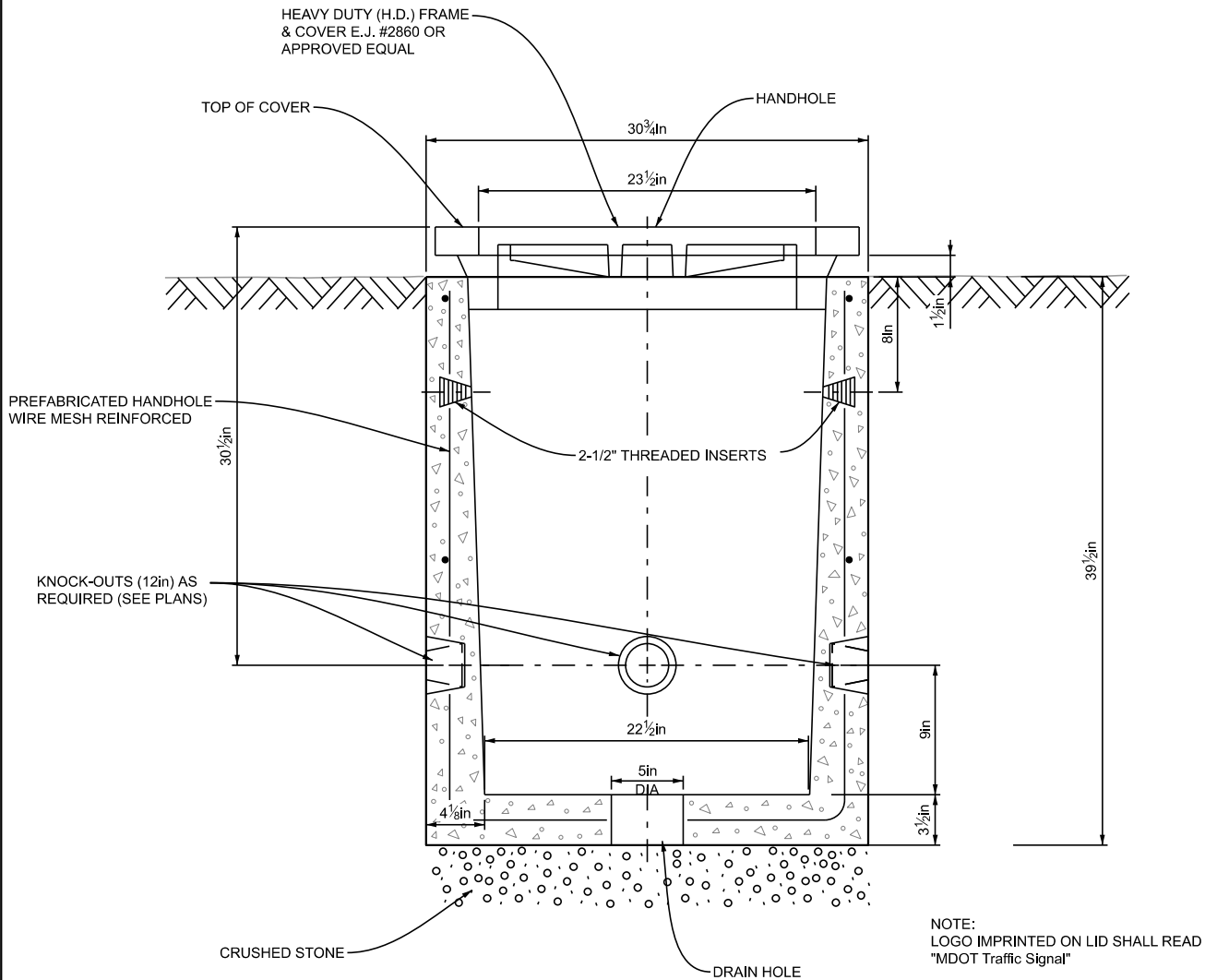
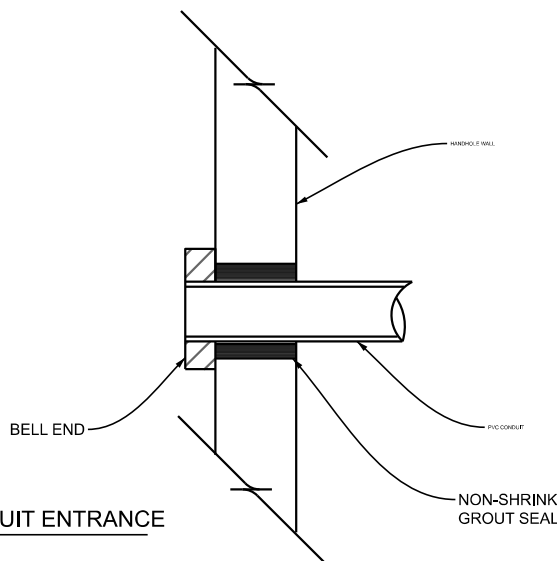




