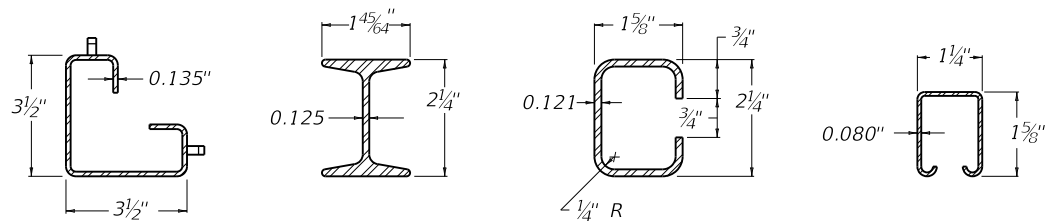


~ NOTES ~

9. TENSION WIRE COMPLYING WITH ASTM A 824 SHALL BE SUBSTITUTED FOR THE TOP RAIL WHEN THE FENCE IS TO BE INSTALLED IN THE PATH OF AN ERRANT VEHICLE.
10. ALL POSTS SHALL BE SET IN CONCRETE TO THE DIMENSIONS INDICATED ON THIS DRAWING.
11. 4' HIGH FENCE SHALL HAVE 4' FABRIC HEIGHT. 6' HIGH FENCE SHALL HAVE 6' FABRIC HEIGHT.
12. ALL FENCE FITTINGS SHALL COMPLY WITH ASTM F626.
13. POST CAPS AND SOCKET TYPE BRACE END CONNECTIONS SHALL BE GALVANIZED PRESSED STEEL, CAST IRON OR OTHER TYPE AS APPROVED BY THE ENGINEER. THEY SHALL BE DESIGNED IN A MANNER TO EXCLUDE MOISTURE FROM INSIDE POSTS AND RAILS.
14. NPS = NOMINAL PIPE SIZE - ASTM F1083 AND F1043 (HEAVY INDUSTRIAL FENCE) SHALL GOVERN.
15. INDISCRIMINATE MIXING OF POSTS WILL NOT BE PERMITTED.

BID ITEMS AND UNIT TO BID
 CHAIN LINK FENCE
 CONCRETE-CLASS B

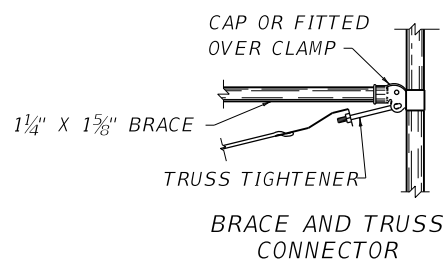
LF
 CUYD



ROLL FORMED TERMINAL POST & CORNER POST HOT ROLLED LINE POST H - COLUMN LINE POST HEAVY "C" ROLL FORMED HOT ROLLED TOP & BRACE RAIL

LEGEND / (ALTERNATES)

	TUBULAR	ROLL FORMED
①	2 1/2" NPS END POST	3 1/2" X 3 1/2" END POST
②	2" NPS LINE POST	2 1/4" H-COL. LINE POST - OR - 2 1/4" C-COL. LINE POST
③	3/8" DIA. TRUSS ROD AND TIGHTNER	3/8" DIA. TRUSS ROD AND TIGHTNER
④	APPROVED CAPS	NOT REQUIRED
⑤	FLAT TENSION BAR	NOT REQUIRED
⑥	BRACE BAND AND TENSION BAND	NOT REQUIRED
⑦	1 1/4" NPS BRACE	
⑧	1 1/4" NPS TOP RAIL (SEE NOTE 9)	1 1/4" X 1 5/8" TOP RAIL & BRACE



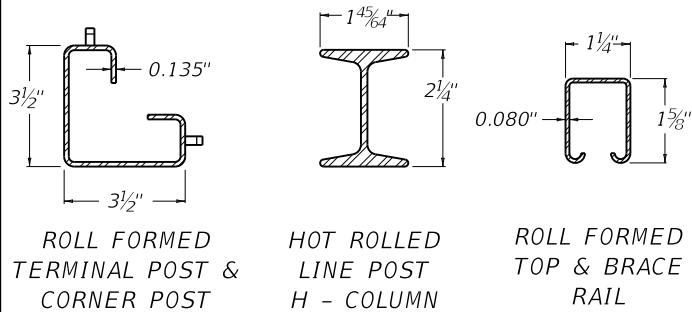
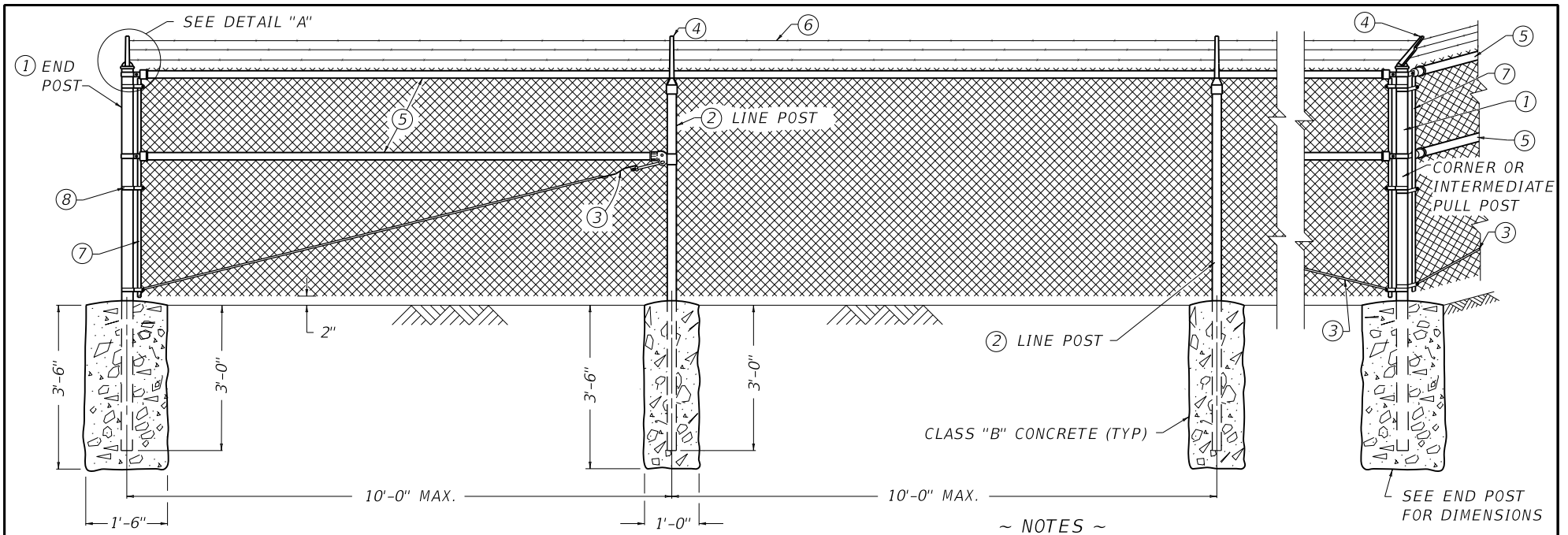
**KENTUCKY
DEPARTMENT OF HIGHWAYS**

