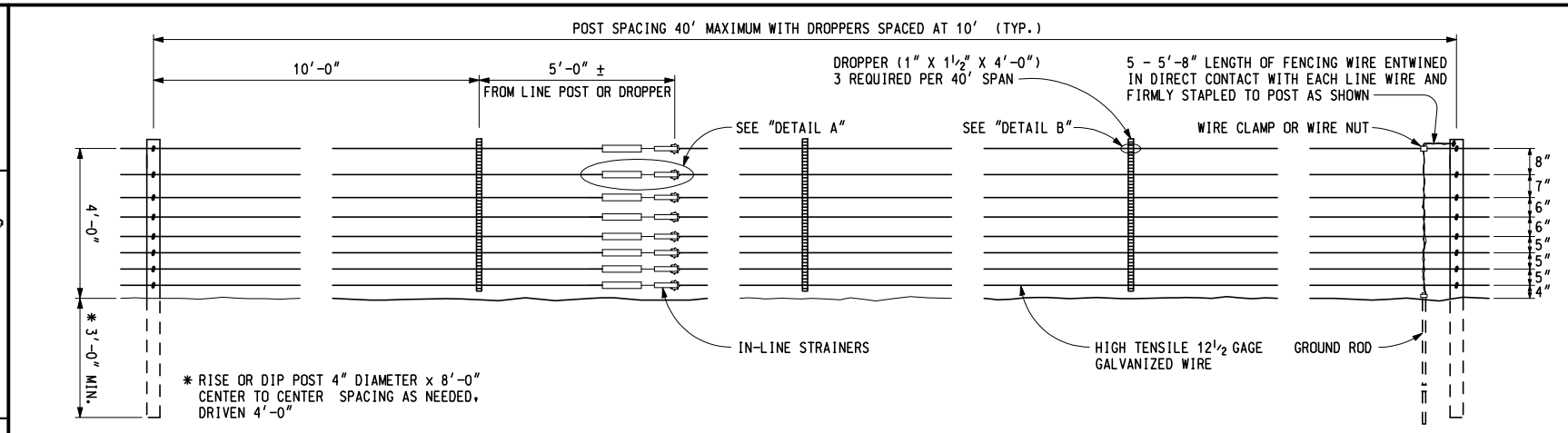
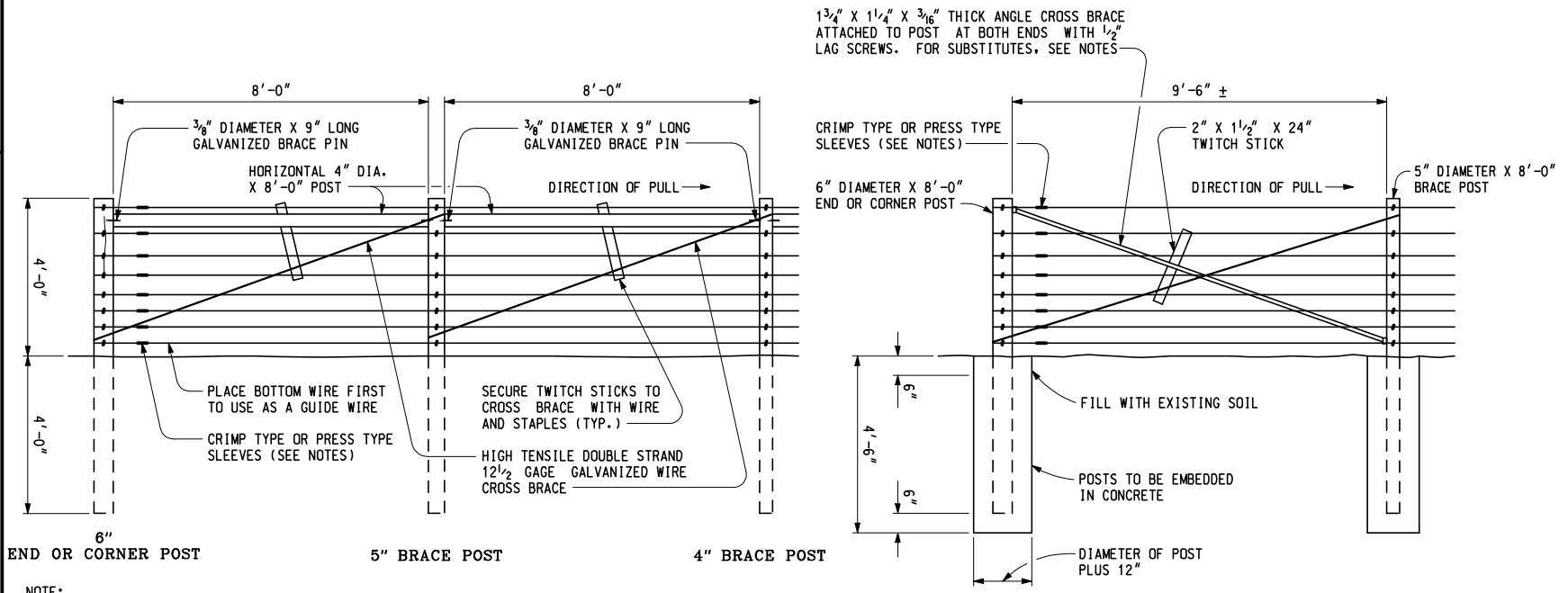


