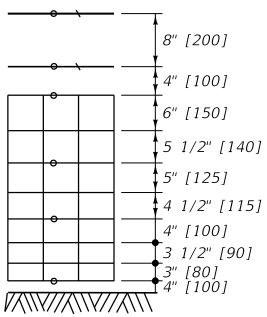
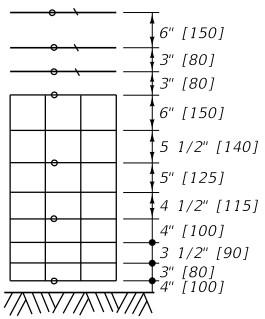
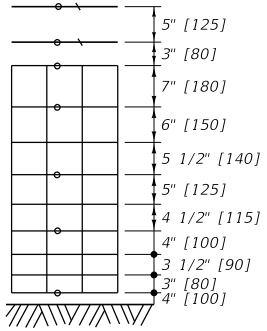
## WIRE SPACING TABLE

### COMBINATION WOVEN WIRE & BARBED WIRE FENCE

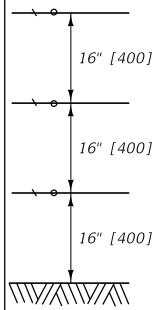
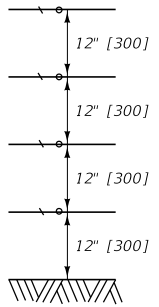
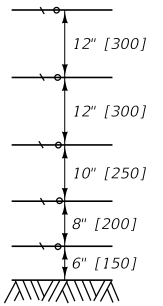
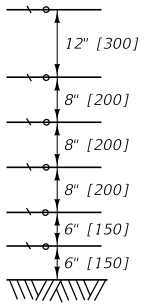
| 48" [1200] FENCE HEIGHT | | 51" [1280] FENCE HEIGHT |
|---|---|---|
| 32" [813] WW-2 BW * | 32" [813] WW-3 BW * | 39" [990] WW-2 BW * |
| TYPE F2-32WW [813WW] | TYPE F3-32WW [813WW] | TYPE F2-39WW [990WW] |
|  |  |  |







### BARBED WIRE FENCE

| 48" [1200] FENCE HEIGHT | | | |
|---|---|---|---|
| 3 BW | 4 BW | 5 BW | 6 BW |
| TYPE F3 | TYPE F4 | TYPE F5 | TYPE F6 |
|  |  |  |  |









APPROXIMATE WEIGHT OF 32" [813] WOVEN WIRE FABRIC (832-6-12 1/2) PER 20 ROD [100 m] ROLL IS 150 LB. [68 kg] !10 LB. [5 kg] (NOTE: 12 1/2 GAUGE)

APPROXIMATE WEIGHT OF 39" [990] WOVEN WIRE FABRIC (939-6-12 1/2) PER 20 ROD [100 m] ROLL IS 170 LB. [77 kg] !10 LB. [5 kg] (NOTE: 12 1/2 GAUGE)

○ DENOTES STAPLE AND/OR TIE LOCATIONS

* OTHER WOVEN WIRE HEIGHTS AND NUMBER OF BARBED WIRE COMBINATIONS ARE AVAILABLE.

STAYS

1. USE WIRE STAYS ON ALL FENCES UNLESS WOOD STAYS ARE SPECIFIED.
2. LOCATE STAYS HALFWAY BETWEEN LINE POSTS.
3. WIRE STAYS FOR BARBED WIRE FENCING ARE 2" [50] LONGER THAN THE DISTANCE BETWEEN THE TOP AND BOTTOM WIRES.
4. FOR WOVEN WIRE FENCING WITH BARBED WIRE ON TOP, EXTEND WIRE STAYS 6" [150] MINIMUM BELOW THE TOP OF THE WOVEN WIRE.
5. WHEN WOOD STAYS ARE SPECIFIED, USE EITHER 2" [50] ROUND, A ROUGH DIMENSION 2" x 2" [50 x 50], OR A 1 1/2" x 3 1/2" [37.5 x 87.5] (NOMINAL 2" x 4" [50 x 100]). THE STAY MUST BE OF SUFFICIENT LENGTH TO BE PLACED ON THE GROUND WITH THE TOP OF THE STAY EXTENDING 2" [50] ABOVE THE TOP WIRE. ATTACH EACH WIRE TO THE WOOD STAYS USING 1 3/4" [44] x 9 GAUGE STAPLES. WOOD STAYS DO NOT NEED TO BE TREATED.

NOTES:

1. STAPLE THE BOTTOM, TOP, CENTER AND ALTERNATE WIRES OF WOVEN WIRE TO WOOD LINE POSTS.
2. TIE THE BOTTOM, TOP, CENTER AND ALTERNATE WIRES OF WOVEN WIRE TO STEEL LINE POSTS.
3. STAPLE ALL WIRES OF WOVEN WIRE TO WOOD CORNER POSTS OR POSTS USED TO TIE-OFF WIRE.
4. "M" DENOTES METAL POSTS, IE. TYPE F3M. "W" DENOTES WOOD POSTS, IE. TYPE F4W.
5. SEE DTL. DWG. NO. 607-05, 607-10, AND 607-15 FOR ADDITIONAL FENCING DETAILS.

UNITS SHOWN IN BRACKETS [] ARE METRIC AND ARE IN MILLIMETERS (mm) UNLESS OTHER UNITS ARE SHOWN.

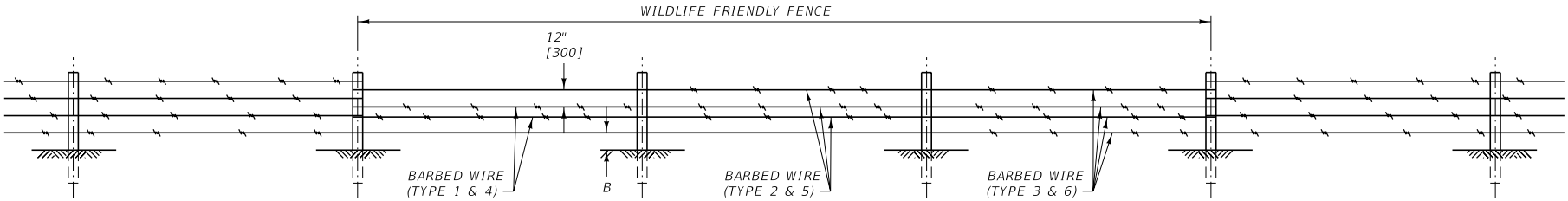
DETAILED DRAWING

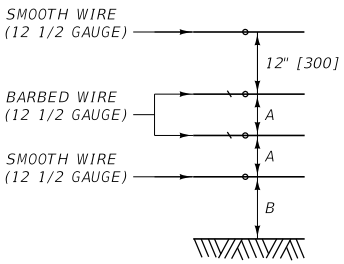
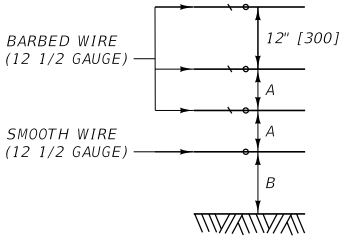
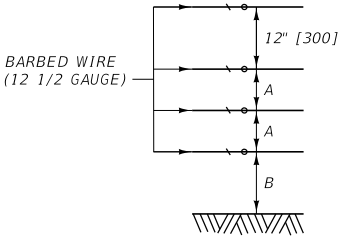
REFERENCE
STANDARD SPEC.
SECTION 607

DWG. NO.
607-00

FARM FENCE

MDT MONTANA DEPARTMENT OF TRANSPORTATION




| WIRE SPACING TABLE | | |
|---|---|---|
| WILDLIFE-FRIENDLY FARM FENCE TYPE 1 & 4 | WILDLIFE-FRIENDLY FARM FENCE TYPE 2 & 5 | WILDLIFE-FRIENDLY FARM FENCE TYPE 3 & 6 |
| 42" [1050] FENCE HEIGHT | 42" [1050] FENCE HEIGHT | 42" [1050] FENCE HEIGHT |
| WF-2 BW/2 SW-16 & WF-2 BW/2 SW-12 | WF-3 BW/1 SW-16 & WF-3 BW/1 SW-12 | WF-4 BW-16 & WF-4 BW-12 |
| TYPE WF4-SBBS-16 & TYPE WF4-SBBS-12 | TYPE WF4-3BS-16 & TYPE WF4-3BS-12 | TYPE WF4-4B-16 & TYPE WF4-4B-12 |
|  |  |  |







∘ DENOTES STAPLE AND/OR TIE LOCATIONS

| BOTTOM WIRE HEIGHT | | | | | | |
|---|---|---|---|---|---|---|
| WIRE SPACING | | | | | | |
| TYPE | 1 | 2 | 3 | 4 | 5 | 6 |
| A | 7" [175] | 7" [175] | 7" [175] | 9" [225] | 9" [225] | 9" [225] |
| B | 16" [400] | 16" [400] | 16" [400] | 12" [300] | 12" [300] | 12" [300] |

NOTES:

① "M" DENOTES METAL POSTS, IE. TYPE WF4M.
"W" DENOTES WOOD POSTS, IE. TYPE WF4W.

② SEE DTL. DWG. NO. 607-05, 607-10, AND 607-15 FOR ADDITIONAL FENCING DETAILS.

UNITS SHOWN IN BRACKETS [] ARE METRIC AND ARE IN MILLIMETERS (mm) UNLESS OTHER UNITS ARE SHOWN.

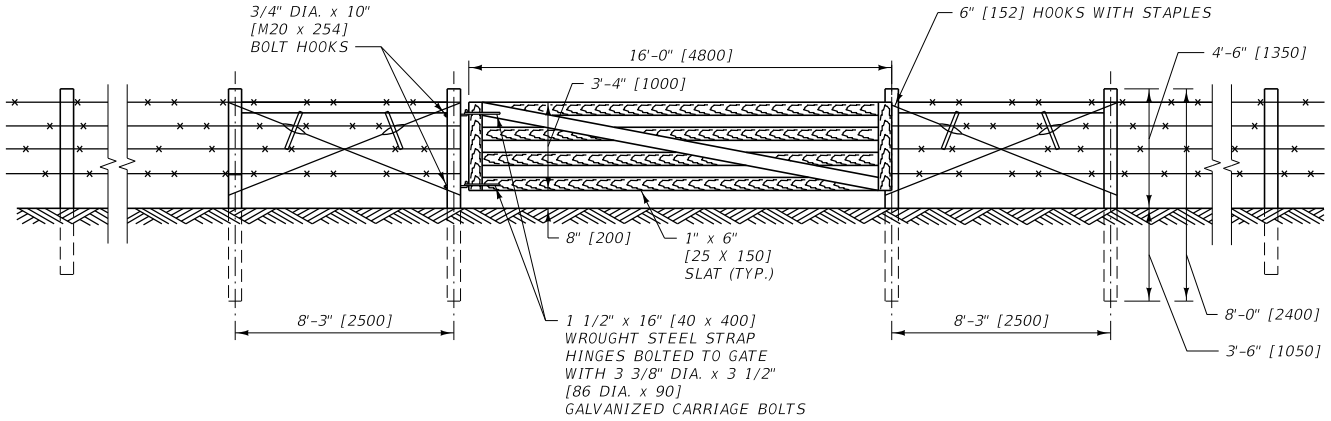
DETAILED DRAWING

REFERENCE
STANDARD SPEC.
SECTION 607

DWG. NO.
607-01

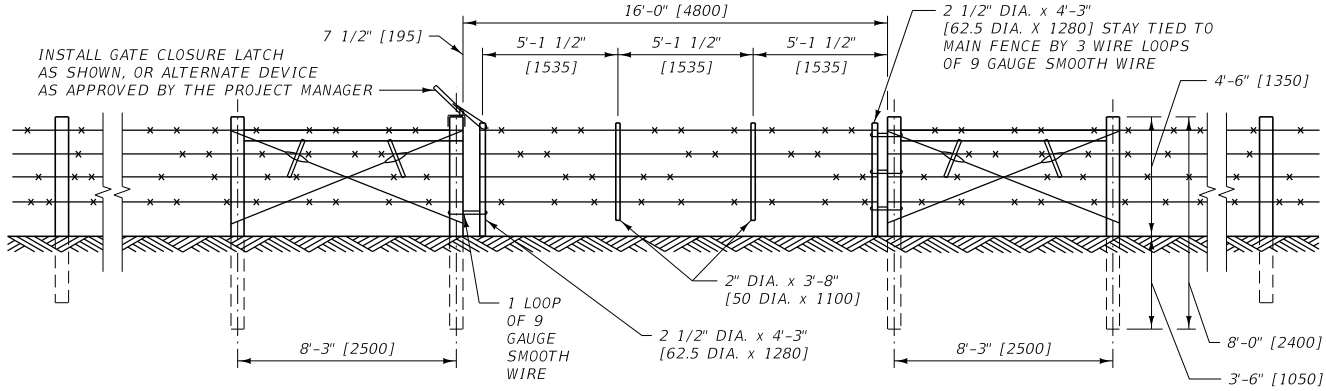
# WILDLIFE FRIENDLY FENCE

MDT MONTANA DEPARTMENT OF TRANSPORTATION



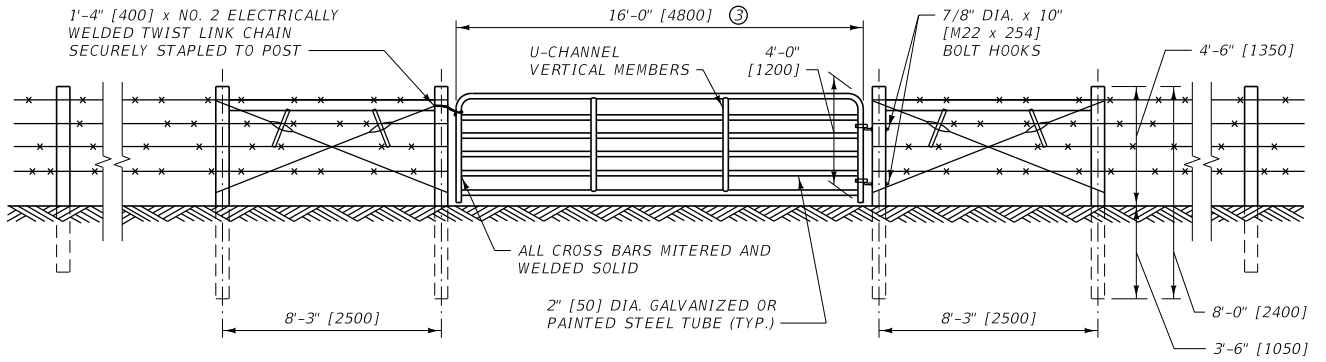

## WOOD FARM ENTRANCE GATE (TYPE G-1)

NOTE: USE 10d NAILS AND CLINCH FOR GATE CONSTRUCTION.




