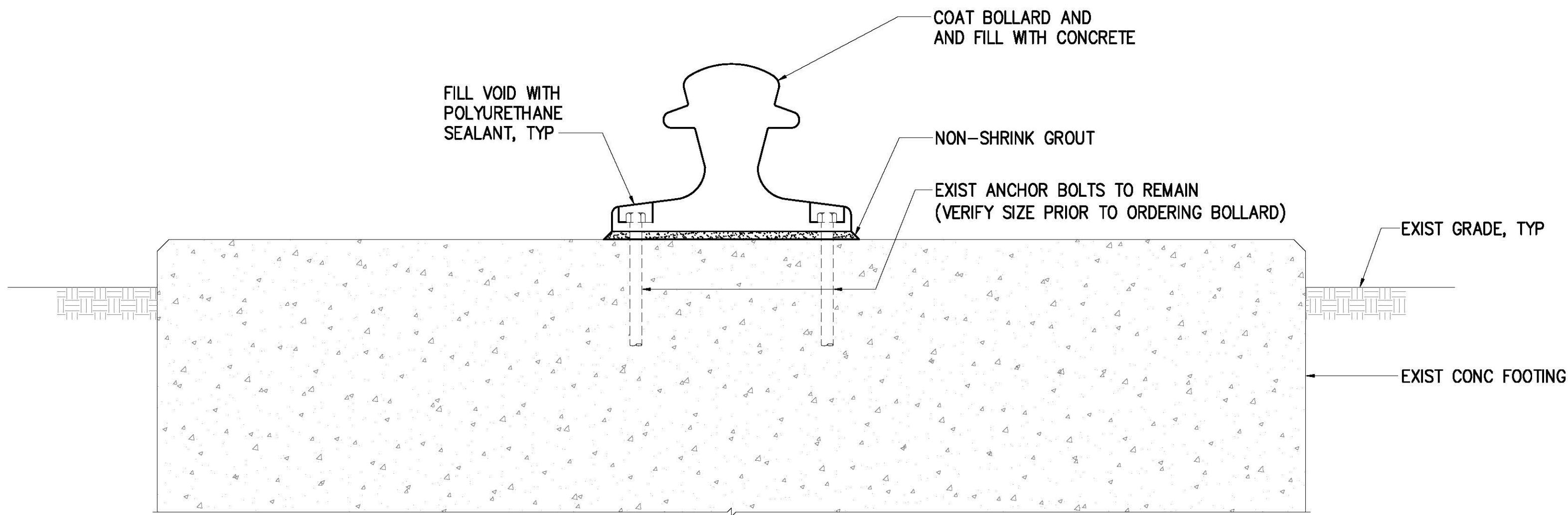


PLAN



E SECTION

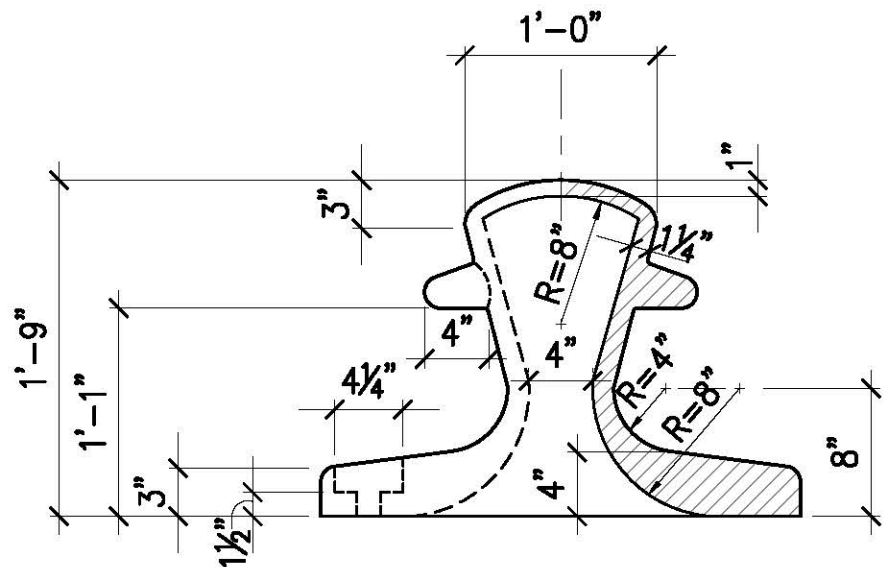
BOLLARD REPLACEMENT NOTES:

GENERAL:

