

## NRCS Easement Boundary Survey Review Checklist

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

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

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

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

Complete the sections below to indicate that the preliminary and final survey submittals meet the minimum requirements as provided in the NRCS Easement Programs Land Survey Specifications.

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

Prior to submitting the final deliverables, the surveyor must notify the NRCS Contracting Officer (CO), Contracting Officer's Representative (COR), or technical representative that the field work is complete, and 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. *Plat and description should list the same points. If the easement area adjoins a public road, surveyor will provide a point of access rather than a point of beginning.*
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. The survey description of the easement area, as Attachment A to the survey, must be shown on the face of plat and in separate property description.
5. The survey 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.*
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 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 set or 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). **New monuments set must comply with Section F of the NRCS Easement Programs Land Survey Specifications.***
16. Area of the surveyed easement. *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, 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 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)**

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. **New monuments set must comply with Section F of the NRCS Easement Programs Land Survey Specifications.***
6. Total acreage in easement area.
7. The description is titled “Description of 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 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.*
2. The survey plat, legal description, and tabulation of bearings all consistently traverse the perimeter of the easement area and ingress and egress routes 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-XXXXXX
  - 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.

**Reviewer Notes** (see page 6 for additional space if needed) - **Preliminary Survey Submittal:**

Reviewed by: \_\_\_\_\_  
NRCS Reviewer

Date: \_\_\_\_\_

**Section II: Final Deliverables**

**A. General**

1. All requirements from “Section I: Preliminary Survey Submittal” of the checklist 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. 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.
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 method used to locate points and 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. 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. MS Word or text document containing the easement boundary descriptions and descriptions of the ingress and egress route.

**Reviewer Notes** (see page 6 for additional space if needed) - **Final Deliverables:**

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

Date \_\_\_\_\_

**Continued Reviewer Notes - Preliminary Survey Submittal:**

**Continued Reviewer Notes – Final Deliverables:**