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2300 COST ESTIMATING PROCEDURES FOR ACQUIRING RIGHTS OF WAY

2301 General

During the project development process (PDP), cost estimates for the acquisition of rights of way and consideration for utility reimbursements are required for project planning purposes and to encumber adequate funds. These cost estimates may be prepared by appropriate staff from any of ODOT's District or Regional Real Estate Offices, or by fee consultants.

R/W cost estimates are required for Major Projects, Minor Projects and projects identified as Jobs and Progress Projects. No R/W is acquired on Minimal Projects; however, utility cost estimates may be required.

2302 Cost Estimating Procedures for Major Projects

2302.01 General

- A. The PDP for Major Projects requires 14 steps. R/W cost estimates are required for 9 of these steps. The steps and cost estimating procedures are detailed in a comparison matrix included in this manual section (See Attachment A).

All estimates are to reflect current value and must be forecast into the future to estimate R/W costs as of the date real estate acquisition will occur. The time adjustment is to be based on market derived appreciation rates, or in the event these rates cannot be determined, the average per cent of change in CPI (Consumers Price Index) over the preceding 5 years may be used.

Generally, the early stages of the PDP will require cost estimates based on tax roll information as multiple alignments are being considered. Tax roll data has the advantage of being easy and fast to obtain, thereby reducing the skill level necessary to derive the costs and incurring a savings in labor cost. However, once the preferred alignment is selected, cost estimates will be based on market sales.

Cost estimates are prepared on the PDP R/W Cost Estimator (See Attachment B). The gross acreage is to be categorized into property use type (i.e. agricultural, commercial, residential). The District Office will input the cost estimates reported on the Estimator into ELLIS.

COST ESTIMATING PROCEDURES FOR ACQUIRING RIGHTS OF WAY

B. STEP 1

Original Programming Estimate; Work with Stakeholders to Understand Problems; Needs and Goals; Define the Study Area

COST ESTIMATE REQUIREMENTS

There are no plans at this stage, but what is known is the general location of the project.

In order to estimate R/W costs, the consultant or District must have marked the general project area on a map so that whomever prepares the cost estimate knows the general boundaries and is in the right area of the county, city or geographical area.

The cost estimate is to consider the average land value in the immediate area of the project. Land value and structures/buildings within the project corridor will be based on the assessed value per the County Auditor records.

The county auditor's tax valuations will be used to compile the cost estimate. The District Project Manager must provide guidance to the cost estimator regarding how property is to be considered (land only or whole take including structures). Guidance must be provided to alert the reader if each property was considered as a whole taking (Land and Structures) or as land only. This information must be clearly stated in the cost estimate.

The person preparing the cost estimate should be provided an anticipated acquisition start date so that they can forecast the estimate into the future to help anticipate the impact of inflation.

C. STEP 2

Conduct Research and Technical Studies; The purpose of this step is to provide a summary of possible unusual impacts based on project description and field review. Identification of possible impacts to major utility franchises and potential problem areas that the designer should attempt to avoid are part of this step.

COST ESTIMATE REQUIREMENTS

No acquisition cost estimates and or utility reimbursement estimates are needed at this step.

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D. STEP 3

Identify and evaluate conceptual alternative solutions. The analysis and reasoning for the alternatives is documented.

COST ESTIMATE REQUIREMENTS

Update the cost estimate prepared at Step 1.

Cost estimates are to be derived from tax roll data.

E. STEP 4

At Step 4 of the PDP the Strategic Plan is developed. Based on the information from the PDP for Major Projects, the following information is available at Step 4:

- Recommended design concept and scope
- Recommended funding, timetable and delivery strategy
- Revised purpose and need
- Documentation on the decision making process and recommendations
- Determination of NEPA requirements
- Development of final project strategy plan
- Documentation that seeks MPO concurrence/MIS approval

Step 4 does not provide any cross sections, mapping, aerials, construction limits, tax maps, gross acreage information or other items that would be helpful in estimating R/W costs. At this point, the best alternative may be to obtain a street map, tax map or aerial photograph upon which has been drawn multiple corridor alternatives that may be very wide (up to 2,000 feet wide) representing the alternatives being considered.

COST ESTIMATE REQUIREMENTS

Update the cost estimates from Step 3. Tax roll information is to be used.

F. STEP 5

Develop the Preliminary Corridor/Alignment. During this stage multiple corridors are investigated. A large corridor width is established based on general site topography. No property ownership information is gathered. Corridors are plotted on aerial mapping.

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COST ESTIMATE REQUIREMENTS

The prior cost estimate prepared during Step 4 of the Project Development Process (PDP) is to be updated with the additional information made available at Step 5.

At this step, the gross acreage of each corridor is known and the approximate number of relocations are known. The cost estimate will consider the assessed value of land and structures/buildings within the project corridor.

Relocation costs are to be considered at this step. Relocation units include owner-occupants of single family residences, tenant-occupants of single family units and business/farms. The following cost estimates are noted as of the year 2005. Those individuals estimating relocation costs are to contact the Regional Office of Real Estate for current relocation cost estimates.

Owner-occupants of single family residences:

A base factor of \$22,500 is estimated. To this, a move cost and labor component are added. The total relocation cost is \$40,000.