## WIRE FARM ENTRANCE GATE (TYPE G-2)

NOTE:
USE SAME WIRE SCHEME ON GATE
AS THAT USED ON FENCE, UNLESS
STATED OTHERWISE IN R/W AGREEMENT.




## METAL FARM ENTRANCE GATE (TYPE G-3)

NOTES:

① ALL GATES ARE 16'-0" [4800] WIDE UNLESS R/W AGREEMENT STATES OTHERWISE.

② ALL GATES WILL HAVE A SINGLE OR DOUBLE PANEL AT EACH END.

③ TYPE G-3 GATES ARE AVAILABLE IN WIDTHS FROM 4' [1.2 m] TO 20' [6.0 m] IN 2' [0.6 m] INCREMENTS.

UNITS SHOWN IN BRACKETS [] ARE METRIC AND ARE IN MILLIMETERS (mm) UNLESS OTHER UNITS ARE SHOWN.

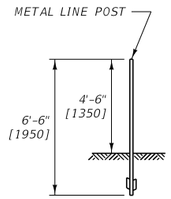
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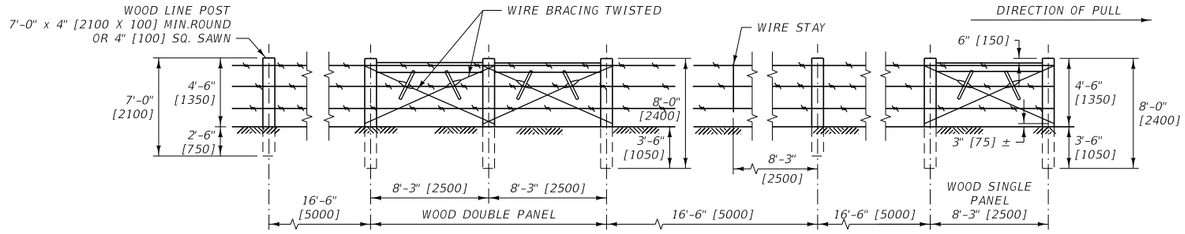
REFERENCE
STANDARD SPEC.
SECTION 607

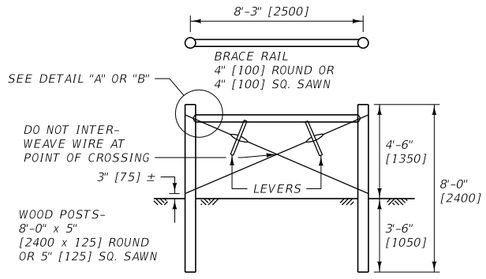
DWG. NO.
607-02

FARM ENTRANCE GATES

MONTANA DEPARTMENT OF TRANSPORTATION

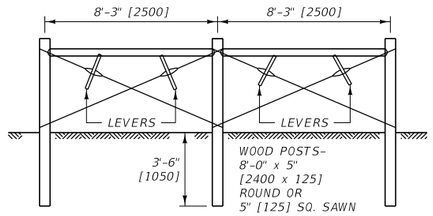


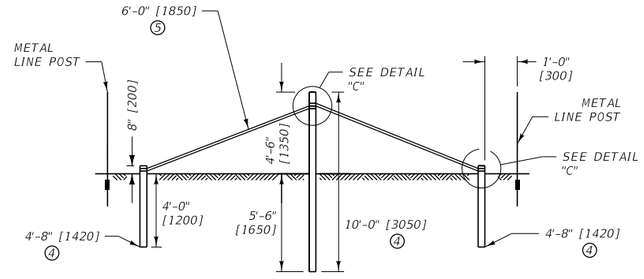

SINGLE WOOD PANEL

FOR PULLING, STRETCHING, CHANGES IN VERTICAL ALIGNMENT OR PANELS ON A RUN OF LESS THAN 330' [100 m].

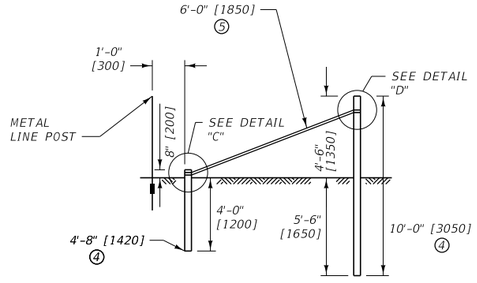



DOUBLE WOOD PANEL

FOR CORNERS, PULLING, STRETCHING, AND CHANGES IN HORIZONTAL ALIGNMENT.

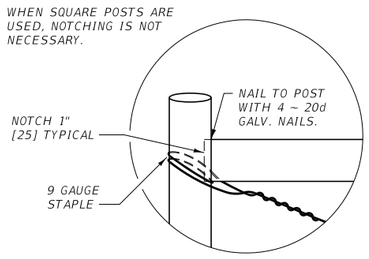



DOUBLE STEEL PANEL




SINGLE STEEL PANEL

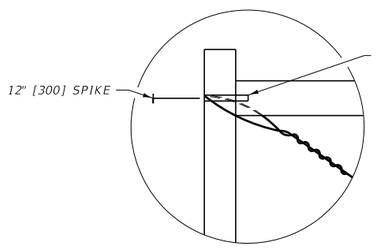
## FENCE PANEL




DETAIL "A"

BRACE WIRES - PROVIDE MINIMUM 12 1/2 GAUGE SMOOTH WIRE DOUBLED TO FORM A FOUR WIRE BRACE. ATTACH BRACE WIRES TO POSTS BY WRAPPING AROUND THE POST AT LEAST TWO TIMES AND THEN WRAPPING AROUND ITSELF FIVE TIMES.

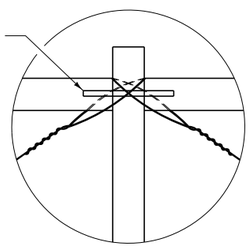
LEVERS - 1 1/2" x 2" x 12" [37.5 x 50 x 300] MINIMUM SIZE. LEAVE IN PLACE AFTER TWISTING




DRIVE 12" x 3/8" [300 x 9.5] DIA. SPIKE THROUGH POST AND 4" [100] INTO BRACE POST.

POSTS ARE NOT NOTCHED. PILOT HOLE DIAMETER IS 5/16" [7.9].

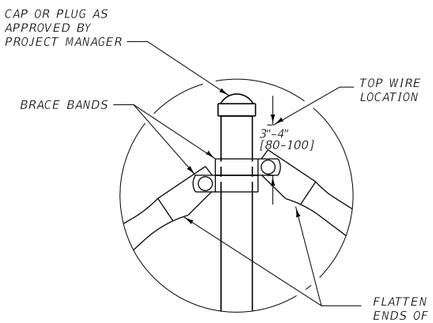
FURNISH AND INSTALL BRACE WIRES AND LEVERS IN ACCORDANCE WITH NOTES ON DETAIL "A".




INSTALL A 20" x 3/8" [500 x 9.5] ROD IN THE MIDDLE POST PRIOR TO SETTING THE BRACES. PIN THE BRACES IN PLACE FROM THE OUTSIDE.

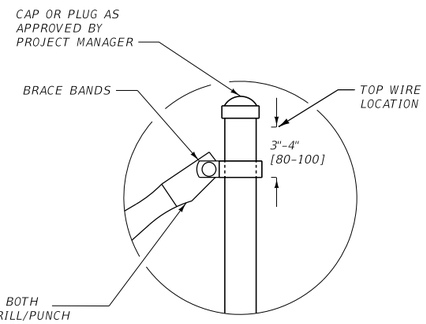
DETAIL "B"

ALTERNATE PANEL BRACING




DETAIL "C"

STEEL POST DOUBLE PANEL BRACING



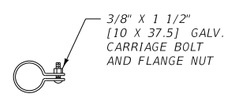

DETAIL "D"

STEEL POST SINGLE PANEL BRACING

NOTES:

1. SEE THE SPECIFICATIONS FOR POST AND WIRE REQUIREMENTS.
2. LINE POST SPACING IS 16'-6" [5000] CENTER TO CENTER. LINE POST SPACING FROM BRACE OR PANEL POST IS 16'-6" [5000] CENTER TO CENTER.
3. SEE DTL. DWG. NO. 607-00, 607-10 AND 607-15 FOR ADDITIONAL FENCING DETAILS.
4. 2 1/2" [65] DIA. NOMINAL STEEL PIPE- SCHEDULE 40 OR BETTER
5. 1 1/2" [40] DIA. NOMINAL STEEL PIPE- SCHEDULE 40 OR BETTER

UNITS SHOWN IN BRACKETS [] ARE METRIC AND ARE IN MILLIMETERS (mm) UNLESS OTHER UNITS ARE SHOWN.




BRACE BAND DETAIL

FOR STEEL PANELS (SEE SUBSECTION 712.01.5.)

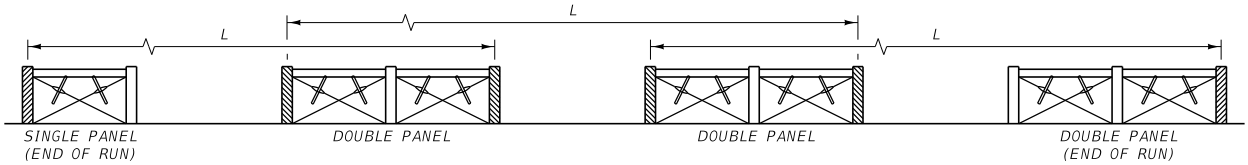
DETAILED DRAWING

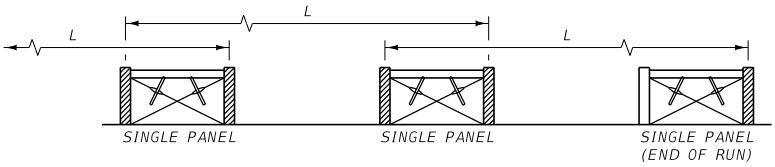
REFERENCE STANDARD SPEC. SECTION 607

DWG. NO. 607-05

FENCE DETAILS

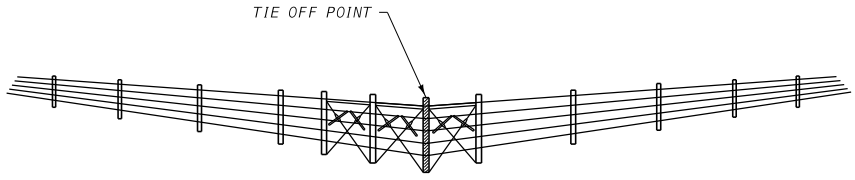
MDT MONTANA DEPARTMENT OF TRANSPORTATION




| FENCE TYPE | RUN = L | PANELS REQUIRED |
|---|---|---|
| COMBINATION WOVEN/BARBED | LESS THAN 33' | NONE |
| | 33' - 330' | SINGLE |
| | OVER 330' TO 660' MAX. | DOUBLE |
| BARBED | LESS THAN 66' | NONE |
| | 66'-660' | SINGLE |
| | OVER 660' TO 990' MAX. | DOUBLE |

| FENCE TYPE | RUN = L (m) | PANELS REQUIRED |
|---|---|---|
| COMBINATION WOVEN/BARBED | LESS THAN 10 | NONE |
| | 10 - 100 | SINGLE |
| | OVER 100 TO 200 MAX. | DOUBLE |
| BARBED | LESS THAN 20 | NONE |
| | 20 - 200 | SINGLE |
| | OVER 200 TO 300 MAX. | DOUBLE |




SELECT PANEL TYPE AT FENCE CORNER OR ANGLE BREAK BASED ON FENCE RUN LENGTH.

## FENCE PANEL TYPES

① LIMIT RUN LENGTHS IN POOR SOIL CONDITIONS TO REDUCE RESULTING TENSION AT CORNER OR ANGLE BREAK PANELS.

② TIE OFF ON ALL CROSS HATCHED OR SHADED POSTS.

NOTES:

① ATTACH BARBED WIRES TO POSTS BY WRAPPING AROUND THE POST AT LEAST TWO TIMES,THEN WRAPPING AROUND ITSELF FIVE TIMES.

② TO ATTACH WOVEN WIRE TO AN END POST, REMOVE TWO OR THREE VERTICAL STAY WIRES FROM THE END OF THE FENCE. PLACE THE FIRST COMPLETE VERTICAL STAY WIRE AGAINST THE POST. START AT THE MIDDLE OF THE HORIZONTAL LINE WIRES, WRAPPING AROUND THE END POST AT LEAST TWO TIMES AND THEN WRAPPING AROUND ITSELF FIVE TIMES.

③ PLACE ALL FENCE WIRE ON PASTURE SIDE OF POST, EXCEPT ON CURVES. THEN, PLACE THE WIRE ON THE OUTSIDE OF THE CURVE.

④ IN AREAS SUBJECT TO HIGH VELOCITY WINDS AND MOVING DEBRIS, WIRES MAY BE PLACED ON WINDWARD SIDE OF POSTS, EXCEPT ON CURVES.

⑤ POST SPACING IS GENERALLY MEASURED PARALLEL TO GROUND.

⑥ PLACE WIRE STAYS PER DTL. DWG. NO. 607-00 HALFWAY BETWEEN POSTS. DO NOT PLACE STAYS ON PANELS.

⑦ WOOD FENCE HAS ONE METAL POST IN PLACE OF A WOODEN LINE POST IN EACH 500' [150 m] RUN FOR LIGHTNING PROTECTION.

UNITS SHOWN IN BRACKETS [] ARE METRIC AND ARE IN MILLIMETERS (mm) UNLESS OTHER UNITS ARE SHOWN.

