RIGHT OF WAY

PLAN

DEVELOPMENT

PREQUALIFICATION

COURSE
Course Agenda

8:30am - 4:30pm

8:30 - 11:45
Welcome and Introduction

The Right of Way Plan Development Prequalification Process
Right of Way Plan Development Submittal Requirements
Right of Way Designer/Right of Way Reviewer Submittal Requirements and Responsibilities

Eminent Domain, the Users of the R/W Plans and Project Development Process (ODOT’s PDP)

3104 Establish Road R/W, Easements and Property Lines
ORC 4733-37 Minimum Standards for Boundary Surveys
Existing C/L, Road Right of Way and Easements
Records Research, Property Lines and Existing Monuments

The Scope of Work
Pre-field Work Items

3105 Location of all Topo Items Above and Below Ground
Planimetric, Structures, ADC, Encroachments, Utilities

3016 Proposed Right of Way
Base Map Preparation
Proposed Centerline and Proposed Monuments

Project Wise/ORD/OHROW programs and software overview

11:45 – 12:45  LUNCH

12:45 – 4:30

3200 “Types of Title”
3106 Proposed Right of Way Design
Placing R/W Take Lines
Planning Right of Way Parcel Takes

3107 Standard R/W Plan Format
Appendices, Numbering of Ownerships, Parcel Identification/Types of Title, Numbering of R/W Sheets

3108 Standard R/W Plan Sheets
R/W Legend Sheet
Centerline Plat Sheet
Property Map Sheet
Summary of Additional R/W Sheet
Right of Way Detail Sheet
Topographic Sheet
Boundary Sheet
Railroad Plat Sheet

3109 Optional R/W Plan Format

3300 Exhibit “A” / RX Forms

Right of Way Review Checklist

Review 10 Takeaways
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## PREQUALIFICATION

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Sara Sheldon Morrisey, P.S.

Survey Operations Manager, ODOT District One

Sara is a Professional Land Surveyor, registered in Ohio since 2006 and Kentucky since 2003 (inactive). She has a Bachelor of Business Administration in Finance and International Business from Ohio University (1995) and a Bachelor of Science in Surveying and Mapping Technology from the University of Akron (2005). Prior to joining ODOT she garnered over 17 years of survey knowledge in private practice as well as 2 years of public service experience with the Tax Map Office of the Allen County, Ohio Engineer.

Sara began her surveying career in 1996 when she joined her family’s Civil Engineering and Surveying firm. From 1996 to 2006 she worked extensively in the areas of Boundary, Construction, Topographic, ALTA, Subdivision, Cellular Tower, and GPS surveying. In 2006 she started her own professional land surveying practice. During her time in private practice she has had the opportunity to complete survey and title research in Michigan, Kentucky, West Virginia and about 80% of the counties in Ohio.

In 2014, she accepted a position with the Allen County, Ohio Engineer’s Tax Map office to help implement the review process and conduct the reviews for legal descriptions within instruments of conveyance.

Since moving to ODOT early in 2016, she has had the opportunity to shift her area of concentration to right of way and infrastructure related surveying. Currently, she manages the District One Survey Department, which utilizes and blends the latest GPS, scanning, and robotic survey technologies to safely and efficiently deliver survey products necessary for the design of bridges, culverts, interchanges and highway maintenance. Sara oversees and assists in the development of boundary and topographic design files, as well as right of way plans and legal descriptions for acquisition of right of way.

Sara resides near Lima, Ohio with her husband and two children where she enjoys spending time with her family and friends, attending sporting events, traveling, reading and getting outdoors and off the grid.
Scott Hawkins, P.S.

ODOT District Three Survey Department

Biography:

Scott has been a licensed Professional Surveyor in the state of Ohio since 2009. After graduating from the University of Akron in 2005 with a Bachelor’s Degree in Surveying and Mapping Scott spend several years surveying for a small engineering and surveying firm in Northeast Ohio. Scott joined ODOT District Three (Ashland, Ohio) in 2006 as a surveyor-in-training performing boundary, topographic and control surveys for ODOT projects. Upon licensure Scott transferred to ODOT’s Central Office of Aerial Engineering where he specialized in 3D laser scanning, large bridge monitoring and aerial ground control for airborne photogrammetry and LiDAR operations. In 2012 Scott returned to District 3 originally as a project surveyor and more recently as the Survey Operations Manager. Scott and his colleagues at District 3 have implemented the most current technologies including GPS equipment, robotic total stations, 3D Laser-Scanning, photogrammetry and a host of software, to perform high-quality control, centerline, right-of-way, boundary and topographic surveys. They pride themselves on performing thorough centerline retracements and producing accurate base mapping of existing sites for ODOT plan preparation. Scott also is certified as a commercial UAS pilot through the FAA.

Scott resides in Medina County with his wife and two young children. He is a member of the Professional Land Surveyor of Ohio. Outside of work Scott enjoys spending time with his family, camping and fishing.
Kyle Ince
ODOT Office of CADD and Mapping Services

Kyle Ince is a Transportation Engineer for the Ohio Department of Transportation’s Office of CADD and Mapping Services and an Adjunct Professor at Columbus State Community College in the Civil Engineering/Survey Department. Kyle is a registered Professional Engineer (P.E.) and a Survey Intern (S.I.) with the State of Ohio and is a 2014 graduate of Ohio State University with a B.S. in Civil Engineering.

Throughout his time at ODOT, Kyle has been involved with the remote sensing and survey aspects of the office. Specializing in aerial and terrestrial LiDAR, Kyle, has been an integral member in developing workflows and innovative techniques for point cloud related deliverables. More recently, Kyle has been assisting with CADD training and support for both internal and external users during ODOT’s OpenRoads Designer implementation.
John Drsek  
ODOT Office of CADD and Mapping Services

John is a registered professional Civil Engineer in the state of Ohio. He has a Bachelor’s of Science in Civil Engineering and a minor in applied mathematics from The University of Akron. John has been with ODOT for 9 years, spending a couple years as designer in District 4 and currently works in the Office of CADD and Mapping Services where he maintains, updates, supports, and trains on MicroStation and OpenRoads Designer with a focus on 3D modeling and streamlining processes.
Brett A. Shearer
Right of Way Plan Specialist
ODOT Central Office Real Estate

Biography – Brett Shearer is a Transportation Technician 3 with expertise in policy and procedures for Right of Way plan development, Right of Way Plan reviews, and training. Brett’s 31 years of experience, has brought him to focus on creating procedures and standards within the Right of Way discipline for the Ohio Department of Transportation and develop training to educate consultants, Local Public Agency (LPA) and State employees on Right of Way plan development.

He provides pre-qualification training to consultants and Local Public Agency (LPA) on Right of Way plan development and assists the CADD section on standards for right of way plans. In addition, he provides highway plan reading and acquisition plan reading training to real estate professionals employed with ODOT, LPA’s and consultants.

Brett lives in Sunbury Ohio with his wife and three boys. He is an active member and vice president of the Bridge Credit Union Board, a member of PLSO and is a member of the Knights of Columbus. When not working: Brett likes spending time with his family, working out and helping others achieve their optimal health through healthy eating and exercise.
R/W PREQUALIFICATION • ODOT, 3/11/2020

R/W PLAN DEVELOPMENT PRE-QUALIFICATION TRAINING

Brett Shearer, R/W Specialist
Sara Sheldon Morrisey, P.S.
Scott Hawkins, P.S.
Kyle Ince, P.E.
John Drsek, P.E.
WELCOME AND INTRODUCTION

- Electronic Sign in
  - You Must Sign in to receive your certificate
- R/W Plan Development Training Manual
  - Course Agenda
  - Table of Contents
  - Biography for each Speaker
  - Power Point Slide Show
  - CPD Credit (6.5 Hrs)
  - R/W Manual Sections 3100, 3200 & 3300

OBJECTIVES OF THIS COURSE

- Explain the R/W Pre-qualification Process
- Identify the users of the R/W Plans
- Project Development Process (PDP)
- Establish Road R/W, Easements & Property Lines
- Review the Scope of Work
- Location of all Topo Items Above & Below Ground
- Proposed Right of Way
OBJECTIVES OF THIS COURSE

• Section 3200 “Types of Title”
• Proposed R/W Design
• Standard R/W Plan Format
• Standard R/W Plan Sheets
• Section 3300 Exhibit A /RX Forms

TOP 10 TAKEAWAYS

1. How to get Prequalified to do R/W Plans
2. Why records research is the foundation
3. Why knowing the history of the State’s road system is vital to R/W design
4. Why ODOT surveying and mapping specs
5. Understanding why existing centerlines and right of way widths will be challenging
TOP 10 TAKEAWAYS

6. Why communication with the District Real Estate Office and Survey Operation Manager is so important. Ask Questions
8. What is required as part of the Standard R/W Plan Sheet Format.
9. What is the Format for ODOT Legal Descriptions.
10. What is required as part of the plan review submission.

R/W PRE-QUALIFICATION PROCESS

• Two Pre-Qualification Categories for Design Firms
  • Limited Right of Way Plan Development
  • Complex Right of Way Plan Development
• NOTE: ODOT Prequalifies the Design Firm
• **Limited Right of Way Plan Development Definition**
  
  • Projects located in rural areas with non-developed land  
  • A maximum of 6 parcels  
  • No Railroad involvement  
  • No limited access right of way  
  • No other complicating factors that require specific expertise

• **Limited Right of Way Plan Development Requirements**
  
  • Minimum of 1 Professional Surveyor Registered in Ohio  
  • Must be on Permanent Staff  
  • Successful completion of today's class  
  • Active involvement in performing boundary survey work within the 2 years prior to the date of application.  
  * Includes ODOT and LPA work  
  * Research of deeds, maps, road records and plats  
  * Preparation of plats and legal descriptions approved and recorded
R/W PRE-QUALIFICATION PROCESS

• Submittal Requirements
  • Design firm submits a resume for the P.S.
    • Summarizing their boundary survey work experience and any roadway right of way experience.
  • Submit county approved legal descriptions (current within the past 2 years) completed by the surveyor listed on the application.
  • Copy of the certification of completion of ODOT’s Right of Way Plan Development Training Course.

R/W PRE-QUALIFICATION PROCESS

Complex Right of Way Plan Development

Also known as the traditional Right of Way Plan Development
R/W PRE-QUALIFICATION PROCESS

• Complex Right of Way Plan Development Definition
  • Two areas of responsibility
    • Design
    • Review
  • Right of Way Plan Designer
    • Must be under the direct supervision of a P.S. registered in Ohio
  • Right of Way Plan Reviewer
    • MUST be a P.S. registered in Ohio
    • Responsible for signing and sealing all appropriate R/W documents

R/W PRE-QUALIFICATION PROCESS

• Right of Way Plan Designer and Right of Way Plan Reviewer CANNOT be the same individual on any project.

• The Right of Way Plan Designer can be a P.S. however, the Right of Way Plan Reviewer must also be a P.S. and must be someone other than the Right of Way Designer
**R/W PRE-QUALIFICATION PROCESS**

- **R/W Plan Designer Requirements and Responsibility:**
  - Experience in R/W Plan Development on projects comprising a total of ten (10) or more parcels
  - Active involvement in R/W Plan Development within the past five (5) years
  - Successful completion of this course
  - Courthouse Research Experience (Road R/W and Deeds)
  - Experience and knowledge of the ODOT Right of Way Plan Manual
  - Experience and knowledge of the ODOT CADD Engineering Standards Manual

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**R/W PRE-QUALIFICATION PROCESS**

- **R/W Plan Reviewer Requirements and Responsibility:**
  - Professional Surveyor registered in the State of Ohio
  - Two (2) years experience in developing public R/W plans comprising a total of twenty (20) or more parcels
  - Active involvement in R/W Plan Development within the past five (5) years
  - Successful completion of this course
R/W PRE-QUALIFICATION PROCESS

• R/W Plan Reviewer Requirements and Responsibility:
  • Establishing and Setting Boundary Monumentation
  • Investigating and Establishing Property Lines
  • Check and Verify Accuracy of Computations, Plans and Legal Descriptions, Insuring Items are Correct, Current, Complete and Conform to County Requirements & Manuals
  • Evaluate Overall R/W Plan and Legal Descriptions for Quality and Consistency with Construction Plans

R/W PRE-QUALIFICATION PROCESS

• Submittal Requirements
  • Design firm submits a resume for Designer & Reviewer
  • Summarizing their experience
  • Listing all the R/W projects they have worked on and
  • Highlighting their direct responsibilities
  • Submit approved/completed right of way plans prepared by the Designer and checked by the Reviewer within past 5 years (Initial Submittal Only)
  • Submit county approved (or recorded) legal descriptions prepared, signed and sealed by the Reviewer within past 5 years (Initial Submittal Only)
THINGS TO KEEP IN MIND WHEN APPLYING

• R/W Plan Development includes the performance of:
  • Deed/property rights research (Courthouse, Engineer’s Office)
  • The practice of Boundary Surveys
  • The practice of Topographic Surveys
  • Computation of both Existing and Proposed Road R/W
  • Preparation of R/W Plans based on ODOT or similar standards
  • Preparation of Legal Descriptions following both
    • ODOT standards
    • County recording and conveyance requirements
  • Closure reports for each description

R/W PRE-QUALIFICATION PROCESS

• Submit your application, resume and approved *plans to:
  • Ohio Department of Transportation
  • Office of Consultant Services
  • Dan Krajcovic Mail Stop 4100
  • 1980 West Broad Street, 1st Floor
  • Columbus, Ohio 43223

* Plans can be ¼ size or CD or USB flash drive
GETTING PREQUALIFIED IF YOU DO NOT HAVE ODOT R/W PLAN EXPERIENCE?

- Submit any road right of way plans prepared in the past five (5) years. (highlight this work)
- OR
- Submit any LPA roadway work in the past five (5) years that involved the establishment of road right of way and property lines (highlight this work)
- OR
- Submit any subdivision plats prepared in the past five (5) years that include road right of way work/dedicated road right of way (highlight this work)

“These plans will be taken into consideration”

QUESTION AND ANSWER SESSION
EMINENT DOMAIN HISTORY

• 5th Amendment U.S. Constitution
  • “No person shall be held to answer for a capital, ...nor be deprived of life, liberty, or property, Without due process of law; nor shall private property be taken for public use without just compensation.”

• Section 19, Article I, Ohio Constitution
  • “…When taken ... for the purpose of making or repairing roads, which shall be open to the public, without charge, a compensation shall be made to the owner, in money…”

EMINENT DOMAIN HISTORY

• Federal policy transfers monitoring and compliance responsibility to the State and the State Governments must establish lead agencies.
  • ORC 163.01 - 163.62 & OAC create State law and policy. The Governor named ODOT to be the lead agency.

• ODOT must develop & maintain Policies & Procedures Manuals for design & acquisition of R/W.

