

II. ESTABLISH EXISTING R/W MOSAIC

This chapter describes the recommended process for developing the existing R/W mosaic, from the research through the project survey report and submission of the Survey Plans.

DelDOT has categorized three tiers of projects, based on the potential impacts to the existing R/W and the corresponding levels of R/W verification required. It is recognized that sometimes projects are initiated with scopes that fall between the tiers. The Chief of Right-of-Way should be consulted if applicability is unclear. The tiers are as follows:

Tier 1: This Tier consists of projects that do not have impacts outside of the existing R/W. It still requires research to verify that all proposed work will occur inside the existing R/W. The level of research typically includes review of the DelDOT Roadway Maintenance Inventory, archived plans and comparison to field evidence.

Typical Tier 1 projects include the Pedestrian Accessibility (PAR) Program, the Transportation Alternative Program (TAP), the Pavement & Rehabilitation (P&R) Program, the new Active Transportation and Community Connections program (ATCC), and projects that install traffic devices, and repair and maintain existing transportation assets.

The limits of existing ownership and the presence of existing property rights must be researched to verify whether additional property rights are required due to DelDOT work that could impact land outside of the existing rights-of-way. Verifying the existing rights-of-way requires, at a minimum, researching available documents and gathering field evidence. The objective is to determine the existing rights-of-way with reasonable accuracy for the purposes of the work being performed.

There are multiple methods of carrying out the investigation from cursory review to complex analysis. The method used to verify existing rights-of-way should be commensurate with the scope of the project. The least complex methods of investigation should be used first because the time and cost of detailed R/W verification can exceed the cost of the types of improvements and the time it takes to construct them. Only if those methods prove unreliable should the investigation progress to more complex methods. Knowing when the investigation is satisfactory will require judgement. The Practitioner will be responsible for making the existing R/W determination.

Delaware law establishes standard roadway rights. These should be the first documents consulted. The documents described below provide an indication of the existing rights-of-way, which may have changed the roadway rights from the time of the initial establishment under law. They vary in precision, accuracy, and reliability from least reliable to most reliable as follows:



- *DelDOT Roadway Maintenance Inventory*: Listed by maintenance road number, it provides basic information about what DelDOT maintained at the time the inventory was performed. Reliance on this data is most applicable to routine maintenance and repair work in rural areas where other forms of existing R/W documentation are limited.
- *Archive DelDOT Plans*: Reliance on DelDOT archived plans to determine the existing R/W is most applicable where physical features shown on the archived plans still exist and can be found in the field. Most Tier 1 programs and projects, except for routine maintenance work, should utilize DelDOT Archive Plans as a starting point.
- *Recorded Land Development Plans*: This data can be helpful in finding dedications that may have taken place during the land development process. Reliance on this information is most applicable where physical features shown on the plans still exist and can be found in the field. This information should be recovered for projects that include improvements that initially appear outside the existing R/W based on the lower accuracy verification documents. Doing so will help avoid purchasing property rights on lands already dedicated to public use. Caution must be used to verify the recorded plan has not expired.
- *Recorded Deed Information*: This information identifies the current owner of lands adjacent to the road, provides a description of the parcel boundary, and the location and type of property corners. This information can help locate field evidence, such as property corners that may provide evidence of the existing R/W limits.

Field evidence includes physical features visible at the project site that are shown on archived drawings, such as property corners, existing edges or centerlines of pavement, curb lines, building lines, utility poles, fence lines, etc. Gathering field evidence should start with the least extensive level of research, such as walking the project location. Only if that method proves unreliable should more complex levels of field investigations be conducted. The Practitioner is to use the method necessary to reasonably establish the limits of the existing R/W to a level of accuracy commensurate with the scope of the project. Where field evidence cannot be found to determine the existing R/W, it may be necessary to mobilize a survey crew to provide adequate field evidence commensurate with the scope of the project.

Tier 2: This tier consists of projects that have minor impacts outside of the existing R/W at *isolated* locations within the project. It requires research necessary to establish the existing R/W at the isolated location, as well as establishing ownership and all rights that may be involved with the area that is to be impacted by the proposed improvement. Tier 2 projects require an acquisition plat be created to document the acquisition area. See Chapter VI for further guidance on acquisition plats.

Tier 3: This tier consists of projects that will have major impacts outside of the existing Right-of-Way. Capital projects normally fall under this tier. This tier requires research necessary to establish ownership and all rights that may be involved with the area that is to be impacted by the proposed improvement and to create an archivable record of the proposed acquisitions. Tier 3 projects should be undertaken by the Practitioner and require that Right-of-Way plans be created. The Practitioner should consult with Team Support on whether the R/W plans should

be a stand-alone set or if they can be incorporated into the construction plans. Tier 3 projects generally utilize the most complex levels of Right-of-Way verification, as further discussed in this chapter.

A. Research

The existing R/W Mosaic development begins with performing research to determine the existing R/W baseline and existing R/W width(s), the property ownership information, and the presence of any existing easements within the project limits. Research is typically performed by the Practitioner, however, for some DelDOT in-house projects, the Team Support Section may be requested to assist the in-house Practitioner with the research.

