the Topography data from the Boundary data maybe necessary. This is common in urban or congested areas. See **Section 3108.6, "Right of Way Topography Sheet" and Section 3108.7, "Right of Way Boundary Sheet"** for further direction.

The scale for the Right of Way Detail Sheet should correspond with the Plan and Profile Sheets of the Construction Plans. It is recommended that the District Real Estate Administrator be consulted if there is any question regarding the scales to be used on a given project.

Listed below and referenced to the sample Right of Way Detail Sheets in **Appendix A, Figure 3108.5**.

5A - Title Block

Located on the right side of the sheet and contains:

a. Sheet Numbers (Overall sheet numbering and right of way sheet numbering)
b. County, Route, Section
c. Sheet Title
d. Initials of Right of Way Plan Designer and Right of Way Plan Reviewer
e. Project Identification (PID) Number
f. Scale
g. North arrow

5B - Sheet Heading

The Sheet Heading shows and identifies the county(s), political townships, original government survey(s), and the city(ies) or village(s) that fall within the project limits.

a. County
b. Civil Township
c. Section / Township Tier / Range / VMS numbers
d. City or Village, if applicable

5C - Station Limit Flags

Station Limit Flags delineating the Begin and End stations for WORK and ACQUISITION are shown with the staff directed to the appropriate point ON the centerline. If applicable, show same for LIMITED ACCESS, right and left, if the two differ. Limits for WORK and ACQUISITION should be shown in a similar manner on side roads if the proposed right of way is referenced to the side road centerline. These two aspects are identified by stations along (longitudinal) the centerline of construction and/or right of way. See the **Location and Design Manual, Volume Three, Section 1300** for more information on Work Limits.

BEGIN and END WORK - as determined from the construction plan. These are the extreme limits of the contractor's responsibility on a project, including all temporary and incidental construction, with the exception of work zone traffic control devices. This is also the area where we must be concerned with encroachments.

BEGIN and END ACQUISITION - determined from the right of way plans as the stations opposite the extreme points of new right of way, permanent or temporary, to be acquired for the project.

5D - Revision Block

A revision block showing the completion date and providing space to list revisions following the completion date shall be shown. Before Final Right of Way Plans are submitted for acquisition, changes can be made to the plan without noting any revisions in the revision block. After the plans have been submitted to the acquiring agency, any necessary revisions needed after that date are noted in the revision block and shall indicate specifically what was changed, the date of the correction or addition and the initials of the person that made the revision. Formal communication indicating the revision(s) made shall be sent by the District Production Office to the acquiring agency and shall including a copy of the revised plan sheets to verify the changes. To facilitate additional entries, the revision block is to read from the bottom up.

5E - Centerline of Right of Way Data

Define the centerline of right of way data for all roadways showing the bearing and distance along each tangent section, labeling the curve points along the centerline as well as the curve elements and data for each curve at least once per sheet on which the curve appears. Refer to the Location and Design Manual, Volume Three, **Figures 1303-1 through 1303-3**, for the required elements and data of curves and spirals. In addition provide the chord bearing and chord distances for both curves and spirals. The maximum superelevation (e-max) is not necessary.

NOTE: For New Alignments ONLY, though spiral curves should generally be avoided in right of way centerlines, spiral curves in the centerline of proposed right of way are acceptable when fee takings along the proposed alignment are being acquired.

5F - Centerline Stationing

Under normal circumstances, the centerline stationing on a project should closely reflect the straight line mileage shown in the "section." Centerline Stationing can come from existing monumentation, bridges, straight line distance logs and prior projects, but should reflect the straight line mileage or what was called for in the Project Scope of Services document. Refer to the **Location and Design Manual, Volume Three, Section 1300** for details pertaining to straight line mileages, stationing and project identification. Any deviation from this format or any special circumstances must be approved by the District Real Estate Administrator.

Centerline Stations are normally displayed at 100-foot intervals. Centerline stationing should normally read from left to right and bottom to top on all plan sheets.

Station equations along the proposed centerline of right of way are normally required when the proposed centerline of right of way ties into the existing centerline of right of way at the beginning and/or end.

5G - Political Subdivisions, Original Government Survey and Recorded Subdivision Monumentation and Lines

Show and identify all monumentation found, in relation to the establishment and location of:

Political Subdivisions – State, County, Township or Corporation lines. Corporation lines shall be labeled clearly, leaving no question as to the area of incorporation and adjoining political entities. Show and identify any Political Subdivision lines of record, including names. Recording data for this information shall also be shown, if available.

Original Government Survey – Show rectangular land survey and Virginia Military Survey system lines. Clearly label each line as to Original Government Survey information (i.e. Section, Town Range, Lot Number, Quarter Section, VMS patent Number, etc.).

Recorded Subdivisions – Show lot lines (with lot information) and recorded subdivision boundaries. Clearly label each line as to interior lot lines (with lot information) and recorded subdivision boundaries (with phase or section and recording information).

Monuments shall contain descriptive information as referenced in O.A.C. 4733-37 “Minimum Standards for Boundary Surveys in the State of Ohio” (i.e. 1/2" Iron Pipe Found, 5/8" Rebar with red plastic cap marked Surveyor Name, Surveyor Number Found), unless the monument legend clearly indicates this information. Station and offset referenced to the centerline of right of way shall be clearly shown on all monuments found and deflection of these lines. Bearing and distance information shall also be shown on these lines. There shall be a clear representation and retraceable relationship between the centerline of right of way and these lines.

5H - Proposed Right of Way & Parcel Boundaries

The perimeter of all proposed right of way parcels shall be shown using the appropriate CADD line styles. Within the perimeter of all proposed Parcel the Owners' number and appropriate parcel identifier shall be shown (Also see 5J). The proposed right of way lines (of all types) shall be shown as the PROMINENT lines on the sheet.

The iron pins to be set on proposed right of way parcels shall match the monument legend which can be found on the Legend Sheet and Centerline Plat Sheet.

5I - Property Lines and Monuments

All property lines within the area of concern shall be shown and clearly labeled with the appropriate property line symbol. Show property monuments used to delineate these lines. When property monuments are not found show the appropriate record data used to delineate these lines.

5J - Ownership Name, Number and Parcel Identifier

Parcel balloons are a PROMINENTLY drawn circle or oval with the ownership number and parcel identifier drawn inside. Show all parcel balloons in the appropriate take area, some take areas maybe large enough to warrant more than one parcel balloon. Show owner(s) of record exactly as it appears on the instrument(s) conveying title. When there are multiple owners, all such names shall be spelled out as space dictates. Other terminology - et al, et alii, aka, fka, etc., should be defined here.

The Auditor’s Permanent Parcel Number shall also be shown adjacent to the parcel balloons when space permits. For more information on Parcel Identifiers see **Section 3107.2, “Parcel Identification”**.

5K - Side Roads, Waterways, Lakes and Railroads **(Figure 1308.5, sheet 7/12)**

Show and label all side roads and their existing right of way, clearly identifying each road (include the State Route, County Route, Township Road Numbers, etc.) which intersect or are in the project limits. Provide the names of lakes, streams and/or waterways, and railroads. Provide a flow arrow identifying the direction of flow for all streams and/or waterways. Identify the railroad company that retains the property rights as well as the name(s) of the railroad company that is operating on the rail line.

5L - Match Lines

When you have more than one Right of Way Detail Sheet, identify and label match lines clearly as to the station and sheet number they match. For more information about match lines see **Section 3107.5, "Match Lines and Cross References"**.