• Manuals must be reviewed and approved by ODOT’s legal counsel and the FHWA (8/23/2018 every 5 yrs thereafter)
EMINENT DOMAIN HISTORY

- These manuals shall be followed by ANY AGENCY, acquiring for highway purposes, having the power of eminent domain.

- Unless the acquiring agency has created their own procedure that has been approved by ODOT.

- Based on the current laws and codes, ODOT P&P must be followed. FHWA mandates where federal funds are involved in any phase of the project.

WHAT DOES ALL THIS HAVE TO DO WITH THIS CLASS?

- The accuracy and considered concept of the plan is essential success or the acquisition process may fail.
WHAT DOES ALL THIS HAVE TO DO WITH THIS CLASS?

• As eminent domain remains a focal public issue the need for the accuracy of the plan and concept is amplified.

WHAT WE WANT TO AVOID

10/31/2008
USERS OF R/W PLANS

- Title Agents
- Appraisers & Reviewers
- Acquisition Agents
- Relocation Agents
- Property Owners
- Attorneys
- Surveyors
- Real Estate Agents
- County Auditors
- County Engineers
- City Engineers/Service Directors
- Assistant Attorney General Attorneys
- Future R/Way Plan Designers

PDP - PATHS

- Path # 1
  - No Right of Way/Utility Impacts

- Path # 2
  - Can involve Right of Way/Utility Impacts but limited to strip takes

- Path # 3
  - Can involve Utility and Right of Way impacts including relocations

- Path # 4
  - May have high Utility and/or Right of Way impacts/relocations

- Path # 5
  - Will have high Right of Way relocations/impacts, complex utility issues, multiple alternatives and access management issues
PDP TIMELINE

Planning (PL)
- Pre-Preliminary R/W
- Preliminary Engineering (PE)
- Conceptual R/W
  - RW Design 2-12 months
  - Preliminary R/W Includes Legals
  - Stage 1 Path 4/5
  - Stage 2 Path 1-5
- Final R/W Plans

Environmental Engineering (EE)
- Final Engineering & Right of Way (FE)
  - Stage 2 Actual Starts

Construction (CO)
- Acquisition

QUESTION AND ANSWER SESSION
SARA S. MORRISEY, P.S.
ODOT DISTRICT 1

- 1995 Ohio University, Athens - Bachelor of Business Administration
- 1996 Began Surveying career in the private sector
- 2002 Kentucky Licensed Surveyor
- 2005 University of Akron - Bachelor of Science in Surveying & Mapping
- 2006 Ohio Registered Professional Surveyor
- 18 years of survey experience in the private sector
  - Boundary, Construction, Topographic, ALTA, GPS, Subdivision, Flood and Cellular Tower
  - Title research in Michigan, Kentucky, West Virginia and about 80% of the counties in Ohio
- 2 years at Allen County Engineer’s Tax Map Office
- 2016 Began her ODOT career

SECTION 3104
ESTABLISHING EXISTING ROAD R/W, EASEMENTS & PROPERTY LINES
Why is Section 3104 so important?

WHY IS SECTION 3104 SO IMPORTANT?

FOUNDATION FOR EVERY OTHER PART OF THE PROJECT

Inaccurate or missing details on R/W and Survey Basemaps = Problems Down the Road…Yes, Pun Intended!

BAD FOUNDATION

ODOT FOUNDATION
WHY IS SECTION 3104 SO IMPORTANT? (CONT’)

What are the results of inaccurate or missing details on the Centerline, R/W and Survey Basemaps?

- Project delays
- Waste of time and money
- Latent problems that may not show up for years
- Negative public perception of the project
- Legal action against the consultant or the State.

What Standards to hold?
WHAT STANDARDS TO HOLD

ALL R/W WORK SHALL MEET:
1. O.A.C. 4733-37
MINIMUM REQUIREMENTS FOR
BOUNDARY SURVEYS
2. ODOT'S R/W PLAN
MANUAL REQUIREMENTS

3103.6.4 Existing Centerline of
Right of Way Establishment
And
3104.1 Existing Right of Way
Limits
3103.6.4 EXISTING CENTERLINE AND 3104.1 RIGHT OF WAY LIMITS

Existing Centerline of R/W Alignment (3103.6.4)

- The centerline of construction should match the existing centerline of R/W except in limited circumstances where a separate centerline of construction is needed due to engineering, geometric or construction requirements.
- When a separate C/L of construction is necessary, the relationship between the C/L of construction and the existing C/L of R/W shall be noted on the plans.
- The centerline of R/W should never be shifted to match the centerline of construction without prior approval from the District.

How do I know where to begin? History is the Key

- Roads established by various methods:
  - Petition via Board of County Commissioners (ORC 5553)
    (For County and Township Roads)
    - Land Holders Petition the County Commissioners and County Commissioners made order for laying out road
      - Viewers & Surveyor determined alignment
      - County Commissioners Accept & Journalized
  - Statutory Dedication
  - Statutory Appropriation – Eminent Domain
  - Common-Law Dedication
  - Prescriptive Easement – Similar to Adverse Possession (only easement rights pass)
A Brief History of the Ohio Highway System:

Wagon Road or Turnpike Lands

- Starting June 30, 1802, Ohio would receive 3% of the net proceeds from the sale of any Federal Land in the State. (Information obtained from “Ohio Lands-A Short History” available through the Auditor of State)
  - This fund was to be used ONLY for the building of roads
  - Seed money for many of the early roads in Ohio
  - By June 30, 1880, Ohio received $596,634 from this fund

The Ohio Department of Highways (ODH) was created in 1904

- Object and purpose of the Department was to instruct, assist and co-operate in the building and improvement of Public Roads.

- First attempt to create an Agency responsible for Ohio’s growing transportation needs

- 1906 Professor C.E. Sherman (Ohio State University Civil Engineering Dept.,) established the materials testing laboratory that helped aid in the production of superior paving materials

- Brick and concrete roads began to gain favor, but were costly and rarely used in rural areas

- By 1910, 73% of Ohio roads were still considered dirt roads
In 1911 the State legislature (McGuire Bill) created the Inter County Highway System (I.C.H.) and with that The ODH changed from an “Advisory” agency to the active pursuit of constructing of roadways

- All counties were required to create accurate roadway maps
- Maps were submitted to the State Highway Commissioner
- Highway Commissioner selected county roads that connected to adjoining county roads to create “as near as practicable” continuous Inter County Highway System
- Under the supervision of the Department of Highways, the Counties made improvements to the roads selected by the Highway Commissioner

Upon completion, the State paid the Counties for improvements, then took over maintenance and Right of Way of the former County Roads

- County Commissioners certified to the State the width of the Right of Way. This information is usually on the cover sheet for the I.C.H. plans. See next Slide for example.
- Some County Commissioners' Journals will contain information from public meetings concerning I.C.H. Routes and the Right of Way obtained or verified by the County Surveyor/Engineer
We the commissioners of Wayne County hereby approve these plans and certify that the right-of-way 60 feet wide is available for the construction of the above road.

(Con’t)

1913 - Hudson-Hite Bill Passed
• State took control of more roads under the Main Market Road System
• Both the Inter-County Highway and Main Market Road systems consisted of old county roads becoming State Roads
• Their Right of Way widths varied from County to County, creating ambiguity within the right of way of the State Road System

1921 – Reorganization Bill
• Department divided into 11 Districts each with 8 counties
• 12th district added in 1929
• Allowed for each District to have a Deputy Highway commissioner and state construction workers closely overseeing and monitoring the projects
3103.6.4 EXISTING CENTERLINE AND 3104.1 RIGHT OF WAY LIMITS

(Con’t)

**1927 – Norton Edwards Highway Bill**
- Eliminated I.C.H. and Main Market Road Systems
- Bill also provided that all roads on the State Highway System be maintained solely at the State’s expense.
- Established a true State Highway System for the first time
- By 1928 only 200 of the 11,000 miles of the State Highway system remained unpaved. Quite an accomplishment over 18 years!

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3103.6.4 EXISTING CENTERLINE AND 3104.1 RIGHT OF WAY LIMITS

(Con’t)

**House Bill 216, 91st General Assembly 1935**
- Authorized the Director of Highways to add 5,000 miles of Existing County or Township Roads to the State Highway System between July 1935 to July 1936
- Not less than 40 or more than 75 mile per County.
- Existing R/W of not less than 50 foot width.
- R/W Title by Recorded Easements, Dedication Plat or Road Records
- Roads were assigned a State Highway Number
- Allowed for 200 additional miles to be added per years following

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**Ohio Department of Transportation**
3103.6.4 EXISTING CENTERLINE AND 3104.1 RIGHT OF WAY LIMITS

(con’t)

1943 to 1949
- Need for Ohio countryside to be more accessible by roadway
- Major road building project coordinated between all road and street building agencies
- By the end of the program, 109,000 miles of roadway in Ohio were constructed and in use

1950’s, 60’s and 70’s
- Dawn of the modern Four and Six-lane Interstate Highway System
- Dominated the attention of the ODH

1972 to present
- ODH became the Ohio Department of Transportation in September, 1972
- The Department, together with the Federal Highway Administration (FHWA), controls the maintenance and construction of roads and bridges in the State of Ohio

Responsibility of Surveyor/Right of Way Plan Designer to research the existing Centerline and Right of Way records to the extent necessary to provide an accurate foundation for the existing Centerline Alignment and Right of Way lines
- County/Township Road Records
- ODOT Records – check with local District Office
- Commissioner’s Journals and Inter County Highways (ICH)
- County and City Engineers, maps/plats/surveys
- Ohio Historical Society and Local Historical Societies
- Creation of Roads SOLELY by Counties, Townships and private individuals lasted until the early 20th Century
Special circumstances to be aware of:

- Roads were often built in sections rather than their entire length as might be indicated today (possibly creating different R/W widths and more than one plan)
- Typically referenced by ROAD NAME
  - Road names often changed
- County Commissioners have the legal authority to change, alter and vacate roads
- Roads often got relocated but the old R/W was never vacated
- No width is stated or R/W plans do not exist
Area of I.C.H 177 from 1926 Plans

1926 Plans

3103.6.4 EXISTING CENTERLINE AND 3104.1 RIGHT OF WAY LIMITS

Sources of information for Retracing the Centerline and R/W:
- Record Alignments, C/L Plats and Ex. R/W Plans (current and prior);
- Road Petitions;
- Old Construction Plans
- Plats for Subdivisions (Extra R/W may have been dedicated)
- **IN CONJUNCTION WITH THE RECOVERED ORIGINAL CENTERLINE AND R/W MONUMENTS THAT CONTROL THE ALIGNMENT.**

THE CENTERLINE ALIGNMENT MAY NOT BE RE-ESTABLISHED AS IT WAS EXACTLY STATED ON THE ORIGINAL PLANS.
3103.6.4 EXISTING CENTERLINE AND 3104.1 RIGHT OF WAY LIMITS

OHIO ROAD LAWS

If width is not stated in the Commissioner’s Journal Entry, it would be per the current LAW at the time the Road was approved.

Example:

• Vol II, page 210
  • It shall be the duty of said Commissioner to order the said road to be opened a necessary width, not exceeding sixty-six feet, and made in respects convenient for the passage of travelers and cause a record therefore to be made which thenceforth shall be deemed a road. February 17, 1804.

• See Appendix C in the Manual for a complete list
  • [http://www.dot.state.oh.us/Divisions/Engineering/RealEstate/row/Pages/row.aspx](http://www.dot.state.oh.us/Divisions/Engineering/RealEstate/row/Pages/row.aspx)

3104.2 Existing Easements
(Public, Utility and Private)
3104.2 EXISTING EASEMENTS
(PUBLIC, UTILITY AND PRIVATE)

• Insure all existing easements are shown including:
  • Type, size, owner and recording data
• Needed for:
  1. Allocating real estate cost
  2. Determining Utility reimbursement cost and relocations if necessary
  3. Determining Construction cost

3104.2 EXISTING EASEMENTS
(PUBLIC, UTILITY AND PRIVATE)

NOT ALL EASEMENTS ARE RECORDED
• Handshake agreements which are acted upon
• Easement by Prescription
3104.3 Records Research and Investigation

Designer/Reviewer Agency is responsible for records research of all parcels to meet OAC 4733-37 and ODOT’s R/W Plan Manual requirements

- **OAC 4733-37-02**
  - Obtain Subject Parcel Deed/Deeds of Ownership
    - Check for full ownership, possibly more than one owner
    - Separate Surface and Mineral Rights Owners
    - Quit Claim Deeds
    - Court Documents / Clerk of Courts
  - Obtain Adjacent Parcel Deed/Deeds of Ownership
  - Obtain all Documents necessary to establish best written evidence of every corner and line being established
In addition to Minimum Boundary Standards ODOT requires research as to the following:

1. **Obtain Recorded Easements & Leases**
   - Oil, Gas, Coal or other mineral rights
   - Utilities (public and private) rights
   - Ingress and Egress rights
   - Easements often shown on Subdivision Plats

2. **Obtain Restrictions**
   - Some deeds may also contain restrictions on the property they describe
   - Recorded Subdivision Plats often have restrictions on the plat or recorded as a separate doc.
   - Condominium and/or home owner associations have restrictions
     - Check Owner Associations Bylaws to determine if Association can convey Common Area for R/W by Eminent Domain Clause

**Sources for Public Records:**
1. County Recorder’s Office
2. Engineer’s, Tax Map and Auditor’s Office
   - GIS website, Auditor’s Cards, Parcel Numbers and Tax Maps
   - Private Surveys on file
   - Subdivision Plats (also in Recorder’s office)
   - Government Surveys and Stone Records
   - Road Records and Right of Way plans
OHIO RECORDERS’ ASSOCIATION

http://OhioRecorders.com
Gives information about all the Recorders offices in the State of Ohio

Tells which counties have online access to abstracts and deeds.

Has links to all the Recorders’ websites

COUNTY AUDITORS’ ASSOCIATION OF OHIO

http://caao.org
Has Directory of all Ohio County Auditors
with links to the County Auditor websites if available.
Most County Auditor websites have links to the online Tax Map if it is available.
http://www.ceao.org
Has Directory of every County Engineer with links to the County Engineer websites

Access to:
• Surveys
• Mapping
• GIS
• Local Contact info
• Regulations

3104.3 RECORDS RESEARCH AND INVESTIGATION (CON’T)

3. Research is often needed OUTSIDE of the usual places to get all the information:
   • Health Department (Septic Systems and Wells)
   • ODNR: Water Well logs, Oil and Gas Well Logs, Canal Plats
   • Secretary of State Website
ODOT TITLE REPORTS

Why the Title Report is NOT enough to meet requirements under Records Research and Investigation under Section 3104.3?

