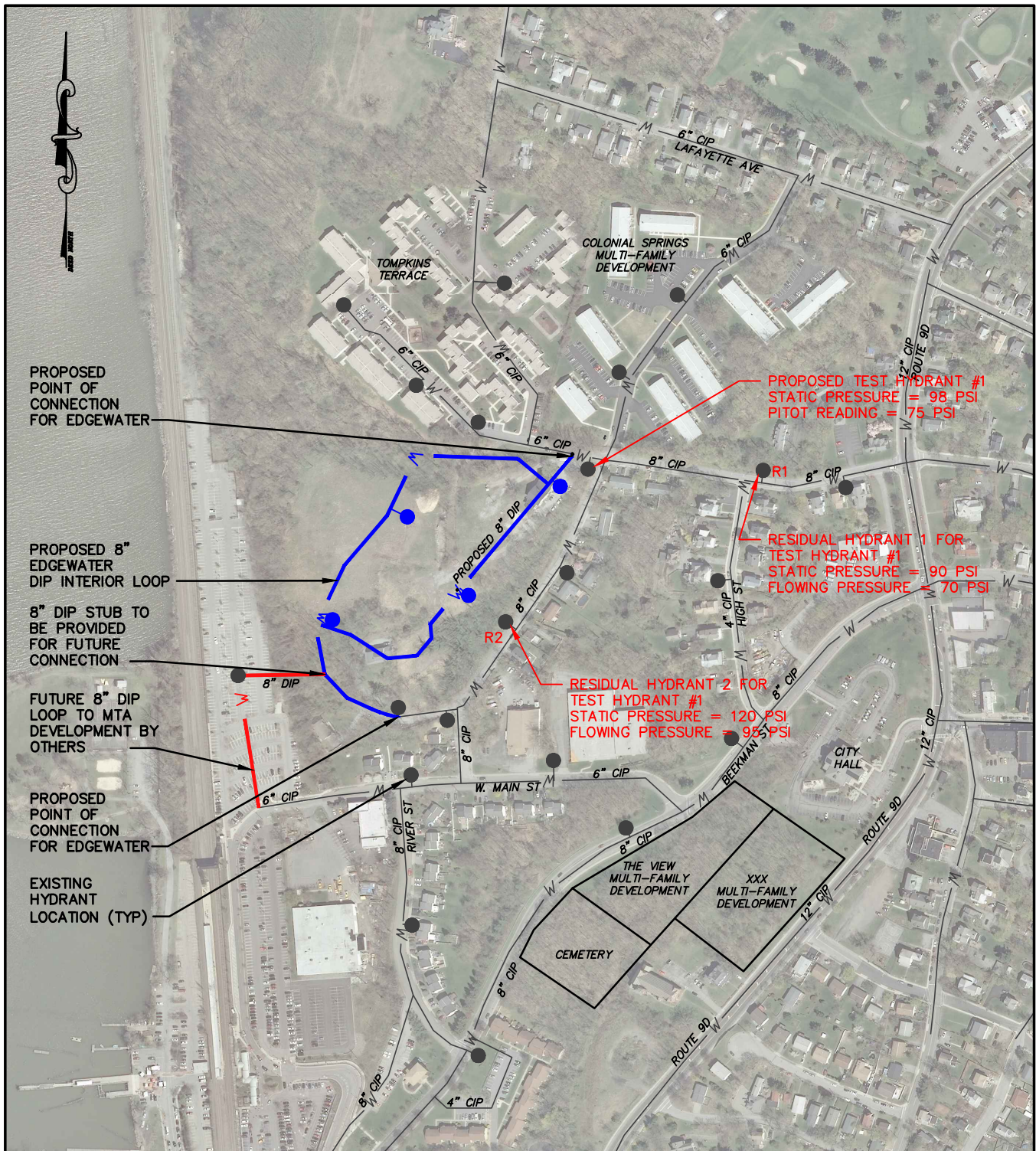




WATER MAIN TEST MAP 1

SCALE: 1" = 400'

DATE: MAY 2, 2017

(REVISED MAY 25, 2017)

PREPARED FOR:
SCENIC BEACON DEVELOPMENTS, LLC

9-11 CREEK DRIVE

CITY OF BEACON

DUTCHESS COUNTY, NEW YORK

TAX PARCEL 5954-25-566983, 574979, 582985, & 5955-19-590022



PREPARED BY:
HUDSON LAND DESIGN
PROFESSIONAL ENGINEERING

174 MAIN STREET
BEACON, NY 12508
PH: 845-440-6926

Job: Edgewater
Job No.: 2016'015
Description: Hydrant Flow Test #1
Prep. By: AG Date: 5/25/2017
Check By: MAB Date:

Hydrant Flow Test #1

Location: Edgewater Place
Personnel: M. Bodendorf, B. Butler, A. Gasparre
Test date: 5/16/2017
Test time: 11:30 p.m.

Tested (Observed) Flow:

Hydrant ID: 1 Static Pressure: 98 psi
Location: Corner of Bank St and Tompkins Ave.
Calculated Discharge (Q_r): $Q_r = 29.83(c_d)(D^2)(P_p^{0.5})$
Where:
Nozzle Size (D): 2.5 inches
Pitot Reading (P_p): 65 psi
Friction Loss Coefficient (c_d): 0.9 (0.9 typical for smooth 2.5" opening)
Calculated Q_r : 1353 gpm

Calculated Available Flow:

Residual Hydrant ID: 1
Location: Corner of High St & Tompkins Terrace
Calculated Fire Flow (Q_f): $Q_f = Q_r((P_s - P_f)/(P_s - P_r))^{0.54}$
Where:
Static pressure (P_s): 90 psi
Residual pressure (P_r): 70 psi
Desired pressure at fire flow (P_f): 20 psi
Calculated Q_f : 2661 gpm
Hydrant Classification/Color⁽¹⁾: Class AA - Light Blue

Calculated Available Flow:

Residual Hydrant ID: 2
Location: Western Side of Bank Street, North of W. Main St
Calculated Fire Flow (Q_f): $Q_f = Q_r((P_s - P_f)/(P_s - P_r))^{0.54}$
Where:
Static pressure (P_s): 120 psi
Residual pressure (P_r): 95 psi
Desired pressure at fire flow (P_f): 20 psi
Calculated Q_f : 2860 gpm
Hydrant Classification/Color⁽¹⁾: Class AA - Light Blue

Notes:

- 1) Per AWWA C502. Color shall be as designated in Federal Standard 595B, top and nozzle caps to be painted.
- 2) Consult with local water operator to verify color schemes and parts to be painted.
- 3) Hydrant colors shall signify only the approximate capacity of the individual hydrant as tested alone, and not its capacity when more than one hydrant in the vicinity is in use. The marking of the hydrant is not to be considered as in any way guaranteeing the capacity indicated by the color.