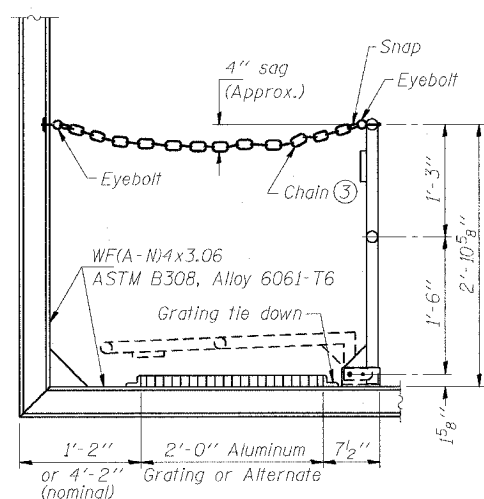


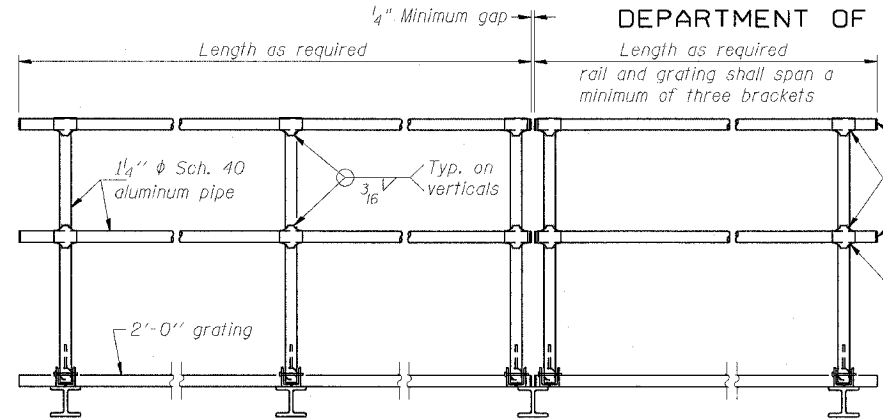
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. RTE. 90/94		COOK	312	155
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		
• (U919,15 & 2021-922 PT.1) R-1				



SIDE ELEVATION

(Showing safety chain w/o sign)



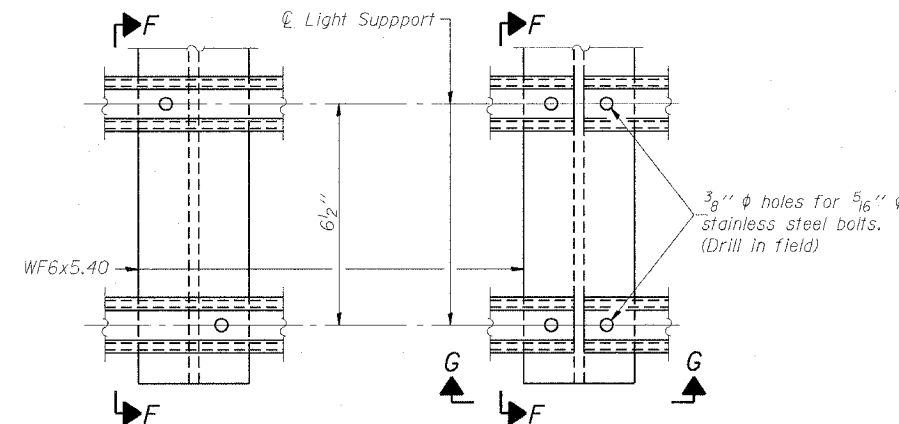
FRONT ELEVATION

HANDRAIL DETAILS

Handrail pipe shall be ASTM B241, Alloy 6063-T6 or Alloy 6061-T6.

① Install standard force-fit end caps or weld 1/8" end plates with 1/8" c.f.w. and grind smooth. (All rail ends)

② Horizontal handrail member shall be continuous thru fitting. Provide 1/16" hole in fitting for 3/8" bolt. Field drill 1/16" holes in horizontal rail member. Provide washer and locknut for bolt. (Use 5/16" eyebolts in 1/16" holes on top rail at ends only.)