A DETAIL - 2' PRE CAST ROUND HANDHOLE
N.T.S. WITH FLOOR



B TYPICAL - CONDUIT ENTRANCE
N.T.S. HANDHOLE

APPROVED BY: _____
DIRECTOR, BUREAU OF FIELD SERVICES

APPROVED BY: _____
DIRECTOR, BUREAU OF DEVELOPMENT



DEPARTMENT DIRECTOR
BRADLEY C. WIEFERICH, PE

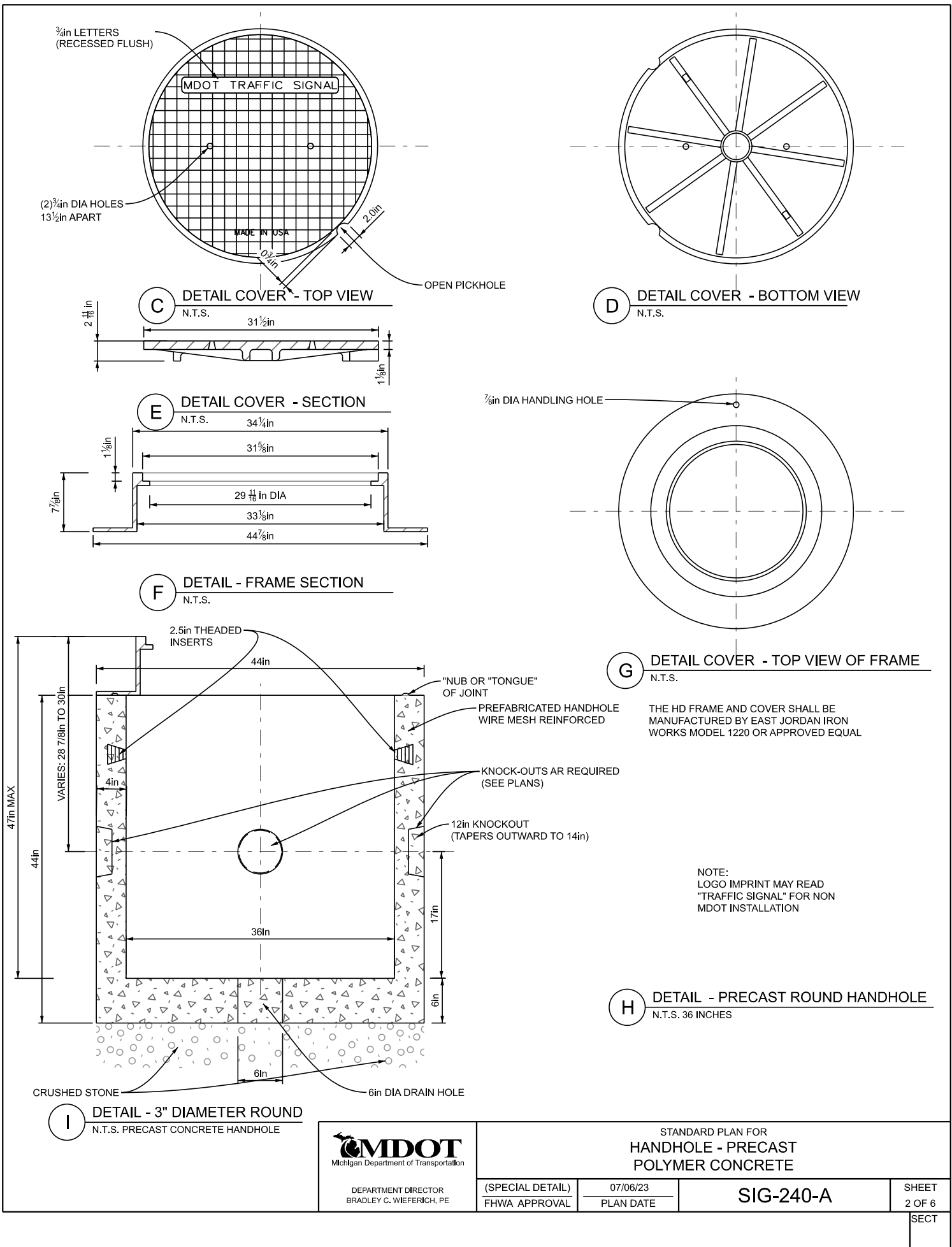
STANDARD PLAN FOR
HANDHOLE - PRECAST
POLYMER CONCRETE

