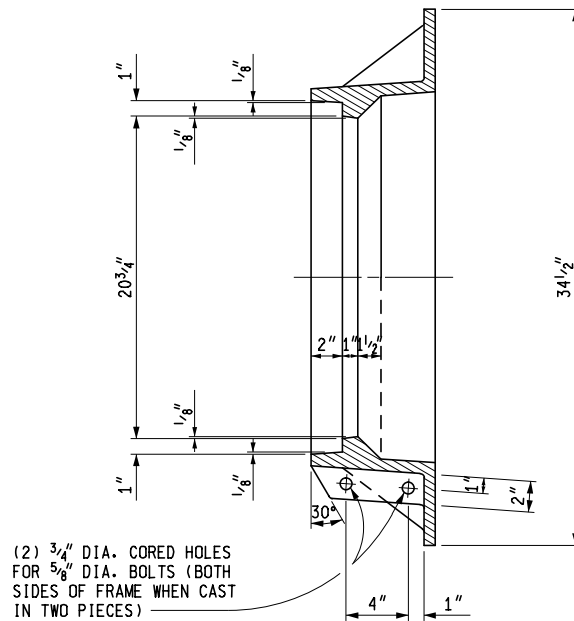


PLAN OF FRAME

NOTE:

FRAME MAY BE CAST MONOLITHICALLY OR IN TWO PIECES AS SHOWN. FRAMES CAST IN TWO PIECES SHALL BE TIGHTLY BOLTED TOGETHER WHEN DELIVERED.



SECTION A - A



PREPARED BY  
DESIGN DIVISION

DRAWN BY: B.L.T.

CHECKED BY: W.K.P.

DEPARTMENT DIRECTOR  
Paul C. Ajegba

APPROVED BY: Gregg Brunner, P.E. Gregg Brunner  
Jul 24 2019 11:23 AM  
DIRECTOR, BUREAU OF FIELD SERVICES

APPROVED BY: Bradley C. Wiefelich Bradley C. Wiefelich  
Jul 3 2019 8:57 AM  
DIRECTOR, BUREAU OF DEVELOPMENT