**CHAIN LINK FENCE
4' TO 6' HIGH**

STANDARD DRAWING NO. RFC-001-08

SUBMITTED <i>[Signature]</i>	12-01-15 DATE
APPROVED <i>[Signature]</i>	12-01-15 DATE

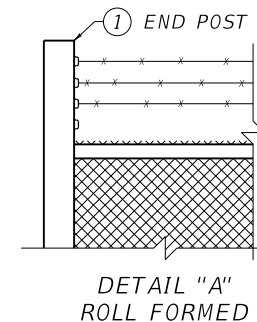
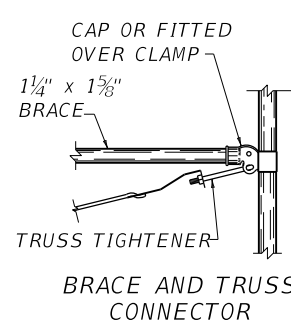
STATE HIGHWAY ENGINEER



9. ALL POSTS SHALL BE SET IN CONCRETE TO THE DIMENSIONS SHOWN ON THIS DRAWING.
 10. A 1 1/4" NPS OR A 1 1/4" x 1 5/8" ROLL FORMED SECTION, BOTTOM RAIL SHALL BE REQUIRED AROUND ALL UTILITY INSTALLATIONS AND AT OTHER LOCATIONS DESIGNATED BY THE ENGINEER.
 11. 8' HIGH FENCE SHALL HAVE 7' FABRIC HEIGHT. 9' HIGH FENCE SHALL HAVE 8' FABRIC HEIGHT. 10' HIGH FENCE SHALL HAVE 9' FABRIC HEIGHT. 11' HIGH FENCE SHALL HAVE 10' FABRIC HEIGHT. 12' HIGH FENCE SHALL HAVE 11' FABRIC HEIGHT.
 12. ALL FENCE FITTINGS SHALL COMPLY WITH ASTM F626.
 13. POST CAPS AND SOCKET TYPE BRACE END CONNECTIONS SHALL BE GALVANIZED PRESSED STEEL, CAST IRON OR OTHER TYPE AS APPROVED BY THE ENGINEER. THEY SHALL BE DESIGNED IN A MANNER TO EXCLUDE MOISTURE FROM INSIDE THE POSTS AND RAILS.
 14. NPS = NOMINAL PIPE SIZE - ASTM F1083 AND F1043 (HEAVY INDUSTRIAL FENCE) SHALL GOVERN.
- BID ITEMS AND UNIT TO BID
- CHAIN LINK FENCE
- CONCRETE-CLASS B
- LF
- CUYD

LEGEND / (ALTERNATES)

	TUBULAR	ROLL FORMED
①	2 1/2" NPS END POST	3 1/2" X 3 1/2" END POST
②	2" NPS LINE POST	2 1/4" H-COL. LINE POST
③	3/8" DIA. TRUSS ROD AND TIGHTNER	3/8" DIA. TRUSS ROD AND TIGHTNER
④	BARBED WIRE ARMS	BARBED WIRE ARMS
⑤	1 1/4" NPS TOP RAIL & BRACE	1 1/4" x 1 5/8" TOP RAIL & BRACE
⑥	BARBED WIRE	BARBED WIRE
⑦	FLAT TENSION BAR	NOT REQUIRED
⑧	BRACE BAND AND TENSION BAND	NOT REQUIRED



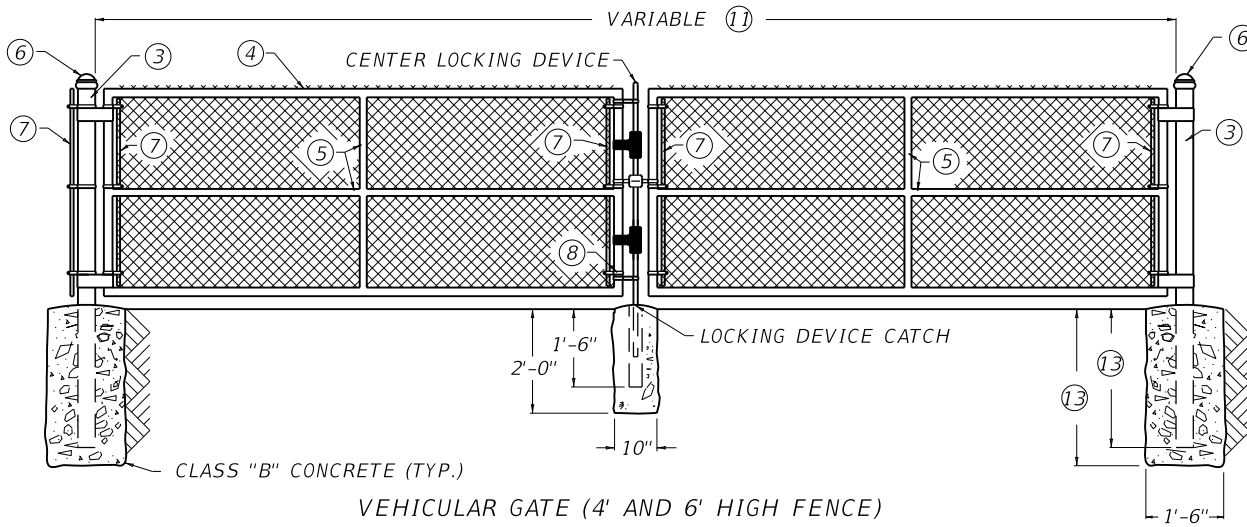
KENTUCKY DEPARTMENT OF HIGHWAYS

CHAIN LINK FENCE 8' TO 12' HIGH

STANDARD DRAWING NO. RFC-002-05

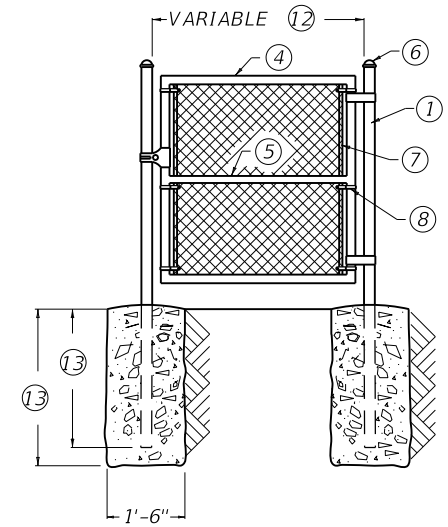
SUBMITTED *[Signature]* 12-01-15
DESIGNED BY DATE

APPROVED *[Signature]* 12-01-15
STATE HIGHWAY ENGINEER DATE



VEHICULAR GATE (4' AND 6' HIGH FENCE)

~ NOTES ~



PEDESTRIAN GATE
(4' AND 6' HIGH FENCE)