This estimate assumes an adequate housing market exists. Factors that will increase the estimate are periods of high mortgage interest rates, an inadequate housing market (i.e. housing shortages) and unique homes that have no market comparisons.

Tenant-occupants of single family units:

A base estimate of \$5,250 is utilized. To this, a move cost and labor component are added. The total relocation cost is \$11,750.

Business/farms:

When farm or business operations are significantly impacted a cost estimate of \$25,000 is to be used.

G. STEP 6

Develop feasible alternative alignments. Limited numbers of corridors are studied in greater detail than in Step 5 of the major process. Conceptual construction limits are developed based on large cross section intervals. Tax map information is plotted on aerial mapping. Existing roadway rights of way are

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determined. Possible landlocked parcels are identified. Conceptual construction limits are determined.

COST ESTIMATE REQUIREMENTS

This estimate is to update the cost estimate done in Step 5 and will be based on Auditor Records. This estimate will also consider the part taken, damages to the residue, relocation and labor costs to perform the acquisition function.

The part taken considers land and improvements within corridor limits that are to be established for this cost estimate. Improvements that will be taken are also to be considered and the cost estimate is based on the assessed value per the Auditor records.

Damage to a residue is the diminution of value to the portion of a property not taken for the project. The damage estimate is to be based on the past experience of a qualified acquisition expert and these costs should be related to past projects from the general geographical area. A qualified expert shall be anyone having adequate appraisal knowledge of highest and best use and ODOT appraisal procedures to include local appraisers, local Realtors, staff and consultants.

Relocation cost estimates are updated from the previous cost estimate prepared for Step 5.

The labor cost estimate can be estimated based on information obtained from the District Office, the Region Real Estate Office or from the Contracting Section of Central Office Real Estate. The PDP Cost Estimator template (See Attachment B) provides some estimated labor cost averages, but local costs may be taken into account.

H. STEP 7

Identify the preferred alignment. A preferred alignment is investigated in greater detail than in the Alternative Alignment Analysis Study. Topographical ground survey features are collected. Utilities are shown including depths. Possible railroad acquisitions are identified. Preliminary Plan and Profile sheets are begun. Preliminary construction limits are developed based on normal cross section intervals with preliminary flow line information.

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COST ESTIMATE REQUIREMENTS

The cost estimate is updated from Step 6 except that tax roll data is no longer used for land value calculations; however, structure values may still be obtained from the tax rolls.

Additionally, the approximate location of the center line and the gross acreage is known for this cost estimate. The gross acreage is to be categorized into property use type (i.e. agricultural, commercial, residential). Based on the property use, the cost estimate is to be developed based on a Sales Data Book as described in the ODOT- Appraisal 122 Course Manual. (This training course is available through the ODOT - Office of Real Estate.)

The Sales Data Book lists sale data sheets representing the property use within the gross acreage area and may be prepared by anyone having adequate appraisal knowledge of highest and best use and ODOT appraisal procedures to include local appraisers, local Realtors, staff and consultants. The data should be gathered by a local real estate expert / appraiser to keep costs lower while providing current local data.

The comparable sale data sheets that populate the data book are to comply with Section 4205.09 of the ODOT- Office of Real Estate Policies & Procedures Manual. The data books should identify the townships where the sales data should be researched first (vicinity of the projects) and then allow the research to expand outward to include the entire county. Sales must reflect the current market and should not be older than three years without a very good explanation stating why older sales are reflective of the current market. Sales data must be vacant land only. Structures that will obviously be taken are to have a cost based on the assessed value per the Auditor records.

All sales data included in the book should be arrayed in a grid format that lists property type followed by size and unit value. An example is shown below:

Property Type	Size	Unit of Value
Agricultural	100 Acres	\$3,000/acre
Residential	5 acres	\$6,000/acre
Commercial	1 acre	\$20,000/acre

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The appropriate units of value are then derived from sales reported in the Sales Data Book and applied to the gross acreage in the corridor. Cost estimates for relocation and labor, which must be updated, should be added to this information. Estimates for utility reimbursements may be obtained from the consultant or District Utility Coordinator.

I. STEP 8

Prepare the environmental clearance and develop Stage 1 Plans. Title and deed research are conducted. Property pins are located. Property line locations are determined. Right of way encroachments are identified. Removal items are identified. Total take parcels are identified. Relocations are identified. Plan and Profile and Cross Section Sheets are to show information pertinent to right of way acquisition and utility reimbursement. Preliminary Plan and Profile Sheets are developed. Utility comments are requested.

COST ESTIMATE REQUIREMENTS

The previous cost estimates prepared in Step 7 may be updated for time and market conditions and for any other modifications as needed.

J. STEP 9

The purpose of this step is to develop the Stage 2 Design. This step incorporates the previous review comments into the plans. Also considered is the disposition of miscellaneous items (e.g., mailboxes are added). At this phase, the preliminary Right-of-Way plans are available and should be used to refine the cost estimate. Based on the comments made at the beginning of this step, the Stage 2 Detailed Design is submitted.

COST ESTIMATE REQUIREMENTS

The previous cost estimate in Step 8 is updated for time, market conditions and any other modifications as needed. The Preliminary Right-of-Way plans are available and should be used to modify this cost estimate. At this step, the PDP Cost Estimator template is replaced by the Workplan (RE 101) and the Workplan will become the cost estimating tool.