DETAIL F

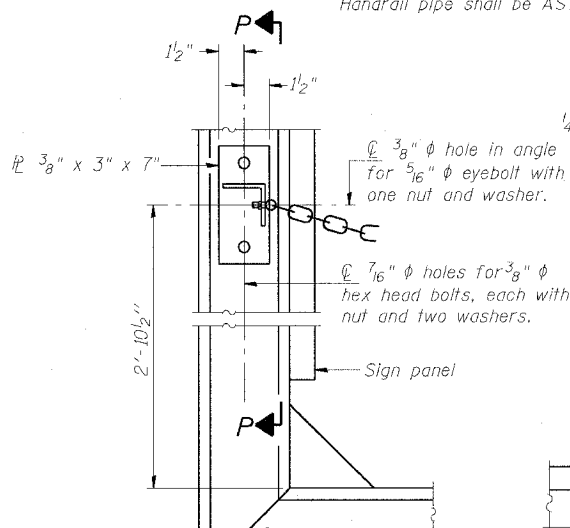
DETAIL G

SECTION F-F

SECTION G-G

LIGHTING FIXTURE MOUNTS (IF REQUIRED)

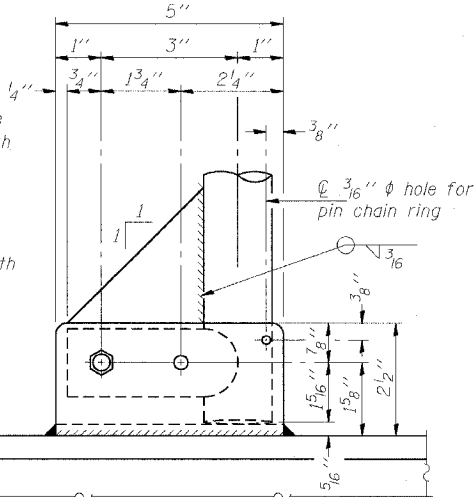
⑤ Field cut ends of light support channels shall be free of burrs or hazardous projections and coated with zinc-rich primer or equivalent.



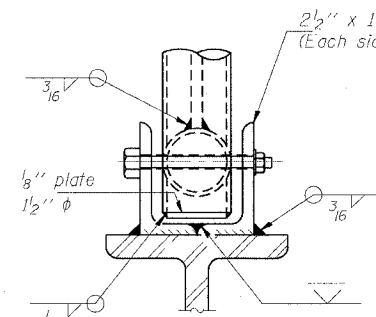
ALTERNATE SAFETY CHAIN ATTACHMENT

(With Sign Present)

Items not shown same as "Side Elevation" of "Handrail Details"