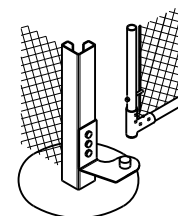
- ① 6' TO 13' WIDTH FOR SINGLE GATE OR 12' TO 26' WIDTH FOR DOUBLE GATE. SEE ELSEWHERE IN PLANS FOR GATE HEIGHT.
- ② 4' TO 6' WIDTH. SEE ELSEWHERE IN PLANS FOR GATE HEIGHT.
- ③ 3'-0" FOR 4' FENCE OR 3'-6" FOR 6' FENCE. 2'-6" FOR 4' FENCE OR 3'-0" FOR 6' FENCE.
- 14. ALL POST SHALL BE SET IN CONCRETE TO THE DIMENSIONS AS INDICATED ON THIS DRAWING.
- 15. VEHICULAR AND PEDESTRIAN GATES SHALL HAVE HEAVY PRESSED STEEL CORNERS SECURELY RIVETED OR SHALL BE MACHINE NOTCHED, AND ELECTRICALLY WELDED SO AS TO BE RIGID AND WATER TIGHT; AND EQUIPPED WITH A PADLOCKING DEVICE AND GROUND STOP.
- 16. ALL WELDED JOINTS SHALL BE CLEANED AND PAINTED WITH TWO (2) COATS OF ALUMINUM PAINT.
- 17. 4' HIGH GATES SHALL HAVE 4' FABRIC HEIGHT. 6' HIGH GATES SHALL HAVE 6' FABRIC HEIGHT. 8' HIGH GATES SHALL HAVE 7' FABRIC HEIGHT. 9' HIGH GATES SHALL HAVE 8' FABRIC HEIGHT. 10' HIGH GATES SHALL HAVE 9' FABRIC HEIGHT. 11' HIGH GATES SHALL HAVE 10' FABRIC HEIGHT. 12' HIGH GATES SHALL HAVE 11' FABRIC HEIGHT.
- 18. BARBED WIRE IS REQUIRED ON 8' TO 12' HIGH GATES. SEE DETAILS A AND B FOR INSTALLATION.
- 19. THE CONTRACTOR IS NOT TO ORDER GATES UNTIL THEIR NECESSITY AND LOCATION HAVE BEEN CERTIFIED BY THE ENGINEER.
- 20. ALL FENCE FITTINGS SHALL COMPLY WITH ASTM F626.
- 21. NPS = NOMINAL PIPE SIZE - ASTM F1083 AND ASTM F1043 (HEAVY INDUSTRIAL FENCE) SHALL GOVERN.

BID ITEMS AND UNIT TO BID

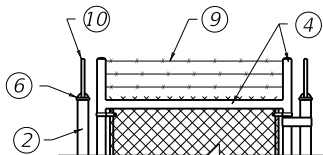
SINGLE VEHICULAR CHAIN LINK GATE	EACH
OR	
DOUBLE VEHICULAR CHAIN LINK GATE	EACH
OR	
PEDESTRIAN CHAIN LINK GATE	EACH
CONCRETE-CLASS B	CUYD

LEGEND / (ALTERNATES)

	TUBULAR	ROLL FORMED
①	END POST 2½" NPS	3½" X 3½"
②	END POST 2½" NPS	3½" X 3½"
③	GATE POST 3½" NPS	NO ALTERNATE
④	GATE FRAME 1½" NPS	NO ALTERNATE
⑤	1¼" NPS	NO ALTERNATE
⑥	APPROVED CAPS	NOT REQUIRED
⑦	FLAT TENSION BAR	NOT REQUIRED
⑧	BRACE BAND AND TENSION BAND	NOT REQUIRED
⑨	BARBED WIRE	BARBED WIRE
⑩	BARBED WIRE ARMS	BARBED WIRE ARMS



ROLL FORMED HINGE DETAIL



DETAIL "A"
(8' TO 12' HIGH FENCE)



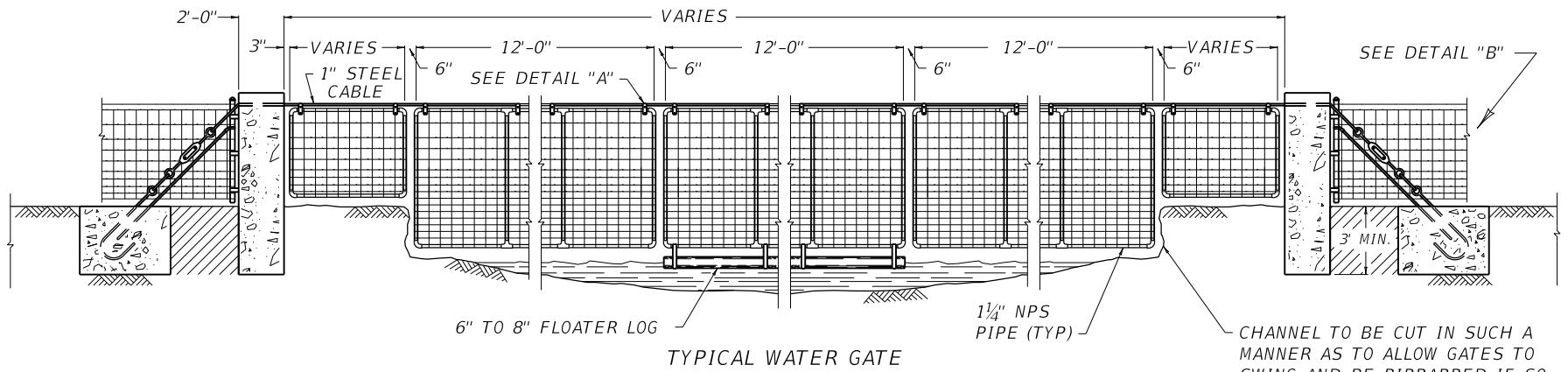
DETAIL "B"
(8' TO 12' HIGH FENCE)

KENTUCKY
DEPARTMENT OF HIGHWAYS

4' TO 12' HIGH
CHAIN LINK GATE

STANDARD DRAWING NO. RFG-005-06

SUBMITTED	<i>[Signature]</i>	12-01-15
DESIGNED BY	DATE OF DESIGN	DATE
APPROVED	<i>[Signature]</i>	12-01-15
STATE HIGHWAY ENGINEER	DATE	DATE



TYPICAL WATER GATE

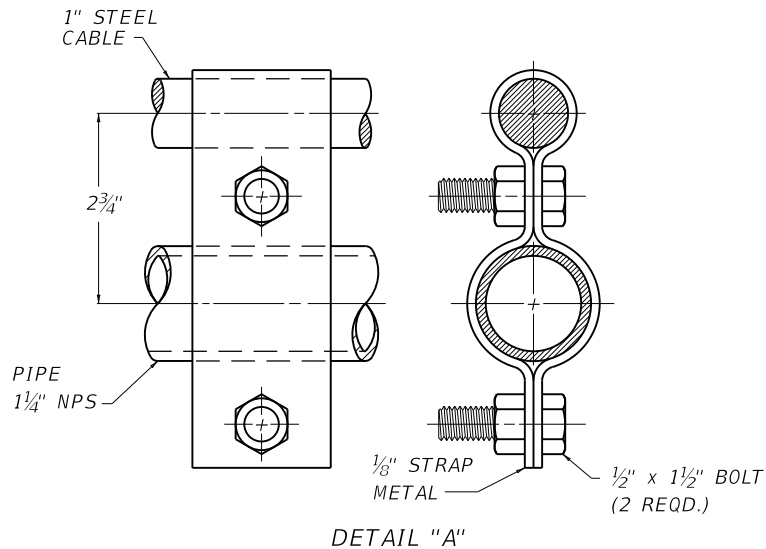
CHANNEL TO BE CUT IN SUCH A MANNER AS TO ALLOW GATES TO SWING AND BE RIPRAPPED IF SO DIRECTED ON CONSTRUCTION BY THE ENGINEER.