The RE-101/Workplan (See Attachment C) should be completed at this stage by a person competent to estimate damages and to develop a time line for Acquisition. The Workplan will usually be completed by the Region or its hired R/W acquisition consultant. The Relocation Assistance Program should be given due

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consideration in estimating the time lines for R/W Acquisition.

The work plan is to consider all aspects of acquisition based on the these plans. When prepared properly, it considers the time period needed to complete the acquisition process which is determined by the complexity of the takings as well as the nature of the property and ownerships that are to be encountered. The type of appraisal format is decided based on the complexity of the take and the adverse impact of the taking to the residue property. The complexity and time period to perform the relocation process is finalized based on the pre- acquisition survey that was completed in Step 8. The time period and complexity of the negotiation process is determined as well as an estimate of the time needed for the appropriation process. This workplan may be prepared by the ODOT Real Estate Region or their R/W consultant. If the workplan is prepared by a consultant the Region Real Estate Office will review it for accuracy and completeness.

Based on this workplan, the Region Real Estate Office will decide if it has in-house capacity to acquire the project, or if all or parts of the project will need to be outsourced. The time and cost to ODOT for clearing utilities is also considered.

K. STEP 10

Right of Way Plan Approval, Beginning of the Acquisition Process and Tracings. At this submission the right of plans are based on much better information due to the Stage 2 submittal. As a result, the acquisition of rights of way is to begin by the District giving the ODOT Region Office acquisition authority.

COST ESTIMATE REQUIREMENTS

Plans available at this step include completed right of way plans and Stage 2 construction plans that include fill, grade, cuts, drainage, guardrails, signalization, etc. The cost estimate requires the Workplan to be updated from Step 9 utilizing the most recent information that is now available. Additionally, encumbrances are established for acquisition and labor, as applicable.

L. STEP 11 through STEP 14

No cost estimates are required for these steps.

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2303 Estimating Procedures for Minor Projects

2303.01 General

- A. The PDP for Minor Projects requires 10 steps and R/W cost estimates are required for six of these steps.

As referenced in Section 2301.01 (A), cost estimates are to be forecast to reflect the acquisition cost at the time the real estate acquisition will occur, will be based on tax roll information early in the PDP and will be based on market data later in the PDP.

- B. STEP 1

The Original Programming Estimate

COST ESTIMATE REQUIREMENTS

The cost estimate requirements are the same as Step 1 for Major Projects and will be based on tax roll data.

- C. STEP 2

At this step, the gross acreage of each corridor is known. The existing alignment is usually preferred as these projects are not anticipated to utilize a new alignment but instead will typically improve the current corridor.

COST ESTIMATE REQUIREMENTS

Update Cost Estimates from Step 1. The cost estimate will consider the assessed value of land and structures/buildings within the project corridor.

- D. STEP 3

Perform Environmental Analysis and Begin Preliminary Engineering. At this Step there is an investigation of one alternative or a limited number of alternatives, tax map information is plotted and existing roadway R/W determined. There is identification of possible landlocked parcels and possible total take parcels and relocation parcels. Topographical ground survey information is collected. Utilities are shown, including depths. There is an identification of possible railroad acquisition parcels. Preliminary construction

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limits are developed based on normal cross section intervals with preliminary flow line information. Preliminary Plan and Profile Sheets are developed and utility comments are requested.

COST ESTIMATE REQUIREMENTS

The Step 1 cost estimate is to be updated utilizing additional information made available at this step. This additional information includes the gross acreage of the project and the approximate number of known relocations. The cost estimate is to consider the assessed value of land and structures based on Auditor records.

Relocation cost estimates are also required. The estimated cost factors to be used are discussed in Step 5 of the Major Project process.

The PDP has been developed to allow for flexibility in implementation. If the project manager finds it necessary or advantageous to require an evaluation of potential real estate related damages at Step 3 of the Minor PDP, (something that would normally occur at Step 4) the following must apply:

Significant modifications to the scope for plan development must be acknowledged and accounted for by the project manager. This modified procedure must only be initiated on minor projects where R/W acquisition costs are likely to have a significant impact on scope, schedule or budget. R/W Cost Estimating Procedures for Acquiring Rights of Way, Section 2301.02(D) may be modified to require estimation of damages for projects which:

- include more than one design alternative,
- are located in an urban area, or
- involve relocations.

This permitted modification will significantly impact plan development costs and R/W estimating costs due to the very nature of damages. Damages are a lessening in the value of a remainder or residue of property acquired for a public improvement and which the damage is caused by the public improvement or the acquisition. In order to estimate damages with any degree of accuracy, the person(s) performing the cost estimate will need the drawings or aerial mapping to include

- Property lines identified
- Property ownerships identified
- approximate elevations of cuts and fills along the alignment
- identification of access points on residue properties.

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- the plan and profile and cross section sheets must show information pertinent to right of way acquisition and utility reimbursement.

The part taken considers land and improvements within corridor limits that are to be established for this cost estimate. Improvements that will be taken are also to be considered and the cost estimate is based on the assessed value per the Auditor records.

