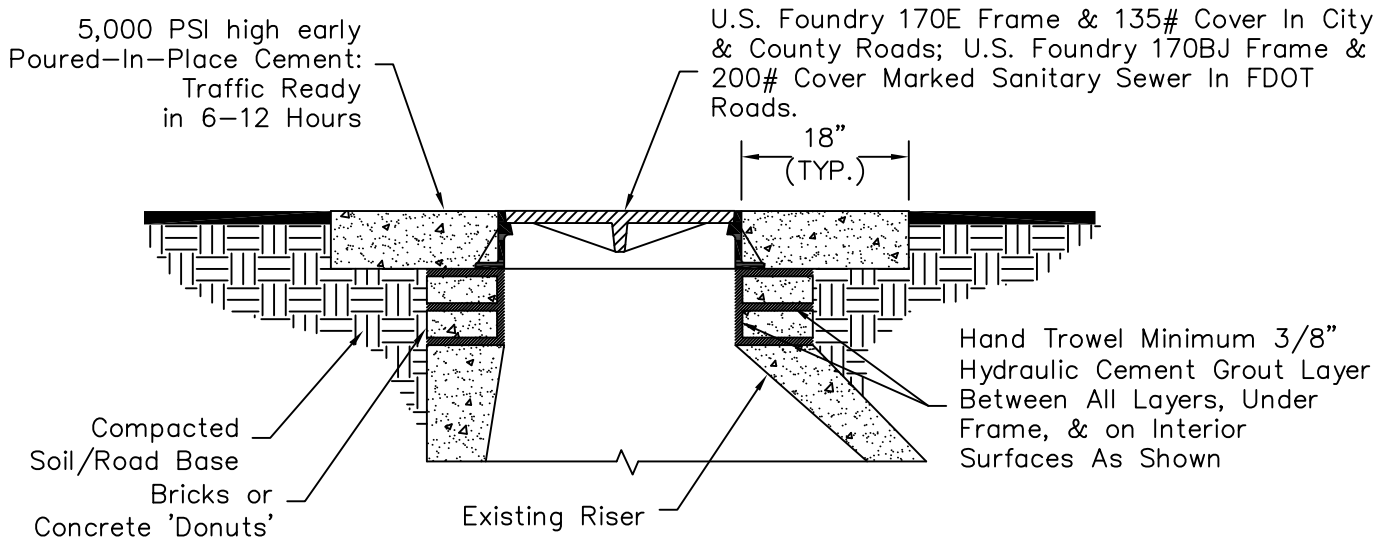

MANHOLE (MH) ADJUSTMENT PROCEDURES:

Pre-milling coordination: Contractor shall contact ECUA's Manhole Coordinator, Mr. Eddie Carter, at 476-5110 (x5824) or 698-9272, at least 2 weeks prior to milling operations to coordinate location of MHs requiring adjustment (visible MHs and those under asphalt). ECUA will then make decision to either allow adjustment of existing frames and covers or to supply new frames and covers to contractor (at ECUA expense).

Pre-milling procedures: Contractor shall make a list of all MH locations (station and offset or GPS coordinates to sub-meter accuracy), and submit list to Mr. Carter. Contractor can then remove frame and cover and if required brick/risers and install minimum 1/2" thick steel plate (or thicker if needed) over MH at a depth to avoid milling operations. Contractor shall paint solid green circle, two feet in diameter, directly over plated manholes onto milled asphalt surfaces and leveling course surfaces and shall maintain painted mark for the duration of the project. Due to ECUA emergency access needs, MHs shall not be plated more than 1 month, with 2 weeks or less being preferred.

Post-resurfacing procedures: Contractor shall determine location of MHs using list created in pre-milling stage and shall remove circular area of asphalt approximately 5' in diameter (equal to typical 2' ring diameter and 18" wide concrete collar), centered over MH. Remove plate. For changes in grade of 2" or less, place minimum 3/8" layer, maximum 2" layer, of hydraulic cement grout over top of existing brick/concrete donut/riser. For changes in grade more than 2", add bricks (clay for City and County, concrete for FDOT) or concrete donuts, with 3/8" layer of hydraulic cement grout in between each layer of bricks/donuts. Coat all inside surfaces with 3/8" thick layer of hydraulic cement grout. Maximum height of vertical adjustment (including existing and new brick/donut) shall be 12" as measured from bottom of frame to top of riser; adjustments more than 12" shall require installation of concrete riser sections. Frame shall be set so that elevation and slope of lid matches finished road surface. Pour 5000 psi concrete around frame to form 18" wide concrete collar that matches elevation and slope of finished road surface.

Post-resurfacing coordination: Roadway inspector shall confirm all MHs have been adjusted and done so according to this detail. Contractor shall then contact Mr. Carter for ECUA's final inspection. MHs not meeting this detail, or with construction debris in bottom of MH, or not matching roadway elevation and slope, will be corrected as required prior to payment. Contractor shall provide 2 years warranty (1 year if performed on FDOT project) beginning on ECUA's date of acceptance.

ECUA EMERALD COAST UTILITIES AUTHORITY	DRAFT SCALE: N.T.S. DATE: 10/1/14	MANHOLE ADJUSTMENT	DETAIL D-19