1. *Historic Plans*

The research to determine the existing R/W baseline and existing R/W width(s) includes obtaining and reviewing the DelDOT historic plans for the road(s) within the project limits. The historic construction and right-of-way plans may or may not contain information on the baseline, the existing R/W at the time of the project, and the proposed acquisitions. Each historic contract should, but will not necessarily, reflect what was built or acquired as shown on the previous historic contract. The Practitioner will need to review all historic contracts applicable to the project and determine the information that needs to be held from each. Information contained in the old survey field books for the historic contracts can be used to aid in the reestablishment of the historic baselines. The old survey field books can be found in Archives, and if appropriate, be used.

a. Sources

There are multiple sources that can be utilized to obtain the historic contract plans, and other pertinent contract documents. The contract titles listed on the historic plans are the contract titles that should be used on the title sheet for the associated contracts. The frequency of updates to the various databases differs. The DelDOT Gateway Website is updated on an as needed basis as per the individual data updates for each layer. DelDOT's Record Center and the State of Delaware's Archives are updated on demand when projects have been archived. There is no defined period of frequency for those updates.

i. Gateway

The Practitioner can find archive plans on the DeIDOT Gateway by accessing the DeIDOT website and clicking on the Gateway icon. Archive plans are one of the many layers that are available on Gateway that will allow internal and external users to access a list of historic contract plans geographically by clicking on the road(s). Directions on how to use Gateway can be found on the DRC under Right-of-Way>Guidelines.

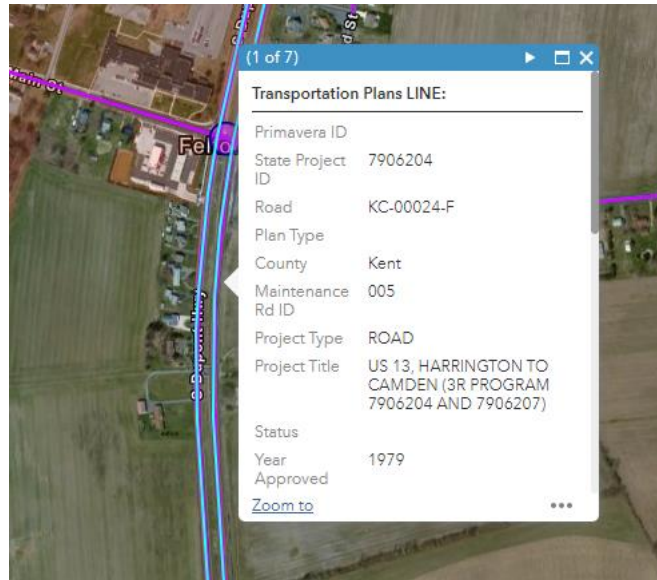


Figure 2-1 Archived Plans on DeIDOT Gateway

ii. DeIDOT Online Archive

If plans are not found on Gateway, the Practitioner can use DeIDOT's online archives, which include historic contract plans. The DeIDOT Archives can be found online under the Business/Publications tab.

The first step is to find the maintenance road number by using the Lookup Table by county that lists the maintenance number of each road in that county. The online DeIDOT archive is organized for each county by maintenance road number. Each maintenance road number contains the contract numbers, the titles of the contracts, the plan types, the contract types (e.g., bridge, road, subdivision, traffic, etc.), archive status and years the contracts were approved.

To request historic plans, the Practitioner can make a request to DOT.ArchiveRequest@delaware.gov.

iii. DeIDOT Records Center

The DeIDOT Records Center contains project files which will have historic plans and documents which may be useful to the Practitioner. These files are housed at DeIDOT's Records Center located at 245 McKee Road, Dover, DE 19904. An appointment must be made to access the Records Center. The contact phone number for DeIDOT's Archives is (302) 739-4935.

iv. State of Delaware Archives

The State of Delaware's archives include legislation pertaining to specific roads and bridges, historic contract documents and/or correspondence during construction, miscellaneous information, etc. When there is minimal documentation on a maintenance road or bridge, or when the facilities are maintained by a Municipality instead of the State, this is a good option to research additional information to help determine existing R/W widths, etc. The State of Delaware archives building is located at 121 Martin Luther King Jr Boulevard North, Dover, DE 19901. The email address is archives@delaware.gov. A request for information based on maintenance road number and relevant limits and/or historic contract number must be made, then the archivists will pull the relevant information and notify the requestor when they are available for review.

b. Plans vs As-Acquired Deeds

The Practitioner should review the DeIDOT historic contract plans versus the as-acquired deeds for the contract. As-acquired deeds can be accessed through the New Castle, Kent, and Sussex County websites or requested from DeIDOT. During this review, the Practitioner will either confirm that the acquisitions were completed per plan or will note any differences between the two. If there are differences, the as-acquired deeds will supersede the historic plans since that is what was actually purchased under the contract. The Practitioner should obtain the as-acquired deeds and organize them per project parcel. Note that some deeds may pertain to more than one project parcel due to subdivision of lands that occurred after the acquisition was recorded. As-acquired deeds will also describe the rights DeIDOT has to easements that were acquired.

i. As-Acquired Plans

When as-acquired Right-of-Way Plans are prepared, any differences between the acquisitions that were originally proposed and what was actually purchased should be noted. Differences generally include ownership at the time of acquisition, acquisition type and/or acquisition area. The as-acquired deeds of record are also noted on the as-acquired Plans.



For example, Final Approved R/W plans show Parcel 100 being owned by John Smith, with a proposed R/W acquisition area of 1000 square feet. Through the Right-of-Way negotiation process, it is determined that the property ownership has changed to Mary Johnson. DelDOT's Acquisitions, Relocations and Settlements Section negotiates with Ms. Johnson and the result is the 1000 SF R/W area is revised to a 750 SF PE and 250 SF R/W. On the as-acquired plans, the original information is struck through and the updated information is noted next to it, including any bearings, distances, and areas.