Damage to a residue is the diminution of value to the portion of a property not taken for the project. The damage estimate is to be based on the past experience of a qualified acquisition expert and these costs should be related to past projects from the general geographical area. A qualified expert shall be anyone having adequate appraisal knowledge of highest and best use and ODOT appraisal procedures to include local appraisers, local Realtors, staff and consultants.

E. STEP 4

Prepare the Environmental Clearance and Develop the Stage 1 Design. At this Step the title and deed are researched, property pins are located, property line locations are determined, R/W encroachments and removal items are identified. Also identified are total take parcels and relocation parcels. The Plan and Profile and Cross section Sheets must show information pertinent to right of way acquisition and utility reimbursement.

COST ESTIMATE REQUIREMENTS

The cost estimate from Step 3 is updated and is to include the right-of-way to be acquired, relocation, labor costs and utility reimbursement. Average labor costs are pre-programmed into the PDP Cost Estimator, but local labor costs may supercede if known.

The cost estimate is not based on tax roll data, but is now derived from market data as presented in a Sales Data Book. The Sales Data Book process is explained in Step 7 of Major Projects. The relocation cost is to be based on data collected during the relocation pre acquisition survey. This survey identifies the complexity of the relocation parcels and requires an on-site visit by an experienced relocation agent to ascertain probable relocation costs and time requirements. Pre-Acquisition Surveys may only be completed by individuals pre-qualified by ODOT to work in the Relocation Assistance Program.

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F. STEP 5

Develop Stage 2 Design, Preliminary Right of Way Plan Submission and Stage 2 Detailed Design Submission. The previous review comments are incorporated and the disposition of miscellaneous item such as mailboxes are added. At the end of this step is the Stage 2 Detailed Design Submission.

COST ESTIMATE REQUIREMENTS

The previous cost estimates prepared in Step 4 is updated for time, market conditions and any other modifications as needed.

The form RE 101 Project Workplan is completed at this stage by a person competent to estimate damages and to develop a time line for Acquisition. This process is discussed in Step 9 of Major Projects. The Relocation Assistance Program should be given due consideration in estimating the time lines for R/W Acquisition.

G. STEP 6

Complete the Right of Way Plan and Begin Acquisition. The final right of way tracings are submitted, environmental mitigation begins and utility relocation begins.

COST ESTIMATE REQUIREMENTS

At this step, authorization to acquire rights of way should have been given by the District. A right-of-way workplan based upon the final R/W Plans is to be updated for the active acquisition process. The workplan process is described in Step 9 of the Major Projects process. The cost estimate is needed for right-of-way to be acquired, relocation, labor costs and utility reimbursement. Average labor costs are pre-programed into the PDP Cost Estimator, but local labor costs may supercede if known.

Also at this step, R/W encumbrances will be established for acquisition and labor, as applicable. These encumbrances will be based on the Project Workplan estimates.

H. STEP 7 through STEP 10

There are no cost estimates associated with acquisition of right-of-way at these steps.

COST ESTIMATING PROCEDURES FOR ACQUIRING RIGHTS OF WAY

2304 Addenda

R/W Cost Estimates for the PDP Comparison Matrix

Major PDP	Minor PDP
<p>Step 1: In order to estimate R/W costs, the consultant or District must have marked the general project area on a map so that whomever prepares the cost estimate knows the general boundaries and is in the right area of the county, city or geographical area.</p> <p>The cost estimate is to consider the average land value in the immediate area of the project. Land value and structures/buildings within the project corridor will be based on the assessed value per the County Auditor records.</p> <p>The county auditor's tax valuations will be used to compile the cost estimate. The District Project Manager must provide guidance to the cost estimator regarding how property is to be considered (land only or whole take including structures). Guidance must be provided to alert the reader if each property was considered as a whole taking (Land and Structures) or as land only. This information must be clearly stated in the cost estimate.</p> <p>The person preparing the cost estimate should be provided an anticipated acquisition start date so that they can forecast the estimate into the future to help anticipate the impact of inflation.</p>	<p>Step 1: The cost estimate requirements are the same as Step 1 for Major Projects and will be based on tax roll data.</p>
<p>Step 2: No acquisition cost estimate for right of way is required.</p>	<p>Step 2: No acquisition cost estimate for right of way is required.</p>
<p>Step 3: Update the cost estimate prepared at Step 1. Cost estimates are to be derived from tax roll data.</p>	<p>Step 3: The Step 1 cost estimate is to be updated utilizing additional information made available at this step. This additional information includes the gross acreage of the project and the approximate number of known relocations. The cost estimate is to consider the assessed value of land and structures based on Auditor records.</p> <p>Relocation cost estimates are also required. The estimated cost factors to be used are discussed in Step 5 of the Major Project process.</p>

