

A/E REVIEW CHECKLIST

ELECTRICAL

☑Reviewers should - Use Checklists when reviewing any type of VA construction project for the following disciplines:

- Site and Landscape,
- Architectural,
- Structural,
- Plumbing, Fire Protection, and Sanitary,
- Heating, Ventilating, and Air Conditioning (HVAC),
- Steam Generation,
- Steam Distribution,
- Incineration/Solid Waste, and
- Electrical.

☑Reviewers should - Insure that A/E Submission Instructions (PG-18-15) for Schematic, Design Development, and Construction Documents are followed for various types of VA construction projects.

☑Reviewers should - Insure that every VA construction project is in compliance with all life safety issues.

☑Reviewers should - Be aware that these checklists are not all-inclusive but only provide minimum review items.

A/E CHECKLIST

TITLE _____ **PROJECT NO.** _____
LOCATION _____ **DATE** _____
REVIEWED BY _____
ORGANIZATION _____

GENERAL INFORMATION FOR REVIEWERS	
ELECTRICAL REVIEW	
The reviewer should be thoroughly familiar with the following VA standards before conducting a design review. These are available at: http://www.cfm.va.gov/TIL/ .	
1.	DESIGN MANUALS (PG-18-10)
2.	MASTER CONSTRUCTION SPECIFICATIONS (PG-18-1)
3.	STANDARD DETAILS (PG-18-4)
4.	DESIGN AND CONSTRUCTION PROCEDURES PG-18-3 (formerly Construction Standards) (H-18-3) (Policies defining the minimum level of excellence in the design of VA facilities)
5.	DESIGN GUIDES (PG-18-12) (Graphic information on specific programs in the design development of VA facilities)
6.	DESIGN ALERTS (These alerts are issued on a regular basis for design and construction related issues)
7.	A/E QUALITY ALERTS (These alerts are issued to guard against common and repeat design errors)
8.	A/E SUBMISSION INSTRUCTIONS, PROGRAM GUIDE PG-18-15
9.	TECHNICAL SUMMARIES
10.	NATIONAL CAD STANDARD and VA NATIONAL CAD STANDARD APPLICATION GUIDE

A/E CHECKLIST

TITLE _____ **PROJECT NO.** _____
LOCATION _____ **DATE** _____
REVIEWED BY _____
ORGANIZATION _____

SCHEMATICS		
ELECTRICAL REVIEW		
NO.	ITEM	COMMENTS/ YES/NO/NA
1	General Provisions For New Buildings - In addition to items given below check all requirements for buildings, switchgear rooms, transformer rooms, elevator machine rooms, electrical closets, telecommunications rooms, etc. per Design and Construction Procedures Topic 8 and the Electrical Design Manual.	
	a. Dual means of egress from transformer vaults, switchgear rooms, switchboard (over 1200 amps) rooms and generator rooms or buildings.	
	b. Stack Electrical Closets and Telecommunications Rooms vertically.	
	c. Show quantity of electrical closets on a floor: Maximum distance of the farthest branch circuit to the nearest closet shall not exceed 75 ft.	
	d. All closets shall be free of columns inside.	
	e. Electrical rooms and shall be located above the Base Flood Elevation. Electrical rooms shall not be located beneath toilets, showers, laboratories, kitchens, sinks, open courtyards, planters, roof drain leaders, cooling towers, or other areas where water service is provided. Pipes containing liquids or gases shall not pass through these rooms.	
	f. Provide doors that open under simple pressure leading from the switchgear rooms, electrical rooms, transformer vaults, generator rooms and elevator machine rooms. The doors shall swing in the direction of exit travel.	
2	Electrical metering for buildings as required in the VA Electrical Design Manual.	