MICHIGAN DEPARTMENT OF TRANSPORTATION  
BUREAU OF DEVELOPMENT STANDARD PLAN FOR

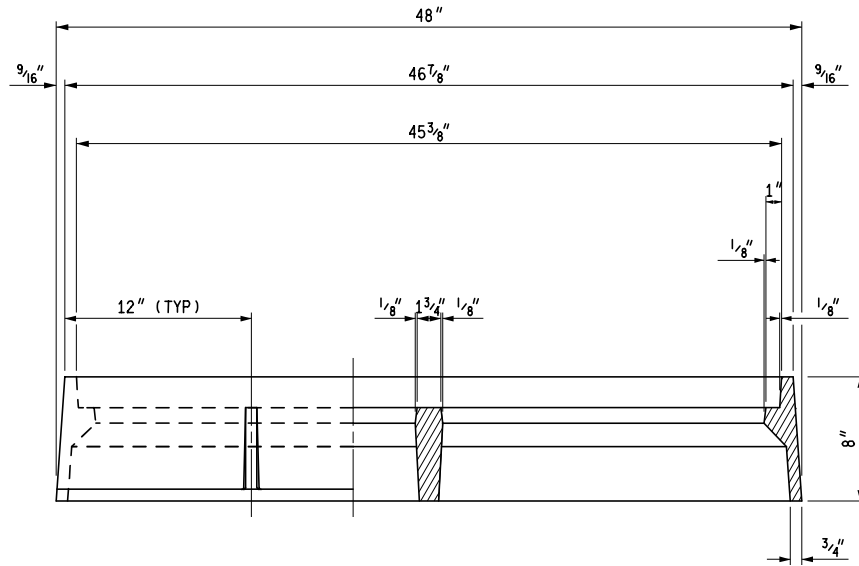
COVER V

5-18-2020  
F.H.W.A. APPROVAL

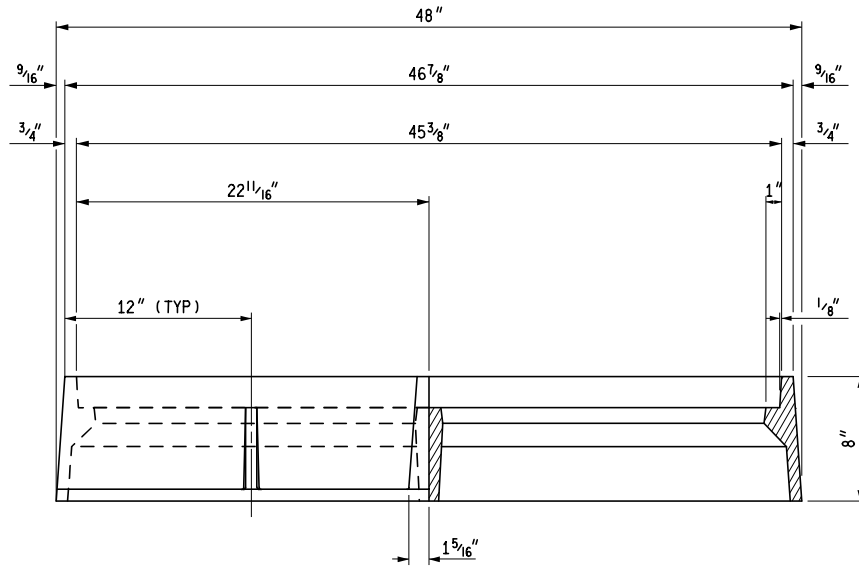
6-25-2019  
PLAN DATE

R-22-F

SHEET  
1 OF 4



SECTION B1 - B1  
(CAST MONOLITHICALLY)



SECTION B2 - B2  
(CAST IN TWO PIECES)

MICHIGAN DEPARTMENT OF TRANSPORTATION  
BUREAU OF DEVELOPMENT STANDARD PLAN FOR

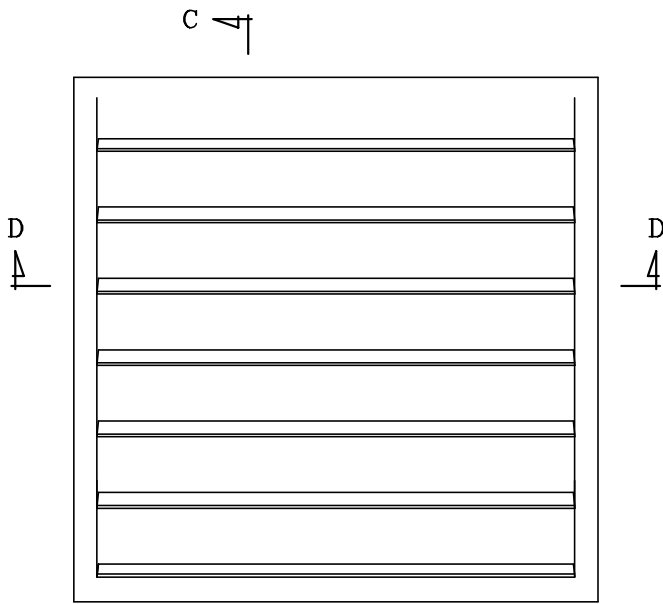
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5-18-2020  
F.H.W.A. APPROVAL

