

# CITY OF FAIRBORN STANDARD NOTES

## UTILITY AGENCIES:

WATER, SANITARY & STORM  
CITY OF FAIRBORN  
44 WEST HEBBLE AVENUE  
FAIRBORN, OHIO 45324  
PH: (937) 754-3097

ELECTRIC  
DAYTON POWER & LIGHT  
1578 HOOP RD  
XENIA, OHIO 45385  
PH: (937) 331-3900  
PH: (800) 433-8500  
PH: (937) 224-6000

TELEPHONE  
AT&T  
3233 WOODMAN DRIVE  
DAYTON, OHIO 45420  
PH: (800) 572-4545  
CONTACT: MIKE CAMPBELL  
PH: (937) 296-3555

GAS  
VECTREN  
1335 EAST DAYTON YELLOW SPRINGS ROAD  
FAIRBORN, OHIO 45324  
PH: (800) 227-1376

CABLE TELEVISION  
TIME WARNER CABLE  
1505 E. DAVID RD  
DAYTON, OHIO 45429  
PH: (937) 294-6400

## GENERAL

1. ALL CONSTRUCTION (METHODS AND MATERIALS) SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF THE CITY OF FAIRBORN CONSTRUCTION AND MATERIAL SPECIFICATIONS AND STANDARD DRAWINGS. IF NO CITY STANDARD OR SPECIFICATION IS AVAILABLE, THEN THE LATEST EDITION OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION "CONSTRUCTION & MATERIAL SPECIFICATIONS" SHALL APPLY.
2. ALL EXISTING UNDERGROUND UTILITIES ARE SHOWN IN THEIR APPROXIMATE LOCATION ACCORDING TO THE BEST AVAILABLE INFORMATION. TWO (2) WORKING DAYS BEFORE DIGGING IS TO COMMENCE, THE CONTRACTOR SHALL NOTIFY THE FOLLOWING AGENCIES: THE OHIO UTILITIES PROTECTION SERVICE (OUPS) AT 1-800-362-2764; WATER & SEWER DEPARTMENT AT (937) 754-3097; AND ANY OTHER AGENCY WHICH MIGHT HAVE UNDERGROUND UTILITIES INVOLVING THIS PROJECT AND ARE NON-MEMBERS OF OUPS. IF, DURING CONSTRUCTION, INTERFERENCE ARISES WITH EXISTING UTILITIES IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE UTILITY COMPANY INVOLVED. ANY AND ALL WORK REQUIRED FOR PUBLIC OR PRIVATE UTILITIES WILL BE DONE BY AND AT THE EXPENSE OF THE DEVELOPER.
3. THE CONTRACTOR SHALL COMPLY WITH THE CITY'S EROSION & SEDIMENT CONTROL ORDINANCE THROUGH THE LIFE OF THE CONTRACT OR PROJECT. THIS MAY INVOLVE THE USE OF SILT FENCE, DIKES, SEDIMENT PITS, MULCHES, FILTER FABRICS AND OTHER DEVICES AND METHODS. PARTICULAR CARE SHALL BE TAKEN TO AVOID EROSION AND SEDIMENTATION ON EXISTING PAVED AND GRAVELED AREAS.
4. TRAFFIC CONTROL SIGNS SHALL BE PLACED IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION, LATEST REVISION. THE CONTRACTOR SHALL PROVIDE THE NAME AND PHONE NUMBERS OF A 24 HOUR CONTACT PERSON FOR THE PROJECT.
5. THE CONTRACTOR SHALL NOTIFY THE CITY OF FAIRBORN AT LEAST 24 HOURS PRIOR TO THE FOLLOWING REQUIRED INSPECTIONS OR TESTS:  
ENGINEERING DIVISION: (937) 754-3055  
PRESSURE TEST OF SANITARY SEWER, WATER MAINS AND SEWER & WATER LATERALS  
DEFLECTION TEST OF PVC SANITARY SEWER MAINS  
DRIVEWAYS AND SIDEWALKS IN THE RIGHT-OF-WAY, (PERMITS ALSO NEED TO BE OBTAINED IN THE ENGINEERING DIVISION PRIOR TO COMMENCEMENT OF WORK).  
DISINFECTION AND BACTERIOLOGICAL TESTING OF WATER MAINS  
COMPACTION TESTS FOR ROADWAYS
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING EXISTING ROADWAYS TO A CONDITION EQUAL TO OR BETTER THAN THAT WHICH EXISTED PRIOR TO COMMENCING WORK.
7. EXISTING PAVEMENT SHALL BE SAW CUT WHERE IT IS TO BE REMOVED. A FINISH EDGE SHALL BE PROVIDED BEFORE FINISH BLACKTOP IS REPLACED.
8. NO CONSTRUCTION SHALL COMMENCE UNTIL THE REQUIRED CITY OF FAIRBORN PERMITS HAVE BEEN ISSUED.
9. NO OTHER UTILITIES ARE ALLOWED IN THE SEWER AND WATER TRENCHES. 10' HORIZONTAL AND 2' VERTICAL CLEARANCES ARE REQUIRED BETWEEN CITY OF FAIRBORN SEWER AND WATER AND OTHER UTILITIES. ALL WORK SHALL BE WITHIN EXISTING RIGHT-OF-WAY OR EASEMENTS AS INDICATED ON THE PLANS UNLESS OTHERWISE DIRECTED BY THE ENGINEER. IF, DURING CONSTRUCTION, INTERFERENCE ARISES WITH EXISTING UTILITIES, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE UTILITY COMPANY INVOLVED. ANY AND ALL WORK REQUIRED FOR PUBLIC OR PRIVATE LINE UTILITIES WILL BE DONE BY AND AT THE EXPENSE OF THEIR RESPECTIVE OWNERS, UNLESS NOTED ON THE PLANS.
10. WHERE BEDROCK IS ENCOUNTERED, 12" BEDDING AND 18" CLEARANCE ON EACH SIDE OF THE PIPE IS REQUIRED.

