

## Architect/Engineer Seal on Drawings

Charts A, B and C provide a quick reference to determine if Section 54.1-402 of the Code of Virginia requires an architect's or engineer's (A/E) seal on drawings for the proposed construction.

### CHART A – GENERAL DESIGN

A proposed structure which is classified within any of the categories marked “Yes” requires an A/E seal on the plans. Separate requirements apply for electrical, plumbing, or mechanical systems (see charts B & C).

Use Group	Description	Square Footage			Stories	
		5,000 & under	5,001 – 15,000	Over 15,000	3 or less	Over 3
A**	Assembly	Yes	Yes	Yes	Yes	Yes
B	Business	-	Yes	Yes	-	Yes
E*	Education (Schools, Day Care Centers)	Yes	Yes	Yes	Yes	Yes
F	Factory	-	-	Yes	-	Yes
H	High Hazard	Yes	Yes	Yes	Yes	Yes
I	Institutional	Yes	Yes	Yes	Yes	Yes
M	Mercantile	-	Yes	Yes	-	Yes
R-1	Hotel, Motel, Dorm	Yes	Yes	Yes	Yes	Yes
R-2	Multi-Family Residential	-	-	-	-	Yes
R-3	1 & 2 Family Attached	-	-	-	-	Yes
R-4	1 & 2 Family Detached	-	-	-	-	Yes
S	Storage	-	-	Yes	-	Yes
U	Utility & Miscellaneous	-	-	-	-	-

\* Educational type uses with a total occupant load less than 50 shall be classified as Use Group B.

\*\* Assembly (churches) are exempt if building does not exceed 5,000 square feet or three stories, and the occupant load is does not exceed 100.

#### NOTES:

1. A local building official may require an A/E seal even if not required to do so by this chart.

2. The law requires that, where an A/E seal is not present, the plans must be signed by the individual (not company) responsible for the design, including his/her occupation and address.
3. The above chart applies to new construction and to additions or remodeling which involves a change in occupancy (i.e. use group, occupancy load (i.e. increase in allowable occupancy), modification of the structural system, change in access or exit, or increase in fire hazard. Additions or remodeling which do not involve any of these factors may not require an A/E seal under 54.1 of the Code of Virginia, although notes 1 and 2 still apply.
4. Any unique design of structural elements for floor, roofs, walls, or foundations requires an A/E seal, regardless of whether or not the remainder of the plans require such certification.
5. Buildings, structures, or electrical and mechanical installations which are not otherwise exempted but which are of standard design, provided they bear the certification of a professional engineer or architect registered or licensed in another state, and provided that the design is adapted for the specific location and conformity with local codes, ordinances and regulations, and is so certified by a professional engineer or architect licensed in Virginia may not require an A/E seal.

### **CHART B – ELECTRICAL DESIGN**

A proposed electrical system which is classified within any of the categories marked “Yes” requires an A/E seal on the plans those marked with an asterisk may not require an A/E seal only if designed by a licensed master electrician or Class A electrical contractor (see notes 2 and 4). Separate requirements apply as to whether the mechanical systems of the general design of such structures require an A/E seal (see charts A & C).

		Building in which located				Electrical System			
		Height (stories)		Occupant Load		Voltage		Amperage	
Use Group	Description	3 or Less	Over 3	100 or	over	600 or	Over	800 or	Over
A-1	Theaters	*	Yes	*	Yes	*	Yes	*	Yes
A-2	Dance Halls	*	Yes	*	*	*	Yes	*	Yes
A-3	Restaurants, etc.	*	Yes	*	*	*	Yes	*	Yes
A-4	Churches ONLY	*	Yes	*	*	*	Yes	*	Yes
A-5	Grandstands, etc.	*	Yes	*	*	*	Yes	*	Yes