5M - Existing Topographical Features and their Disposition

Show and identify ALL existing topographic features on the Right of Way Detail Sheets. These features include, but are not limited to:

pavement	bridges	streams
treated shoulders	rivers	lakes
creeks	ditches	paved area
ponds	railroads	structures
driveways	walks	underground storage tanks
foundations	underground lines	cisterns
easements	oil and gas wells	sprinkler systems
septic systems	sewers	culverts
fences	guardrail	inlets
catch basins	manholes	non-highway signs
walls	signs	field tiles
trees (with size)	shrubs	drain pipes
light poles	curbs	

Any existing topographical feature that will be affected by the proposed construction or in any way have an impact on the proposed taking must be shown. The disposition of the features must be determined and represented within both the construction and right of way plans.

Plan preparers should look for evidence of private septic tanks, leach beds and underground sprinkler systems/sprinkler heads and show them in the plans. Obstructions located within existing right of way will be considered an encroachment.

Where it is necessary to show dimensions for topographical features such as trees, drives, sidewalks, etc., they are to be shown in feet or inches, using the unit of measure that fits the degree of accuracy dictated by the situation.

For driveways, label centerline station intercept, type (e.g., asphalt, concrete, aggregate) and size (i.e., throat width).

For structures, identify the type, size and a distance from the closest point on the structure to the proposed right of way when within 100 feet thereof.

For information on how to label easements, refer to **Section 3104.2, "Existing Easements (Public, Utility and Private)"**.

During the initial preparation of both construction and right of way plans, it should be understood that all obstructions that need to be removed for the project will be removed by the contractor. Construction plans will include specific 202 quantities for all removals.

Place an “X” through any structure(s) that will be removed on both the construction plans and right of way plans. If a structure, or a portion of a structure, can be salvaged or is very close to the proposed taking, yet not needed, label it "DO NOT DISTURB."

Trees and shrubs that fall within the proposed right of way limits are to be removed unless otherwise noted. All trees and shrubs that are to be removed must be within the construction limits. Tree and shrub removal shall be identified by an “X” through the tree and shrub symbol. In those situations that involve a wooded area, only the trees with a diameter of 12” or greater require an “X”.

Within temporary easements, trees may be retained if they do not conflict with proposed construction activities. These trees should be identified in the right of way plans as "SAVE" and in the construction plans as “DO NOT DISTURB”. When determining whether a tree can be saved, consider that tree roots are very near the ground surface and that an inch or two of additional cover over the root system or any excavation into the root system can cause the tree to die. As a general guide, the below ground root system for a tree extends approximately as far as its canopy extends over the ground.

Communication regarding the disposition of obstructions is of critical importance to the right of way acquisition activities. Every effort must be made to ensure that all parties (property owner, District Real Estate Administrator, Right of Way Plan Designer, Roadway Designer, Project Inspector and contractor) understand which features are to be saved and which are to be removed.

5N - Construction Limits

Construction Limits are lines shown on the plans that identify the lateral extent of the work for all construction activities, including removal/take items and Maintenance of Traffic (MOT).

Construction limits for MOT should address temporary pavement (Item 615 Pavement for Maintaining Traffic) and temporary roads (Item 615 Roads for Maintaining Traffic) and associated temporary embankment and drainage. Temporary signing is NOT included in the construction limits.

Be sure to provide sufficient room for removal/take items, not just the area disturbed by roadway construction. Show and label construction limits generously throughout the Right of Way Detail Sheet(s) and Right of Way Topography Sheet(s).

The construction limits must allow room for the contractor to demolish and haul away removal items.

5O - Proposed Pavement

Show the edges of pavement for all proposed roadways and drives.

5P - Proposed Plan Items

Describe all proposed plan items including, but not limited to: proposed driveways (giving type, width and centerline intercept for same), noise walls, retaining walls, drainage structures including drive culverts (labeled as to size and type), header tiles, sewers, curb and gutter, medians, channel changes and drainage ditch flow arrows.

5Q - Utilities

Show and identify all utilities, locating them accurately (overhead by inspection, underground per Section 153.64 ORC) including individual poles and towers, pipelines, conduits, buried cables, pedestals, regulator stations, transformer stations, etc. In urban or congested areas having extensive utilities, a separate Utility Plan Sheet is optional, at the direction of the District Real Estate Administrator.

Show and identify all utility easements, including the type of easement, the width of the easement, and all recording data for the easement.

5R - Land Use

Identify all adjacent land use such as cultivated, pasture, wooded, residential, parking, etc. This is especially significant in urban and/or commercially developed areas. Special use properties such as parks, institutions, airports, etc. should be clearly identified.

5S - Address

Provide the site address for all individual housing and businesses within the boundaries of the appropriate properties, when possible. For those properties that have multi-family housing (apartments) and multiple businesses within one structure, provide the site addresses for each individual unit or business in a list format.

5T - Bearing and Distance

The perimeter of all proposed right of way and parcel boundaries (proposed right of way, existing right of way, property lines) shall be labeled with the bearing and distance along the line. Where it becomes impractical to show a bearing and distance along a line in conventional manner, provide a tabulated listing of the bearing and distances. The bearings shall be shown in degrees minutes and seconds to the nearest second. The distances shall be shown in feet to the nearest hundredth or what serves to satisfy the individual county requirements.

5U - Right of Way Curve Data (see sample Right of Way Detail Sheet 7/12)

Show the delta angle, radius, arc length, chord bearing and distance for each curve and any additional information that serves to satisfy the individual county requirements.

5V - Stations and Offsets

Provide a station and offset distance from the centerline of right of way for all angles, breaks and intersections in the existing and proposed right of way, easement lines and property lines as well as at intersection points of any of these. Station and offset labels should be shown on all found and set iron pins, pipes and survey monuments. Where switching reference from one centerline to another, such as with side roads or service roads, provide a double call point, i.e., a station and offset from each centerline at an appropriate transition point.

5W - Lead in Course(s)

Provide a lead in course for each parcel/legal description, which includes the bearing and distance(s) from a County acceptable, monumented commencement point to the true point of beginning for the legal description. Where it becomes impractical to show a distance along a line in conventional manner, provide a tabulated listing of the bearing and distances. All courses (bearings and distances) used in the legal description must be on the plan.

5X - Non Public Easements

Show and identify all non public easements, including the type of easement, the width of the easement, and all recording data for the easement.

The following items are NOT shown in **Appendix A, Figure 1308.5**, however they are required when encountered on a project.

Intersections with the Centerline of Right of Way

Identify the station of intersection and offset distance if necessary, where Political Subdivisions, Original Government Surveys, Recorded Subdivisions, side roads and railroad centerlines intersect the centerline of right of way, identifying each by name and/or number and show direction/bearing where appropriate.

Right of Way Fence

Right of Way Fences shall be placed on interstate highways and/or limited access roadways and when the Project Scope of Services document requires it. ODOT typically places two types of fences the first being woven wire fence (type 47) which is usually placed two feet inside the proposed right of way line and a chain link fence which is usually placed one foot inside the proposed right of way line. Show and describe all proposed Right of Way Fences.

Closures, Gaps and Overlaps

When problems are encountered with the deeds (e.g., closure, gaps, and overlaps), a note shall be included briefly explaining the circumstances.

3108.6 Right of Way Topography Sheet

When a Right of Way Topography Sheet is required by the scope of services document or approved by the District Real Estate Administrator, the Right of Way Boundary Sheet becomes a requirement. The combination of Right of Way Topographic Sheet and Right of Way Boundary Sheet is a substitute for the Right of Way Detail Sheet. The information shown on the Right of Way Topography Sheet shall be sufficient in nature to support the take, provide enough information for an appraisal, and supply sufficient information to discuss the acquisition with the property owner. The Right of Way Topography Sheet also serves to document exactly what area was acquired.

Many of the items shown on the Right of Way Topography Sheets are construction items related to the proposed construction of the project. The extent of work determines the amount of acquisition necessary and in turn, affects the value of residual areas.

