



**382B – Fence, High Tensile
(Grazing)
Implementation Requirements**

Producer _____

Project or Contract _____

Location _____

County _____

Farm Name _____

Tract Number _____

Description of work

Plan map attached with fence locations and type accurately delineated to scale.
Include supporting practices.

NY 328B Fence Specifications and drawings attached

Practice Purpose(s) – check all that apply

Exclude livestock for the protection of natural resources.

Control livestock where permanent fence is installed as a component of a rotational grazing system.

Confine livestock within an area.

Control domestic livestock, while permitting the movement of wildlife.

Other (explain) _____

Perimeter and Permanent Interior Fences
Minimum Height and Strand Spacing for Permanent Fence Types
(check livestock and fence type)

Livestock	Non-Electric High Tensile Smooth Wire	Electric High Tensile Smooth Wire
Goats, Kids, Sheep, Lambs, Alpaca, Llama	<p>Perimeter - Minimum 7 strands, spaced at 4, 10, 16, 22, 28, 34 and 40 inches above the ground</p> <p>Interior – Minimum 3 strands, spaced at 6, 16, and 30 inches above the ground</p>	<p>Perimeter - Minimum 5 strands (3 electrified) – spaced at 6, 12, 20, 28 and 36 inches above the ground</p> <p>Interior – Minimum 3 strands (2 electrified) spaced at 6, 16, and 30 inches above the ground</p>
Hogs	Not recommended	<p>Perimeter - Minimum 5 strands with 2 electrified – spaced at 6, 12, 20, 28 and 36 inches above the ground</p> <p>Interior – Minimum 3 strands (2 electrified) spaced at 8, 18, and 28 inches above the ground</p>
Horses and Foals	<p>Horses only Not recommended</p> <p>Horses w/foals Not recommended</p>	<p>Horses only Perimeter - Minimum of 3 strands, top strand electrifiable coated, all electrified, spaced at 24, 36 and 48 inches above the ground</p> <p>Interior – Minimum 1 strand, electrified, at 34 inches above the ground</p> <p>Horses w/foals Perimeter - Minimum of 4 strands, top strand electrifiable coated, all electrified, spaced at 10, 24, 36, and 48 inches above the ground</p> <p>Interior – Minimum of 2 strands, both electrified, spaced at 16 and 30 inches above the ground</p>
Beef Steers, Cows and Calves	<p>Perimeter - Minimum 5 strands, spaced at 10, 20, 30, 40 and 50 inches above the ground</p> <p>Interior – Minimum 3 strands, spaced at 18, 30, and 42 inches above the ground</p>	<p>Perimeter - Minimum of 3 strands (all electrified), spaced at 18, 30 and 42 inches above the ground</p> <p>Or a minimum of 4 strands (only 2 electrified), spaced at 10, 22, 34 and 46 inches above the ground</p> <p>Interior – Minimum 2 strands, both electrified, spaced at 18 and 36 inches above the ground</p>

Dairy Cows and Heifers	<p>Perimeter - Minimum 5 strands, spaced at 10, 20, 30, 40 and 50 inches above the ground</p> <p>Interior – Minimum 2 strands, spaced at 18 and 36 inches above the ground</p>	<p>Perimeter - Dairy Cows only - Minimum 2 strands, both electrified, spaced at 20 and 34 inches above the ground</p> <p>Heifers – Minimum of 3 strands (all electrified) spaced at 18, 30 and 42 inches above the ground</p> <p>Interior – Dairy cows and heifers – Minimum 2 strands, both electrified, spaced at 18 and 36 inches above the ground</p>
Other (describe)		

Construction and Material Documentation

Fence Length Documentation			
Tract(s)	Field(s)	Type of Fence	Length of Fence

Energizer (Charger) <i>Minimum stored output</i>	Insulator (Type)	Grounding Rod (Copper, Stainless Steel, or UL approved)	Grounding Rod Length (feet)	Grounding Rod Spacing (feet)	Grounding Rod Quantity

High Tensile Fence – Electric or Non-Electric				
Use	# of Strands	Strand Spacing	Fence Height	Recommended Tension
Perimeter				
Travel Lane				
Interior Subdivision				

Wire Specifications (check all that apply)	
Wire Type	Coating/Composition
<input type="checkbox"/> High Tensile (HT), galvanized steel smooth wire	Size (gauge) _____
<input type="checkbox"/> Aluminum	Coating/Composition _____ Electrifiable <input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Other	Wire, Tensile Strength _____
	Wire, Breaking Strength _____

Line Posts	
Material Type	Diameter (in.) _____
Shape <input type="checkbox"/> round <input type="checkbox"/> square Length	Coating (if applicable) _____
Max post and/or stay spacing	Depth in ground _____
Total # posts	
Fasteners (type, length & gauge)	Insulator Type (electric only) _____
Gates (type and widths)	
Total # gates	
Battens (material, length, diameter/width)	

Brace Posts	Brace (Guy) Wire
Material	<input type="checkbox"/> 12.5 ga., galvanized steel, HT double wrapped
Size/diameter & length _____ (Corner, ends, pull, and gates) # Corner braces _____ # Ends, pulls, gate braces 8	<input type="checkbox"/> 9 ga., galvanized steel, soft wire single wrap
Size/diameter & length _____ (all other brace posts) # Other braces	<input type="checkbox"/> A single 3/16" galvanized cable with a cable lock
Depth	