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<p>Step 4: Update the cost estimates from Step 3. Tax roll information is to be used.</p>	<p>Step 4: The cost estimate from Step 3 is updated and is to include the right-of-way to be acquired, relocation, labor costs and utility reimbursement. Average labor costs are pre-programed into the PDP Cost Estimator, but local labor costs may supercede if known.</p> <p>The cost estimate is not based on tax roll data, but is now derived from market data as presented in a Sales Data Book. The Sales Data Book process is explained in Step 7 of Major Projects.</p> <p>The relocation cost is to be based on data collected during the relocation pre-acquisition survey. This survey identifies the complexity of the relocation parcels and requires an on-site visit by an experienced relocation agent to ascertain probable relocation costs and time requirements. Pre-Acquisition Surveys may only be completed by individuals pre-qualified by ODOT to work in the Relocation Assistance Program.</p>
<p>Step 5: The prior cost estimate prepared during Step 4 of the Plan Development Process (PDP) is to be updated with the additional information made available at Step 5.</p> <p>At this step, the gross acreage of each corridor is known and the approximate number of relocations are known. The cost estimate will consider the assessed value of land and structures/buildings within the project corridor.</p> <p>Relocation costs are to be considered at this step. Relocation units include owner-occupants of single family residences, tenant-occupants of single family units and business/farms. Those individuals estimating relocation costs are to contact the Regional Office of Real Estate for current relocation cost estimates.</p>	<p>Step 5: The previous cost estimate prepared in Step 4 is updated for time, market conditions and any other modifications as needed.</p> <p>The form RE 101 Project Workplan is completed at this stage by a person competent to estimate damages and to develop a time line for Acquisition. This process is discussed in Step 9 of Major Projects. The Relocation Assistance Program should be given due consideration in estimating the time lines for R/W Acquisition.</p>

COST ESTIMATING PROCEDURES FOR ACQUIRING RIGHTS OF WAY

<p>Step 6: This estimate is to update the cost estimate done in Step 5 and will be based on Auditor Records. This estimate will also consider the part taken, damages to the residue, relocation and labor costs to perform the acquisition function.</p> <p>The part taken considers land and improvements within corridor limits that are to be established for this cost estimate. Improvements that will be taken are also to be considered and the cost estimate is based on the assessed value per the Auditor records.</p> <p>Damage to a residue is the diminution of value to the portion of a property not taken for the project.</p> <p>Relocation cost estimates are updated from the previous cost estimate prepared for Step 5.</p> <p>The labor cost estimate can be estimated based on information obtained from the District Office, the Region Real Estate Office or from the Contracting Section of Central Office Real Estate. The PDP Cost Estimator template (See Attachment B) provides some estimated labor cost averages, but local costs may be taken into account.</p>	<p>Step 6: At this step, authorization to acquire rights of way should have been given by the District. A right-of-way workplan based upon the final R/W Plans is to be updated for the active acquisition process. The cost estimate is needed for right-of-way to be acquired, relocation, labor costs and utility reimbursement. Average labor costs are pre-programmed into the PDP Cost Estimator, but local labor costs may supercede if known.</p> <p>Also at this step, R/W encumbrances will be established for acquisition and labor, as applicable. These encumbrances will be based on the Project Workplan estimates.</p>
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COST ESTIMATING PROCEDURES FOR ACQUIRING RIGHTS OF WAY

<p>Step 7: The cost estimate is updated from Step 6 except that tax roll data is no longer used for land value calculations; however, structure values may still be obtained from the tax rolls.</p> <p>Additionally, the approximate location of the center line and the gross acreage is known for this cost estimate. The gross acreage is to be categorized into property use type (i.e. agricultural, commercial, residential). Based on the property use, the cost estimate is to be developed based on a Sales Data Book as described in the ODOT- Appraisal 122 Course Manual.</p> <p>The Sales Data Book lists sale data sheets representing the property use within the gross acreage area and may <u>be prepared</u> by anyone having adequate appraisal knowledge of highest and best use and ODOT appraisal procedures to include local appraisers, local Realtors, staff and consultants. The data should <u>be gathered</u> by a local real estate expert / appraiser to keep costs lower while providing current local data.</p> <p>Structures that will obviously be taken are to have a cost based on the assessed value per the Auditor records.</p> <p>All sales data included in the book should be arrayed in a grid format that lists property type followed by size and unit value.</p> <p>The appropriate units of value are then derived from sales reported in the Sales Data Book and applied to the gross acreage in the corridor. Cost estimates for relocation and labor, which must be updated, should be added to this information. Estimates for utility reimbursements may be obtained from the consultant or District Utility Coordinator.</p>	<p>STEP 7 through STEP 10: There are no cost estimates associated with acquisition of right-of-way at these steps.</p>
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COST ESTIMATING PROCEDURES FOR ACQUIRING RIGHTS OF WAY

<p>Step 8: The previous cost estimates prepared in Step 7 will be updated for time and market conditions and for any other modifications as needed. The relocation pre-acquisition survey is also done at this step. This relocation survey identifies the complexity of the relocation parcels and requires an on-site visit by an experienced relocation agent to ascertain probable relocation costs and time requirements. The pre-acquisition survey is completed by a consultant or staff member familiar with the Relocation Assistance Program.</p>	<p>N/A</p>
<p>Step 9: The previous cost estimate in Step 8 is updated for time, market conditions and any other modifications as needed. The Preliminary Right-of-Way plans are available and should be used to modify this cost estimate. At this step, the PDP Cost Estimator template is replaced by the Workplan (RE 101) and the Workplan will become the cost estimating tool.</p> <p>The RE-101/Workplan (See Attachment C) should be completed at this stage by a person competent to estimate damages and to develop a time line for Acquisition. The Workplan will usually be completed by the Region or its hired R/W acquisition consultant.</p> <p>The Relocation Assistance Program should be given due consideration in estimating the time lines for R/W Acquisition.</p> <p>The work plan is to consider all aspects of acquisition based on the these plans. It considers the time period needed to complete the acquisition process as well as the nature of the property and ownerships that are to be encountered. The type of appraisal format is decided. The complexity and time period to perform the relocation process is finalized based on the pre-acquisition survey that was completed in Step 8. The time period and complexity of the negotiation process is determined as well as an estimate of the time needed for the appropriation process. This workplan may be prepared by the ODOT Real Estate Region or their R/W consultant. If the workplan is prepared by a consultant the Region Real Estate Office will review it for accuracy and completeness.</p>	<p>N/A</p>

