ALUMINUM POST CASTING

THIS SURFACE TO BE CAST TRUE OR BE MACHINED.
30°
2½"
2" R.
¼"
CORE ½" × 1" SLOTTED HOLES
CORE ¹¹⁄₁₆" × 1³⁄₁₆" SLOTTED HOLES
55° R.
70°
¼"
⁵⁄₁₆"
2¼" R.
55⅛" R.
¾" R.
5⁄₁₆"
¾"
⁵⁄₁₆"
⁵⁄₁₆"
11"
9"
9¾"
3¾"
6³⁄₁₆"
⅜" R. (TYP.)
5½"
1¾" 1¾"
⁵⁄₁₆"
1½" 4" 1½"
7"
1" ⌀
BASE TO BE FLAT AND TRUE
1¾" 1¾" 1¾"
7"
1½" 2" 2" 1½"
7"

VARIES
⁵⁄₁₆" WEB
3°-10° DRAFT

SECT. A-A

RAIL SPLICE DETAIL

TOP RAIL
BOTT. RAIL
⅛"
¹⁄₃₂"
⅝"
⅜"
R1
WALL
⅜" DIA. ALUMINUM PIN WITH DRIVING FIT
3.70" SLEEVE DIA. TOP RAIL
3.85" SLEEVE DIA. BOTT. RAIL

SECTION R1

⅙ PANEL LENGTH ± 4" TO NEAREST POST
3'-0"
⅜" MAX. ¼" MIN.
NOTCH PIPE TO CLEAR ⅜" DIA. PIN BY ½" MIN.
⅜" DIA. ALUMINUM PIN WITH DRIVING FIT

SLEEVE DETAIL AT ABUTMENT

3" MIN.
1'-6"

DETAIL AT RAIL OPENINGS

ROADWAY OPENING (3" MIN.)
ALL SLEEVE DETAILS SAME AS "RAIL SPLICE DETAIL" UNLESS SHOWN OTHERWISE

DETAIL OF ATTACHMENT TO POST

4" O.D. × ⅛" MIN. WALL THICKNESS
1⁵⁄₃₂" × ¹¹⁄₃₂" × 5½" ALUMINUM CLAMPING BAR
30°
⁷⁄₁₆" STAINLESS STEEL CAP SCREW AND CURVED & TAPERED CAST ALUMINUM WASHER (2 PER POST)
⅝" STAINLESS STEEL CAP SCREW & CURVED AND TAPERED CAST ALUMINUM WASHER (2 PER POST)
70°
½" × 1¼" × 5½" STAINLESS STEEL CLAMPING BAR.
4½" O.D. × ⁵⁄₁₆" MIN. WALL

NOTES: MAX. REDUCTION IN DIAMETER OF BENT SECTION SHALL BE 3%.
WALL THICKNESS OF TUBING SHOWN ABOVE SHALL BE MIN. NOMINAL AVERAGE WALL THICKNESS.
MAX. REDUCTION IN SLOT WIDTH IN BENT TUBING SHALL BE ³⁄₁₆".

ELEVATION OF RAILING

8'-0" MAX.
3'-10"
2'-6⅝"
4"
1½"
8'-0" MAX. POST SPA.
2'-0"
11"
1'-1"
8'-0" MAX. POST SPA.
2'-0" MIN.
4'-1¼" R.
5'-0" R.
EXP. JT. @ ABUT.
DEFLECTION JT. @ PIER

PLAN — VERTICAL FACE PARAPET 'A'

DRILL ¼" DIA. DRAIN HOLES IN RAILS AT END PLATE (OUTSIDE ELEVATION).
END PLATE
FRONT FACE OF RAIL
FRONT FACE OF PARAPET
1½"
1'-3⅜"
⅜" ⌀
6" ℄ OF TOP RAIL
4⅝" ℄ OF END PLATE
4⅝" ℄ OF BOTTOM RAIL

PLAN — SLOPED FACE PARAPETS 'LF', '32SS', OR '36SS'

