



## EXETER PUBLIC WORKS DEPARTMENT

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October 15, 2015

United States Environmental Protection Agency  
Region I – New England  
5 Post Office Square – Suite 100  
Boston, MA 02109-3912  
Attn: Joy Hilton, Water Technical Unit (Mail Code: OES04-3)

**Re:** Quarterly Progress Report for the third quarter of 2015; July 1, 2015 to September 30, 2015, per Administrative Order Docket # 010-024, Town of Exeter.

Dear Ms. Joy Hilton:

This report is for the calendar quarter ending September 30, 2015. This report details efforts taken to reduce, and ultimately prevent, Combined Sewer Overflow (CSOs) and Sanitary Sewer Overflows (SSOs) in the Town of Exeter.

**Combined Sewer Overflow (CSOs) this quarter:** None

**Sanitary Sewer Overflows (SSOs) this quarter:** None

**The following Planning and Operation & Maintenance activities were undertaken during this second quarter, 2015, reporting period:**

- **Five Year Cycle of Sewer Cleaning and CCTV Inspections to date ending this Quarter:**  
To date this year there has been 20,135 feet/3.8 miles of cleaning (high pressure jetting) followed by CCTV-NASSCO (National Association of Sewer Service Companies) inspection on lines not previously cleaned/inspected within the last 5 year cycle (street list & distances attached). Work will resume in the fourth quarter upon completion of fall water main flushing. On June 11, 2015 the sewer inspection van and camera were upgraded by Bahr Sales, Inc., Wallingford, CT with a NASSCO software module loaded in to a new Granite laptop computer. Also, a new “Lite Stick” manhole inspection camera was purchased concurrently with the rebuilt wheeled pipe camera. The three NASSCO certified inspectors (certified May 1<sup>st</sup>) utilized the new manhole camera to find three very poor

manhole bottoms (inverts) requiring rebuilding. This work planned for the fourth quarter of 2015.

**Regularly Scheduled Repeat Quarterly “High Maintenance” Cleaning (jetting)**

**Activities:** In the fourth quarter the second semi-annual 8,510 linear feet (LF) of “high maintenance” areas will be cleaned. This includes the town’s two Squamscott River 8” siphons. were also cleaned (jetted) using the Town’s jet/vactor truck (field notes attached). Other CMOM fourth quarter semi-annual cleaning/inspection tasks to include the WWTP grit removal system and lagoon #1 main inlet, the Water Street main pumping station wet well/inlet interceptor and Webster Avenue lift station.

- **Sewer User Ordinance (SUO) Enforcement and Private Sewer CMOM Education & Outreach Program:** During this third quarter the mail reply deadline was extended for the May 20th mass mailing of private I&I educational fliers, policy/introductory letters and a return mail homeowner compliance response questionnaire. Underwood Engineering had received many response letters requesting Town DPW staff to provide on-site inspections as requested by the building owners.
- The Pine Meadows Condominium Association requested CMOM training and an inspection of its private collection system. This was done on September 25<sup>th</sup> with the association’s board of directors. All residents received a copy of the NHDES flier “What’s Flushable”. The association also retained a private sewer service company (*m2 facility solutions*) to CCTV the collection system.
- **Improvements in Sewer Mapping Updates and “as built” Digitizing:** The Town has completed updating its collection system mapping and geographical information systems (GIS) as required for the June 30<sup>th</sup>, 2015 deadline. The Pine Meadows Condominium Association provided collection system maps to the Town. The Town will continue to work with collection system owners and/or consultants to attempt full mapping as time and budget allow.
- **Capital Improvement Projects, Measures and Programs Implemented or Planned by the Town and/or Private Collection systems in 2014 to Resolve CMOM Deficiencies:**
- **277 Water Street, Main Lift Station Upgrade:** As reported in the second quarter a contractual agreement with Wright-Pierce Engineering titled “*Engineering Design Phase Contract for Professional Services for Treatment Works*” at \$3,211,300, was signed on April 7th. Currently at 30% design, a capacity of 9.0 MGD, one new additional 16” force main and a fourth pump (versus current 3) is planned. All pumps will be new. Peak flow may be 11 MGD.

