

## NRCS Easement Boundary Reestablishment Survey Review Checklist

Landowner: \_\_\_\_\_

Agreement #: \_\_\_\_\_

State: \_\_\_\_\_

Program: \_\_\_\_\_

### **Section I: Preliminary Survey Submittal**

Complete the following section to indicate that the preliminary survey submittals meet the minimum requirements as provided in the NRCS Easement Programs Land Survey Reestablishment Specifications.

The surveyor must submit unsigned electronic files of the following items for NRCS review:

#### **A. Plat of Survey**

1. Latitude and Longitude and State Plane coordinates for the point of beginning of the easement boundary, the point of beginning of the ingress and egress route, and at least four other specified points.
2. Location map inset showing easement area, major roads, and nearest municipality.
3. The recorded description of the property or the reference to the source of the recorded description of the property on which the easement is located. *Record deed ownership information listed on plat and description.*
4. If the reestablishment survey includes the entire easement area, the survey description of the easement area, as Attachment A to the survey, must be shown on the face of the plat and in a separate property description. *Partial surveys do not require an Exhibit A.*
5. If the reestablishment survey includes the entire easement area or the ingress and egress route, the survey includes a full description of the route of ingress/egress to the property, or the point of access from a public right of way if no ingress/egress is needed, as Attachment B to the survey. *This must be shown on the face of plat and in a separate property description.*
6. North arrow. This is true geodetic north. The plat shows the convergence angle between grid north and the true meridian as defined by the axis of the earth's rotation. *The difference between true north and grid north.*
7. Graphic or numeric scale.
8. The point of beginning of the easement boundary and the point of beginning of the ingress and egress easement, if applicable, are clearly identified. *If the point of commencement differs from the point of beginning it must be clearly identified. For partial surveys, the point of beginning and the point of termination must be shown.*
9. All lines on the plat are identified by line type or note. *The surveyor must indicate and cite the source of all lines if plotted from deeds or copied from previous surveys or tax maps. For example, it can be noted in the legend that the line was observed in the field (measured), plotted from an aerial image, or plotted from a deed (record).*
10. The adjoining properties are labeled with the current landowner's name, recording information, and property assessor identification information.

11. State, county, and municipal boundaries that impact the easement area or ingress and egress routes are shown and labeled.
12. The direction of all courses, shown in bearings (degrees, minutes, and seconds) to the whole second, and the distances of all courses, shown to hundredths of feet. *Course tables may be used on the plat. All data will be referenced to the appropriate State Plane Coordinate System, use the NSRS U.S. Survey Foot, and have a basis of bearing to grid north of the appropriate State Plane Coordinate System.*
13. The central angles, length of curves, degree of curvature, radii, and the length and bearing of the long chords from the point of curvatures to the point of tangencies for each curve along the boundary line. *Curves should be noted on the survey plat as either simple curves, compound curves, or spiral curves (also note if they are railroad or highway curves). Curve tables may be used on the plat.*
14. Scale factor and geoid used for State Plane coordinate values and a note stating what portion of the survey was performed using GPS equipment, the precision of work in relative positional accuracy, and how GPS data was determined. *The type of GPS equipment used (model number, manufacturer, and type of frequency) and type of GPS survey performed (static, RTK, adjusted RTK, etc.) are included.*
15. Monuments identified as found, along with a description of the monument and its accessories (if applicable). *This is in reference to specific monument type and size and the condition in which it was found (e.g. disturbed, buried, or leaning).* **Setting monuments and marking the lines for the easement area is not included in Phase I.**
16. If the reestablishment survey includes the entire easement area, the area of the surveyed easement is reported. *Net easement area computed to the nearest 100<sup>th</sup> of an acre.*
17. Observed evidence of possession, occupation, or use by others on the property or across any boundary lines of the property. *If nothing is shown the surveyor should include a note on the face of the plat stating that there is no observed evidence of possession, occupation, or use by others.*
18. Major topographical features that cross or affect the property line(s), such as highways, roads, field roads, railroads, trails, streams, creeks, and rivers. *If nothing is shown, the surveyor should include a note on the face of the plat stating that there are no major topographical features that cross the property line. Riparian actions such as avulsions, accretions, or erosions are accurately reflected.*
19. Recorded encumbrances, rights of way, or other easements as listed in the preliminary title commitment or found when researching deeds for the adjoining properties. If these are plottable they must be shown and listed on the face of the plat. *If nothing is shown, the surveyor should include a note stating that no recorded encumbrances impact the easement or ingress/egress route.*
20. Observed and field-located evidence of any easements, utilities, or infrastructure not addressed in recorded documents. *If nothing is shown, the surveyor should include a note on the face of the plat stating that there is no observed evidence of easements, utilities, or infrastructure not addressed in recorded documents.*
21. Sufficient data, diagrams, maps, and survey ties to corners to indicate that the location of the boundaries and corners of the property were correctly surveyed and located.
22. If applicable, sufficient diagrams to show that the PLSS section or sections were properly considered and subdivided to locate the appropriate PLSS aliquot parts and PLSS lots.
23. Name, registration number, address, and phone number of the professional land surveyor in responsible charge of the survey.
24. Client name.