Horizontal Brace Rail	Diagonal Brace Rail
Material	Material
Size (diameter and length)	Size (diameter and length)
Height (from ground)	Height of anchor post above ground _____
Brace post notched <input type="checkbox"/> Yes <input type="checkbox"/> No	

Temporary Electric Fence (suggested)	
Wire Type <input type="checkbox"/> polywire <input type="checkbox"/> polytape <input type="checkbox"/> electric netting <input type="checkbox"/> other	Post Spacing _____
Number of Strands	Fence Height
Wire Space above Ground	Post Type
Strand Spacing	
Connectors (type) <input type="checkbox"/> jumper clip <input type="checkbox"/> insulated handle	Insulator Type _____

Operation and Maintenance – _____year life span

Regular inspection of fences should be part of your ongoing maintenance program to ensure continuing proper function of the fence. Inspections should be done immediately following storms to identify any repair and maintenance needs.

Operation and Maintenance (O&M) includes the following:

- Regularly inspect, at least monthly, fences, gates, fence chargers, and water gaps. Always inspect after storms and other disturbance events.

Maintenance activities:

- Repair or replace loose or broken material, wire tension, loose staples, insulators, under gate cable connections, cracked or broken spring gate handles, faulty fence charger, gates and other areas of ingress/egress.
- Re-set posts where frost uplifting, accidental impacts, defects, or deterioration have changed post position or integrity.
- Remove all overhanging trees and limbs, downed trees, and debris. Clear brush and weeds from fence lines to reduce voltage loss. If herbicides are used to control vegetation, application must be according to product label and according to all federal, state, and local regulations and laws.
- Regularly check electric fences to determine the voltage on the fence. If voltage is insufficient, determine the cause(s) and correct.
- Inspect break-away fencing a minimum of twice per year, and after all high water flows. Repair and replace as needed.
- Replace or repair water gaps as necessary.
- Repair eroded areas along fence line, posts, and approaches.
- Repair or replace warning signs or other safety and control features as required.
- Maintain proper tension on the fence wires throughout the year while livestock are being grazed. Tension may be released in winter to account for contraction of wire during cold weather if livestock will not be in the area.
- Retain and properly discard all broken fencing material and hardware.

Optional items to consider:

Electrified floodgates must be maintained and kept clear of debris. During extended or anticipated flooding periods, switch off the floodgates and/or employ energy limiters.

During dry weather, ground rods may need water applied to soil around them.

Additional Operation and Maintenance Information

Design Concurrence and Certification

I have reviewed the special provisions, drawings, specifications and operations and maintenance requirements and agree to install, operate, and maintain this project in accordance with them.

Producer: _____ Date: _____

This practice is designed and planned according to NRCS standards and specifications.

Certified Planner: _____ Date: _____

Plan JAA Level: _____ Design JAA Level: _____

Documentation of Implementation

Acres treated: _____

Feet of perimeter fence installed: _____

Feet of interior fence installed: _____

Date Practice Completed: _____

Date Field Checked: _____

Documentation Attachments

As-built drawings/maps

Digital photos

Invoices documenting material quantities and sources

Product warranties as applicable

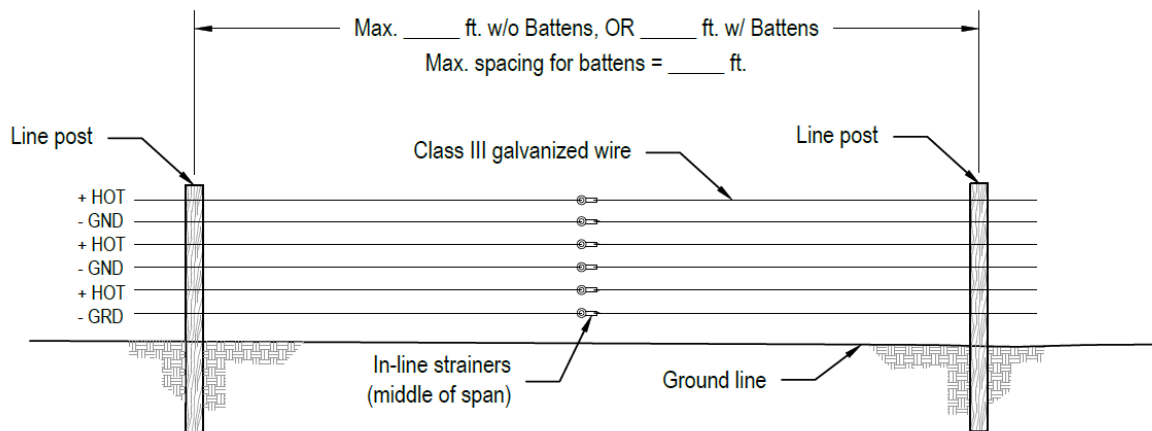
Implementation Certification

I hereby certify that this practice has been installed in accordance with NRCS standards and specifications.