EIGHT WIRE FENCE DETAIL



NOTE:
ABOVE ILLUSTRATION SHOWS ONE LEG OF FENCE CONSTRUCTION AT FENCE CORNER OR END OF FENCE RUN, THE CONTINUOUS LEG TO BE OF IDENTICAL CONSTRUCTION.

DOUBLE SPAN DRIVEN ASSEMBLY

SINGLE SPAN CONCRETE EMBEDDED ASSEMBLY

END, CORNER, PULL OR STRETCHER POSTS ASSEMBLY

MDOT Michigan Department of Transportation

PREPARED BY DESIGN DIVISION

DRAWN BY: B.L.T.

CHECKED BY: W.K.P.

ENGINEER OF CONSTRUCTION & TECHNOLOGY

ENGINEER OF MAINTENANCE

ENGINEER OF TRAFFIC AND SAFETY

ENGINEER - ROAD DESIGN

ENGINEER OF DESIGN

DEPARTMENT DIRECTOR
Gregory J. Rosine

BY: CHIEF ENGINEER/DEPUTY DIRECTOR
BUREAU OF HIGHWAY TECHNICAL SERVICES

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAY TECHNICAL SERVICES STANDARD PLAN FOR

HIGH TENSILE EIGHT WIRE FENCE

F.H.W.A. APPROVAL	PLAN DATE		
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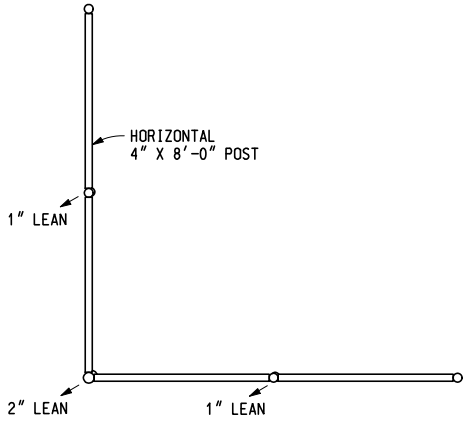
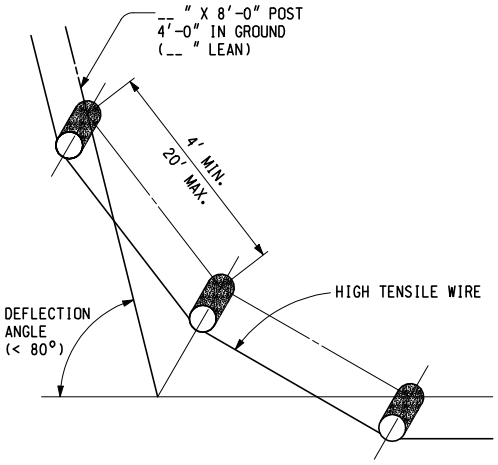
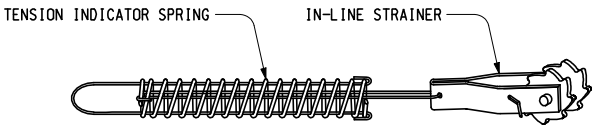


