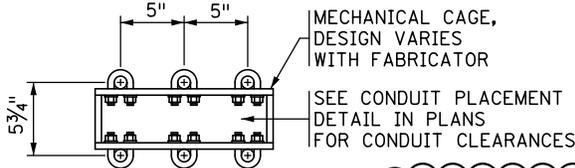
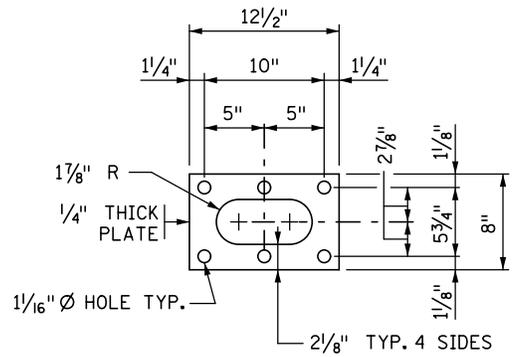


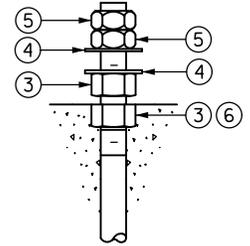
SECTION A-A
ANCHOR BAR ALTERNATE



SECTION A-A
MECHANICAL CAGE ALTERNATE

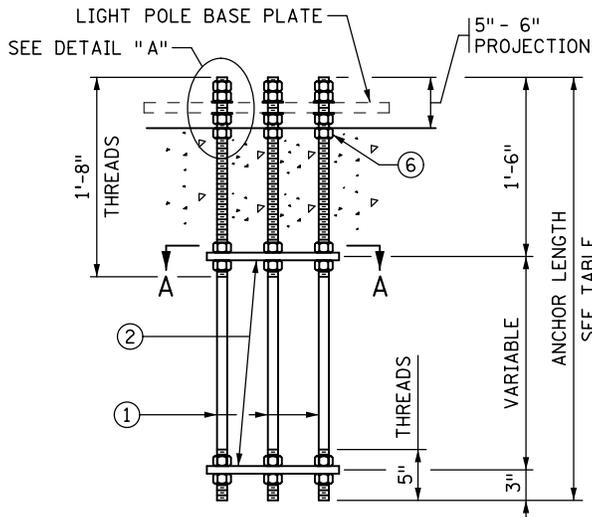


SECTION A-A
ANCHOR PLATE ALTERNATE



DETAIL "A"

DESIGNER NOTE (REMOVE PRIOR TO PLOTTING FINAL PLAN):
DESIGNER TO ENSURE REINFORCEMENT IN BARRIER OR PARAPET CAN DEVELOP YIELD STRENGTH OF ANCHORAGE RODS.



ELEVATION

(ANCHOR PLATE ALTERNATE SHOWN)

NOTES:

PROVIDE HEAVY HEX NUTS, JAM NUTS, AND FLAT WASHERS PER SPEC. 3391.2.A FOR 1" DIA. THREADED RODS. TAP NUTS 1/64" OVERSIZED PRIOR TO GALVANIZING, AND RETAP TO STANDARD SIZE AFTER GALVANIZING.

WRAP THE THREADS OF THE TOP 5-6 INCHES OF EACH ANCHOR ROD WITH THREE LAYERS OF PLASTIC ELECTRICAL TAPE TO AVOID CONTAMINATION BY CONCRETE DURING PLACEMENT.

USE A BRUSH TO APPLY ANTI-SIEZE COMPOUND PER MIL-PRF-907E TO THE THREADS OF ANCHOR RODS AND THE FACE OF NUTS AGAINST FLAT WASHERS.

GALVANIZE THREADED RODS, WASHERS, AND NUTS AFTER FABRICATION PER SPEC. 3392.

GALVANIZE PLATES, BARS, AND CAGES PER SPEC. 3394.

TACK WELDING OF ANY COMPONENTS IS PROHIBITED.

SUBSTITUTE MATERIALS ALLOWED PER SPEC. 1605.

- ① PROVIDE 1" NOMINAL DIA. ANCHOR RODS WITH 1-8UNC-2A THREADS. USE TYPE C HIGH STRENGTH ANCHOR RODS PER ASTM F1554 GR. 105 PER SPEC 3385.2.C FOR 49' LIGHT STANDARDS WITH TWIN ARMS 10' OR LONGER. USE TYPE B INTERMEDIATE STRENGTH ANCHOR RODS PER ASTM F1554 GR. 55 PER SPEC 3385.2.B FOR ALL OTHER INSTALLATIONS (6 REQUIRED).
- ② PROVIDE A PLATE, BAR, OR MECHANICAL CAGE FOR ROD ALIGNMENT. STEEL PER SPEC. 3306 (2 REQUIRED PER ASSEMBLY).
- ③ HEAVY HEX NUTS FOR 1" DIA. RODS (12 REQUIRED PER ASSEMBLY).
- ④ FLAT WASHERS FOR 1" DIA. RODS (12 REQUIRED PER ASSEMBLY).
- ⑤ LOCK NUTS (6 REQUIRED PER ASSEMBLY) OR JAM NUTS (12 REQUIRED PER ASSEMBLY) FOR 1" DIA. ANCHOR RODS.
- ⑥ INSTALL TOP OF THE LOWER NUTS FLUSH WITH TOP OF CONCRETE PARAPET OR BARRIER.

STANDARD BARRIER AND PARAPET TYPES (SEE PLANS FOR TYPE)	ANCHOR LENGTH
36" TYPE "S" W/O CONCRETE WEARING COURSE	3'-5"
36" TYPE "S" W/ CONCRETE WEARING COURSE	3'-7"
42" TYPE "S" W/O CONCRETE WEARING COURSE	3'-11"
42" TYPE "S" W/ CONCRETE WEARING COURSE	4'-1"
54" TYPE "S" W/O CONCRETE WEARING COURSE	4'-11"
54" TYPE "S" W/ CONCRETE WEARING COURSE	5'-1"
32" TYPE "F" W/O CONCRETE WEARING COURSE	3'-1"
32" TYPE "F" W/CONCRETE WEARING COURSE	3'-3"
32" TYPE "F" MEDIAN W/O CONC. WEARING COURSE	3'-1"
32" TYPE "F" MEDIAN W/ CONC. WEARING COURSE	3'-3"
32" TYPE "F" ON RETAINING WALL	3'-1"
36" TYPE "S" ON RETAINING WALL	3'-5"
32" CONCRETE PARAPET (TYPE P4) W/O CONC. W. C.	3'-1"
32" CONCRETE PARAPET (TYPE P4) W/ CONC. W. C.	3'-3"

APPROVED: AUGUST 24, 2016

STATE OF MINNESOTA
DEPARTMENT OF TRANSPORTATION

REVISED

DETAIL NO.

Kevin Westwood
STATE BRIDGE ENGINEER

ANCHOR BOLT CLUSTER FOR LIGHT POLES

B950