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February 27, 2018  
Revised April 24, 2018

Mr. John Gunn, Chairman  
City of Beacon Planning Board  
1 Municipal Center  
Beacon, NY 12508

Re: Infiltration and Inflow Investigation  
1181 North Avenue Professional Building Subdivision and Special Use Permit  
1181 North Avenue  
City of Beacon, New York  
Tax ID: 5955-19-716048 ( $\pm 0.70$  acres)

Dear Chairman Gunn,

Hudson Land Design (HLD) has completed an infiltration and inflow investigation at the above referenced parcel as required by the City of Beacon. The investigation was conducted on January 08, 2018 at the existing building located at 1181 North Avenue, which consists of a two-story framed building. Follow up investigations were performed on April 17 and 18, 2018.

The first phase of the study consisted of an exterior inspection of the building to determine the location of roof leader discharge points. The two-story building has a "Hip" roof consisting of multiple hips and ridges, as well as a covered front porch. There are multiple roof leaders discharging from the existing building.

From the January investigation, it was determined that the building has approximately ten (10) downspouts that collect and conveys the runoff to underground PVC piping. It was presumed that the PVC piping discharged into the two catch basins in the existing parking lot. The one gutter, not entering an underground pipe, discharges to the surface in the grassed area and flows towards an existing catch basin. The presumed discharge was not tested as weather did not permit.

The second phase of the January 2018 study consisted of interior inspection of the building in an attempt to determine if there are any illicit connections to the building sewer line from sump pumps, floor drains and the like. HLD personnel were able to

observe sections of interior sanitary sewer plumbing to the point where the piping was routed through the easterly foundation wall of the residence (located generally in the northeast corner of the building). The pipe reputedly collects the wastewater from the residence and then flows easterly towards the City of Beacon's North Avenue sanitary sewer collection system. At no point along the length of the visible portion of the line did HLD personnel observe any discharges other than from the standard plumbed fixtures.

There was one (1) sump pump observed in the basement. The sump pump was observed to pump collected water through the southern foundation wall towards into the same underground collection system for the roof drainage. No floor drains were observed at 1181 North Avenue.

The April 2018 investigation sought to corroborate the presumed discharge location of the PVC piping. Water was piped into the PVC piping at the roof downspout locations from a hose. Referring to the attached sketch, the downspout locations color coded in red were found to discharge into the existing catch basin also color coded in red. These were generally the downspouts on the north side of the building.

For the southern downspout locations, water was added but not directly observed entering into the onsite catch basins. HLD personnel then returned to the site on April 18, 2018 and added dye at the southern downspout locations and determined that those discharge directly into the existing storm pipe discharge from the southern onsite catch basin. These have been color coded blue on the attached sketch. The one roof discharge to the surface has been color coded green.

Based on the above, there were no illicit discharges from the existing building to the City's sanitary sewer system observed.

Should you have any questions, please feel free to call me at 845-440-6926.

Sincerely,

A handwritten signature in black ink, appearing to read "Daniel G. Koehler", with a long horizontal flourish extending to the right.

Daniel G. Koehler, P.E.  
Principal

cc: Dr. Norm Schofield (via email)  
Jon D. Bodendorf, P.E. (HLD file)