11. NO DIMENSION SHALL BE SCALED FROM THE CONSTRUCTION DRAWINGS FOR THE PURPOSE OF FIELD LOCATION.
12. SAFETY REQUIREMENTS, OUTLINED IN THE STATE OF OHIO "CONSTRUCTION SAFETY CODE" FOR THIS TYPE OF WORK WILL BE ENFORCED AND THE CONTRACTOR SHALL COMPLY WITH THE PROVISIONS OF THE CODE ISSUED AS A GENERAL ORDER BY THE INDUSTRIAL COMMISSION OF OHIO. OSHA REGULATIONS SHALL BE FOLLOWED.
13. ALL UNDERGROUND UTILITY SERVICE LATERALS SHALL BE INSTALLED FROM THE MAIN TO 10' BEYOND THE RIGHT-OF-WAY BEFORE STREETS ARE PAVED.
14. THE CONTRACTOR SHALL INSTALL ALL TRAFFIC CONTROL SIGNS AND STREET NAME SIGNS AT INTERSECTIONS IN NEW DEVELOPMENTS PER CITY OF FAIRBORN SPECIFICATIONS.
15. ALL MANHOLE CASTINGS SHALL BE BOLTED TO THE CONCRETE MANHOLE CONE WITH A MINIMUM OF TWO STAINLESS STEEL BOLTS.
16. ALL EXISTING MANHOLES AND CATCH BASINS SHALL BE CORED.
17. ALL TESTS ARE THE RESPONSIBILITY OF THE DEVELOPER/CONTRACTOR AND ALL COSTS RELATED TO TESTING OR CERTIFICATIONS SHALL BE BORNE BY THE DEVELOPER/CONTRACTOR.

## ROADWAYS - DIVISION 300

1. COMPACTION TEST SHALL BE REQUIRED EVERY 500' IN NEW STREETS AS FOLLOWS:  
SUBGRADE: 95% MODIFIED PROCTOR, BASE: 95% MODIFIED PROCTOR
2. THE ENGINEERING DIVISION SHALL BE NOTIFIED 24 HOURS PRIOR TO THE TIME WHEN THE COMPACTION TESTS WILL BE TAKEN. THE SUBGRADE MUST BE PROOFROLLED IN THE PRESENCE OF THE INSPECTOR.
3. CERTIFICATION THAT ASPHALT MIX AND MIX MATERIALS MEET PROJECT SPECIFICATIONS SHALL BE PROVIDED TO THE CITY. CONCRETE DELIVERY TICKETS SHALL BE PROVIDED TO THE CITY.
4. CONCRETE SHALL BE TESTED AS FOLLOWS:  
CONCRETE PAVEMENT:  
A. 1 SET OF CYLINDERS AND 1 BEAM PER 100 CY OF CONCRETE BUT NOT LESS THAN 1 SET OF CYLINDERS OR 1 BEAM PER DAY.  
B. SLUMP TEST ON FIRST LOAD OF CONCRETE AND AS DEEMED NECESSARY BY THE ENGINEER  
CONCRETE FOR STRUCTURES:  
A. 1 SET OF CYLINDERS AND 1 BEAM PER 100 CY OF CONCRETE BUT NOT LESS THAN 1 SET OF CYLINDERS OR 1 BEAM PER DAY.  
B. SLUMP TEST ON FIRST LOAD OF CONCRETE AND AS DEEMED NECESSARY BY THE ENGINEER  
SET= 3 CYLINDERS, TO BE BROKEN AS FOLLOWS: 1 @ 7 DAYS, 2 @ 28 DAYS  
PAYMENT FOR THIS ITEM SHALL BE INCIDENTAL TO THE VARIOUS ITEMS OF WORK AND SHALL INCLUDE ALL COSTS RELATED TO PROVIDING THE CERTIFICATION OR TESTING REQUIRED. COST OF ANY ADDITIONAL TESTING OR CERTIFICATION THAT THE ENGINEER OR OWNER SHALL REQUIRE SHALL BE BORNE BY THE CONTRACTOR.