Each Right of Way Topography Sheet should be followed by its corresponding Right of Way Boundary Sheet. The entire set shall be numbered consecutively. For example:
Sheet # 9 Right of Way Topo Sheet Sta. 1109 + 50 to Sta. 1114 + 50
Sheet # 10 Right of Way Boundary Sheet Sta. 1109 + 50 to Sta. 1114 + 50
Sheet # 11 Right of Way Topo Sheet Sta. 1114 + 50 to Sta. 171 + 97.56
Sheet # 12 Right of Way Boundary Sheet Sta. 1114 + 50 to Sta. 171 + 97.56

The scale for the Right of Way Topography Sheet should correspond with the Plan and Profile Sheets of the Construction Plans as well as the Right of Way Boundary Sheet. It is recommended that the District Real Estate Administrator be consulted if there is any question regarding the scales to be used on a given project.

Listed below and referenced to the sample Right of Way Topography Sheets in **Appendix A, Figure 3108.6**.

6A - Title Block

Located on the right side of the sheet and contains:

a. Sheet Numbers (Overall sheet numbering and right of way sheet numbering)
b. County, Route, Section
c. Sheet Title
d. Initials of Right of Way Plan Designer and Right of Way Plan Reviewer
e. Project Identification (PID) Number
f. Scale
g. North arrow

6B - Sheet Heading

The Sheet Heading shows and identifies the county(s), political townships, original government survey(s), and the city(ies) or village(s) that fall within the project limits.

a. County
b. Civil Township
c. Section / Township Tier / Range / VMS numbers
d. City or Village, if applicable

6C - Station Limit Flags **(Figure 1308.6, sheet 11/12)**

Station Limit Flags delineating the Begin and End stations for WORK and ACQUISITION are shown with the staff directed to the appropriate point ON the centerline. If applicable, show same for LIMITED ACCESS, right and left, if the two differ. Limits for WORK and ACQUISITION should be shown in a similar manner on side roads if the proposed right of way is referenced to the side road centerline. These two aspects are identified by stations along (longitudinal) the centerline of construction and/or right of way. See the **Location and Design Manual, Volume Three, Section 1300** of for more information on Work Limits.

BEGIN and END WORK - as determined from the construction plan. These are the extreme limits of the contractor's responsibility on a project, including all temporary and incidental construction, with the exception of work zone traffic control devices. This is also the area where we must be concerned with encroachments.

BEGIN and END ACQUISITION - determined from the right of way plans as the stations opposite the extreme points of new right of way, permanent or temporary, to be acquired for the project.

6D- Revision Block

A revision block showing the completion date and providing space to list revisions following the completion date shall be shown. Before Final Right of Way Plans are submitted for acquisition, changes can be made to the plan without noting any revisions in the revision block. After the plans have been submitted to the acquiring agency, any necessary revisions needed after that date are noted in the revision block and shall indicate specifically what was changed, the date of the correction or addition and the initials of the person that made the revision. Formal communication indicating the revision(s) made shall be sent by the District Production Office to the acquiring agency and shall including a copy of the revised plan sheets to verify the changes. To facilitate additional entries, the revision block is to read from the bottom up.

6E - Centerline of Right of Way Data

Define the centerline of right of way data for all roadways showing the bearing and distance along each tangent section, labeling the curve points along the centerline as well as the curve elements and data for each curve at least once per sheet on which the curve appears. Refer to the Location and Design Manual, Volume Three, **Figures 1303-1 through 1303-3**, for the required elements and data of curves and spirals. In addition provide the chord bearing and chord distances for both curves and spirals. The maximum superelevation (e-max) is not necessary.

NOTE: For New Alignments ONLY though spiral curves should generally be avoided in right of way centerlines, spiral curves in the centerline of proposed right of way are acceptable when fee takings along the proposed alignment are being acquired.

6F - Centerline Stationing

Under normal circumstances, the centerline stationing on a project should closely reflect the straight line mileage shown in the "section." Centerline Stationing can come from existing monumentation, bridges, straight line distance logs, and prior projects, but in any case, should reflect the straight line mileage or what was called for in the Project Scope of Services document. Refer to the **Location and Design Manual, Volume Three, Section 1300** for details pertaining to straight line mileages, stationing and project identification. Any deviation from this format or any special circumstances must be approved by the District Real Estate Administrator.

Centerline Stations are normally displayed at 100-foot intervals. Centerline stationing should normally read from left to right and bottom to top on all plan sheets.

Station equations along the proposed centerline of right of way are normally required when the proposed centerline of right of way ties into the existing centerline of right of way at the beginning and/or end.

6G - Political Subdivisions, Original Government Survey and Recorded Subdivision Monumentation and Lines

Show and identify all monumentation found, in relation to the establishment and location of:

Political Subdivisions – State, County, Township or Corporation lines. Corporation lines shall be labeled clearly, leaving no question as to the area of incorporation and adjoining political entities. Show and identify any Political Subdivision lines of record, including names. Recording data for this information shall also be shown, if available.

Original Government Survey – Show rectangular land survey and Virginia Military Survey system lines. Clearly label each line as to Original Government Survey information (i.e. Section, Town Range, Lot Number, Quarter Section, VMS patent Number, etc.).

Recorded Subdivisions – Show lot lines (with lot information) and recorded subdivision boundaries. Clearly label each line as to interior lot lines (with lot information) and recorded subdivision boundaries (with phase or section and recording information).

Monuments shall contain descriptive information as referenced in O.A.C. 4733-37 “Minimum Standards for Boundary Surveys in the State of Ohio” (i.e. 1/2" Iron Pipe Found, 5/8" Rebar with red plastic cap marked Surveyor Name, Surveyor Number Found), unless the monument legend clearly indicates this information. Station and Offset referenced to the centerline of right of way shall be clearly shown on all monuments found and deflection of these lines. Bearing and distance information shall also be shown on these lines. There shall be a clear representation and retraceable relationship between the centerline of right of way and these lines.

6H - Proposed Right of Way & Parcel Boundaries

The perimeter of all proposed right of way parcels shall be shown using the appropriate CADD line styles. Within the perimeter of all proposed Parcel, the Owners' number and appropriate parcel identifier, shall be shown (Also see 6K). The proposed right of way lines (of all types) shall be shown as the PROMINENT lines on the sheet.

The iron pins to be set on proposed right of way parcels shall match the monument legend which can be found on the Legend Sheet and Centerline Plat Sheet.

6I - Property Lines

All property lines within the area of concern shall be shown and clearly labeled with the appropriate property line symbol.

6J - Intersections with the Centerline of Right of Way

Identify the station of intersection and offset distance if necessary, where Political Subdivisions, Original Government Surveys, Recorded Subdivisions, side roads and railroad centerlines intersect the centerline of right of way, identifying each by name and/or number and show direction/bearing where appropriate.

6K - Ownership Name, Number and Parcel Identifier

Parcel balloons are PROMINENTLY drawn circles or ovals with the ownership numbers and parcel identifiers drawn inside. Show all parcel balloons in the appropriate take area, some take areas may be large enough to warrant more than one parcel balloon. Show owner(s) of record exactly as it appears on the instrument(s) conveying title. When there are multiple owners, all such names shall be spelled out as space dictates. Other terminology - et al, et alii, aka, fka, etc., should be defined here.

The Auditor's Permanent Parcel Number shall also be shown adjacent to the parcel balloons when space permits. For more information on Parcel Identifiers, see **Section 3107.2, "Parcel Identification"**.

6L - Side Roads, Waterways, Lakes and Railroads

Show and label all side roads and their existing right of way, clearly identifying each road (include the State Route, County Route, Township Road Numbers, etc.) which intersect or are in the project limits. Provide the names of lakes, streams and/or waterways, and railroads. Provide a flow arrow identifying the direction of flow for all streams and/or waterways. Identify the railroad company that retains the property rights, as well as the name(s) of the railroad company that is operating on the rail line.

6M - Match Lines

When you have more than one Right of Way Topography Sheet, identify and label match lines clearly as to the station and sheet number they match. For more information about match lines, see **Section 3107.5, "Match Lines and Cross References"**.