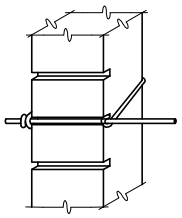
PLAN VIEW OF
DOUBLE SPAN CORNER ASSEMBLY



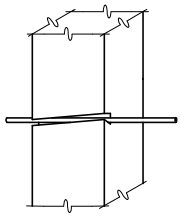
PLAN VIEW OF SHALLOW CORNERS
(FOR TURNING ANGLES, LOW ANGLE CORNERS, CURVES, ETC.)



DETAIL A



MULTI-GROOVE DROPPER



ANGLE GROOVE DROPPER

DETAIL B

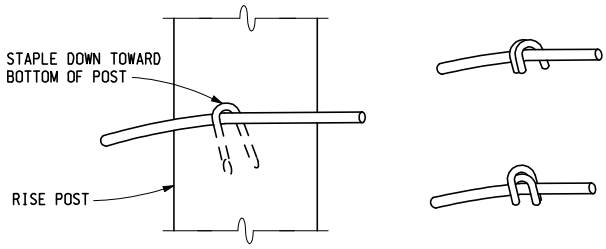
NOTES FOR TURNING CORNERS:

WHEN TURNING CORNERS OR A NUMBER OF ANGLES AS ON A SMALL RADIUS RAMP CURVE WITH A MAXIMUM DEFLECTION ANGLE OF 80° USE THE FOLLOWING DATA:

0° - 10° DIRECTIONAL CHANGE, 4" DIAMETER X 8'-0" POST ON 4" LEAN.
11° - 20° DIRECTIONAL CHANGE, 5" DIAMETER X 8'-0" POST ON 5" LEAN.
21° - 30° DIRECTIONAL CHANGE, 6" DIAMETER X 8'-0" POST ON 5" LEAN.

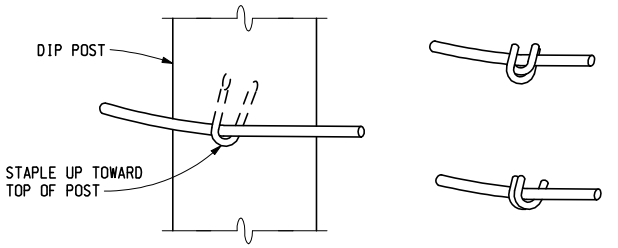
NO SINGLE ANGLE SHALL BE GREATER THAN 30°. POST SHALL BE MACHINE DRIVEN AND LEAN OUT OF THE TURN OR CURVE. POSTS WILL ALWAYS BE ON THE INSIDE OF THE WIRE ON A CURVE (RADIUS SIDE).

IT IS PREFERABLE TO HAVE APPROXIMATELY 80' BETWEEN MAJOR TURNS OR DIRECTIONAL CHANGES.



