

**OPTION 1**

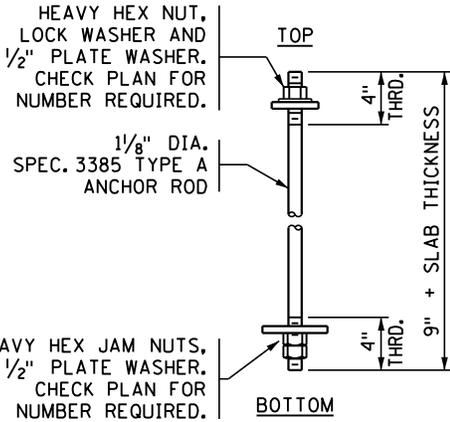
DO NOT USE ON NEW DECK

**OPTION 2**

**ANCHORAGE DETAILS**

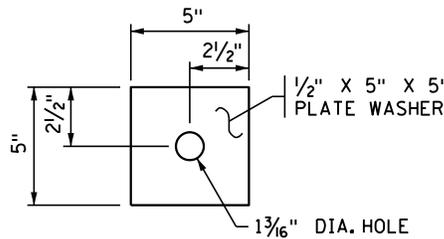
REINFORCEMENT NOT SHOWN

*DESIGNER NOTE  
REMOVE PRIOR TO PRINTING FINAL PLAN.  
"DO NOT USE OPTION 1 ON NEW BRIDGE DECKS. USE OPTION 2 ONLY ON NEW DECKS OR WHERE THE EXISTING DECK CONCRETE IS IN CONDITION STATE 1 OR 2 AS CONFIRMED BY VISUAL INSPECTION IN AREAS OF ANCHORAGES BY THE REGIONAL CONSTRUCTION ENGINEER."*



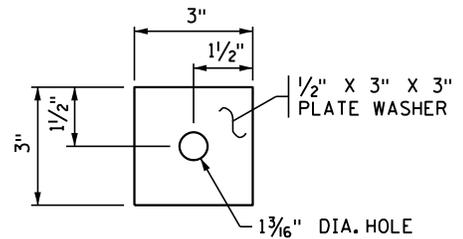
**OPTION 1 ANCHOR**

(3 PER BARRIER SEGMENT)



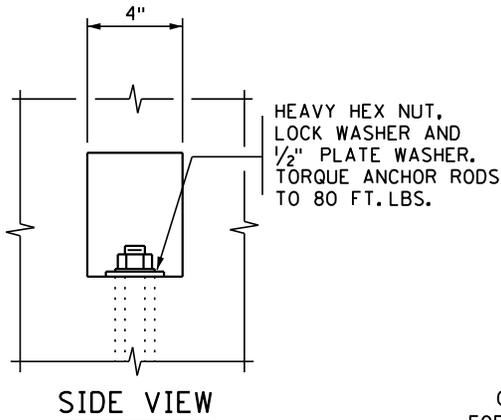
**BOTTOM PLATE WASHER**

(ONLY USED FOR OPTION 1)

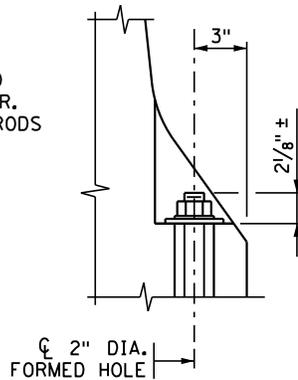


**TOP PLATE WASHER**

**ANCHORED BARRIER MEETS MASH TL-3 REQUIREMENTS**



**SIDE VIEW**



**DETAIL "A"**

**NOTES:**

- ALL HARDWARE TO BE GALVANIZED IN ACCORDANCE WITH SPEC. 3392. PLATE WASHERS TO BE STRUCTURAL STEEL IN ACCORDANCE WITH SPEC. 3306. PIN BARRIERS TOGETHER PER STANDARD PLATE 8337.
- THROUGH BOLT ANCHOR RODS MUST BE USED IF THE DECK UNDERSIDE IS PENETRATED DURING DRILLING PROCESS.
- DO NOT USE OPTION 2 ON BRIDGES WITH A BITUMINOUS OVERLAY. REFER TO TRAFFIC CONTROL PLANS FOR DEPLOYMENT LENGTH AND BARRIER TERMINATION REQUIREMENTS.
- REFER TO STANDARD FIGURE 5-297.680 (1 OF 2) REGARDING ANCHORING BARRIER OVER BRIDGE EXPANSION JOINTS.
- ANCHOR ON TRAFFIC SIDE OF BARRIER ONLY.
- SEE SPECIAL PROVISIONS FOR BARRIER INSTALLATION AND REMOVAL REQUIREMENTS.
- ① HAMMER DRILLING OF THESE HOLES IS NOT PERMITTED.
- ② 1/2" MINIMUM TO PREVENT BOTTOM OF SLAB FROM SPALLING OR FRACTURING DURING DRILLING.
- ③ 6" MINIMUM FOR BRIDGE DECKS WITH TOP MAT REINFORCEMENT AND SOUND CONCRETE.
- ④ PROVIDE AN ADHESIVE WITH A MINIMUM CHARACTERISTIC BOND STRENGTH IN UNCRACKED CONCRETE OF 1.0 KSI. EMBED THE ANCHORAGE NO LESS THAN 6" REGARDLESS OF CHARACTERISTIC BOND STRENGTH. DRILL THROUGH REINFORCEMENT (IF ENCOUNTERED) TO ACHIEVE MINIMUM EMBEDMENT. ENSURE HEX NUT IS IN CONTACT WITH THE ADJACENT SURFACE. PROOF LOAD TO 7.0 KIPS. SEE SPECIAL PROVISIONS FOR ADDITIONAL REQUIREMENTS.
- ⑤ HOLE DIAMETER 1 3/16" MIN., 1/2" MAX.

*DESIGNER NOTE  
REMOVE PRIOR TO PRINTING FINAL PLAN.  
REFER TO MNDOT BDM "MEMO TO DESIGNERS #2019-01" AND "TEMPORARY BARRIER GUIDANCE MANUAL", TABLE 3-3 FOR GUIDANCE ON DEFLECTION DISTANCE.  
COORDINATE W/ROADWAY DESIGNER FOR LAYOUT AND PAYMENT. ADD SPECIAL PROVISION FOR "TEMPORARY PORTABLE PRECAST CONCRETE BARRIER ANCHORAGE INSTALLATION AND REMOVAL".*

APPROVED: APRIL 09, 2020  
*Kevin Westrom*  
STATE BRIDGE ENGINEER

STATE OF MINNESOTA  
DEPARTMENT OF TRANSPORTATION  
**TEMPORARY PORTABLE PRECAST CONCRETE  
BARRIER ANCHORAGE TO CONCRETE**  
(TEMPORARY USAGE IN LIMITED BARRIER DISPLACEMENT AREAS)

REVISED  
DETAIL NO.  
**B920**