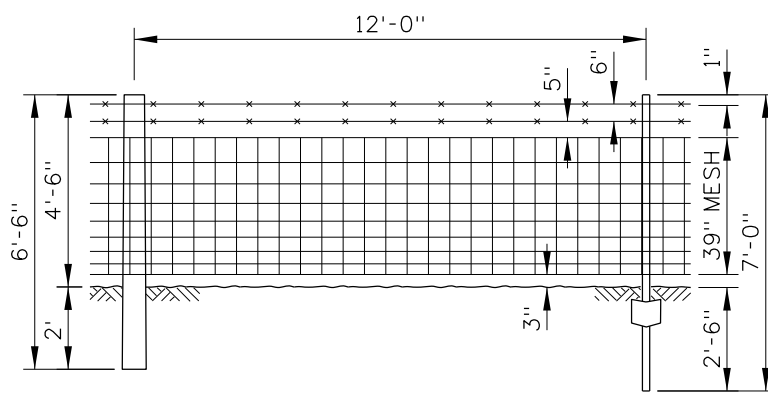


1A (WOOD)

FENCE TYPE 1

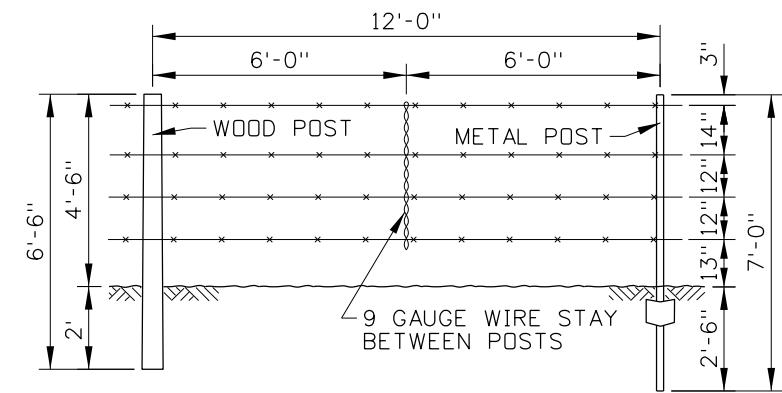
1B (METAL)



3A (WOOD)

FENCE TYPE 3

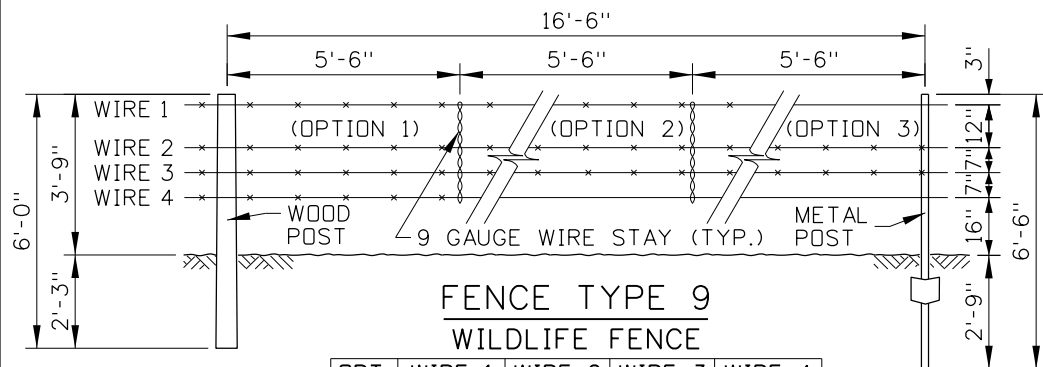
3B (METAL)



5-A (WOOD)

FENCE TYPE 5

5-B (METAL)