6N - Existing Topographical Features and their Disposition

Show and identify ALL existing topographic features on the Right of Way Detail Sheets. These features include, but are not limited to:

pavement	bridges	streams
treated shoulders	rivers	lakes
creeks	ditches	paved area
ponds	railroads	structures
driveways	walks	underground storage tanks
foundations	underground lines	cisterns
easements	oil and gas wells	sprinkler systems
septic systems	sewers	culverts
fences	guardrail	inlets
catch basins	manholes	non-highway signs
walls	signs	field tiles
trees (with size)	shrubs	drain pipes
light poles	curbs	

Any existing topographical feature that will be affected by the proposed construction or in any way have an impact on the proposed taking must be shown. The disposition of the features must be determined and represented within both the construction and right of way plans.

Plan preparers should look for evidence of private septic tanks, leach beds and underground sprinkler systems/sprinkler heads and show them in the plans. Obstructions located within existing right of way will be considered an encroachment.

Where it is necessary to show dimensions for topographical features such as trees, drives, sidewalks, etc., they are to be shown in feet or inches, using the unit of measure that fits the degree of accuracy dictated by the situation.

For driveways, label centerline station intercept, type (e.g., asphalt, concrete, aggregate) and size (i.e., throat width).

For structures, identify the type, size and a distance from the closest point on the structure to the proposed right of way when within 100 feet thereof.

For information on how to label easements, refer to **Section 3104.2, "Existing Easements (Public, Utility and Private)"**.

During the initial preparation of both construction and right of way plans, it should be understood that all obstructions that need to be removed for the project will be removed by the contractor. Construction plans will include specific 202 quantities for all removals.

Place an "X" through any structure(s) that will be removed on both the construction plans and right of way plans. If a structure, or a portion of a structure, can be salvaged or is very close to the proposed taking, yet not needed, label it "DO NOT DISTURB."

Trees and shrubs that fall within the proposed right of way limits are to be removed unless otherwise noted. All trees and shrubs that are to be removed must be within the construction limits. Tree and shrub removal shall be identified by an "X" through the tree and shrub symbol. In those situations that involve a wooded area, only the trees with a diameter of 12" or greater require an "X".

Within temporary easements, trees may be retained if they do not conflict with proposed construction activities. These trees should be identified in the right of way plans as "SAVE" and in the construction plans as "DO NOT DISTURB". When determining whether a tree can be saved, consider that tree roots are very near the ground surface and that an inch or two of additional cover over the root system or any excavation into the root system can cause the tree to die. As a general guide, the below ground root system for a tree extends approximately as far as its canopy extends over the ground.

Communication regarding the disposition of obstructions is of critical importance to the right of way acquisition activities. Every effort must be made to ensure that all parties (property owner, District Real Estate Administrator, Right of Way Plan Designer, Roadway Designer, Project Inspector and contractor) understand which features are to be saved and which are to be removed.

6O - Construction Limits

Construction Limits are lines shown on the plans that identify the lateral extent of the work for all construction activities, including removal/take items and Maintenance of Traffic (MOT).

Construction limits for MOT should address temporary pavement (Item 615 Pavement for Maintaining Traffic) and temporary roads (Item 615 Roads for Maintaining Traffic) and associated temporary embankment and drainage. Temporary signing is NOT included in the construction limits.

Be sure to provide sufficient room for removal/take items, not just the area disturbed by roadway construction. Show and label construction limits generously throughout the Right of Way Detail Sheet(s) and Right of Way Topography Sheet(s).

The construction limits must allow room for the contractor to demolish and haul away removal items.

6P - Proposed Pavement

Show the edges of pavement for all proposed roadways and drives.

6Q - Proposed Plan Items

Describe all proposed plan items, including but not limited to: proposed driveways (giving type, size and centerline intercept for same), noise walls, retaining walls, drainage structures (including drive culverts labeled as to size and type), header tiles, sewers, curb and gutter, medians, channel changes and drainage ditch flow arrows.

6R - Utilities

Show and identify all utilities, locating them accurately (overhead by inspection, underground per Section 153.64 ORC), including: individual poles and towers, pipelines, conduits, buried cables, pedestals, regulator stations, transformer stations, etc. In urban or congested areas having extensive utilities, a separate Utility Plan Sheet is optional, at the direction of the District Real Estate Administrator.

Show and identify all utility easements, including the type of easement, the width of the easement, and all recording data for the easement.

6S - Land Use

Identify all adjacent land use, such as: cultivated, pasture, wooded, residential, parking, etc. This is especially significant in urban and/or commercially developed areas. Special use properties such as parks, institutions, airports, etc. should be clearly identified.

6T - Address

Provide the site address for all individual housing and businesses within the boundaries of the appropriate properties when possible. For those properties that have multi-family housing (apartments) and multiple businesses within one structure, provide the site addresses for each individual unit or business in a list format.

6U - Non Public Easements

Show and identify all non public easements, including the type of easement, the width of the easement, and all recording data for the easement.

The following item is NOT shown in **Appendix A, Figure 1308.6**, however it is required when encounter on a project.

Right of Way Fence

Right of Way Fences shall be placed on interstate highways and/or limited access roadways and when the Project Scope of Services document requires it. ODOT typically places two types of fences the first being woven wire fence (type 47) which is usually placed two feet inside the proposed right of way line and a chain link fence which is usually placed one foot inside the proposed right of way line. Show and describe all proposed right of way fences. For more detailed information, see the Construction and Materials Specifications book.

3108.7 Right of Way Boundary Sheet

The information shown on the Right of Way Boundary Sheet shall be sufficient in nature to support the legal descriptions, and supply sufficient information to discuss the acquisition with the property owner. The Right of Way Boundary Sheet also serves to document exactly what area was acquired.

The scale for the Right of Way Boundary Sheet should correspond with the Plan and Profile Sheets of the Construction Plans as well as the Right of Way Topography Sheet. It is recommended that the District Real Estate Administrator be consulted if there is any question regarding the scales to be used on a given project.

Listed below and referenced to the sample Right of Way Boundary Sheets in **Appendix A, Figure 3108.7**.

7A - Title Block

Is located on the right side of the sheet and contains:

a. Sheet Numbers (Overall sheet numbering and right of way sheet numbering)
b. County, Route, Section
c. Sheet Title
d. Initials of Right of Way Plan Designer and Right of Way Plan Reviewer
e. Project Identification (PID) Number
f. Scale
g. North arrow

7B - Sheet Heading

The Sheet Heading shows and identifies the county(s), political townships, original government survey(s), and the city(ies) or village(s) that fall within the project limits.

a. County
b. Civil Township
c. Section / Township Tier / Range / VMS numbers
d. City or Village, if applicable

7C - Revision Block

A revision block showing the completion date and providing space to list revisions following the completion date shall be shown. Before Final Right of Way Plans are submitted for acquisition, changes can be made to the plan without noting any revisions in the revision block. After the plans have been submitted to the acquiring agency, any necessary revisions needed after that date are noted in the revision block and shall indicate specifically what was changed, the date of the correction or addition and the initials of the person that made the revision. Formal communication indicating the revision(s) made shall be sent by the District Production Office to the acquiring agency and shall including a copy of the revised plan sheets to verify the changes. To facilitate additional entries, the revision block is to read from the bottom up.

7D - Centerline of Right of Way Data

Define the centerline of right of way data for all roadways showing the bearing and distance along each tangent section, labeling the curve points along the centerline as well as the curve elements and data for each curve at least once per sheet on which the curve appears. Refer to the Location and Design Manual, Volume Three, **Figures 1303-1 through 1303-3**, for the required elements and data of curves and spirals. In addition provide the chord bearing and chord distances for both curves and spirals. The maximum superelevation (e-max) is not necessary.

