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## NOTES

- \*1. NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED GRAVITY, VACUUM TYPE SANITARY SEWER, STORM SEWER OR PRESSURE TYPE SANITARY SEWER, WASTEWATER, STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST SIX INCHES, AND PREFERABLY 12 INCHES, ABOVE OR AT LEAST 12 BELOW THE OUTSIDE OF THE OTHER PIPELINE. IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.
2. AT UTILITY CROSSINGS, ONE FULL LENGTH OF WATER MAIN PIPE SHALL BE CENTERED ABOVE OR BELOW THE OTHER PIPELINE SO THE WATER MAIN JOINTS WILL BE FAR AS POSSIBLE FROM THE OTHER PIPELINE. ALTERNATIVELY, AT SUCH CROSSINGS, THE PIPES SHALL BE ARRANGED SO THAT ALL WATER MAIN JOINTS ARE AT LEAST THREE FEET FROM ALL JOINTS IN VACUUM TYPE SANITARY SEWERS, STORM SEWERS, STORMWATER FORCE MAINS OR PIPELINES CONVEYING RECLAIMED WATER AND AT LEAST SIX FEET FROM ALL JOINTS IN GRAVITY OR PRESSURE TYPE SANITARY SEWERS, WASTEWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER.
3. CONSTRUCT STANDARD CROSSING NOT TO EXCEED 75% OF THE MANUFACTURERS' MAXIMUM JOINT DEFLECTION.
4. OTHER METHODS OF RESTRAINT MAY BE USED AS APPROVED BY IRC DUS ENGINEERING.
5. SEE TRACER WIRE DETAIL. M-13
6. ALL WATER AND SEWER UTILITIES SHALL BE LOCATED A MINIMUM HORIZONTAL SEPARATION EQUAL TO THE DEPTH OF THE PIPE PLUS THE DIAMETER OF THE PIPE FROM ANY PERMANENT ABOVE GROUND STRUCTURES (I.E. WALLS, TREES, TRANSFORMER PADS, ETC.) AND A MINIMUM HORIZONTAL SEPARATION EQUAL TO FOUR (4) FEET FROM ANY UNDERGROUND UTILITIES (I.E. GAS MAINS, TELEPHONE LINES, CABLE LINES, IRRIGATION MAINS, ETC.)

INDIAN RIVER COUNTY  
DEPARTMENT OF  
UTILITIES SERVICES



UTILITY CROSSING

MARCH 2014

DRAWING  
NO.

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