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C3802 **** Supersedes ComElectric CUDS Specification 1-0796, Section G2****

**RECOMMENDED MINIMUM CLEARANCES FROM THREE-PHASE DISTRIBUTION
TRANSFORMER FOUNDATION TO BUILDINGS, BUILDING OPENINGS, LANDSCAPING,
OR TRAVELED WAY**

1.0 PURPOSE

The purpose of this standard is to illustrate guidelines for minimum clearances when locating pad mounted distribution transformers near buildings, traveled way, landscaping and other obstructions.

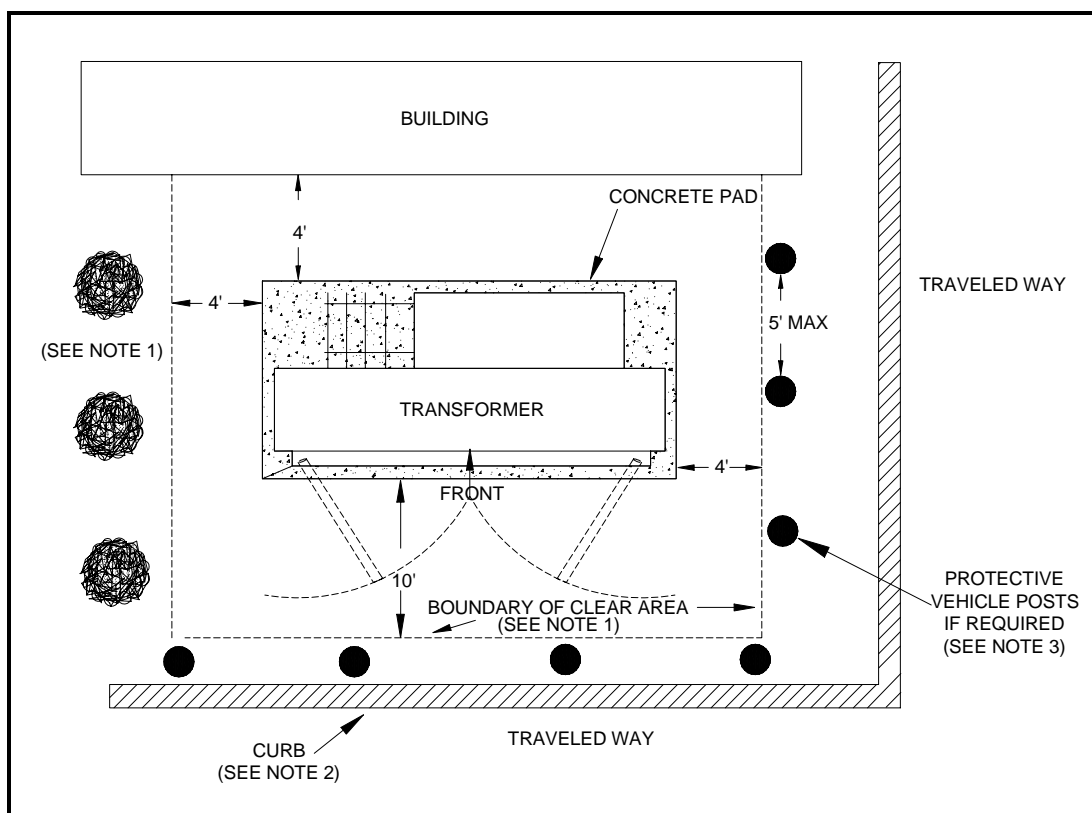


Figure 1 – Minimum Clearances

Notes:

1. The above Specified clear area distances to buildings, landscaping or other structures shall be maintained to: inspect, provide access, perform switching and ventilate the transformer.
2. If no curb exists, or transformer is located closer than 10 feet to the traveled way, protective vehicle posts shall be installed on exposed sides as specified.
3. Vehicle posts shall be 4" galvanized steel pipe minimum, filled with concrete and extend 42" above and below grade. Larger diameter posts may be required for some installations.
4. Minimum clearance from emergency generators (not shown) shall be 20'-0" minimum, unless separated by an 8" block wall, 8'-0" high, 4' minimum from pad. The length of wall shall be determined by NSTAR depending upon the transformer dimensions.
5. Approval of NSTAR Construction Supervisor required for clearances less than recommended minimums.