NOTE: For New Alignments ONLY though spiral curves should generally be avoided in right of way centerlines, spiral curves in the centerline of proposed right of way are acceptable when fee takings along the proposed alignment are being acquired

7E - Centerline Stationing

Under normal circumstances, the centerline stationing on a project should closely reflect the straight line mileage shown in the "section." Centerline Stationing can come from existing monumentation, bridges, straight line distance logs and prior projects, but should reflect the straight line mileage or what was called for in the Project Scope of Services document. Refer to the **Location and Design Manual, Volume Three, Section 1300** for details pertaining to straight line mileages, stationing and project identification. Any deviation from this format or any special circumstances must be approved by the District Real Estate Administrator.

Centerline Stations are normally displayed at 100 foot intervals. Centerline stationing should normally read from left to right and bottom to top on all plan sheets.

Station equations along the proposed centerline of right of way are normally required when the proposed centerline of right of way ties into the existing centerline of right of way at the beginning and/or end.

7F - Intersections with the Centerline of Right of Way

Identify the station of intersection and offset distance if necessary, where Political Subdivisions, Original Government Surveys, Recorded Subdivisions, side roads and railroad centerlines intersect the centerline of right of way, identifying each by name and/or number and show direction/bearing where appropriate.

7G - Political Subdivisions, Original Government Survey and Recorded Subdivision Monumentation and Lines

Show and identify all monumentation found, in relation to the establishment and location of:

<u>Political Subdivisions</u> – State, County, Township or Corporation lines. Corporation lines shall be labeled clearly, leaving no question as to the area of incorporation and adjoining political entities. Show and identify any Political Subdivision lines of record, including names. Recording data for this information shall also be shown, if available.

<u>Original Government Survey</u> – Show rectangular land survey and Virginia Military Survey system lines. Clearly label each line as to Original Government Survey information (i.e. Section, Town Range, Lot Number, Quarter Section, VMS patent Number, etc.).

<u>Recorded Subdivisions</u> – Show lot lines (with lot information) and recorded subdivision boundaries. Clearly label each line as to interior lot lines (with lot information) and recorded subdivision boundaries (with phase or section and recording information).

Monuments shall contain descriptive information as referenced in O.A.C. 4733-37 “Minimum Standards for Boundary Surveys in the State of Ohio” (i.e. 1/2" Iron Pipe Found, 5/8" Rebar with red plastic cap marked Surveyor Name, Surveyor Number Found), unless the monument legend clearly indicates this information. Station and Offset referenced to the centerline of right of way shall be clearly shown on all monuments found and deflection of these lines. Bearing and distance information shall also be shown on these lines. There shall be a clear representation and retraceable relationship between the centerline of right of way and these lines.

7H - Proposed Right of Way & Parcel Boundaries

The perimeter of all proposed right of way parcels shall be shown using the appropriate CADD line styles. Within the perimeter of all proposed Parcels, the Owners' numbers and appropriate parcel identifiers shall be shown (Also see 7J). The proposed right of way lines (of all types) shall be shown as the PROMINENT lines on the sheet.

The iron pins to be set on proposed right of way parcels shall match the monument legend which can be found on the Legend Sheet and Centerline Plat Sheet.

7I - Property Lines and Monuments

All property lines within the area of concern shall be shown and clearly labeled with the appropriate property line symbol. Show property monuments used to delineate these lines. When property monuments are not found show the appropriate record data used to delineate these lines.

7J - Ownership Name, Number and Parcel Identifier

Parcel balloons are PROMINENTLY drawn circles or ovals with the ownership numbers and parcel identifiers drawn inside. Show all parcel balloons in the appropriate take area, some take areas maybe large enough to warrant more than one parcel balloon. Show owner(s) of record exactly as it appears on the instrument(s) conveying title. When there are multiple owners, all such names shall be spelled out as space dictates. Other terminology - et al, et alii, aka, fka, etc., should be defined here.

The Auditor’s Permanent Parcel Number shall also be shown adjacent to the parcel balloons when space permits. For more information on Parcel Identifiers, see **Section 3107.2, “Parcel Identification”**.

7K - Match Lines

When you have more than one Right of Way Boundary Sheet, identify and label match lines clearly as to the station and sheet number they match. For more information about match lines, see **Section 3107.5, “Match Lines and Cross References”**.

7L - Bearing and Distance

The perimeter of all proposed right of way and parcel boundaries (proposed right of way, existing right of way, property lines) shall be labeled with the bearing and distance along the line. Where it becomes impractical to show a distance along a line in conventional manner, provide a tabulated listing of the bearing and distances. The bearings shall be shown in degrees minutes and seconds to the nearest second. The distances shall be shown in feet to the nearest hundredth or what serves to satisfy the individual county requirements.

7M - Right of Way Curve Data

Show the delta angle, radius, arc length, chord bearing and distance for each curve and any additional information that serves to satisfy the individual county requirements.

7N - Stations and Offsets

Provide a station and offset distance from the centerline of right of way for all angles, breaks and intersections in the existing and proposed right of way, easement lines and property lines as well as at intersection points of any of these. Station and offset labels should be shown on all found and set iron pins, pipes and survey monuments. Where switching reference from one centerline to another, such as with side roads or service roads, provide a double call point, i.e., a station and offset from each centerline at an appropriate transition point.

7O - Lead in Course(s) **(Figure 3108.7, sheet 12/12)**

Provide a lead in course for each parcel/legal description, which includes the bearing and distance(s) from a County acceptable, and a monumented commencement point to the true point of beginning for the legal description. Where it becomes impractical to show a distance along a line in conventional manner, provide a tabulated listing of the bearing and distances. All courses (bearings and distances) used in the legal description must be on the plan.

7P – Closures, Gaps and Overlaps

When problems are encountered with the deeds (e.g., closure, gaps, and overlaps), a note shall be included briefly explaining the circumstances.

The following items are NOT shown in **Appendix A, Figure 1308.7**, however they are required when encounter on a project.

Side Roads, Waterways, Lakes and Railroads

Show and label all side roads and their existing right of way, clearly identifying each road (include the State Route, County Route, Township Road Numbers, etc.) which intersect or are in the project limits. Provide the names of lakes, streams and/or waterways, and railroads. Provide a flow arrow identifying the direction of flow for all streams and/or waterways. Identify the railroad company that retains the property rights, as well as the name(s) of the railroad company that is operating on the rail line.

Non Public Easements

Show and identify all non public easements, including the type of easement, the width of the easement, and all recording data for the easement.

3108.8 Railroad Right of Way Design

The Right of Way Plan Designer should make every effort possible to avoid or minimize acquisition of real estate from the railroad/railway companies. When acquisition cannot be avoided, the design agency must recognize the operating and maintenance needs of the railroad as well as the highway.

On projects where the right of way is to be acquired from a railroad at a location involving an operating railroad facility, a Railroad Plat Sheet shall be prepared in accordance with this manual and will be included as a part of the right of way plans. In the case of minimal right of way requirements, (e.g., temporary easements, drainage easements, slope easements, etc.), the need for a separate plan can be waived. The waiver must be approved with the Office of Real Estate, Utility and Railroad Program Management office in Columbus.

The primary intent of a railroad plat is to highlight and clarify the additional right of way required from the railroad to facilitate the negotiation and acquisition of the property. For railroad plats and plans, the following items need to be addressed:

The Railroad Plat Sheet requires the same detail and preparation as the Right of Way Detail Sheet and/or the Right of Way Topography Sheet and Right of Way Boundary Sheet for the railroad involved. A larger scale and/or separate details should be considered for small occupational easements. Where railroad valuation plan bearings are different from those of the highway survey, show and identify both bearings. Identify at least one station and offset callout point using both the railroad valuation/centerline station and the highway centerline of right of way station. You must include this station and offset callout in each legal description for railroad property. The proposed structure, including abutments, wing walls, piers, retaining walls, drainage facilities (including direction of flow) and work limits, shall be clearly shown. All existing and proposed right of way and property corners shall be tied to the highway centerline of right of way.