B	Business	*	Yes	*	*	*	Yes	*	Yes
E	School & Day Care Centers	Yes							
F	Factory & Industry	*	Yes	*	*	*	Yes	*	*
H	High Hazard	Yes							
I	Institutional,	Yes							
I	General Day Nurseries & Clinics w/o life support systems	*	Yes						
M	Mercantile	*	Yes	*	*	*	Yes	*	Yes
R	Residential	*	Yes	*	*	*	Yes	*	Yes
S	Storage	*	Yes	*	*	*	Yes	*	Yes
U	Utility & Miscellaneous	*	Yes	*	*	*	Yes	*	Yes

**\* NOTES:**

1. A local building official may require an A/E seal even if not required to do so by this chart.
2. The law requires that, where an A/E seal is not present, the plans must be signed by the individual (not company) responsible for the design, including his/her occupation and address.
3. The above chart applies to new construction and to additions or remodeling which involves a change in occupancy (i.e. use group, occupancy load (i.e. increase in allowable occupancy), modification of the structural system, change in access or exit, or increase in fire hazard. Additions or remodeling which do not involve any of these factors may not require an A/E seal under 54.1 of the Code of Virginia, although notes 1 and 2 still apply.
4. Any unique design of structural elements for floor, roofs, walls, or foundations requires an A/E seal, regardless of whether or not the remainder of the plans require such certification.
5. Buildings, structures, or electrical and mechanical installations which are not otherwise exempted but which are of standard design, provided they bear the certification of a professional engineer or architect registered or licensed in another state, and provided that the design is adapted for the specific location and conformity with local codes, ordinances and regulations, and is so certified by a professional engineer or architect licensed in Virginia may not require an A/E seal.

## CHART C - PLUMBING & MECHANICAL DESIGN

A proposed plumbing or mechanical system classified within any of the categories marked “Yes” requires an A/E seal on the plans. Those marked with an asterisk may not require an A/E seal only if designed by a person licensed as a master plumber, master mechanical worker, or a class A contractor in those specialties by written examination (see notes 3&5). Separate requirements apply as to whether the electrical system or the general design of such structures requires an A/E seal (see charts A & B).

Buildings in which located						Plumbing and Mechanical Systems (see Note 1)	
Use Group	Description	Height (Stories)		Occupant Load		Below Threshold Level	Above Threshold Level
		3 or Less	Over 3	100 or Less	Over 100		
A-1	Theaters	*	Yes	*	Yes	*	
A-2	Dance Halls	*	Yes	*	*	*	Yes
A-3	Restaurants, etc.	*	Yes	*	*	*	Yes
A-4	Churches ONLY	*	Yes	*	*	Yes	Yes
A-5	Grandstands, etc.	*	Yes	*	*	*	Yes
B	Business	*	Yes	*	*	*	Yes
E	School & Day Care Centers	Yes	Yes	Yes	Yes	Yes	Yes
F	Factory & Industry	*	Yes	*	*	*	Yes
H	High Hazard	Yes	Yes	Yes	Yes	Yes	Yes
I	Institutional,	Yes	Yes	Yes	Yes	Yes	Yes
I	General Day Nurseries & Clinics w/o life support systems	*	Yes	*	*	*	Yes
M	Mercantile	*	Yes	*	*	*	Yes
R	Residential	*	Yes	*	*	*	Yes
S	Storage	Yes	*	*	*	*	Yes
U	Utility and Miscellaneous	*	Yes	*	*	*	Yes

NOTES:

1. The “Threshold Level” is defined in the law as “Plumbing and mechanical systems using packaged mechanical equipment, such as equipment of cataloged standard design which has been coordinated and tested by the manufacturer, which comply with all applicable code. These mechanical systems shall not exceed gauge pressures of 125 pounds per square inch, other than refrigeration, or temperatures other than flue gas of 300 degrees F (150)...”
2. A local building official may require an A/E seal even if not required to do so by this chart.
3. The law requires that, where an A/E seal is not present, the plans must be signed by the individual (not company) responsible for the design, including his/her occupation and address
4. The above chart applies to new construction and to additions or remodeling.
5. The exemption for electrical contractors and electricians is applicable only when both design and installation are under his/her direction or control.