- **Lincoln Street Water & Sewer Project:** This capital improvement project is primarily a water project. However, the sewer component includes the replacement of 250 linear feet of sewer pipe and two manholes. The sewer improvements will occur in spring/summer 2016 following new water main completion. CMA Engineering is the design consultant.
- **Court Street Lift Station Upgrades & Maintenance:** This station is located downstream of the Linden Street portion of the Town's collection system-this section of the system has historically experienced many SSOs. During the second quarter the last of the three 20 horsepower lift pumps (#1) was rebuilt and reinstalled. A new second sewage grinder was purchased and will be installed in the fourth quarter in conjunction with new a ventilation system, lighting and electrical wiring. Ewing Electric Inc. is the electrical contractor and Palmer & Sicard for ventilation.
- **Upgrade/Replacement of Lift Station Programmable Logic Controllers (PLCs):** Five of the Town's ten lift stations have had their ten year old *Modicon* programmable logic controllers (PLCs) replaced with new *Allen-Bradley* units to date. PLCs are the "brains" of the pump stations and control all functions and provide alarms. The older *Modicon* units have a battery powered back-up memory which is more prone to lose memory versus modern solid state memory units. Also, *Modicon* programming is proprietary and a delay in service is experienced as an outside vendor for service must be used. The Town previously procured Allen-Bradley PLC software and can correct programming problems without delay. The remaining five stations are currently in budget deliberations for FY 2016 to receive this control system upgrade.
- **Continued Infiltration & Inflow Investigations & Corrections:** Underwood Engineers were again contracted ("*CSO LTCP Engineering Assistance*" @ \$54,400) for continued investigation for sources of I&I and in rechecking suspected sources listed in previous reports from Camp, Dresser and McKee. *Flow Assessment Services, LLC* was the Underwood subcontractor. A formal full report for the year's results will be included with the 2016 Annual CMOM Implementation Report due January 31<sup>st</sup>, 2016. In August of this third quarter the *Phillips Exeter Academy* campus buildings that were not visited, or listed as "inconclusive" last summer, were completed. The Water Street commercial district was also smoke/dye tested and inspected for sump pumps (map attached). A number of roof leaders and sump pumps were discovered.
- **Sewer Manhole Repairs Completed:** There were not any manhole repairs/replacements during this second quarter. However, as noted above, by use of the Town's new "Lite Stick" camera, three manholes were identified (SMH 834, 1386 and 663) for immediate invert rebuilding. This is planned for the fourth quarter of 2015, maps are attached with this report.

Please call if you have any questions or need any additional information.

Sincerely,



Michael Jeffers  
Water & Sewer Managing Engineer  
Town of Exeter, New Hampshire