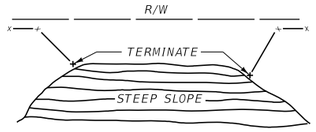
DETAILED DRAWING

REFERENCE
STANDARD SPEC.
SECTION 607

DWG. NO.
607-10

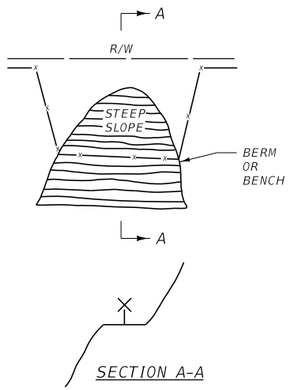
# FENCE DETAILS

MDT MONTANA DEPARTMENT OF TRANSPORTATION

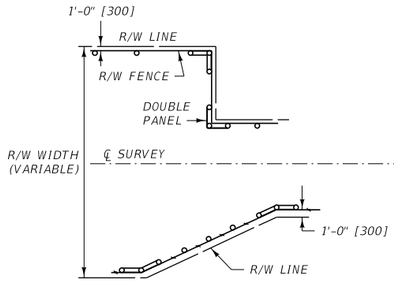



SLOPE MUST BE STEEP ENOUGH TO DETER PASSAGE OF TRESPASSERS.

## FENCE LAYOUT ON STEEP SLOPES

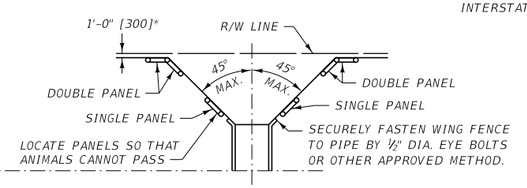



## SECTION A-A

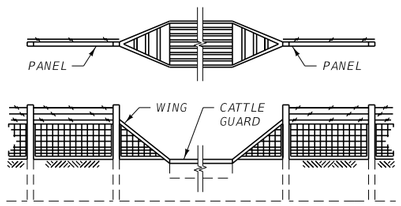



## FENCE LAYOUT AT CHANGE IN R/W WIDTH ON INTERSTATE

* ONE FOOT OFFSET APPLIES TO INTERSTATE FENCING ONLY.



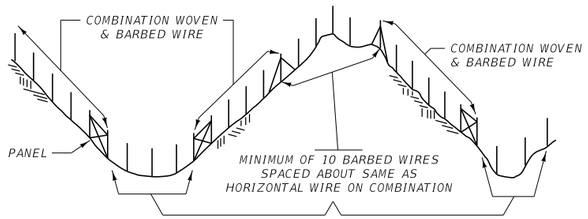

## FENCE LAYOUT AT STOCKPASS, BRIDGES AND LARGE PIPES




## FENCE CONNECTION TO CATTLE GUARD

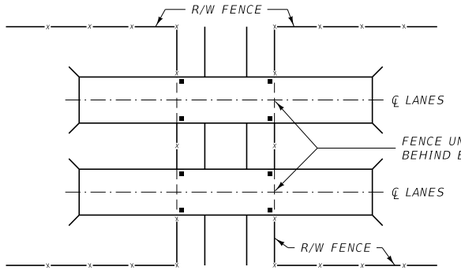
① PLACE SINGLE OR DOUBLE PANELS AT EACH END OF ALL CATTLE GUARDS.

② SECURELY FASTEN FENCE WIRE TO THE WINGS AND ARRANGE SO THAT ANIMALS CANNOT PASS.

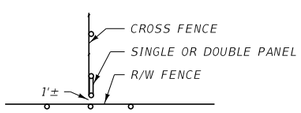



## FENCE LAYOUT ON SHARP VERTICAL CURVES

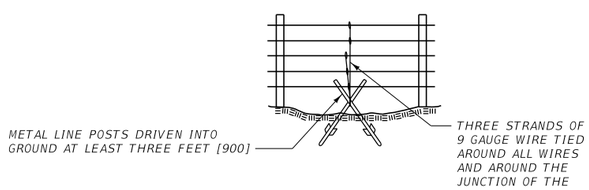
TO AVOID TRYING TO CONFORM WOVEN WIRE TO UNEVEN TERRAIN




## FENCE LAYOUT AT LOCAL ROAD UNDER INTERSTATE




## FENCE LAYOUT AT CROSS-FENCE CONNECTION




## ALTERNATE DEADMAN

WHEN APPROVED BY THE PROJECT MANAGER THE ABOVE DEADMAN MAY BE USED.

A DEADMAN MAY BE A PRECAST CONCRETE BLOCK, A CAST IN PLACE CONCRETE BLOCK, A ROCK OR OTHER APPROVED OBJECT WEIGHING AT LEAST 150 LB. BURY THE DEADMAN IN THE GROUND WITH AT LEAST 2'-0" OF COVER. ATTACH THE DEADMAN TO THE FENCE WITH 3 STRANDS OF 9 GAUGE WIRE OR 6 STRANDS OF 12 1/2 GAUGE WIRE.

UNITS SHOWN IN BRACKETS [] ARE METRIC AND ARE IN MILLIMETERS (mm) UNLESS OTHER UNITS ARE SHOWN.

DETAILED DRAWING

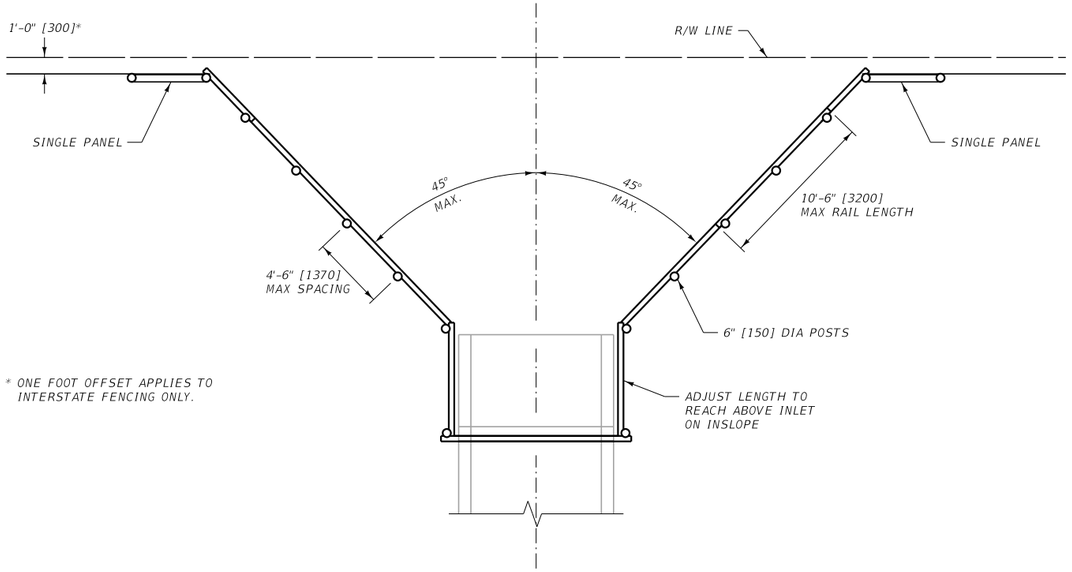
REFERENCE STANDARD SPEC. SECTION 607

DWG. NO. 607-15

# FENCE DETAILS

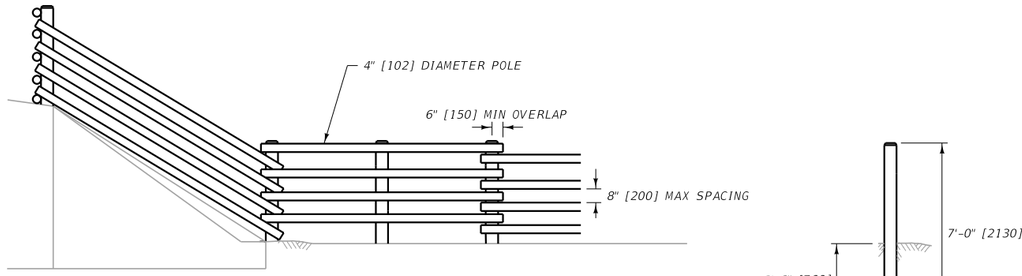
MONTANA DEPARTMENT OF TRANSPORTATION

## UPSLOPE FENCE LAYOUT AT CORRUGATED STEEL PIPE (CSP) STOCKPASS

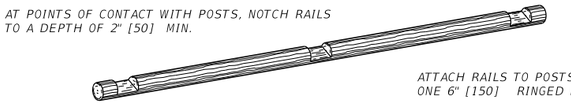



* ONE FOOT OFFSET APPLIES TO INTERSTATE FENCING ONLY.

NOTE: ALL POLES, POSTS, RAILS, OR WOOD ITEMS WILL BE TREATED

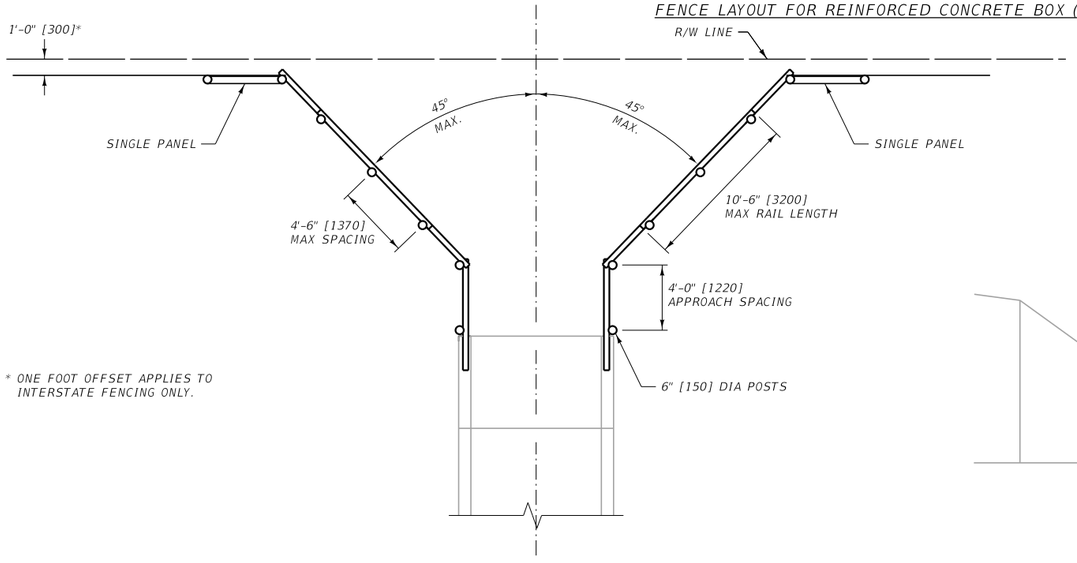



X-SEC VIEW



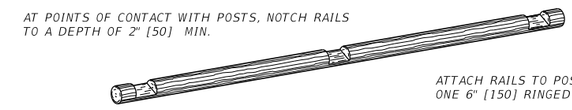

RAIL NOTCHING

## FENCE LAYOUT FOR REINFORCED CONCRETE BOX (RCB) STOCKPASS

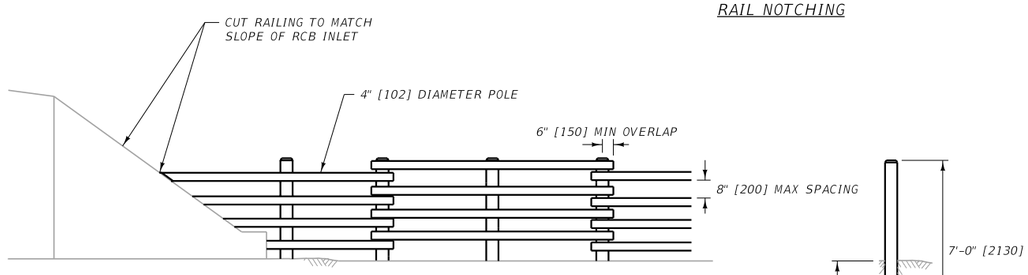



* ONE FOOT OFFSET APPLIES TO INTERSTATE FENCING ONLY.

NOTE: ALL POLES, POSTS, RAILS, OR WOOD ITEMS WILL BE TREATED




RAIL NOTCHING




X-SEC VIEW

UNITS SHOWN IN BRACKETS [] ARE METRIC AND ARE IN MILLIMETERS (mm) UNLESS OTHER UNITS ARE SHOWN.