25. Date survey completed.
26. Title block in lower right-hand corner of plat to include NRCS easement agreement name and number and the total acres in the easement area.
27. The plat is titled “Plat of Boundary Reestablishment Survey of NRCS Conservation Easement, NRCS Agreement Number: [XX-XXXX-XX-XXXXX] on lands of [landowner name] prepared for USDA-Natural Resources Conservation Service.”
28. Certification. The following statement is included on each plat: “THIS IS TO CERTIFY THAT THIS SURVEY, DONE BY THE UNDERSIGNED, WAS DONE ON THE GROUND IN ACCORDANCE WITH THE MOST RECENT MINIMUM STANDARDS FOR PROPERTY BOUNDARY SURVEYS AS SET FORTH BY THE **[insert name of State agency responsible for licensing surveyors]**. THE ACCURACY AND POSITION TOLERANCE ARE ALSO IN ACCORDANCE WITH RURAL SURVEYS AND HAS BEEN MADE IN STRICT CONFORMITY WITH THE NATURAL RESOURCES CONSERVATION SERVICE EASEMENT PROGRAMS LAND SURVEY SPECIFICATIONS.”

#### **B. Descriptions (easement area and ingress and egress route)**

If the reestablishment survey includes the entire easement area, legal descriptions of the easement area and ingress and egress routes, as depicted on the surveyor’s plat, must include the following and be attached as Exhibit A and B to the plat:

1. A clear statement of the relationship between the described property and the survey control or the basis of the unique location.
2. The basis of bearings. *This should reference the State Plane Coordinate System*
3. Metes and bounds descriptions that include bearings or azimuths and distances related to the horizontal measurement at the mean ground elevation for the line above sea level. *The description must traverse the exterior of the easement area and/or ingress/egress to allow for computation and mathematical closure and acreage.*
4. Citations to the recording information or other identifying documentation for any maps, plats, or other documents referenced. *This would be the reference to the deed of ownership and any other pertinent documents.*
5. Detailed description of any natural or artificial monuments referenced. *This is in reference to specific monument type and size. **Setting monuments and marking the lines for the easement area is not included in Phase I.***
6. Total acreage in easement area.
7. The description is titled “Description of Boundary Reestablishment Survey NRCS Conservation Easement, NRCS Agreement Number: [XX-XXXX-XX-XXXXX] on lands of [landowner name] prepared for USDA-Natural Resources Conservation Service.”

#### **C. Computer-generated tabulation of bearings**

1. A computer-generated tabulation of bearings, distances, and coordinates, with closure statement, that represents the boundary of surveyed easements and/or ingress and egress routes. *The closure statement must indicate that the cited bearings, distances, and easement area meet applicable state standards for survey closure accuracies. For partial surveys the surveyor must provide a tabulation*

*of bearings from the point of beginning of the survey to the point of termination, beginning with the coordinates for the point of beginning and following the courses surveyed.*

2. The survey plat, legal description, and tabulation of bearings all consistently traverse the perimeter of the easement area, ingress and egress routes, or the portion of the easement being surveyed, in the same direction, with all courses and distances having the same starting and ending points.

**D. Draft surveyor’s report**

1. The surveyor’s report contains a narrative description of the method used to locate points and the theory of location applied in formulating the opinions as to the probable location of the boundaries and corners of the property. *This is a narrative of how the surveyor determined the property boundaries and the positions of the monuments.*

**E. Shapefiles**

1. Separate polygon shapefiles of the easement area and ingress and egress route with all points projected into the appropriate State Plane Coordinate System in .shp, .dbf, or .shx format.
2. Each polygon should have the following attributes:
  - NRCS Agreement Number: XX-XXXX-XX-XXXXX
  - Easement area in acres (value to the hundredth of an acre)
  - The method of data capture (RTK/GPS, field traverse, etc.)
3. Each polygon should have the following metadata:
  - Date generated
  - Software and version used to generate file
  - Brief description of process used to generate files
  - Provide ESRI ARC Info export/Info export (.e00) or shapefile (.shp, .dbf, .shx)
  - Clearly defined projection.