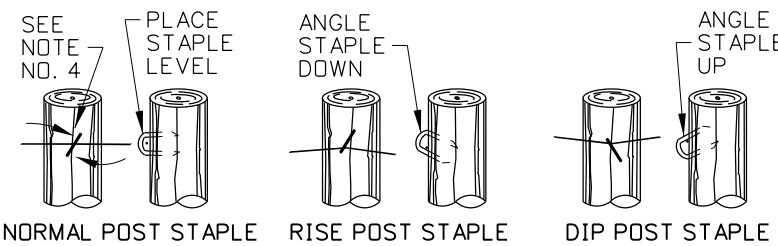


FENCE TYPE 9
WILDLIFE FENCE

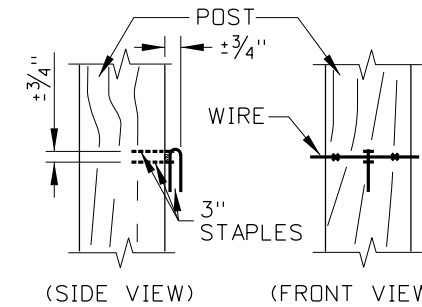
9-A
(WOOD)

9-B
(METAL)

OPT.	WIRE 1	WIRE 2	WIRE 3	WIRE 4
1	BARBED	BARBED	BARBED	BARBED
2	BARBED	BARBED	BARBED	SMOOTH
3	SMOOTH	BARBED	BARBED	SMOOTH

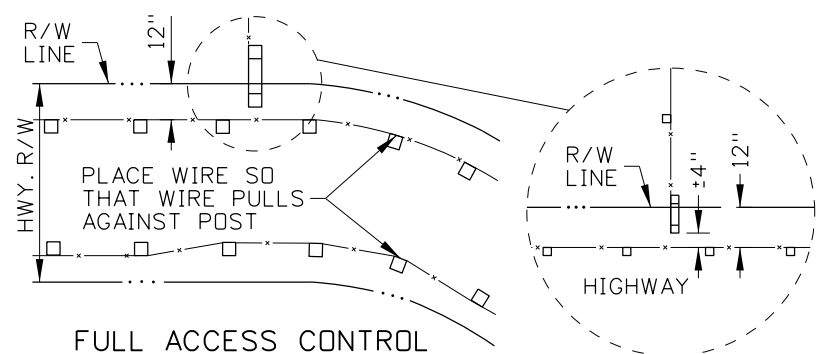


WOOD FENCE POST STAPLE DETAILS
(SEE NOTE NO. 4)

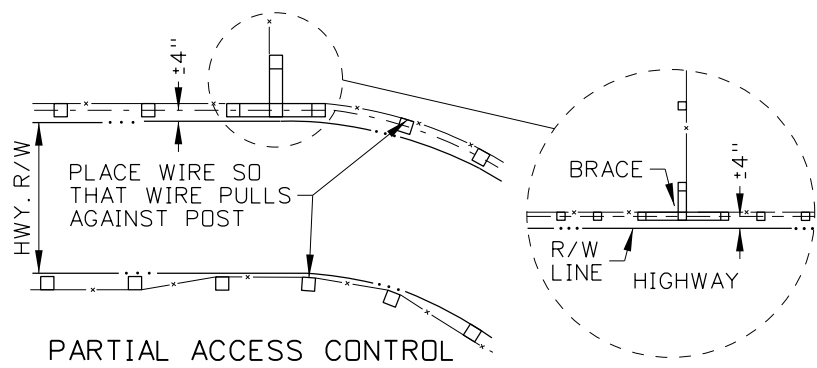


DROP FENCE STAPLE DETAIL
(SEE NOTE NO. 1)

FENCE DIST. FROM TRANSMISSION LINE	kV	POST MATERIAL	GROUNDING INTERVAL
0' - 100'	500	ALL	200'
100' - 200'	500	ALL	500'
0' - 100'	345	ALL	400'
100' - 150'	345	ALL	1,000'
50' - 100'	230	ALL	500'