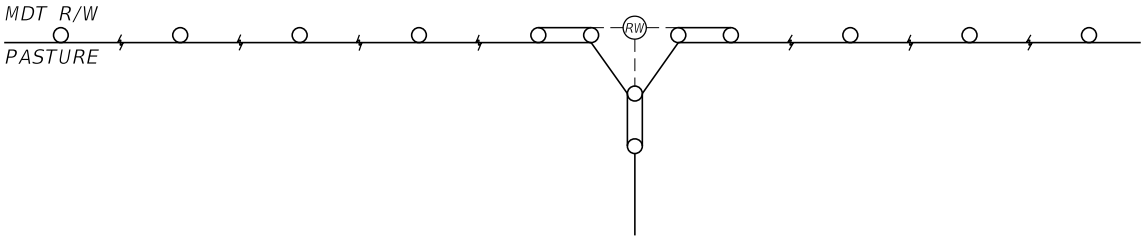
DETAILED DRAWING

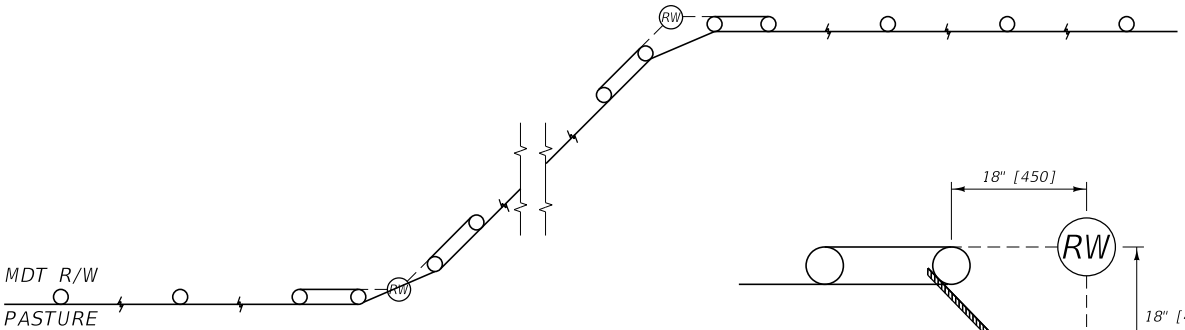
REFERENCE STANDARD SPEC. SECTION 607

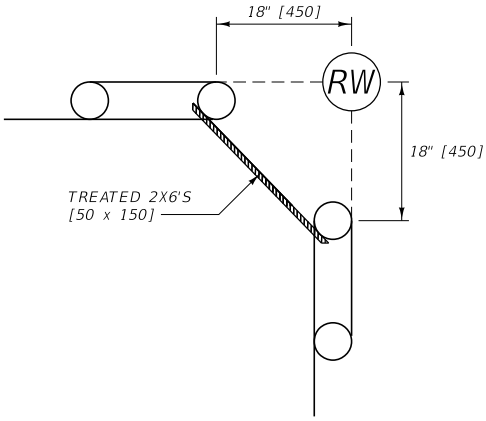
DWG. NO. 607-17

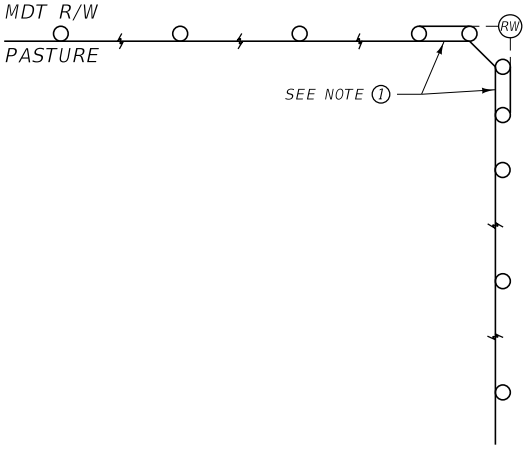
FENCE DETAILS

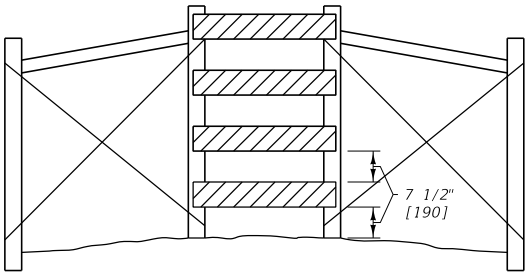
MDT MONTANA DEPARTMENT OF TRANSPORTATION




SPAN TREATED 2X6'S [50 x 150] ACROSS GAP ON PASTURE SIDE OF POSTS. ATTACH TO PANEL POSTS WITH TWO 3" EXTERIOR GRADE SCREWS ON EACH END AND TRIM EDGES AT 45 DEGREE ANGLES.

NOTES:

1. INSTALL PANELS ACCORDING TO DETAIL DRAWING 607-05.
2. INSTALL NON-INTERSTATE FENCE ON THE RIGHT-OF-WAY LINE AS SHOWN.
3. OFFSET PANEL POSTS 18" [450mm] FROM STAKED R/W BREAKS AND R/W MONUMENTS AS SHOWN IN DETAIL.
4. DO NOT DISTURB SURVEY MONUMENTS.
5. INCLUDE COST OF 2 x 6 [50 x 150] CROSS RAILS IN THE COST OF ADJACENT PANELS.

UNITS SHOWN IN BRACKETS [] ARE METRIC AND ARE IN MILLIMETERS (mm) UNLESS OTHER UNITS ARE SHOWN.

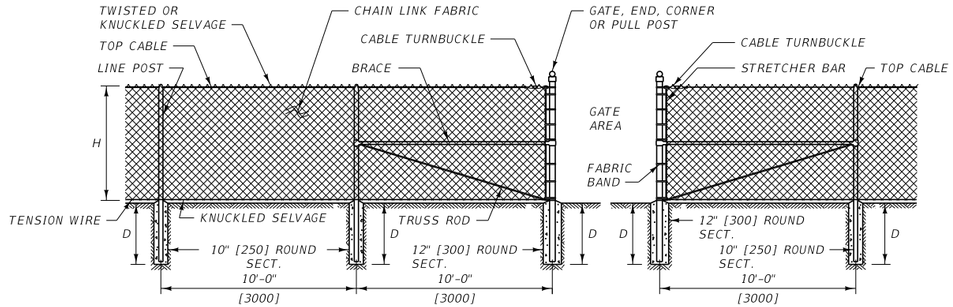
DETAILED DRAWING

REFERENCE
STANDARD SPEC.
SECTION 607

DWG. NO.
607-20

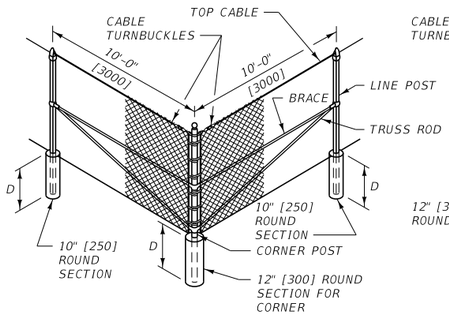
# FENCING AT RIGHT OF WAY BREAKS

MONTANA DEPARTMENT OF TRANSPORTATION



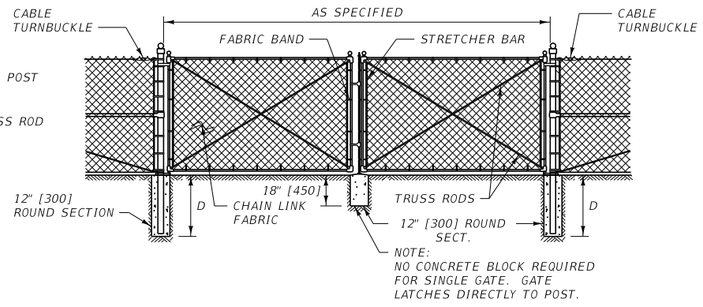

CHAIN LINK FENCE – 6' [1.8 m] AND 8' [2.4 m]

SINGLE PANEL

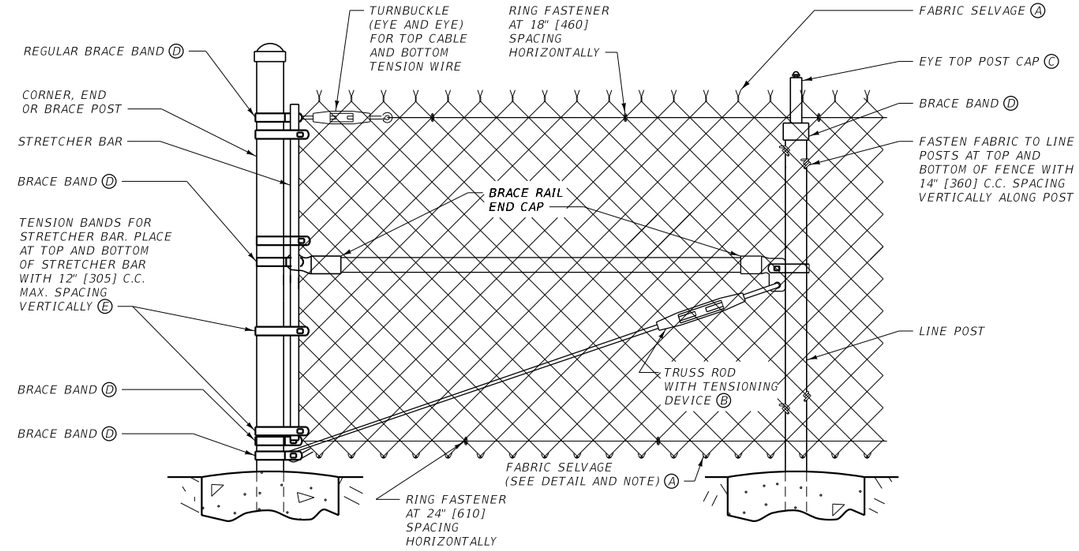



DOUBLE PANEL

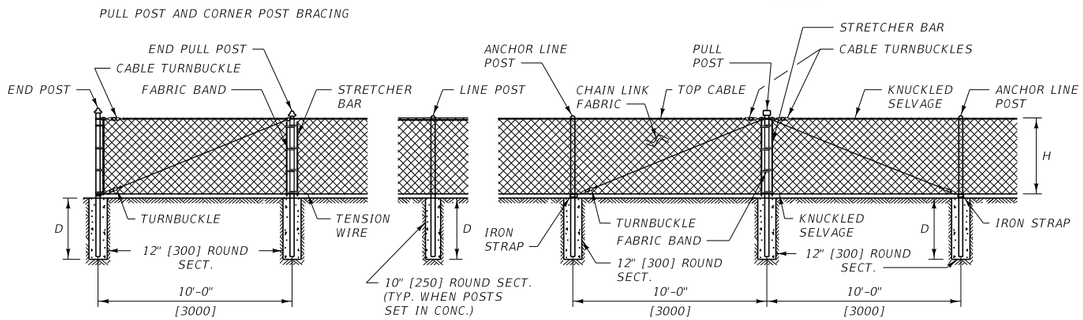
PULL POST AND CORNER POST BRACING




GATES




CONNECTION DETAILS



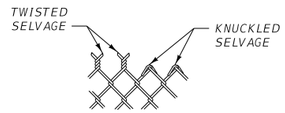

CHAIN LINK FENCE – 3' [0.9 m], 4' [1.2 m] AND 5' [1.5 m]

## GENERAL NOTES

PROVIDE CHAIN LINK FENCE MATERIALS PER SECTION 712.

(A) FABRIC SELVAGE: FENCE HEIGHT UNDER 6' [1.8 m]: TOP AND BOTTOM KNUCKLED SELVAGE.

FENCE HEIGHT 6' [1.8 m] AND OVER:
TOP – TWISTED OR KNUCKLED SELVAGE
BOTTOM – KNUCKLED SELVAGE




SELVAGE DETAIL

(B) TRUSS RODS: SEE SECTION 712.01.4



INDUSTRIAL TRUSS TIGHTENER TURNBUCKLE

(C) POST CAPS: PROVIDE EYE-TOP CAPS FOR ALL POSTS CARRYING A TOP CABLE THROUGH THE POST. PROVIDE ROUNDED TOPS FOR ALL OTHER ROUND POSTS. FIT POST CAPS TIGHTLY TO PREVENT REMOVAL.

(D) BRACE BANDS: SEE SECTION 712.01.5.



BRACE BAND DETAIL

(E) TENSION BANDS: SEE SECTION 712.01.5



TENSION BAND DETAIL

NOTES:

(1) DO NOT INSTALL DOUBLE PANELS MORE THAN 300' [90 m] APART ON TANGENTS OR MORE THAN 250' [75 m] APART ON ANY CURVE. FOR CURVES WITH RADII SHARPER THAN 1150' [350 m], INSTALL A DOUBLE PANEL ON EACH CURVE END, PLUS ONE ADDITIONAL PANEL FOR EACH 10° OF DEFLECTION, EVENLY SPACED, BETWEEN THE CURVE ENDS.

(2) PULL POST BRACING ON 6' [1.8 m] AND 8' [2.4 m] FENCE IS THE SAME AS CORNER BRACING.

(3) A DROP BAR LOCKING DEVICE IS REQUIRED FOR ALL DOUBLE GATE INSTALLATIONS. THE DROP BAR MUST BE ABLE TO BE INSERTED INTO THE CONCRETE BLOCK AT LEAST SIX INCHES [150].

(4) ALL CONCRETE IS LEAN OR BETTER.

(5) INSTALL A 3/8" [10] DIAMETER GALVANIZED STEEL TOP CABLE ALONG ALL FENCE. TERMINATE TOP CABLE WITH GALVANIZED CABLE TURNBUCKLES FASTENED VIA THE FABRIC BAND AT THE POST.

| HEIGHT OF FABRIC, H | WIRE FABRIC ABOVE GROUND | DEPTH OF CONCRETE, D | DEPTH OF POST IN CONC. (MIN.) |
|---|---|---|---|
| 8' [2440] | 1"–2" [25–50] | 42" [1050] | 38" [950] |
| 6' [1830] | 1"–2" [25–50] | 36" [900] | 32" [800] |
| 5' [1525] | 1"–2" [25–50] | 36" [900] | 32" [800] |
| 4' [1220] | 1"–2" [25–50] | 30" [750] | 26" [650] |
| 3' [915] | 1"–2" [25–50] | 30" [750] | 26" [650] |

UNITS SHOWN IN BRACKETS [] ARE METRIC AND ARE IN MILLIMETERS (mm) UNLESS OTHER UNITS ARE SHOWN.