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2.0 NON-COMBUSTIBLE WALLS

Padmounted type transformers may be located as close as four feet to any non-combustible wall if the following clearances are maintained from doors, windows and other building openings. (See Figure 1).

2.1 Padmounted type transformers shall not be located within a zone extending twenty feet outward and ten feet to either side of a building door. (See Figure 2)

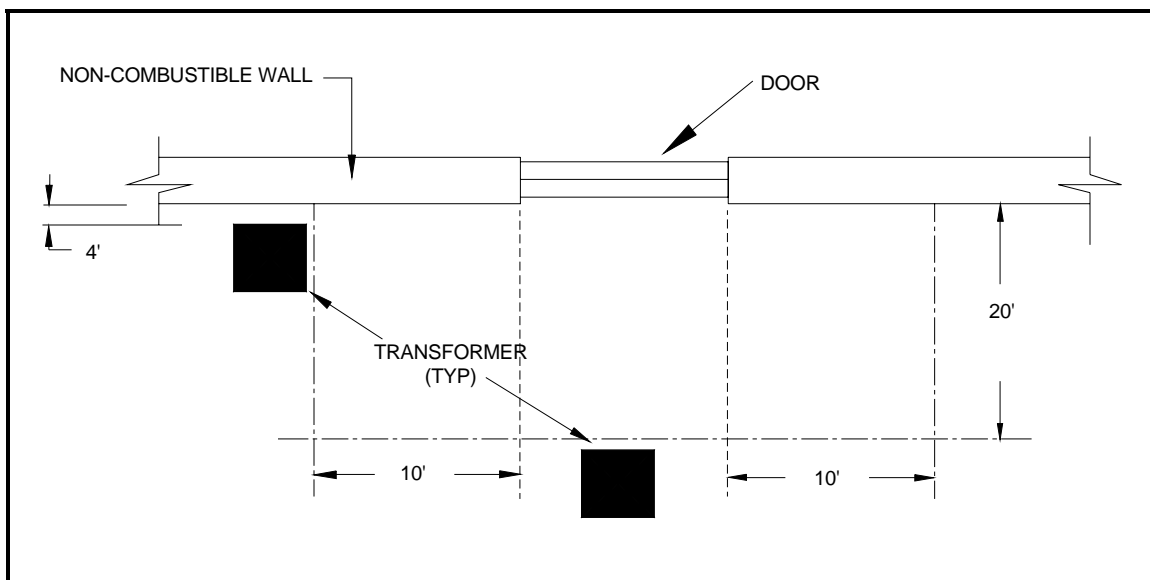


Figure 2 – Clearance From Door (Non-Combustible Wall)