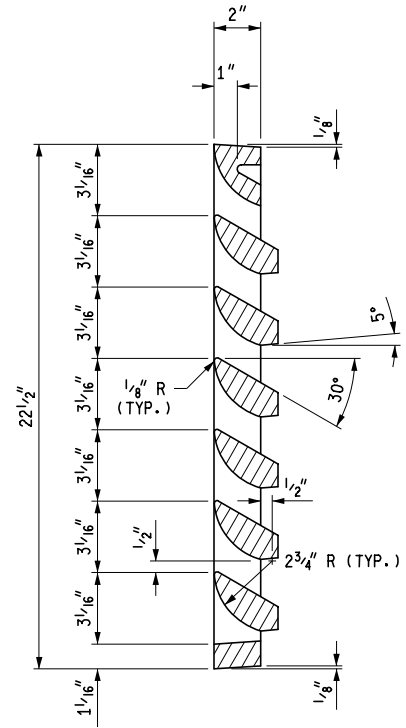
6-25-2019  
PLAN DATE

R-22-F

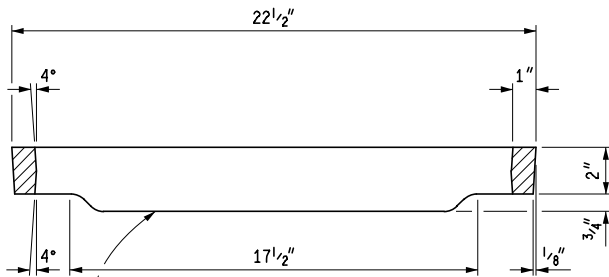
SHEET  
2 OF 4



C 4  
D 4  
PLAN OF GRATE



SECTION C - C



ALTERNATE PROFILES PERMITTED  
SECTION D - D

GRAY IRON CASTING

MICHIGAN DEPARTMENT OF TRANSPORTATION  
BUREAU OF DEVELOPMENT STANDARD PLAN FOR

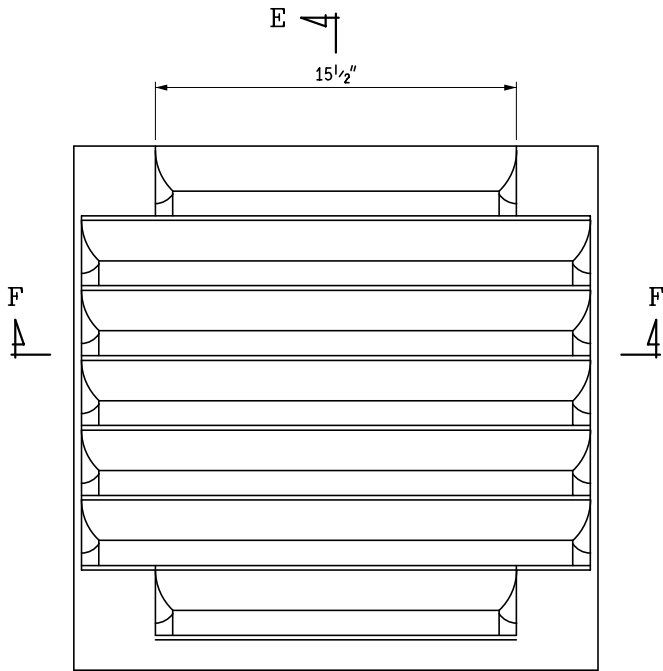
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F.H.W.A. APPROVAL

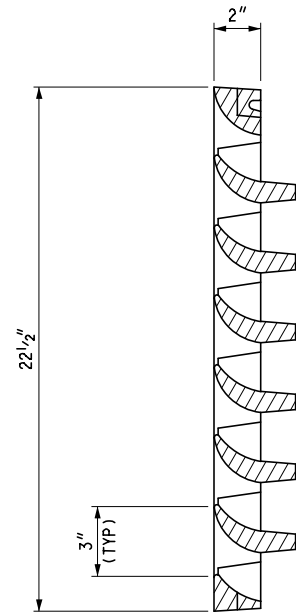
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PLAN DATE

R-22-F

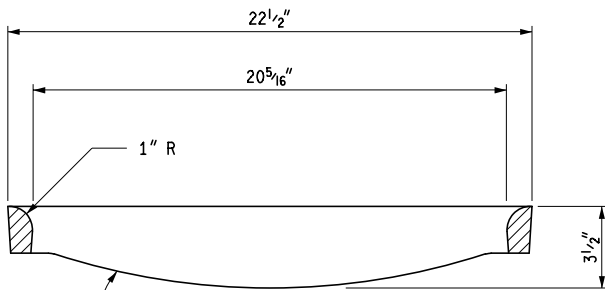
SHEET  
3 OF 4



E  
 PLAN OF GRATE



SECTION E - E



ALTERNATE PROFILES PERMITTED  
 SECTION F - F

DUCTILE IRON CASTING

NOTES:

THE CASTINGS SHALL MEET THE REQUIREMENTS OF THE CURRENT STANDARD SPECIFICATION FOR GRAY IRON OR DUCTILE IRON CASTINGS.

ALL CASTINGS SHALL BE CLEANED BY CURRENT APPROVED BLASTING METHODS.

THE CASTINGS SHALL BE FREE OF POURING FAULTS, BLOW HOLES, CRACKS AND OTHER IMPERFECTIONS. THEY SHALL BE SOUND, TRUE TO FORM AND THICKNESS, CLEAN AND NEATLY FINISHED, AND SHALL BE COATED WITH COAL TAR PITCH VARNISH.

THE SEATING FACE OF GRATE AND THE SEAT FOR THE SAME ON THE FRAME SHALL BE GROUND OR MACHINED SO THAT THE GRATE WILL HAVE AN EVEN BEARING ON ITS SEAT TO PREVENT ROCKING OR TILTING.

THIS COVER IS DESIGNED TO FIT ON ANY INLET, CATCH BASIN OR ON ANY EXISTING SIMILAR STRUCTURE WHEN SO DESIGNATED ON THE PLANS.

GRATE MAY BE PROVIDED WITH BOLTING CAPABILITY. PROVIDE (4) COUNTER BORED HOLES, ONE AT EACH CORNER OF THE GRATE AND A FRAME WITH (4) THREADED HOLES TO SUFFICIENTLY RECEIVE GRATE BOLTS. HOLE DIAMETERS AND BOLTS SHALL CONFORM TO THE MANUFACTURER'S DETAILS AND SPECIFICATIONS.

MICHIGAN DEPARTMENT OF TRANSPORTATION  
 BUREAU OF DEVELOPMENT STANDARD PLAN FOR

COVER V

5-18-2020  
 F.H.W.A. APPROVAL

6-25-2019  
 PLAN DATE

R-22-F

SHEET  
 4 OF 4