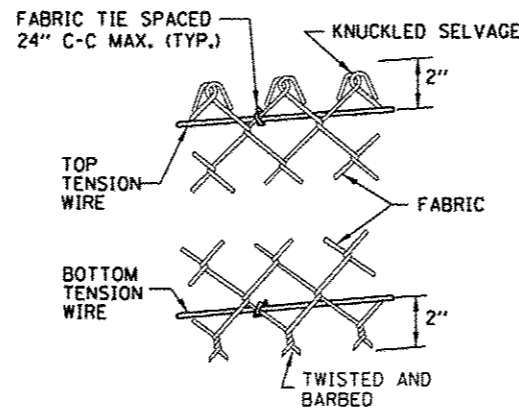
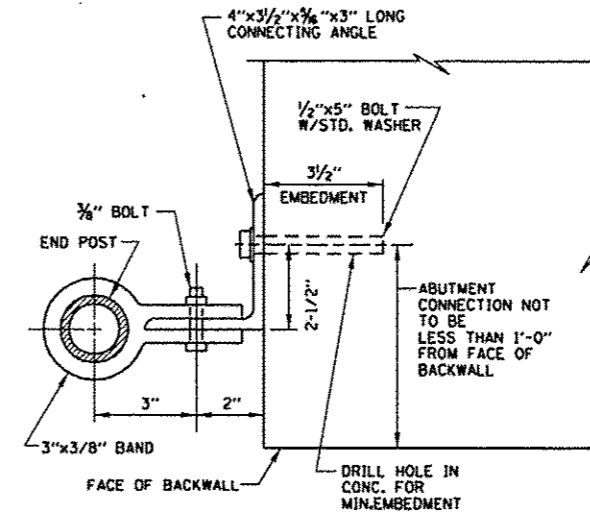


STRETCHER BARS SHALL BE GALVANIZED FLAT STEEL BAR NOT LESS THAN 1/4" x 3/4" AND THE STRETCHER BAR BANDS SHALL BE GALVANIZED FLAT STEEL BAR NOT LESS THAN 1/8" x 1" WITH A 3/8" GALVANIZED CARRIAGE BOLT.

**METHOD OF FASTENING
STRETCHER BAR TO POST**



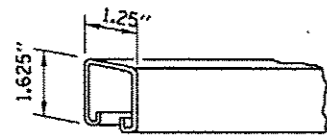
**METHOD OF TYING
FABRIC TO TENSION WIRES**



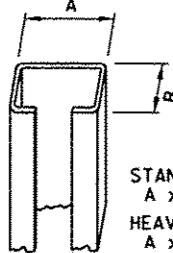
ABUTMENT CONNECTION DETAIL

NOTES FOR ABUTMENT CONNECTION:

1. WHEN ROLL FORMED SECTION IS USED IN LIEU OF PIPE AS END POST, THE POST SHALL BE BOLTED DIRECTLY TO THE ABUTMENT WALL WITH 2 1/2" x 5" BOLTS WITH STANDARD WASHERS MEETING THE APPROVAL OF THE ENGINEER.

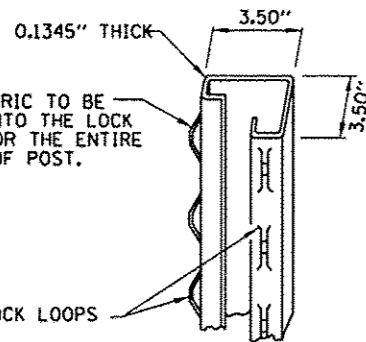


**BRACE SECTION
1.25 LBS/LF**



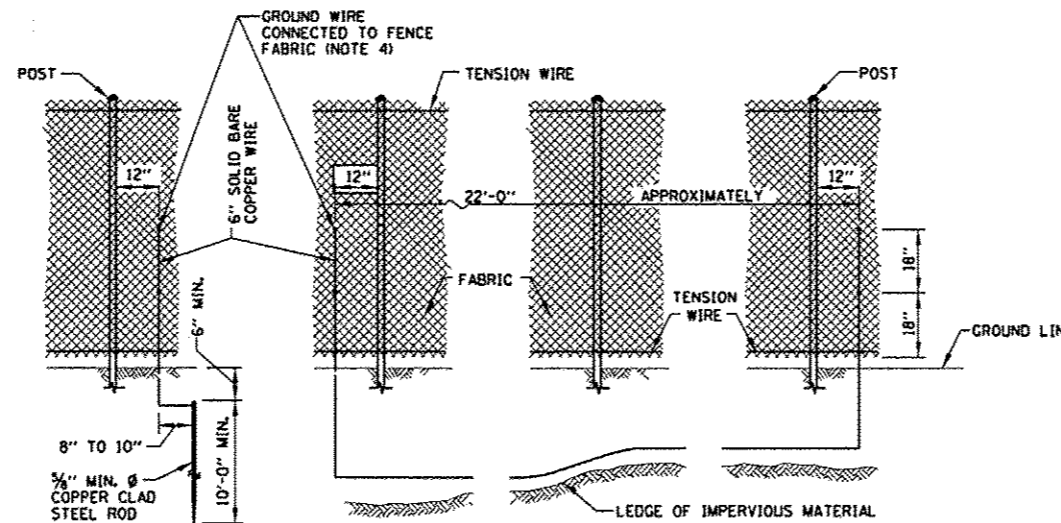
STANDARD "C" - 2.28 LBS/LF
A x B = 1.875" x 1.625"
HEAVY "C" - 2.70 LBS/LF
A x B = 2.250" x 1.625"

