

1. A MINIMUM HORIZONTAL SEPARATION OF 6 FEET IS REQUIRED BETWEEN SEWER MAINS AND SERVICES AND WATER, FIRELINE, AND RECLAIMED MAINS AND SERVICES. PROTECTION MUST BE IN ACCORDANCE WITH MAG SECTION 610.5.5 WITH THE EXCEPTION DUCTILE IRON PIPE IS NOT ALLOWED FOR SEWER CONSTRUCTION.
2. ALL SEWER TAPS MUST BE WYE, WYE SADDLE, OR TEE.
3. CONNECTIONS TO EXISTING SEWER MAINS MUST BE ACCOMPLISHED BY MACHINE TAPPING, UTILIZING A SADDLE, OR BY CONSTRUCTION OF A MANHOLE.
4. SEWER TAPS MUST HAVE 4-1/2 FEET MINIMUM COVER AT PROPERTY LINE. TO RAISE THE TAP FROM THE MAINS DEEPER THAN 6 FEET AND LESS THAN 12 FEET, THE WYE AND 1/8 BEND MAY BE SET AT A 45 DEGREE ANGLE FROM HORIZONTAL AND WITH A SHORT PIECE OF STRAIGHT PIPE PLACED ON THE 1/8 BEND. ANOTHER 1/8 BEND IS PLACED AT THE OTHER END OF THE SHORT PIPE TO BRING THE TAP TO APPROPRIATE GRADE AT THE PROPERTY LINE. FOR MAINS 12 FEET OR DEEPER, REFER TO C-410.
5. ALL SEWER SERVICE CONNECTIONS MUST BE EXTENDED A SUFFICIENT DISTANCE BEYOND STREET RIGHT-OF-WAY LINES TO CLEAR ALL FACILITIES TO BE INSTALLED IN PUBLIC UTILITY EASEMENTS WHICH PARALLEL THE STREET RIGHT-OF-WAY. REFER TO MAG STD DTL 440, TYPE A, FOR ADDITIONAL REQUIREMENTS.
6. ALL SEWER PIPE MUST BE CONSTRUCTED WITH BEDDING CONFORMING TO C-402. ALL SEWER LINES 10 FEET IN DEPTH AND GREATER MUST BE VCP PIPE, OR AS SPECIFIED ON THESE PLANS. LOCATOR WIRE AND IDENTIFICATION TAPE TO BE INSTALLED IN ACCORDANCE WITH C-408.
7. PIPE BACKFILL MUST BE 1/2 SACK CLSM IN ACCORDANCE WITH MAG SECTION 728, UNLESS OTHERWISE DETAILED AND APPROVED ON THESE PLANS. PAVEMENT REPLACEMENT MUST BE IN ACCORDANCE WITH MAG STD DTL 200, T-TOP.
8. ALL MANHOLES MUST BE 5-FOOT DIAMETER WITH 30-INCH DIAMETER COVERS. MANHOLES INSTALLED ON PUBLIC SEWER MAINS 15-INCH DIAMETER AND LARGER MUST BE COMPOSITE OR POLYMER CONCRETE MATERIALS PER LIST OF APPROVED PRODUCTS. "ONE-OFF" PUBLIC MANHOLES (FIRST MANHOLE UP-STREAM OF 15-INCH DIAMETER AND LARGER SEWER MAINS) MUST ALSO BE COMPOSITE OR POLYMER CONCRETE MATERIALS. FOR SEWER MAINS LESS THAN 15-INCH, MANHOLES MAY BE INSTALLED USING STANDARD CONCRETE MATERIALS PER DETAIL 420 WITH CAST-IN-PLACE BASES.
9. CONCRETE MANHOLES (FOR SEWER MAINS LESS THAN 15-INCH) CONSTRUCTED IN ARTERIAL STREETS MUST BE COATED WITH A CORROSION-PROTECTIVE COATING APPLIED IN ACCORDANCE WITH MAG SECTION 626 AND CITY SUPPLEMENT. COATING IS ONLY REQUIRED ON THE CONCRETE AND

GROUTED SURFACES. REFER TO LIST OF APPROVED PRODUCTS FOR ALLOWABLE CORROSION-PROTECTIVE COATING SYSTEMS. COATED SURFACES SHALL BE HOLIDAY / SPARK TESTED TO VERIFY A CONTINUOUS, VOID-FREE LINING SYSTEM HAS BEEN INSTALLED.