**COST ESTIMATING PROCEDURES FOR ACQUIRING
RIGHTS OF WAY**

<p>Step 10: Plans available at this step include completed right of way plans and Stage 2 construction plans that include fill, grade, cuts, drainage, guardrails, signalization, etc.</p> <p>The cost estimate requires the Workplan to be updated from Step 9 utilizing the most recent information that is now available. Additionally, encumbrances are established for acquisition and labor, as applicable.</p>	<p>N/A</p>
<p>STEP 11 through STEP 14: No cost estimates are required for these steps.</p>	<p>N/A</p>

COST ESTIMATING PROCEDURES FOR ACQUIRING RIGHTS OF WAY

Instructions for Completing the PDP R/W Cost Estimating Template

Cost Estimating Techniques - Procedures for completing the PDP Cost Estimator

- A. The cost to acquire rights of way can be estimated at several steps of the PDP. However, as the information available at the early steps is very limited because of the conceptual nature of these steps, the right of way cost estimate may be subject to wide fluctuations as more detailed information becomes available at later steps in the PDP.

- B. Step 1 of either Major or Minor projects does not provide any cross sections, mapping, aerial, construction limits, tax map, gross acreage information or anything that would be helpful in estimating right of way costs. At this point, the best alternative may be to obtain a street map, tax map or aerial photograph upon which has been drawn multiple corridor alternatives that may be very wide (up to 2,000 feet wide) representing the alternatives being considered. As this information is so limited, the cost estimate to acquire rights of way will require many assumptions including gross acreage calculations. These assumptions will increase the subjectivity of any cost estimate performed at this step.

Cost estimates can be derived from tax roll data or from market sources. Due to the limited information available at Steps 1 through 6 for Major projects (Steps 1 through 3 for Minor projects), any cost estimate derived from either of these data sources will be subject to large fluctuations as more detailed information becomes available at later steps. Cost estimates based on market data will require people with adequate real estate skills to ascertain land uses, highest and best use and an ability to research market sales that are representative of the multitudes of properties that would be impacted within all of the various alignments under study. These higher skill levels will cause higher labor costs and slower delivery times without providing any greater degree of accuracy. Tax roll data has the advantage of being easy and fast to obtain, thereby, reducing the skill level necessary to derive the costs and incurring a savings in labor cost. Therefore, cost estimates based on tax roll information should be the basis of value at the early steps in the PDP.

- C. Additional information needed to make the cost estimate more meaningful: Cost estimates can always be prepared based on limited information. However, estimates can become more meaningful when certain information is provided to the estimator. For rights of way, the following information is critical to the accuracy of a cost estimate:
 - 1. Vertical and Horizontal Sections
 - 2. The corridor overlaying tax map parcels which also overlay aerials so that the

COST ESTIMATING PROCEDURES FOR ACQUIRING RIGHTS OF WAY

3. impact of the project to residue properties can be determined
4. Construction limits so that damages can be ascertained with more certainty

This information will allow for a more comprehensive analysis of the impact of the multiple alignments under study. This information would allow greater flexibility in using tax roll data or market data. A better understanding of impact can greatly enhance the degree of accuracy of any cost estimate.

The first part of the attached R/W Cost Estimate Template matrix used to report right of way costs is as follows:

Land Use	Acreage	Land Value	Structure Value	Damages	Total Cost	No. of Structures Impacted
Residential						
Commercial						
Industrial						
Agricultural						

During the early steps of the PDP, damages to the residue property may not be ascertainable as there is no overlay of corridor lines over tax maps. Therefore, the extent of any partial acquisition leaving a residue may be unknown. The aggregate total of the assessed values will assume total takings of all properties estimated to be within the multiple alignments that are under study. As the plans get refined the estimates of damages can be updated to reflect the amount of detail shown.