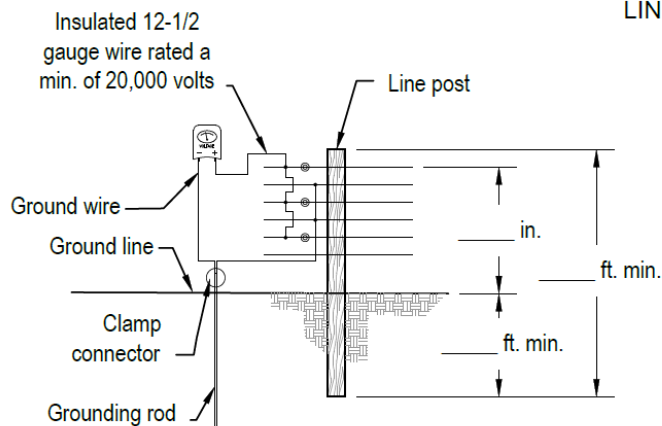
NRCS Representative or TSP: _____ Date: _____

Approval JAA Level: _____

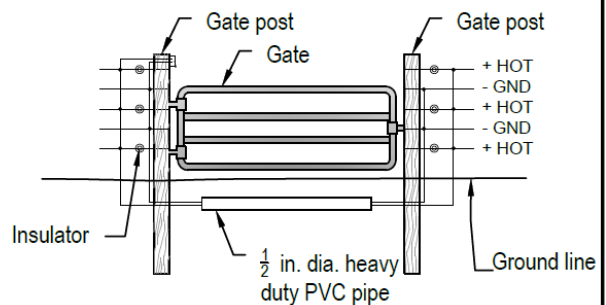
HIGH TENSILE SMOOTH WIRE FENCE - ELECTRIC



LINE PANEL



ELECTRIC HIGH TENSILE DETAIL



GATE DETAIL

Follow all manufacturer's instructions when installing the fence energizer and grounding the fence.

Number of wires needed: _____ Spacing at _____ inches above the ground.

Number of wires electrified: _____

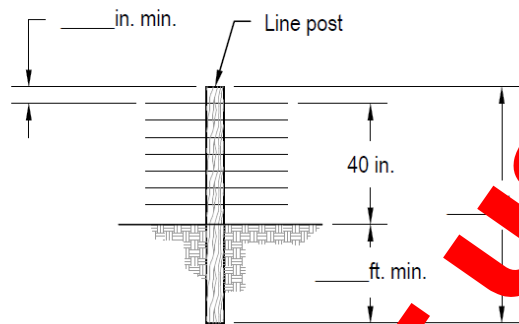
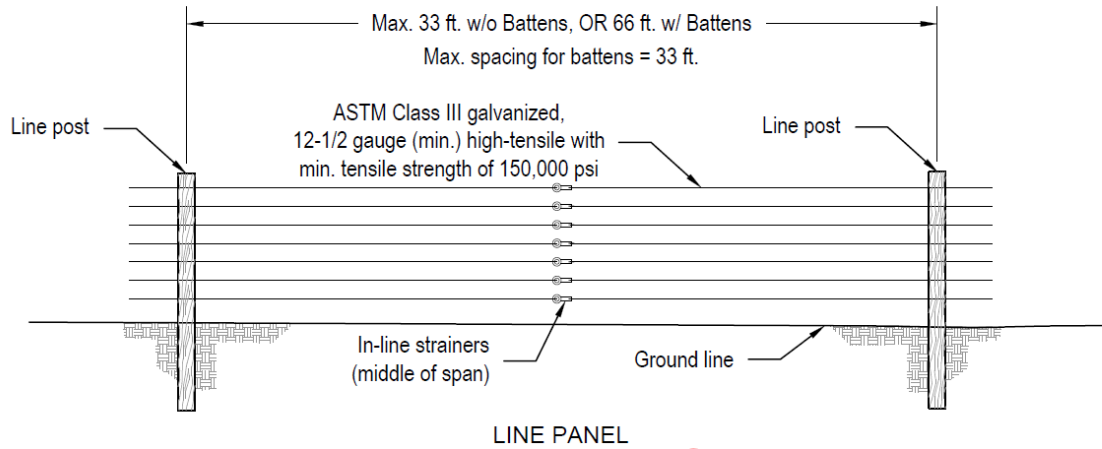
Refer to NRCS-NY-CTA Practice Specification 382B-High Tensile Smooth and Coated Wire and Braided Electrified Rope.

Additional instructions:

Drawing not to scale. Standardized drawing must be adapted to specific site.

 United States Department of Agriculture	HIGH TENSILE FENCE DETAIL ELECTRIC	Designed _____ Date _____	
	Natural Resources Conservation Service	NRCS New York	Approved _____ Date _____
	Title _____ Sheet 1 of _____		

7 - STRAND HIGH TENSILE SMOOTH WIRE FENCE - NON-ELECTRIC



Spacing at 4, 10, 16, 22, 28, 34, and 40 inches above the ground.

Refer to NRCS-NY-CTA Practice Specification 3-1-1 for High Tensile Smooth and Coated Wire and Braided Electrified Rope.