- Root title (42 year) may not satisfy OAC 4733-37
- **Marketable Title Act (40 years).** State Highways are almost always older than that! Easements may have been taken long before Marketable Title Act time period.
- Title for the Take Parcel only. May not include entire contiguous ownership.
- Permanent parcel number(s) not always given for contiguous parcels
- No determination if auditor’s area excludes P.R.O.
- Unrecorded easements not determined.
- Plat restrictions may not be identified.

3104.4 Property Lines
3104.4 PROPERTY LINES

The establishment of the existing private property lines, R/W’s and easements is a professional opinion based on “Best Available Evidence” at the time of the survey:

- Portfolio of observed and obtained information:
  - Written (deeds, easements, plats, existing plans, surveys, etc.)
  - Verbal (talk to County Engineer, Tax Map, Property owners)
  - Field (existing monuments, occupation lines, field signs of easements and underlying rights).
  - Ask Questions...don’t assume!

3104.4 PROPERTY LINES (CON’T)

- Requirements specified in O.A.C. 4733-37.
- Property Line Resolution Considerations:
  - Original Government land lines and monuments
    - Intent of Government Surveys
    - Know the Local Standards & Surveying Customs
  - Existing Boundary Monuments
    - Standard Surveying Rules of Evidence Apply
    - Called for in Deeds & Survey Plats?
    - Use data from Record Survey Plats
      - Does the Monument represent the Corner?
3104.4 PROPERTY LINES (CON’T)

• Survey Monuments should be given considerable weight
  • Ignoring Survey Monuments can cause Chaos and Problems
  • Hierarchy of Monuments
  • Uncalled for Monuments
    • Record of Survey
    • Compatible with Deed
    • Accepted by Owners - Talk to Owners
  • HOWEVER...need experience to know when to accept found monuments and when to reject the found monumentation

3104.4 PROPERTY LINES (CON’T)

• Intent Calls - “along the” and “to”
  • “Centerline”
    • What does it really mean? Pavement? R/W? Construction?
• Occupation Lines
• Overlap Areas and Deed Conflicts
• Reference / Offset Pins
  • Don’t mistake for corner!
• Existing Right of Way Monuments
3104.5 Existing Monuments

3104.5 EXISTING MONUMENTS (FOUND & SET)

- Survey based on a field investigation of the property to standards specified in the O.A.C. 4733-37-02
  - Surveyor will make a THOROUGH search for ALL physical monuments and analyze evidence of monumentation and occupation
  - Talk to Property Owners – get clarification
  - All monuments, evidence of monuments and occupation lines shall be shown on the Right of Way Plans
    - Type, size, condition
  - 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.
3104.5 EXISTING MONUMENTS (CON’T)

BEST TOOLS EVER!

3104.5 EXISTING MONUMENTS

- Property Monuments
- OAC 4733-37-05-C-4 Minimum Standards
  - A statement describing the material and size and condition
  - Notation for each corner as found and/or set.”
3104.5 EXISTING MONUMENTS

- Search for the Record Monuments
- Have field crews describe monuments found
  - SIZE
  - TYPE / MATERIAL
  - CAP STAMPING
  - CONDITION

Various Types of Highway Control Monuments:
- Right of Way Monuments
- Centerline and Centerline Reference Monuments
- Centerline Monument Assemblies (pictured below)
3104.5 EXISTING MONUMENTS

Old R/W Monument (below)

Swing Tie References to centerline reference monuments (above)

3104.5 EXISTING MONUMENTS

• New style Right of Way Monument
3104.5 EXISTING MONUMENTS

OLD MAPS

REPORTS

3104.6 Mineral Rights
(Oil, Gas, coal, etc.)
3104.6 MINERAL RIGHTS (OIL, GAS, COAL & ETC.)

Mineral Rights need to be noted on the R/W plans

Note: When there are 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 names of the individuals that hold these rights, the Deed Vol. and Page #, if it is currently under contract and/or lease and, if so, who these contract or lease holders are.
SCOTT HAWKINS, P.S.

- 2005 Graduate of the University of Akron
- Spent several years surveying for a small engineering and surveying firm in Northeast Ohio.
- 2006 began his ODOT career
- Where he has worked in Aerial Engineering 3D laser scanning, large bridge monitoring and aerial ground control for airborne photogrammetry and LiDAR operations
- Has had 2 tours in District 3 working with robotic total stations, 3D Laser-Scanning, perform high-quality control, centerline, right-of-way, boundary and topographic surveys
- 2009 Ohio Professional Surveyor licensed

OVERVIEW

- Recognize the scope of your work
- Pre-field work items
- Section 3105 of the Right-of-Way Manual
- Section 3106 of the Right-of-Way Manual
RECOGNIZE THE SCOPE OF WORK

- **Know what work your firm is tasked to perform**
  
  **Initial Survey Work**
  1. Establish/Position Control *(ODOT Survey & Mapping Specs)*
  2. Establish Centerline of Right-of-Way & Right-of-Way limits *(ODOT Plan Archives, County/Local Surveys, Historic Information, ORC 4733-37)*
  3. Establish existing property boundaries *(ORC 4733-37)*

  **Additional Survey Work**
  5. Design/Establish new Right-of-Way acquisition

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RECOGNIZE THE SCOPE OF WORK

- **EXPECTATION ARE DEFINED IN THE SCOPE OF SERVICES CONTRACT**
  
  - If the scope is unclear……ask the project manager and/or District Survey Operations Manager questions

---
PRE-FIELD WORK ITEMS

• ITEMS TO ADDRESS BEFORE FIELD WORK
  • Manuals of importance
    • ODOT Surveying & Mapping Specifications
    • ODOT CADD Engineering Manual
    • ODOT Right-of-Way Manual
  • Prepare office computer and data collectors with ODOT standards

PRE-FIELD WORK ITEMS

CALL FOR UTILITY MARKINGS

• Ohio Utility Protection Service (OUPS)
  • Design ticket – Print/Keep Record of Ticket #
    • 10 days for information/markings
    • Can request field markings (often times does not get marked)
    • Member utilities to provide plans
  • Dig ticket – Print/Keep Record of Ticket #
    • 48 hours notice for markings
    • ORC 3781.25 - “Excavation” means the use of hand tools, powered equipment, or explosives to move earth, rock, or other materials in order to penetrate or bore or drill into the earth....
    • Required for setting survey pins!
PRE-FIELD WORK ITEMS

CALL FOR UTILITY MARKINGS

- Contact non-member utilities
- Oil and Gas Producers Underground Protection Services (OGPUPS)
- Subsurface Utility Engineering (SUE)

PRE-FIELD WORK ITEMS

- Notice Sent to Property Owners
  - Section 163.03 and 5517.01 of ORC authorize the Right of Entry
  See: [http://codes.ohio.gov/orc/163.03](http://codes.ohio.gov/orc/163.03)
  - “…. not less than forty-eight hours nor more than thirty days prior to the date of such entry.”

- CHECK the SCOPE OF SERVICES CONTRACT
  - A generic, electronic, letter-headed notification letter is available from each district
3105 LOCATION OF ALL TOPOGRAPHIC ITEMS ABOVE AND BELOW GROUND

- 3105.1 Planimetric Features
- 3105.2 Structures (within 100’ of Prop. R/W)
- 3105.3 Advertising and Device Controlled Signs
- 3105.4 Encroachments
- 3105.5 Utilities Above and Below Ground
- 3105.6 Leach Beds, Septic Systems/Tanks, Sprinkler Systems/Heads and Underground Wells

3105.1 PLANIMETRIC FEATURES
3105.1 PLANIMETRIC FEATURES

- **ALL** planimetric and topographic features within the project limits
  - Will be used to generate both 2D mapping and 3D digital terrain model of the project (.tin)

- “…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.”

- Per the ODOT feature code list – many ‘Planimetric Features’ are used in the creation of the digital terrain model

---

### Class I Planimetric Features

- Edge of pavement (e.g., paint line)
- Edge of traveled shoulder
- Edge of grades shoulder
- Driveways
- Drainage ditches
- Parking Lots
- Bridge decks
- Sign boards, Ponds, Lakes, Wetlands
- Sidewalks
- Highway barriers
- Walls (retaining, levees, etc.)
- Buildings
- Utilities
  - Power Poles
  - Light Poles
  - Communication poles
  - Utility poles
  - Fire hydrants
  - Cables
  - Gas lines
  - Underground utilities from field collection
- Traffic Signs (specific number of posts, signs, etc.)
- Above Ground Tanks (specific)
- Large poles (such as, stockpiles of material, etc.)
- Above Ground Pumps
- Matthew (specific number of mailboxes in survey area)
- Conduits
  - Roads
  - Buildings
  - Estimated cemetery boundary
- Yard Lights
- Airport Lights
- Airport Windsock
- Bucket Ball Hoists
- Flag Poles
- Landscaping

- Stamps
  - Signs (individual)
- Golf Course greens
- School Playgrounds (equipment not included)
- Swimming pools
- Ground Smaller than Medium satellite dishes
- Towers
  - Cell phone
  - Etc.
- Fences
- Guardrail
- Bird houses (untouched post)
- Traffic Sign arms
- Culverts
- Trails (dirt roads)
- Railroads
- Billboards
- Utility booms

---

**REFER TO ODOT CADD & MAPPING SPECIFICATIONS FOR LIST OF CLASS I AND CLASS II PLANIMETRIC FEATURES**
3105.1 PLANIMETRIC FEATURES

- SPECIAL CONSIDERATIONS FOR ODOT PROJECTS
  - Field drives
  - Signage
  - Trees – locate all tree greater than 6” diameter & ornamentals
  - Parking spaces
  - Fences
  - Dimension linear encroachment onto the existing or proposed right-of-way
  - Pictures can tell a more complete story
3105.1 PLANIMETRIC FEATURES

3105.2 STRUCTURES
3105.2 STRUCTURES

- Refers to buildings NOT bridges
- Surveyed locations of all structures within 100’ of the proposed right of way line
  - Type, size and a distance from the closest point
- Show location of structures on every parcel directly affected by acquisition, even if the structure is greater than 100’ from right-of-way
  - Less precise location
    - Digitized from aerial imagery, google earth, sketched in, etc.
  - Non-adjacent structures will show up on the property map not necessarily the plan sheets
3105.3 ADVERTISING SIGNS

3105.3 ADVERTISING AND DEVICE CONTROLLED SIGNS

• A.K.A. - BILLBOARDS
• Signage must be permitted under ADC if:
  • Located along a controlled route
  • Off-site advertising
  • Greater than 8 sq. feet
• 10% of Federal Transportation Funding tied to ODOT enforcement of ADC
• ADC Permit Plate No.
3105.3 ADVERTISING AND DEVICE CONTROLLED SIGNS

- LOCATING BILLBOARDS

3105.4 ENCROACHMENTS
3105.4 ENCROACHMENTS

- Locate and show all encroachments within existing R/W
  - Encroachments are those objects which are located within public right of way and are NOT permitted to be there.
3105.4 ENCROACHMENTS

• Locate and show all encroachments within existing R/W
  • Identifying these objects is dependent entirely on the accurate location of highway rights of way.
  • All encroachments shall be shown and described on both the Construction and Right of Way plans.
  • Prior to filing the Final R/W Plans a note must be added spelling out disposition/handling of the encroachment.
  • Typically encroachments are cleared by ODOT but may require additional assistance from consultant (i.e. – additional details, existing RW staking, etc.)

3105.4 ENCROACHMENTS

• ALL PROJECTS INVOLVING FEDERAL FUNDING MUST HAVE CLEAR RIGHT-OF-WAY
• 4 options for clearing encroachments
  • Owner removal
  • Sell or vacate the RW
  • Lease the property to encroaching property
  • Allow encroachment and issue a permit
Mailboxes are permitted but the sign is not – this is not a mailbox post

Any part of a sign within our R/W is an encroachment

Do not propose new R/W that will create an encroachment either unless necessary and mitigate the issue
3105.5 UTILITIES

3105.5 UTILITIES ABOVE AND BELOW GROUND

• Section 153.64 ORC
  • Requires location underground facilities to be shown on plans
• What exactly needs to show up on plans?
  • Underground utility locations – ‘……. location refers to the course or alignment of the facilities and the approximate depth of the facilities.’ (ODOT Utilities Manual - 8203.01.D)
  • Assumed depths are acceptable
  • Overhead utility lines are not normally to be shown on plans unless requested
• Service Lines
  • Shut Off Valves
  • Meters
3105.5 UTILITIES ABOVE AND BELOW GROUND

• What exactly needs to show up on plans?
  • Utility easements of record
  • List of all utilities affected by project including the name, address and phone number of utility

[Image: List of contact information for utilities]
3105.5 UTILITIES ABOVE AND BELOW GROUND

- Subsurface Utility Engineering (SUE)
  - ODOT Real Estate Manual Section 8200 – Procedures for Coordination Associated With Utility Relocations and Adjustments
    - SUE – 8207.02
  - Complex highway projects where underground utility facilities are heavily involved
  - District Utility Coordinator and project manager will determine if and what level of SUE is needed
  - Survey consultants may need to accurately locate exposed utilities for inclusion on plans
  - Check scope of services

3105.6 PRIVATE UNDERGROUND UTILITIES
3105.6 PRIVATE UNDERGROUND ITEMS

- Leach Fields
- Buried Tanks
- Water Supply Wells
- Wells
- Field Tiles
- Sprinkler System, Invisible
  Fence, Landscaping
  Lighting

RESOURCES:
- Best resource is dialogue with the property owners
- County health department – septic approval sketch
3105.6 PRIVATE UNDERGROUND ITEMS

RESOURCES:
- Old Highway Plans
- Probe
- Voodoo Magic Sticks

FIELD SURVEY QUESTIONS
3106 PROPOSED RIGHT OF WAY

• 3106.1  Proposed Right-of-Way  Base Map
• 3106.2 Centerline of R/W and Boundary Monuments

3106.1 BASE MAP PREPARATION
3106.1 RW BASE MAP PREPARATION

-PREPARING THE CADD FILE THAT WILL CONTAIN PROPOSED RIGHT OF WAY TO ACCOMMODATE THE PROJECT IMPROVEMENTS-

• COMPLETELY DEPENDENT ON FAMILIARITY WITH THE ODOT CADD STANDARDS MANUAL Sec. 300.