In the occasional situation where more than one railroad company occupies adjoining rights of way, a separate plat is required for each.

The amount and type of right of way to be acquired is based on the following criteria:

Right of Way for Crossing At-Grade

When the highway project crosses a railroad at-grade, either on an existing or on a new alignment, a permanent easement (preferably a Standard Highway Easement) shall be acquired for the width of the proposed pavement and shoulders plus a minimum two (2) feet on each side across the operating railroad property. This area shall be highlighted (hatching, shading, etc.) and designated as "Area of Joint Use." If additional right of way is required beyond this joint use area, (e.g., slope easements, channel easements, etc.), it shall be acquired to provide for the specific needs of construction and maintenance.

Right of Way for Grade Separations

Right of way requirements for an underpass differ from those for an overpass, hence they will be described separately. As noted above, however, clearances in either case should be determined by guidelines set forth in the Location and Design Manual, Volume One.

A. New Highway Underpass

When the proposed highway structure underpass is created crossing railroad property, the permanent highway right of way shall include the entire grade separation structure, i.e., all wing walls, footers, etc., and shall be acquired by STANDARD HIGHWAY EASEMENT. The right of way line for said easement shall follow the top of the slope outside the structure. If the terrain is such that exceptionally long slopes are required, it may be desirable to secure slope easements outside the minimum permanent right of way width for the project.

B. New Highway Overpass

When the proposed highway structure overpass crosses railroad property, an AERIAL EASEMENT shall be acquired. The area covered by this easement across operating property is normally the overall width of the structure plus fifteen (15) feet on each side, though special circumstances might dictate additional width. If it is a twin structure, the same principle applies and includes all of the space between the structures.

A standard highway easement shall be acquired for footers of abutments and piers. The area covered by this easement is normally the overall width of the footing, plus one (1) foot on all sides. Temporary easement, slope easements, channel easements, etc., for construction and/or maintenance shall be acquired between abutments. The normal right of way width for the project shall be acquired for all highway construction beyond the abutments.

C. Grade Crossing Eliminated by new Underpass

When the proposed highway is to pass under the railroad (eliminating the existing grade crossing), the proposed permanent highway right of way shall follow the face of the abutments and wing-walls and the top of the slope outside the structure. If the terrain is such that exceptionally long slopes are required, it may be desirable to secure slope easements outside the minimum right of way width for the project.

The reason for the difference in right of way limits between newly created crossings separated by an underpass, and existing grade crossing elimination projects, is that the underpass structure (except the plate or slab and bridge drainage) for the newly created crossing is maintained by the State of Ohio or other public agency.

D. Grade Crossing Eliminated by new Overpass

The right of way requirements for eliminating an at-grade crossing by creating a highway overpass are the same as those for an overpass on new alignment.

The railroad plat shall show the name of the operating railroad company, the railroad company that retains the property rights and the highway project identification. Due to the peculiar nature of operating railroad ownerships, show the area needed to the nearest square foot for the proposed right of way. Where the situation exists, show a line between the operating and non-operating railroad property.

The railroad plat shall contain a table(s) identifying the parcels that overlap and the measured area of overlap.

Railroad Parcels

The easement used for permanent structures such as piers, abutments, wing walls, retaining walls, pavement on at-grade crossings, etc., is often referred to as an "occupational" or "ground" easement. Technically, it is a standard highway easement for highway purposes and conveys all rights required to construct and maintain a permanent highway facility.

Overlap Table

When a Standard Highway Easement is acquired, no further rights are required for the same area. When lesser easement rights are acquired, only the right acquired is conveyed. When more than one of these lesser rights (such as an aerial easement and a slope easement) is acquired for the same parcel of land, the overlap easement areas are shown in an overlap table. The areas of overlap are shown in square feet and are broken out for each parcel of land and the area in which they overlap the other easement(s).

Exception Area

With a highway underpass, the railroad retains the aerial right for the structure over the highway and the area shall be identified on the Railroad Plat Sheet. This area is determined by the width of the proposed structure and the length of railroad centerline between the faces of the abutments. The sample plat for a highway underpass illustrates the exception area and a note describing it.

Area of Joint Usage

The area of joint usage is the width of the proposed pavement and shoulders plus a minimum of two (2) additional feet on each side across the railroad property. This area shall be highlighted (hatching, shading, etc.) and designated as "Area of Joint Use." Additionally, this area shall be calculated in square feet and shown in a table format.

Railroad Plat Sheet

The scale for the Railroad Plat Sheet should correspond with the Plan and Profile Sheets of the Construction Plans. It is recommended that the District Real Estate Administrator be consulted if there is any question regarding the scales to be used on a given project.

Listed below and referenced to the sample Railroad Plat Sheets in **Appendix A, Figure 3108.8**.

8A - Title Block

8B - Sheet Heading

8C - Railroad valuation/centerline data with the bearing and distance along each tangent section, labeling the curve points along the centerline as well as the curve information for each curve at least once per sheet on which the curve appears. Refer to the Location and Design Manual, Volume Three, **Figures 1303-1 through 1303-3**, for the required elements and data of curves and spirals. In addition provide the chord bearing and chord distances for both curves and spirals.

8D - All other tracks such as double tracks, switch tracks, spurs, sidings, etc. **(Figure 1308.8, sht. 42/46)**

8E - Railroad company(ies) valuation survey stationing

8F - Railroad property lines

8G – The highway centerline of right of way data with the bearing and distance along each tangent section, labeling the curve points along the centerline as well as the curve information for each curve at least once per sheet on which the curve appears.

8H - Relationship between railroad valuation/centerline stationing and highway centerline of right of way stationing.

8I - Station and offset for each railroad parcel tied to both the railroad centerline stationing and the highway centerline of right of way stationing.

8J - Construction limits

8K - Proposed pavement, abutments, pier footers, retaining walls, drainage structure, bridge parapets, relocated tracks, etc **(Figure 1308.8, sheet 42/46)**

8L - Ownership number and parcel identifiers

8M - Overlap tables with areas broken out in square feet, if applicable

8N - Intersection angle of railroad and highway centerlines

8O - Reference to railroad valuation map used as the source of railroad data

The following item is NOT shown on the sample sheets in **Appendix A**, however it is required when encounter on a project.

Enlarged scale detail of footer easements, if applicable

NOTE: In dealing with the different railroads, some variation may be encountered in their individual requirements and needs. It would be impossible to illustrate all of these differences in a limited number of sheets, so they should be addressed on a case by case basis. It is strongly suggested that the Office of Real Estate, Acquisition Services Section be contacted for further information.

3109 Optional Right of Way Plan Formats

3109.1 Introduction

When minimal right of way is needed or the project is simple in nature, it may be possible to utilize an Optional Right of Way Plan Format. However, all Optional Right of Way Plan Formats must be approved by the District Real Estate Administrator or outlined in the Project Scope of Services document. In all cases, the Optional Right of Way Plan Format must include the essential right of way data that is needed to complete the acquisition and appraisal process.

ODOT currently recognizes three Optional Right of Way Plan Formats.

- One Sheet Right of Way Plan
- Right of Way Data on Construction Plan Sheets
- Right of Way Plat

The One Sheet Right of Way Plan or Right of Way Data on the Construction Plan Sheets should be considered when:

- Minimal or small take areas are required
- No significant negative affects to the remaining property will occur
- Work agreements and temporary takes are to be acquired
- A minimal number of parcels are to be acquired

The Right of Way Plat should be considered when:

- Complex or large take areas are required
- Significant negative affect to the remaining property will occur
- Temporary takes are to be acquired
- A large number of parcels are to be acquired
- If it is believed appropriations are likely
- When it is important to relate permanent easements or fee simple title parcels, to boundary land lines or property lines
- The taking is in an urban area or a large rural project involving many parcels
- It is desirable to reduce the time spent preparing, checking and proofreading the legal descriptions.