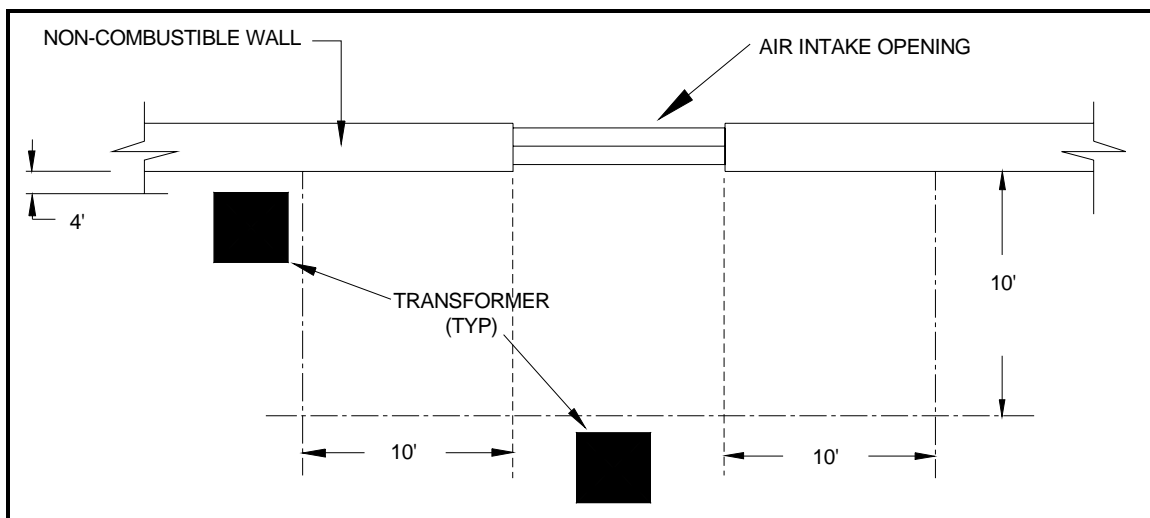


Figure 3 – Clearance From Air Intake (Non-Combustible Wall)

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2.0 Non-Combustible Walls, cont'd

- 2.2 Padmounted type transformers shall not be located within a zone extending ten feet outward and 10 feet to either side of an air intake opening. If the air intake opening is above the transformer, there must be a twenty-five foot vertical distance from the opening to the transformer. (See Figure 3)
- 2.3 Padmounted type transformers shall not be located within a zone extending ten feet outward and three feet to either side of a building window. (See Figure 4)
- 2.4 For second story windows, the transformer shall not be located less than five feet from any part of said window. (See Figure 5)

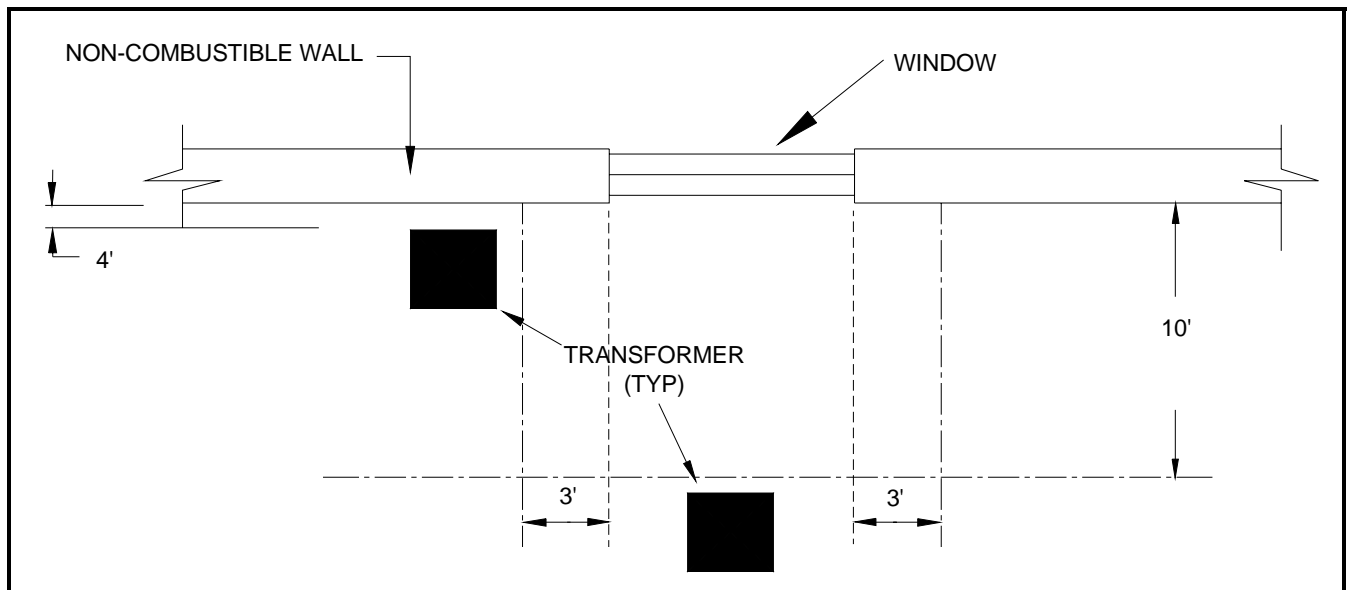


Figure 4 – Clearance From Windows (Non-Combustible Wall)

3.0 COMBUSTIBLE WALLS

- 3.1 Padmounted type transformers in sizes up to 100kVA shall be located according to the provisions set forth for non-combustible walls.