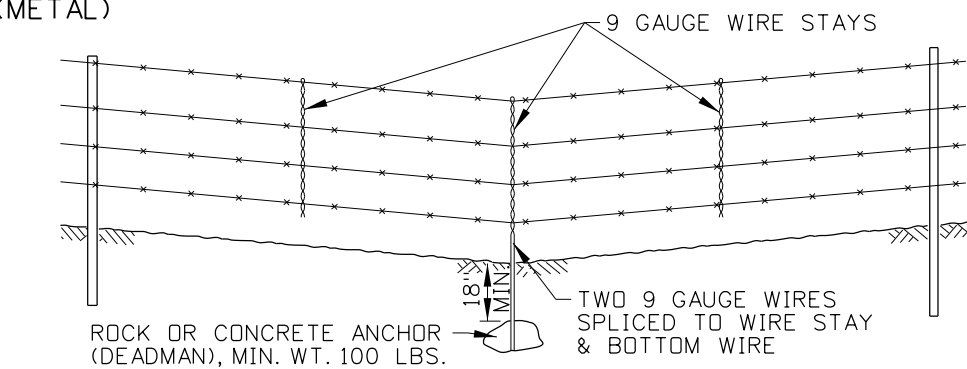


FULL ACCESS CONTROL

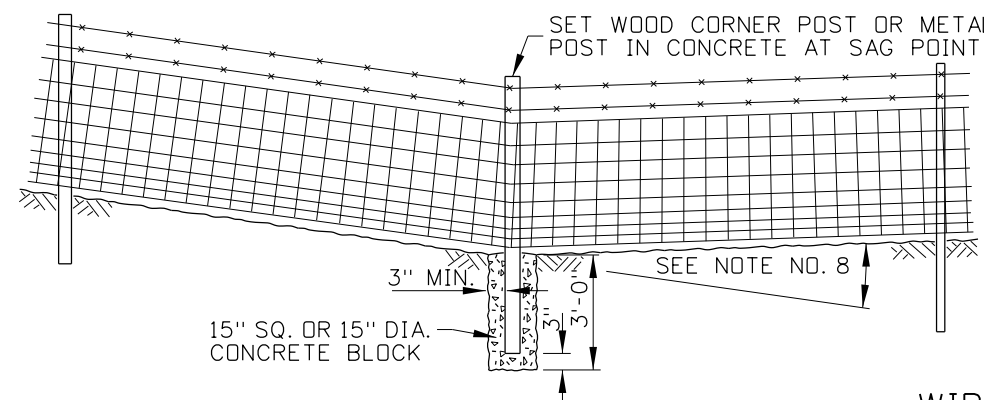


PARTIAL ACCESS CONTROL

RIGHT-OF-WAY FENCE LOCATION DETAILS

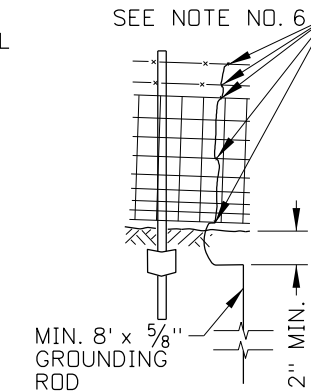
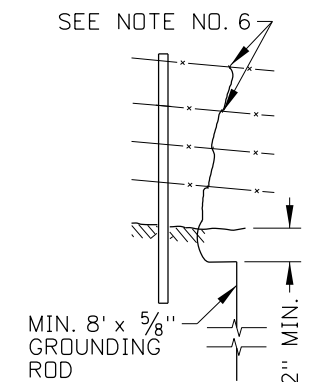


ROCK OR CONCRETE ANCHOR (DEADMAN), MIN. WT. 100 LBS.