Relocation can be factored into the cost estimate as follows:

Displacement Unit	Cost
Residential	
Owner	\$40,000
Tenant	\$11,750
Commercial/Farm/ NPO	\$25,000
Personal Property	\$ 1,000

The cost of labor can also be factored into the cost estimate. The labor estimate assumes that the acquisition function will be performed by a fee consultant. The following matrix lists typical unit costs that are based on state-wide averages:

Labor Costs

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Titles	\$400/parcel
Appraisal	
Simple	\$750/parcel
Detailed	\$4,500/parcel
Appraisal Review	
Simple	\$500/parcel
Detailed	\$2,000/parcel
Negotiation	\$1,100/parcel
Relocation	
Personal Property Move	\$1,500/displacee
Residential Move	\$5,200/displacee
Commercial/Farm/NPO	\$5,600/displacee
Closings	\$400/ownership
Project Management	\$550/parcel
Asbestos Testing	To be determined

The last component for estimating the cost to acquire rights of way is a miscellaneous/contingency category. There needs to be consideration for:

- Administrative Settlements
- Appropriations
- Incidental Expenses (i.e. CAUV's, mortgage releases, remainder surveys, prepayment penalties)
- Time Adjustment

There are no exact figures available for administrative settlement amounts. For this cost estimating procedure, 15% of all parcels acquired should be considered to be settled by administrative settlement and of these, a factor of 20% above cost is to be used for the estimate. The formula to calculate cost is as follows:

$$[(\text{total of acquisition cost}) \times 0.15] \times 1.20$$

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On any project, approximately 10% of the parcel total is appropriated and of these parcels, most settle out of court and only a few, approximately 1% of the total, actually go to a jury trial. For this cost estimate, 10% of all parcels are anticipated to be appropriated and settlement is expected to be 50% over cost. The formula to estimate cost is as follows:

$$[(\text{total of acquisition cost}) \times 0.10] \times 1.50$$

ODOT successfully negotiates approximately 90% of all parcels and there is a closing for these parcels. By federal and state code, ODOT is responsible to pay costs incidental to the transfer of real property from the owner to the Department. A factor of 2.5% is used to consider these incidental expenses. The formula to estimate this cost is as follows:

$$[(\text{total of acquisition cost}) \times 0.90] \times 0.025$$

These cost estimates reflect a current point on the time line. The time line will continue into the future and at some point the rights of way will be acquired and the highway will be constructed. The person preparing the cost estimate must forecast the cost out into the future to reflect the cost at the point in time that acquisition of rights of way will actually occur. The District Planning Department is to provide the estimated point in time that active acquisition should begin.

The time adjustment factor needs to be developed from relevant market data. This data can be obtained from surveys of local Realtors, developers and lenders in the project area. Factored into this estimate must also be speculation that often accompanies an ODOT highway project. Agricultural land at the fringes of suburban development are often future residential development land. Agricultural land value is not appropriate for this category of land having a speculative highest and best use. Also, areas where interchanges are planned tend to develop into a more speculative highest and best use. This type of speculation increases as the time line moves forward from planning phases to actual acquisition. There is no rule or factor that can account for the variables that must be considered. Common sense and documented analysis must prevail when these factors of cost are considered.

If the R/W cost estimator has any questions about how to develop a reasonable cost estimate at any step of the PDP process they should contact their respective District Real Estate Administrator/Engineer for clarification and/or guidance.

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Instruction for R/W Work Plan, Form RE 101

Step by Step instructions for completing the RE 101

- A. State Job Number - Columns 1-6. Enter the State Job Number assigned to the construction section.
- B. Federal Agreement Number - Columns 7-21. Enter the Federal Agreement Number assigned to the construction section. If no Federal Agreement Number exists, leave this field blank.
- C. County - Columns 22-24. Enter the three-letter designator of the county.
- D. Route - Columns 25-29. Enter the route number.
 - A. Route numbers in columns 25-28
 - B. Route suffix (column 29) must be A, B, N(orth), S(outh), or left blank

On projects other than State routes, enter the route by one of the following methods:

- A. On local numbered routes, enter the letter prefix "C" for County, or "T" for Township in column 256, followed by the number of the route.
- B. On local named routes contract and enter the name of the route to span the columns 25-34.
- E. Section - Columns 30-34. Enter the section numbers assigned to the construction project in columns 30-33. Section suffix (column 34) must be A, B, S, N, or left blank.

NOTE: Add the Project Identification Number (PID) in the space above the County, Route, Section block.

- F. Ownership Number - Columns 35-39. Enter the ownership number.
 - Ownership numbers in columns 35-38.
 - Ownership letter suffix (column 39) must be entered or left blank.
 - Utility Company abbreviation shall be coded in Columns 35-38.
 - Ownership Class - Columns 40-44.

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- Column 40 classifies the property owner. Enter one of the following codes:

<u>Property Owner</u>	<u>Code</u>
Owner	O
Leaseholder	L
A Public Agency	S
A Federal Agency	F
Railroad	R

- Column 41 classifies the type of property. Enter one of the following codes:

<u>Property Type</u>	<u>Code</u>
Residential	A
Multiple Family	B
Small Commercial	C
Complex Investment	D
Farm	E
Light Industrial	F
Heavy Industrial	G
Minerals	H
Churches	I
Schools	J
Railroad	K
Cemeteries	L
Public Buildings	M
Shopping Centers	N
Public Lands	O
Special Purpose	P
Machinery & Equipment	Q

- Column 42 classifies the occupancy of a building in the take area. Enter one of the following codes if a building will be acquired, otherwise leave this column blank.