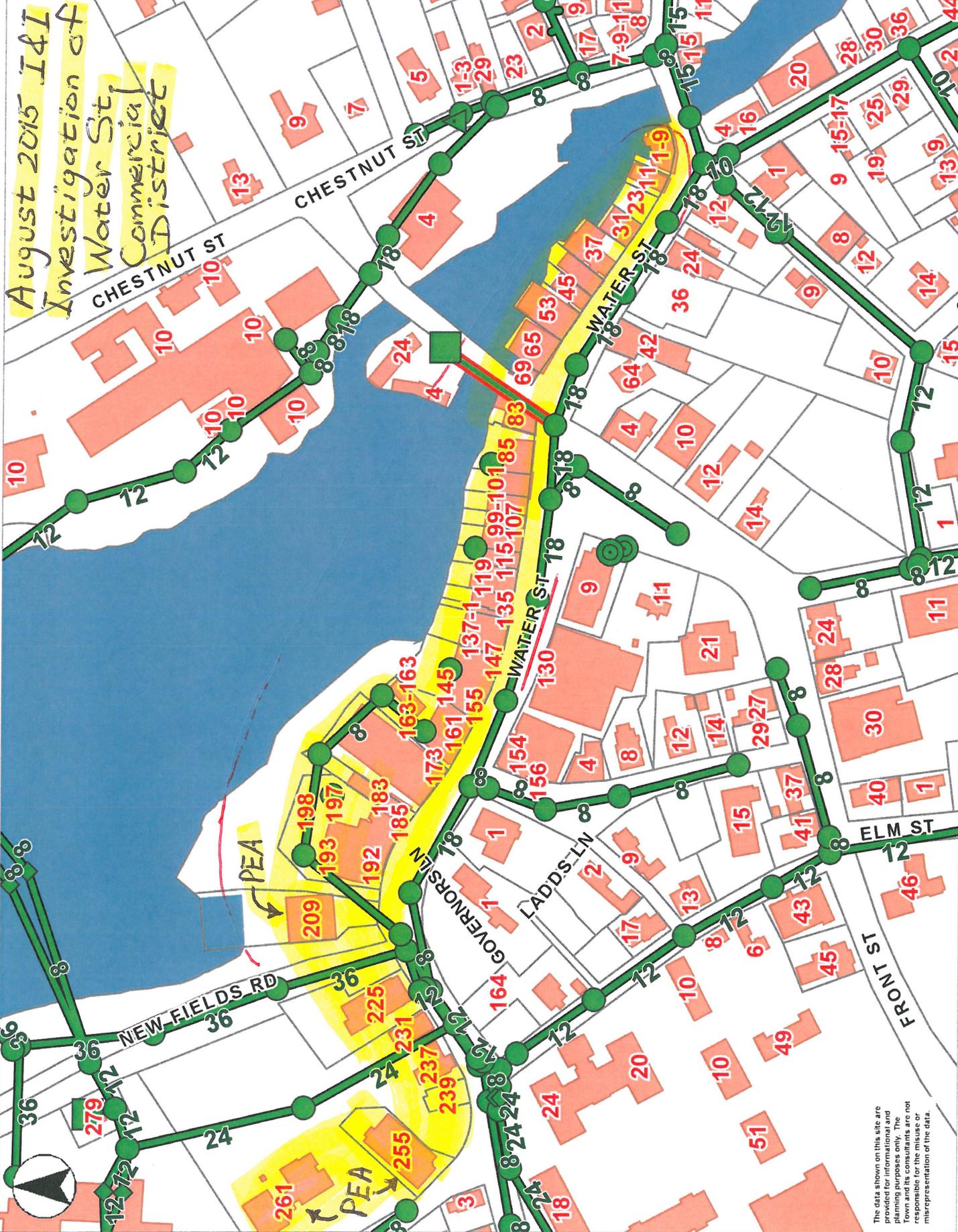
cc. Tracy Wood, P.E., NHDES Wastewater Engineering Bureau  
Russell Dean, Town Manager  
Jennifer Perry, DPW Director  
Paul Vlasich, P.E., Town Engineer  
Michael Jeffers, Water & Sewer Managing Engineer  
Steve Dalton, Senior Operator

*Town of Exeter, NH; 5 year CCTV/ Jet Cleaning as reported 3rd quarter, 2015.*

Street	Footage
Problem areas / Two Rounds	
Lincoln street	2113
Tremont Street	437
Daniel Street	155
Dartmouth Street	529
Harvard Street	500
Rockingham Street	971
Winter Street	2960
Front Street	1320
Linden Street	1217
Spruce Street	1114
Spruce Court	351
P.E.A X-Country	2363
Franklin Street	558
South Street	707
Browns Court	313
River Street	786
River Street Extention	261
Elm Street	882
Elliot Street	1067
Grove Street	868
Hilliard Circle	327
Grove Court	336
<b>Total as of 10-7-2015</b>	<b>20135</b>
<b>Inverts to be repaired SMH 834, 1386, 663</b>	



- Wastewater Structures
  - Cap
  - Clean Out
  - Deflection
  - Grease Trap
  - Manhole
  - Other
  - Pump Station
  - Septic Tank
  - Temporary
  - Wastewater Inlet
  - Force Mains
  - Sewer Pipes
- NH Highways
  - Interstate
  - US Highway
  - State Highway
- Town Boundary
- Abutting Towns
- Streets
- Misc Streams
- Parcel Streams
- Open Water
- Buildings