~ NOTES ~

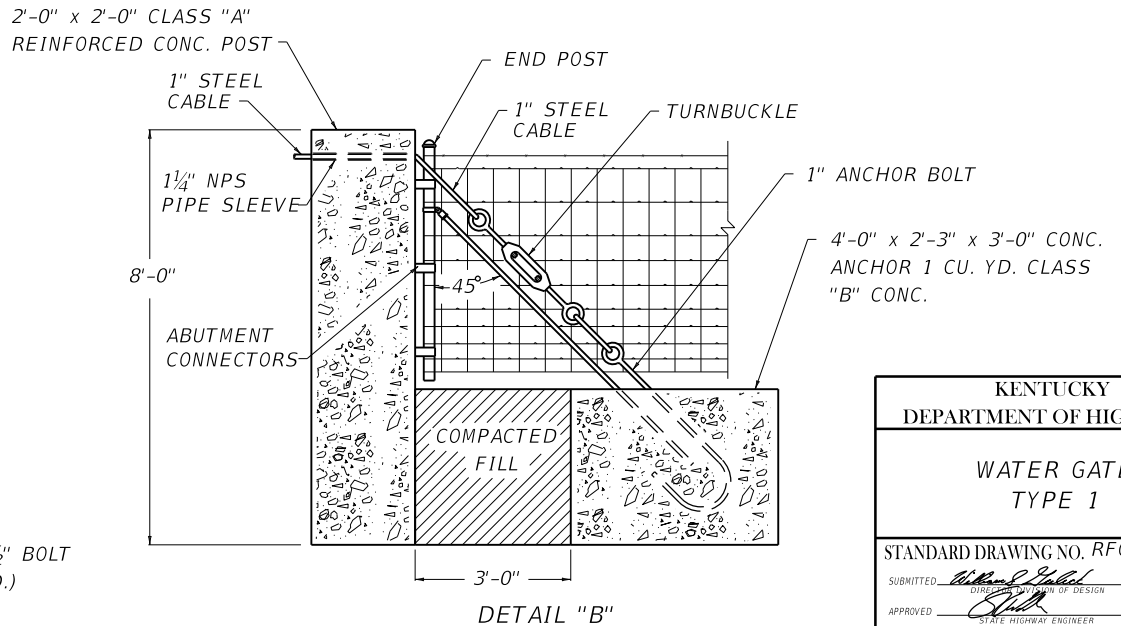
1. THIS ILLUSTRATION DEPICTS WATER GATE TYPE 1 USING WOVEN WIRE FABRIC.
2. FABRIC TIE WIRES SHALL BE SPACED 1'-0" ON CENTERS. THE CONTRACTOR IS NOT TO ORDER GATES OF ANY TYPE UNTIL THEIR NECESSITY AND LOCATION ARE CERTIFIED BY THE ENGINEER.
3. ALL FENCE FITTINGS SHALL COMPLY WITH ASTM F626.
4. WOVEN-WIRE FABRIC USED ON WATER GATE TYPE 1 SHALL BE EITHER ALUMINUM-COATED STEEL NO. 1047-6-9 OR ZINC COATED STEEL NO. 1047-6-9.
5. WATER GATES SHALL HAVE HEAVY PRESSED STEEL CORNERS SECURELY RIVETED OR SHALL BE MACHINE NOTCHED AND ELECTRICALLY WELDED SO AS TO BE RIGID AND WATER TIGHT. ALL WELDED JOINTS SHALL BE CLEANED AND PAINTED WITH TWO (2) COATS OF ALUMINUM PAINT.
6. NPS = NOMINAL PIPE SIZE - ASTM F1083 AND F1043 (HEAVY INDUSTRIAL FENCE) SHALL GOVERN.

BID ITEMS AND UNIT TO BID
 WATER GATE TYPE 1
 CONCRETE-CLASS A
 CONCRETE-CLASS B
 STEEL REINFORCEMENT

EACH
 CUYD
 CUYD
 LB



DETAIL "A"



DETAIL "B"

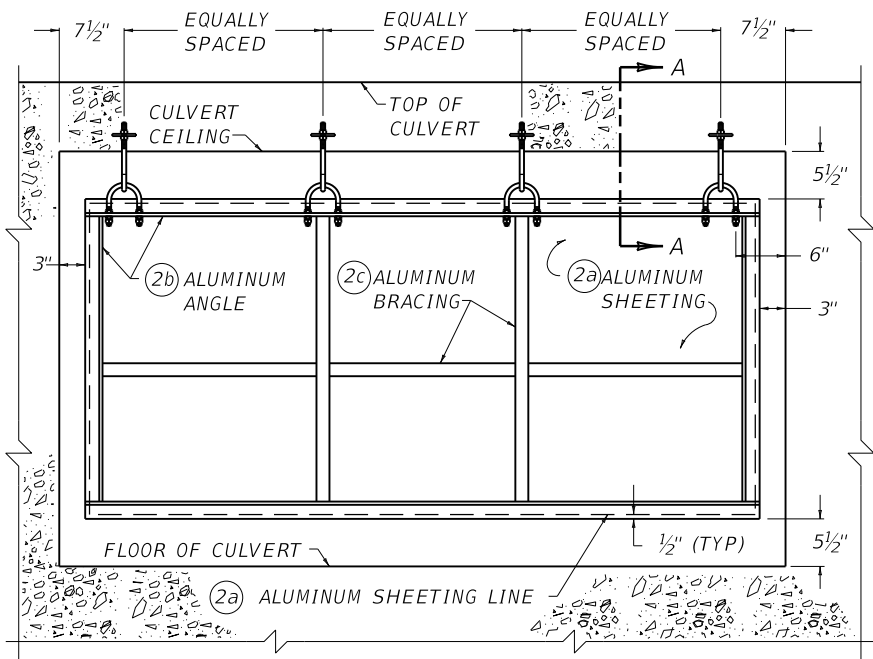
KENTUCKY DEPARTMENT OF HIGHWAYS	
WATER GATE TYPE 1	
STANDARD DRAWING NO. RFG-010-05	
SUBMITTED <i>[Signature]</i>	12-01-15
DESIGNED BY <i>[Signature]</i>	DATE
APPROVED <i>[Signature]</i>	12-01-15
STATE HIGHWAY ENGINEER	DATE

~ NOTES ~

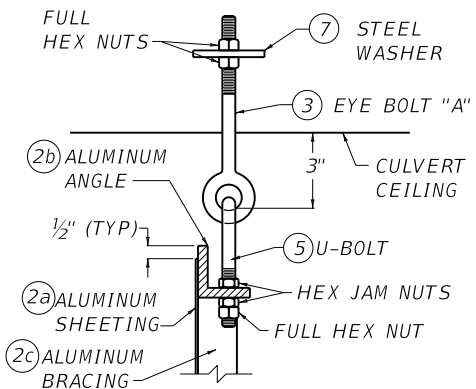
BID ITEM AND UNIT TO BID
WATER GATE TYPE 3