(SPECIAL DETAIL)
FHWA APPROVAL

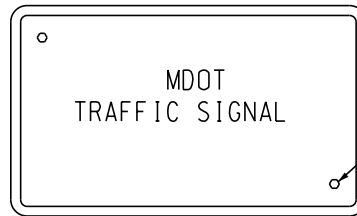
07/06/23
PLAN DATE

SIG-240-A

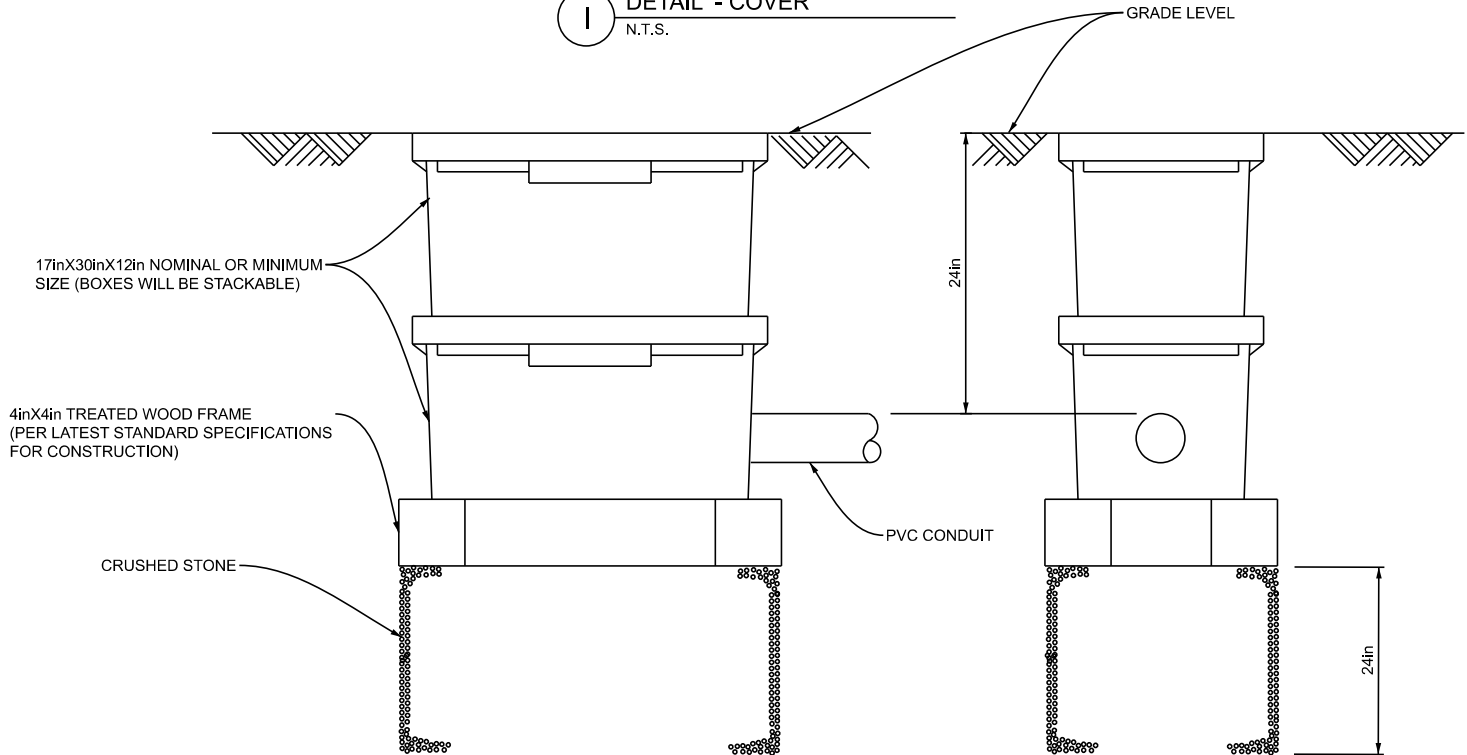
SHEET
1 OF 6



NOTE:
LOGO IMPRINT MAY READ "TRAFFIC SIGNAL"
FOR NON MDOT INSTALLATIONS



I **DETAIL - COVER**
N.T.S.



J **DETAIL - HANDHOLE**
N.T.S. POLYMER CONCRETE

NOTES PERTAIN TO PRECAST OR BRICK:

- 1) THE MATERIAL AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE CURRENT M.D.O.T. STANDARD SPECIFICATIONS FOR CONSTRUCTION.
- 2) ALL CONCRETE MASONARY SHALL BE GRADE 30M.
- 3) THE INNER SURFACE OF THE HANDHOLE SHALL BE SMOOTH.
- 4) HEAVY DUTY COVERS SHALL BE CASTINGS WHICH MEET THE REQUIREMENTS OF THE CURRENT SPECIFICATIONS FOR GRAY IRON CASTINGS ASTM DESIGNATION A48 AND SHALL HAVE A MINIMUM STRENGTH AS PROVIDED FOR CLASS NO. 30 GRAY IRON CASTINGS.
- 5) ALL CASTINGS SHALL BE CLEANED BY SAND BLASTING.
- 6) THE SEATING FACE OF THE COVER AND THE SEAT FOR THE SAME ON THE FRAME IF REQUIRED, SHALL BE GROUND OR MACHINED SO THAT THE COVER SHALL HAVE AN EVEN BEARING ON ITS SEAT TO PREVENT ROCKING OR TILTING.
- 7) 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 TAR PITCH VARNISH.
- 8) LIGHT DUTY COVER SHALL BE BOLTED TO FRAME WITH NOT LESS THAN 2 COUNTERSUNK HEX HEAD BRONZE BOLTS.
- 9) THE HEAVY DUTY COVER & FRAME SHALL BE EAST JORDAN IRON WORKS #8206 NEENAH FOUNDRY, #R-6662-HP FOR SQUARE COVER OR EAST JORDAN IRON WORKS #2860 TYPE "A", NEENAH FOUNDRY #R-6052 D FOR CIRCULAR COVER OR AN APPROVED EQUAL.
- 10) HANDHOLE SHALL BE EQUIPPED WITH CABLE RACK AND HOOKS TO TRAIN CABLE.



