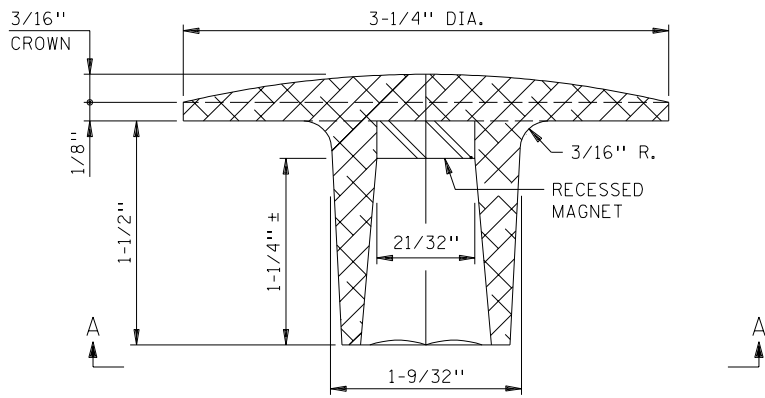
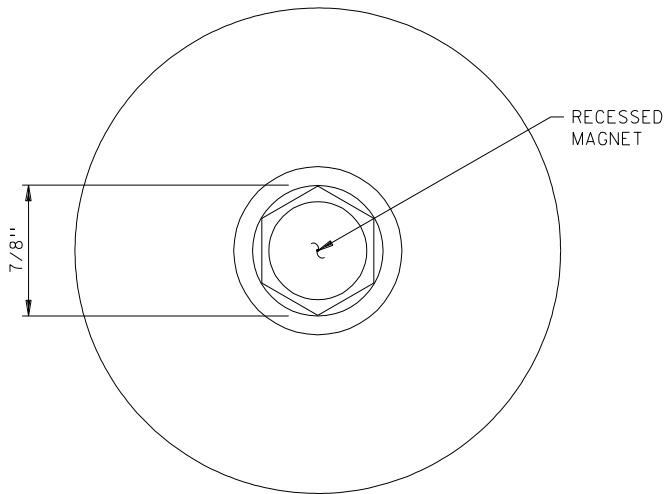


STEM-TYPE BASE



SECTION



VIEW A-A
ROD-TYPE BASE

NOTE:
FOR IDENTIFICATION, GEODETIC SURVEY DISKS SHALL BE HAND STAMPED IN THE FIELD USING 3/16 IN. DIES ACCORDING TO PROCEDURES OUTLINED IN THE SURVEYING AND MAPPING MANUAL CHAPTERS ON HORIZONTAL MEASUREMENT UNDER "IDENTIFICATION".

APPROVED APRIL 20, 1995

Gerald J. Rodbrech
STATE DESIGN ENGINEER

STATE OF MINNESOTA
DEPARTMENT OF TRANSPORTATION

GEODETIC SURVEY DISKS
ALUMINUM

SPECIFICATION
REFERENCE

SEE
REVERSE
SIDE

STANDARD
PLATE
NO.

9303B

SPECIFICATIONS FOR
MINNESOTA DEPARTMENT OF TRANSPORTATION
GEODETIC SURVEY DISKS (ALUMINUM)
STANDARD PLATE 9303B

MATERIAL

DISKS SHALL BE OF ALMAG 35, ALLOY 535.0; QQ-A-601Es, OR LATEST REVISION.
COMPOSITION: ALUMINUM, 92-93%; MAGNESIUM, 6.5-7.5%.
STRENGTH: YIELD, 19,000-21,000 PSI; TENSILE, 38,000-44,000 PSI; ELONGATION, 10-15% (IN 2 INCHES).

ROD TYPE DISK

THE DISK SHALL HAVE A SOCKET PORTION WHICH HAS A SLIGHTLY TAPERED, LONGITUDINALLY FLUTED INSIDE SURFACE, SPECIALLY SHAPED AND ADAPTED TO FIT OVER THE UPPER ROD SECTION END. THE SLIGHTLY TAPERED AND HEXAGON SURFACE EFFECTIVELY PREVENTS AIR POCKETS AND PROVIDES AN EASY FITTING, YET TIGHT COMPRESSION CONNECTION, WHEN THE CAP IS TAPPED ONTO THE ROD SECTION. A RECESS IN THE TOP OF THE SOCKET HAS A PERMANENT CERAMIC MAGNET MOUNTED THEREIN WITH EPOXY FOR MAGNETIC DETECTION.

STEM TYPE DISK

THE DISK SHALL HAVE A UNIFORM DIAMETER STEM, SPLIT FOR FLARING AT THE BOTTOM. THE BOTTOM SIDE OF THE DISK SHALL HAVE A 1" X 1/4" DEEP RECESS FOR MOUNTING A CERAMIC MAGNET WITH EPOXY FOR MAGNETIC DETECTION.

LEGEND

THE LEGEND SHALL BE PRESSED INTO THE UPPER SURFACE OF THE DISK IN SUCH A MANNER THAT THERE IS NO RAISING OF ADJACENT SURFACES. ALL LETTERS SHALL BE 3/16" HIGH. THE DEPTH OF ALL LETTERS SHALL BE BETWEEN .025" AND .036".

NO LETTERS SHALL FIT CLOSER TO THE OUTER RIM OF THE DISK THAN 1/16". ALL LETTERS MUST LIE ALONG A RADIUS. THE LEGEND MUST BE CENTRALLY LOCATED.

CENTRAL MARKS

THE CROSS SECTION OF ALL CENTRAL MARKINGS SHALL BE "U" SHAPED, 1/16" WIDE X 1/32" DEEP.

GEODETIC CONTROL MARKS

A TRIANGLE 1/2" ALONG EACH SIDE WITH A 1/16" DIAMETER X 1/32" DEEP CIRCULAR DOT AT THE CENTER.