15" SQ. OR 15" DIA. CONCRETE BLOCK

SAG DETAILS



WIRE AND WIRE MESH FENCE GROUNDING DETAILS

BARBED OR WOVEN WIRE FENCE NOTES

1. DESIGNATE POST MATERIAL ON PROJECT PLANS. INDICATE WHETHER THE FENCE WILL BE A DROP FENCE AND THE LOCATION WHERE DROP FENCE STAPLES WILL BE USED.
2. DESIGNATE OPTION 1, 2, OR 3 FOR FENCE TYPE 9 - WILDLIFE FENCE - ON PROJECT PLANS.
3. ATTACH ANCHOR PLATES TO METAL POSTS UNLESS THE POST IS SET IN SOLID ROCK. GROUT DRILL HOLES WHEN METAL POSTS ARE SET IN SOLID ROCK.
4. STAPLE EACH WIRE TO EACH WOOD POST. STAPLE ALTERNATING WIRES ON MESH WIRE FENCES. USE TWO STAPLES ON BRACES AND IN SAG SECTIONS. ROTATE THE STAPLES TO STRADDLE ACROSS THE WOOD GRAIN. ALLOW ENOUGH SPACE FOR WIRE TO SLIDE THROUGH THE STAPLE.
5. ATTACH FENCE WIRE OR WIRE MESH TO STEEL POSTS WITH WIRE CLAMPS. USE ONE WIRE CLAMP PER WIRE. ON WIRE MESH, USE FOUR WIRE CLAMPS PER POST OR EIGHT WIRE CLAMPS PER POST IN SAG SECTIONS.
6. GROUND WIRE AND WIRE MESH FENCES THAT ARE NEAR POWER TRANSMISSION LINES OR THAT PASS UNDER TRANSMISSION TABLE AND WIRE AND WIRE MESH FENCE GROUNDING DETAILS. TO GROUND, CONNECT EACH FENCE WIRE TO 6 GAUGE BRAIDED GROUND CABLE WITH SPLIT BOLT CABLE CONNECTORS. FOR WIRE MESH FENCE, CONNECT THE BRAIDED GROUND CABLE EVERY 18". GROUND THE FENCE ONCE IF THE FENCE SECTION IS SHORTER THAN THE GROUNDING INTERVAL.
7. WHEN THE FENCE TERMINATES AT A BRIDGE, ENSURE THAT THE TOP OF THE FENCE DOES NOT EXTEND BEYOND THE TOP OF THE PARAPET OR RAILING.
8. ON THE SAG DETAIL, INSTALL CORNER BRACE IN ADDITION TO THE CONCRETE BASE WHEN THE ANGLE IS GREATER THAN 20°.

ORIGINAL STORED AT: ITD, Headquarters 3311 West State Boise, Idaho

ORIGINAL SIGNED BY: RYAN D. LANCASTER DATE: ORIGINAL SIGNED: DECEMBER 6, 2016

NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY

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CADD FILE NAME: 610-1_1216.dgn
DRAWING DATE: NOVEMBER, 2016

IDAHO TRANSPORTATION DEPARTMENT



BOISE IDAHO

ORIGINAL SIGNED BY: TED MASON
DESIGN/TRAFFIC SERVICES ENGINEER

STANDARD DRAWING

FENCES

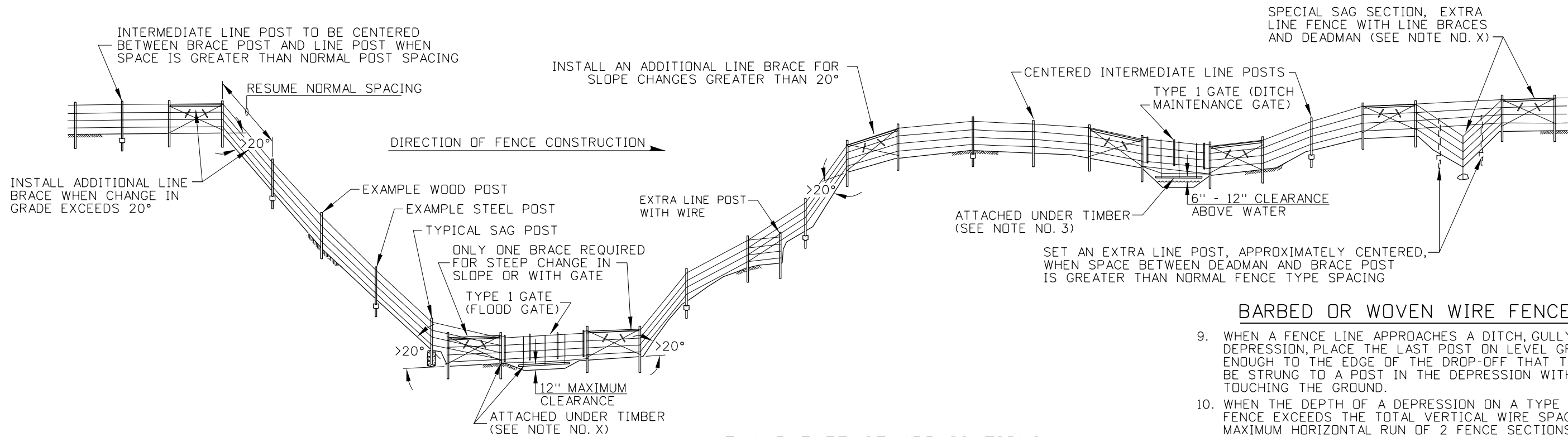
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English