10. COMPOSITE AND POLYMER CONCRETE MANHOLES MUST INCLUDE COMPOSITE FRAMES AND COVERS, COMPOSITE ADJUSTMENT RINGS, COMPOSITE OR POLYMER CONCRETE CONE AND RISER SECTIONS AND CAST-IN-PLACE BASES WITH APPROVED PROTECTIVE COATING. REFER LIST OF APPROVED PRODUCTS, SUPPLEMENTS TO MAG SECTIONS 345 AND 625, AND DETAILS C-400 AND C-401. COMPOSITE AND POLYMER CONCRETE MANHOLES AND MATERIALS USED MUST BE AS SPECIFIED ON THE PLANS AND/OR TECHNICAL SPECIFICATIONS.
11. MANHOLES SERVING PUBLIC SEWER LINES 12-INCH AND SMALLER AND NOT WITHIN ARTERIAL STREETS MUST BE COATED WITH A LATEX INSECTICIDE PAINT APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. REFER TO THE CITY'S LIST OF APPROVED PRODUCTS FOR ALLOWABLE INSECTICIDE COATING PRODUCTS. THE COATING MUST BE APPLIED IN ACCORDANCE WITH U.S. ENVIRONMENTAL PROTECTION AGENCY RECOMMENDATIONS STARTING FROM THE TOP OF THE MANHOLE TO A DEPTH OF 8 FEET BELOW.
12. MANHOLE FRAME AND COVERS MUST BE ADJUSTED PER C-401. DEBRIS SHIELDS MUST BE USED TO PREVENT DEBRIS FROM ENTERING SANITARY SYSTEM. CONTRACTOR WILL BE RESPONSIBLE TO CLEAN SYSTEM FOR A MINIMUM OF ONE REACH IF DEBRIS ENTERS SYSTEM. ANY MISSING OR DEFECTIVE FRAMES OR COVERS MUST BE REPORTED TO THE CITY IN WRITING DURING THE INITIAL LOCATION PROCESS TO ALLOW FOR TIMELY REPLACEMENT.
13. ALL NEW 8" AND LARGER SEWER LINES (INCLUDING STUB-OUTS) MUST BE CLOSED CIRCUIT TV (CCTV) INSPECTED BY CITY CCTV VENDER PRIOR TO FINAL ACCEPTANCE. CITY PAYS FOR THE INITIAL INSPECTION IN ACCORDANCE WITH MAG SECTION 611. OWNER/CONTRACTOR MAY CONTRACT DIRECTLY WITH CITY'S CCTV VENDER OR USE THEIR PREFERRED NASSCO CERTIFIED CONTRACTOR FOR ADDITIONAL CCTV INSPECTION(S). SEWER LINES MUST BE VACTORED AND WATER ADDED TO THE SYSTEM PRIOR TO CCTV INSPECTION, WITNESSED BY CITY INSPECTOR. ANY DEFECTS IN THE PIPE, CONSTRUCTION METHODS, OR INADEQUATE CLEANING MUST BE CORRECTED AT NO ADDITIONAL COST TO THE CITY. PIPE DEFLECTIONS GREATER THAN ONE-INCH WILL NOT BE ALLOWED. CITY CCTV VENDER WILL INSPECT LINES AGAIN PRIOR TO END OF ONE-YEAR WARRANTY, PAID BY THE CITY.
14. A PLUG MUST BE INSTALLED AT THE POINT(S) OF CONNECTION TO EXISTING LINES (OUTFALLS) AT THE START OF CONSTRUCTION PER C-403. EACH RESPECTIVE PHASE MUST BE PLUGGED AND REMAIN PLUGGED UNTIL ACCEPTED BY THE CITY. NO FLOWS TO BE RELEASED INTO THE CITY SANITARY SEWER UNTIL ALL TESTS HAVE BEEN PASSED AND APPROVED BY THE CITY. FAILURE TO INSTALL PLUG MAY RESULT IN CLEANING EXISTING SEWER ONE-MILE IN EACH DIRECTION.