## STORM SEWER - DIVISION 600

1. ALL STORM MANHOLES ARE TO BE TYPE "A". CHANNEL BOTTOMS OF ALL MANHOLES AND CATCH BASINS.
2. ALL CATCH BASINS WITH GRATE TYPE LIDS SHALL BE BICYCLE SAFE.
3. SEE CITY OF FAIRBORN TRENCH DETAILS FOR BACKFILL REQUIREMENTS.
4. MATERIALS SHALL CONFORM TO THE FOLLOWING:  
REINFORCED CONCRETE PIPE CONFORMING TO ASTM C-76  
REINFORCED CONCRETE PIPE JOINTS CONFORMING TO ASTM C-443  
PVC PIPE CONFORMING TO ASTM D-3034  
PVC PIPE JOINTS CONFORMING TO ASTM D-3034, D-3212  
A-2000 PIPE CONFORMING TO ASTM F-949  
A-2000 PIPE JOINTS CONFORMING TO ASTM D-3212  
PERMA-LOC OR ULTRA RIB PIPE CONFORMING TO ASTM F-794 AND AASHTO M304  
PERMA-LOC OR ULTRA RIB PIPE JOINTS CONFORMING TO ASTM D-3212  
ADS N12 WITH BELL JOINTS
5. ALL EXISTING MANHOLES AND CATCH BASINS SHALL BE CORED.

# CITY OF FAIRBORN STANDARD NOTES

## SANITARY SEWER – DIVISION 900

1. ROOF DRAINS, FOUNDATION DRAINS OR OTHER CLEAR WATER CONNECTIONS TO THE SANITARY SEWER SYSTEM ARE STRICTLY PROHIBITED.
2. ALL FIELD TILES ENCOUNTERED SHALL BE REPLACED OR CONNECTED TO THE STORM SEWER SYSTEM.
3. SANITARY MANHOLES SHALL BE PRE-CAST CONFORMING TO ASTM C-478 OR MONOLITHIC CONSTRUCTED OF CLASS "C" 4,000 PSI CONCRETE. PROVIDE WITH KOR-N-SEAL OR APPROVED EQUAL WATER TIGHT MANHOLE AND PIPE CONNECTION.
4. JOINTS BETWEEN PRE-CAST MANHOLE SECTIONS SHALL CONFORM TO ASTM C-443.
5. SANITARY SEWER MANHOLES SHALL BE CHanneled AS PART OF THE MANUFACTURING PROCESS. AT TIMES THIS IS NOT POSSIBLE, CHANNELS SHALL BE CONSTRUCTED WITH CLASS "C" CONCRETE.
6. CONTRACTOR SHALL NOT MAKE ANY PHYSICAL CONNECTION TO THE EXISTING SANITARY SEWER UNTIL THE NEWLY INSTALLED SEWER HAS BEEN INSPECTED, TESTED AND RELEASED. PROVISIONS SHALL BE MADE BY THE CONTRACTOR TO ASSURE NO GROUND WATER, SURFACE WATER, MUD AND OTHER DEBRIS ENTER EXISTING SANITARY SEWER SYSTEM.
7. SANITARY SEWER BEDDING SHALL BE 75-100% CRUSHED 8's. SANITARY SEWER LATERAL BEDDING SHALL BE 75-100% CRUSHED 8's.
8. SEE CITY OF FAIRBORN DETAILS FOR BACKFILL REQUIREMENTS.
9. MATERIALS SHALL CONFORM TO THE FOLLOWING:  
PVC PIPE CONFORMING TO ASTM D-3034  
PVC PIPE JOINTS CONFORMING TO ASTM D-3034, D-3212
10. SEWER LATERAL CONNECTIONS SHALL BE MADE INTO THE MAIN WITH A "WYE". WHERE EXISTING SEWERS ARE ENCOUNTERED, AN APPROVED TAPPING SADDLE AND HOLE CUT WITH AN APPROVED TAPPING MACHINE / DEVICE MAY BE USED.
11. SANITARY LATERALS SHALL BE CONSTRUCTED WITHOUT THE USE OF 90° BENDS AND HAVE A CLEANOUT AT 100' INTERVALS. 90° DEFLECTIONS SHALL BE ACCOMPLISHED WITH TWO 45° FITTINGS WITH A MINIMUM 1' SEPARATION.
12. INSPECT INTERIOR OF PIPE WITH TELEVIEWING EQUIPMENT AND PROVIDE THE ENGINEERING DEPARTMENT A COPY OF INSPECTION TAPES.
13. ALL EXISTING MANHOLES SHALL BE CORED.
14. TESTING OF MAINS, LATERALS & MANHOLES:
  - A. SANITARY SEWER MAINS AND LATERALS SHALL BE AIR TESTED AT 3.5 PSI. SEE SPECIFICATION 900.14F.
  - B. SANITARY SEWER PVC MAINS SHALL BE TESTED FOR DEFLECTION PER SPECIFICATION 900.14G.
  - C. MANHOLES, FROM TOP OF CASTING, SHALL BE VACUUM TESTED PER SPECIFICATION 904.11.