**Phase I Preliminary Survey Submittal**

**Reviewer Notes** (for more space, see page 8) –

**Reviewed by** \_\_\_\_\_  
NRCS Reviewer

**Date** \_\_\_\_\_

**Phase II Preliminary Survey Submittal**

If NRCS decides to proceed with Phase II of the reestablishment survey, the surveyor will complete additional field work to set monuments and witness posts, and mark boundary lines. The surveyor will submit revised unsigned preliminary survey submittals (in electronic format), reflecting the monumentation as set.

The revised preliminary survey submittals must address the following:

1. All requirements for the Phase I Preliminary Survey Submittals have been met and approved.
2. The surveyor revised the Phase I Preliminary Survey Submittal to reflect the monumentation as set during the Phase II field work.
3. The plat includes new monuments set, along with a full description of the monument and its accessories (if applicable). *This is in reference to specific monument type and size.* **New monuments set must comply with Section F of the NRCS Easement Programs Land Survey Specifications.**
4. If the reestablishment survey includes the entire easement area, the easement boundary description is updated to include new monuments set.
5. If the reestablishment survey includes the ingress and egress route, the description is updated to include new monuments set.

**Reviewer Notes** (for more space, see page 8) –

**Reviewed by** \_\_\_\_\_  
NRCS Reviewer

**Date** \_\_\_\_\_

**Section II: Final Deliverables**

Complete the following section to indicate that the final deliverables meet the minimum requirements as provided in the NRCS Easement Programs Land Survey Reestablishment Specifications.

Final deliverables for Phase I of the reestablishment survey are only required if NRCS decides to stop at Phase I.

The surveyor must submit the following items for NRCS review:

**A. General**

1. All requirements for the Preliminary Survey Submittals have been met and approved.
2. The surveyor’s seal is affixed to the survey plat, signed and dated by the surveyor.

**B. Hardcopies**

1. Five copies of the original completed survey plats with surveyor's seal and signature. Required plat size: 24 inches by 36 inches. *The surveyor must ascertain any particular recording requirements of the register of deeds in the county where the survey area is located. If the size of plat required for recording differs from 24" x 36", the surveyor must furnish plat maps of proper size for recording in addition to the NRCS-required size. Where multiple sheets are produced, the surveyor should produce an index sheet showing entire survey area. Lettering must be large enough that it will remain legible after plat is reduced to the size required for recording.*
2. Five reduced sized copies of the survey plat with required seal and signature. Required size: 11 inches by 17 inches
3. If the reestablishment survey includes the entire easement area or ingress and egress route, five copies of the legal descriptions of the easement area and ingress and egress route depicted on the plat with required seal and signature.
4. Five copies of a computer-generated tabulation of bearings, distances, and coordinates around the easement area, or the surveyed portion of the easement area.
5. In PLSS States, legible copies of the most recent GLO/BLM survey plat and field notes, or the GLO/BLM resurvey plat and field notes for the surveyed sections or portions of sections in which the easement area is located if used for this re-survey.
6. A surveyor's report containing a narrative description of the method used to locate points and the theory of location applied in formulating the opinions as to the probable location of the boundaries and corners of the property.

**C. Electronic files:**

Compact disc containing an electronic copy of the following (all files must reference the NRCS Agreement Number):

1. AutoCAD (version 2009) file of the survey. The .dwg file is georeferenced to the appropriate State Plane Coordinate System and geodetic model, referenced to the NSRS U.S. Survey Foot, and have a basis of bearing to grid north of the appropriate State Plane Coordinate System. The perimeter of the easement area and the ingress and egress routes should be attributed as a separate and extractable polyline layer or polygon feature of the drawing for conversion to a Geographic Information System (GIS).
2. Separate polygon shapefiles of the easement area and ingress and egress route with all points projected into the appropriate State Plane Coordinate System and geodetic model in .shp, .dbf or .shx file format.
3. PDF file of the final plat with required seal and signature. Combine multiple sheets into a single PDF document.
4. If the reestablishment survey includes the entire easement area, PDF files of legal descriptions of the easement area and ingress and egress routes with required seal and signature.
5. PDF file of computer-generated tabulation of bearings, distances, and coordinates around the easement area.
6. If the reestablishment survey includes the entire easement area, MS Word or text document containing the easement boundary descriptions and descriptions of the ingress and egress route.

**Phase I Final Deliverables**

Final deliverables for Phase I of the reestablishment survey are not required if NRCS decides to proceed with Phase II.

**Reviewer Notes–**

**Reviewed by** \_\_\_\_\_  
NRCS Reviewer

**Date** \_\_\_\_\_

**Phase II Final Deliverables**

**Reviewer Notes –**

**Reviewed by** \_\_\_\_\_  
NRCS Reviewer

**Date** \_\_\_\_\_

**Additional Reviewer Notes** (if additional space is needed):

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