<u>Building Occupancy</u>	<u>Code</u>
Occupied	O
Vacant	V
Personalty items only	P
Signs only	S

COST ESTIMATING PROCEDURES FOR ACQUIRING RIGHTS OF WAY

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- Column 43 classifies the type of taking from the ownership. Enter one of the following codes:

<u>Taking</u>	<u>Code</u>
Whole Take	W
Partial Take	P
Temporary Taking Only, Inc. WA	T
Limitation of Access Only	L

- Column 44 identifies the acquiring agency. Enter one of the following codes:

<u>Agency</u>	<u>Code</u>
DOT Forces Only	S
Other Forces Only	O
Combined Forces	C

NOTE: Utility Company facilities shall always be classified as UC-PO and Railroads shall always be classified as RC-PS or RC-PO

- Date the form with the date it was completed. The initial starting date shall be two weeks after the authorization date. This box shall be filled in by the Region on all work plan revisions. Revision numbers shall be noted adjacent to the work plan revision date.
- Estimated Activity Time/Cost In Weeks/Months - Columns 45-90

Develop the time estimate for each ownership on the project in the following manner.

- Place an "A" in the week of the month that it is estimated the appraisal activity will start.
- Place an "A" in the week of the month that it is estimated the appraisal activity will be completed. Appraisal activity is complete when the FMVE (Form RE 22) is signed.
- Draw a straight line between the two letters.
- Follow the same procedure for the negotiation and relocation activities. A relocation activity estimate is required on each ownership classified with an "O" or "P" in Column 42.

Develop the anticipated cost estimate for each ownership on the project in the following manner:

- Under the letter "A" representing the beginning of the appraisal activity, record the estimated cost of the ownership up to and including the cost of appraisals.

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- Under the letter “N” representing the beginning of the negotiation activity, record the estimated cost of the ownership up to and including the cost of the property. Do not include any estimated costs recorded under the appraisal activity.
- Under the letter “R” representing the end of the relocation activity, record the estimated cost for all ownerships classified with an “O” or “P” and “V”, if applicable, in Column 42.

Add the monthly columns in the following manner:

- For each month, add the number of completed appraisal activities and post the total at the foot of the column.
- For each month, add the number of completed negotiation activities and post the total at the foot of the column.
- For each month, add the number of completed relocation activities and post the total at the foot of the column.
- For each month, add the anticipated costs and post the total at the foot of the column.
- On the last page, add the sums of each previous page to produce totals for the project.
- Make a closing note on the last page of the Project Work Plan indicating how much has been added to each phase for incidental costs (Example: A = title and closing fee \$800 per ownership, N = negotiation fee \$1,100 per ownership, R = advisory service \$5,200 per ownership).
- Make a second closing note indicating the lump sum amount for consultant labor costs not already reflected on the workplan (project management fee = \$550 per ownership, asbestos testing = \$TBD per parcel)
- Send all project work plans to the District Real Estate Administrator as an attachment to the request for encumbrances (acquisition and labor, if necessary) and R/W authorization.

COST ESTIMATING PROCEDURES FOR ACQUIRING RIGHTS OF WAY

PID No. **12345**

OHIO DEPARTMENT OF TRANSPORTATION
PROJECT WORK PLAN

STATE JOB NUMBER: **1069400A9D** FEDERAL AGREEMENT NUMBER: **0933** 0001005

Date: **01-15-2005**

CLASSIFICATION LEGEND

COLLIAN	CODE	OWNERSHIP NUMBER	OWNERSHIP CLASS	ESTIMATED ACTIVITY TIME/COST IN WEEKS/MONTHS																	
40 - PROPERTY OWNER	O L S F R	413	OR PS	A																	
		414	OR MS	A																	
41 - PROPERTY TYPE	A B C D E F G H I J K L M N O P Q R	415	OE TS	A																	
		416	OE TS	A																	
		417	OC VPS	A																	
		418	RK PS	A																	
		419	OT OPS	A																	
		420	FO PS	A																	
		421	SP PS	A																	
		422	FO PS	A																	
		423	FO PS	A																	
		424	FO PS	A																	

40 - PROPERTY OWNER: Leaseholder, Owner, A Public Agency, A Federal Agency, Railroad

41 - PROPERTY TYPE: Residential, Multiple Family, Small Commercial, Complex Investment, Farm, Light Industrial, Heavy Industrial, Minerals, Churches, Schools, Railroad, Concrete, Public Buildings, Shopping Centers, Public Lands, Special Purpose, Machinery & Equipment, BUILDING OCCUPANCY, Occupied, Vacant, Personality Items, Signs Only, TYPE OF TAKING: Whole Take, Part Take, Temporary Take Only, Limitation of Access, DOT Forces Only, Other Forces Only, Combined Forces

42 - BUILDING OCCUPANCY: Occupied, Vacant, Personality Items, Signs Only, TYPE OF TAKING: Whole Take, Part Take, Temporary Take Only, Limitation of Access, DOT Forces Only, Other Forces Only, Combined Forces

43 - TYPE OF TAKING: Whole Take, Part Take, Temporary Take Only, Limitation of Access, DOT Forces Only, Other Forces Only, Combined Forces

44 - ACQUIRING AGENCY: DOT Forces Only, Other Forces Only, Combined Forces

Note: Utility Company facilities shall always be classified UC PO

COUNTY	ROUTE	SECTION	A. APPRAISAL	B. NEGOTIATION	R. RELIATION	ANTICIPATED COST
ATH	33	15.73				
			6	4		19,000/4,000
						1,000
						600,000
						384,000
						130,000
						80,000