The District Real Estate Administrator may approve any one of the above Optional Right of Way Plan Formats only after full consideration is given to the above criteria.

3109.2 One Sheet Right of Way Plan

The format consists of a Legend Sheet and a Right of Way Sheet(s). The Right o f Way Plan Sheet includes those elements normally associated with a Property Map, a Summary of Additional Right of Way and the Right of Way Detail Sheets. A sample of the One Sheet Right of Way Plan has been provided in **Appendix A, Figures 3109.2A and 3109.2B**.

3109.3 Right of Way Data on Construction Plan Sheets

This optional format is essentially a modified construction plan and profile sheet. The data normally shown on the right of way plan is shown on the plan and profile sheet(s). Take types and ownership information is shown on the plan view. Also, a condensed Summary of Additional Right of Way table is furnished, usually on the last plan and profile sheet, within the series of sheets. A sample of the Right of Way Data on Construction Plan Sheets has been provided in **Appendix A, Figure 3109.3**.

3109.4 Right of Way Plat

The Right of Way Plat contains the standard right of way plan sheets using the Right of Way Topography Sheets and Right of Way Boundary Sheets in the place of the Right of Way Detail Sheets. This optional plan format requires the entire set of right of way plans (excluding the Right of Way Topography Sheets) be recorded in the County Recorder's Office. Use of the Right of Way Plat format allows for abbreviated legal descriptions that refer to parcel numbers within the plans in lieu of a description per O.A.C. 4733-37-06 ((B) Metes and Bounds Descriptions)

The Recorded Right of Way Plat will include the following; the Right of Way Legend Sheet, Centerline Plat Sheet(s), Property Map Sheet(s), Property Index Map Sheet(s) (if required), Summary of Additional Right of Way Sheet(s), and Right of Way Boundary Sheet(s). The plan and associated documents must meet O.A.C. 4733-37 (Minimum Standards for Boundary Surveys in the State of Ohio). The Right of Way Plat shall be recorded after the title research/reports, appraisals, and negotiations are completed, and immediately prior to the closings.

The parcels being acquired will be described in the deed with a reference to the recorded Right of Way Plat and ODOT Parcel Number. See **Appendix E** for a sample legal description using the Right of Way Plat format.

If revisions to the recorded Right of Way Plat are required, an Affidavit of Correction with the associated drawing(s) and all other county required information must be completed by the design agency. The affidavit will clearly state what is to be corrected as well as which sheets of the recorded Right of Way Plat are effected. The affidavit will be cross indexed with the county record index and the recorded Right of Way Plat (Summary of Additional Right of Way Sheet). See **Appendix F** for a sample Affidavit of Correction as well as a sample cover letter to the local County Recorder.

The Right of Way Plat Process requires the release of Temporary Easement parcels when construction is completed. The documents needed to facilitate this release must be prepared and submitted with the Right of Way Tracings. The construction project engineer will sign the release, certifying the construction is complete, and the Temporary Easements acquired for construction are no longer needed. The release will be forwarded to the District Real Estate Administrator. The District Real Estate Administrator shall be responsible for recording the signed release in the appropriate county office.

Sheet Numbering

Given that the Right of Way Plat format requires the entire plan be recorded (with the exception of the Topography sheets), the Right of Way Topography Sheet(s) shall have a "T" added to their right of way plan sheet numbering. For more information on right of way plan sheet number, see **Section 3107.3, "Numbering of Right of Way Plan Sheets"**.

Right of Way Legend Sheet

The Right of Way Legend Sheet shall be prepared as per **Section 3108.1, "Right of Way Legend Sheet"**. In addition the following items shall be included:

- The County Recorder's recording block shall be added to this sheet (Modify according to local County Recorder's requirements).
- Recorder's Marginal Notes must be added to the index of sheets.

Centerline Plat Sheet

The Centerline Plat Sheet shall be prepared as per **Sections 3108.2, "Centerline Plat Sheet"**

Property Map Sheet

The Property Map shall be prepared as per **Section 3108.3 and 3109.3, "Property Map Sheet"**. In addition, the following items shall be included:

- Show all existing monumentation and lines of occupation that were found and used to establish the Property lines.
- The County Recorder's recording block shall be added to this sheet (Modify according to local County Recorder's requirements).

Summary of Additional Right of Way Sheet

The Summary of Additional Right of Way Sheet shall be prepared as per **Section 3108.4 and 3109.4, "Summary of Additional Right of Way Sheet"**. In addition, the following items shall be included:

- A marginal notation will be completed by the County Recorder when the Release of Temporary Right of Way is recorded at the end of the project. The Temporary Right of Way will be released by affidavit filed by ODOT at the completion of the construction project.

Temporary Easements have been released by Affidavit

Dated: _____

Recorded to _____ Records Volume: _____

Page: _____

_____

County Recorder

- A table shall be added to this sheet to list all of the affidavits that may be filed for possible revisions of the plan. This table will be used by the County Recorder as a cross reference at the time the affidavits are filed.

Affidavit of Correction:							
Parcel No.	Date	Volume	Page	Parcel No.	Date	Volume	Page

- The County Recorder's recording block shall be added to this sheet (Modify according to local County Recorder's requirements).

Right of Way Topography Sheet

The Right of Way Topography Sheet shall be prepared as per **Section 3108.6, "Right of Way Topography Sheet"**. In addition the following items shall be included:

- A 'T' is added to the right of way plan sheet number.

Right of Way Boundary Sheet

The Right of Way Boundary Sheet shall be prepared as per **Section 3108.7, "Right of Way Boundary Sheet"**. In addition, the following items shall be included:

- The County Recorder's recording block shall be added to this sheet (Modify according to local County Recorder's requirements).

3110 Right of Way Plan Reviews

3110.1 Coordination of Review comments

The number of reviews during project development is defined in the Project Development Process Manual & will be further clarified in the Project Scope of Services document. The District Production Office is the coordinating unit for all reviews and submissions related to the right of way plan.

Unless otherwise indicated in the Project Scope of Services the District Production Office will solicit and coordinate comments when needed from central office units, real estate regional offices, affected governmental agencies and any other pertinent sources. The District Production Office will also determine the need for any formal review meetings.

3110.2 Right of Way Reviews

While there are activities of the right of way plan development process that must be reviewed throughout the entire PDP process, the more complex and detailed submittals and reviews related to right of way are at Stage 1 Detail Design, Preliminary Right of Way and at Final Right of Way. The Right of Way Tracings are a submittal only and not for review. See the **Location and Design Manual, Volume Three, Section 1400 and the PDP Manual** for a complete list of submission requirements.

A completed Right of Way Checklist **(see Appendix H)** shall be submitted with both the Preliminary Right of Way Plan review and the Final Right of Way Plan review. Right of Way Description Checklist **(see Appendix I)** shall be submitted with the Final Right of Way Plan review.