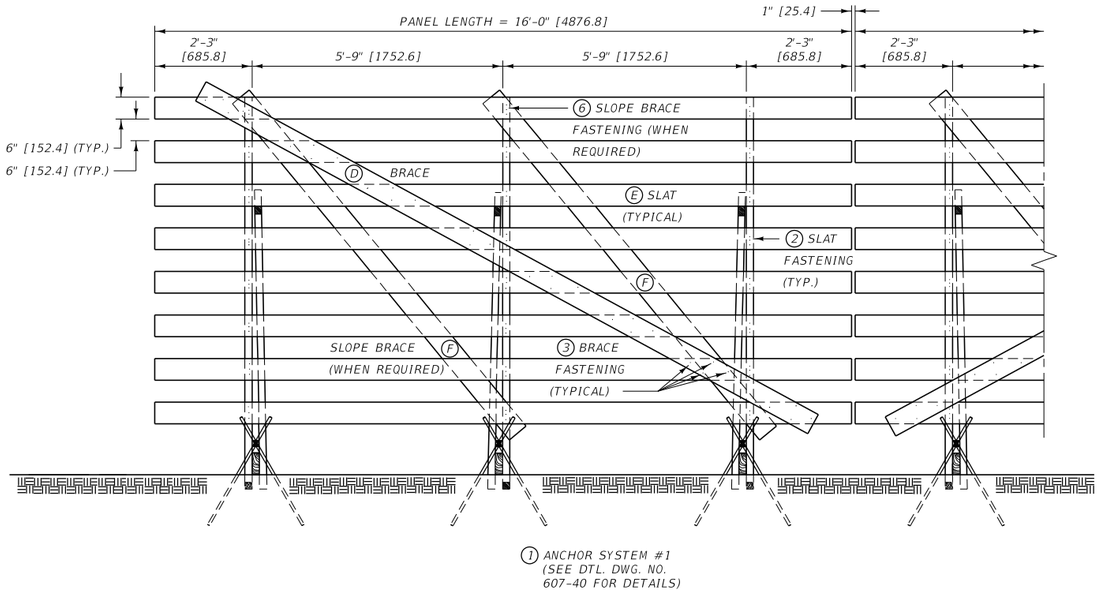
DETAILED DRAWING

REFERENCE STANDARD SPEC. SECTION 607

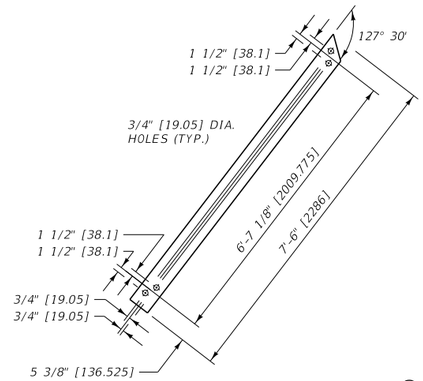
DWG. NO. 607-25

CHAIN LINK FENCE

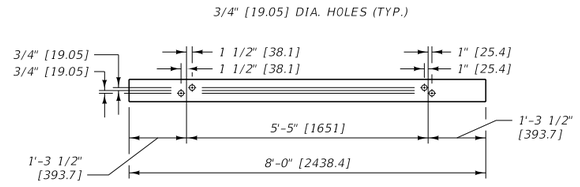
MDT MONTANA DEPARTMENT OF TRANSPORTATION



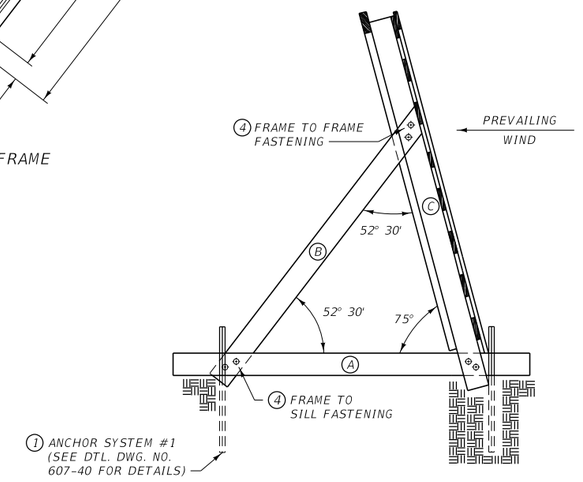

FRONT VIEW



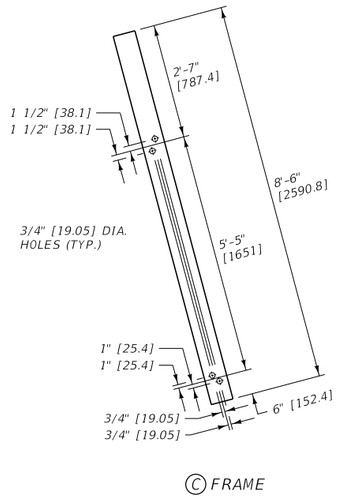

B FRAME




A SILL




END VIEW




C FRAME

## GENERAL NOTES

(1) ANCHOR SYSTEM DETAIL
USE ANCHOR SYSTEM #1 UNLESS SOIL AND MOISTURE CONDITIONS NECESSITATE THE USE OF AN ALTERNATE SYSTEM, OR AS DIRECTED BY THE PROJECT MANAGER. CONSULT DETAILED DRAWING NUMBERS 607-40 AND 607-45 FOR ANCHOR SYSTEMS #3 (ROCKY CONDITIONS) AND #2 (SWAMPY CONDITIONS).

(2) SLAT FASTENING
FASTEN SLATS TO THE FRAME WITH 3 ~ 12d COMMON BARBED SHANK NAILS AT EACH LOCATION.

(3) BRACE FASTENING
FASTEN BRACES TO THE FRAME WITH 4 ~ 8d COMMON NAILS AT EACH LOCATION AND CLINCH.

(4) FRAME TO SILL AND FRAME TO FRAME FASTENING
FASTEN THE SILL AND FRAME MEMBERS TO THE FRAME AT EACH LOCATION WITH 2 ~ 5/8 " DIA. x 5" [M16 x 127] STANDARD MACHINE BOLTS, EACH WITH HEX NUT AND TWO FLAT WASHERS. SEE NOTE (X) AT RIGHT.

(5) WIRE TIE
USE 12 GAUGE OR HEAVIER GALVANIZED WIRE TO FORM THE WIRE TIES.

(6) SLOPE BRACE FASTENING
FASTEN SLOPE BRACES WITH 3 ~ 16d COMMON BARBED SHANK NAILS AT EACH LOCATION.

**LUMBER - 8' [2.4 m] SNOW FENCE W/ ANCHOR SYSTEM #1**

BILL OF MATERIALS FOR ONE PANEL

| ITEM NO. | NO. OF PIECES | LUMBER SIZE | DESCRIPTION |
|---|---|---|---|
| (A)* | 3 | 2" x 6" x 8'-0" [50 x 150 x 2438.4] | FRAME (SILL) |
| (B)* | 3 | 2" x 6" x 7'-6" [50 x 150 x 2286.0] | FRAME |
| (C)* | 3 | 2" x 6" x 8'-6" [50 x 150 x 2590.8] | FRAME |
| * NOTE: PRESSURE TREAT ALL 2" x 6" [50 x 150] MEMBERS (ENTIRE FRAME) | | | |
| (D) | 1 | 1" x 6" x 16'-0" [25 x 150 x 4876.8] | BRACE |
| (E) | 8 | 1" x 6" x 16'-0" [25 x 150 x 4876.8] | SLAT |
| (F)** | 2 | 2" x 6" x 10'-0" [50 x 150 x 3048.0] | SLOPE BRACE |
| ** NOTE: USE ONLY WHEN SLOPE IS 5:1 OR STEEPER | | | |

**HARDWARE - 8' [2.4 m] SNOW FENCE W/ ANCHOR SYSTEM #1**

BILL OF MATERIALS FOR ONE PANEL

| | QUANTITY | DESCRIPTION |
|---|---|---|
| (4) | 18 | 5/8" DIA. x 5" [M16 x 127] HEX BOLT (THREADED FULL LENGTH) AND NUT |
| (4) | 36 | FLAT WASHER FOR 5/8" DIA. [M16] BOLT |
| (2) | 1 LB. [0.45 kg] | 12d COMMON BARBED SHANK NAIL |
| (1) | 12 | #6 REBAR x 5'-0" [#19 x 1524] |
| (5) | 6 PIECES | 12 GAUGE TIE WIRE x 5'-0" [1524.0] ± |
| (3) | 1/3 LB. [0.15 kg] | 8d COMMON NAILS |
| (6) | 1/4 LB. [0.11 kg] | 16d COMMON BARBED SHANK NAILS |

ALL NAILS MAY BE EITHER HAND DRIVEN OR DRIVEN WITH A PNEUMATIC NAILER.

(X) NOTE:
AFTER 5/8" DIA. [M16] BOLTS HAVE BEEN TIGHTENED, BURR THE THREAD DIRECTLY BEHIND THE NUT TO PREVENT EVENTUAL LOOSENING OF THE NUTS.

UNITS SHOWN IN BRACKETS [] ARE METRIC AND ARE IN MILLIMETERS (mm) UNLESS OTHER UNITS ARE SHOWN.

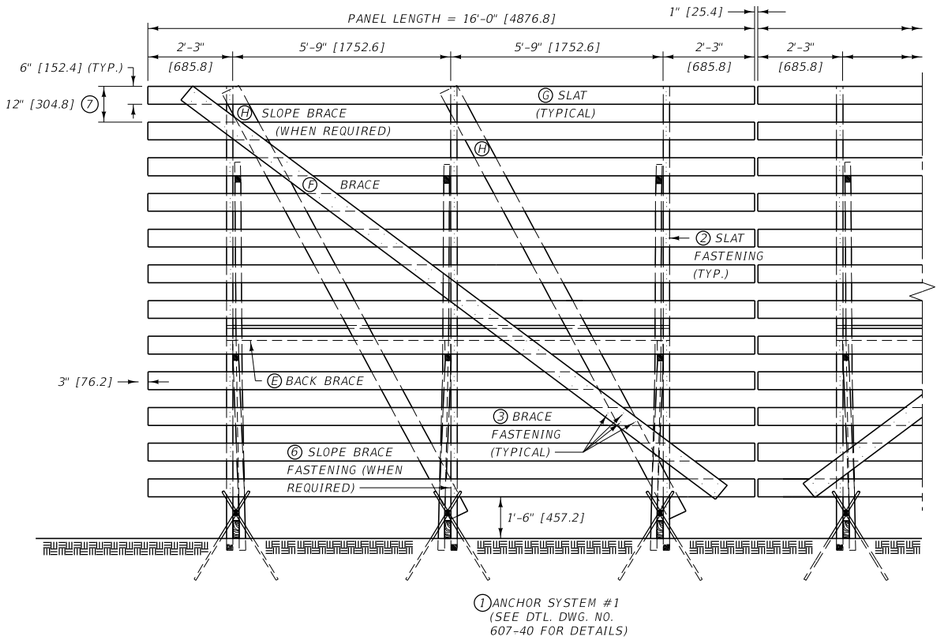
DETAILED DRAWING

REFERENCE STANDARD SPEC. SECTION 607

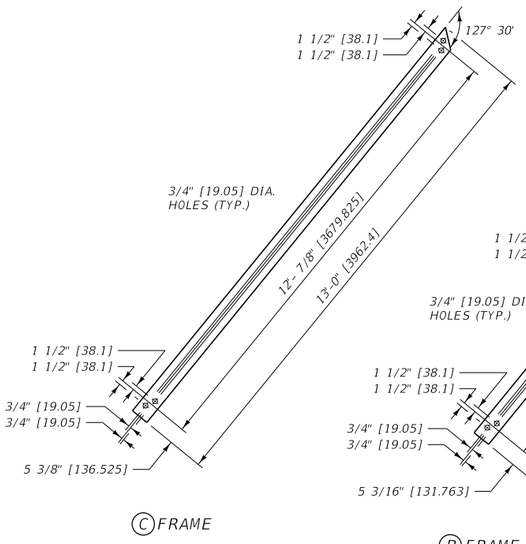
DWG. NO. 607-30

8' [2.4 m] WOOD SNOW FENCE W/ ANCHOR SYSTEM #1

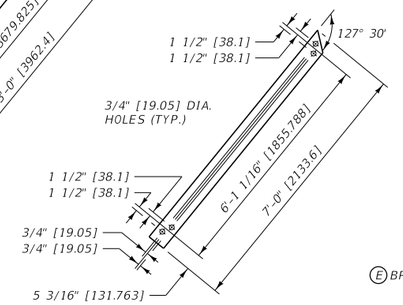
MDT MONTANA DEPARTMENT OF TRANSPORTATION



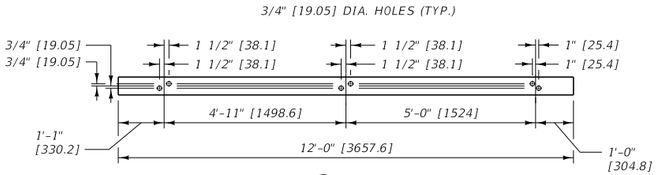

FRONT VIEW



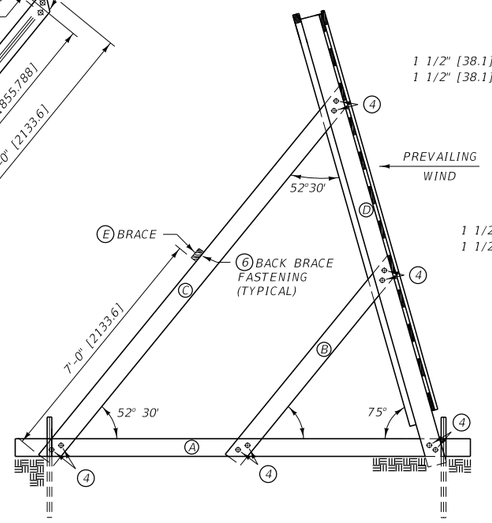

(C) FRAME

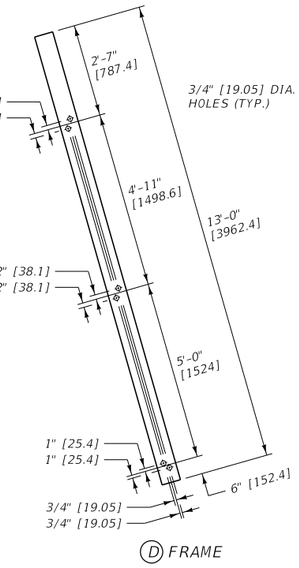



(B) FRAME




(A) SILL




(D) FRAME

NOTE:
PLACEMENT OF REBAR ANCHORS TIGHT AGAINST SNOW FENCE MEMBERS (A) (C) & (D) IS CRITICAL TO PREVENT OVERTURNING AND SLIDING. SEE ANCHOR SYSTEM #1 DETAILS, DTL. DWG. NO. 607-40.

DIG OUT AS REQUIRED FOR ENDS OF MEMBERS (B) (C) & (D) AND THE ENTIRE LENGTH OF SILL (A) TO ASSURE FULL BEARING OF SILL AGAINST TERRAIN.

END VIEW

## GENERAL NOTES

(1) ANCHOR SYSTEM DETAIL
USE ANCHOR SYSTEM #1 UNLESS SOIL AND MOISTURE CONDITIONS NECESSITATE THE USE OF AN ALTERNATE SYSTEM, OR AS DIRECTED BY THE PROJECT MANAGER. CONSULT DETAILED DRAWING NUMBERS 607-40 AND 607-45 FOR ANCHOR SYSTEMS #3 (ROCKY CONDITIONS) AND #2 (SWAMPY CONDITIONS).