STANDARD DRAWING NO.

610-1

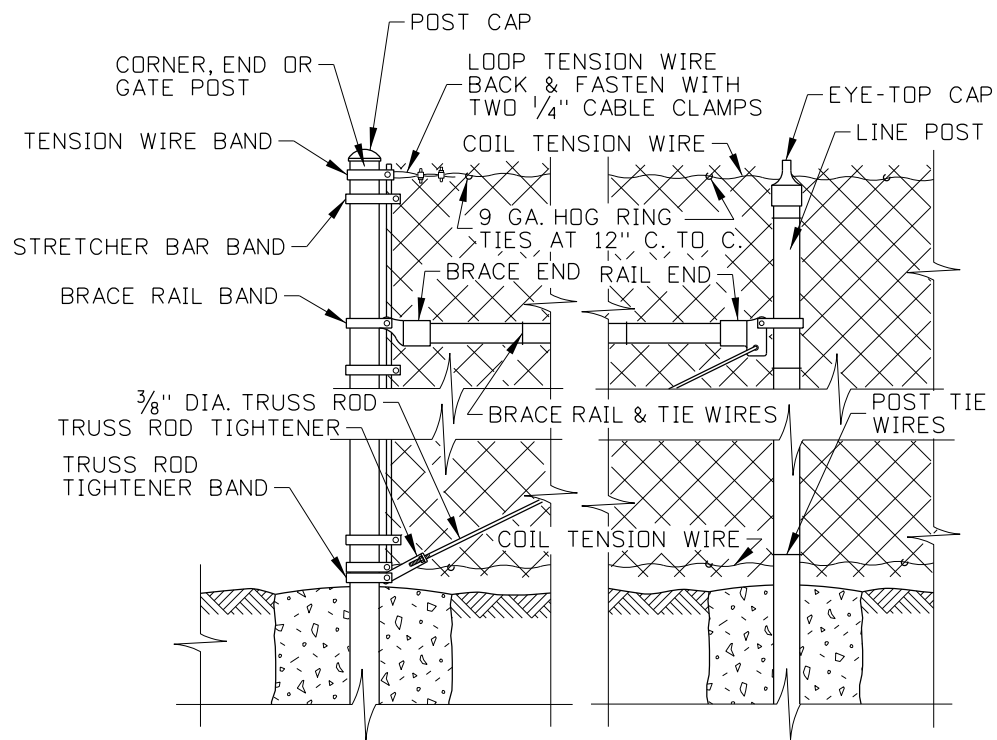
SHEET 1 OF 3



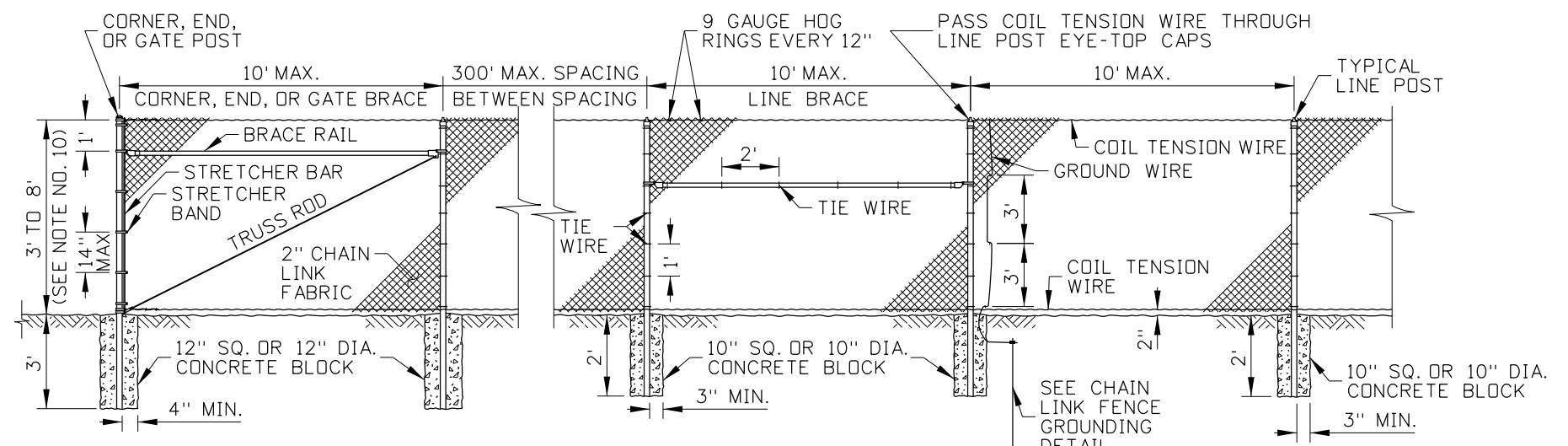
EXAMPLE FENCE APPLICATIONS
FOR FENCE TYPES 1, 3, 5, & 9

BARBED OR WOVEN WIRE FENCE NOTES

9. WHEN A FENCE LINE APPROACHES A DITCH, GULLY, OR DEPRESSION, PLACE THE LAST POST ON LEVEL GROUND CLOSE ENOUGH TO THE EDGE OF THE DROP-OFF THAT THE WIRE MAY BE STRUNG TO A POST IN THE DEPRESSION WITHOUT TOUCHING THE GROUND.
10. WHEN THE DEPTH OF A DEPRESSION ON A TYPE 1, 5, OR 9 FENCE EXCEEDS THE TOTAL VERTICAL WIRE SPACING OVER A MAXIMUM HORIZONTAL RUN OF 2 FENCE SECTIONS, CONSTRUCT AN EXTRA FENCE SECTION THROUGH THE DEPRESSION. SEE THE EXAMPLE FENCE APPLICATIONS.
11. IF THE DISTANCE BETWEEN THE GROUND AND THE BOTTOM WIRE OF A TYPE 1 GATE IS GREATER THAN 16", INSTALL AN UNDER TIMBER, ADDITIONAL WIRE, AND WIRE STAYS, AND BRACES.



FENCE TYPE 4
CHAIN LINK FENCE



FENCE TYPE 4 - CHAIN LINK FENCE DETAILS

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




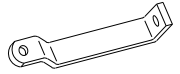
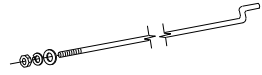
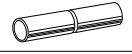
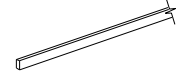
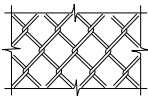