The as-acquired plans are processed and uploaded to Gateway on demand, as they are received for archiving. If as-acquired plans are available for a historic contract, they should be obtained and reviewed to help with the existing R/W determination within the project limits. Any permanent easements shown on the as-acquired plans should also be included in this research.

2. Title Searches/Deeds

When a project is initiated, the In-House Practitioner should submit the Initial Project Research Request memo found on the DRC. The information that can be requested for each project includes title searches, traffic signal agreements, railroad rights-of-way, in-progress subdivisions, deeds, DelDOT excess lands, tax ditches and existing utilities.

For any title search requests, 60-year title searches will be prepared for the properties requested (requested by tax map parcel number). A 60-year title search includes the chain of title and any recorded existing easements for the property for the past 60 years.

The limitations of a 60-year title search are exactly that, it only goes back 60 years. There may be existing utility and/or access easements on a property that date back further than the 60 years. In such cases, secondary research should be conducted to obtain said documents. It is important to review each title search to see if the chain deeds or plats contain any easement references that weren't included in the title search. It is also important to review each title search to verify that the chain deeds include both metes and bounds descriptions for the property and that they follow the ownership for the correct property. Sometimes errors are made, and the incorrect chain is followed. For example, a larger parcel could have multiple outsales and the wrong outsale could be followed. Also, the chain of title may need to be traced back further than the 60-year limit to find a chain deed that contains a metes and bounds description of the property. In such cases, secondary research should be conducted by the Practitioner to obtain said documents if the project is being prepared by a consultant, or by Team Support if the project is being prepared by in-house staff. It should also be noted that the tax map parcel number listed at the top of a deed, if included, could be incorrect so it should not necessarily be held over the content of the deed.

An example title search can be found on the DRC.

The current deeds of record for the properties within the project limits should be obtained by the Practitioner from the respective county's recorder of deeds if the project is consultant designed. If the project is in-house, Team Support will perform the deed search. The deeds should be reviewed for any additional information, to include plot books associated with the property and/or any existing easements. Additional deeds and archival documentation outside of the Project Limits may be required to verify existing rights-of-way. Will Records are an example of archival documentation that may be used to transfer land and may include a prior deed when one is not listed in the County's records. Additional easements may be discovered during the Utility Coordination process for a project. Refer to the Utility Manual for additional information on when easements are requested from the Utility companies.

a. Establish Limits Needed

Prior to requesting or performing deed research and/or title searches, it is important to establish the project limits and the extent of the research needed. Title searches take time to prepare. The better the Practitioner can tie down the limits of research needed for the project, the less likely additional title searches will need to be requested further down the line. If additional title searches need to be requested later in the project, more time will need to be allotted for them to be completed.

b. Timing of Request vs Survey & Subdivision Requests

If possible, the title search request or the Practitioner's research should be performed prior to the survey and subdivision requests. If the title searches are received and reviewed prior to the survey request, the Practitioner should provide a draft property mosaic (a copy of the county tax maps in the project area will suffice) noting any monumentation mentioned in the deeds that the survey crew should look for and locate in the field.

Also, if the title searches are received prior to the subdivision request, they should typically include any previously recorded subdivision plats within the project limits. The subdivision request may not return previously recorded subdivision documents, only newer or more recent site information that may still be going through the process. Note, the title search, field survey and subdivision requests can be performed concurrently so as not to delay a project.



c. Field Review to Note Existing Conditions

The Practitioner should visit the project site and note any existing conditions that would indicate the existence of easements. For example, existing utilities that appear to be outside of the existing R/W should be noted for a possible utility easement. Also, if multiple properties share a driveway or other inter-connections, there is likely an existing cross access easement. Features like these should be noted so the Practitioner can look for them when reviewing the title searches. It is possible that the title searches may not include these easements if they are older than the 60-year timeframe as previously discussed.

3. Plats

Some parcels have recorded, and unrecorded, plats associated with them. Recorded and unrecorded plats can be typical Boundary Surveys, Minor or Major Subdivisions of land, Subdivision Construction Plans, Site Plans, an ALTA/ACSM Plat, etc. Components of a plat could include the tract's size, boundary location and metes and bounds, existing and/or dedicated rights-of-way and/or easements, source of title, zoning, reservations, grantor/grantee, open space, found and/or proposed monumentation, etc. The Practitioner should contact the Engineer/Surveyor of record and try to obtain a copy of the unrecorded plat.

The plat may be referenced in the chain deed text. Other times, it may be listed in the parcel data on the respective county GIS mapping website. In New Castle County, a recorded plat is referred to as a microfilm (abbreviated MF). In Kent and Sussex Counties, a recorded plat is referred to as a plot book (abbreviated PB) and may be given an instrument number or a deed of record and page number.

Each recorded plat for a parcel should be reviewed to help the Practitioner establish the existing right-of-way along the parcel frontage. Also, any easements, dedications and/or reservations should be included in the R/W mosaic. The Team Support Section should be consulted if there are any questions on how the easements, dedications and/or reservations should be shown.

It should be noted that any general (blanket) easement notes on a recorded plat should be included in the R/W mosaic even if the utility or other feature has not been installed. The easement will still exist until the recorded plat sunsets.

4. Easements

An easement is the legal right to use someone else's property for a specific limited purpose, but the legal title to the land itself remains with the property owner. When land is encumbered by

an easement, the value of the property is impacted. Also, when an easement is impacted by an acquisition, those other interests in the property are entitled to fair and just compensation. So, it is important to include any known existing easements in the R/W mosaic for valuation purposes and for DelDOT to obtain the full rights within the proposed acquisitions.

