



Information Bulletin:

Revised ES54 F – Transformer Pads & Vaults, and ES54 H – Ducts

1.0 Items Covered

ES54	F0-02	Transformer Pads and Vaults General Notes
ES54	F1-03	Single-Phase Low-Profile Transformer Pad Pyramid Pad
ES54	F5-01	Cast-in-Place Conversion Pad 1000 kVA and Smaller Construction Details
ES54	H0-02	General Duct Notes
ES54	H1-01	General Trenching Details URD, UD, and Feeder Installations
ES54	H1-03	General Trenching Details Duct Entry at Pads
ES54	H2-04	Concrete Encasement Minimum Reinforcing Details
ES54	H4-01	Duct Clearances to Other Utilities

2.0 Overview

ES54 F0-02 has been revised as follows:

- (a) Expanded section *Transformer Installation Near Customer Buildings and Structures* to include vegetation on the perimeter of the unobstructed area.

ES54 F1-03 has been revised as follows:

- (a) Removed note on concrete encasement of duct entries for higher pulling tensions.

ES54 F5-01 has been revised as follows:

- (a) Removed note on vegetation on the perimeter of the unobstructed area.

ES54 H0-02 has been revised as follows:

- (a) Revised concrete encasement of ducts requirement list.
- (b) Added Table 2 outlining concrete encasement requirement for ducts in relation to sidewall bearing pressure, duct length, duct size, and duct type.
- (c) Added specifications for root deflectors.
- (d) Revised wording for proper terminology of pulling twine and pulling rope where applicable.

ES54 H1-01 has been revised as follows:

(a) Revised wall penetration section and added figure for reference.

ES54 H1-03 has been revised as follows:

(a) Removed notes 1 and 3 which stated:

1. *For pulls exceeding a tension of 5.5 kN, concrete encasement of ducts is required one metre outside the pad and extending within the perimeter of the pad.*
3. *In installations where duct sidewall bearing pressure exceeds 3.3 kN/m, the following installation procedures should be followed:*
 - a. *Install FRE bend, c/w a PVC adaptor coupling.*
 - b. *Concrete-encase the PVC duct bend."*

The designer shall reference section H0-02 to determine concrete encasement requirements.

ES54 H2-04 has been revised as follows:

(a) Updated typical rebar location drawing by removing minimum rebar locations. Minimum reinforcing shall be designed by a Professional Engineer.

ES54 H4-01 has been revised as follows:

(a) Revised terminology from clearances to separations.

The affected standards have all been revised for updated formatting and editing.

3.0 Action

The revised standards are effective September 2022.

Designers and Engineers




Designers and engineers shall reference the latest revisions of ES54 F0-02, F1-03, and F5-01 when designing for transformer pads and vaults. These changes are not intended to affect in-flight projects.

Designers and engineers shall reference the latest revisions of ES54 H0-02, H1-01, H1-03, H2-04, and H4-01 when designing ducts for underground residential distribution (URD), underground distribution (UD), and feeder installations. These changes are not intended to affect in-flight projects.

4.0 Distribution Standards Contact

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5.0 Approval

Recommended		Reviewed		Approved	
					
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Date:	2022-09-07	Date:	2022-09-07	Date:	2022-09-07