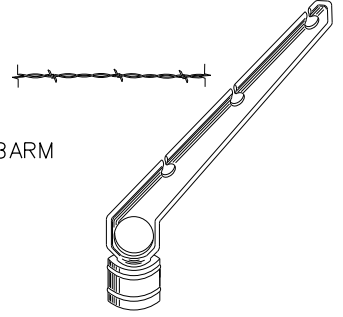


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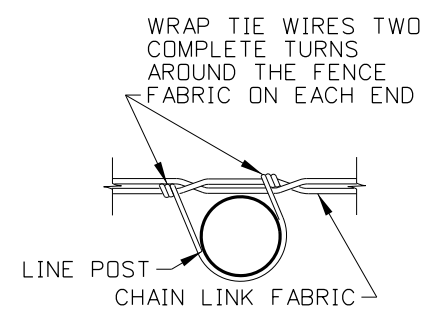
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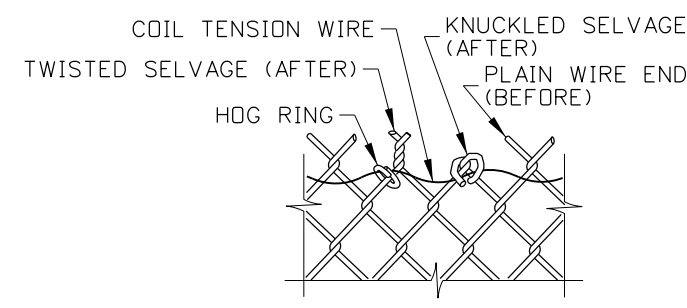
English
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610-1
SHEET 2 OF 3

CHAIN LINK FENCE HARDWARE TABLE		
CORNER, END AND GATE POSTS		SEE STANDARD SPECIFICATIONS FOR HIGHWAY CONST.
LINE POST		SEE STANDARD SPECIFICATIONS FOR HIGHWAY CONST.
BRACE RAIL/TOP RAIL		SEE STANDARD SPECIFICATIONS FOR HIGHWAY CONST.
POST CAP		CAST NON-FERROUS ALLOY OR GALVANIZED PRESSED STEEL CAP. MUST FIT SNUGGLY ON POST.
EYE-TOP CAP		GALVANIZED PRESSED STEEL MIN. 3/32" THICKNESS OR GALVANIZED MALLEABLE FERROUS ALLOY
STRECHER BAR BAND		CLASS 1 - MIN. 1/8" x 3/4" MIN. GALVANIZED STEEL CLASS 2 - MIN. 3/32" x 5/16" MIN. GALVANIZED STEEL
TENSION WIRE/BRACE BAND		CLASS 1 - MIN. 1/8" x 3/4" MIN. GALVANIZED STEEL CLASS 2 - MIN. 3/32" x 5/16" MIN. GALVANIZED STEEL
BAND BOLT		CLASS 1 - 5/16" DIA. x 1 3/4" GALV. CARRIAGE BOLT CLASS 2 - 3/8" DIA. x 1 1/4" GALV. CARRIAGE BOLT, (LOCK WASHER & FLAT WASHER FOR EACH BAND)
RAIL END		GALVANIZED PRESSED STEEL OR GALVANIZED MALLEABLE FERROUS ALLOY MIN. 3/8" THICKNESS ON BACK BOLTING APPENDAGE
BRACE END		GALVANIZED PRESSED STEEL OR GALVANIZED MALLEABLE FERROUS ALLOY MIN. 3/8" THICKNESS ON BACK BOLTING APPENDAGE
TRUSS ROD TIGHTENER		CLASS 1 - MIN. 3/8" FORMED GALVANIZED STEEL CLASS 2 - MIN. 1/4" FORMED GALVANIZED STEEL
TRUSS ROD		3/8" GALVANIZED, NC TREADED ROD, LOCK WASHER, & FLAT WASHER WITH TWO 90° BENDS OPPOSITE OF TREADED END
TOP RAIL SLEEVE		GALVANIZED STEEL, NOT TO BE USED ON R/W FENCES, MUST MEET REQUIRED PIPE THICKNESSES
TENSION BAR		CLASS 1 - MIN. 1/8" x 3/4" GALVANIZED STEEL CLASS 2 - MIN. 1/8" x 5/16" GALVANIZED STEEL
FENCE FABRIC		2" GALVANIZED DIAMOND MESH STEEL FABRIC
TIE WIRES		MIN. 9 GAUGE ALUMINUM WITH ONE HOOKED END
COIL TENSION WIRE		MIN. 7 GAUGE
BARBED WIRE & 3-WIRE BARBARM		BARBED WIRE: 14 GAUGE SPACED GALVANIZED MEDIUM CARBON STEEL WIRE WITH BARBS SPACED AT 5" C. TO C. GALVANIZING SHALL CONFORM TO APPLICABLE A.S.T.M. DES. A-121-66 FOR ZINC-COATED & AASHTO M 280 SPECIFICATIONS. 3-WIRE BARBARM: BARBWIRE ARM (ONE PIECE "Z" CUT) FITS 1 5/8" O.D. POST, 1 5/8" TOP RAIL" FITs 2" O.D. POST, 1 5/8" TOP RAIL" FITs 2 1/2" O.D. POST, 1 5/8" TOP RAIL" FITs 3" O.D. POST, 1 5/8" TOP RAIL"