MAJOR PROJECTS		
DESIGN SUBMISSION	PDP STEP	RIGHT OF WAY ACTIVITIES
Red Flag Summary	2	▪ Evaluates unusual impacts to properties or unusually costly parcel takes.
Conceptual Alternatives Study	5	▪ Prepare right of way acquisition cost estimate.
Assessment of Feasible Alternatives	6	▪ Evaluate drive relocation for landlocked parcels and high traffic generators. ▪ Obtain tax maps and overlay property lines, ownerships, and tax identification numbers on mapping data. ▪ Determine limits and type of existing right of way ▪ For each alternative, identify possible total take parcels and relocations. ▪ Prepare right of way acquisition cost estimate.
Preferred Alternative Verification Activities	7	▪ Finalize horizontal alignment (construction & right of way). ▪ Reevaluate total take parcels and relocations. ▪ Identify possible right of way acquisitions from Railroad companies. ▪ Prepare right of way acquisition cost estimate.
Stage 1 Detailed Design	8	▪ Provide both proposed & existing centerline of construction and right of way. ▪ Verify removal items that have an effect on right of way. ▪ Verify that the construction limits encompass all work including removal items. ▪ Conduct title and deed research. ▪ Locate property pins. ▪ Determine existing property line location. ▪ Present proposed right of way on plan and profile sheets. ▪ Identify the types of takes in the transmittal letter to determine if the proposed right of way fits the work being performed. ▪ Identify any properties that will be a total take and/or landlocked parcels. ▪ Identify right of way encroachments. ▪ Prepare right of way acquisition cost estimate.
Preliminary Right of Way	9	▪ Revise Stage 1 plans based on review comments that have an impact on construction limits and/or right of way plan information. ▪ Include correct identification of all affected ownerships, including correct legal names, recorded area, total PRO and Auditor's Parcel Number. ▪ Refine proposed right of way lines based on construction limits determined during Stage 1 Detailed Design. ▪ Identify proposed easements (e.g., temporary, drainage, channel). ▪ Prepare a Centerline Plat detailing the proposed centerline and its precise geographic and boundary related position.

		▪ Prepare a Property Map showing the relationship of proposed right of way to each entire ownership. ▪ Prepare a Summary of Additional Right of Way that tabulates all aspects of areas involved in the acquisition. ▪ Prepare right of way plan sheets showing all existing and proposed features and their relationship to existing and proposed rights of way. ▪ Conduct an in-depth field review and document it in the transmittal letter of the submission indicating the date preformed. ▪ Prepare Railroad Plats. ▪ Prepare draft legal descriptions for railroad parcels, including: bearings, distances & valuation stations. ▪ Identify all encroachments. ▪ Contact the District Utility Coordinator for a revised cost estimate if right of way plan development indicates any changes to assumptions used to generate the Stage 1 utility cost estimate (e.g. additional easements found). ▪ Prepare an updated right of way acquisition cost estimate. ▪ Provide copies of the deeds and all pertinent information used to resolve the boundary lines and a surveyors report identifying any boundary resolution issues.
Stage 2 Detailed Design	9	▪ Ensure proposed right of way lines are plotted on the appropriate construction plan sheets.
Final Right of Way	10	▪ Incorporate all comments from the Preliminary Right of Way Review, as well as any Stage 2 Detailed Design elements that have an impact on the right of way plans. ▪ Prepare a legal description for each parcel to be acquired on the appropriate RX Form. ▪ Complete a closure calculation for each parcel. ▪ Incorporate railroad review comments. ▪ Update right of way cost estimates. ▪ Notify the District Utility Coordinator of any changes to utility impacts or anticipated reimbursements.
Right of Way Tracings	10	▪ Conduct an in-depth field review and verify property owner information, fifteen days prior to submitting the Right of Way Tracings. The field review will include visual verification of all topographic features, utilities, access issues, septic systems, sprinklers, storage tanks, etc. ▪ Tracings should be made within 20 days after receipt of the Final Right of Way Review comments unless stated otherwise in the project scope. ▪ Update any new ownership transactions. ▪ Update any changes to topographic features, structures, utilities or ownership. ▪ Submit legal descriptions to the county for compliance with current county conveyance standards.

MINOR PROJECTS		
DESIGN SUBMISSION	PDP STEP	R/W ACTIVITIES
Red Flag Summary	2	▪ Evaluate unusual impacts to properties or unusually costly parcel takes.
Minor Project Preliminary Engineering Study	3	▪ Obtain tax map and overlay property lines, tax identification numbers, and ownership based on map survey data. ▪ Determine limits and type of existing right of way. ▪ Determine if additional right of way is needed for any temporary or permanent construction (earthwork, drainage, signal poles, equipment access, drives, etc.). ▪ Identify possible total take parcels and relocations. ▪ Identify possible right of way acquisition from Railroad / Railway Companies. ▪ Prepare right of way acquisition cost estimate.
Stage 1 Detailed Design	4	▪ Provide both proposed & existing centerline of construction and right of way. ▪ Verify removal items that have an effect on right of way. ▪ Verify that the construction limits encompass all work including removal items. ▪ Conduct title and deed research. ▪ Locate property pins. ▪ Determine existing property line location. ▪ Present proposed right of way on plan and profile sheets. ▪ Identify the types of takes in the transmittal letter to determine if the proposed right of way fits the work being performed. ▪ Identify any properties that will be a total take and/or landlocked parcels. ▪ Identify right of way encroachments. ▪ Prepare right of way acquisition cost estimate.
Preliminary Right of Way	5	▪ Revise Stage 1 plans based on review comments that have an impact on construction limits and/or right of way plan information. ▪ Provide the correct identification of all affected ownerships including correct legal names, recorded area, total present road occupied (PRO), and Auditor's Permanent Parcel Number. ▪ Refine proposed right of way lines based on construction limits determined during Stage 1 Detailed Design. ▪ Identify proposed easements (e.g., temporary, drainage, channel). ▪ Prepare a Centerline Plat detailing the proposed centerline and its precise geographic and boundary related position. ▪ Prepare a Property Map showing the relationship of proposed right of way to each entire ownership.

		▪ Prepare a Summary of Additional Right of Way that tabulates all aspects of areas involved in the acquisition. ▪ Prepare detailed right of way plan sheets showing all existing and proposed features and their relationship to existing and proposed rights of way. ▪ Conduct an in-depth field review and document it in the transmittal letter of the submission indicating the date preformed. ▪ Prepare Railroad Plats. ▪ Prepare draft legal descriptions for railroad parcels, including: bearings, distances and valuation stations. ▪ Identify all encroachments. ▪ Contact the District Utility Coordinator for a revised cost estimate if right of way plan development indicates any changes to assumptions used to generate the Stage 1 utility cost estimate (e.g. additional easements found). ▪ Prepare an updated right of way acquisition cost estimate. ▪ Provide copies of the deeds and all pertinent information used to resolve the boundary lines and a surveyors report identifying any boundary resolution issues.
Stage 2 Detailed Design	5	▪ Ensure proposed right of way lines are plotted on the appropriate construction plan sheets.
Final Right of Way	6	▪ Conduct an in-depth field review and verify property owner information, fifteen days prior to submitting the Right of Way Tracings. The field review will include visual verification of all topographic features, utilities, access issues, septic systems, sprinklers, storage tanks, etc. ▪ Prepare a legal description for each parcel to be acquired on the appropriate RX Form. ▪ Complete a closure calculation for each parcel. ▪ Incorporate railroad review comments. ▪ Update right of way cost estimates. ▪ Notify the District Utility Coordinator of any changes to utility impacts or anticipated reimbursements.

Right of Way Tracings	6	▪ Conduct an in-depth field review and verify property owners fifteen days prior to submitting the Right of Way Tracings. This field review will include visual verification of all topo features, utilities, ownerships, access issues, verification of septic systems, sprinklers, storage tanks, etc. ▪ Tracings should be made within 20 days after receipt of the Final Right of Way Review comments unless stated otherwise in the project scope. ▪ Update any new ownership transactions. ▪ Update any changes to topographic features, structures, utilities or ownership. ▪ Submit legal descriptions to the county for compliance with current county conveyance standards.

3110.3 Review Agencies

All review submittals shall be made directly to the District Production Office unless otherwise indicated in the Project Scope of Services document. The development of the right of way plan can require reviews and comments from various offices and agencies, such as the effected railroad company's real estate section, involved utility companies, real estate regional office, etc. For a list of the review agencies and the requirements of the review submittals, see the PDP Manual, **Appendix B** – Review Matrices, as well as the **Location and Design Manual, Volume Three, Sections 1402 and 1403**. When the right of way review process is completed, a paper and digital copy of the completed RX Forms for each parcel of right of way to be acquired shall be submitted to the District Production Office. The scope of services document will identify when the plans must be submitted in digital format (CADD).