• Dependent upon the proper completion:
  - Existing planimetric/ground (xxxxxx_FB001.dgn)
  - Existing centerline geometry (xxxxxx_BK001.dgn)
  - Proposed improvement design/model (xxxxxx_BP001.dgn/xxxxxx_KM001.dgn)

3106.1 RW BASE MAP PREPARATION

RIGHT OF WAY BASEMAP ORGANIZATION

• 2 OPTIONS
  1. A single CADD file containing both the existing right of way lines AND the proposed right of way lines (xxxxxx_BR001.dgn)
  2. Separate CADD files with one containing the existing right of way lines(xxxxxx_BR001.dgn) and one or more containing the proposed right of way lines(xxxxxx_BR002.dgn, etc.)
3106.1 RW BASE MAP PREPARATION

RIGHT OF WAY BASEMAP DRAWING CONTENTS:

- **Centerline Alignment(s)** and monuments used to establish them
- **Original Government land lines** and monuments used to establish them
- **Property lines, easement lines** and monuments used to establish them
- **Civil boundaries** and monuments used to establish them
- **Ownership information**
- **Land use information**
- **Note any areas of concern with overlaps, gaps and occupation problems**

THE ROW BASEMAP IS VERY SIMILAR TO A SURVEY PLAT

---

CENTERLINE ALIGNMENT

- Centerline of Right of Way and stationing marks for all roads located within the project limits including bearings, distances and curve information
- Avoid dual centerlines when possible (Centerline of ROW, Centerline of Construction), **dual centerlines should be the exception not the rule**
  - Dual centerlines often lead to confusion and incorrect monument placement
- If dual centerlines are necessary please discuss with district Survey Operations Manager
  - Show the relationship between the centerlines clearly on the centerline plan
3106.2 CENTERLINE AND RW MONUMENTATION

Why does ODOT require centerline and right of way monumentation?

- **O.R.C. 5519.05**
  ... shall promptly monument the right of way line of the property acquired.... shall definitely and accurately ascertain and monument the roads and highways on the state highway system.... provide for the preservation of all cornerstones and landmarks set within the limits of the highway to be improved........ full opportunity for consulting or referring to the same at any time, without destruction of or injury to the surface of the road improvement.

- **O.A.C. Chapter 4733-37-03 Monumentation**
  ... each corner of the property and each control station will be physically monumented.
3106.2 CENTERLINE AND RW MONUMENTATION

• 2 CATEGORIES OF SURVEY MONUMENTATION

1. CENTERLINE MONUMENTATION
   • Defines the physical location and geometry of the centerline of right of way

2. RIGHT OF WAY/BOUNDARY MONUMENTATION
   • Defines the physical location of the boundary corners along the proposed right of way line (not the centerline) at property corners, property line intersections, and angle points

3106.2 CENTERLINE AND RW MONUMENTATION

• CENTERLINE MONUMENTATION (2 TYPES).
  • **Centerline Monument Assembly**
    • Set on the centerline of right of way in pavement
    • Includes a Monument Box with a Lid
    • 1” min. dia. x 36” Long Steel Rod
    • Set by or under the supervision of a Licensed Surveyor
  • **Centerline Monument – Centerline Reference Monument**
    • Set on or reference to the centerline of right of way in non paved areas
    • Same construction as Reference Monument
    • 5/8” min. dia. x 36” Long Steel Rod in 8” dia. Cast in Place Concrete with a min. 3” dia. Aluminum Cap
    • Cap “C/L MON.” PS Number, Name or Comp. Name
3106.2 CENTERLINE AND RW MONUMENTATION

• CENTERLINE MONUMENTATION (2 TYPES)
  • **CONCRETE CENTERLINE MONUMENT** off pavement, divided highway with grass median (Type A)

  ![Concrete Centerline Monument Diagram]

• MONUMENT BOX ASSEMBLY in pavement (Type C)

  • ODOT to set at least 2 new monument boxes on most projects
  • Monument important curve geometry, PI(s), lot line intersections, side road intersection, OR two points on tangent
  • Consultant can propose locations to construct monument boxes and/or work with the district Survey Operations Manager on placement locations
3106.2 CENTERLINE AND RW MONUMENTATION

- CENTERLINE MONUMENTATION (2 TYPES)
  - MONUMENT BOX ASSEMBLY in pavement (Type C)

- RW/BOUNDARY MONUMENTATION (1 TYPE).
  - Right of Way Monument
    - Set on Right of Way
    - ¾" min. dia. x 30" Long Steel Rod
    - with a 2" min. dia. Aluminum Cap
      (recommend a dissimilar metal insulator)
    - Cap “ODOT R/W” PS Number, Name or Comp. Name
      - If not the original plan designer stamp ‘RESET’
3106.2 CENTERLINE AND RW MONUMENTATION

- RW/BOUNDARY MONUMENTATION (1 TYPE).
  - ¾” IRON REBAR MONUMENT W/2” ALUM. CAP (Type B)

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<th>APPLICATION</th>
<th>MONUMENT TYPE</th>
<th>CAP DESIGN</th>
<th>PAY ITEM</th>
<th>DESCRIPTION</th>
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<td>C</td>
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**CAP DESIGN**

- DESIGN 1
- DESIGN 2
- DESIGN 3
- DESIGN 4

- 3” Mn. Cdl. Aluminum Cap
- 3” Mn. Cdl. Aluminum Cap
- 2” Mn. Cdl. Aluminum Cap
QUESTION AND ANSWER SESSION

QUESTIONS

• At this time please take a few minutes to write down 1 question that you would like to ask.

• Then drop it off at the back of the room on your way to lunch.
EXAMPLE QUESTIONS

• Which ODOT department is best to call with any questions regarding existing right of way plans?
  • District Offices
  OR
  • Central Office

• Are any of the R/W plans available on line?

EXAMPLE QUESTIONS

• Who decides if the right of way will be taken in WD versus SH?

• When are Slope Easements applicable?

• Who decides on Detail sheets versus Topographic/Boundary sheets?
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<th>Name</th>
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<tr>
<td>1</td>
<td>Sara Morrisey</td>
<td>419-999-6884</td>
<td><a href="mailto:Sara.morrisey@dot.ohio.gov">Sara.morrisey@dot.ohio.gov</a></td>
</tr>
<tr>
<td>2</td>
<td>Duane Homan</td>
<td>419-373-7111</td>
<td><a href="mailto:Duane.Homan@dot.ohio.gov">Duane.Homan@dot.ohio.gov</a></td>
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<tr>
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<td>Scott Hawkins</td>
<td>419-207-2823</td>
<td><a href="mailto:Scott.Hawkins@dot.ohio.gov">Scott.Hawkins@dot.ohio.gov</a></td>
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<tr>
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<td>740-833-8250</td>
<td><a href="mailto:James.stafa@dot.ohio.gov">James.stafa@dot.ohio.gov</a></td>
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<td>7</td>
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<td>937-497-6725</td>
<td><a href="mailto:Tim.Wampler@dot.ohio.gov">Tim.Wampler@dot.ohio.gov</a></td>
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<td>513-933-6623</td>
<td><a href="mailto:Denise.Elliott@dot.ohio.gov">Denise.Elliott@dot.ohio.gov</a></td>
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<td>9</td>
<td>Mike Ware</td>
<td>740-774-8975</td>
<td><a href="mailto:Michael.Ware@dot.ohio.gov">Michael.Ware@dot.ohio.gov</a></td>
</tr>
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<td>740-568-3948</td>
<td><a href="mailto:Ron.Riser@dot.ohio.gov">Ron.Riser@dot.ohio.gov</a></td>
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<td>11</td>
<td>Dave Barnhart</td>
<td>330-308-7862</td>
<td><a href="mailto:Dave.Barnhart@dot.ohio.gov">Dave.Barnhart@dot.ohio.gov</a></td>
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<tr>
<td>12</td>
<td>Scott Raypholtz</td>
<td>216-584-2135</td>
<td><a href="mailto:scott.raypholtz@dot.ohio.gov">scott.raypholtz@dot.ohio.gov</a></td>
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</table>
BRETT SHEARER, C.O. REAL ESTATE

PROPOSED RIGHT OF WAY DESIGN
PROPOSED RIGHT OF WAY DESIGN

Section 3200
Types of Title
3200 TYPES OF TITLE

Non-highway easements convey rights associated with the highway facility. The owner retains the underlying fee and can continue to use the property within limits. The following identify the various types of non-highway easements.

T - TEMPORARY EASEMENT

Use this identifier for a temporary easement for specific purposes, outside permanent rights of way. Because the duration of a temporary easement is essential for specified purposes, a temporary easement must always state its duration in months, starting from the date of entry by CDOT or its contractor and ending when the proposed work has been completed and accepted. Temporary easements are most often used to enable adjoining tenants, normally maintained by the owner, to conform to new construction. Other uses for temporary easements include temporary seminars, construction working views, temporary access roads, and channel work not requiring a channel easement. A temporary easement is not to be used for parking or for storage of materials or equipment. No structures can be erected within a temporary easement without the owner’s written agreement.

SL - SLOPE EASEMENT

Use this identifier to acquire a continuing right for the construction and maintenance of slopes until such time as the same cannot, without curtailment or build on the slopes, provide that the proper preservation of a highway will not be impaired by such removal or occupancy of the slopes.

G - Server Easement

Use this identifier to acquire the right to construct and maintain a sewer outside regular highway rights of way. Additional land is needed to construct the sewer, the right of way plans must clearly show a delineate title land as a temporary parcel.

OH - CHANNEL EASEMENT

Use this identifier to acquire the right to construct and maintain a perennial watercourse channel that falls outside of the regular highway rights of way. The reservation of the right to use the water for any other purpose provided that this use does not impede the proper functioning of the watercourse.

The type of easement is used for the construction of an open watercourse channel that falls outside of the regular highway rights of way. It may also be used for a large, open channel that parallels a highway to avoid a stormwater run-off.
CHANNEL EASEMENT

- Used to acquire the right to construct and maintain, a perpetual watercourse within the area described in the easement.
- This type of easement is used for the construction of an open watercourse channel that falls outside of the regular highway rights of way.
- No permanent structures are permitted within a Channel Easement. Such as headwall, wing wall, culvert, pipe, guardrail, etc.
PROPOSED RIGHT OF WAY DESIGN

CH - Channel Easement
Use this identifier to acquire the right to construct and maintain a perpetual watercourse within the area described in the easement. The grantor retains the right to use the area for any other purpose provided that this use does not impair the proper functioning of the channel.

This type of easement is used for the construction of an open watercourse channel that falls outside of the regular highway rights of way. It may also be used for a large, open channel that parallels a highway to avoid a riparian right controversy.

FL - Flowage Easement
Use this identifier to acquire the perpetual right to cause water to flow over a described area, such as, temporary impoundment of storm water upstream from a channel restriction.

U - Easement For a Railroad or Public Utility
Use this identifier to acquire an easement in the name of a railroad or public utility owning similar facilities for the readjustment or relocation of its facility when fee simple title is not desired. The Summary of Additional Right of Way Sheet and Right of Way Detail Plan Sheet shall show by note the name in which the easement will be acquired when this type of easement is needed. An agreement is required between the Department and the Grantee giving the Department authority to acquire the parcel in the name of the Grantee and stipulating that the Grantee accepts the parcel.

UTILITY EASEMENT

- Used to acquire an easement in the name of a railroad or public utility.
- The Summary of Additional Right of Way Sheet and Right of Way Detail Plan Sheet shall show by note the name in which the easement will be acquired when this type of easement is needed.
- An agreement is required between the Department and the Grantee giving the Department authority to acquire the parcel in the name of the Grantee and stipulating that the Grantee accepts the parcel.
- No Betterments.
3106 PROPOSED RIGHT OF WAY

- 3106.3 Construction Limits
- 3106.4 Establishing R/W Lines and Widths
- 3106.5 Determining Types of Right of Way Takes
  - 3106.5.1 Fee Simple vs. Easement
  - 3106.5.2 Cost effectiveness of Acquisition vs. Construction
- 3106.6 Total Takes and/or Land Locked Parcels
- 3106.7 Sight Distance
- 3106.8 Access Control, Rules and Regulations
- 3106.9 Drives “Industrial, Commercial, Residential & Field
- 3106.10 Drainage
- 3106.11 Utility Conflict's and Relocation
- 3106.12 Railroad Property
PROPOSED RIGHT OF WAY DESIGN

- 3106.3 Construction Limits
  - Assist in defining the minimum R/W required.

  - Construction limits are typically placed 4 feet outside the area required for construction activities.

  - Will include removal of any item inside proposed limits: signs, parking areas, structures, trees, (may include root system outside R/W limits)
PROPOSED RIGHT OF WAY DESIGN

- Construction Limits
PROPOSED RIGHT OF WAY DESIGN

• 3106.4 Establishing Right of Way Lines & 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.”
  • Right of Way lines, either permanent or temporary MUST encompass all construction limits.
  • Many additional factors must be taken into consideration before final right of way lines are established.

PROPOSED RIGHT OF WAY DESIGN

• 3106.4 Establishing Right of Way Lines & Widths
  • Factors that should be considered in the selection right of way widths include, but are not limited to:
    - **Utilities**
      - Access
      - Drainage
      - Land Use
      - Terrain
      - Future Maintenance
      - Maintenance of Traffic during Construction
      - Sufficient Construction Area
      - Real Estate Values
PROPOSED RIGHT OF WAY DESIGN

• 3106.4 Establishing Right of Way Lines & Widths
  • Right of Way Lines must be outside construction limits and encompass enough R/W to construct and maintain the road.
  • All drainage structures shall be constructed within permanent right of way.
  • Right of way lines should be kept parallel or concentric to the C/L when and where possible
  • Maintain a uniform right of way width on each side of the centerline when and where possible.
STATION 1102+00
Volume 1 of the Location and Design Manual Section 801.2.5

600’ to 1000’ measurement starts from outside radius return of the ramp & crossroad intersection

---

**PROPOSED R/W DESIGN - LIMITED ACCESS**

---

**PROPOSED RIGHT OF WAY DESIGN**

- 3106.5 Determining Types of R/W Takes
  - The project scope of services document may outline the type of title to be acquired OR
  - You may need to contact the District Real Estate Administrator or LPA.
  - Fee vs. Standard Highway Easement consider:
    - FHWA Funding in any part of the job
    - Right of Way funding type (Federal/State/LPA)
    - Existing R/W Type of Title
    - Most beneficial to owner (ODOT or Property)
    - Property owner conflicts in the area
    - Type of development in the area:
      - Residential vs Commercial vs Industrial
      - Encroachments
      - Mood of property owners being effected
    - Ownership of PRO (present road occupied)
PROPOSED RIGHT OF WAY DESIGN

• 3106.5.2 Cost effectiveness of Real Estate vs. Construction Design
  • Must have open communications between Roadway Design & Right of Way Design
  • Avoidance and proximity
  • High Impacts on Real Estate vs. Tailored Construction Design
  • Parking Spaces Eliminated

PROPOSED RIGHT OF WAY DESIGN

• 3106.6 Total Takes and/or Land Locked Parcels are identified early when possible
  • Identified in Phase 2 - Preliminary Engineering
    • The design agency shall identify total take or landlocked parcels.
    • Residential or commercial structures
    • Excess Land
    • Protective buys/Hardship acquisition
    • Property Rights
MAINTENANCE OF TRAFFIC
PROPOSED RIGHT OF WAY DESIGN

- 3106.7 Sight Distance
  
  must be taken into consideration when determining the type and amount of R/W at intersections and in the vicinity of Horizontal curves
• **3106.8 Access Control, Rules and Regulations**
  
  • ODOT’s goal is to manage the highway system effectively, reduce congestion, improve safety, and operation.
  
