



## **Guidance Relating to Con Edison Subsurface Structures for Submissions to the DOB for Crane or Derrick Notices**

In the event you are installing cranes and derricks in New York City, please note that Con Edison maintains many subsurface structures located in the public rights of way, such as vaults, service boxes and manholes. In connection with applications to the New York City Department of Buildings for permits for the placement of cranes and derricks, the crane or derrick notice engineer has obligations to design the installations taking into account the loads imposed on these subsurface structures.

Specifically, the crane or derrick notice engineer has the obligation to comply with all applicable laws, rules, regulations, codes relating to these subsurface structures, including but not limited to those obligations pursuant to DOB's crane rule, 1 RCNY §3319-01.

Crane or derrick notice engineers must perform an investigation into the design of the Con Edison subsurface structures within the vicinity of its project area. At a minimum, this should include a visual inspection to determine the location of each such subsurface structure, in order to enable an engineering assessment of loads imposed on them.

Con Edison subsurface structures are typically no deeper than 10 feet from grade to top of structure floor and no wider or longer than 16 feet from exterior edge to edge. If exterior walls of subsurface structures are not visible, they would be no more than 10 feet from the center of the casting cover in any direction (note that the cover may not necessarily be located at the center of the structure). The crane or derrick notice engineer may elect to utilize these dimensions for the locations and depths of the structures, or may perform further investigations to determine the locations and depths, including but not limited to the following examples: surveys, street maps, laser measurements or GPR technology.<sup>1</sup>

In designing the supports for the crane or derrick:

1. Supports for the crane or derrick, and associated construction equipment, shall not impede Con Edison's operating crews from accessing and operating the subsurface structures, or equipment access points such as valve boxes. Structures shall remain fully accessible 24 hours a day, 7 days a week.

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<sup>1</sup> If needed, the crane or derrick notice engineer may request that Con Edison search its archival records for additional information regarding the dimensions of a particular structure by selecting "New Service Request", choosing a "Non-Service Request" type, and then choosing "Other", through the Company's Project Center via <https://www.coned.com/en/small-medium-size-businesses/building-project-center> (unless there is an existing project case requesting electric, gas, or steam (MC-#####)).

2. No vertical loads shall be imposed directly on or above the subsurface structure.
3. Vertical loads may be imposed on the street when the horizontal distance from such imposed load to the wall of the subsurface structure equals or exceeds the depth of the structure. Thus, assuming a depth of 10 feet, any loads imposed at or further from 10 feet horizontally from the wall of the subsurface structure would obviate the need for further analysis. Where a shallower depth is ascertained, the horizontal distance could be reduced proportionally and still obviate the need for further analysis.
4. Vertical loads may be imposed on the street when the horizontal distance from such imposed loads to the wall of the subsurface structure is less than the depth of the structure, provided that the lateral loads imposed on the wall of the subsurface structure are no greater than those imposed by the application of the American Association of State Highway and Transportation Officials (AASHTO) HS-20 load criteria.
5. Calculations by the crane or derrick notice engineer shall indicate the distances from the loads to the exterior walls of the structure and to the depth of the structure. Such calculations shall be retained by the crane or derrick engineer for the prescribed statutory period as provided for in any applicable laws, rules, or regulations including, but not limited to, the Rules of the Board of Regents, 8 NYCRR §29.3(a)(4). The crane or derrick notice engineer shall be solely responsible for the design assumptions and methodology.
6. The crane or derrick notice engineer should follow good Professional Engineering principals and best practices, such as conducting inspections to identify any other variables affecting conditions in its project area, and, although the placement of a crane or derrick may not involve excavation, calling 811 “Call Before You Dig” and identifying to the 811 operator that your work involves the placement of a crane or derrick on the public right of way.

In any submission to the Department of Buildings, the crane or derrick notice engineer shall include the following certification (signed, sealed and dated): “I certify that any loads imposed on Con Edison subsurface structures are in accordance with *Guidance Relating to Con Edison Subsurface Structures for Submission to the DOB for Crane or Derrick Notices (rev 2/12/2020)* and that all calculations were performed in accordance with the AASHTO HS-20 load criteria”.