(2) SLAT FASTENING
FASTEN SLATS TO THE FRAME WITH 3 ~ 12d COMMON BARBED SHANK NAILS AT EACH LOCATION.

(3) BRACE FASTENING
FASTEN BRACES TO THE FRAME WITH 4 ~ 8d COMMON NAILS AT EACH LOCATION AND CLINCH.

(4) FRAME TO SILL AND FRAME TO FRAME FASTENING
FASTEN THE SILL AND FRAME MEMBERS TO THE FRAME AT EACH LOCATION WITH 2 ~ 5/8" DIA. x 5" [M16 x 127] STANDARD MACHINE BOLTS, EACH WITH HEX NUT AND TWO FLAT WASHERS. SEE NOTE (X) AT RIGHT.

(5) WIRE TIE
USE 12 GAUGE OR HEAVIER GALVANIZED WIRE TO FORM THE WIRE TIES.

(6) BACK & SLOPE BRACE FASTENING
FASTEN BACK BRACES TO THE FRAME WITH 2 ~ 16d NAILS, AND FASTEN THE SLOPE BRACES WITH 3 ~ 16d BARBED SHANK NAILS AT EACH LOCATION.

(7) 12" [304.8] INCREMENT SPACING FROM TOPS OF EACH SLAT
(IE. 12" [304.8], 24" [609.6], 36" [914.4]).

### LUMBER - 12' [3.6 m] SNOW FENCE W/ ANCHOR SYSTEM #1

BILL OF MATERIALS FOR ONE PANEL

| ITEM NO. | NO. OF PIECES | LUMBER SIZE | DESCRIPTION |
|---|---|---|---|
| (A)* | 3 | 2" x 6" x 12'-0" [50 x 150 x 3657.6] | SILL |
| (B)* | 3 | 2" x 6" x 7'-0" [50 x 150 x 2133.6] | FRAME |
| (C)* | 3 | 2" x 6" x 13'-0" [50 x 150 x 3962.4] | FRAME |
| (D)* | 3 | 2" x 6" x 13'-0" [50 x 150 x 3962.4] | FRAME |
| * NOTE: PRESSURE TREAT ALL 2" x 6" [50 x 150] MEMBERS (ENTIRE FRAME) | | | |
| (E) | 1 | 2" x 4" x 12'-0" [50 x 100 x 3657.6] | BACK BRACE |
| (F) | 1 | 1" x 6" x 18'-0" [25 x 150 x 5486.4] | BRACE |
| (G) | 12 | 1" x 6" x 16'-0" [25 x 150 x 4876.8] | SLAT |
| (H)** | 2 | 2" x 6" x 13'-0" [50 x 150 x 3962.4] | SLOPE BRACE |
| ** NOTE: USE ONLY WHEN SLOPE IS 5:1 OR STEEPER | | | |

### HARDWARE - 12' [3.6 m] SNOW FENCE W/ ANCHOR SYSTEM #1

BILL OF MATERIALS FOR ONE PANEL

| | QUANTITY | DESCRIPTION |
|---|---|---|
| (4) | 30 | 5/8" DIA. x 5" [M16 x 127] HEX BOLT (THREADED FULL LENGTH) AND NUT |
| (4) | 60 | FLAT WASHER FOR 5/8" DIA. [M16] BOLT |
| (3) | 1/2 LB. [0.23 kg] | 8d COMMON NAILS |
| (2) | 1 2/3 LB. [0.76 kg] | 12d COMMON BARBED SHANK NAILS |
| (6) | 1/2 LB. [0.23 kg] | 16d COMMON BARBED SHANK NAILS |
| (1) | 12 | #6 REBAR x 5'-0" [#19 x 1524] |
| (5) | 6 PIECES | 12 GAUGE TIE WIRE x 5'-0" [1524.0] ± |

ALL NAILS MAY BE EITHER HAND DRIVEN OR DRIVEN WITH A PNEUMATIC NAILER.

(X) NOTE:
AFTER 5/8" [M16] DIA. BOLTS HAVE BEEN TIGHTENED, BURR THE THREAD DIRECTLY BEHIND THE NUT TO PREVENT EVENTUAL LOOSENING OF THE NUTS.

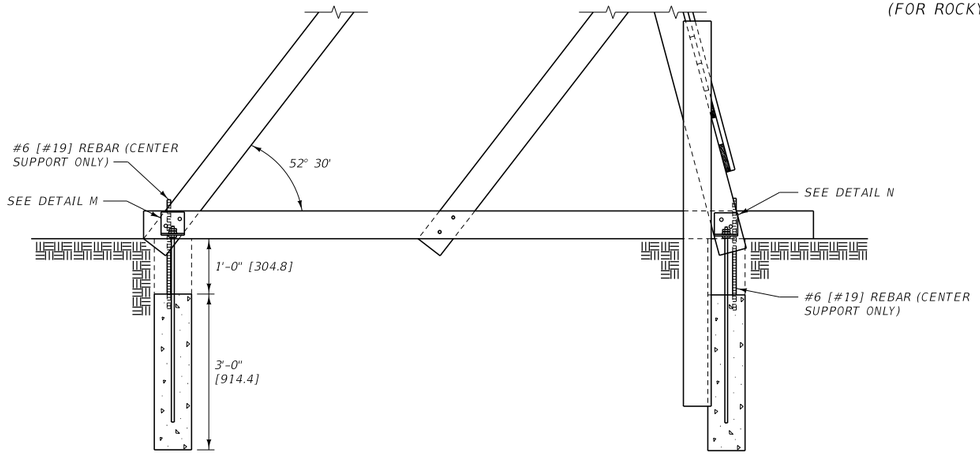
UNITS SHOWN IN BRACKETS [] ARE METRIC AND ARE IN MILLIMETERS (mm) UNLESS OTHER UNITS ARE SHOWN.

DETAILED DRAWING
REFERENCE STANDARD SPEC. SECTION 607
DWG. NO. 607-35

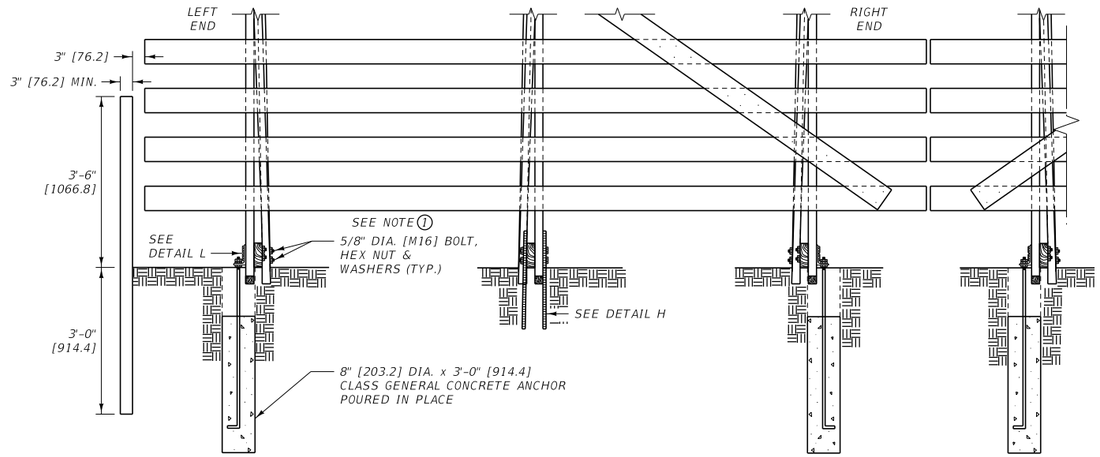
12' [3.6 m] WOOD SNOW FENCE W/ ANCHOR SYSTEM #1

MDT MONTANA DEPARTMENT OF TRANSPORTATION

# ANCHOR SYSTEM #3
(FOR ROCKY CONDITIONS)

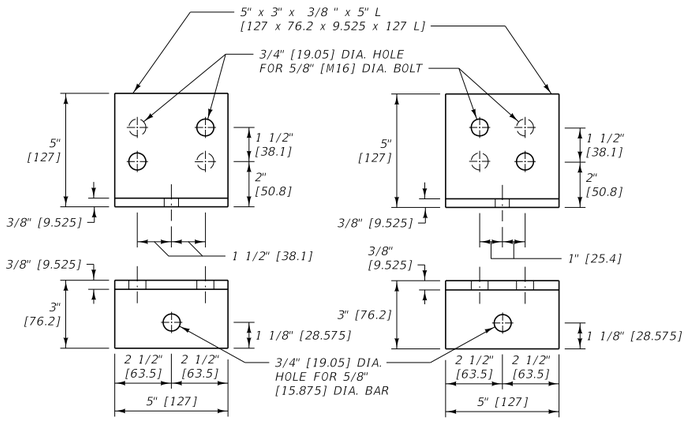



LEFT END VIEW




FRONT VIEW

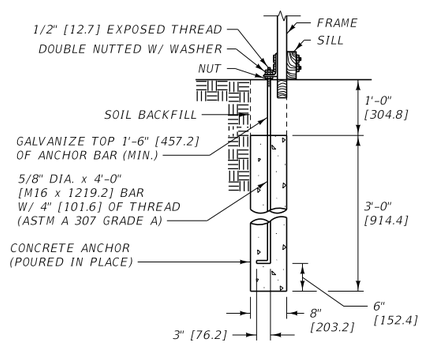
NOTE:
HOLES SHOWN IN DETAILS BELOW ARE FOR LEFT END OF FENCE.
HOLES SHOWN HIDDEN ARE FOR RIGHT END OF FENCE.



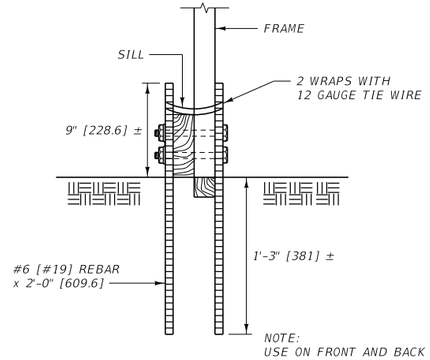

DETAIL M




DETAIL N




DETAIL L




DETAIL H

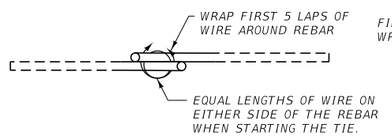
| LUMBER – SNOW FENCE W/ ANCHOR SYSTEM #3 |
|---|
| BILL OF MATERIALS FOR ONE PANEL |
| SAME AS FOR SNOW FENCE W/ ANCHOR SYSTEM #1 |

| HARDWARE – SNOW FENCE W/ ANCHOR SYSTEM #3 | |
|---|---|
| BILL OF MATERIALS FOR ONE PANEL | |
| QUANTITY | DESCRIPTION |
| 4 | 5" x 3" x 3/8 " x 5" L [127 x 76.2 x 9.525 x 127.0 L] |
| 4 | 5/8" DIA. x 4'-0" [M16 X 1219.2] BAR W/ 3 HEX NUTS |
| 4 | FLAT WASHERS FOR 5/8" [16] DIA. BAR |
| 0.16 C.Y. [0.122 m]] | CLASS GENERAL CONCRETE |
| 4 | #6 [#19] REBAR x 2'-0" [609.6] (3/4" [19.05] DIA.) |
| 4 PIECES | 12 GAUGE TIE WIRE x 2'-0" [609.6] ± |
| 30 | 5/8" DIA. x 5" [M16 x 127] HEX BOLT (THREADED FULL LENGTH) AND NUT ← SEE NOTE 1 BELOW |
| 60 | FLAT WASHERS FOR 5/8" [M16] DIA. BOLT |
| NOTE: NAILS REQUIRED ARE SAME AS SHOWN ON HARDWARE SUMMARY FOR SNOW FENCE W/ ANCHOR SYSTEM #1 | |

NOTE:
1 AFTER 5/8" [M16] DIA. BOLTS HAVE BEEN TIGHTENED, BURR THE THREAD DIRECTLY BEHIND THE NUT TO PREVENT EVENTUAL LOOSENING OF THE NUTS.

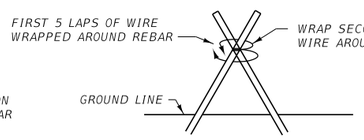
# ANCHOR SYSTEM #1
(STANDARD)

STEP 1



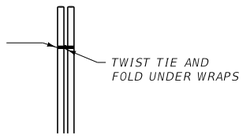

TOP

STEP 2




FRONT

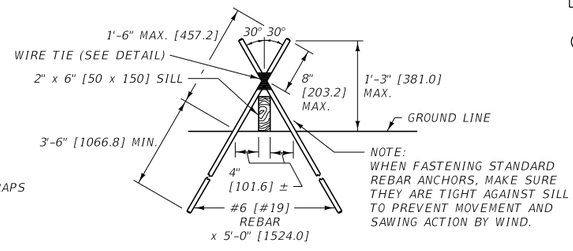
STEP 3




SIDE

## WIRE TIE DETAIL

USE 12 GAUGE OR HEAVIER GALVANIZED WIRE TO FORM THE WIRE TIES.




USE TWO #6 [#19] REINFORCING BARS FOR EACH END OF EACH SILL MEMBER. DRIVE THE BARS UP TIGHT TO THE FRAME TO PREVENT SLIDING. TIE THE REINFORCING BARS AS SHOWN IN THE WIRE TIE DETAIL. THE PLACEMENT OF THE ANCHORS IS CRITICAL IN PREVENTING OVERTURNING AND SLIDING OF THE FENCE. REFERENCE DETAIL DRAWING 607-35 FOR MORE DETAILS.

STANDARD ANCHOR DETAIL

UNITS SHOWN IN BRACKETS [] ARE METRIC AND ARE IN MILLIMETERS (mm) UNLESS OTHER UNITS ARE SHOWN.