## WATER MAIN & SERVICES – DIVISION 800

1. WATER SERVICES FOR EACH RESIDENTIAL UNIT SHALL HAVE AN INSIDE WATER METER SET IN METER YOKE WITH REMOTE AUTOMATIC READING DEVICES. METER AND READING DEVICES PROVIDED BY THE CITY WITH READING DEVICE CHARGED TO THE DEVELOPER/CONTRACTOR THE APPROPRIATE BACKFLOW PREVENTION DEVICE SHALL BE PROVIDED ON EACH SERVICE LINE.
2. ALL FIRE HYDRANTS SHALL BE:
  - A. MUELLER SUPER CENTURION A-423
  - B. FIRE HYDRANTS SHALL BE LOCATED NOT LESS THAN 2' FROM AND NOT MORE THAN 5' AWAY FROM BACK OF CURB OR EDGE OF PAVEMENT TO THE PUMPER CONNECTION.
  - C. ALL HYDRANTS SHALL HAVE THE 5" STORZ PUMPER OPENING TO FACE THE STREET. STORZ SHALL BE INTEGRAL TO THE HYDRANT.
  - D. THE CENTERLINE OF PUMPER CONNECTION TO HAVE 18"-21" CLEARANCE FROM FINISH GRADE.
  - E. FIRE HYDRANTS SHALL BE INSTALLED WITH ANCHORING TEES AND ANCHORING PIPE WITH THE WATCH VALVE INSTALLED AT THE TEE.
  - F. NUMBER 57 GRAVEL SHALL BE PLACED AROUND DRAIN HOLES.

