



Standards and Procedures  
Security Room Construction/Renovations  
At  
University of North Carolina Wilmington

Rev 062017  
Provided by UNCW Physical Security and Access

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## Overview

This document defines the requirements of the security rooms by Physical Security and Access.

The purpose of this documentation is to ensure the security room meets all the requirements set forth by Physical Security and Access.

## Cable Installation

All cabling shall be installed in a manner that will protect the cable from damage during installation, facilitate cable management and identification and provide a neat and groomed appearance. The horizontal cables shall be bundled in the Access Control Security room ladder tray, using **Velcro** cable ties. Plastic ty-wraps are not allowed in the Access Control Security room.

## Security Room

The security room will be used for access control/CCTV equipment only. For security reasons, this space cannot be shared by other building services, such as Housekeeping, HVAC, Electrical, etc.

1. The swing of the security room doors must always open into the hallway.
2. All Communications Rooms shall have direct access to the hallway or other such corridor.
3. Security room should be provided a minimum of one (1) standard drop for each interior wall mounted 82 inches AFF to the TOP of the outlet.
4. Security rooms should not contain any type of sinks or be used as storage for Custodial or any other such supplies.
5. Security rooms should not be used for storage of any kind (i.e. Books, Furniture, A/C Filters, Light Bulbs, AV Equip. etc....).
6. Floors in security rooms should be sealed concrete or tile. Carpeted floors are unacceptable due to the associated static electricity they create, posing a threat of damage to sensitive access control and CCTV security electronics.
7. A minimum space of 10' X 10' X 8'H is required for all Security Rooms. Square foot size: 10,000 sq ft 10'x11', 8,000 sq ft 9'x10' and 5,000 sq ft 7'x10'.
8. Security room walls shall be covered in ¾" non-fire rated plywood horizontally, be void free and finished on one side with each board mounted 4 inches AFF (Above Finished Floor) the total perimeter of the room. The non-fire rated plywood shall be painted with at least two (2) coats of fire resistant white paint on all six (6) sides. The final paint finish shall be clear of footprints, markings, etc. and be a smooth finished product, NO exceptions.

9. All Security rooms shall be equipped with a solid copper grounding bus bar ¼ inches thick by 4 inches high with compression fittings and standoff brackets with insulators on the security room backboard.
10. Bus bars shall be connected by a backbone of insulated, solid copper (minimum #6 awg, with 3/0 recommended). This backbone is connected to a main grounding bus bar in the electrical entrance facility that is tied back to the building's grounding system. This point should be at an electric panel per NEC 2005 standards. Chatsworth grounding bar 10622-010 is in use on the campus. The grounding bar will be mounted above the horizontal cable tray in the security room.
11. All cables shall be routed into the security rooms through overhead ladder racking to include a bridge to the equipment rack. The ladder racking will be 18" minimum width. The racks and ladder racking will be properly anchored to the floor and grounded.
12. Lighting, HVAC, Perimeters and dust design considerations tia/eia-569-A shall also be followed. Security rooms on a limited basis may be able to have shared low voltage space in the telecommunications room.
13. Fire alarm panels are not to be mounted in the security room.
14. All electrical outlets shall be mounted 15 inches AFF to the TOP of the outlet.
15. All electrical outlets shall be on Emergency Generator circuits. If the building does not have an Emergency Generator the circuits will be installed for ease of switchover if an Emergency Generator is installed.
16. No electrical conduits, refrigerant pipes, water pipes, HVAC ducting or piping or any type of wiring for non-related security devices maybe installed thru the overhead ceiling, walls or the flooring.
17. Dedicated duplex 20 amp 110vac outlets on separate circuits are required. Convenience outlets will be mounted at 3 ft. intervals around the perimeter.
18. Security rooms shall not include false ceilings. All surfaces shall be treated to reduce dust. Walls and ceiling shall be painted white to improve visibility.
19. HVAC: 24 hours/day, 365 days a year, 64 degrees to 75 degrees Fahrenheit, 30 to 55% humidity, positive pressure. The security room shall not have any type of heat supplied due to temperature interference with security components.
20. Lighting: Typically, 8.5 ft. high providing 50 ft candles @ 3 ft. above floor.
21. Dust: less than 100 micrograms /cubic meter/24-hour period.
22. Each security room shall include one (1) 7' x 19" aluminum equipment rack, to include a patch panel that matches the same provided for the telecommunications closet. Each rack will also house a minimum of one (1) rack-mounted surge suppressor or UPS. In addition, a fiber connection from the telecommunications room shall be provided.

23. Security room rack should include a 24-port network switch provided by Networking/Communications.
24. The security room equipment rack shall include 6-strand single mode fiber optic with lucid connectors. It shall also include one (1) 25 pair power sum.
25. Security rooms shall also include one (1) Lenel iClass keypad card reader per Access Control Door Standards.

## **Inspection**

### **Damages**

The Contractor shall be held responsible for any and all damages to portions of the building caused by it, its employees or subcontractors; including but not limited to:

- All Damage to any portion of the building caused by the movement of tools, materials or equipment.
- All Damage to any component of the construction of spaces “turned over” to the Contractor.
- All Damage to the electrical distribution system and/or other space “turned over” to the Contractor.
- All Damage to the electrical, mechanical and/or life safety or other systems caused by inappropriate operation or connections made by the Contractor or other actions of Contractor.

Other damage to the materials, tools and/or equipment of UNCW, its consultants, General Contractor, subcontractors, Architect, other contractors, agents and leases.

## **General Requirements**

1. Work under this section shall include providing all labor, materials, equipment, and services necessary for and reasonably incidental to the proper completion of all security room work as shown on the drawings and herein specified. Work shall also include, but not be limited to the furnishings, unloading, handling, distribution, setting, supporting, and installation of all required components.
2. Additional standards and codes:
  - a. Work shall be installed to conform with any city, State law, regulation, code, ordinance, ruling or Fire Underwriters requirement applicable to this class of work.
  - b. Contractor shall comply with the stricter requirement when a conflict occurs.

## **Firestopping**

1. This Section includes requirements for the furnishing and installing of fire rated wiring devices.
2. Furnish and install all fire rated wiring devices and associated hardware as shown on the Contract Drawings and as hereinafter specified.
3. All devices shall be heavy-duty specification grade with an intumescent insert material allowing for 0 to 100-percent visual fill of conductors.
4. The same manufacturer shall supply all furnished fire rated devices and associated hardware.

## **Cleaning**

1. After installations is complete contractor shall clean all systems.
2. Vacuum debris from system component, enclosures, junction boxes and pull boxes prior to testing and again prior to completion.
3. Thoroughly clean equipment of stains, paint spots, dirt and dust. Remove temporary labels not used for instruction or operation.

## **Codes, Permits, and Fees**

1. Comply with all applicable laws, ordinances, rules, regulations, codes, or rulings of governmental units having jurisdiction as well as standards of the National Fire Protection association and serving utility requirements.
2. Obtain and pay for all permits, fees, inspections, utility connections and extensions and the like associated with work in each section of this division.
3. Comply with SCO for inspections as required.

## Revision History

Rev 062017 – Updated entry 16 on page 4 to include the word “walls.” Added a Revision history page.

# **UNCW Physical Security and Access**

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Please contact the UNCW Physical Security and Access Manager with any questions or concerns pertaining to this document.