Additional instructions:

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7-STRAND HIGH TENSILE FENCE DETAIL
NON-ELECTRIC

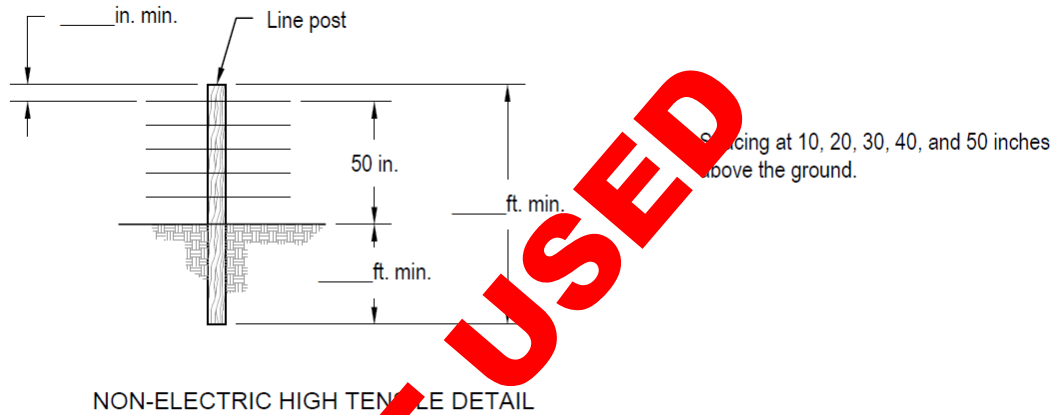
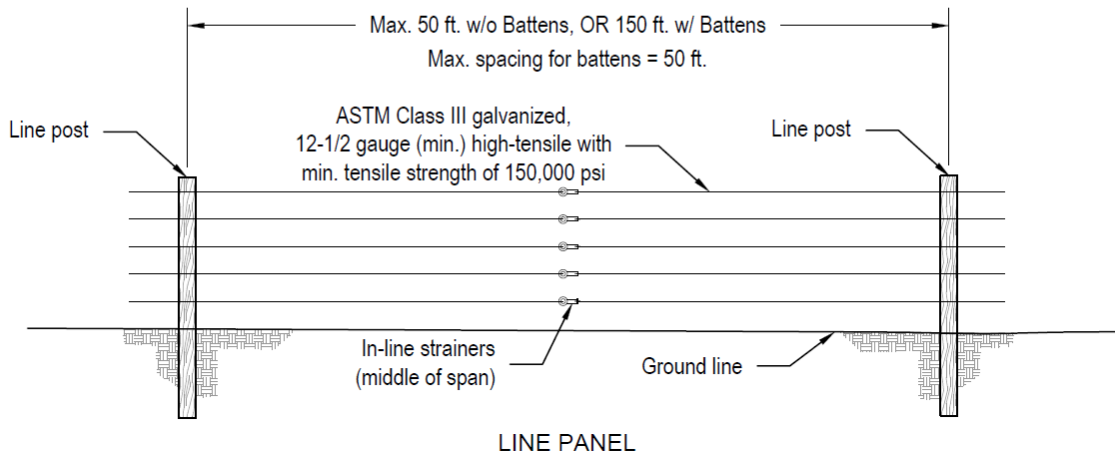
NRCS New York

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Approved _____ Date _____

Title _____ Sheet 1 of _____

5-STRAND HIGH TENSILE SMOOTH WIRE FENCE - NON-ELECTRIC



Refer to NRCS-NY-CTA Practice Specification 22B for High Tensile Smooth and Coated Wire and Braided Electrified Rope.

Additional instructions:

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5-STRAND HIGH TENSILE FENCE DETAIL
NON-ELECTRIC

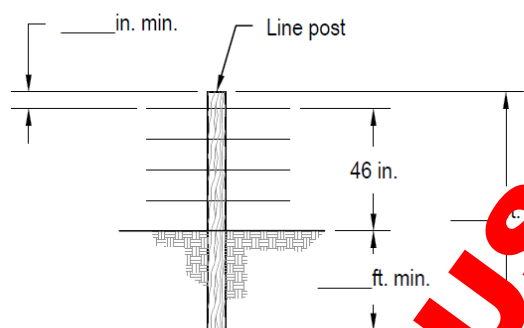
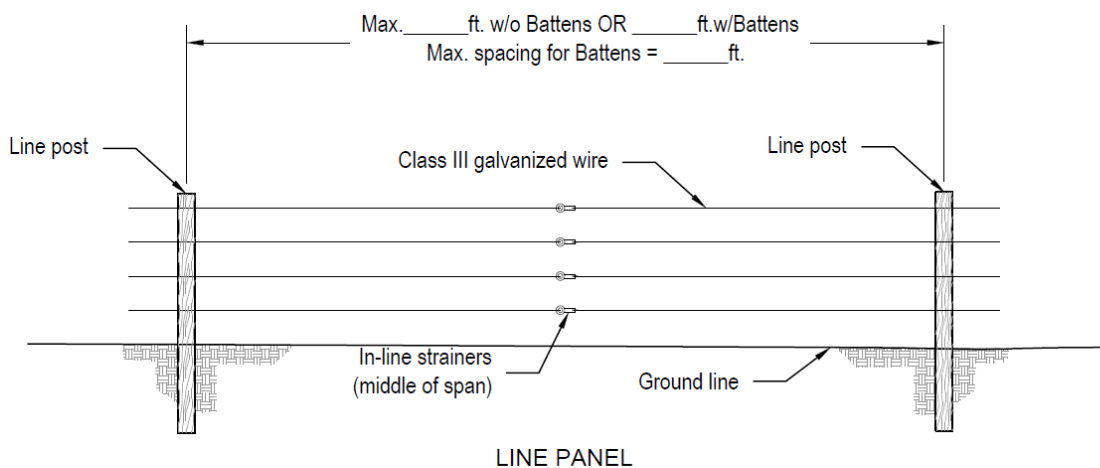
NRCS New York

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Title _____ Sheet 1 of _____

- STRAND HIGH TENSILE SMOOTH WIRE FENCE - NON-ELECTRIC



Refer to NRCS-NY-CTA Practice Specification 22B-High Tensile Smooth and Coated Wire and Braided Electrified Rope.