DETAILED DRAWING

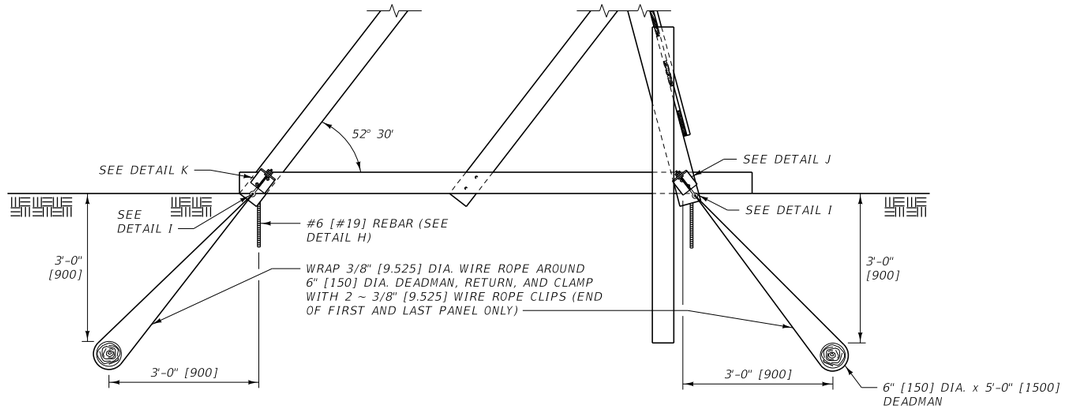
REFERENCE STANDARD SPEC. SECTION 607

DWG. NO. 607-40

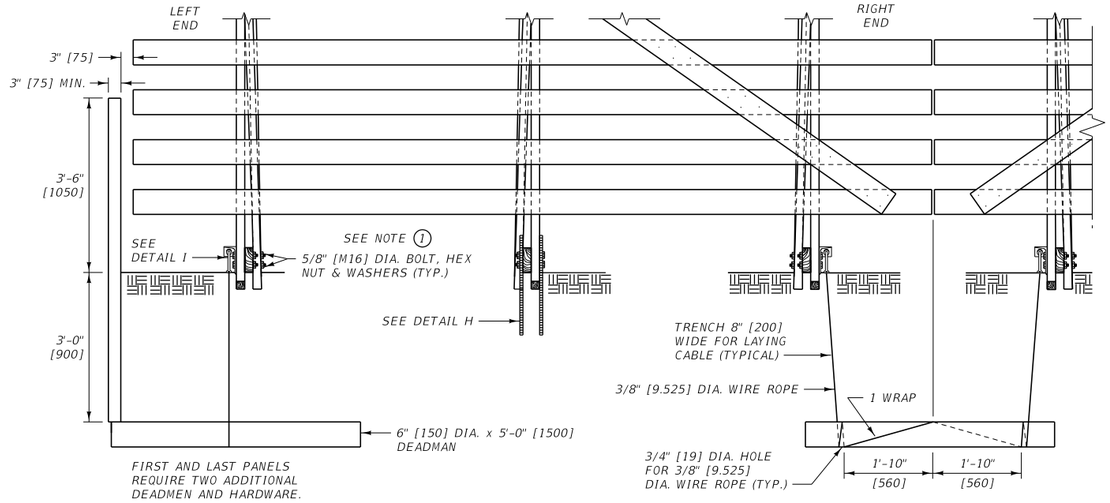
WOOD SNOW FENCE ANCHOR SYSTEM #3 AND #1 DETAILS

MDT MONTANA DEPARTMENT OF TRANSPORTATION

# ANCHOR SYSTEM #2
(FOR SWAMPY CONDITIONS)

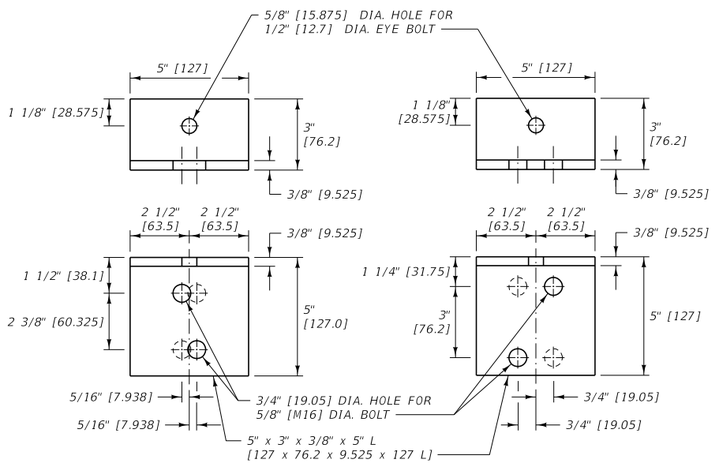



LEFT END VIEW



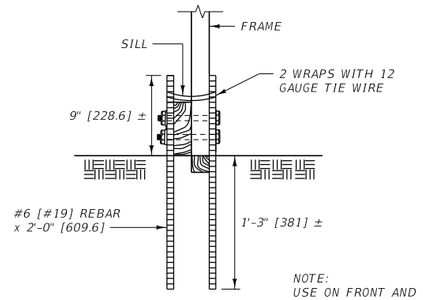

FRONT VIEW

NOTE:
HOLES SHOWN IN DETAILS BELOW ARE FOR LEFT END OF FENCE.
HOLES SHOWN HIDDEN ARE FOR RIGHT END OF FENCE.



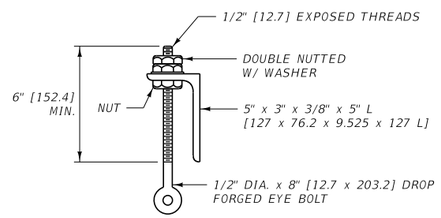

DETAIL J DETAIL K

(1) NOTE:
AFTER 5/8" [M16] DIA. BOLTS HAVE BEEN TIGHTENED, BURR THE THREAD DIRECTLY BEHIND THE NUT TO PREVENT EVENTUAL LOOSENING OF THE NUTS.

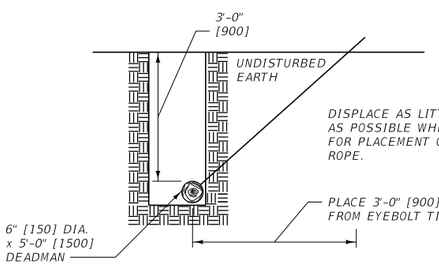



DETAIL H

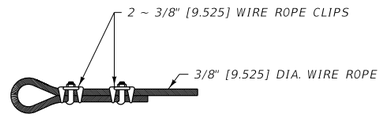
NOTE:
USE ON FRONT AND BACK OF CENTER SUPPORT.




DETAIL I




DEADMAN DETAIL




WIRE ROPE CONNECTION

| LUMBER – SNOW FENCE W/ ANCHOR SYSTEM #2 |
|---|
| BILL OF MATERIALS FOR ONE PANEL |
| SAME AS FOR SNOW FENCE W/ ANCHOR SYSTEM #1 |

| HARDWARE – SNOW FENCE W/ ANCHOR SYSTEM #2 | |
|---|---|
| BILL OF MATERIALS FOR ONE 12'[3.6m] PANEL | |
| QUANTITY | DESCRIPTION |
| 4 | 5" x 3" x 3/8" x 5" L [127 x 76.2 x 9.525 x 127 L] |
| 8 | 3/8" [9.525] WIRE CLIPS |
| 4 | 1/2" [12.7] DIA. DROP FORGED EYEBOLTS W/ 3 HEX NUTS |
| 4 | FLAT WASHERS FOR 1/2" [12.7] DIA. EYEBOLTS |
| 4 | #6 [#19] REBAR x 2'-0" [609.6] (3/4" [19.05] DIA.) |
| 4 PIECES | 12 GAUGE TIE WIRE x 2'-0" [609.6]± |
| 30 FT. [8839.2] | 3/8" [9.525] DIA. WIRE ROPE |
| 2 | 6" [150] DIA. x 5'-0" [1500] POST DEADMEN |
| 30 | 5/8" DIA. x 5" [M16 x 127] HEX BOLT (THREADED FULL LENGTH) AND NUT |
| 60 | FLAT WASHERS FOR 5/8" [M16] BOLT |
| NOTE: NAILS REQUIRED ARE SAME AS SHOWN ON HARDWARE SUMMARY FOR SNOW FENCE W/ ANCHOR SYSTEM #1 | |

UNITS SHOWN IN BRACKETS [] ARE METRIC AND ARE IN MILLIMETERS (mm) UNLESS OTHER UNITS ARE SHOWN.

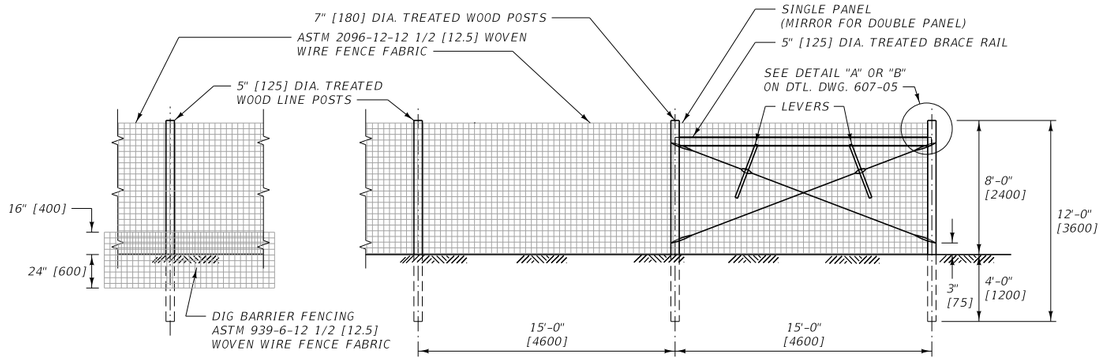
DETAILED DRAWING

REFERENCE STANDARD SPEC. SECTION 607

DWG. NO. 607-45

WOOD SNOW FENCE ANCHOR SYSTEM #2 DETAILS

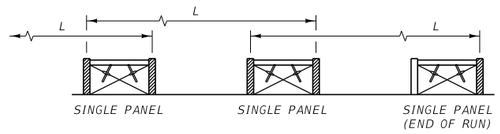
MDT MONTANA DEPARTMENT OF TRANSPORTATION




## WILDLIFE FENCE W/ DIG BARRIER

PANELS NOT SHOWN

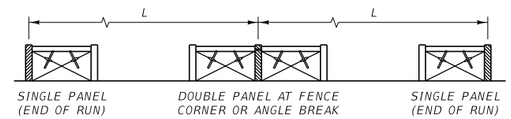
## WILDLIFE FENCE




| FENCE TYPE | RUN = L | PANELS REQUIRED |
|---|---|---|
| WILDLIFE | LESS THAN 30' [9.2 m] | NONE |
| | 30'-330' [9.2 m - 101.2 m] | SINGLE |

NOTE:

TIE OFF ON ALL CROSS HATCHED OR SHADED POSTS.

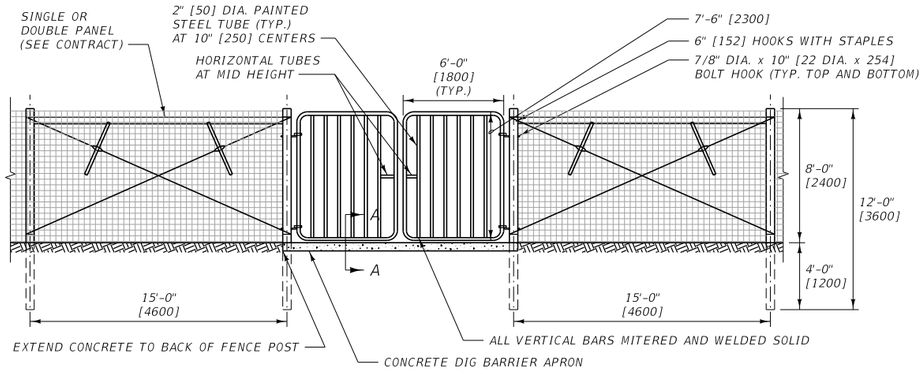





## FENCE PANEL TYPES

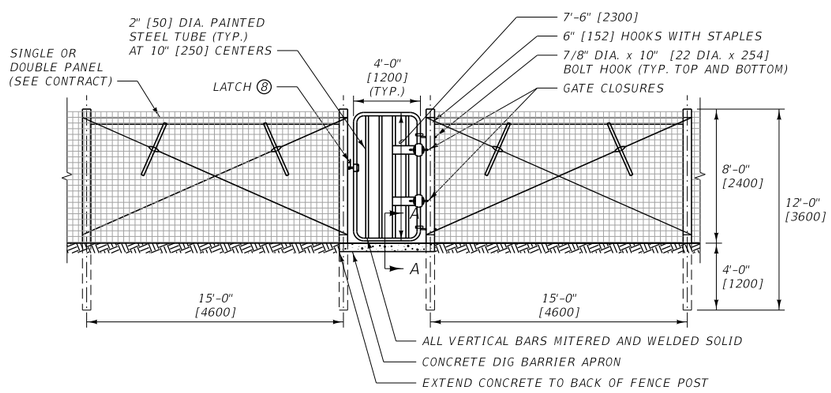
NOTES:

1. PLACE ALL FENCE WIRE ON PASTURE SIDE OF POST, EXCEPT ON CURVES. THEN, PLACE THE WIRE ON THE OUTSIDE OF THE CURVE.
2. POST SPACING IS GENERALLY MEASURED PARALLEL TO GROUND.
3. LINE POST SPACING IS 15'-0" [4600] CENTER TO CENTER. LINE POST SPACING FROM BRACE OR PANEL POST IS 15'-0" [4600] CENTER TO CENTER.
4. TO ATTACH WOVEN WIRE TO AN END POST, REMOVE TWO OR THREE VERTICAL STAY WIRES FROM THE END OF THE FENCE. PLACE THE FIRST COMPLETE VERTICAL STAY WIRE AGAINST THE POST. START AT THE MIDDLE OF THE HORIZONTAL LINE WIRES, WRAPPING AROUND THE END POST AT LEAST TWO TIMES AND THEN WRAPPING AROUND ITSELF FIVE TIMES.
5. A DEADMAN MAY BE A PRECAST CONCRETE BLOCK, A CAST IN PLACE CONCRETE BLOCK, A ROCK OR OTHER APPROVED OBJECT WEIGHING AT LEAST 260 LB. [120 kg] BURY THE DEADMAN IN THE GROUND WITH AT LEAST 2'-0" [600] OF COVER. ATTACH THE DEADMAN TO THE FENCE WITH 3 STRANDS OF 9 GAUGE WIRE OR 6 STRANDS OF 12 1/2 [12.5] GAUGE WIRE. SEE DTL. DWG. NO. 607-10 FOR ALTERNATE DEADMAN.
6. STAPLE THE BOTTOM, TOP, CENTER AND ALTERNATE WIRES OF WOVEN WIRE TO WOOD LINE POSTS.
7. STAPLE ALL WIRES OF WOVEN WIRE TO WOOD CORNER POSTS OR POST USED TO TIE-OFF WIRE.
8. PROVIDE LATCH THAT ALLOWS FOR ONE HANDED OPERATION. RELEASES TO ALLOW GATE TO SWING IN EITHER DIRECTION AND CAN BE LOCKED.

