FOR INFORMATION ONLY

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

					SHEET NO. 'D'
	GAINES	ST CLAIR	42	21D	11 SHEETS

3" draft

3½"

for TOP RAIL
4 Required

1¼"–1½"

3" draft

5"

CAST END CAPS
DRIVE FIT TYPE
for BOTTOM RAIL
4 Required

NOTES:

All Posts shall be normal to parapet.

All Posts shall be malleable cast iron conforming to ASTM A-47, Grade 35018, galvanized to ASTM A-153.

All Rail Tubing shall conform to applicable requirements of ASTM A-53, Grade B, (pipe or tube) galvanized to ASTM A-120.

Provide 1–¼" and 2–⅛" galvanized sheet steel shims for 25% of the Posts. Rail element shall be parallel to Grade—high spots shall be ground and low spots shimmed.

If any of the galvanizing coat is damaged or removed during erection, the affected area shall be painted with one coat of zinc paint in accordance with Military Specification MIL-P-26915 Type I, air-dry cure.

Railing shall be in accordance with Section 508 of the Standard Specifications, except as noted, and shall be paid for at the contract unit price per lineal foot for STEEL RAILING, TYPE M.

For post and joint spacing see sheet 5 of 11.

12" splices

1½" 3½" 7½"

Rails ±6" Rails

6"

4"

⅝"ø holes with 5° wear (at top rail)

⅝"ø holes with 5° draft (at bottom rail)

10½"

1'-7"

6"

2½"

4"

1" Fabric Bearing Pad

12"

4½" 5½" 4½"

8½"

VIEW B-B

B

2–⅝"ø x 1½" hex. hd. cap screws. Flat washers & lock-washers. (Stnl. stl.)

⅛" clearance between post and rail

2–⅝"ø x 1½" hex. hd. cap screws. Flat washers & lock-washers. (Stnl. stl.)

10"

2–1⅛"ø holes in base of post for 2–⅝"ø x 1½" hex. hd. cap screws. Std. flat washers. (Stnl. stl.)

2–¾" welded studs drilled & tapped for ½"-13 ASTM A108 (1020)

⅜" x 1¼" x 7"

B

2½" 3½"

Top rail–3"ø std. pipe (3½" O.D.–3.068" I.D.)
Splice–3" O.D. tube–.25" wall thickness

¼" x 6" bar–tack weld to splice
Drill & tap 2 holes– ½"-13

⅜"R

Drill & tap splice (⅝"ø holes in rail element)
2 holes– ½"-13

These surfaces cast flat and true or machine.

5"

1"

45°R

50"R

Drill & tap splice (⅝"ø holes in rail element)
2 holes– ½"-13

178°

4" (TYP.)

2–1⅛"ø holes in base of post for 2–⅝"ø x 2" hex. hd. cap screws. Std. flat washers. Stnl. stl.

Caulk perimeter of base—see note below.

Front face of parapet

2–1"ø welded studs drilled & tapped for ¾"-10 ASTM A108 (1020)

⅝" x 1½" x 7"

2" 4" 2"

8"

SECTION A-A

RAIL POST DETAILS

DESIGNED	
CHECKED	
DRAWN Wm M. Best	
CHECKED	

EXAMINED

PASSED

APPROVED

Note!
Seal base of post to parapet with two component, non-staining gray sealing compound with polysulfide liquid polymers—gun grade with primer.

Note!
Splice must be sliding fit in Rail Section.

5"
4½"
4"
3½"

SEC. THRU BOTTOM RAIL

4½"
3¼"
3½"
2½"

SEC. THRU BOTTOM SPLICE

1A

1½" 6"

1A

SEC. THRU CURB

INSIDE VIEW AT ABUTMENT

BILL of MATERIAL

Item	Unit	Quantity
STEEL RAILING, TYPE M	Lin. Ft	446

Two component non-staining gray sealing compound with polysulfide liquid polymers—gun grade with primer.

5" 5" 5"

10"

Top of curb Abut.

4"

1½"

Concrete Joint

1½"

¼" Preformed Cork Asphalt Joint Filler. Meets qualifications for ASTM Designation D1751. Cost incidental.

PARAPET JOINT DETAIL

TYPE M
STEEL RAILING

FAI ROUTE 64–SEC. 82-1HB-1
ST. CLAIR COUNTY
STA 75+85.50

R-21 Dwn. 8-20-64 Rev 7-23-65 8-18-65 5-27-68

Rev. 10-20-71 JMJ

FILE NAME = $FILE$	USER NAME = pimserno	DESIGNED		REVISED -	
		DRAWN	PP	REVISED -	
	PLOT SCALE = 20.000 ' / IN.	CHECKED	AB	REVISED -	
	PLOT DATE = 3/12/2010	DATE	03/19/10	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING 15TH STREET BRIDGE AND RETAINING WALL 'D' PLANS

SCALE: NONE | SHEET NO. 9 OF 22 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
64	82-1-2HB	ST. CLAIR	345	261
		CONTRACT NO. 76C49		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		