There are multiple types of easements that can be encountered on a project, including but not limited to those discussed below.

a. Utilities

A utility easement is an easement that allows the utility company the right to use and access private property to construct, maintain and/or remove their respective facilities. Such facilities may include overhead or underground features for gas, electric, water, sewer, communication lines, etc.

There are two types of utility easements that can be encountered. Depending on the language in the easement, it is either a defined easement or a blanket easement. A defined utility easement has a known width and/or location on a parcel and is typically centered on the utility's facilities. A blanket utility easement includes generic language, with no width or location identified, or a possible width from the utility as placed or constructed, etc.

b. Tax Ditches

A tax ditch is constructed on a right-of-way owned jointly by the property owners who have formed an organization on a watershed basis to construct and maintain a drainage system. The right-of-way includes the area to construct and maintain a tax ditch and/or use the lands to spread materials from maintenance dredging of the tax ditch. This right-of-way is treated as an easement since the underlying lands are owned by private property owner(s) and a tax ditch organization has been granted rights to access the ditch.

There are tax ditches in all three counties in the state, with the majority being in Kent and Sussex Counties. In New Castle and Kent Counties, tax ditch agreements are recorded as normal documents for those counties. In Sussex County, tax ditch agreements are recorded in tax books and are assigned tax book and page numbers.

The online mapping engines for all three counties have layers that show Tax Ditch Segments and Tax Ditch Maximum ROWs. However, it is recommended that the tax ditch easement widths be verified through DNREC's tax ditch mapping database. This information can be found by visiting DNREC's website and clicking on the Division of Watershed Stewardship>Tax Ditches>Delaware Tax Ditch Map. DNREC's database shows the easement widths on both sides of the ditch, if



applicable, specifies where the measurement is from, Centerline (CL) or Top of Bank (TOB), and when identified, gives the name of the tax ditch, and sometimes branches of a tax ditch, all of which should be labeled on the plans.

c. Miscellaneous

Other types of easements that should be included in the research and plan preparation include, but are not limited to: aerial easements; blanket easements; ingress/egress/regress easements; cross access easements; shared-use path easements; drainage easements; agricultural preservation easements; forest land preservation easements; other conservation easements; slope easements; and daylight (sight) easements. These types of easements may be called for in the chain deed(s), shown on a plat, and/or included in the title search. Some of these easements may also be apparent when noting the existing conditions during the field review.

5. File Naming Protocol

For consistency within DelDOT and for all Consultants as well, the following research file naming protocol has been established. This format should be used for all recorded documentation that is saved. All documentation for a project parcel will be combined into a single PDF file for that parcel for upload to ProjectWise. These single PDF files will replace the need for separate parcel folders under the **280_Existing_Property_Rights** folder. Note, when the files are combined into the single PDF file, the file names assigned to the individual files will automatically be created as bookmarks in the PDF. This allows for easy navigation in the combined PDF.

File naming format is as follows:

- Combined PDF File: Tax Parcel Number
 - Note: Assign Parcel ID number in ProjectWise under Document > Properties > Attributes
- Deeds:
 - Deed of Record: DR + Book – Page
 - Example: DR 123-456
 - Example: DR A12-345
 - Instrument Number (now referred to as DR): DR + Instrument Number
 - Example: DR 20200212-0012345
- Wills:
 - Will Record: WR + Book – Page (if applicable)
 - Example: WR 234-567
 - Example: WR 34567



B. Survey

After the parcel and right-of-way research has been performed, and preferably the aforementioned draft property mosaic created, the next step is to obtain field survey of the project area. Note, these tasks can be performed concurrently so as not to delay a project. This includes not only the physical features needed for design (i.e., flexible and rigid surfaces, buildings, structures, drainage, vegetation, etc.), but also physical evidence and property monumentation (i.e. concrete monuments, pins, rebar, etc.) to help resolve the R/W mosaic and property side lines and any features on a property that could potentially be impacted by the project.

1. *Boundary Survey Principles & Law*

The Delaware Board of Professional Surveyors has developed minimum standards regarding topographic and boundary survey that all licensed surveyors in the state of Delaware must adhere to. These standards are defined in the State Code Title 24, Chapter 27. In addition to these standards, DelDOT's Survey Section has put together a guidebook to help with consistency between DelDOT projects.

The DelDOT Survey Guidebook is available on the Design Resource Center, under Survey > Guidelines, and its purpose is to provide guidance and conformity to both in-house and consultant survey crews. It highlights the minimum standards DelDOT requires pertaining to GPS control, traverse, vertical control, field procedures and stakeout. These standards are the minimum DelDOT requires, and the in-house and consultant survey crews are allowed to provide survey at a higher degree of accuracy if they so choose.

The DelDOT Survey Guidebook or State of Delaware Title 24 minimum standards shall be utilized, whichever is more stringent.

2. *Survey Request Requirements*

For in-house projects, when the DelDOT Practitioner submits a survey request to the DelDOT Survey Section, the following should typically be provided with the request:

- Type of project so Survey Section knows the types of features to locate.
- Graphic showing the project area and limits of survey needed, typically an aerial map.
- Current deeds of parcels needing to be resolved in the R/W mosaic. Note, this information may not be available if task is being performed concurrently so as not to delay the project.

- Archived contract plans within the project limits.
- If research has been completed, graphic or draft property mosaic showing where existing monumentation is called for in deeds, plats, and archived plans. This helps the surveyors know where to focus their efforts in locating monuments. Placing the draft mosaic on the graphic should fit close enough for existing monument searches.

For DeIDOT in-house survey requests, the Practitioner should fill out and submit the Survey and GPS Control Request form, located on the DRC, under Survey > Forms.