A/E CHECKLIST

TITLE _____ **PROJECT NO.** _____
LOCATION _____ **DATE** _____
REVIEWED BY _____
ORGANIZATION _____

SCHEMATICS		
ELECTRICAL REVIEW		
NO.	ITEM	COMMENTS/ YES/NO/NA
3	Coordinate drawings with other technical disciplines	
4	Compliance with VA National CAD Standard Application Guide and applicable National CAD Standard modules	

A/E CHECKLIST

TITLE _____ **PROJECT NO.** _____
LOCATION _____ **DATE** _____
REVIEWED BY _____
ORGANIZATION _____

DESIGN DEVELOPMENT		
ELECTRICAL REVIEW		
NO.	ITEM	COMMENTS/ YES/NO/NA
1	All electrical rooms, transformer vaults and closets shall not be located directly below showers, laboratories, kitchens, dishwashing areas or other areas where water service is provided. Pipe containing liquids or gases shall not pass through these rooms. See Physical Security Design Manual.	
2	Compliance To Design and Construction Procedures/ NEC/...	
	a. Requirements for Essential Electrical system distribution follow NEC 517-30/517-40 and Electrical Design Manual .	
	b. Requirements for Primary and Secondary transformation and distribution equipment are per Electrical Design Manual.	
	c. Receptacles, mounting heights as required in different areas (see Electrical Design Manual)	
	d. Raceways required in Fluoroscopic, Radiographic and Deep Therapy rooms (see Electrical Design Manual).	
	e. Raceway systems as required in Electrical Design Manual. (1) All wiring shall be installed in raceways. (2) Underground raceways shall be encased in concrete.	
3	Alarms: Nonflammable medical gas and medical- surgical vacuum systems. See Electrical Design Manual and NFPA 99.	
	a. Master alarm panels required at the telephone switchboard and engineering control center or boiler plant.	
	b. Area alarms provided at nurses stations where medical gas systems are installed.	

A/E CHECKLIST

TITLE _____ **PROJECT NO.** _____
LOCATION _____ **DATE** _____
REVIEWED BY _____
ORGANIZATION _____

DESIGN DEVELOPMENT		
ELECTRICAL REVIEW		
NO.	ITEM	COMMENTS/ YES/NO/NA
4	Miscellaneous Alarms (see Electrical Design Manual), such as Blood Bank refrigeration, Medical Gas System Alarm and others.	
5	Electrical sub-metering equipment as required by the Electrical Design Manual, and sustainability requirements.	
6	Lightning Protection System: See Electrical Design Manual.	
7	Fire Alarm Systems: See Fire Protection Design Manual	
8	Coordinate drawings with other technical disciplines	
9	Compliance with VA National CAD Standard Application Guide and applicable National CAD Standard modules.	

A/E CHECKLIST

TITLE _____ **PROJECT NO.** _____
LOCATION _____ **DATE** _____
REVIEWED BY _____
ORGANIZATION _____

CONSTRUCTION DOCUMENTS		
ELECTRICAL REVIEW		
NO.	ITEM	COMMENTS/ YES/NO/NA
1	Requirements for Essential and Standby Electrical System distribution; follow Electrical Design Manual.	
2	Requirements for primary and secondary transformation and distribution equipment (see Electrical Design Manual).	
3	Receptacles, mounting heights as required in different areas (see Electrical Design Manual).	
4	Raceways required in Fluoroscopic, Radiographic and Deep Therapy rooms (see Electrical Design Manual).	
5	Raceway systems (see Electrical Design Manual):	
	a. Install all wiring in raceways.	
	b. Encase underground raceways in concrete.	
6	Alarms: Nonflammable medical gas and medical- surgical vacuum systems (see Electrical Design Manual) and NFPA 99:	
	a. Master alarm panels required at the Telephone Console Room and Engineering Control Center.	
	b. Area alarms provided at nurses stations where medical gas systems are installed.	
7	Miscellaneous Alarm Systems (see Electrical Design Manual): Blood Bank refrigeration, Medical Gas System Alarm and others.	
8	Lightning Protection System: (see Electrical Design Manual).	

A/E CHECKLIST

TITLE _____ **PROJECT NO.** _____
LOCATION _____ **DATE** _____
REVIEWED BY _____
ORGANIZATION _____

CONSTRUCTION DOCUMENTS		
ELECTRICAL REVIEW		
NO.	ITEM	COMMENTS/ YES/NO/NA
9	Fire Alarm Systems: See Fire Protection Design Manual	
10	Coordinate drawings with other technical disciplines	
11	Compliance with VA National CAD Standard Application Guide and applicable National CAD Standard modules	