

SANITARY INSTALLATION NOTES:

1. ALL GRAVITY PIPE SHALL BE SDR-26 SEWER PIPE SHALL MEET ASTM D-2241
2. INSTALLATION SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS, TOWN OF BETHLEHEM SPECIFICATIONS, AGENCY REQUIREMENTS, AND ALL APPLICABLE MANUFACTURERS SPECIFICATIONS.
3. BEDDING AND BACKFILL MATERIAL SHALL BE COMPAKTED TO A MINIMUM OF 95% OF THE STANDARD PROCTOR DENSITY. ALL BACKFILL MATERIAL SHALL BE NYSDOT ITEM 203.07.
4. PRIOR TO ANY WORK ON THE SANITARY SEWER, THE CONTRACTOR SHALL OBTAIN THE NECESSARY PERMITS FROM THE TOWN SEWER DEPARTMENT.

5. ALL SANITARY SEWERS OR EXTENSIONS TO SANITARY SEWERS, INCLUDING MANHOLES, SHALL SATISFY REQUIREMENTS OF A THINNING TEST BEFORE THEY WILL BE APPROVED AND WATERFED FLOW PERMITTED BY THE TOWN. AN INFILTRATION TEST MAY BE SUBSTITUTED FOR THE THINNING TEST, THE SAME RATE SHALL NOT BE EXCEEDED. THE TESTS SHALL BE CONDUCTED IN ACCORDANCE WITH THE TOWN OF BETHLEHEM SPECIFICATIONS. THE CONTRACTOR SHALL HAVE THE RESPONSIBILITY FOR MAKING PROPER AND ACCURATE MEASUREMENTS REQUIRED. THE INFILTRATION TEST CONSISTS OF FILLING THE PIPE WITH WATER TO PROVIDE A HEAD OF AT LEAST 5 FEET ABOVE THE TOP OF THE PIPE OR 5 FEET ABOVE GROUND LEVEL, WHICHEVER IS GREATER. THE TEST SECTION SHALL BE LOCATED IN A STRAIGHT SECTION OF PIPE, FROM THE PIPE SECTION UNDER TEST, BY THE AMOUNT OF WATER WHICH MUST BE ADDED TO MAINTAIN THE ORIGINAL LEVEL. HOWEVER, UNDER NO CIRCUMSTANCES SHALL THE HEAD AT THE DOWNSTREAM MANHOLE EXCEED TEN (10) FEET OR FILL TO WITHIN SIX (6) INCHES OF THE TOP OF THE DOWNSTREAM MANHOLE. IN THE TEST SECTION, THE WATER MUST REMAIN FOR A PERIOD OF AT LEAST ONE HOUR. THE MEASURED INFILTRATION SHALL BE MEASURED BY THE DROP OF WATER LEVEL IN A STANDPIPE AND PLUG ARRANGEMENT IN A STANDPIPE WITH A CLOSED BOTTOM END, OR IN ONE OF THE SEWER MANHOLES SERVING THE TEST SECTION. WHEN A STANDPIPE AND PLUG ARRANGEMENT IS USED IN THE UPPER MANHOLE IN THE TEST SECTION, THERE SHALL BE SOME POSITIVE METHOD FOR RELEASING ENTOMBED AIR AND TO TAKE MEASUREMENTS.

6. ALSO PRIOR TO INFILTRATION/THINNING TESTS, ALL PLASTIC PIPE IN THE TEST SECTION SHALL BE TESTED FOR DEFLECTION. DEFLECTION TESTING SHALL INVOLVE THE PULLING OF A RIGID BAR, OR MANDREL, WHOSE DIAMETER IS 90 PERCENT OF THE PIPE INSIDE DIAMETER, THROUGH THE PIPE. ANY LENGTH OF PIPE WITH A DEFLECTION GREATER THAN 5 PERCENT SHALL BE REPLACED. THE TEST SECTION SHALL BE FLUSHED JUST PRIOR TO DEFLECTION TESTING. THE TEST SHALL NOT BE PERFORMED WITH A MECHANICAL PULLING DEVICE.