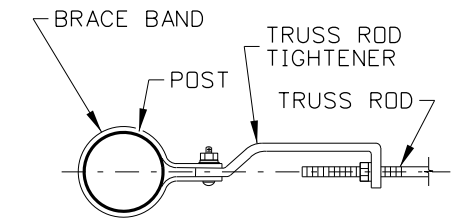
CHAIN LINK FENCE GROUNDING TABLE		
FENCE DIST. FROM TRANSMISSION LINE	kV	GROUNDING INTERVAL
0' - 100'	500	200'
100' - 200'	500	500'
0' - 100'	345	400'
100' - 150'	345	1,000'
50' - 100'	230	500'



CHAIN LINK FENCE TIE DETAIL



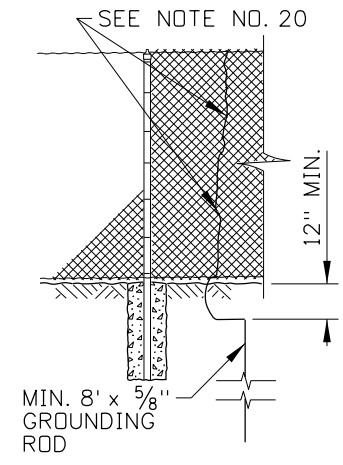
WIRE SELVAGE DETAIL
(SEE NOTE NO. 16)



TRUSS ROD TIGHTENER DETAIL

CHAIN LINK FENCE NOTES

- THE MINIMUM FENCE HEIGHT IS 8' WHEN BARBED WIRE AND THE 3-WIRE BARBARM ARE USED. DO NOT USE RAZOR WIRE WITH THE 3-WIRE BARBARM.
- SPACE POSTS EQUAL DISTANCES APART, 10' MAXIMUM SPACING.
- ADJUST THE POST TOP ELEVATIONS TO PROVIDE A SMOOTH VISUAL FENCE PROFILE. INSTALL CORNER POSTS AT HORIZONTAL BREAKS IN THE FENCE OF 15° OR MORE.
- STRETCH THE FENCE FABRIC SMOOTH SO THAT IT HAS A UNIFORM APPEARANCE.
- SELVAGE THE PLAIN WIRE ENDS ON THE TOP AND BOTTOM OF THE CHAIN LINK FABRIC BY THE TWISTED OR KNUCKLED METHOD. SEE WIRE SELVAGE DETAIL.
- CHAIN LINK FENCE HARDWARE MAY VARY SOMEWHAT FROM THAT SHOWN IN THE CHAIN LINK FENCE HARDWARE TABLE. ENSURE THAT HARDWARE AND MATERIALS USED ARE UNIFORM AND COMPATIBLE.
- INSTALL A TOP RAIL WHEN BARBED WIRE AND THE 3-WIRE BARBARM ARE USED.
- INSTALL PRIVACY FENCE SLATS IF SHOWN ON PROJECT PLANS.
- GROUND CHAIN LINK FENCES THAT ARE NEAR POWER TRANSMISSION LINES OR THAT INTERSECT TRANSMISSION LINES. SEE THE CHAIN LINK FENCE GROUNDING TABLE AND CHAIN LINK FENCE GROUNDING DETAILS. TO GROUND, CONNECT 6 GAUGE BRAIDED GROUND CABLE TO THE CHAIN LINK FABRIC EVERY 36". GROUND THE FENCE ONCE IF THE FENCE SECTION IS SHORTER THAN THE GROUNDING INTERVAL.
- DRAWING NOT TO SCALE.



CHAIN LINK FENCE GROUNDING DETAIL

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FENCES

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SHEET 3 OF 3

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