

# MANHOLE NOTES

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1. REINFORCING AREA OF 0.20 SQ. IN./FT. FOR WALL SECTION, MINIMUM TO MEET OR EXCEED A.S.T.M. A 185.
2. ALL CEMENT TO BE TYPE I OR TYPE II.
3. ALL CONCRETE FOR PRECAST MANHOLES TO BE MINIMUM 3,000 P.S.I. TO MEET OR EXCEED A.S.T.M. C 478.
4. BOTTOMS AND CHANNELS OF ALL MANHOLES TO BE OF 2,500 P.S.I. FILL CONCRETE FINISHED SMOOTH WITH STEEL TROWEL.
5. CONCRETE MANHOLES TO HAVE A MIN. WALL THICKNESS OF 8".
6. INSIDE & OUTSIDE OF MANHOLE SHALL BE COATED WITH TWO COATS OF EW-1 WATER BASED EPOXY. (1) COAT RED, (1) COAT BLACK, FOR A TOATL OF TWO COATS.
7. CHANNELS TO BE FORMED IN ALL MANHOLES TO ACCEPT T.V. CAMERA.
8. ORIENT ECCENTRIC CONE AS REQUIRED BY ENGINEER IN FIELD.
9. BOTTOM SECTION TO BE MONOLITHIC POUR EXCEPT WHERE DROP CONNECTION REQUIRED.
10. CONNECTIONS TO EXISTING MANHOLE AND LIFT STATION WET WELL STRUCTURES SHALL BE BY MEANS OF BORING A PENETRATION IN THE STRUCTURE, RATHER THAN PUNCHING. THE CONTRACTOR SHALL TAKE POSITIVE MEASURES TO PREVENT ANY CONCRETE OR CONSTRUCTION DEBRIS FROM ENTERING THE WASTEWATER SYSTEM.
11. BUOYANCY CALCULATIONS SHALL BE REQUIRED FOR ALL MANHOLES.
12. NO. 4 $\phi$  BARS 9" O.C. EACH WAY IN SLAB (TOP AND BOTTOM).
13. SLOPES ON CHANNEL BOTTOMS TO EQUAL SLOPES OF LINES ENTERING AND EXITING MANHOLES.
14. 2 COURSES BRICK MINIMUM, 6 COURSES BRICK MAXIMUM BETWEEN ALL PRECAST MANHOLE TOPS AND CASTINGS.
15. 3/4" CRUSHED STONE FOUNDATIONS FOR A MINIMUM DEPTH OF 12" SHALL BE PROVIDED AS REQUIRED BY IRCBUS.
16. MANHOLE LID SHALL BE TRAFFIC BEARING (H-20 LOADING).
17. SEWER PIPE INVERTS AT BOTTOM OF MANHOLES SHALL HAVE AN INVERT ELEVATION DIFFERENTIAL OF 0.1 FEET FOR A CHANGE IN DIRECTION AND 0.05 FEET FOR A STRAIGHT RUN.
18. A WATERTIGHT RAIN GUARD BOOT, TO BE PER IRCBUS APPROVED MANUFACTURERS' PRODUCT LIST, SHALL BE PROVIDED FOR ALL MANHOLE FRAME/COVERS.
19. MATERIALS FOR LINING MANHOLES, WHERE REQUIRED, TO BE PER IRCBUS APPROVED MANUFACTURERS' PRODUCT LIST. MANHOLE LINERS SHALL BE INSTALLED ON ALL MANHOLES RECEIVING PUMPED SEWAGE, PLUS 5 MANHOLES IN EACH DIRECTIONS. (AS DIRECTED BY IRCBUS.)
20. PUMP OUT MANHOLE SHALL BE LOACTED WITHIN 20' OF LIFT STATION AND CONSTRUCTED OUT OF RIGHT OF WAY.

-ART-

INDIAN RIVER COUNTY  
DEPARTMENT OF  
UTILITIES SERVICES



MANHOLE NOTES

DRAWING  
NO.

S-5

MARCH 2014