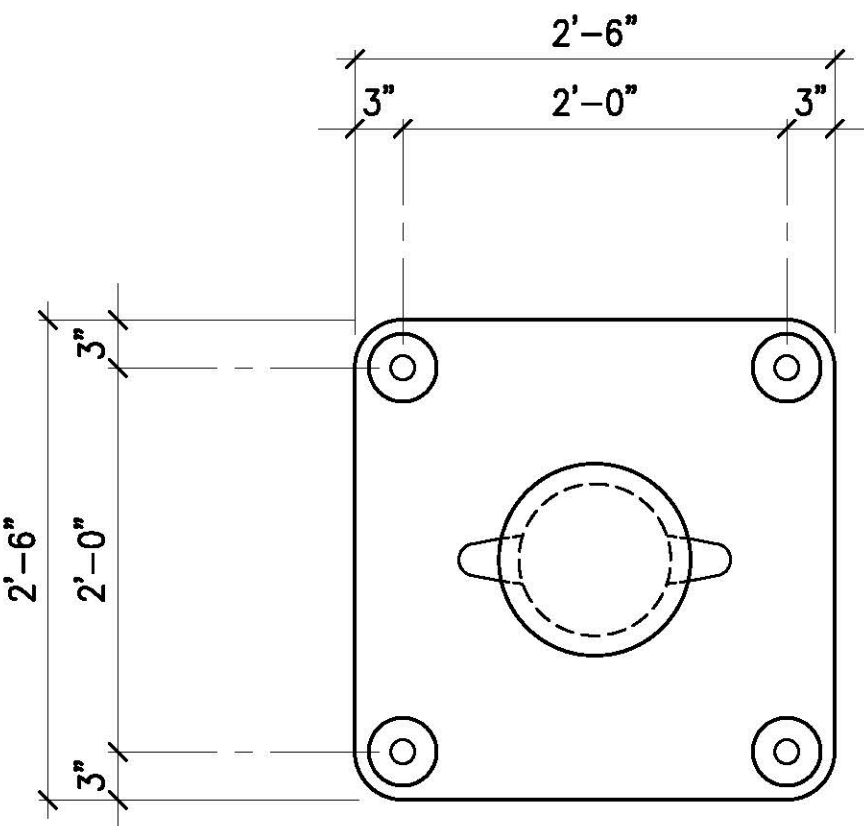
- NON-SHRINK GROUT UNDER BOLLARD SHALL BE A PREMIXED NON-METALLIC FORMULA, CAPABLE OF DEVELOPING A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI IN 1 DAY AND 5,000 PSI IN 28 DAYS.
- BOLLARD SHALL NOT BE SUBJECTED TO LIVE LOADS UNTIL CONCRETE IN THE BOLLARD HAS BEEN ALLOWED TO CURE FOR 7 DAYS.
- COATING FOR BOLLARD SHALL BE AMERLOCK 400 AND PSX 700 BY PPG PROTECTIVE AND MARINE COATINGS, OR APPROVED EQUAL. COLOR SHALL BE OSHA YELLOW.

BOLLARD REPLACEMENT PROCEDURE:

- REMOVE EXISTING BOLLARD. DO NOT DAMAGE EXISTING ANCHOR BOLTS TO REMAIN.
- COAT BOLLARD PRIOR TO INSTALLATION.
- CLEAN EXPOSED PORTIONS OF EXISTING ANCHOR BOLTS. PLUMB BOLLARD AND PROVIDE GROUT PAD.
- FILL BOLLARD WITH CONCRETE.
- FILL BOLLARD BOLT HOLES WITH POLYURETHANE SEALANT.



ELEVATION



PLAN

NOTE:

CONTRACTOR SHALL VERIFY EXISTING BOLLARD DIMENSIONS INCLUDING BOLT SPACING, SIZE AND PRIOR TO ORDERING.



THIS WORK WAS PREPARED BY ME  
OR UNDER MY SUPERVISION  
EXP. 4-30-24  
MKE ASSOCIATES LLC

REVISION	DATE	DESCRIPTION	BY	APPROVED
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HARBORS DIVISION				
JOB TITLE BOLLARD AND FENDER REPAIRS AT PIER 60 HONOLULU HARBOR, OAHU, HAWAII				
SHEET TITLE BOLLARD REPLACEMENT DETAILS				
DESIGNED BY: GO	JOB NUMBER S10853			SHEET S-5
DRAWN BY: DL				7 OF 7 SHTS.
CHECKED BY: GM				
DATE: 04/2023				
SCALE: AS SHOWN				