7. ALL FORCE MAINS SHALL BE SUBJECTED TO HYDROSTATIC PRESSURE OF 150 PERCENT OF THE NORMAL OPERATING PRESSURE. THE TEST PRESSURE SHALL BE APPLIED TO THE MAINS FOR A PERIOD OF 24 HOURS. DURING THE TEST, THE PIPE SHALL BE FILLED WITH WATER AND ALL AIR SHALL BE EXPELLED. DURING THE TEST, WATER SHALL BE ADDED, AS NEEDED, TO MAINTAIN THE TEST PRESSURE. THE AMOUNT OF WATER ADDED SHALL BE RECORDED SO AS TO CALCULATE LEAKAGE. THE OWNER OF THE FORCE MAIN SHALL BE RESPONSIBLE FOR THE COST OF THE TEST. DURING THE TEST, THE OWNER AND THE SUPERINTENDENT SHALL WALK THE ROUTE OF THE FORCE MAIN AND EXAMINE THE EXPOSED PIPE AND THE GROUND COVERING ANY BURIED PIPE TO DISCOVER LEAKS. LEAKAGE IN EXCESS OF THAT SPECIFIED ABOVE SHALL BE CORRECTED WITHIN ONE DAY AT THE OWNER'S EXPENSE. THE TEST REPEATED, AND OBSERVED LEAKS SHALL BE REPAIRED AT THE OWNER'S EXPENSE. EACH TEST SECTION LENGTH SHALL BE AS APPROVED BY THE SUPERINTENDENT, BUT IN NO EVENT LONGER THAN ONE THOUSAND (1,000) FEET.

WATER SUPPLY NOTES:

1. ALL WATERMAINS SHALL BE CLASS 52 DUCTILE IRON PIPE. ALL FITTINGS SHALL HAVE A PRESSURE RATING OF 250 PSI. 2. PER THE LATEST EDITION OF AWWA STANDARD C600-99, THE WATERMAIN SHALL BE HYDROSTATIC PRESSURE TESTED AT 150 PSI FOR 2 HOURS. THE TEST PRESSURE SHALL BE APPLIED TO WATERMAINS ONLY. AFTER THE SPECIFIED PRESSURE TEST HAS BEEN COMPLETED AND ANY AND ALL REPAIRS HAVE BEEN MADE, THE WATERMAIN SHALL BE SUBJECTED TO A LEAKAGE TEST.

3. THE WATER LINE SHALL BE FLUSHED AND DISINFECTED PRIOR TO BACTERIOLOGICAL TESTING. CHLORINE LEVELS SHALL BE MONITORED AND ADJUSTED AS NECESSARY. THE WATERLINE SHALL NOT BE TURNED ON UNTIL THE TEST HAS BEEN COMPLETED AND THE TEST RESULTS HAVE BEEN RECEIVED BY THE NEW YORK STATE DEPARTMENT OF HEALTH. DISINFECTION SHALL BE PERFORMED IN ACCORDANCE WITH AWWA C651.99.

4. WATERMAINS AND SEWERS SHALL BE LOCATED SUCH THAT AN 18 INCH VERTICAL SEPARATION IS MAINTAINED AT POINTS WHERE THEY CROSS. ALSO, A 10'-0" HORIZONTAL DISTANCE BETWEEN THE TWO SHALL BE MAINTAINED IN AREAS WHERE THEY RUN PARALLEL. AT CROSSINGS, ONE FULL LENGTH OF WATER PIPE SHALL BE LOCATED SO THAT BOTH JOINTS WILL BE AS FAR FROM THE SEWER AS POSSIBLE.

5. WATERWORKS ARE TO BE CONSTRUCTED IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL STANDARDS AND SPECIFICATIONS. WATERLINE INSTALLATION SHALL BE IN ACCORDANCE WITH AWWA C600-99.

6. WATER SERVICE TO EACH BUILDING SHALL BE PROVIDED USING $\frac{3}{4}$ " TYPE K COPPER PIPE.

7. ALL D.I. PIPE TO BE USED SHALL MEET ALL APPROPRIATE AWWA STANDARDS.

8. PRESSURE AND LEAKAGE TEST SHALL BE PERFORMED ON THE WATER SYSTEM, AND RESULTS SHALL CONFORM TO ALL APPROPRIATE AWWA STANDARDS.