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-STRAND HIGH TENSILE FENCE DETAIL
NON-ELECTRIC

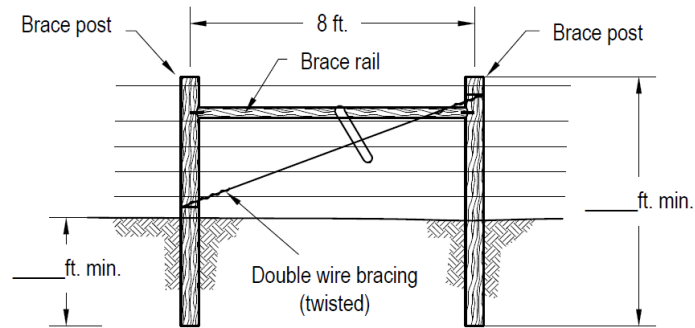
NRCS New York

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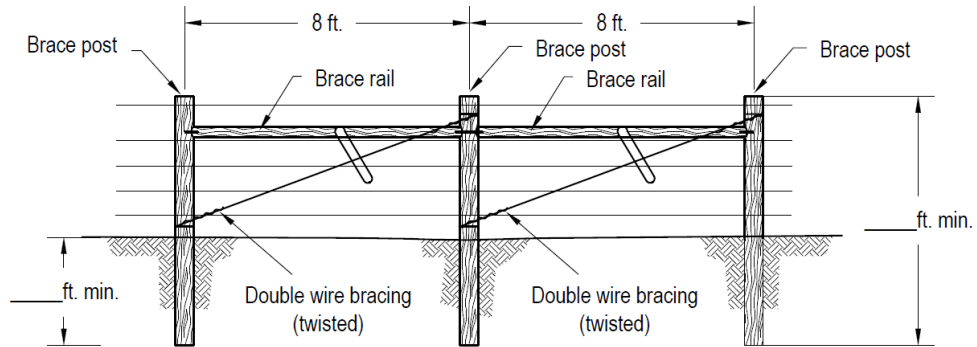
Approved _____ Date _____

Title _____ Sheet 1 of _____

SINGLE WIRE FENCE BRACE DETAILS (HIGH TENSILE AND BARBED WIRE)



SINGLE SPAN LINE BRACE ASSEMBLY
(AT CORNERS, ENDS, OR GATES)



DOUBLE SPAN LINE BRACE ASSEMBLY
(AT CORNERS, ENDS, OR GATES)

High Tensile: Refer to NRCS-NY-Specification 382B-Fence-High Tensile Smooth and Coated Wire and Braided Electrified Rope

Barbed Wire: Refer to NRCS-NY Specification 382A-Fence - Barbed, Woven or Wooden.

Additional Instructions:

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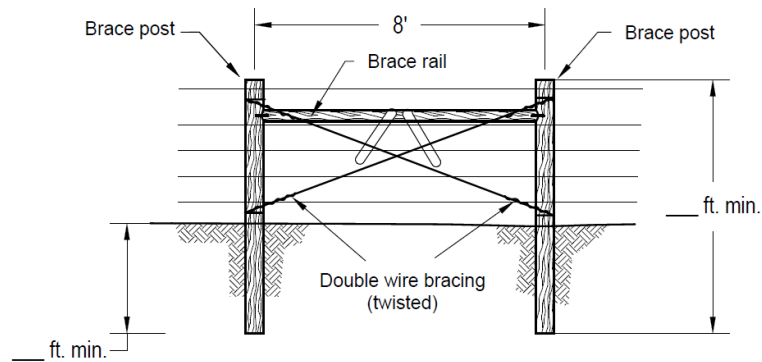
FENCE BRACE DETAIL
NRCS New York

Designed _____ Date _____

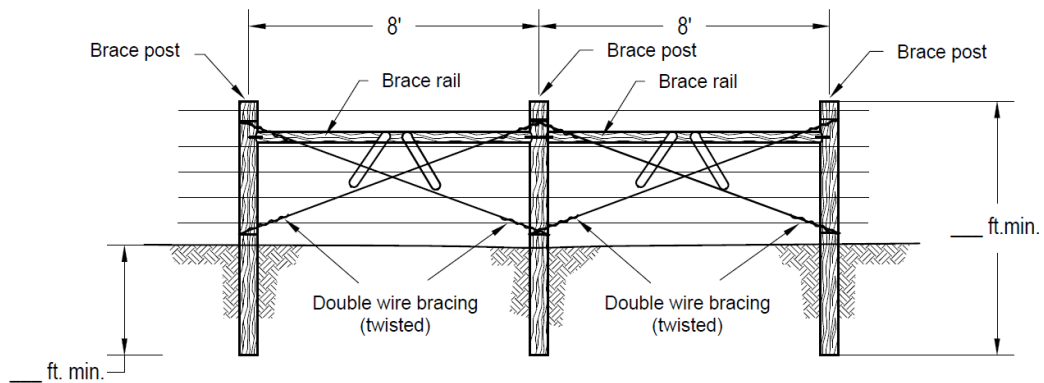
Approved _____ Date _____

Title _____ Sheet 1 of _____

DOUBLE WIRE FENCE BRACE DETAILS (HIGH TENSILE AND BARBED WIRE)



SINGLE SPAN LINE BRACE ASSEMBLY



DOUBLE SPAN LINE BRACE ASSEMBLY

High Tensile: Refer to NRCS-NY Specification 382B-Fence-High Tensile Smooth and Coated Wire and Braided Electrified Rope

Barbed Wire: Refer to NRCS-NY Specification 382A-Fence-Barbed, Woven or Wooden.