DEPARTMENT DIRECTOR
BRADLEY C. WIEFERICH, PE

STANDARD PLAN FOR
**HANDHOLE - PRECAST
POLYMER CONCRETE**

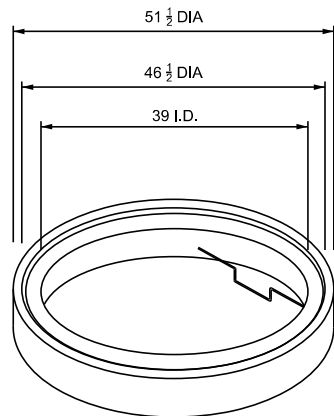
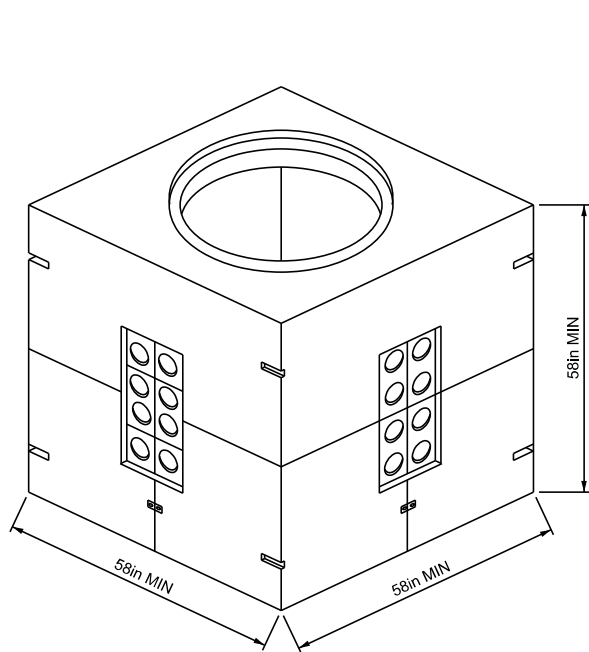
(SPECIAL DETAIL)
FHWA APPROVAL

07/06/23
PLAN DATE

SIG-240-A

SHEET
3 OF 6

NOTE:
GALVANIZED STEP IS STANDARD WITH
GRADE RING ASTM C478.



DIMENSIONS	
A	MIN WT. (LBS)
6	440
9	650
12	860

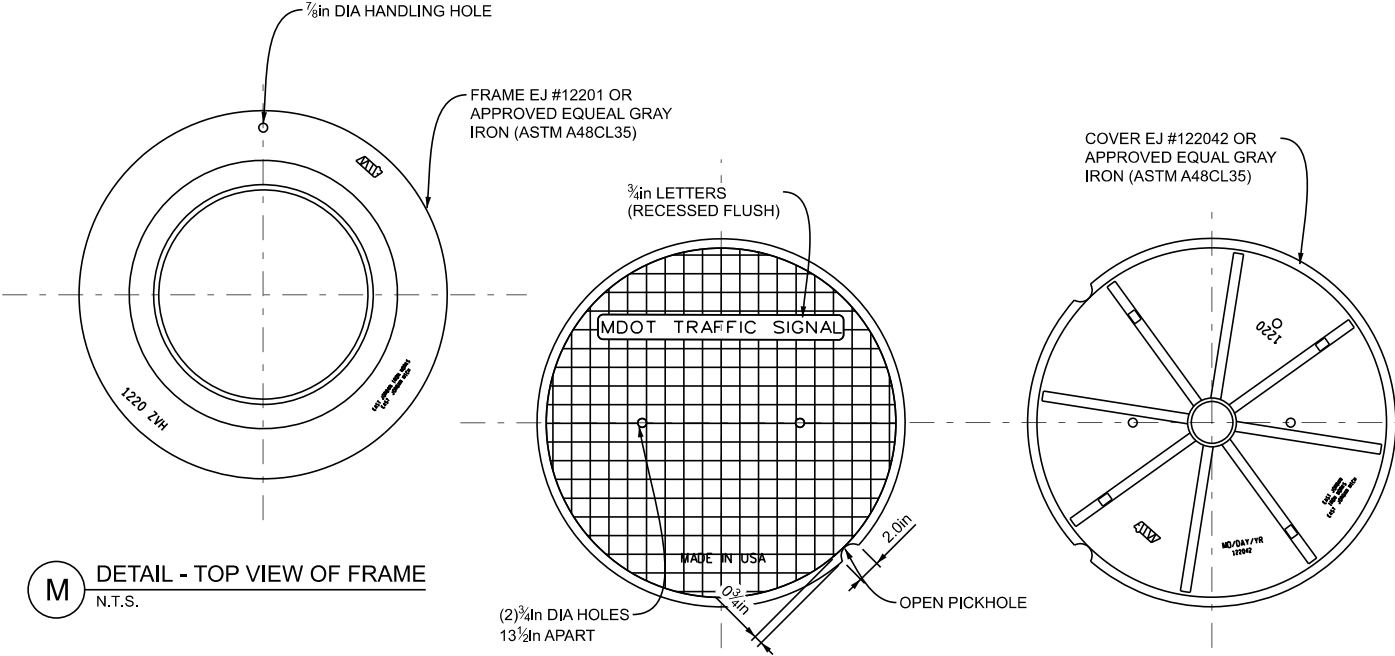
K DETAIL - GRADE RING WITH 39 IN I.D. & 46 1/2" RECESS
N.T.S.