DOUBLE STAPLING

RISE POST

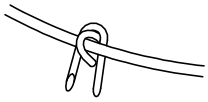


DOUBLE STAPLING

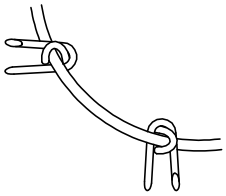
DIP POST

ROTATE STAPLE AWAY FROM FLAT SURFACE

LINE POST
(FLAT TERRAIN)



SHALLOW CORNER
DOUBLE STAPLING



RIGHT ANGLE CORNER
DOUBLE STAPLING

CORNER POST

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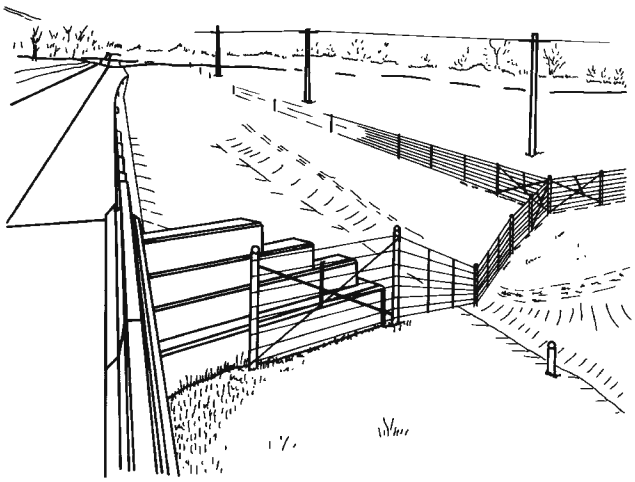
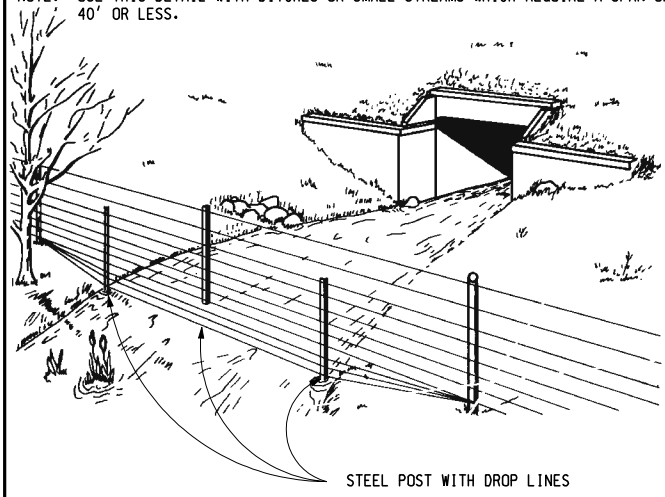
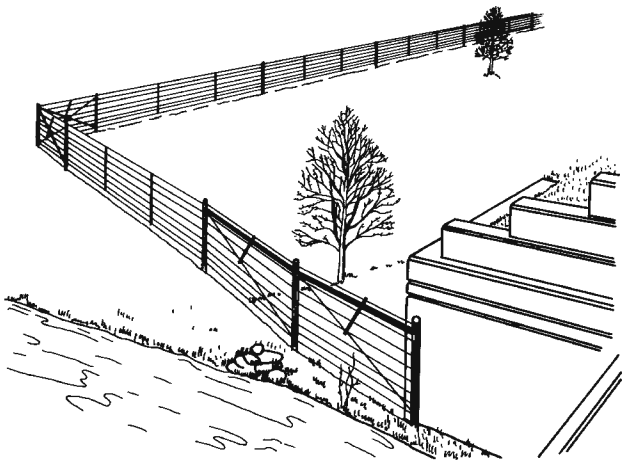


BRIDGES WITH SLOPE-WALLS

NOTE: USE THIS DETAIL WITH DITCHES OR SMALL STREAMS WHICH REQUIRE A SPAN OF 40' OR LESS.