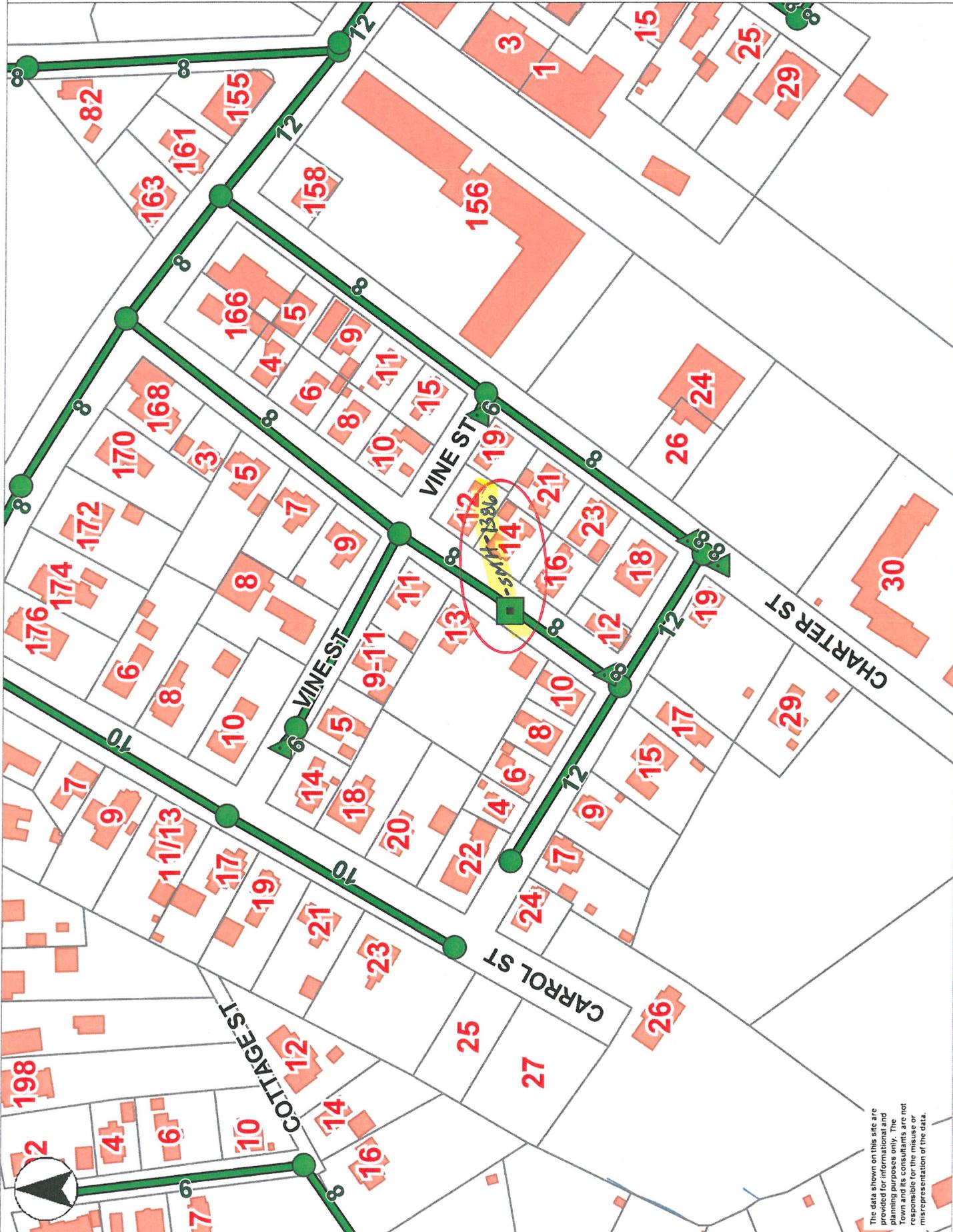


The data shown on this site are provided for informational and planning purposes only. The Town and its consultants are not responsible for the misuse or misrepresentation of the data.





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