  • State Highway Access Management Manual

• **3106.9 Drives- Commercial, Residential, Etc.**
  
  • Identify ALL existing drives/access points.
  • Review, evaluate drives to be relocated/closed.
  • Appropriate drive widths
  • Existing permits
PROPOSED RIGHT OF WAY DESIGN

• 3106.10 Drainage
  • Some major items of concern are:
    • Open water course (ditches)
    • Channels
    • Storm Water/Sewers
    • Catch basins
    • Manholes
    • Culverts
    • Headwalls
    • Field tiles (contact the property owner)
    • Erosion control
    • Post construction storm water management

PROPOSED RIGHT OF WAY DESIGN

• 3106.11 Utility Conflicts and Relocation
  • Many major conflicts and relocation issues are identified during Phase 1 Planning (PL).
  • However continual attention must be given to utility conflicts and relocation during development of the right of way plan.
PROPOSED RIGHT OF WAY DESIGN

• 3106.11 Utility Conflicts and Relocation

  • 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.

UTILITIES
PROPOSED RIGHT OF WAY DESIGN

- **3106.12 Railroad Property**
  
  - 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.
  
  - An extensive title search is necessary on Railroad Property, to determine what title the railroad company holds to the real estate e.g. fee title or easement rights.
  
  - Root Title (private property owner conveyed to RR)
  
  - Coordination with the District Real Estate Administrator
PROPOSED RIGHT OF WAY DESIGN

• 3106.13 Adherence to Environmental Document and Environmental Commitments

  • R/W Plan Designer must maintain coordination and communication with the project manager and the Office of Environmental Services during the right of way plan development.

  • Changes in temporary or permanent right of way may lead to different resource impacts than those approved in the environmental document.

  • Should be addressed in Phase PE

AVOID HEADACHES!

• If anything is unclear or there are issues or concerns, contact the District Real Estate Administrator early in the R/W design process.
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- 1981.2 Importance of Right of Way Plans
- 1981.4 Objectives of a Surveyor Preparing Right of Way Plans

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- 1982.2 Project Scope of Services

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- 1983.4 General Right of Way Plan Requirements
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- Appendix - F Affidavit of Correction
- Appendix - G Sample Temporary Release
- Appendix - H Right of Way Checklist
- Appendix - I Field Review Checklist
- Appendix - J R/W Description Checklist
3107.1 Numbering of Ownerships

Ownership is defined as the area of all contiguous lands having a common owner. (Names should be identical)

Contiguous - being in physical contact with; adjacent, abutting, touching along all or part of any side

Multiple deed references in which there appears to be common ownership yet the owners names are not identical, consult with the District Real Estate Department for clarification on whether the parcels should be separated

All ownerships within project limits are numbered

Numbers increase in direction of increasing station

Numbering should bounce from side to side

Use a letter suffix (23A) when an ownership is created after initial numbering i.e.: lot split, out sale

For those ownerships with multiple auditors permanent parcel numbers that are contiguous, one ownership number shall be assigned, except when directed otherwise by the scope document and/or county recording requirements

Once assigned, number remains with ownership throughout project

If ownerships merge, cancel the higher ownership number
3107.2 Parcel Identification / Types of Title

- Is defined as an area of property required from an ownership which indicates the type of title to be acquired (SH = Standard Highway Easement)
- Parcel identifier is combined with the ownership number, here is the preferred way (23-WD, 23-CH, 23A-T)
- Non-contiguous parcels of the same type, within an ownership, are numbered (21-SH1, 21-SH2, 21-SH3)
- Use the “V” parcel identifier when a property right is acquired for entity other than the grantee identified in the “Grantee Note” (23-WDV1, 23-WDV2) shown on the Summary of Additional Right of Way Sheet
• **3107.3 Numbering of R/W Plan Sheets**
  • Numbered with two sets of numbers
  • Numbers in the circle includes both construction and R/W
  • Numbers just above the circle are R/W plan sheet numbers only, beginning with the R/W Legend Sheet (1)
  • **Stationing shall normally read left to right on all sheets.**

• **3107.5 Match Lines and Cross References**
  • Use these when the alignment continues on the following sheet
  • Include the Station along the match line
  • Include the sheet number it cross reference
STANDARD RIGHT OF WAY PLAN FORMAT

- 3107.4 CADD Engineering Standards
  - Appendix A “CADD Information Table”
  - Appendix B “Fonts”
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  - Appendix D “Custom Line Styles”
  - Appendix E “Electronic Submission Checklist”
  - Appendix F “Level Scale Factors”

- These files can be downloaded from ODOT’s web site at:
  - [http://www.dot.state.oh.us/Divisions/Engineering/CaddMapping/CADD_Services/Standards/Pages/Manuals.aspx](http://www.dot.state.oh.us/Divisions/Engineering/CaddMapping/CADD_Services/Standards/Pages/Manuals.aspx)

RIGHT OF WAY PLAN SHEETS

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3108.1 R/W LEGEND SHEET

- 1A Title Block
- 1B Sheet Heading
- 1C Structure Key
- 1D Utility List and Note
- 1E Conventional Symbols
- 1F Index of Sheets
- 1G Project Description
- 1H Project Control Information
- 1I Plans Prepared By
- 1J Survey Certification
- 1K Parcel Identifier Legend
- Limited Access Declaration

R/W LEGEND SHEET
1A - TITLE BLOCK
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.

WARREN COUNTY
CLEAR CREEK TOWNSHIP
SEC. 35 & 36, T. 4 E., R. 4 N.
• Provide a key indicating the different types of structures, e.g., residential, commercial, outbuildings, etc. Differentiate the types of structures by hatching, shading, etc.
• Available as a MicroStation Cell.

**STRUCTURE KEY**

- RESIDENTIAL
- COMMERCIAL
- OUT-BUILDING

---

**R/W LEGEND SHEET**

**1D - UTILITY LIST & NOTE**

*Image of a map with various annotations and labels.*
Must 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 the underground utility note.

<table>
<thead>
<tr>
<th>TYPE</th>
<th>NAME &amp; ADDRESS</th>
</tr>
</thead>
<tbody>
<tr>
<td>TELEPHONE</td>
<td>SPRING, 185 MAMON AVE, CINCINNATI, OH 45203, 513-270-2096</td>
</tr>
<tr>
<td>ELECTRIC</td>
<td>CINCINNATI GAS &amp; ELECTRIC CO, 101 F. FRANK LEWIS, CINCINNATI, OH 45220, 513-581-7644</td>
</tr>
<tr>
<td>WATER</td>
<td>WARREN COUNTY WATER &amp; SANITARY DEPT, 123 E. MARION ST, WARREN, OH 44885, 330-633-7520</td>
</tr>
<tr>
<td>CABLE TV</td>
<td>ASATTO COMMUNICATIONS, 307 W. ONEIDA ST, WARREN, OH 44885, 330-633-7520</td>
</tr>
</tbody>
</table>

**NOTES:**

The location of the underground utilities shown on the plans are obtained from the owner of the utilities as required by Section 153.44 O.R.C.
** Designer Must Update **

- Commonly used symbols and line styles throughout the right of way plans shall be displayed here.

**CONVENTIONAL SYMBOLS**

- Section Line
- Fence Line (Ex)  (IPr)
- Center Line
- Right of Way (Ex)  Ex R/W
- Right of Way (IPr)
- Standard Highway Edge (Ex)  Ex SH
- Temporary Right of Way TAM
- Channel Edge, IP
- Utility Edge, Ex
- Guardrail (Ex)  (IPr)
- Construction Limits
- Edge of Pavement (Ex)  (IPr)
- Edge of Pavement (IPr)
- Edge of Shoulder (Ex)
- Ditch / Creek (Ex)
- Ditch / Creek (IPr)
- Tree Line (Ex)  (IPr)

- Ownership Hook Symbol  Example
- Property Line Symbol  Example
- Bridge Line Symbol  Example
- Tree (Ex)  Shrub (Ex)  Tree (Ex)  Shrub (Ex)
- Tree (Remove)  Shrub (Remove)
- Evergreen (Ex)  Stump
- Post (Ex)  Mailing Box (Ex)  Mail Box (Ex)
- Light (Ex)  Telephone Marker (Ex)
- Fire Hydrant (Ex)  Water Meter (Ex)
- Water Valve (Ex)  Utility Valve Unknown (Ex)
- Telephone Pole (IPr)  Power Pole (Ex)  Light Pole (Ex)

**RIGHT OF WAY LEGEND SHEET**

WARREN COUNTY
CLEARCREEK TOWNSHIP
SEC. 35 & 36, T. 4 E., R. 11 N.

**PLAN DESIGN**

- John J. Doe  12/3/2023

**OHIO DEPARTMENT OF TRANSPORTATION**
• The Right of Way Index of Sheet should reflect the sheet numbering for the R/W plan sheets.

**INDEX OF SHEETS:**

<table>
<thead>
<tr>
<th>Legend Sheet</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Centerline Plat.</td>
<td>2</td>
</tr>
<tr>
<td>Property Map</td>
<td>3</td>
</tr>
<tr>
<td>Summary of Additional R/W</td>
<td>4, 5</td>
</tr>
<tr>
<td>R/W Detail</td>
<td>6</td>
</tr>
<tr>
<td>R/W Topographic Sheets</td>
<td>9, 11</td>
</tr>
<tr>
<td>R/W Boundary Sheet</td>
<td>10, 12</td>
</tr>
</tbody>
</table>

---

**R/W LEGEND SHEET 1G - PROJECT DESCRIPTION**

---

**RIGHT OF WAY LEGEND SHEET WAR-48-21.05**

---
R/W LEGEND SHEET
1G - PROJECT DESCRIPTION

PROJECT DESCRIPTION
REPLACEMENT OF EXISTING STRUCTURE OVER CLEAR CREEK AND REALIGNMENT OF S.R. 48 ROADWAY.

THE EXISTING AND PROPOSED RIGHT OF WAY SHALL BE REFERENCED FROM THE CENTERLINE OF RIGHT OF WAY.

• The Project Description consists of a brief note describing the primary purpose of the improvement and the project length. This description should mirror the project description listed on the title sheet of the construction plans. Include a reference to the appropriate centerline for which the existing and proposed right of way lines are referenced from.

• EXAMPLE: The existing and proposed right of way shall be referenced from the centerline of right of way.
The “plan completion date” is the date the design agency has complied with all review comments and submitted the plans as the Final Right of Way.

**PLANS PREPARED BY:**

<table>
<thead>
<tr>
<th>FIRM NAME</th>
<th>ODOT CENTRAL OFFICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>R/W DESIGNER</td>
<td>BRETT A. SHEARER</td>
</tr>
<tr>
<td>R/W REVIEWER</td>
<td>JOHN J. DOE</td>
</tr>
<tr>
<td>FIELD REVIEWER</td>
<td>BRETT A. SHEARER</td>
</tr>
<tr>
<td>PRELIMINARY FIELD REVIEW DATE</td>
<td>6/16/00</td>
</tr>
<tr>
<td>FINAL FIELD REVIEW DATE</td>
<td>11/15/00</td>
</tr>
<tr>
<td>OWNERSHIP UPDATED BY</td>
<td>WILLIAM C. LEROY</td>
</tr>
<tr>
<td>DATE COMPLETED</td>
<td>11/20/00</td>
</tr>
<tr>
<td>PLAN COMPLETION DATE</td>
<td>12/1/00</td>
</tr>
</tbody>
</table>
• 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. “Below is a sample certification”

I, John J. Doe, P.S., have conducted a survey of the existing conditions for the Ohio Department of Transportation on April 4, 1999. The results of that survey are contained herein. The horizontal coordinates expressed herein are based on the Ohio State Plane Coordinate System, south zone on NAD 83 / 1995. The Project Coordinate US Survey Feet are relative to State Plane Grid Coordinates US Survey Feet by a project adjustment factor of 1.0000000008 as a part of this project I have established the locations of the existing property lines and centerline of existing Right of Way for the property areas herein. As a part of this project I have established the proposed property lines, calculated the Green Line, Present roadway, 2,000 foot and left Realine as well as prepared the legal descriptions necessary to acquire the parcels as shown herein. As a part of this work I have set right of way monuments of property corners, property line intersections, points along the right of way and original points on the right of way, section corners and other points shown herein. All of my work contained herein was conducted in accordance with the Ohio Administrative Code Chapter 4933-37 Standards for Boundary Surveys as noted. The words I and my, as used herein, are to mean that either myself or someone working under my direct supervision.

[Signature]

John J. Doe, P.S., Ohio Lic No 00008

8-22-05

[Seal]

R/W LEGEND SHEET
11 - SURVEY CERTIFICATION

• Typically there are 3 types of Survey Certifications

1. “Right of Way Plan Certification” is to be used when one individual has responsibility for the entire (existing and proposed) Right of Way Plan.

2. “Proposed Right of Way Plan Certification” is to be used when one individual has responsibility for the proposed Right of Way Plan only.

3. “Existing Right of Way Plan Certification” is to be used when one individual has responsibility for the existing Right of Way Plan only.
R/W LEGEND SHEET
11 - SURVEY CERTIFICATION

1. We, R/W Professionals, have conducted a survey of the existing conditions for the Ohio Department of Transportation on July 21, 2014. The results of that survey are contained herein.

2. The horizontal coordinates expressed herein are based on the Ohio State Plane Coordinate System, North Zone on 1983 CSRS 2000 datum. The Project Coordinate System Survey Data are Relative to State Plane Ohio Coordinate Centers or US Survey Feet to a Project Adjustment Factor of 0.5016884590000.

The words I and my as used herein are to mean either myself or someone working under my direct supervision.

[Signature] - Professional Land Surveyor No. 5320, Date: 5-26-2014

SURVEYOR'S SEAL

11J - PARCEL IDENTIFIER LEGEND

RIGHT OF WAY LEGEND SHEET
WAR-48-21.05
WARREN COUNTY
CLEAR CREEK TOWNSHIP
SEC. 35 & 36, T. 4 E., R. 4 N.

[Diagram of Right of Way Legend Sheet]

[Signature] - Professional Land Surveyor No. 5542, Date: 3-28-2015

SURVEYOR'S SEAL
** Designer Must Update **

- The Legend presents the full name of each abbreviation used in the plan to assist not only those that use the plans at the time of the project but for those that use them in the future.

** LEGEND **

WD = WARRANTY DEED  
SH = STANDARD HIGHWAY EASEMENT  
SL = SLOPE EASEMENT  
CH = CHANNEL EASEMENT  
PR = PROPERTY RIGHT  
T = TEMPORARY
• The Begin Acquisition and End Acquisition shall be shown on the location map using Straight Line Mileage (SLM).