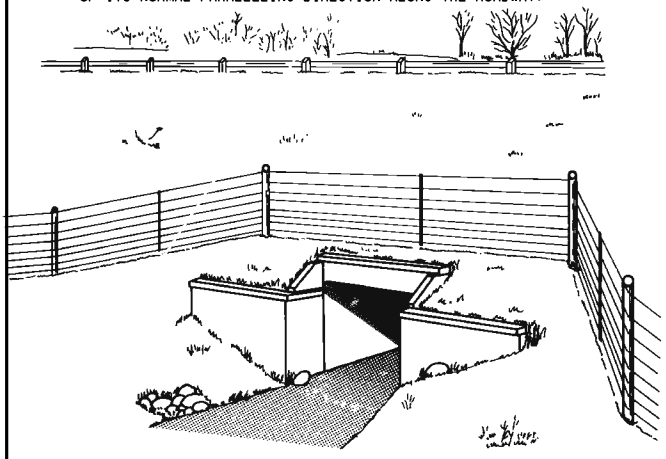


DRAINAGE DITCH OR SMALL STREAM

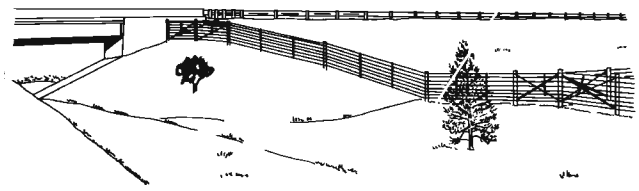


STREAM CROSSING

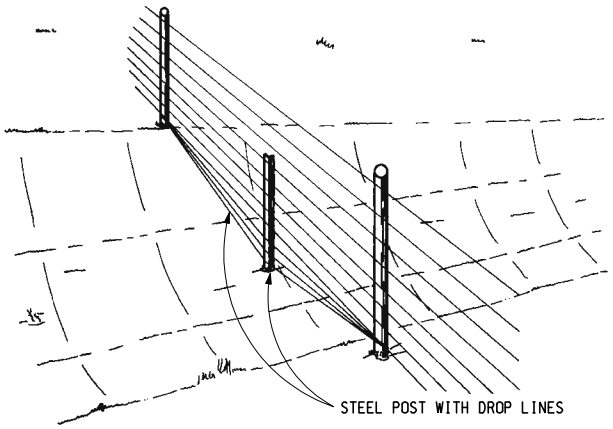
NOTE: FOR THIS DETAIL, USE 6" X 8'-0" POSTS EMBEDDED IN CONCRETE ON ALL POSTS THAT ARE PART ON THE DEFLECTION ANGLE WHICH TAKES THE FENCE OUT OF ITS NORMAL PARALLELING DIRECTION ALONG THE ROADWAY.



CATTLE CROSSING



BRIDGES WITH TURN BACK WINGWALLS



NOTE: USE THIS DETAIL WITH RAVINES WHICH REQUIRE A SPAN OF 40' OR LESS. FOR RAVINES REQUIRING A SPAN THAT IS GREATER THAN 40', PLACE A 4" DIAMETER x 8'-0" DIP POST IN PLACE OF STEEL POST, RUN WIRES LIKE LEVEL FENCE.

SHALLOW RAVINE

MICHIGAN DEPARTMENT OF TRANSPORTATION

BUREAU OF HIGHWAY TECHNICAL SERVICES STANDARD PLAN FOR

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NOTES:

ALL POSTS, EXCEPT THOSE EMBEDDED IN CONCRETE, SHALL BE MECHANICALLY DRIVEN INTO THE GROUND WHERE SOIL CONDITIONS PERMIT. POSTS SHALL BE DRIVEN WITH THE SMALL END BEING DRIVEN INTO THE GROUND. POSTS SHALL BE EMBEDDED IN CONCRETE WHERE WARRANTED DUE TO POOR SOIL CONDITIONS; TO BE DETERMINED BY THE ENGINEER.

POST SIZES INDICATED ON THESE PLANS ARE MINIMUM DIAMETERS MEASURED ON THE SMALL END.