Additional Instructions:

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DOUBLE WIRE FENCE BRACE DETAIL
NRCS New York

Designed _____ Date _____

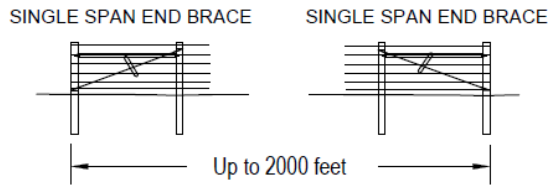
Approved _____ Date _____

Title _____

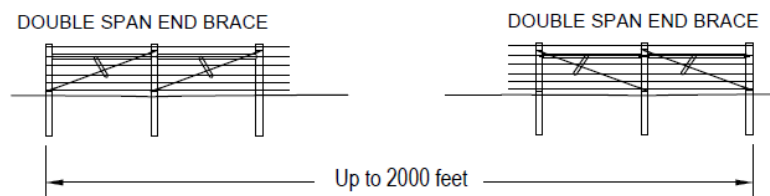
Sheet 1 of 1

HIGH TENSILE SMOOTH WIRE FENCE SPACING FOR BRACE ASSEMBLIES

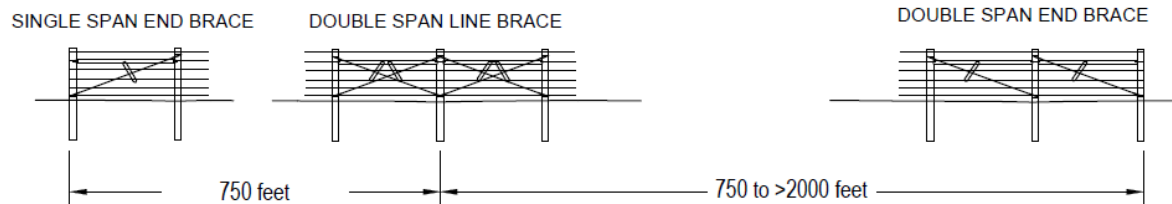
1. Use single span brace assemblies with 6 or less strands of wire between corner, end, and/or gate posts.



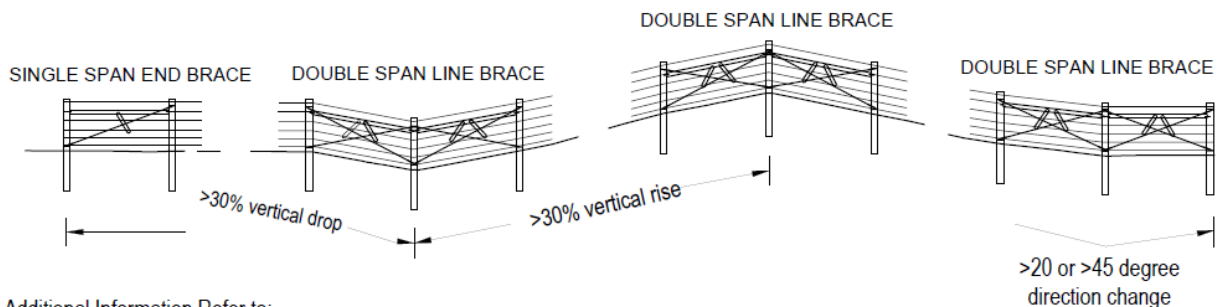
2. Use double span brace assemblies with more than 6 strands of wire between corner, end, and/or gate posts.



3. Use line braces to divide fence lengths where runs of fence are more than 2000 feet long. A run is the distance between a corner, end or gate post and the next corner, end, or gate post.



4. On uneven terrain, locate line braces at the top and bottom of each hill. Locate line braces where horizontal direction changes more than 20 degrees with 3 or more strands or more than 45 degrees with 2 or fewer strands.



For Additional Information Refer to:

- NRCS-NY-CTA Practice Specification 382B-Fence-High Tensile Smooth and Coated Wire and Braided Electrified Rope.

Drawing not to scale. Standardized drawing must be adapted to the specific site.



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HIGH TENSILE FENCE -
BRACE SPACING

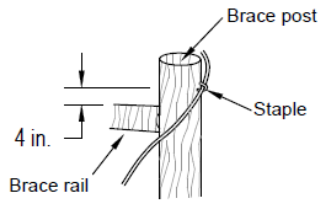
NRCS New York

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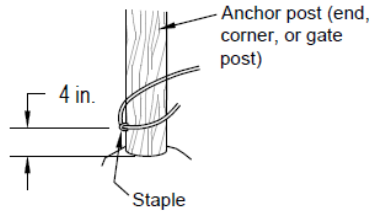
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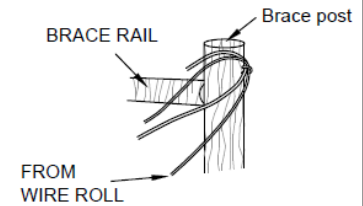
WIRE FENCE BRACE DETAILS



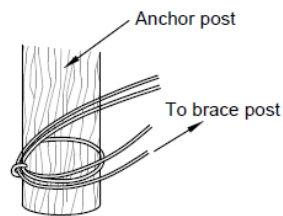
1. Drive staple about half its length into brace post about 4 inches above brace rail, on opposite side from brace.