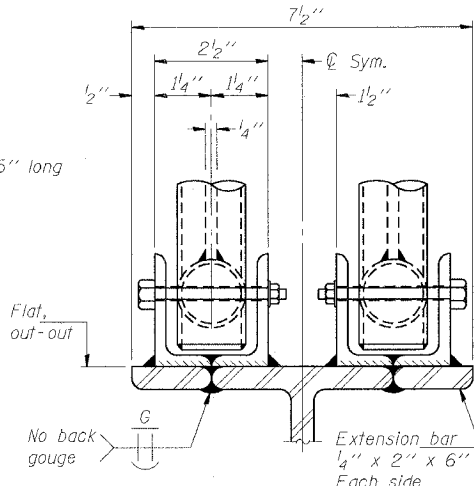


SIDE ELEVATION

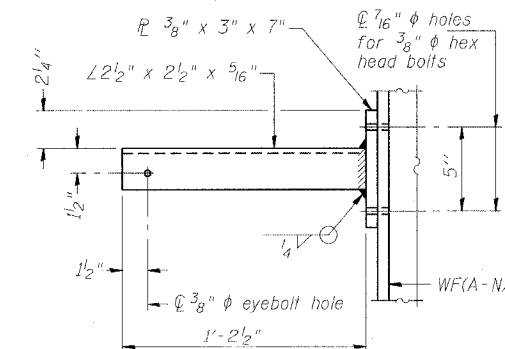


FRONT ELEVATION

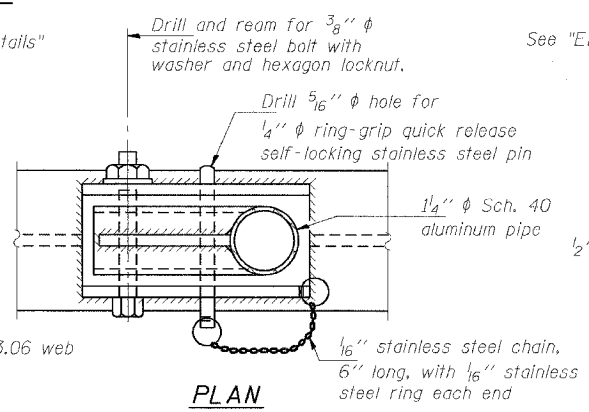
See "ELEVATION" at right for dimensions.



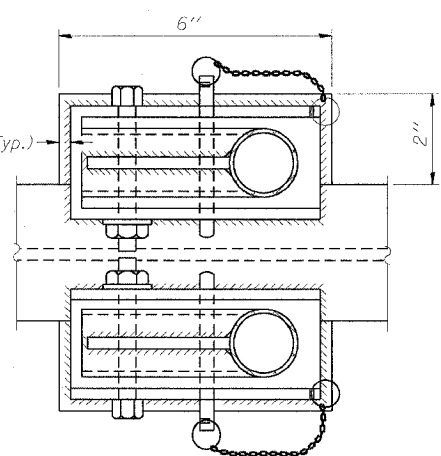
ELEVATION AT HANDRAIL JOINT



SECTION P-P

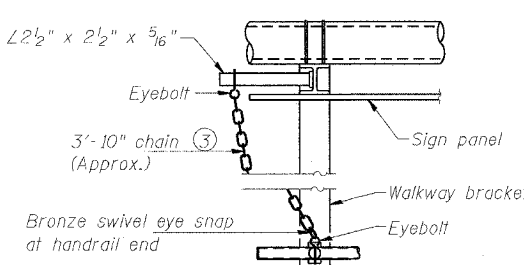


**PLAN
DETAIL E HANDRAIL HINGE**



PLAN AT HANDRAIL JOINT

Details not shown same as "PLAN"

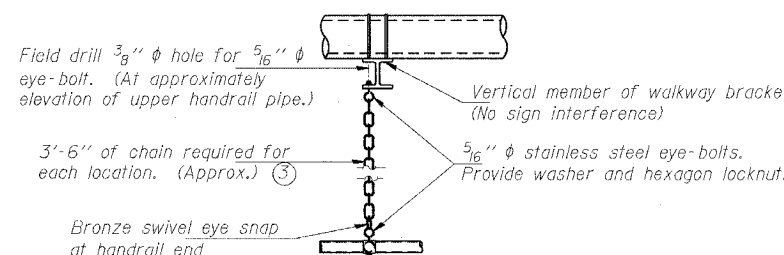


ALTERNATE SAFETY CHAIN ATTACHMENT

Details not shown similar to "Safety Chain" Details (Walkway omitted for clarity)

③ 3/16" galvanized steel chain, approximately 12 links per foot. Chain to be hot dip galvanized after manufacture and suitable for prolonged exterior exposure. Alternate materials may be substituted with the Engineer's approval.

④ Extrusions may be used in lieu of the details shown, with approval of the Engineer.



SAFETY CHAIN

One required for each end of each walkway.

DESIGNED - JSS	20
CHECKED - RDP	EXAMINED
DRAWN - JSS	PASSED
CHECKED - RDP	ENGINEER OF STRUCTURAL SERVICES
	ENGINEER OF BRIDGES AND STRUCTURES

NUMBER	REVISION	DATE

**OVERHEAD SIGN STRUCTURES
ALTERNATE ALUMINUM HANDRAIL DETAILS**

F.A.I. 90/94 (DAN RYAN EXPRESSWAY)
63RD STREET TO GARFIELD BLVD (NB LOCAL LANES)
PROPOSED IMPROVEMENT
63RD STREET TO GARFIELD BLVD