It is recommended that Consultants follow a similar process.

3. Traverse

Before the survey can be performed, the project control network must be established. The control points shall be set in the field based on DeIDOT's minimum standards, as laid out in the DeIDOT Survey Guidebook.

4. Found Monumentation

Not all monumentation is cited in deeds since many boundary surveys have been performed for other reasons than the transfer of title. Monumentation may have been installed for earlier deeds that are not included with the 60-year title search and not described in the more current deeds. Ensure that any monumentation that is discovered is located, whether called for in the deed or not.

When monumentation is called for in a deed, plot, or archived plans, it is important for that information to be given to the Survey Section so those monuments can be recovered in the field if they still exist.

The found monumentation will help with the placement of the properties in relation to each other. It also helps with establishing the location of the R/W corridor. The more existing monumentation that can be found and located, the better the end result for the R/W mosaic. Monumentation in the backs of the properties should also be located to ensure the R/W is correct and that the side lines are correct. Survey crews should also locate evidence of possession (i.e., fences) during their search for monumentation. Pictures and descriptions of what was found, including pipe sizes, color of cap and what is written on the cap, should be provided to the Practitioner. This is important information to have as different monuments carry different priorities when resolving the properties and right-of-way.



5. *Locate Existing Features with Potential Impacts*

It is also important for Survey to locate all existing topographic features on a property that may potentially be impacted by the project. These features are important for the Appraisal Section when they are making their valuations on the impacts to a property. For example, septic systems, wells, and parking stalls in a parking lot should all be located, in addition to all buildings, landscaping and other man-made features.

a. Septic Systems

It is important to locate the septic system on a property, if present, and it should be shown and identified on the plans. Impacts to septic systems should be minimized/avoided, if possible. When any element of a septic system is impacted by a DelDOT project, the Acquisitions, Relocations and Settlements Section will work with the Practitioner to determine the extent of the impacts and the best path forward for the acquisition process.

Minor impacts could mean relocating the drain field. Major impacts could mean a whole septic system redesign and installation, or if that is not possible because of site constraints, then a total acquisition of the property and relocation of residents or businesses may be necessary. There could also be the potential to tie into existing public sewer facilities in the area if they exist. Major impacts like this cost time and money for DelDOT and should be avoided when possible, so as not to delay the project.

Existing septic permits can be obtained by going to DNREC's website under the Division of Water>Septic System Information. From there, the Practitioner can go to the Delaware Open Data website to search the database.

Click on 'View Data', then search by tax map parcel number in 'Find in this Dataset'. If there are any permits on file for the parcel, it will populate. Then scroll all the way to the right of the screen and click on each URL. On the left-hand side of the next page, if any documents have been scanned for that permit for the parcel, they will show up under 'Documents'. They can then be viewed and downloaded. A graphic, step-by-step process can be found on the DRC.

Note that there are limitations to the information available, notably if the septic system has been in place for a long period of time. Field reviews and discussions with the property owners, in conjunction with representatives from the DelDOT Right-of-Way Section, may be needed. Note that even if there are public sewer facilities in the area, all properties or facilities on a property may not be connected to it.

b. Wells

It is important to locate any wells on a property, if present, and they should be shown and identified on the plans. Electric power to the well and water lines from the well to buildings or other facilities, such as irrigation devices, should be identified, if possible. Impacts to wells should be avoided, if possible. When a well is impacted by a DeIDOT project, the Acquisitions, Relocations and Settlements Section will work with the Practitioner to determine the extent of the impacts and the best path forward for the acquisition process.

Impacts to a well could mean relocating the well, depending on site constraints for the property, or installing a new water hookup if there is currently water service in the area. Wells cannot be located within proposed R/W. The Practitioner should consult with Team Support to determine if a well can be located within a proposed PE.

Existing well permits can be obtained from DNREC's database by going to:

[Well Permits | Delaware Open Data Portal](#)

DNREC also has Well Viewer at the following site:

[DNREC Well Viewer \(arcgis.com\)](#)

Directions for accessing the well permits are the same as the septic permits. Click on 'View Data', then search by tax map parcel number in 'Find in this Dataset'. If there are any permits on file for the parcel, it will populate. Then scroll all the way to the right of the screen and click on each URL. On the left-hand side of the next page, if any documents have been scanned for that permit for the parcel, they will show up under 'Documents'. They can then be viewed and downloaded.

For residential and commercial properties, there may be both potable and landscape irrigation wells. Agricultural lands may have crop irrigation wells. All features associated with these systems should be located and impacts avoided, if possible.

c. Parking Stalls

It is important to locate not only the limits of the parking lot on a property, but also the parking stalls, curbs, islands, circulation markings, walkways, parking bumpers, etc., within the project limits. Designated handicapped parking stalls and their associated signs and markings should be identified. If a property loses parking stalls as part of a DeIDOT project, the property owner may receive compensation depending on zoning requirements. Also, a certain number of parking spots are required by code, so if that minimum number can no longer be provided, then the property owner may need to be relocated, adding time and cost to the project. Parking, circulation, and access must also be considered for any temporary and permanent conditions of the project; therefore, information on these amenities on a property, but outside of the immediate project limits, may be required.



C. Resolve Right-of-Way Mosaic

Note: Steps C, D and E may be performed concurrently or in the order best suited to the Practitioner.