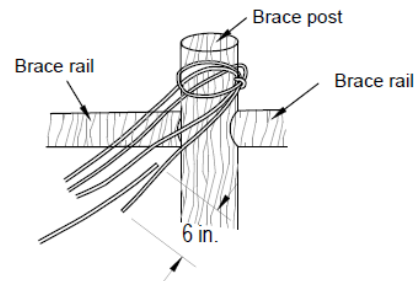
2. Drive staple in a similar manner on anchor post about 4 inches above ground, on opposite side from brace.



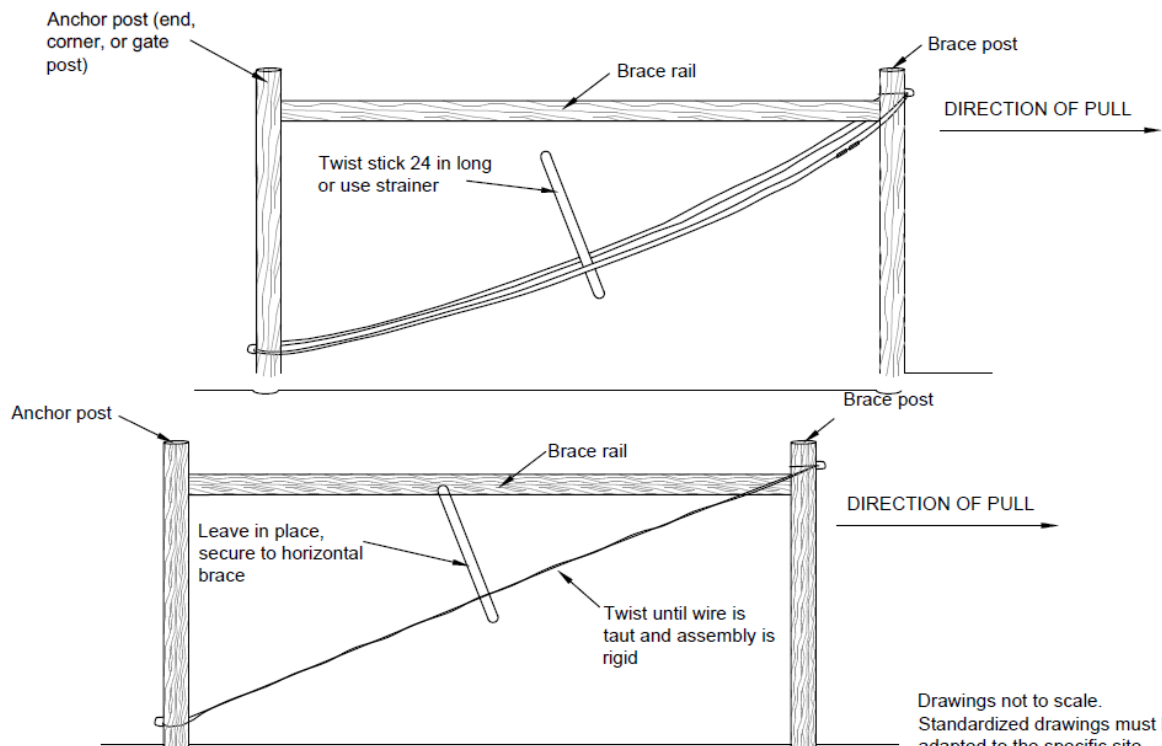
3. Unroll enough brace wire for two complete loops around anchor and brace posts. Thread brace wire through staples.



4. Wrap wire around anchor post and return toward brace post.



5. Cut brace wire from roll, allowing enough wire to wrap around brace post and extend 6 to 12 inches past the other wire end. Splice wires together.



Drawings not to scale.
Standardized drawings must be adapted to the specific site.



