# SEWER DETAILS



**TEC Land Surveying, P.C.** 15C Tioronda Avenue Beacon, New York 12508

Landscape Designer: Landscape Restorations P.O. Box 286 Beacon, New York 12508

### SANITARY SEWER NOTES: 1. THE PROPOSED APARTMENTS ARE TO BE SERVED BY THE CITY OF BEACON

REQUIREMENT IS MET.

HOMEOWNERS ASSOCIATION.

MUNICIPAL SEWER SYSTEM. INSTALLATION OF ALL COMPONENTS SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY CODE. CHAPTER 179. 2. REFER TO THE DUTCHESS COUNTY DEPARTMENT OF HEALTH STANDARD NOTES FOR ADDITIONAL PERTINENT INFORMATION. 3. THE DUTCHESS COUNTY DEPARTMENT OF HEALTH, CITY OF BEACON CHIEF SEWER OPERATOR, AND THE CERTIFYING PROFESSIONAL ENGINEER SHALL BE NOTIFIED PRIOR TO COMMENCEMENT OF THE SEWER MAIN INSTALLATION. 4. SEWER MAIN MATERIAL SHALL BE 8" DIAMETER SDR-35 OR SDR-26 PVC BELL AND SPIGOT GRAVITY SEWER PIPE, WITH GASTIGHT AND WATERTIGHT JOINTS. 5. SEWER MAIN SHALL BE LAID IN STRAIGHT ALIGNMENT. MANHOLES SHALL BE CONSTRUCTED AT ALL CHANGES IN SLOPE, ALIGNMENT OR AT INTERVALS NOT EXCEEDING 400 LINEAR FEET. STRAIGHT ALIGNMENT SHALL BE VERIFIED BY DEFLECTION TESTING. 6. THE SEWER MAIN SHALL BE INSTALLED AND TESTED FOR EXFILTRATION PRIOR TO BEING PERMITTED TO OPERATE. ALL NEW SANITARY SEWER GRAVITY LINES SHALL PASS A LOW PRESSURE AIR TEST IN ACCORDANCE WITH ASTM C-828 AT A PRESSURE OF 3.5 PSI.

7. MANHOLES SHALL BE VACUUM TESTED IN ACCORDANCE WITH ASTM C-1244.

PRESSURE DROP EXCEEDS THE SPECIFIED AMOUNT, THE NECESSARY REPAIRS OR

REPLACEMENTS REQUIRED SHALL BE MADE TO REDUCE THE PRESSURE DROP TO

9. ALL SANITARY SEWER MAINS AND MANHOLES UP TO, BUT NOT INCLUDING, THE

WITHIN THE SPECIFIED LIMIT, AND THE TESTS SHALL BE REPEATED UNTIL THE

8. SERVICE LATERALS SHALL BE 4" DIAMETER SDR-35 PVC WITH A MINIMUM

EXISTING MANHOLE SHALL BE OWNED, OPERATED AND MAINTAINED BY THE

SLOPE OF 2%, UNLESS OTHERWISE NOTED ON THE PLAN.

- REDUCING WYE BRANCH <u>PLAN VIEW</u> - 45° BEND OR AS REQUIRED - PROPOSED SEWER MAIN PROFILE VIEW

2. SUITABLE RUN OF TRENCH SHALL NOT INCLUDE FROZEN MATERIALS, DEBRIS, ORGANIC MATERIALS, LARGE STONES OR OTHER UNSUITABLE MATERIALS. IF THE RUN OF TRENCH MATERIAL IS FOUND TO BE UNSUITABLE, A SUITABLE BACKFILL