THE MAXIMUM POST SPACING IS 40′ ON LEVEL TERRAIN WITH DROPPERS ON 10′ CENTERS. POST SPACING MAY BE DECREASED DUE TO UNEVEN TERRAIN WITH A MAXIMUM SPACING OF 15′ BETWEEN DROPPERS. POST SPACINGS OF 15′ OR LESS DO NOT REQUIRE DROPPERS.

PLACEMENT OF IN-LINE STRAINERS SHALL BE AS CLOSE AS POSSIBLE TO THE CENTER OF THE FENCE RUN. PLACEMENT OF THE TENSION INDICATOR SPRING SHALL BE ON THE SECOND WIRE FROM THE TOP. ONE SPRING REQUIRED PER FENCE RUN.

MAXIMUM TOTAL LENGTH OF WIRE PER IN-LINE STRAINER (OR FENCE RUN) ON LEVEL TERRAIN, STRAIGHT = 5000′, 1-90° CORNER = 3000′, 2-90° CORNERS = 2000′, 3-90° CORNERS = 1500′, 4-90° CORNERS = 1000′, THE 90° CORNERS MAY BE A TOTAL OF DEFLECTION ANGLES EQUALING THE CORNER OR CORNERS. FOR UNEVEN TERRAIN, REDUCE DISTANCES BY 500′ FOR EACH MAJOR DIP OR RISE.

WIRES SHALL BE STAPLED AS SPECIFIED ON THIS PLAN USING $1\frac{3}{4}$″ x 9 GAGE ZINC COATED STAPLES. HOWEVER, THE STAPLES WILL BE DRIVEN DOWN ALLOWING JUST ENOUGH ROOM BETWEEN THE STAPLES AND WIRE SO THE WIRE CAN MOVE FREELY WHEN FENCE EXPANDS AND CONTRACTS.

GROUND RODS SHALL BE $\frac{5}{8}$″ x 8′-0″ LONG GALVANIZED STEEL RODS. THEY SHALL BE PLACED EVERY 300′. USE ONE GROUND ROD DIRECTLY UNDER POWER LINES AND ONE EACH SIDE 25′ TO 50′ AWAY. THE EXACT LOCATION SHALL BE DETERMINED BY THE ENGINEER. USE WIRE CLAMP OR OTHER APPROVED DEVICE TO ATTACH GROUND WIRES TO GROUND ROD.

IT IS RECOMMENDED TO USE CRIMP TYPE OR PRESS TYPE SLEEVES FOR TYING OF FENCE WIRES AT END OR STRETCHER POSTS AND FOR WIRE SPLICES. USE TWO SLEEVES ON END WIRES AND THREE SLEEVES FOR SPLICES. OTHER DEVICES MAY BE SUBSTITUTED FOR THE SLEEVES APPROVED.

A 4″ DIAMETER WOOD POST MAY BE SUBSTITUTED FOR THE ANGLE CROSS BRACE. STEEL TUBING, PIPE OR CHANNELS MAY ALSO BE USED FOR SUBSTITUTES IF SHOWN TO BE EQUIVALENT IN STRENGTH AND APPROVED BY THE ENGINEER.

PROPER TENSION SHALL BE PUT ON THE WIRE CROSS BRACE BY TWISTING THE WIRES WITH A TWITCH STICK. SECURE THE TWITCH STICK TO THE HORIZONTAL POST OR TO THE CROSS BRACE (PIPE, TUBE, CHANNEL).

ALL FENCE POSTS, HORIZONTAL POSTS, WOODEN DROPPERS AND TWITCH STICKS SHALL BE PRESSURE TREATED. DROPPERS MAY ALSO BE CONSTRUCTED OF FIBERGLASS OR PLASTIC; CLIPS ARE REQUIRED.

ALL HARDWARE; WIRE, STAPLES, STRAINERS, PINS, ANGLE CROSS BRACES, ETC.; SHALL BE GALVANIZED ACCORDING TO THE CURRENT STANDARD SPECIFICATIONS.

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