DRILL ¼" DIA. DRAIN HOLES IN RAILS AT END PLATE (OUTSIDE ELEVATION).
END PLATE
FRONT FACE OF PARAPET
FRONT FACE OF RAIL
8⅜" ℄ OF TOP RAIL
7¼" ℄ OF END PLATE
7" ℄ OF BOTTOM RAIL
⅜" ⌀

DETAIL OF RAIL BEND AT ABUTMENTS

END PLATE

½" THICK
7¾"
3⅜"
2⅜"
2⅜"
3⅜"
1¼" DIA. DRILLED HOLES FOR PRESET ANCHOR BOLTS.
½" 2'-7" ½"
2'-10"

ANCHOR BOLTS AT END PLATE

¾" SQ. BARS. WELD TO ANCHOR BOLTS
2'-8½" LONG.
CHAMFER BEFORE THREADING
3" THR'D.
2⅜"
7½" LONG
2'-7"
TOP OF PARAPET
4¾"
2¼" PROJ.
6½" 3¼"
9¾"
WASHER
ANCHOR BOLTS 9¾" LONG.

END PLATE SHIM DETAILS

3⅝"
2¼"
1⅜"
⅝" R.
1⅜"
2'-7"
1⅜"
2'-9¾"
SHIM ⅛" × 3⅝" × 2'-9¾" 2 PER END PLATE
7½"
4¾"
⅝" R.
1⅜"
1⅜"
1'-3¼" 1⅜"
1'-4⅝"
SHIM ¹⁄₁₆" × 7½" × 1'-4⅝" 2 PER END PLATE.

ANCHOR BOLTS AT POSTS

AT INTERIOR POSTS
¾" SQ. BAR × 6" LONG—WELD TO ANCHOR BOLTS
℄ OF ANCHOR BOLTS
FF PPT
5½"
3" THR'D.
2"
4"
2"
TOP OF PARAPET
WASHER
3¼" 3¾"
6½" 3¼"
2¼" PROJ.
9¾"
ANCHOR BOLTS 9¾" LONG X ¾" DIA.
CHAMFER BEFORE THREADING

POST SHIM DETAILS

6⅝"
⅝" R.
1⅝"
1⅝"
1⅝"
⅝" R.
1⅝"
3¼"
4"
6¾"
1⅜"
1⅜"
1⅜" 3½" 1⅜"
SHIM ⅛" × 3¼" × 6⅝" - 2 PER POST
1⅜" 3½" 1⅜"
SHIM ¹⁄₁₆" × 3¼" × 6¾" - 2 PER POST

RAIL CLOSURE CAP DETAIL

DETAIL FOR DRIVING FIT
3°-10' DRAFT (TYP.)
⅛"
4" DIA.
4½" DIA.
1"
³⁄₁₆" MIN. THK.

NOTES

BID ITEM SHALL BE "RAILING TUBULAR TYPE H" WHICH INCLUDES ALL ITEMS SHOWN.

SHIMS SHALL CONFORM TO SAME MATERIAL AS POSTS.

ANCHOR BOLTS, NUTS AND WASHERS SHALL BE STAINLESS STEEL.

RAILINGS SHALL BE FABRICATED IN 2 AND 3 PANEL LENGTHS.

RAILING POSTS SHALL BE SET NORMAL TO GRADE LINE.

ALL POST SPACINGS ARE MEASURED HORIZONTALLY ALONG CENTERLINE OF THE POST BASE.

SHIMS SHALL BE USED UNDER POSTS AND END PLATES WHERE REQ'D. FOR ALIGNMENT.

FILL ALL EXPOSED OPENINGS BETWEEN SHIMS AND POST ANCHOR BOLT HOLES WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

RAILS SHALL BE BUILT STRAIGHT AND SPRUNG INTO PLACE FOR STRUCTURES CURVED UP TO 3°. FOR STRUCTURES CURVED GREATER THAN 3°, RAILS SHALL BE CURVED TO FIT.

RAILING WEIGHT = 20 LB/FT

TUBULAR RAILING TYPE 'H' (ALUM.)