SANITARY SEWER SERVICE CONNECTION DETAIL NOT TO SCALE

# WATER NOTES:

1. THE PROPOSED BUILDING IS TO BE SERVED BY THE CITY OF BEACON MUNICIPAL WATER SYSTEM. INSTALLATION OF ALL COMPONENTS SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY CODE, CHAPTER 219 2. REFER TO THE DUTCHESS COUNTY DEPARTMENT OF HEALTH STANDARD NOTES FOR ADDITIONAL PERTINENT INFORMATION. 3. THE WATER MAIN SHALL BE INSTALLED, PRESSURE TESTED AND LEAKAGE TESTED IN ACCORDANCE WITH THE LATEST EDITION OF AWWA C600 (SEE NOTES BELOW). 4. THE DUTCHESS COUNTY DEPARTMENT OF HEALTH, CITY OF BEACON WATER OPERATOR, AND THE CERTIFYING PROFESSIONAL ENGINEER SHALL BE NOTIFIED PRIOR TO COMMENCEMENT OF THE WATER MAIN INSTALLATION. 5. THE WATER MAIN SHALL BE DISINFECTED IN ACCORDANCE WITH THE LATEST EDITION OF AWWA C651 (SEE NOTES BELOW). 6. WATER MAIN MATERIAL SHALL BE CLASS 52 CEMENT LINED DUCTILE IRON PIPE WITH MECHANICAL JOINTS AND SHALL MEET THE REQUIREMENTS OF AWWA C150 AND ANSI A21.51. 7. MEGALUG RESTRAINING SYSTEMS SHALL BE USED AT ALL FITTINGS, VALVES AND HYDRANTS (SEE SCHEDULE ON SHEET 14). 8. GATE VALVES SHALL BE MUELLER RESILIENT WEDGE, NON-RISING STEM, MECHANICAL JOINT. 9. HYDRANTS SHALL BE A-423 MUELLER CENTURION, WITH A MUELLER GATE VALVE BEFORE THE HYDRANT. 10. SERVICE LINES SHALL BE 3/4" COPPER K, UNLESS OTHERWISE NOTED ON THE PLAN. 11. THE CONTRACTOR SHALL VERIFY THE EXISTING WATER MAIN MATERIAL AND BE PREPARED TO PROVIDE A SPECIAL COUPLING FOR CONNECTION OF THE PROPOSED DUCTILE IRON WATER MAIN. 12. A PRESSURE REDUCING VALVE SHALL BE INSTALLED FOR EACH NEW TOWNHOME, WATTS MODEL 25AUB-Z3 OR EQUAL AS APPROVED BY THE CITY OF BEACON WATER DEPARTMENT. 13. THE CITY OF BEACON SHALL OWN, OPERATE AND MAINTAIN THE WATER MAIN THROUGHOUT THE SITE, INCLUDING ALL APPURTENANCES. 14. THE HOA OR OWNER SHALL ANNUALLY EXERCISE ALL WATER VALVES.

WATER MAIN PRESSURE & LEAKAGE TESTING GENERAL: ALL PIPING SHALL BE TESTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE LATEST EDITION OF AWWA C600, EXCEPT AS ADDED OR AMENDED BELOW: 1. THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY FOR ANY AND ALL REQUIRED PIPE TAPS FOR TESTING, AND AS NECESSARY FOR TESTING AS SPECIFIED. EQUIPMENT WILL BE SUCH THAT THE ENGINEER MAY INSTALL HIS OWN PRESSURE GAUGE. 2. A PRESSURE TEST AND LEAKAGE TEST ARE REQUIRED FOR ALL PIPE 3. TESTING TO BE PERFORMED ONLY AFTER PARTIAL OR COMPLETE BACKFILL AND RESTRAINT BLOCKING (USING HIGH EARLY CEMENT) HAS HAD 36 HOURS TO CURE OR BLOCKING USING STANDARD CEMENT HAS HAD 7 DAYS TO CURF. 4. THE MAIN SHALL BE PARTIALLY BACKFILLED OR BRACED AGAINST MOVEMENT DURING THE TEST. ALL AIR MUST BE BLED OUT OF THE SECTION TO BE TESTED. IF NECESSARY, CONTRACTOR SHALL INSTALL CORPORATION STOPS AT THE HIGH POINTS, FOR BLOW-OFFS. AFTER ALL AIR HAS BEEN EXPELLED, THE CORPORATION COCKS

SHALL BE CLOSED AND THE PRESSURE TEST APPLIED. AFTER EXAMINATION OF EXPOSED PARTS OF THE SYSTEM, THE TEST PRESSURE SHALL BE INCREASED TO 1 1/2 TIMES THE NORMAL PRESSURE, BASED UPON THE ELEVATION OF THE LOWEST POINT IN THE LINE OR SECTION UNDER THE TEST, BUT SUCH PRESSURE SHALL NOT BE LESS THAN 150 PSI NOR MORE THAN 200 PSI, AND EXPOSED PARTS AGAIN EXAMINED. THE MINIMUM DURATION OF THE LEAKAGE TEST SHALL BE TWO (2) HOURS. 5. ALLOWABLE SYSTEM LEAKAGE AS SPECIFIED IN THE REFERENCED STANDARDS. IF LEAKAGE IN SYSTEM IS GREATER THAN ALLOWABLE, CONTRACTOR WILL LOCATE AND REPAIR SYSTEM AT HIS EXPENSE AND RETEST, CONTINUE TO TEST AND REPAIR THE SYSTEM UNTIL LEAKAGE IS WITHIN ACCEPTABLE LIMITS. 6. NO DUCTILE IRON PIPE INSTALLATION WILL BE ACCEPTED IF THE LEAKAGE IS GREATER THAN THAT DETERMINED BY THE FOLLOWING FORMULA: L = SD√P

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L = LEAKAGE IN GALLONS PER HOURS = LENGTH OF PIPE TESTED, IN FEETD = NOMINAL DIAMETER OF PIPE IN INCHES

P = AVERAGE TEST PRESSURE DURING LEAKAGE TEST, IN PSI (GAUGE)

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Sheet 11 of 11 - Water & Sewer Details

## 23 - 28 Creek Drive Beacon, New York Scale: 1" = 20'

October 23, 2018