3. WATER SERVICES (UP TO 2") SHALL CONFORM TO THE FOLLOWING:
  - A. SERVICE SHALL BE 1" "K" COPPER OR LARGER.
  - B. FITTINGS SHALL BE FORD BRASS PACK JOINT.
  - C. CURB STOPS SHALL BE FORD BRASS BALL VALVES WITH 90° (STOP) OPEN-CLOSE MOVEMENT. CURB STOPS SHALL BE LOCATED AS CLOSE TO THE SIDE PROPERTY LINE AS POSSIBLE.
  - D. CORPORATION STOPS SHALL BE FORD BALL VALVE.
  - E. CURB BOX SHALL BE TYLER OR BIBBY 93E SCREW TYPE OR EQUAL. THEY SHALL HAVE A CAST OR EQUAL COLLAR AND LID, AND MARKED WATER AND SECURED WITH A BRASS OR BRONZE BOLT INLAID LEVEL WITH THE LID SURFACE.
  - F. CURB STOPS SHALL BE KEPT FROM 48" TO 54" (MAXIMUM) DEEP AND LOCATED BETWEEN THE SIDEWALK AND CURB OR WITHIN 2' OF THE CURB WHERE THERE IS NO SIDEWALK. A CURB STOP IS REQUIRED FOR EACH WATER METER. CURB STOPS ARE NOT ALLOWED UNDER CURBS, SIDEWALKS, DRIVEWAYS AND PARKING LOTS. MULTIPLE CURB BOXES SHALL BE SECURED WITH A COMMON 4" THICK CONCRETE COLLAR AND BOXES SHALL BE PERMANENTLY LABELED WITH SERVICE ADDRESS / APT. NUMBERS.
  - G. LOCATIONS OF WATER SERVICES SHALL BE APPROVED BY THE INSPECTOR PRIOR TO INSTALLATION
  - H. THE SERVICE LINE, WHERE POSSIBLE, SHALL BE ONE-PIECE CONSTRUCTION FROM THE CURB STOP TO THE WATER METER PLUMBING.SERVICES OVER 2" IN DIAMETER SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF FAIRBORN WATER MAIN SPECIFICATIONS
4. WATER VALVES:
  - A. SHALL NOT BE DEEPER THAN 6'-0"
  - B. 12" AND UNDER SHALL BE RELIANT WEDGE GATE VALVES. OVER 12" SHALL BE BUTTERFLY VALVES.
  - C. VALVES SHALL OPEN LEFT (COUNTER-CLOCKWISE)
  - D. BURIED VALVES SHALL BE PROVIDED WITH MJ JOINTS
  - E. APPROVED VALVES: AMERICAN DARLING, MUELLER, CLOW, KENNEDY AND M & H
5. WATER MAINS AND SERVICES SHALL HAVE 4'-6" COVER.
6. NO SERVICE CONNECTIONS SHALL BE MADE TO THE WATER MAIN UNTIL THE MAIN HAS BEEN INSPECTED, HYDROSTATICALLY TESTED, DISINFECTED, PURITY TESTED AND RELEASED FOR TAPS.
7. TESTING WATER MAINS:
  - A. A TWO-HOUR HYDROSTATIC PRESSURE TEST SHALL BE PERFORMED AFTER THE INSTALLATION OF THE MAIN. TEST PRESSURE SHALL BE 150% OF THE NORMAL OPERATING PRESSURE AND NOT LESS THAN 150 PSI. WATER MAIN VALVES AND FIRE HYDRANT VALVES SHALL BE TESTED IN THE CLOSED POSITION. WATER MAIN VALVES SHALL BE OPERATED TO FULLY OPEN AND CLOSED PRIOR TO INSTALLATION.
  - B. DISINFECTION AND BACTERIOLOGICAL TESTING SHALL PROCEED IN ACCORDANCE WITH THE CITY POLICY. A COPY IS AVAILABLE IN THE ENGINEERING DIVISION AT THE GOVERNMENT CENTER ON HEBBLE AVENUE OR AT THE WATER-SEWER DEPARTMENT ON PIERCE DRIVE.
  - C. A FIVE-MINUTE HYDROSTATIC PRESSURE TEST SHALL BE PERFORMED AFTER THE INSTALLATION OF THE WATER SERVICE. TEST PRESSURE SHALL BE 120 PSI. A VISUAL INSPECTION SHALL BE PERFORMED BY CITY INSPECTOR ON ALL JOINTS UNDER NORMAL OPERATING PRESSURE.
8. 10' HORIZONTAL CLEARANCE IS REQUIRED BETWEEN WATER AND SEWER LATERALS AND MAINS UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.
9. UTILITY CROSSING:  
WATER LINE OVER SEWER: MINIMUM 18" VERTICAL SEPARATION. ONE FULL LENGTH OF WATER MAIN PIPE SHALL BE CENTERED AT THE POINT OF CROSSING SUCH THAT BOTH JOINTS WILL BE EQUIDISTANT AND AS FAR FROM THE SEWER AS POSSIBLE.  
WATER LINE UNDER SANITARY SEWER: MINIMUM 18" VERTICAL SEPARATION. ONE LENGTH (13' MINIMUM) OF PIPE SHALL BE CENTERED AT THE POINT OF CROSSING SUCH THAT EACH END IS EQUIDISTANT FROM THE WATER MAIN. ADEQUATE STRUCTURAL SUPPORT FOR THE SEWER IS REQUIRED.
10. SEE CITY OF FAIRBORN TRENCH DETAILS FOR BACKFILL REQUIREMENTS.
11. MATERIALS SHALL CONFORM TO THE FOLLOWING:
  - A. DUCTILE IRON PIPE SHALL CONFORM TO ANSI A 21.51 (AWWA C-151), CLASS 53
  - B. DUCTILE IRON PIPE FITTINGS SHALL CONFORM TO ANSI / AWWA 104 / A 21.4
12. THE FOLLOWING ARE ACCEPTABLE RESTRAINTS: MEGALUGS, CONCRETE THRUST BLOCKS.