	LENGTH	WIDTH	HEIGHT
INSIDE	48	48	48
OUTSIDE	58	58	58
RECOMMENDED HOLE SIZE	82	82	—

	MIN THICKNESS	MIN WEIGHT LBS	
WALL	5	TOP	3300
ROOF	5	BOTTOM	3850
FLOOR	5	TOTAL	7150

L DETAIL - 4FT X 4FT X 4FT PRECAST CONCRETE HANDHOLE
N.T.S.

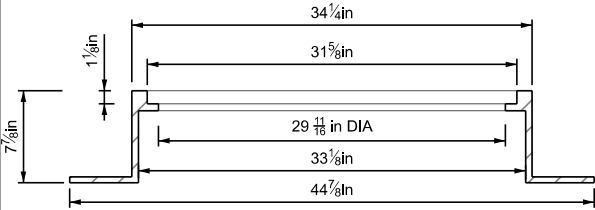
NOTE:
LOGO IMPRINT IT ON COVER SHALL
READ "MDOT TRAFFIC SIGNAL" FOR
MDOT INSTALLATIONS



M **DETAIL - TOP VIEW OF FRAME**
N.T.S.

N **DETAIL - TOP VIEW OF COVER**
N.T.S.

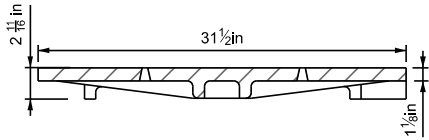
O **DETAIL - BOTTOM VIEW OF COVER**
N.T.S.



P **DETAIL - MANHOLE FRAME**
N.T.S. FRAME SECTION (HEAVY DUTY)

NOTE:
MACHINED SURFACE

ESTIMATED WEIGHT 410 LBS



Q **DETAIL - MANHOLE COVER**
N.T.S. COVER SECTION (HEAVY DUTY)

