STATEMENT OF WORK
Windbreak/Shelterbelt Establishment (380)
Washington

These deliverables apply to this individual practice. For other planned practice deliverables refer to those specific Statements of Work.

DESIGN

Deliverables:

1. Design documents that demonstrate criteria in NRCS practice standard have been met and are compatible with planned and applied practices.
    a. Practice purpose(s) as identified in the conservation plan
    b. List of required permits to be obtained by the client
    c. Practice standard criteria-related computations and analyses to develop plans and specifications including but not limited to:
        i. Determination of adapted species of trees and shrubs, extent and position in row(s), and desired density for intended purpose(s)
        ii. Orientation of windbreaks/shelterbelts and, as applicable, spacing between windbreaks, to achieve intended purpose(s)
        iii. Protective measures for plants to provide desired function including use exclusion
        iv. Additional provisions, as required, wind erosion control, snow management, shelter of structures and livestock, noise abatement, improvement of air quality, increasing carbon storage in plants and soil, providing wildlife habitat and travel corridors, and improving irrigation efficiency
        v. Evaluate wildlife habitat using Biological TN 14.
2. Written plans and specifications including sketches and drawings shall be provided to the client that adequately describes the requirements to install the practice and obtain necessary permits.
3. Documentation of needed operation and maintenance.
4. Certification that the design meets practice standard criteria and comply with applicable laws and regulations.
5. Design modifications during installation as required.

Note: *Incorporate compliance with all federal, state, local and/or tribal laws, regulations and permitting requirements within the practice design. Use approved jobsheets, specification worksheets, Planner's guide, technical notes and practice standard references as appropriate. Include required documentation within Documentation Requirement form.*

INSTALLATION

Deliverables

1. Pre-application conference with client where site specific specifications are reviewed.
2. Verification that client has obtained required permits.
3. Staking and layout according to plans and specifications including applicable layout notes.
4. Application guidance as needed.
5. Facilitate and implement required design modifications with client and original designer. Provide *As-Built (Installation) notes and modifications.*
6. Advise client/NRCS on compliance issues with all federal, state, tribal, and local laws, regulations and NRCS policies during installation.
7. Certification that the application process and materials meet design and permit requirements.

Note: *Document meetings. Provide maps, photos, video or drawings of treatment area. Provide all other implementation notes and issues. Document the effectiveness of treatment to achieving the purpose.*

CHECK OUT

Deliverables

1. Records of application.
    a. Extent of practice units applied
    b. Actual plant materials used and applied
2. Certification that the application meets NRCS standards and specifications and is in compliance with permits.
3. Progress reporting.

STATEMENT OF WORK
Windbreak/Shelterbelt Establishment (380)
Washington

Note: *Provide NRCS with completed & signed Documentation Requirement form, As-Builts and all other support documentation*

STATEMENT OF WORK
Windbreak/Shelterbelt Establishment (380)
Washington

REFERENCES

- NRCS Field Office Technical Guide (eFOTG), Section IV, Conservation Practice Standard – Windbreak/Shelterbelt Establishment, 380
- NRCS National Forestry Handbook (NFH), Part 636.4
- NRCS National Environmental Compliance Handbook
- NRCS Cultural Resources Handbook

Note*: Bentrup, Gary 2008. Conservation buffers: design guidelines for buffers, corridors, and greenways. Gen. Tech. Rep. SRS-109. Asheville, NC: Department of Agriculture, Forest Service, Southern Research Station.*

Brandle, J.R. etal. 1988. Windbreak technology. Agric. Ecosyst. Environ. Vol. 22-23.

Boehner, P. et al. 1991. Windbreak Establishment. University of Nebraska. EC 91-1764-B

Brandle, J. et al. 1996. Windbreaks for Snow Management. University of Nebraska. EC 96-1770-X

Strange, C. et al. 1996. Windbreak Management. USDA/NRCS & University of Nebraska. EC 96-1768-X

USDA/NRCS. Windbreaks for Conservation. Agriculture Information Bulletin 339.

USDA/NRCS 1999. Living Snow Fences. USDA/ NRCS, USDA/ National Agroforestry Center, Idaho Resource Conservation and Development Association.

Ogle, D. et al. 2011. Planning a Windbreak or Shelterbelt Design Options. USDA/NRCS Plant Materials Center, Aberdeen ID.

WA Plant Materials Technical Note #1, Seeding Guide. Section 1, Field Office Technical Guide (FOTG).

WA Plant Materials Technical Note #13, Trees Against the Wind, a Pacific Northwest Extension Publication. Section 1, Field Office Technical Guide (FOTG)

WA Forestry Technical Note #15, Water Needs of WindBreaks for Trickle Irrigation System Design. Section 1, Field Office Technical Guide (FOTG)

WA Forestry Technical Note #18, Tree and Shrub Windbreak Effectiveness, Section 1, Field Office Technical Guide (FOTG)

MT Plant Materials Technical Note #51, Temporary Storage and Handling of Container, Bareroot, and Cutting Stock. Section 1of Montana NRCS's Field Office Technical Guide (FOTG).

USDA Plants Database, http://plants.usda.gov/

USDA/NRCS Web Soil Survey, http://websoilsurvey.nrcs.usda.gov/