LOCATION MAP
LATITUDE: 39°37'2"  LONGITUDE: 84°17'0"

R/W LEGEND SHEET
1K - LOCATION MAP

R/W LEGEND SHEET
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.

This note is not found on the sample plans because the note does not apply to this project.
3108.2 CENTERLINE PLAT SHEET

- 2A Title Block
- 2B Sheet Heading
- 2C Monument Table
- 2D Monument Legend
- 2E Basis of Bearing
- 2F Basis of Ex. CL of R/W and R/W Width
- 2G Centerline of R/W
- 2H Centerline Stationing
- 2I Intersections with the CL of R/W

- 2J Political Subdivisions, Original Govt. Survey and Recorded Subdivision
- 2K Centerline Monument Note
- 2L Recording Block
- 2M Survey Certification

CENTERLINE PLAT SHEET
2C - MONUMENT TABLE
• Tabulate the number and location of all monument assemblies, centerline monuments, centerline reference monuments to be set, and right of way monuments expected to be destroyed.

• Right of Way Monuments set within the construction limits/ Temporary easements will need to be reset after construction.

<table>
<thead>
<tr>
<th>STATION</th>
<th>OFFSET</th>
<th>NORTH FT</th>
<th>EAST FT</th>
<th>MON. ASSY.</th>
<th>REF. MON.</th>
<th>R/W MON.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>0000.00</td>
<td>00.00</td>
<td>000000</td>
<td>000000</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>Mon. Assy. Set on Centerline of R/W</td>
</tr>
<tr>
<td>1000.00</td>
<td>00.00</td>
<td>000000</td>
<td>000000</td>
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<td>Mon. Assy. Set on Centerline of R/W</td>
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</table>

TOTAL CARRIED TO GENERAL SUMMARY SHEET: 4 - 3

The format of this table is flexible, relative to the needs of each project and the requirements of the District/County.
SETTING ODOT MONUMENTS

- ODOT Monument Setting Procedure
  - Revised September 22, 2010
  - [http://www.dot.state.oh.us/Divisions/Engineering/RealEstate/row/Pages/row.aspx](http://www.dot.state.oh.us/Divisions/Engineering/RealEstate/row/Pages/row.aspx)
  - The R/W Plan Design Consultant will Set R/W Monuments after Acquisition as Directed by the District
    - **Payment by R/W Plan**
    - Contractor to Construct Monument Assembly Box With Pin (no cap)
      - **Payment by Project Pay Item 623**
    - Contractor to Set / Construct All Reference Monuments
      - **Payment by Project Pay Item 623**
    - Contractor to Reset All R/W Monuments After Construction
      - **Set by or under the Supervision of a Licensed Ohio Surveyor**
      - **Payment by Project Pay Item 623**

SETTING ODOT MONUMENTS

- Item 623 Construction Layout Stakes and Survey Monuments (2013 Spec Book)
  - Must verify the position of all survey monuments shown in the contract document (Plans) prior to construction.
  - Prior to construction activities a Registered Surveyor prepares a verification report with the location and description of each monument found.
  - For each survey monument that is constructed or restored a Registered Surveyor must prepare a report and drawing with the coordinates, station, offset and description.
  - Both verification reports must be signed and sealed by the Registered Surveyor and submitted to the Engineer and District SOM.
** Designer Must Update **

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

** MONUMENT LEGEND **
- PROPOSED ADJUSTABLE CENTERLINE MONUMENT
- I.P.F. IRON PIN FOUND W/ ID CAP
- I.P.S. IRON PIN SET W/ ID CAP
- P.K. P.K. NAIL FOUND
- P.K.S. P.K. NAIL SET
- STONE FOUND

** CENTERLINE PLAT SHEET **
** 2E - BASIS OF BEARING **

- If the basis of bearings 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 Grid North of the applicable zone of the State Plane Coordinates System or to assumed bearings relative to recorded documents.

** BASIS OF BEARINGS**

THE BEARINGS SHOWN HEREON ARE RELATIVE TO GRID NORTH OF THE OHIO STATE PLANE COORDINATE SYSTEM, NORTH ZONE, NAD83 (CORS96) DATUM AS DETERMINED FROM GPS MEASUREMENTS OBSERVED AUGUST 2011 BY THE OHIO DEPARTMENT OF TRANSPORTATION AND ARE FOR THE PURPOSE OF INDICATING DIRECTIONAL VARIATION.
CENTERLINE PLAT SHEET
2F - BASIS OF EX. CL OF R/W & R/W WIDTH

• Provide a note that describes the source(s) which were used to establish the Basis of Existing Centerline of Right of Way and the Right of Way Width.

• Keep in mind that the existing centerline and right or way width can come from different sources.

BASIS OF EXISTING C.L. OF R/W AND R/W WIDTH:

CENTERLINE PLAT SHEET
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.

• 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.
**CENTERLINE PLAT SHEET**

**2G - CENTERLINE OF RIGHT OF WAY DATA**

- Minimum curve data shall include the following:
  - Radius
  - Central Angle
  - Curve Length
  - Chord Bearing
  - Distance

<table>
<thead>
<tr>
<th>CURVE</th>
<th>CENTRAL ANGLE</th>
<th>RADIUS</th>
<th>CURVE LENGTH</th>
<th>CHORD LENGTH</th>
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<td>PR1</td>
<td>34° 23' 31&quot;</td>
<td>321.73</td>
<td>191.07</td>
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<td>N 22° 33' 11&quot; E</td>
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<td>199.79</td>
<td>S 26° 59' 52&quot; W</td>
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</table>

**CENTERLINE PLAT SHEET**

**2G - CENTERLINE OF RIGHT OF WAY DATA**

- Minimum spiral data shall include the
  - Radius
  - Central angle
  - Spiral length
  - Theta
  - Tangent length of the spiral

---

**CURVE DATA FOR E.R.W. CONSTRUCTION**

1. P.I. = 5763+58.36
   - $L = 27^\circ 17' 17"$
   - $D = 4^\circ 59' 58"$
   - $R = 955.00$
   - $L_a = 190.00$
   - $L_b = 6^\circ 17' 58"$
   - $S_T = 70.08$
   - $x = 200.75$
   - $y = 7.49$
   - $p = 104.36$
   - $q = 1.32$
2. P.I. = 1101+77.77
   - $L = 43^\circ 59' 45"$ (R.T.)
   - $D = 8^\circ 59' 58"$
   - $R = 985.00$
   - $L_a = 215.00$
   - $L_b = 6^\circ 17' 58"$
   - $S_T = 70.08$
   - $x = 200.75$
   - $y = 7.49$
   - $p = 104.36$
   - $q = 1.32$

**CHORD INFORMATION**

- TS-SC = N 33° 27' 29" E 209.85'
- SC-CS = N 26° 57' 46" E 242.31'
- CS-ST = N 14° 38' 06" E 209.85'
### CENTERLINE PLAT SHEET

#### 2H - CENTERLINE STATIONING

- The Centerline Stationing on a project typically reflects the straight line mileage shown in the "section" (County-Route-Section).
- Stationing may also be established based on existing monumentation, bridges and prior projects.
- Unless specific direction is provided in the scope of services document, coordination with the District Real Estate Department and/or District Survey Department to determine the appropriate basis for Centerline Stationing.

---

#### 2I - INTERSECTION WITH THE CENTERLINE OF R/W

- 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.
CENTERLINE PLAT SHEET

2J - POLITICAL SUBDIV., ORIG. GOVT. SURVEY, ETC.

• Show and identify all monumentation found, in relation to the establishment and location of:
  • Political Subdivisions, Original Government
  • Survey, Recorded Subdivisions and Monuments

CENTERLINE PLAT SHEET

2K - CENTERLINE MONUMENTS NOTE

• Provide a note explaining the procedure for setting and/or resetting monuments during construction.
• Explain the requirements necessary to address changes or alterations to the location of any monuments shown on the centerline plat.

Changes or alterations to the location of any monuments shown in this table, requires prior approval from the District Real Estate Administrator of the Ohio Department of Transportation. In the event that changes or alterations are approved, a revised centerline plat with the new locations shall be recorded in the applicable county records and the Ohio Department of Transportation. Specifications for monument assemblies, reference monuments and right of way monuments are shown on standard construction drawing RM-1.1.
• May not be necessary depending on the county requirements

RECEIVED 8/24, 2005
RECORDED 8/24, 2005
BOOK A PAGE 578
John J. Doe
COUNTY RECORDER
<table>
<thead>
<tr>
<th>PROPERTY MAP SHEET</th>
</tr>
</thead>
<tbody>
<tr>
<td>• 3A Title Block</td>
</tr>
<tr>
<td>• 3B Sheet Heading</td>
</tr>
<tr>
<td>• 3C Station Limit Flags</td>
</tr>
<tr>
<td>• 3D Revision Block</td>
</tr>
<tr>
<td>• 3E Ownership Name and Number</td>
</tr>
<tr>
<td>• 3F Centerline Stationing</td>
</tr>
<tr>
<td>• 3G Proposed R/W and Pavement</td>
</tr>
<tr>
<td>• 3H Structures</td>
</tr>
<tr>
<td>• 3I Political Subdivisions, Original Govt. Survey and Recorded Subdivision</td>
</tr>
<tr>
<td>• 3J Property Lines</td>
</tr>
<tr>
<td>• 3K Utility Easement</td>
</tr>
<tr>
<td>• 3L Driveways</td>
</tr>
<tr>
<td>• 3M Side Roads, Waterways, Lakes &amp; Railroads</td>
</tr>
<tr>
<td>• 3N Closures, Gaps, &amp; Overlaps</td>
</tr>
<tr>
<td>• Adjoining Project Data</td>
</tr>
<tr>
<td>• Match Lines</td>
</tr>
</tbody>
</table>
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.
### R/W PROPERTY MAP
#### 3D - REVISION BLOCK

- A revision block showing the completion date and providing space to list revisions following the completion date shall be shown.
- Any necessary revisions after the Completion date are noted in the revision block indicating specifically what was changed, the date of the correction or addition and the initials of the person that made the revision.

<table>
<thead>
<tr>
<th>REV. BY</th>
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<th>DESCRIPTION</th>
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</thead>
<tbody>
<tr>
<td>HJH</td>
<td>3/13/02</td>
<td>Added Parcel 16-WD</td>
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<tr>
<td>HJH</td>
<td>12/11/01</td>
<td>Modified name 12-WD &amp; 14-WD</td>
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<tr>
<td>HJH</td>
<td>11/15/01</td>
<td>Modified 3W &amp; added 36W</td>
</tr>
<tr>
<td>BAS</td>
<td>2/20/01</td>
<td>Added 5H Parcel to owner 10</td>
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<tr>
<td>DATE COMPLETED</td>
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</tr>
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</table>

### R/W PROPERTY MAP
#### 3E - OWNERSHIP NAME AND NUMBER

- Show the owner(s) of record exactly as it appears on the instrument(s) conveying title and the ownership number together within the property, if at all possible.
R/W PROPERTY MAP
3G - PROPOSED RIGHT OF WAY & PAVEMENT

• Show the proposed permanent right of way 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.

R/W PROPERTY MAP
3H - STRUCTURES

STRUCTURE KEY

- RESIDENTIAL
- COMMERCIAL
- OUT-BUILDING
Show and identify all utility easements, including the type of easement, the width of the easement and all recording data for the easement.
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.
• When problems are encountered with the deeds (e.g., closure, gaps, and overlaps), a note shall be included briefly explaining the circumstances.

Note:
Parcel 16-WD: Ownership unknown, a gore between parcels 10, 12, 13 and 14, found during the course of this survey as shown.

• 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.
267

Questions?

268

SUMMARY OF ADDITIONAL R/W

• 4A Title Block
• 4B Ownership Numbers and Parcel Identifiers
• 4C Ownership Name
• 4D Sheet Number
• 4E Owners Record
• 4F Auditor’s Permanent Parcel Number
• 4G Auditor’s Record Area
• 4H Total Present Roadway Occupied (P.R.O.)
• 4I Gross Take
• 4J P.R.O. In Take

• 4K Net Take
• 4L Structures
• 4M Net Residue
• 4N Type Fund
• 4O Remarks Column
• 4P As Acquired
• 4Q Temporary Parcel Duration
• 4R Restriction of Use Note
• 4S Total Number of Tabulation
• 4T Parcel Identifier Legend
• 4U Revision Block
• 4V Grantee Note
SUMMARY OF ADDITIONAL RIGHT OF WAY (SHT 4)
4B OWNERSHIP NUMBERS & PARCEL IDENTIFIERS

More than one parcel identifier per ownership, list in order of significance, fee takings, permanent & temp. easement etc.

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.

See Section 3107.1 3107.2.

<table>
<thead>
<tr>
<th>PARCEL NO.</th>
<th>OWNER</th>
<th>SHEET NO.</th>
<th>OWNERS RECORD</th>
<th>AUDITOR'S PARCEL NUMBER</th>
<th>RECORD AREA</th>
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<tbody>
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<td>A-MO</td>
<td>KENNETH C. &amp; M. EMELDA DAMPS</td>
<td>788</td>
<td>413 29</td>
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### SUMMARY OF ADDITIONAL RIGHT OF WAY (SHT 4)
#### 4C OWNERSHIP NAME

- Show owner(s) of record EXACTLY as he/she (they) appear on the instrument(s) conveying title.

<table>
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<tr>
<th>PARCEL NO.</th>
<th>OWNER</th>
<th>SHEET NO.</th>
<th>OWNERS</th>
<th>RECORD</th>
<th>O.R.</th>
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<th>PARCEL NUMBER</th>
<th>RECORD AREA</th>
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<tbody>
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<td>KENNETH C. &amp; M. EMELDA DAVIS 766</td>
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### SUMMARY OF ADDITIONAL RIGHT OF WAY (SHT 4)
#### 4D SHEET NUMBER

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<tr>
<td>B-WD</td>
<td>KENNETH C. &amp; M. EMELDA DAVIS 766</td>
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</table>
**SUMMARY OF ADDITIONAL RIGHT OF WAY (SHT 4)
4E OWNERS RECORD**

- List the deed of record (Deed Vol. & Pg., Official Record, micro fiche, etc.) appropriate to the county in which it was obtained.
- The deed of record shown in the Owners Record column is not required to match the deed of record cited in the legal description.