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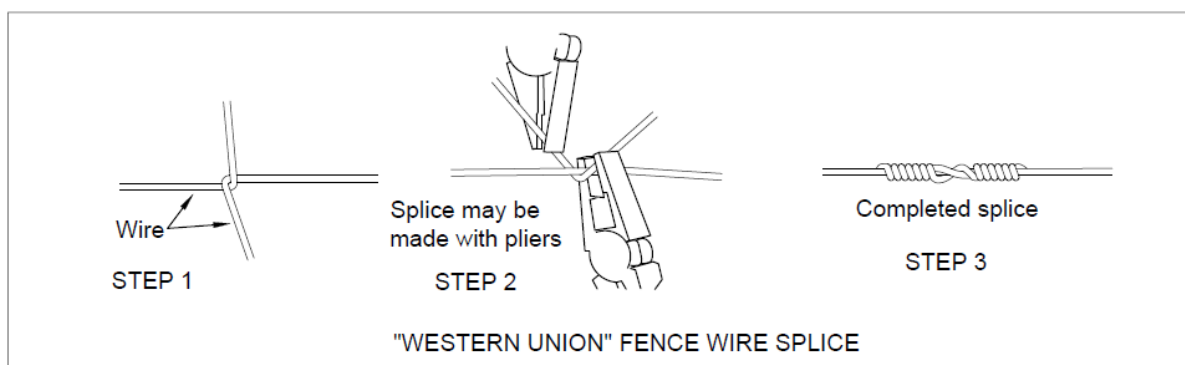
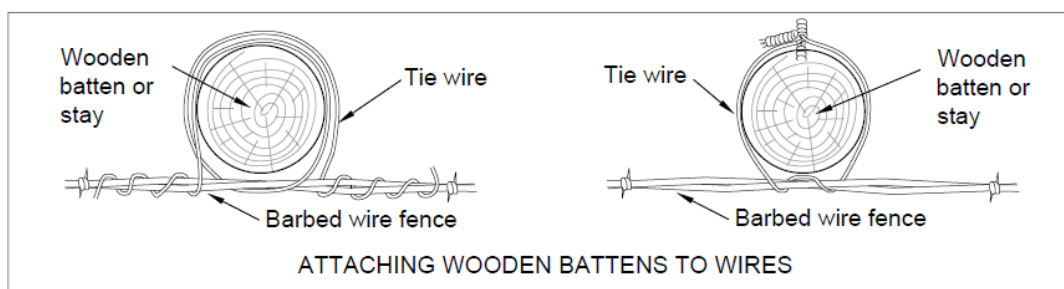
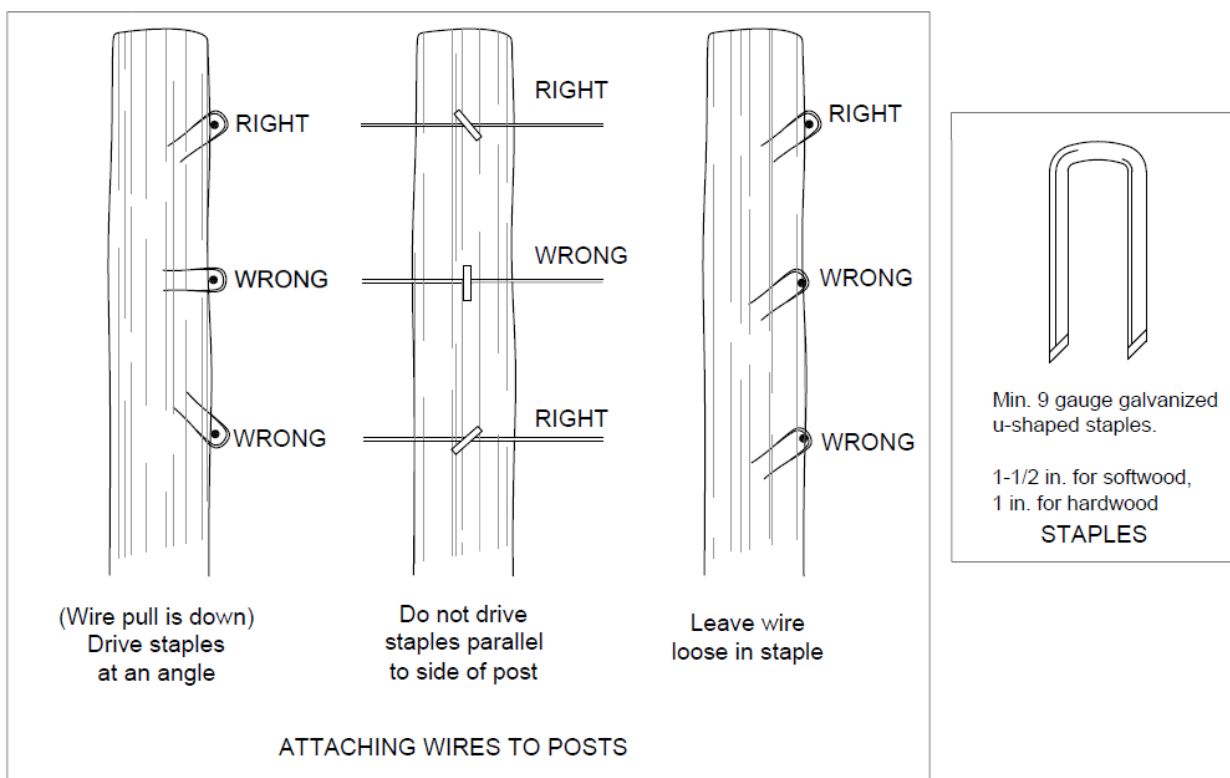
WIRE FENCE BRACE DETAILS
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FENCE STAPLES AND WIRE ATTACHMENT DETAIL



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<p>United States Department of Agriculture</p>	<p>FENCE STAPLES AND WIRE ATTACHMENT DETAILS NRCS New York</p>	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="border-bottom: 1px solid black; width: 60%;">Designed</td> <td style="border-bottom: 1px solid black; width: 40%;">Date</td> </tr> <tr> <td style="border-bottom: 1px solid black;">Approved</td> <td style="border-bottom: 1px solid black;">Date</td> </tr> <tr> <td style="border-bottom: 1px solid black;">Title</td> <td style="border-bottom: 1px solid black;">Sheet 1 of</td> </tr> </table>	Designed	Date	Approved	Date	Title	Sheet 1 of
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