EACH

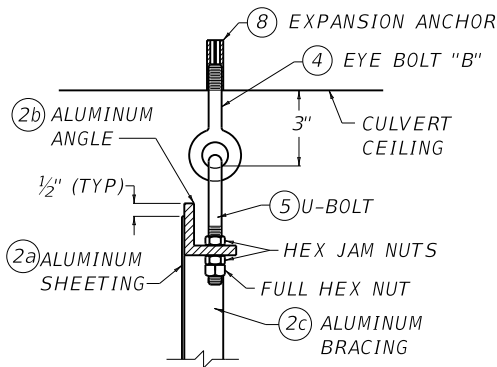
1. THE CONTRACT UNIT PRICE SHALL INCLUDE LABOR, MATERIALS, INSTALLATION, AND ALL NECESSARY INCIDENTALS TO COMPLETE THE INSTALLATION. TWO OR MORE SECTIONS PER CULVERT OPENING EQUALS ONE WATER GATE TYPE 3.
2. COMMERCIAL GRADE ALUMINUM
 - ②a SHEETING - 0.090" THICK, MILL FINISH.
 - ②b ANGLES - 2" x 2" x 3/8" @ 1.60 LBS./LIN. FT.
 - ②c BRACING - 1 1/2" x 1 1/2" x 1/8" SQUARE TUBING @ 0.826 LB./LIN. FT.
- ③ EYEBOLT "A" - GALVANIZED, WELDLESS, 1/2" DIA., 6" SHANK, 1" EYE I.D., 3" THREAD.
- ④ EYEBOLT "B" - GALVANIZED, WELDLESS, 1/2" DIA., 2 1/2" SHANK, 1" EYE I.D., 1" THREAD.
- ⑤ U-BOLTS - CADMIUM PLATED STEEL, 3" BETWEEN LEGS, 4 1/2" INSIDE LENGTH, 5" OUTSIDE LENGTH, 2" THREAD, 1/2" DIA.
- ⑥ HEX FULL NUTS AND JAM NUTS - 1/2" DIA., 13 THREADS/IN., FINISHED, DOUBLE CHAMFERED.
- ⑦ STEEL WASHER - 5/8" I.D., 2 3/4" O.D.
- ⑧ EXPANSION ANCHORS - 6000 LBS. MINIMUM HOLDING POWER.
9. WELD ANGLE AND BRACE CONNECTIONS FULLY ON ALL EXPOSED SIDES.
10. WELD SHEETING ON BOTH SIDES TO ANGLES AND BRACING AS SHOWN.
11. CULVERT OPENINGS GREATER THAN 10' IN WIDTH - USE MINIMUM OF TWO EQUAL WIDTH SECTIONS PER OPENING WITH 3" GAP BETWEEN SECTIONS (SEE DETAIL "A"). NO SECTION SHALL EXCEED 10' IN WIDTH.
12. USE OF ONE CONTINUOUS ALUMINUM SHEET IS DESIRABLE; HOWEVER IF MORE THAN ONE SHEET IS USED AND THE SEAMS DO NOT FIT THE MINIMUM REQUIRED BRACING DIAGRAM, ADDITIONAL SYMMETRICALLY PLACED BRACING SHALL BE REQUIRED. NO SEAMS SHALL BE VISIBLE FROM THE BRACING SIDE OF THE GATE.



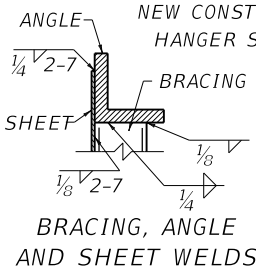
TYPICAL WATER GATE INSTALLATION



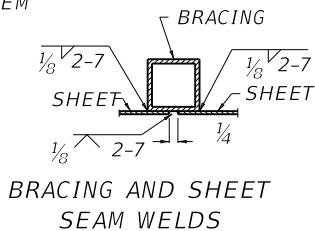
SECTION A-A
NEW CONSTRUCTION
HANGER SYSTEM



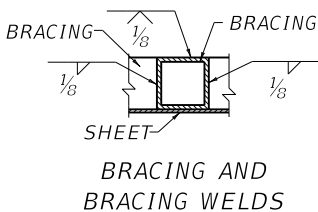
SECTION A-A
EXISTING CONSTRUCTION
HANGER SYSTEM



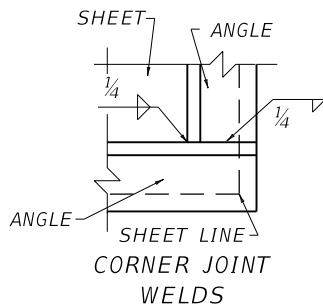
BRACING, ANGLE
AND SHEET WELDS



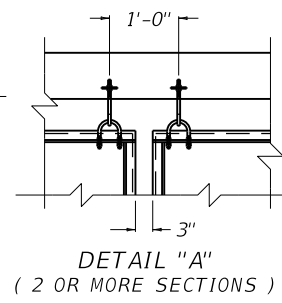
BRACING AND SHEET
SEAM WELDS



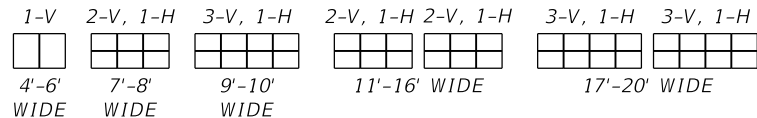
BRACING AND
BRACING WELDS



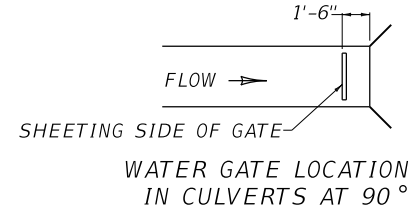
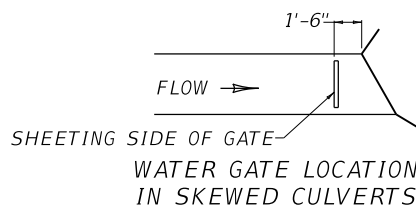
CORNER JOINT
WELDS