The metes and bounds in the deeds and plats for each parcel within the project limits should be plotted in the mosaic file. These boundaries can then be pieced together based on the common property lines and placed/rotated on the found monumentation, allowing any gaps and/or overlaps to be resolved, as set forth in the practice and principles of Land Surveying in the State of Delaware (24 Del. C., Chapter 27). Checks must also be made to ensure the property works within itself and adjoining parcels. It is also recommended that the most recent aerials be referenced into the design file to visualize the Mosaic's placement and rotation. Note, when using Bentley Products, the current best practice is to utilize the Bing Maps add-in directly inside the Bentley software.

Any discrepancies with the called for bearings and/or distances, closure errors or issues with the monumentation should be noted, along with found monumentation that was not held. Details on this information should be included in the Project Survey Report.

D. Establish Existing Right-of-Way Baseline

The existing Right-of-Way baseline needs to be established. Generally, this process involves recreating the most pertinent baseline(s) from the archived plans, including the geometry and stationing, and placing it on a best fit of the baseline of the road, as originally constructed and any called for R/W monumentation within the archived plans. It is also recommended to reference the most recent aerial photography into the design file as a general guide in the placement and rotation of the baseline. Note, when using Bentley Products, the current best practice is to utilize the Bing Maps add-in directly inside the Bentley software.

In some instances, there are multiple existing R/W baselines that have been utilized to purchase Right-of-Way and will need to be recreated from the different archived contracts. If requested, the limits of the various baselines and their sources (i.e., historic contract) should be noted.

It should also be noted that for roadways that only have dirt road projects as archived plans, the R/W baseline should be established as a best fit of found improvements called for in the archived plans, the centerline of the road as originally constructed and acquisition deeds prior to any improvements, including curves wherever necessary. The stationing from the dirt road projects should not be used (typically given in miles not feet). Note, permanent easements for dirt road projects only provide the offset from the centerline and the adjoining owners. Daylight

easements are usually separate deeds. None of these documents typically include full descriptions of the acquisitions.

The Practitioner can use information contained in archived survey field books in the reestablishment of the baselines if it is available.

Any deviations from and/or discrepancies with the baselines on the archived plans should be noted in the Project Survey Report.

E. Resolve Existing Right-of-Way

While the existing Right-of-Way baseline and property boundaries are being established, the existing Right-of-Way corridor needs to be established. Using the archived plans and as-acquired deeds, the existing R/W baseline should be offset the distances called for at the stations specified to create the R/W corridor. Generally, these offsets should be even numbered distances, unless otherwise specified. Also, the existing R/W corridor should end up being a best fit of the found monumentation, to include archived plan called for monuments, and hit most evidence relatively well.

Any found evidence that was not held when establishing the existing R/W corridor should be noted in the Project Survey Report.

Aside from the existing R/W being established by DeIDOT archived contracts, it could also have been established by King's roads/highways, Statute Law or 20-Year Law, as discussed below. The difference between existing R/W by Permanent Easement and existing R/W in FEE is also discussed below. Other aspects of existing R/W, including denial of access, R/W dedications, R/W reservations, railroad crossings, water rights and conservation easements are discussed below as well.

1. Existing Right-of-Way by Permanent Easement

Right-of-Way by Permanent Easement defines the existing R/W line as established by a permanent easement granted to the State. One source of these conveyances was the Dirt Roads Program, which began in the 1950's and has since ended. In essence, dirt roads typically ran along property lines and were commonly used by the public, so the State negotiated with property owners to pave and maintain the dirt road in exchange for a permanent easement. There was no geometry established, and the plans provided project limits and a typical section. Permanent Easements were recorded for both daylight corners and the corridor, which specified an offset from the road "as constructed". The result of this program was newly paved roads

within the R/W established by permanent easement. Figure 2-3 is an example of a Permanent Easement on a dirt road project.

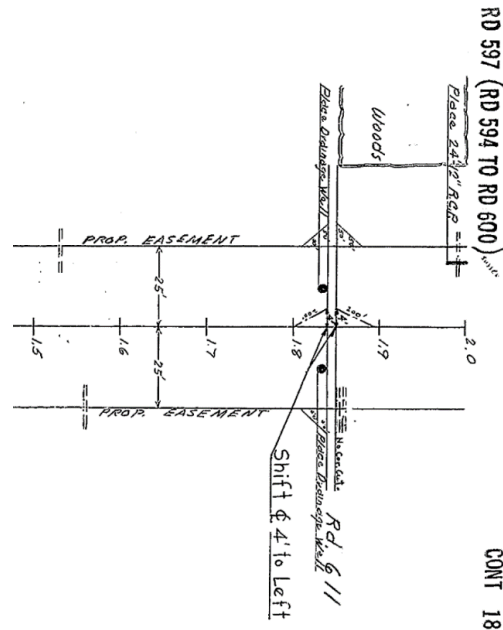


Figure 2-3 Easement Purchased for Dirt Road Project

Easements such as King’s roads and highways, Statute Law, 20-year Law, and Dirt Road Easements, are shown as Right of Way by Permanent Easement (RW/PE) on the Right-of-Way Plans.

a. King’s Roads/Highways

With the arrival of settlers to Delaware, the Dutch and English Kings called for the construction of roads, often called “King’s Roads”, although no sufficient proof appeared that they were laid out with legal authority. However, legislative papers (Court of General Sessions) in the 1700’s enacted by the King’s representatives state that roads and highways be established in all three counties in Delaware for safe and convenient travel. These legislative papers also established the right-of-way width for the various roads. It is rare that any of these original rights-of-way remain as the roads in question have been widened, realigned and reconstructed since their inception.