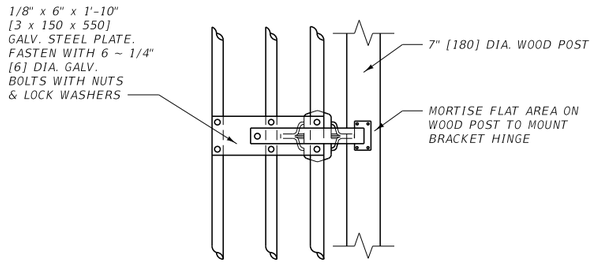



## METAL MAINTENANCE ACCESS GATE

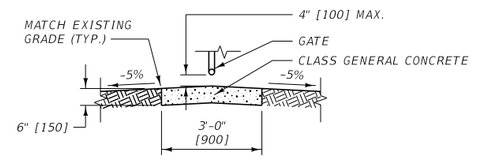
CHAIN AND LOCK TO BE SUPPLIED BY MDT FORCES




## METAL EQUINE GATE




## TIE BAR MOUNTING DETAIL FOR GATE CLOSERS




## SECTION A-A

CENTER CONCRETE DIG BARRIER APRON UNDER CLOSED GATE

UNITS SHOWN IN BRACKETS [] ARE METRIC AND ARE IN MILLIMETERS (mm) UNLESS OTHER UNITS ARE SHOWN.

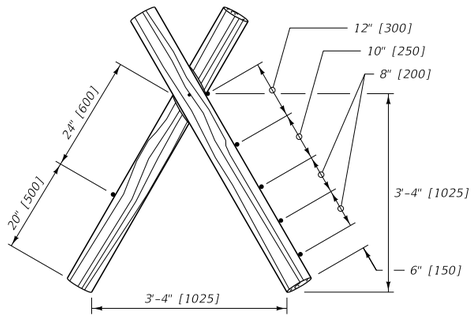
DETAILED DRAWING

REFERENCE STANDARD SPEC. SECTION 607

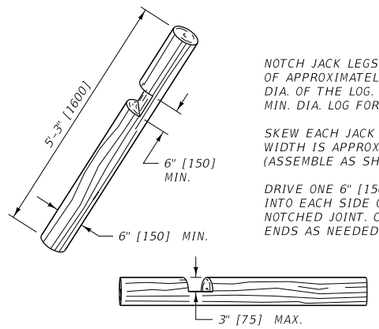
DWG. NO. 607-50

WILDLIFE FENCE

MONTANA DEPARTMENT OF TRANSPORTATION




JACK AND WIRE ASSEMBLY

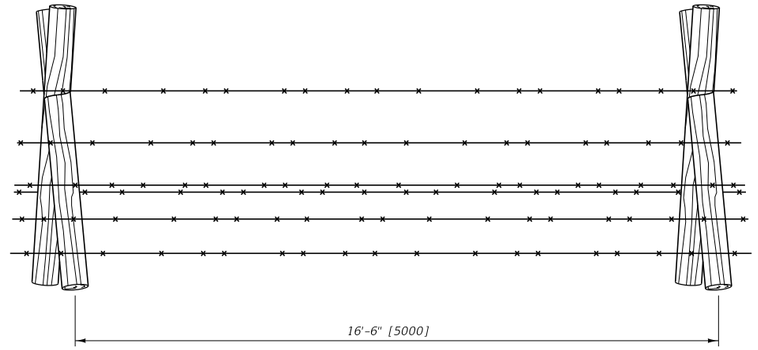



NOTCH JACK LEGS TO A DEPTH OF APPROXIMATELY ONE-HALF THE DIA. OF THE LOG. PROVIDE 6" [150] MIN. DIA. LOG FOR JACK LEG.

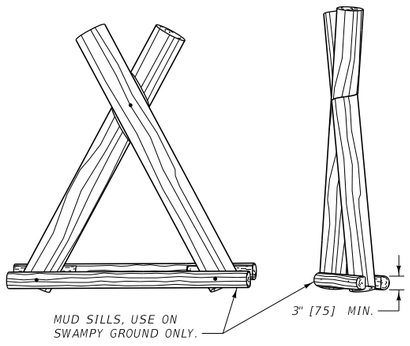
SKEW EACH JACK NOTCH AND ENSURE WIDTH IS APPROX. EQUAL TO LOG DIA. (ASSEMBLE AS SHOWN)

DRIVE ONE 6" [150] RINGED NAIL INTO EACH SIDE OF THE JACK THROUGH NOTCHED JOINT. CLINCH PROTRUDING NAIL ENDS AS NEEDED.

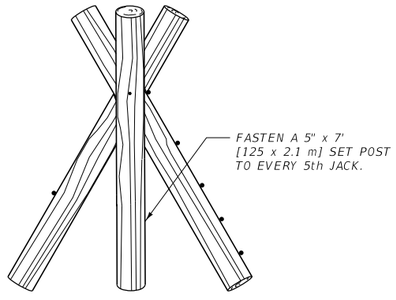
JACK LEG NOTCHING



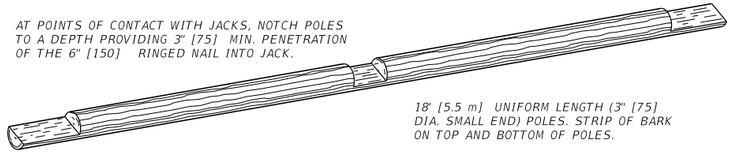

LINE JACK SPACING



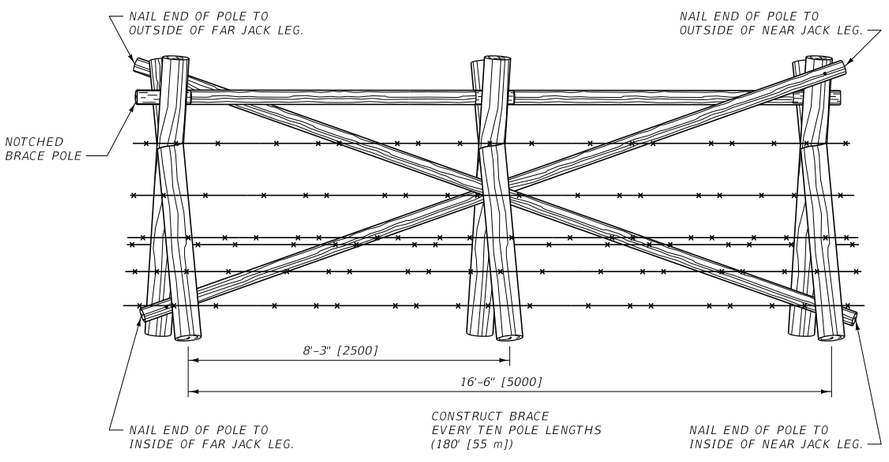

MUD SILL




SET POST BRACE




BRACE POLE NOTCHING




BRACED PANEL

NOTE: ALL POLES, POSTS, RAILS, OR WOOD ITEMS WILL BE TREATED.

UNITS SHOWN IN BRACKETS [] ARE METRIC AND ARE IN MILLIMETERS (mm) UNLESS OTHER UNITS ARE SHOWN.

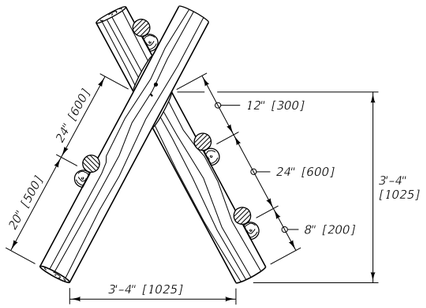
DETAILED DRAWING

REFERENCE STANDARD SPEC. SECTION 607

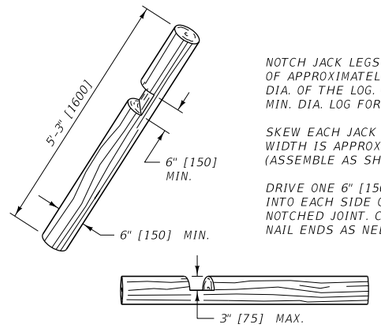
DWG. NO. 607-55

# JACKLEG WIRE FENCE

MDT MONTANA DEPARTMENT OF TRANSPORTATION




JACK AND POLE ASSEMBLY

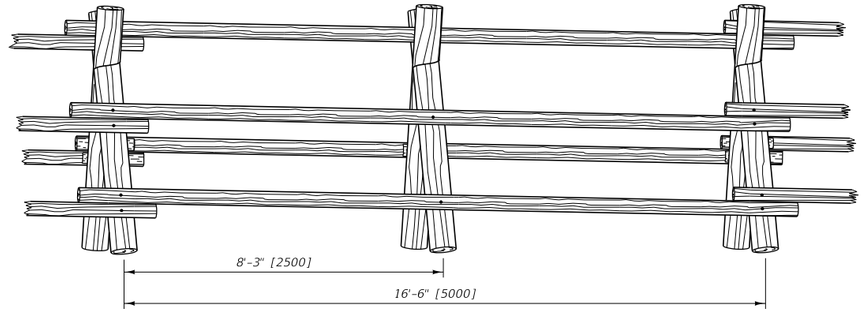



NOTCH JACK LEGS TO A DEPTH OF APPROXIMATELY ONE-HALF THE DIA. OF THE LOG. PROVIDE 6" [150] MIN. DIA. LOG FOR JACK LEG.

SKEW EACH JACK NOTCH AND ENSURE WIDTH IS APPROX. EQUAL TO LOG DIA. (ASSEMBLE AS SHOWN)

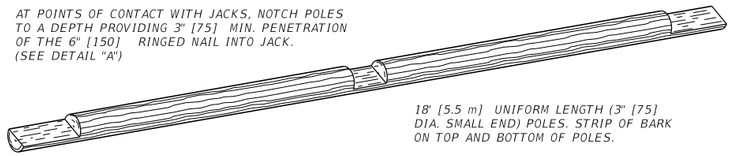
DRIVE ONE 6" [150] RINGED NAIL INTO EACH SIDE OF THE JACK THROUGH NOTCHED JOINT. CLINCH PROTRUDING NAIL ENDS AS NEEDED.

JACK LEG NOTCHING



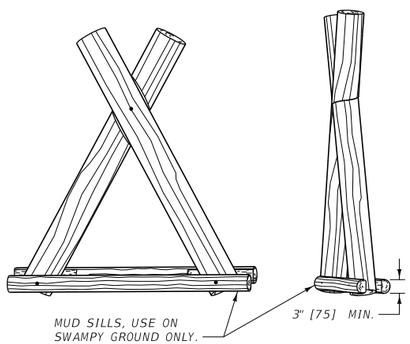

LINE JACK SPACING

AT POINTS OF CONTACT WITH JACKS, NOTCH POLES TO A DEPTH PROVIDING 3" [75] MIN. PENETRATION OF THE 6" [150] RINGED NAIL INTO JACK. (SEE DETAIL "A")

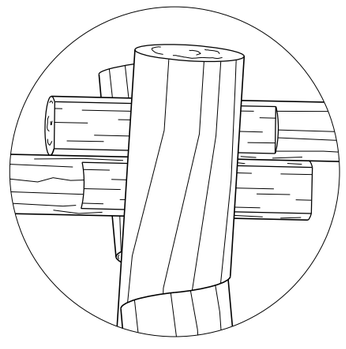


18' [5.5 m] UNIFORM LENGTH (3" [75] DIA. SMALL END) POLES. STRIP OF BARK ON TOP AND BOTTOM OF POLES.

POLE NOTCHING

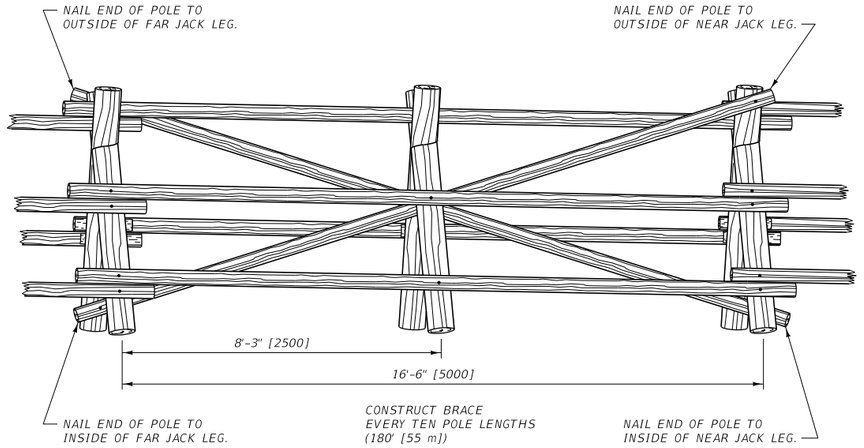



MUD SILL



TYPICAL POLE NOTCHING AT JACK

DETAIL "A"




BRACED PANEL

NOTE: ALL POLES, POSTS, RAILS, OR WOOD ITEMS WILL BE TREATED.

UNITS SHOWN IN BRACKETS [] ARE METRIC AND ARE IN MILLIMETERS (mm) UNLESS OTHER UNITS ARE SHOWN.

DETAILED DRAWING

REFERENCE
STANDARD SPEC.
SECTION 607

DWG. NO.
607-60

# JACKLEG POLE FENCE

MDT MONTANA DEPARTMENT OF TRANSPORTATION