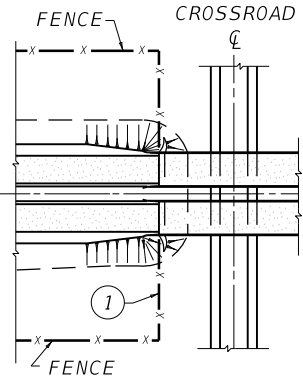
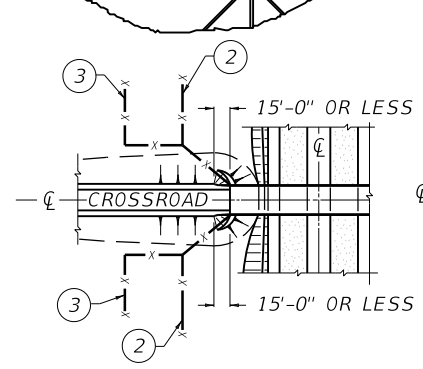
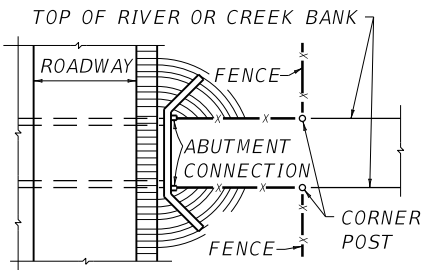
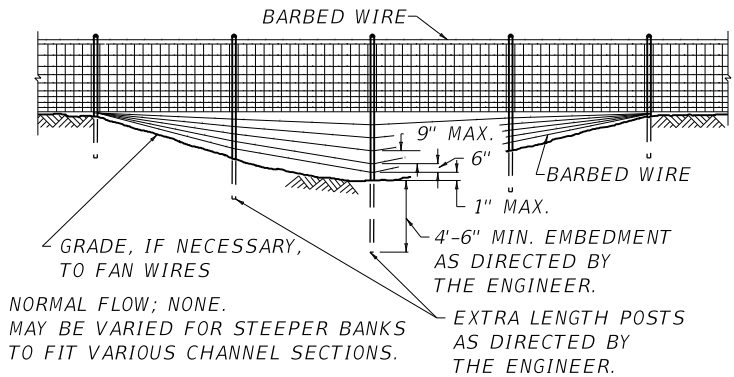
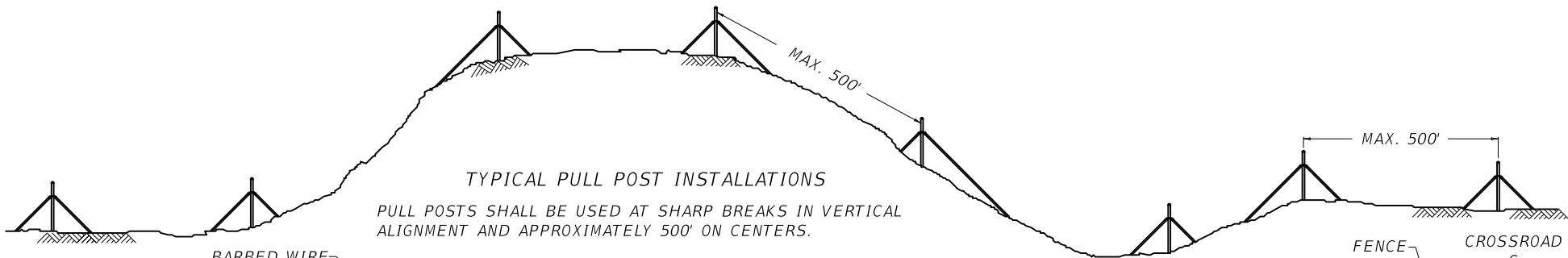
DETAIL "A"
(2 OR MORE SECTIONS)



MINIMUM HOR. AND VER. BRACING SYSTEMS FOR VARIOUS WIDTH CULVERT OPENINGS.
ONE (1) ADDITIONAL HOR. BRACE REQUIRED FOR CULVERT OVER 10' IN HEIGHT.



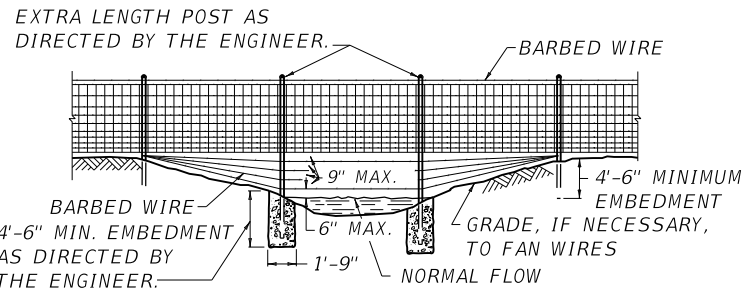
KENTUCKY DEPARTMENT OF HIGHWAYS	
WATER GATE TYPE 3	
STANDARD DRAWING NO. RFG-011-06	
SUBMITTED <i>W. P. Seal</i>	12-01-15
DESIGNED BY <i>W. P. Seal</i>	DATE
APPROVED <i>W. P. Seal</i>	12-01-15
STATE HIGHWAY ENGINEER	DATE



TYPICAL FENCE INSTALLATION FOR BOX CULVERT USED AS CATTLE CROSSING

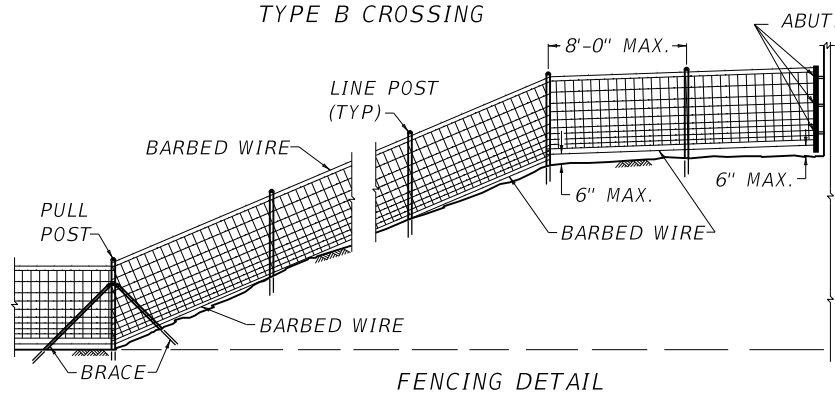
HIGHWAY UNDER CROSSROAD

HIGHWAY OVER CROSSROAD

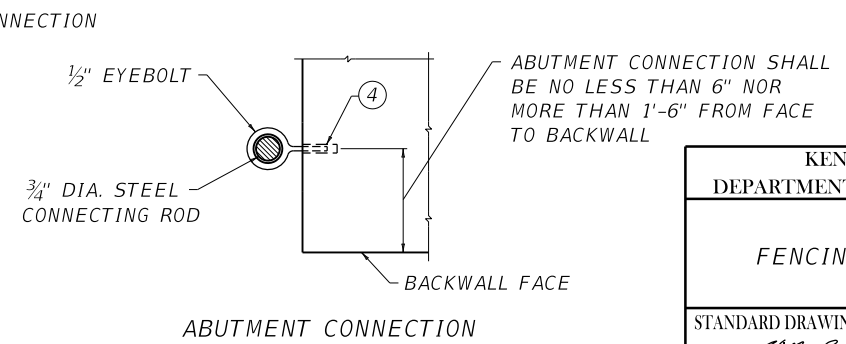


TYPE B CROSSING

- ~ NOTES ~
- ① NORMAL WAY OF HANDLING FENCE WHEN THE HIGHWAY IS OVER THE CROSSROAD AS SHOWN.
 - ② WHEN HIGHWAY RIGHT-OF-WAY IS 15'-0" OR LESS FROM THE FACE OF BACKWALL PROJECTED, ANGLE FENCE INTO ABUTMENT FROM TOE OF SLOPE AS SHOWN.
 - ③ WHEN HIGHWAY RIGHT-OF-WAY IS GREATER THAN 15'-0" FROM THE FACE OF BACKWALL PROJECTED, ANGLE FENCE PARALLEL TO THE CENTERLINE OF CROSSROAD AND INTERSECT DETAIL 2 AS SHOWN.
 - ④ 1/2" x 2" SELF-DRILL ANCHOR AND EYEBOLT ASSEMBLY.
 5. ALL MATERIAL FOR ABUTMENT CONNECTION SHALL BE GALVANIZED.