The following link can be used to view the Laws of the State of Delaware, where many of the acts that created widths for the first roads in Delaware exist: [Laws of the State of Delaware: From the Fourteenth Day of October, One ... - Delaware - Google Books](#)

b. Statute Law

Legislation by the Levy Courts after the founding of the United States of America established certain public roads, highways, and bridges in the three counties in Delaware. This legislation also established the right-of-way for these facilities. Generally, the three counties maintained twenty-five foot to sixty foot widths on all public roads. On July 1, 1935, by legislation, DelDOT was given absolute care, management, and control of all county roads, highways, and bridges, and therefore the corresponding rights-of-way. It should be noted that these legislative acts established DelDOT's rights to the use of the land (i.e., an easement) and not ownership in FEE Simple of the rights-of-way.

c. 20-Year Law

Delaware Code [\[17 Del. C. §509\]](#) specifies that all public roads, causeways, and bridges that have been both in use and maintained by the State of Delaware for at least 20 years are considered public roads. The usage by the public for 20 years or more alone does not constitute the road as public, it must have also been maintained by the State for 20 years or more. It should be noted that this provision for public use constitutes a permanent easement and does not change the underlying FEE Simple ownership of the rights-of-way.

2. Existing Right-of-Way in FEE

Existing Right-of-Way in FEE is land or property that has been acquired by the Department, including the underlying FEE simple ownership. The Department has clear ownership of this land. This ownership is typically recorded in some type of document in the respective County's Recorder of Deeds.

3. Denial of Access

A denial of access is a section of a property that is denied direct access to a State maintained road. It is delineated with a "DA" linestyle with regards to the plans, unless otherwise specified. When a denial of access is established, it can coincide with the Right-of-Way or can be a separate line within the Right-of-Way depending on the project needs. A denial of access should not be eliminated without concurrence from DelDOT, and possibly FHWA.



4. Right-of-Way Dedications

A Right-of-Way Dedication is land that is granted to the Department as right-of-way, but the private property owner may still retain the underlying FEE simple ownership. Right-of-way dedications should be treated as easements with regards to the plans unless otherwise specified, as discussed below.

a. Recorded Plats vs Recorded Deeds

A Right-of-Way Dedication shown on a recorded plat should be treated as an existing easement if the dedication note or other notes on the plat do not indicate the intent of the transfer of the land to the State of Delaware is in FEE. If a strip of land is noted to be dedicated within a recorded deed, then the Grantor is aware of this transfer and the intent is that it is in FEE. The existing right-of-way would then be expanded to include this area. The Practitioner may need to consult with the Team Support Section to determine the intent of the dedication. If further clarification is required, the Team Support Section will consult with DelDOT Legal. This applies to both in-house and consultant projects.

Each County may or may not treat dedications on plats as right-of-way in FEE. Regardless, all R/W dedications should be evaluated on a case-by-case situation. Research is performed to determine intent through deed research, tax records, and conversations with the County and Team Support, as needed.

b. Development Coordination

DelDOT's Development Coordination Section has established regulations on the dedications of land in Section 3.2.5.2 of the Development Coordination Manual. The Practitioner is to follow the guidance in the DelDOT Development Coordination Manual, which can be found on the DelDOT website under Business/Doing Business tab in the Development Coordination Portal.

5. Right-of-Way Reservations

A Right-of-Way Reservation is a commitment by the Department for future acquisition from an owner of any interest in a property, in exchange for an agreement by the owner to refrain from further developing the property within the reserved or designated area. Right-of-way reservations should be treated as easements with regards to the plans, with reference to the appropriate supporting document. These Right-of-Way Reservation areas may be outside of other existing Rights-of-Way by Permanent Easement or existing Rights-of-Way by FEE.

R/W reservations typically occur through the development coordination process. R/W reservations are not compensated; however, they are considered by the Appraisal Section during the appraisal process.

6. Railroad Crossings

Typically, there is an agreement between the railroad and the State that dictates the conditions of the State having a road crossing through the railroad's property. The railroad property boundaries are normally shown as existing property lines and the State's existing R/W lines typically stop at the railroad property on either side of the crossing. See the following example in Figure 2-4.