9. INDIVIDUAL WATER SERVICES TO BE INSTALLED AND METERED AS REQUIRED BY THE TOWN.

10. ALL WATERLINE MATERIALS SHALL BE IN COMPLIANCE WITH TOWN SPECIFICATIONS.

11. WATERLINE INSTALLATION SHALL BE IN COMPLIANCE WITH TOWN SPECIFICATIONS AND COORDINATED WITH THE APPROPRIATE AUTHORITIES. ALL MANUFACTURER'S DATA FOR VALVES, FITTINGS, HYDRANTS, AND APPURTENANCES SHALL BE SUBMITTED TO THE TOWN OF BETHLEHEM FOR REVIEW AND APPROVAL.

12. STERILIZATION & TESTING
-THE TOWN SHALL BE NOTIFIED AND HAVE A REPRESENTATIVE PRESENT FOR CHLORINATION.
-MAINS TO BE FLUSHED AND CHLORINATED, A CHLORINE RESIDUAL OF NOT LESS THAN 50PPM SHALL BE MAINTAINED IN THE WATERLINE.
-MAINS SHALL BE TESTED AT 150 PSI PRESSURE AT WHICH THEY SHALL NOT LOSE MORE THAN 0.74 GALLONS OF WATER PER 2 HOURS PER 1,000 FEET.



NOTE: 48 HOURS PRIOR TO ANY CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL CONTACT DIG SAFELY NEW YORK TO LOCATE ALL UNDERGROUND UTILITIES. 1-800-962-7962

6	2/7/17	REVISIONS PER TOWN COMMENTS	JCH	UNAUTHORIZED ALTERATION OR ADDITION TO THIS DRAWING IS A VIOLATION OF SECTION 7209 SUBDIVISION AND CONSTRUCTION OF NEW YORK STATE EDUCATION LAW. ONLY COPIES MADE FROM THE ORIGINAL DRAWING ARE TO BE USED. DRAWINGS ARE TO BE KEPT IN A SECURE AND ACCESSIBLE PLACE.	STATE OF NEW YORK FRANCIS J. GALLAGHER STATE PLANNING BOARD DAVID F. MCGOWAN, P.E. N.Y.S. LIC. NO. 064993
5	9/8/16	REVISIONS PER PRELIMINARY PLAT COMMENT	FJY	REVISIONS ARE TO BE CONSIDERED AS THE VALID, TRUE COPIES.	ingalls & associates, LLP engineering, environmental, surveying SCHEMECTODY, NY 12301 PHONE: (518) 202-7722 FAX: (518) 202-2504
3	6/27/16	REVISION PER TOWN COMMENT	FJY	REVISIONS ARE TO BE CONSIDERED AS THE VALID, TRUE COPIES.	ingalls & associates, LLP engineering, environmental, surveying SCHEMECTODY, NY 12301 PHONE: (518) 202-7722 FAX: (518) 202-2504
2	5/16/16	REVISION PER TOWN & TDE COMMENTS	CDL	REVISIONS ARE TO BE CONSIDERED AS THE VALID, TRUE COPIES.	ingalls & associates, LLP engineering, environmental, surveying SCHEMECTODY, NY 12301 PHONE: (518) 202-7722 FAX: (518) 202-2504
1	2/12/16	REVISIONS PER TOWN & TDE COMMENTS	CDL	REVISIONS ARE TO BE CONSIDERED AS THE VALID, TRUE COPIES.	ingalls & associates, LLP engineering, environmental, surveying SCHEMECTODY, NY 12301 PHONE: (518) 202-7722 FAX: (518) 202-2504
NO.	DATE:	REVISIONS	BY:	REVISIONS ARE TO BE CONSIDERED AS THE VALID, TRUE COPIES.	ingalls & associates, LLP engineering, environmental, surveying SCHEMECTODY, NY 12301 PHONE: (518) 202-7722 FAX: (518) 202-2504

PLANNING BOARD
TOWN OF BETHLEHEM
ALBANY COUNTY, NEW YORK
By direction of the Chairman
These sheets are original and approved.
See sheet(s) 300-1 for date and signature

TOWN OF BETHLEHEM PLANNING BOARD

UTILITY PLAN

BENDER FARMS

250 & 288 BENDER LANE

STATE OF NEW YORK

ALBANY COUNTY

TOWN OF BETHLEHEM

SCANNED BY: C.D.L.
DATE: 06/13/2015
JOB NO: 04-066 Utilities.dwg
SCALE: 1"=50'

Sheets 5 of 11