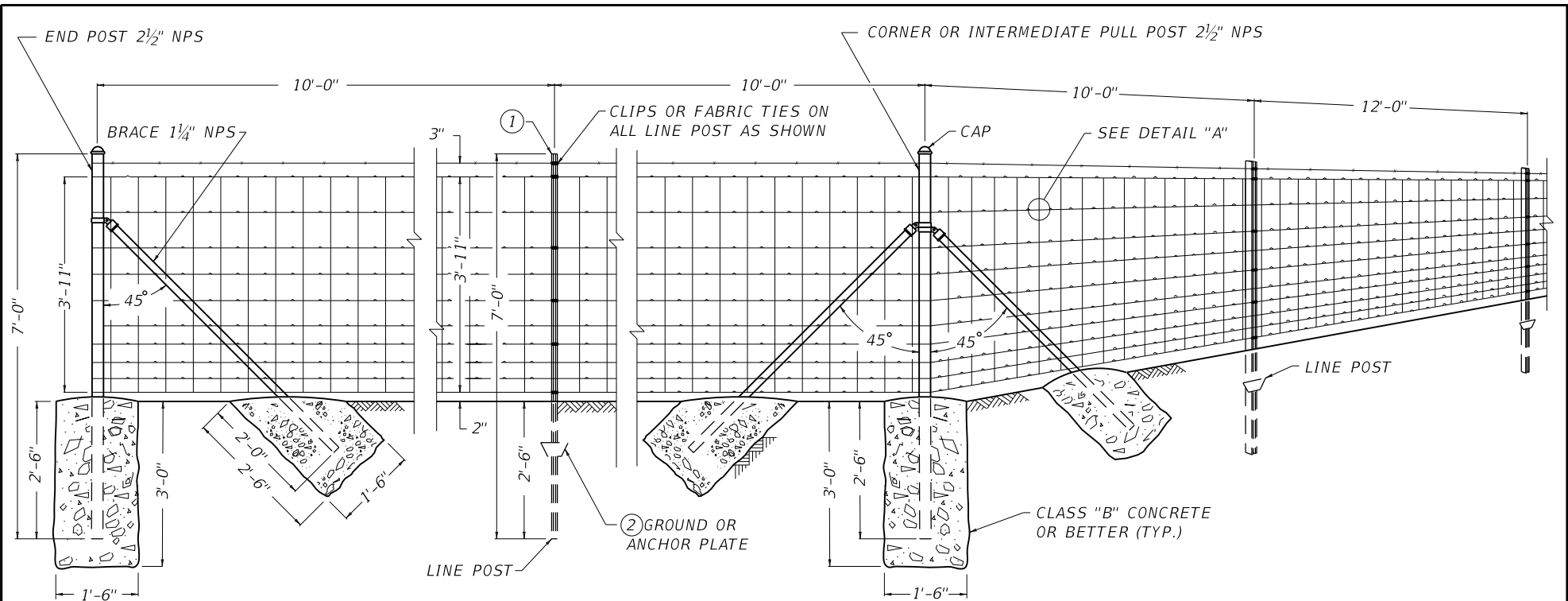


FENCING DETAIL



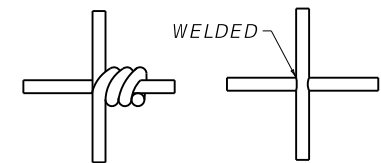
ABUTMENT CONNECTION

KENTUCKY DEPARTMENT OF HIGHWAYS		
FENCING DETAILS		
STANDARD DRAWING NO. RFW-001-06		
SUBMITTED	<i>W. P. Seal</i> DESIGNED BY	12-01-15 DATE
APPROVED	<i>Seal</i> STATE HIGHWAY ENGINEER	12-01-15 DATE



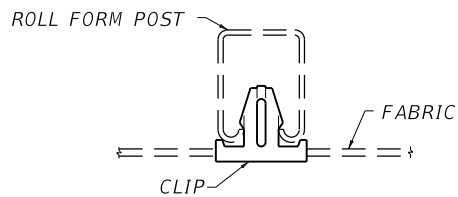
~ NOTES ~

- BID ITEMS AND UNIT TO BID
 FENCE-WOVEN WIRE TYPE 1 LF
 CONCRETE-CLASS B CUYD
- ① STUDDED "T" POST CONFORMING TO ASTM A702 AT 1.33 LBS. PER FOOT - OR - ROLL FORM POST AT 1.40 LBS. PER FOOT (SEE DETAIL)
 - ② NOT REQUIRED FOR ROLL FORM POST.
 3. WOVEN-WIRE FABRIC SHALL BE EITHER ALUMINUM-COATED STEEL NO. 1047-6-9 OR ZINC-COATED STEEL NO. 1047-6-9.
 4. ALL FENCE FITTINGS SHALL COMPLY WITH ASTM F626.
 5. NPS = NOMINAL PIPE SIZE - ASTM F1083 AND F1043 (HEAVY INDUSTRIAL FENCE) SHALL GOVERN.

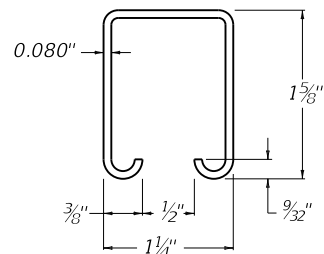


ALTERNATE METHODS OF SECURING VERTICAL STAY WIRE TO THE HORIZONTAL WIRE OF THE FABRIC.

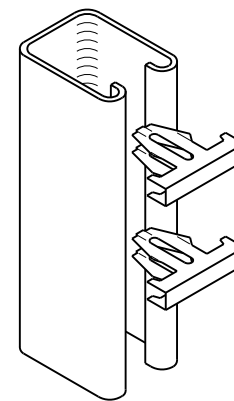
DETAIL "A"