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<tr>
<th>PARCEL NO.</th>
<th>OWNER</th>
<th>SHEET NO.</th>
<th>OWNERS RECORD</th>
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<tbody>
<tr>
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**SUMMARY OF ADDITIONAL RIGHT OF WAY (SHT 4)
4F AUDITOR’S PERMANENT PARCEL NUMBER**

- When an ownership has multiple APPN’s, record areas and take areas shall be split out by the appropriate APPN

<table>
<thead>
<tr>
<th>PARCEL NO.</th>
<th>OWNER</th>
<th>SHEET NO.</th>
<th>OWNERS RECORD</th>
<th>PAGE</th>
<th>AUDITOR'S PARCEL NUMBER</th>
<th>RECORD AREA</th>
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<td>KENNETH C. B &amp; M. EMELDA DANIS</td>
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</table>
SUMMARY OF ADDITIONAL RIGHT OF WAY (SHT 4)
4G AUDITOR’S RECORD AREA

- Reported by Co. Auditor, Not the area in the deed/legal
- This will account for out-sales, splits and the like not reflected in legal
- Various Co. Auditors exempt road right of way
SUMMARY OF ADDITIONAL RIGHT OF WAY
4H TOTAL PRESENT ROADWAY OCCUPIED (P.R.O.)

• PRO is defined as the area in which the property owner holds the underlying fee title, but is currently encumbered by roadway easement.
• This figure should reflect ALL road frontage, not just that involved in the proposed taking.

<table>
<thead>
<tr>
<th>PARCEL NO.</th>
<th>AUDITOR'S PARCEL NUMBER</th>
<th>RECORD AREA</th>
<th>TOTAL P.R.O.</th>
<th>GROSS TAKE</th>
<th>P.R.O. IN TAKE</th>
<th>NET TAKE</th>
<th>STRUCTURE</th>
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<td>0.0000</td>
<td>0.0022</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SUMMARY OF ADDITIONAL 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.

<table>
<thead>
<tr>
<th>PARCEL NO.</th>
<th>AUDITOR'S PARCEL NUMBER</th>
<th>RECORD AREA</th>
<th>TOTAL P.R.O.</th>
<th>GROSS TAKE</th>
<th>P.R.O. IN TAKE</th>
<th>NET TAKE</th>
<th>STRUCTURE</th>
<th>LEFT</th>
<th>RIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>8-WD</td>
<td>09-35-200-006</td>
<td>8.528</td>
<td>0.4074</td>
<td>0.1509</td>
<td>0.1074</td>
<td>0.0235</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>09-35-200-004</td>
<td>1.292</td>
<td>0.1718</td>
<td>0.4103</td>
<td>0.1719</td>
<td>0.2384</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>9,820</td>
<td>0.2793</td>
<td>0.5412</td>
<td>0.2793</td>
<td>0.2619</td>
<td></td>
<td></td>
<td>9.2788</td>
<td></td>
</tr>
<tr>
<td>8-CH</td>
<td>09-35-200-006</td>
<td>8.528</td>
<td>0.0000</td>
<td>0.0196</td>
<td>0.0000</td>
<td>0.0196</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8-T</td>
<td>09-35-200-004</td>
<td>1.292</td>
<td>0.0000</td>
<td>0.0022</td>
<td>0.0000</td>
<td>0.0022</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
• Is the area of existing right of way included within a parcel of proposed right of way that will be acquired as a fee take.

<table>
<thead>
<tr>
<th>PARCEL NO.</th>
<th>AUDITOR’S AREA</th>
<th>RECORD AREA</th>
<th>TOTAL P. R.O.</th>
<th>GROSS TAKE</th>
<th>P. R.O. IN TAKE</th>
<th>NET TAKE</th>
<th>STRUCTURE LEFT</th>
<th>NET RESIDUE RIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>8-WD</td>
<td>09-35-200-006</td>
<td>8.528</td>
<td>0.1074</td>
<td>0.1309</td>
<td>0.0235</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>09-35-200-004</td>
<td>1.292</td>
<td>0.1718</td>
<td>0.4103</td>
<td>0.1718</td>
<td>0.2384</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8-CH</td>
<td>09-35-200-006</td>
<td>5.820</td>
<td>0.2793</td>
<td>0.5412</td>
<td>0.2793</td>
<td>0.2619</td>
<td></td>
<td>9.2788</td>
</tr>
<tr>
<td>8-T</td>
<td>09-35-200-004</td>
<td>8.528</td>
<td>0.0000</td>
<td>0.0196</td>
<td>0.0000</td>
<td>0.0196</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8-PR</td>
<td>09-35-200-004</td>
<td>1.292</td>
<td>0.0000</td>
<td>0.0022</td>
<td>0.0000</td>
<td>0.0022</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**SUMMARY OF ADDITIONAL RIGHT OF WAY 4K NET TAKE**

• Net Take = Gross Take – P. R. O. In Take

<table>
<thead>
<tr>
<th>PARCEL NO.</th>
<th>AUDITOR’S AREA</th>
<th>RECORD AREA</th>
<th>TOTAL P. R.O.</th>
<th>GROSS TAKE</th>
<th>P. R.O. IN TAKE</th>
<th>NET TAKE</th>
<th>STRUCTURE LEFT</th>
<th>NET RESIDUE RIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>8-WD</td>
<td>09-35-200-006</td>
<td>8.528</td>
<td>0.1074</td>
<td>0.1309</td>
<td>0.0235</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>09-35-200-004</td>
<td>1.292</td>
<td>0.1718</td>
<td>0.4103</td>
<td>0.1718</td>
<td>0.2384</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8-CH</td>
<td>09-35-200-006</td>
<td>5.820</td>
<td>0.2793</td>
<td>0.5412</td>
<td>0.2793</td>
<td>0.2619</td>
<td></td>
<td>9.2788</td>
</tr>
<tr>
<td>8-T</td>
<td>09-35-200-004</td>
<td>8.528</td>
<td>0.0000</td>
<td>0.0196</td>
<td>0.0000</td>
<td>0.0196</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8-PR</td>
<td>09-35-200-004</td>
<td>1.292</td>
<td>0.0000</td>
<td>0.0022</td>
<td>0.0000</td>
<td>0.0022</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### SUMMARY OF ADDITIONAL RIGHT OF WAY

#### 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.

<table>
<thead>
<tr>
<th>NET TAKE</th>
<th>STRUCTURE</th>
<th>NET LEFT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.2983</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td>3.4613</td>
<td>S(3)</td>
<td></td>
</tr>
</tbody>
</table>

### SUMMARY OF ADDITIONAL RIGHT OF WAY

#### 4M NET RESIDUE

- Net Residue = Record Area - *(Total P.R.O. - Net Take)*

<table>
<thead>
<tr>
<th>PARCEL NO.</th>
<th>AUDITOR'S PARCEL NUMBER</th>
<th>RECORD AREA</th>
<th>TOTAL P.R.O.</th>
<th>GROSS TAKE</th>
<th>P.R.O. IN TAKE</th>
<th>NET TAKE</th>
<th>STRUCTURE</th>
<th>NET RESIDUE RIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>8-WO</td>
<td>09-35-200-006</td>
<td>8.528</td>
<td>0.1074</td>
<td>0.1309</td>
<td>0.1074</td>
<td>0.0235</td>
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<td></td>
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<tr>
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<td>1.292</td>
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<td>0.1403</td>
<td>0.1718</td>
<td>0.2384</td>
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<td></td>
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<tr>
<td>8-CH</td>
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<td>9.820</td>
<td>0.2793</td>
<td>0.5412</td>
<td>0.2793</td>
<td>0.2619</td>
<td>9.2786</td>
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</tr>
<tr>
<td>8-T</td>
<td>09-35-200-004</td>
<td>1.292</td>
<td>0.0000</td>
<td>0.0196</td>
<td>0.0000</td>
<td>0.0196</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8-PR</td>
<td>09-35-200-004</td>
<td>0.0000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Total P.R.O. area is not included in the Net Residue formula if the County Auditor subtracts the P.R.O. from the Record Area.
### SUMMARY OF ADDITIONAL RIGHT OF WAY

<table>
<thead>
<tr>
<th>Gross Take</th>
<th>Net Take</th>
<th>Net Residue</th>
<th>Total P.R.O. May Not be Included in Record Area you must check with the County</th>
</tr>
</thead>
<tbody>
<tr>
<td>P.R.O. In Take Area</td>
<td>P.R.O. Area</td>
<td>Record Area</td>
<td>Total P.R.O. Area</td>
</tr>
</tbody>
</table>

### SUMMARY OF ADDITIONAL RIGHT OF WAY (SHT 4) 4N TYPE FUND

[Diagram showing additional right of way layout]
### SUMMARY OF ADDITIONAL RIGHT OF WAY (SHT 4)

**4N TYPE FUND**

<table>
<thead>
<tr>
<th>TYPE</th>
<th>FUND</th>
</tr>
</thead>
<tbody>
<tr>
<td>STATE</td>
<td></td>
</tr>
</tbody>
</table>

| REMARKS COLUMN |

---

### SUMMARY OF ADDITIONAL RIGHT OF WAY (SHT 4)

**4O REMARKS COLUMN**

[Image of the chart with data]
### SUMMARY OF ADDITIONAL RIGHT OF WAY (SHT 4)
#### 4O REMARKS COLUMN

* DENOTES RIGHT OF WAY ENCROACHMENT

<table>
<thead>
<tr>
<th>PARCEL NO.</th>
<th>REMARKS COLUMN</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-WD</td>
<td>Q TREES &amp; 2 SHRUBS  * A PRIVATELY OWNED SIGN TO BE REMOVED</td>
</tr>
<tr>
<td>2</td>
<td>NO TAKES</td>
</tr>
<tr>
<td>3-WD</td>
<td>2 TREES</td>
</tr>
<tr>
<td>3-T</td>
<td>TO CONSTRUCT PROPOSED MOUNDING</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PARCEL NO.</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>8-WD</td>
<td>TO CONSTRUCT &amp; MAINTAIN DITCH</td>
</tr>
<tr>
<td>8-T</td>
<td>TO COMPLETE GRADING</td>
</tr>
<tr>
<td>8-FR</td>
<td>PORTION OF DRIVE EASEMENT TO BE ACQUIRED</td>
</tr>
</tbody>
</table>

### SUMMARY OF ADDITIONAL RIGHT OF WAY (SHT 4)
#### 4P AS ACQUIRED
This will be performed by ODOT after the instruments are recorded in the County Recorder's Office. Record the appropriate entry for the instrument of each parcel acquired and recorded.
**SUMMARY OF ADDITIONAL RIGHT OF WAY (SHT 4)
4Q TEMPORARY PARCEL DURATION**

**NOTE:** ALL TEMPORARY PARCELS TO BE OF 12 MONTH DURATION.

Temporary Parcel duration shall be in six (6) month increments.
NOTE: UNDER NO CIRCUMSTANCES ARE TEMPORARY EASEMENTS TO BE USED FOR STORAGE OF MATERIAL OR EQUIPMENT BY THE CONTRACTOR UNLESS NOTED OTHERWISE.
SUMMARY OF ADDITIONAL RIGHT OF WAY (SHT 4)

**4S TOTAL NUMBER OF TABULATION**

- Required on the first Summary of Additional Right of Way Sheet only.

<table>
<thead>
<tr>
<th>TOTAL NUMBER OF</th>
<th>4S</th>
</tr>
</thead>
<tbody>
<tr>
<td>11 OWNERSHIPS</td>
<td>0 TOTAL TAKES</td>
</tr>
<tr>
<td>25 PARCELS</td>
<td>0 OWNERSHIPS W/ STRUCTURES INVOLVED</td>
</tr>
</tbody>
</table>

SUMMARY OF ADDITIONAL RIGHT OF WAY

**4V GRANTEE NOTE**

- Identifies the name of the agency for which property is being acquired.
- This Note **MUST** be modify to reflect the appropriate agency receiving the property being acquired.
- Parcels acquired in the name of an agency other then the grantee identified in the "Grantee Note" shall contain a “V” parcel identifier. The name of the "V" parcel(s) grantee shall appear in the remarks column.

**GRANTEE:**

ALL RIGHT OF WAY ACQUIRED IN THE NAME OF THE STATE OF OHIO

UNLESS OTHERWISE SHOWN.
R/W DETAIL SHEETS

- 5A Title Block
- 5B Sheet Heading
- 5C Station Limits Flags
- 5D Revision Block
- 5E Centerline of R/W Data
- 5F Centerline Stationing
- 5G Political Sub, Orig. Gov Survey, etc.
- 5H Proposed R/W & Parcel Boundaries
- 5I Property Lines and Monuments
- 5J Ownership Name, Number & Parcel ID
- 5K Side Roads, Waterways, Lakes & RR
- 5L Match Line
- 5M Existing Topographic Features
- 5N Construction Limits
- 5O Proposed Pavement
- 5P Proposed Plan Items
- 5Q Utilities
- 5R Land Use
- 5S Address
- 5T Bearing and Distance
- 5U R/W Curve Data
- 5V Station and Offsets
- 5W Lead in Courses
- 5X Non Public Easements
- Intersections with Centerline of R/W
- Right of Way Fence
- Closures, Gaps, and Overlaps

R/W DETAIL SHEETS (SHT 6)
5H PROPOSED R/W & PARCEL BOUNDARIES

- The perimeter of all proposed right of way parcels shall be shown using the appropriate CADD line styles.
- Show proposed R/W lines as the PROMINENT lines.
- The iron pins to be set on proposed right of way parcels shall match the monument legend.
5I PROPERTY LINES & MONUMENTS

- All property lines within the area of concern shall be shown and clearly labeled.
- Show monuments used to determine the property lines.

5L MATCH LINES
• Show and identify ALL existing topographic features on the Right of Way Detail Sheets.
R/W DETAIL SHEETS (SHT 6)
5N CONSTRUCTION LIMITS

- Construction limits for MOT should address temporary pavement, temporary roads, temporary embankment & drainage.
- Be sure to provide sufficient room for removal/take items.

R/W DETAIL SHEETS (SHT 6)
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.
For multi-family housing (apartments) and multiple businesses within one structure, provide the site addresses for each individual unit or business in a list format.
R/W DETAIL SHEETS (SHT 7)
5U R/W CURVE DATA

- Any additional information that serves to satisfy the individual county requirements.