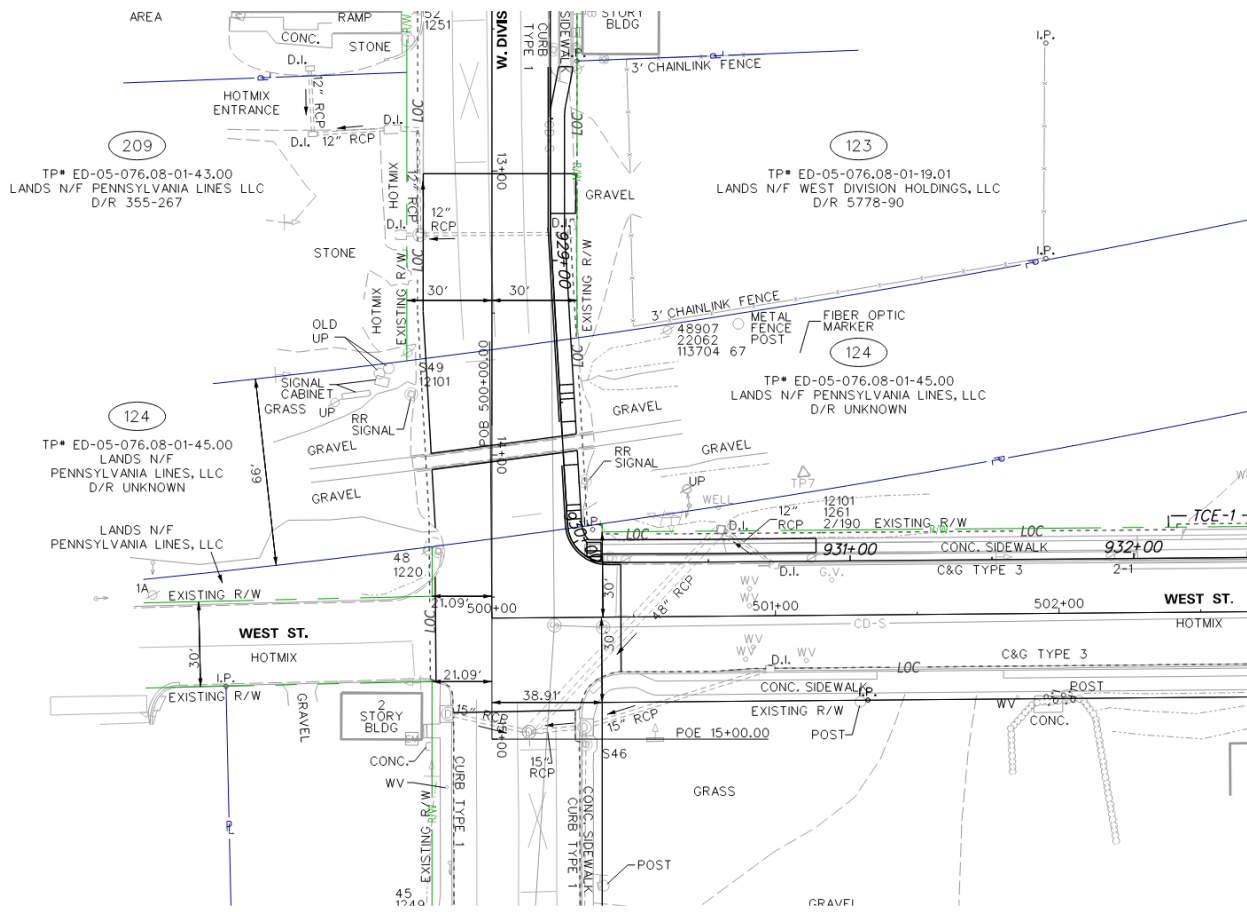


Figure 2-4 Railroad Crossing Example

At some road crossings of railroad property, DelDOT acquired Permanent Easements. These should be shown as such, and the appropriate documentation identified. See the following example in Figure 2-5.

8. Conservation Easements within Existing Right-of-Way

A conservation easement imposes limitations on an area for the purpose of preserving the historical, architectural, archaeological, or cultural aspects of the property. This also includes, but is not limited to, protecting natural, scenic, or open-space values of the property, assuring the availability for agricultural, forest, recreational or open-space use, protecting natural resources, fish and wildlife habitat, rare species, and natural communities, and maintaining or enhancing air or water quality.

If an existing conservation easement is found during the research for a project, it should be included in the R/W mosaic as an existing easement and noted as such.

F. Existing Government Boundary Lines

Existing Government boundary lines, such as Hundred, Town, County and/or State, should be included in the R/W mosaic when the project limits fall along these boundary lines. Any gaps and/or overlaps between the government boundary(ies) and the parcel boundaries should be discussed in the Project Survey Report. The State boundary must be shown to ensure that acquisitions are being performed within the State. Project limits and acquisitions outside of Delaware will require agreements with the respective neighboring state.

1. Municipality

If some or all the project limits are located within a municipality, the boundary should be included in the R/W mosaic to be shown on the plans. It should be shown in the project location map on the title sheet and on the corresponding plan sheets. This should also be noted with the plan submission. Identifying this is important because a Town Agreement or notification will need to be prepared for maintenance responsibilities for the project. The municipal boundary may affect the valuation of a property by the Appraisal Section.

2. County

If the project limits are split between counties, the county boundary lines should be included on the R/W mosaic and title sheet of the plans. This should also be noted with the plan submission. This is important for valuation of properties by the Appraisal Section.



3. State

If the project limits or involved parcels are adjacent and/or include the State boundary, it should be included on the R/W mosaic, title sheet and on the plan sheet(s). If the deed boundaries of a project parcel that requires acquisition extend across a state line, the total area of the parcel and the area of the parcel within Delaware should be shown. If the area within Delaware is not identified in the deed or other recorded document, then the assessed area can be used.

The relevant state line monuments should be pulled from the NGS website, located in the field, and plotted and incorporated into the R/W mosaic, relative to the project control network.

G. Project Survey Report

After the R/W mosaic has been fully resolved, including the found monumentation, existing R/W, existing property boundaries and existing easements, the Project Survey Report should be prepared by the Practitioner for consultant projects. This report should include all background information on how the R/W mosaic was established. Detailed notes should be taken during the creation of the R/W mosaic to aid in the preparation of the Project Survey Report. The historic contracts that were used to re-establish the existing R/W baseline and the existing R/W corridor should be discussed. The process for how each project parcel was resolved, including the found monumentation that was held and any closure issues, should also be discussed. Any existing easements for each project parcel should also be noted. An example of a Project Survey Report and general guidance has been included on the DRC.

The Project Survey Report should be included with the first submission for the project (survey or preliminary). The Project Survey Report helps to streamline the review of the existing R/W mosaic. Without this document, the reviewer will have to piece together what was done and may not be aware of what decisions, determinations, and judgment calls were made by the Practitioner to determine the existing R/W mosaic. This may result in longer review times and more comments than necessary. The Project Survey Report can be a ready source of information if any questions arise later during the acquisition process, saving time since the Practitioner would not have to research the decision-making process.