PLAN VIEW OF CLIP INSTALLED IN ROLL FORM POST

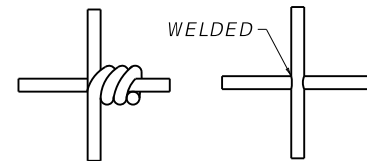
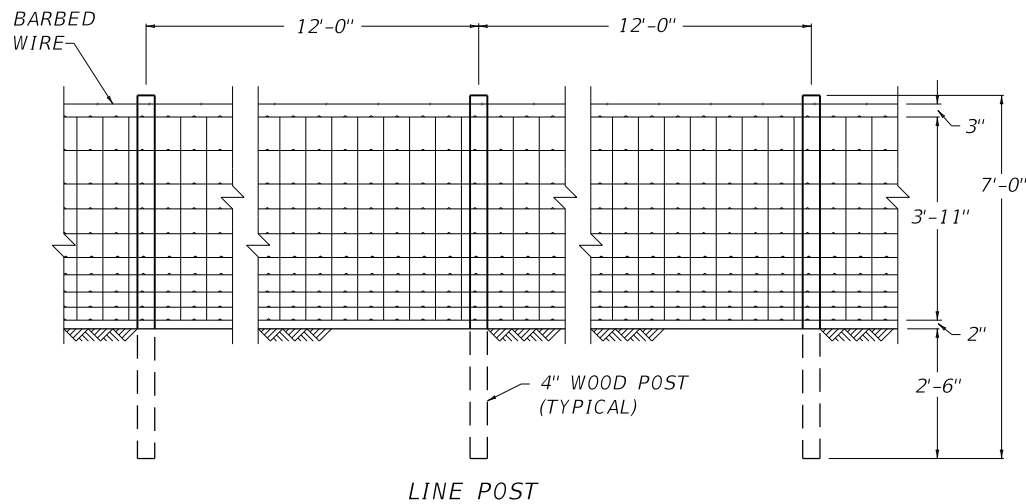
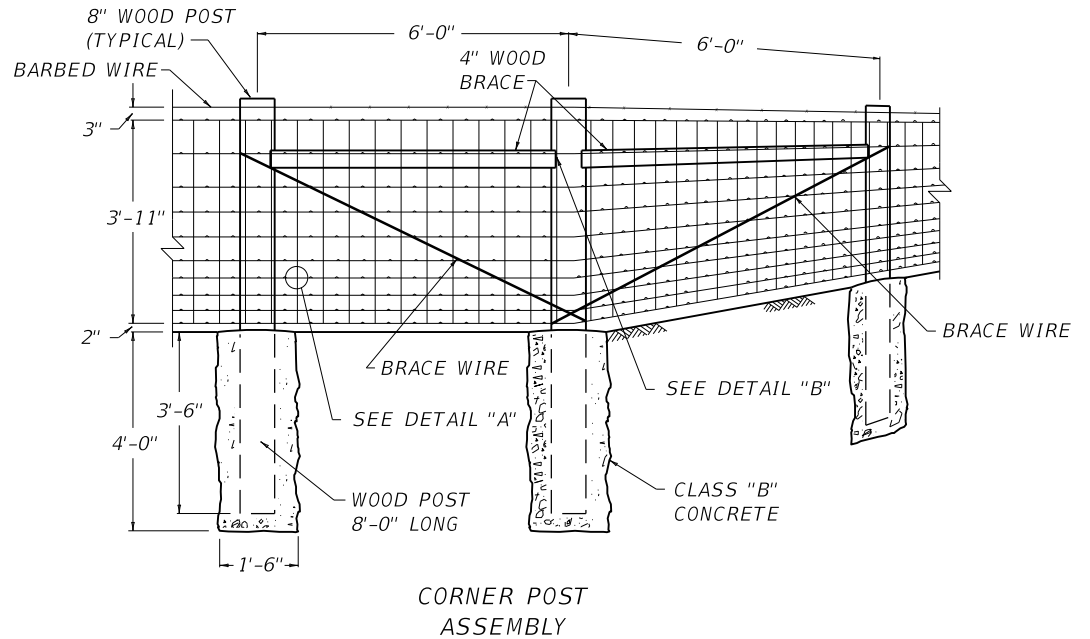
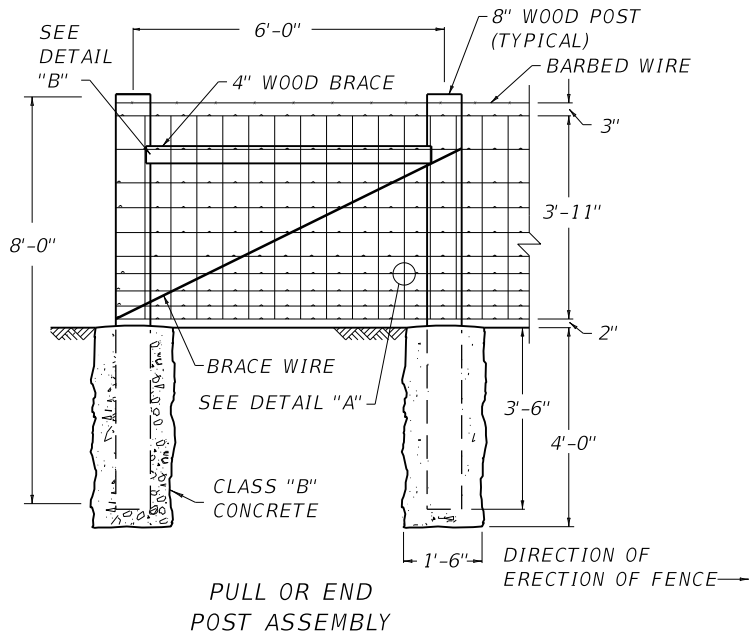


PLAN VIEW OF ROLL FORM POST



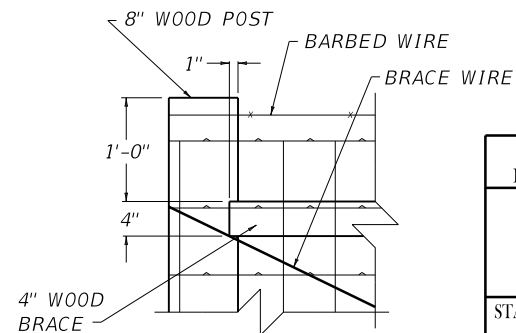
ISOMETRIC EXPLODED VIEW OF ROLL FORM POST AND CLIPS SHALL BE SPRING STEEL ALUMINUM - FINISHED

KENTUCKY DEPARTMENT OF HIGHWAYS	
WOVEN WIRE FENCE TYPE 1	
STANDARD DRAWING NO. RFW-005-08	
SUBMITTED <i>[Signature]</i>	12-01-15 DATE
DESIGNED BY <i>[Signature]</i>	DATE
APPROVED <i>[Signature]</i>	12-01-15 DATE
STATE HIGHWAY ENGINEER	



ALTERNATE METHODS OF SECURING VERTICAL STAY WIRE TO THE HORIZONTAL WIRE OF THE FABRIC.

DETAIL "A"



DETAIL "B"

~ NOTES ~

BID ITEM AND UNIT TO BID
FENCE-WOVEN WIRE TYPE 2
CONCRETE-CLASS B

LF
CUYD

- ON INTERMEDIATE PULL POST ASSEMBLIES, BRACE WIRES SHALL BE REQUIRED FOR BOTH DIRECTIONS.
- WOVEN-WIRE FABRIC SHALL BE EITHER ALUMINUM-COATED STEEL NO. 1047-6-9 OR ZINC-COATED STEEL NO. 1047-6-9.

KENTUCKY
DEPARTMENT OF HIGHWAYS

WOVEN WIRE
FENCE TYPE 2

STANDARD DRAWING NO. RFW-006-07

SUBMITTED	<i>W. S. Galt</i>	12-01-15
DESIGNED BY	DATE OF DESIGN	DATE
APPROVED	<i>W. S. Galt</i>	12-01-15
STATE HIGHWAY ENGINEER		DATE