R/W DETAIL SHEETS (SHT 6)
5V STATION AND OFFSET

- Provide a station and offset distance 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 are to be shown on all found and set monuments.
R/W DETAIL SHEETS (SHT 6)
5W LEAD-IN COURSES

• From a County acceptable, monumented commencement point to the true point of beginning

R/W DETAIL SHEETS (SHT 6)
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.
R/W DETAIL SHEETS
R/W FENCE

R/W TOPOGRAPHIC SHEETS

- 6A Title Block
- 6B Sheet Heading
- 6C Station Limits Flags
- 6D Revision Block
- 6E Centerline of R/W Data
- 6F Centerline Stationing
- 6G Political Sub, Orig. Gov Survey, etc.
- 6H Proposed R/W & Parcel Boundaries
- 6I Property Lines
- 6J Intersections with Centerline of R/W
- 6K Ownership Name, No. & Parcel ID
- 6L Side Roads, Waterways, Lakes & RR
- 6M Match Line
- 6N Existing Topographic Features
- 6O Construction Limits
- 6P Proposed Pavement
- 6Q Proposed Plan Limits
- 6R Utilities
- 6S Land Use
- 6T Address
- 6U Non Public Easements
- Right of Way Fence
R/W TOPOGRAPHIC SHEETS (SHT 9)
R/W BOUNDARY SHEETS

• 7A Title Block
• 7B Sheet Heading
• 7C Revision Block
• 7D Centerline of R/W Data
• 7E Centerline Stationing
• 7F Intersections with Centerline of R/W
• 7G Political Sub, Orig. Gov Survey, etc.
• 7H Proposed R/W & Parcel Boundaries
• 7I Property Lines and Monuments
• 7J Ownership Name, No. & Parcel ID
• 7K Match Line

• 7L Bearing and Distance
• 7M R/W Curve Data
• 7N Station and Offsets
• 7Q Lead in Courses
• 7P Closures, Gaps, and Overlaps
• Side Roads, Waterways, Lakes & RR
• Non Public Easements

R/W BOUNDARY SHEETS (SHT 10)
R/W BOUNDARY SHEETS (SHT 10)

R/W TOPOGRAPHY SHEET WITH THE R/W BOUNDARY SHEETS (SHT 10)
RAILROAD PLAT

- 8A Title Block
- 8B Sheet Heading
- 8C Railroad Valuation / Centerline
- 8D All other Tracks
- 8E RR Co. Valuation survey stationing
- 8F RR Property Lines
- 8G Highway CL of R/W
- 8H RR Valuation / CL Stationing and Highway CL
- 8I Station and Offset for railroad parcels
- 8J Construction Limits
- 8K Proposed Items
- 8L Ownership Num. and Parcel ID
- 8M Overlap Tables (Sq. Ft)
- 8N Intersect Angels of RR and Highway CL
- 8O References to RR Valuation Map

RAILROAD PLAT
AT GRADE, R/R UNDERPASS & R/R OVERPASS
• Relationship between railroad valuation/centerline stationing and highway centerline of right of way stationing.
RAILROAD PLAT
8I STA. & OFF FOR ALL RR PARCEL TIES

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

- Proposed pavement, abutments, pier footers, retaining walls, drainage system, bridge parapets, relocated tracks, etc (Figure 3108.8, sheet 42/46)
## 8M OVERLAP TABLES

<table>
<thead>
<tr>
<th>PARCEL</th>
<th>EASEMENT REQUIRED</th>
<th>TOTAL AREA (AC)</th>
<th>AREA OF OVERLAP (AC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>H-GR</td>
<td>AERIAL</td>
<td>0.287</td>
<td>0.027</td>
</tr>
<tr>
<td>M-A</td>
<td>AERIAL</td>
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<td>0.027</td>
</tr>
<tr>
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<td>0.090</td>
</tr>
<tr>
<td>M-12</td>
<td>TEMPORARY</td>
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<td>0.177</td>
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<td>15-SH</td>
<td>HIGHWAY</td>
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<tr>
<td>15-12</td>
<td>TEMPORARY</td>
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<td>0.048</td>
</tr>
</tbody>
</table>

*ALL AREAS IN ACRES*

---

## RAILROAD PLAT
### 8N INTERSECT ANGLES OF RR AND HIGHWAY CL

- Intersection angle of railroad and highway centerlines
RAILROAD PLAT
80 REFERENCE TO RR VALUATION MAP

NOTE: The railroad stationing is from the following Railroad Valuation Map:
Right-of-Way and Tract Map
The Home Avenue Railroad Company
OPERATED BY The Baltimore and Ohio Railroad Company
Stationing 0+00 To Station 105+60
with drawing Sheet No. V.104.1/1

3109 OPTIONAL RIGHT OF WAY PLAN FORMATS
Questions?

SECTION 3301 INTRODUCTION

- All legal descriptions prepared by or FOR the Ohio Department of Transportation shall be in accordance with the
  - Ohio Revised Code 4733
  - Ohio Administrative Code Section 4733-37
  - All applicable county conveyance standards
  - The Real Estate Policies & Procedures Manual and applicable District guidelines
- Property rights and interests acquired by ODOT are conveyed through the use of an instrument.
- The instruments contain three parts, the Conveyance, the Acknowledgement and the “Exhibit A” (RX Forms).
SECTION 3301 INTRODUCTION

- A legal description prepared for ODOT is attached to the instrument as “Exhibit A” on the appropriate RX Form.

- It is the responsibility of the right of way designer and/or reviewer to revise and correct any legal descriptions deemed unacceptable for transfer/recording.

SECTION 3301 INTRODUCTION

- All legal descriptions prepared for ODOT shall be prepared using the applicable RX Forms as supplied by ODOT.

- Always Download the Forms to use the Current Version

- Provide legal descriptions that have prior approval by the applicable county office when required by the scope of services document or county regulations.

- Submit a paper copy of the legal description signed, sealed and dated, along with an electronic copy in a format as specified by the District Real Estate Administrator.
SECTION 3303 LEGAL DESCRIPTION PROCEDURE

• The right of way designer and/or reviewer shall prepare each legal description containing the following data:

  • The bearings and distances of each take line must match the bearing and distances given in the right of way plans (R/W Detail Sheets or R/W Boundary Sheet).

  • Provide a statement identifying the public record by which the owner, at the time the survey was prepared, claims title to the property.

    Example: Prior Instrument Reference as of the date this survey was prepared: "Correct citation to county record (e.g., Deed Book and Page, Volume and Page, Official Record, etc.)" of *_______* County, Ohio. **NOT “Grantor Claims Title”**

• When describing a bearing/direction, use the words "degree," "minutes," and "seconds." Symbols may be used at the discretion of District Real Estate Administrator.

  • The bearing precision shall be to the nearest second.

  • Specification of any monuments, e.g., iron pins, iron pipes, railroad spikes, etc., shall be cited in the legal description as found or set.
SECTION 3303 LEGAL DESCRIPTION PROCEDURE

- Sufficient identification and clarification of the intent of a course to follow an existing line, if applicable. Here are a few examples:
  "...with the current owners??? Easterly property line...".
  "...with the existing Southerly Right of Way line...".
  "...with the existing centerline of Right of Way...".

- Station and offset calls, shall be included at the discretion of the county conveyance requirements and/or the District Real Estate Administrator.

SECTION 3304 CLOSING STATEMENTS

- The following closing statements (when applicable) must follow the metes and bounds section of each and every legal description. The closing statements should appear in separate paragraphs, in the order shown below:

- Provide a statement indicating the current Auditor's Permanent Parcel number(s) in which the parcel of land is located. Also provide a breakout of the Present Road Occupied (PRO) in the take area when applicable. When a parcel contains multiple Auditor's Parcel numbers provide a breakout of the area contained in each auditor's parcel number, including the Present Road Occupied (PRO) in the take.
SECTION 3304 CLOSING STATEMENTS

- Example of a multiple auditor's parcel number:
The above described area contains 0.0362 acres of land, more or less, of which the present road occupies 0.000 acres of land, more or less, of which 0.0208 acres is part of Franklin County Auditor's Permanent Parcel number 010-120894, and 0.0154 acres is part of Franklin County Auditor's Permanent Parcel number 010-120893.

- Parcels for which an Auditor's Parcel number cannot be found, provide a statement indicating that the described area is NOT a part of any currently assigned Auditor's Parcel number.

- Basis of bearings used in the legal description

- Surveyor’s name that prepared the legal description, his/her surveyor's Ohio registration number, signature, and the date of writing and/or survey
SECTION 3304 CLOSING STATEMENTS

• A statement that the legal description is based on a survey, including reference to the responsible surveyor and the date of the survey.

• SAMPLE LEGAL DESCRIPTIONS
  • Are available at the respective District Offices

RX FORMS WEBSITE

• RX Guidance Memo dated June 12, 2009
• RX Form Training Guide
  • Gives assistance for completing RX Forms
  • Always Download Forms to use Current Version

• Contact the District REA for any modifications to the forms to meet the county requirements.
• Contact Brett Shearer if you need assistance with forms
  • brett.shearer@dot.ohio.gov
  • phone: 614-728-6142
RX FORMS (250 WD)

- **Version Date**: This is the date that the form was last updated and should be updated any time changes are made.

- **Project Identification Number (PID)**: Each project will be assigned a unique PID number.

- **Parcel Information**: The parcel number and identification (type of take) assigned to the ownership.

- **If the ownership has multiple parcel identifiers of the same type a number shall follow.**
RX FORMS (250 WD)

- County, Route, and Section (CTY-RTE-SEC)- This is the county the project is located in, the route number of the roadway being improved, and the section number, a.k.a. straight line mileage.

In the CTY-RTE-SEC form field, enter the County, Route, and Section. Then select either the Tab Key or the Down Arrow Key to advance to the next form field.

---

RX FORMS (282 U)

- The first paragraph of the Utility RX Form (282 U) must be customized for the particular utility company and utility type. This paragraph will describe the purpose of the take.
LPA RX FORMS (851 WD)

- Name of LPA - Enter the appropriate county, city, and/or township and the appropriate county name when acquired in the name of a city or township.

RX FORMS (851 WD)

- Surveyor’s Description - Is the area where the surveyor will either type or paste the legal description in accordance with the current Ohio Revised Code 4733 and 4733-37, all applicable County Conveyance Standards the Real Estate Policies and Procedures Manual, and applicable District guidelines.
LPA RX FORMS (851 WDV)

• A "V" parcel identifier should be used when a parcel is acquired in the name of an entity other than the grantee identified in the “Grantee Note”.

LPA RX FORMS

• Are available to download at the following address:
  • [http://www.dot.state.oh.us/Divisions/Engineering/RealEstate/row/Pages/RX_Forms.aspx](http://www.dot.state.oh.us/Divisions/Engineering/RealEstate/row/Pages/RX_Forms.aspx)

• Used when the LPA is acquiring in its own name
RX FORMS

Questions?

REVIEW CHECKLIST

Appendix H – Right of Way Review Checklist

The following is a tabulation of items addressed for each plan sheet in this manual. It provides a good, concise guide against which right-of-way plans can be checked for completeness before submittal.

Project: ____________________________  E.W. Designer: ____________________________
Date: ____________________________  E.W. Reviews: ____________________________

Right of Way Legend
☐ 1A *Title Block  ☐ 1D *Utility Line and Layout  ☐ 16 *Project Description  ☐ 1F Parcel Identification Legend
☐ 1B *Sheet Number  ☐ 1E *Conventional Symbols  ☐ 17 *Plan Prepared By  ☐ 1G Location Map
☐ 1C *Structure Key  ☐ 1F  *Index of Sheets  ☐ 1H *Survey Certification  ☐ 1H Limited Access Declaration

Custodial Plan
☐ 2A *Title Block  ☐ 2E *Basemap for Basemap  ☐ 2I *Intersections w/C.O.R. W  ☐ 2M Survey Certification
☐ 2B *Sheet Number  ☐ 2F *Base of Existing R.O.W  ☐ 2J *Utilities & Survey  ☐ 2N Survey Certification
☐ 2C *Monument Table  ☐ 2G *C.O.R. W Data  ☐ 2K *C.O.R. Monument Nocs
☐ 2D *Monument Legend  ☐ 2H *Custodian Stationing  ☐ 2L *Engineering Block

Property Map
☐ 3A *Title Block  ☐ 3B *Owner Name & Number  ☐ 3C *Subdivision Survey  ☐ 3M *Earth, Waterways, Lakes & R.R.
☐ 1B *Sheet Number  ☐ 3D *Central Stationing  ☐ 3E *Property Lines  ☐ 3N *Cleared, Gapped, or Overlays
☐ 1C *Section Layout Map  ☐ 3F *Property Description  ☐ 3J *Utility easements  ☐ 3O *Adjoining Project Data
☐ 1D *Perimeter Block  ☐ 3G *Restrictions  ☐ 3L *Tax Maps  ☐ 3P *Maintenance

Summary of Additional Right of Way
☐ 2A *Title Block  ☐ 4A *Utility’s Record Area  ☐ 4B *Not Bridged  ☐ 4C *Total No. Of Tabulation
☐ 4B *Owner No. & Parcel Idex  ☐ 4D *Total R.O.W.  ☐ 4F *Parcel Identification Legend
☐ 4C *Ownership Name  ☐ 4E *Plan Dated  ☐ 4G *Reserve Easement  ☐ 4H *Perimeter Block
☐ 4D *Owner Number  ☐ 4I *R.O.W. In Use  ☐ 4J *Acquired  ☐ 4L *Remarks
☐ 4E *Owner Record  ☐ 4K *Not Taken  ☐ 4M *Temporary Parcel Duration
☐ 4F *Owner’s Parcel No.  ☐ 4N *Reverted  ☐ 4P *Revetted
Appendix I – Field Review Checklist

The Department recognizes that the ROW Designer/Reviewer alone may not be able to answer some of the questions regarding the review made herein. However, the ROW Designer/Reviewer shall consult with the project design engineer, project manager, and/or District RBA to address questions below.

Completed/Revised By: ____________________  FID: ____________________
Review Authorized By: ____________________  Date of Field Review: __________
Field review performed prior to the design review submission.

This form is provided as a guide to the Right of Way Designer/Reviewer to endorse the findings of the project site.

<table>
<thead>
<tr>
<th>Item</th>
<th>Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Does the right-of-way alignment appear or shown on the plans?</td>
</tr>
<tr>
<td>2</td>
<td>Does the right-of-way alignment appear or shown on the plans?</td>
</tr>
<tr>
<td>3</td>
<td>Does the right-of-way alignment appear or shown on the plans?</td>
</tr>
<tr>
<td>4</td>
<td>Does the right-of-way alignment appear or shown on the plans?</td>
</tr>
<tr>
<td>5</td>
<td>Does the right-of-way alignment appear or shown on the plans?</td>
</tr>
<tr>
<td>6</td>
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</tr>
</tbody>
</table>

Appendix J – R/W Description Checklist

- QUESTIONS?

Appendix J – R/W Description Checklist

<table>
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</tbody>
</table>
TOP 10 TAKEAWAYS

1. How to get Prequalified to do R/W plans.
2. Why records research is the foundation for R/W design and the entire project.
3. Why knowing the history of the State’s road system is vital to R/W design.
4. Why ODOT surveying and mapping specifications and can you deviate from the spec?
5. Understanding why Existing Centerlines and Right of Way widths will be challenging.

TOP 10 TAKEAWAYS

6. Why communication with the District Real Estate Office and Survey Operation Manager is so important.
7. Ask Questions
8. Why & When to request a Conceptual Review before Preliminary R/W submittal.
9. What is the Format for ODOT Legal Descriptions.
10. What is required as part of the plan review submission.
Open Discussion

THE END