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3.0 Combustible Walls, cont'd

3.2 Padmounted type transformers in sizes above 100kVA shall be located a minimum of ten feet from the building wall in addition to the clearances from building doors, windows and other openings set forth for non-combustible walls. Also, a sump shall be installed for transformers in sizes exceeding 400kVA if the immediate terrain is pitched toward the building. Consult with local NSTAR Engineer for sump specifications and additional requirements.

4.0 FIRE ESCAPES

Padmounted type transformers shall be located such that a minimum clearance of twenty feet is maintained from fire escapes at all times.

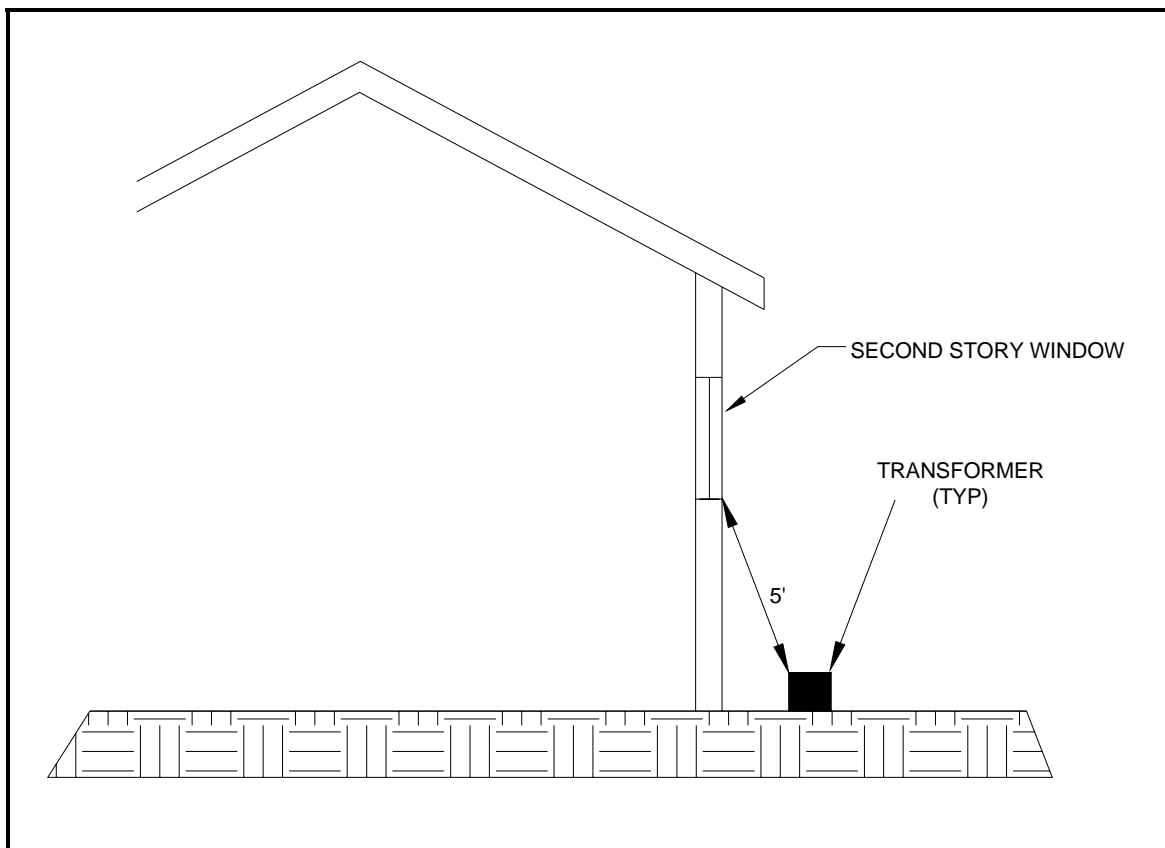


Figure 5 – Clearance From Second Story Window

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