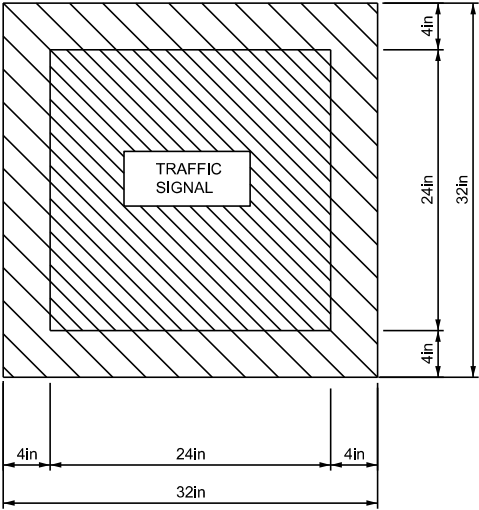
NOTE:
MACHINED SURFACE

ESTIMATED WEIGHT 245LBS

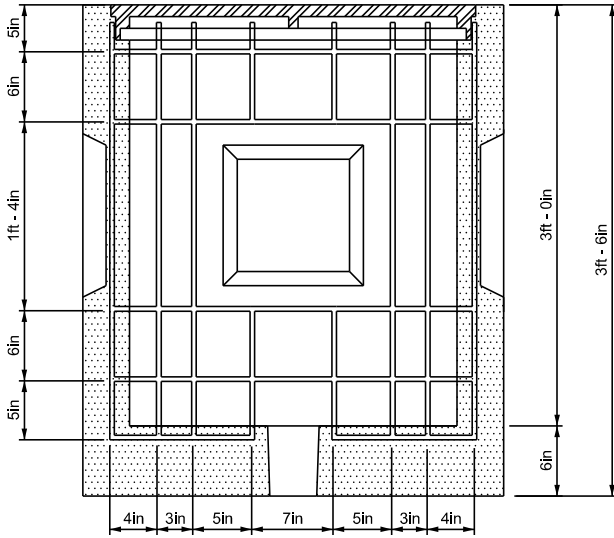
R **DETAIL - 4FT X 4FT X 4FT PRECAST CONCRETE HANDHOLE**
N.T.S.

 Michigan Department of Transportation DEPARTMENT DIRECTOR BRADLEY C. WIEFERICH, PE	STANDARD PLAN FOR HANDHOLE - PRECAST POLYMER CONCRETE			SHEET 5 OF 6
	(SPECIAL DETAIL) FHWA APPROVAL	07/06/23 PLAN DATE	SIG-240-A	

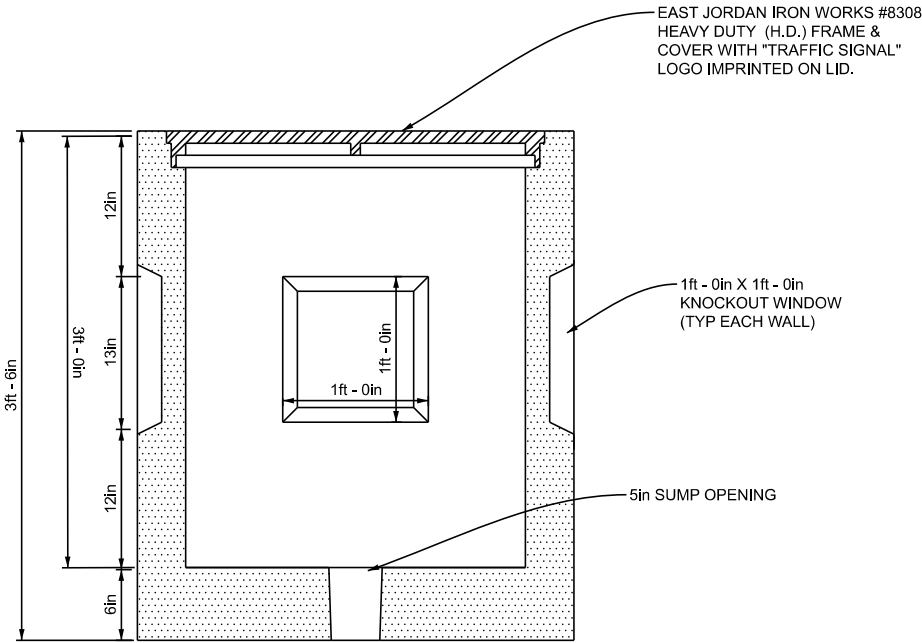
CONCRETE: 4500 P.S.I. @ 28 DAYS
REINFORCEMENT: GRADE 60 REBAR
ALL BARS ARE #4



S DETAIL - PLAN VIEW
N.T.S.



T DETAIL - SECCION VIEW
N.T.S. TYP REINFORCEMENT ALL WALLS



U DETAIL - SECTION VIEW
N.T.S.

 Michigan Department of Transportation DEPARTMENT DIRECTOR BRADLEY C. WIEFERICH, PE	STANDARD PLAN FOR HANDHOLE - PRECAST POLYMER CONCRETE			SHEET 6 OF 6 SECT
	(SPECIAL DETAIL) FHWA APPROVAL	07/06/23 PLAN DATE	SIG-240-A	