LINE POST "C" SECTION



**TERMINAL POST SECTION
5.10 LBS/LF**

DETAILS OF ROLL FORMED SECTIONS

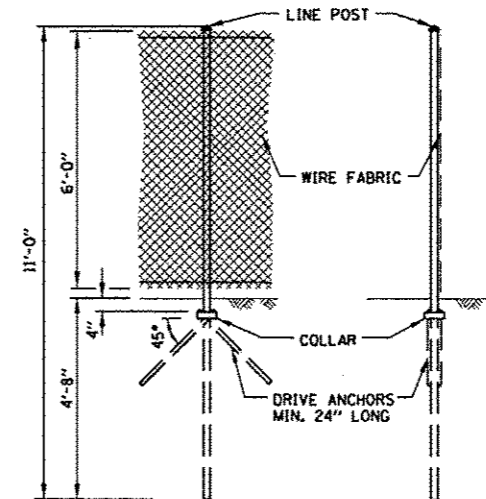


STANDARD GROUND

COUNTERPOISE GROUND (ALTERNATE)

NOTES FOR STANDARD AND COUNTERPOISE GROUND:

1. THE INTERVALS FOR GROUNDING CONTINUOUS FENCING SHALL NOT EXCEED 500 FEET IN URBAN AREAS AND 1000 FEET IN RURAL AREAS. FENCE ADJACENT TO A GATE SHALL BE GROUNDED A MAXIMUM DISTANCE 100 FEET EACH SIDE OF THE GATE.
2. FENCE CROSSING UNDER A POWER LINE SHALL BE GROUNDED, ONCE DIRECTLY UNDER THE CROSSING AND ONE ON EACH SIDE AT 25 TO 50 FEET AWAY. FENCE LOCATED DIRECTLY UNDER A TELEPHONE WIRE OR CABLE CROSSING SHALL HAVE A SINGLE GROUND.
3. COUNTERPOISE GROUNDS SHALL BE USED AT LOCATIONS WHERE GROUND RODS CAN NOT BE DRIVEN DUE TO IMPERVIOUS EARTH MATERIALS.
4. THE GROUND WIRES SHALL BE CONNECTED TO FENCE FABRIC AND GROUND ROD BY STAINLESS STEEL BOLTS AND WASHERS. THE LOWER CONNECTION OF THE GROUND WIRE SHALL BE MADE TO THE BOTTOM TENSION WIRE.
5. SEE SHEET 2 (OF 2) IN THIS SERIES FOR ADDITIONAL DETAILS AND GENERAL NOTES.



**ALTERNATE
DRIVEN LINE POST ANCHORAGE
WITH OR WITHOUT DRIVE ANCHORS**

NOTE FOR FENCE POST:

ALTERNATE DRIVEN LINE POST ANCHORAGE IS OPTIONAL. DRIVEN LINE POST ANCHORAGE WITHOUT DRIVE ANCHORS MAY BE USED IN AVERAGE TO GOOD SOIL CONDITIONS. WHEN SOIL IS WEAKER (0.5 < 1.25 TONS/ SQ. FT.) AND STABILITY OF THE POST IS QUESTIONABLE, DRIVE ANCHORS SHALL BE USED. TYPES, SHAPES, DIMENSIONS AND COATING REQUIREMENTS OF DRIVE ANCHORS (ANCHOR BLADES AND COLLARS) FOR DIFFERENT TYPE OF POSTS SHALL BE AS RECOMMENDED BY THE MANUFACTURER.

APPROVED: *Paul Kovacs*
DATE: 7-1-2009
CIVIL ENGINEER

ELECTRICAL GROUNDING DETAILS

Illinois Tollway
Open Roads for a Faster Future

RIGHT OF WAY FENCE

STANDARD D1-01