INV IN=97.63' (4" PLASTIC)  
INV OUT=97.03' (12" PLAS

PROPOSED S  
STOCKPILE L

LOT 2  
TOTAL AREA:  
14,909 SQ. FT  
0.34 ACRES

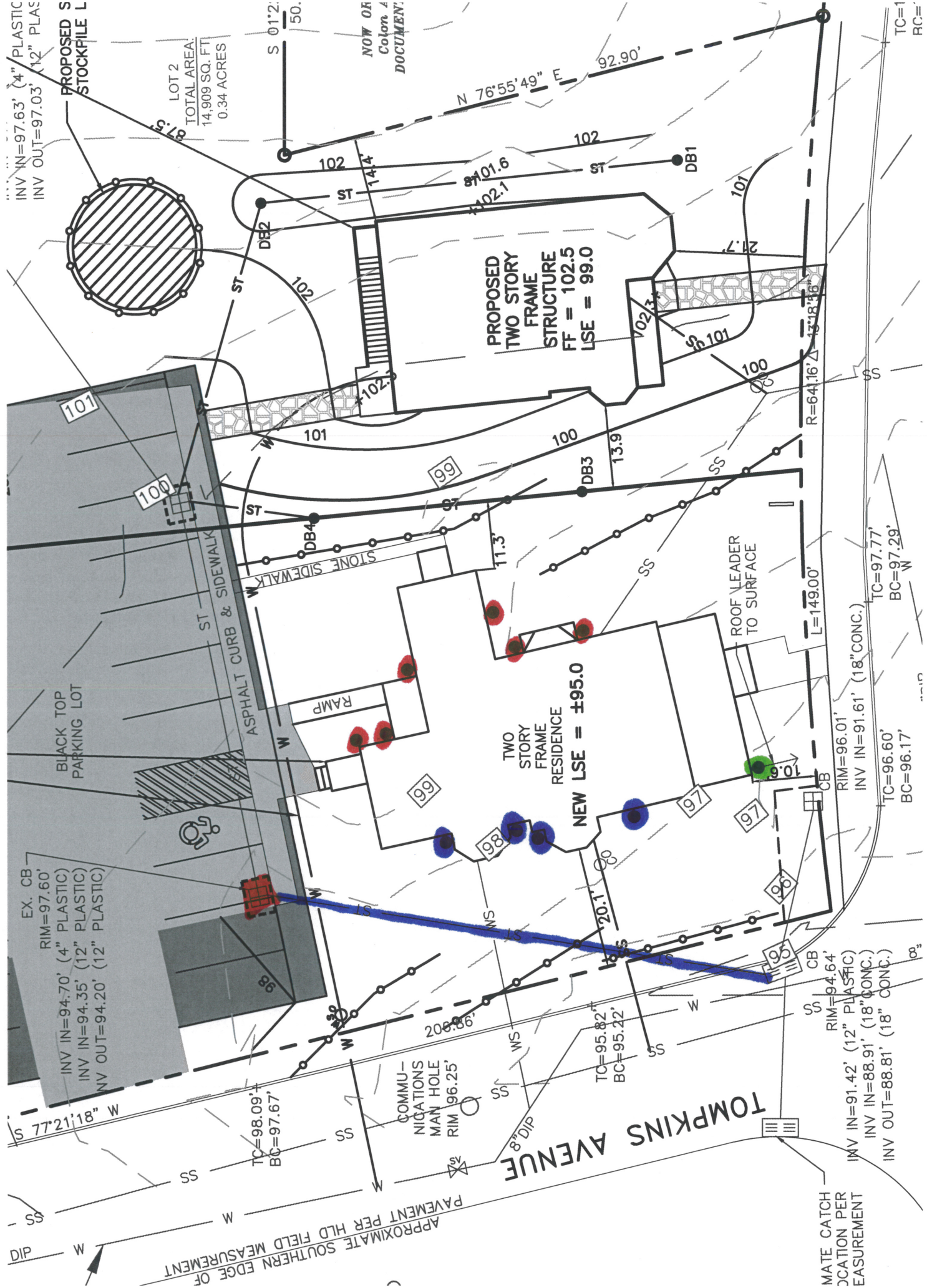
NOW OR  
Colon A  
DOCUMENT

PROPOSED  
TWO STORY  
FRAME  
STRUCTURE  
FF = 102.5  
LSE = 99.0

TWO  
STORY  
FRAME  
RESIDENCE  
NEW LSE = ±95.0

TOMPKINS AVENUE

MATE CATCH  
LOCATION PER  
EASUREMENT



APPROXIMATE SOUTHERN EDGE OF  
PAVEMENT PER HLD FIELD MEASUREMENT