

CHAPTER 600 RECORD DOCUMENTS AND FINAL REPORT

SECTION 601. GENERAL

Record Documents and the Final Report submittal is the conclusion of a successful State Construction project. The following are the minimum requirements for Record Document materials provided to the Owner and to the State Construction Office for reference and archives.

NOTE: The project Agency/Owner may have different requirements and needs for additional materials to be provided in the Final Report that the Designer needs to verify and address in the Designer's fee proposal and contract negotiations.

In accordance with the NC Agreement between Owner and Designer (Article 1-16) and the NC General Conditions of the Contract, the Designer is responsible for production of the Record Drawings from as-built material provided by the contractor. Do not consider using MasterFormat Section 01781 which has the contractor producing the documents for approval by the Designer.

Final payment to the Designer will not be made until the Electronic Record Documents and the Final Report have been delivered to and approved by the Owner and the State Construction Office. SCO does not require submission of a final report on informal projects as defined by NCGS § 143-129 or University Download Projects before final payment is made.

601.1. RECORD DOCUMENTS

Upon completion of the project, the Designer shall correct the original bid/contract plans and specifications to include the As-Built drawings and corrected specifications provided by the contractor at the completion of the work. Change Orders, Addenda, Field Orders, negotiated changes, substitutions, final products list, etc. shall document the project as finally constructed. The corrections may be made by "clouding" and referencing other material that is on additional drawing sheets or specification pages.

All drawings shall be conspicuously identified as "Record Document" in the lower right corner of all sheets. Specifications may be identified on the cover and via the "Footer" on each page.

1. The Designer shall furnish to the [State Construction Office](#), within 60 days of the final acceptance date two sets of **security protected** format digital media (CD or DVD disk)*: one full set in .pdf format and one full set in .dwg or acceptable CAD format.

*Note: One paper copy of the As-Built drawings with Designers seals should be forwarded for the owner use and archiving. SCO no longer requires a hard copy of the As-Built drawings.

2. The digital media (CD or DVD) label is to include the project's SCO State ID Number, project name and location, the owning agency's name, the designer's name, and the format of files (.pdf or .dwg or acceptable CAD format). All file names on the digital media should correlate with actual sheet numbers of the drawings. Both the sleeve and the disk are to be to be labeled.
3. **In addition**, the Designer shall provide to the Owner, *on a separate disc*, architectural site plans with utilities, floor plans, reflected ceiling plans and roof plans in a **non-security protected** format (.dwg or acceptable CAD format). These files may be used by the Owner for CAD space management or inventory purposes. These drawings will not be required to have Designer seals. (The Designer may remove firm title block and similar firm references).

601.2. POST OCCUPANCY PHASE

1. Starting with the 1st month of operation of a building, the public agency shall compare data obtained from the building energy usage (via meters installed on-site) with the final energy model results.
2. At the completion of the first 12 months of building operations, the owner is required to compare the actual energy and water use data with the energy model results and assumptions. If energy and/or water usage exceeds the model projections by 15% or more, the owner will further investigate and resolve any issues found, or recommend further corrections or modifications to meet the efficiency standards.
3. The Commissioning Authority will perform opposite seasonal testing, coordinate a 10-month warranty review, and participate with the owner in collecting building data for the 12 month measurement and verification of energy performance. The Commissioning Authority will deliver a complete Cx and systems manual to the owner that includes a re-commissioning plan.

SECTION 602. FINAL REPORT

Upon completion of the project, the Designer shall deliver to both the Owner and the State Construction Office one (1) copy (or as required by Owner) of the Final Report for each package of the project. In the case of a phased project, the Designer shall submit the record drawings and final report after the completion of each phase, unless otherwise approved in writing by the State Construction Office.

The Final Report shall be compiled on digital media in a .pdf format and organized per the attached “Final Report Checklist”. The report can be either e-mailed to:

scofinalreports@doa.nc.gov (preferred method)

or a CD disk can be mailed to our office at:

**% Final Reports
State Construction Office
1307 Mail Service Center
Raleigh, NC 27699-1307**

It is intended that the final report be complete, for the recognized value of having this data and information compiled in a convenient and uniform manner. It is requested that the foregoing outline be used and that no change to the forms’ sequence in which data is requested. Each tab or exhibit shall be made on separate sheets.

1. The Final Report Cover Sheet shall have the following information:

FINAL REPORT
Project Title
Project Location
Owning Agency
SCO State ID Number
Designer’s Information/Email Address
Date Submitted
Designer of Record Seal/Signature

2. A Table of Contents comes next with the tab/page numbers associated with each section clearly marked. The Final Report Checklist will go directly behind this cover sheet.
3. The Final Report Checklist: Properly filled out.
4. SCO Final Inspection for Owner Occupancy Form: This form is generated at the time of final inspection of project. Verify all required signatures and dates are filled out.
5. Contract Dates: Input the dates requested on the Final Report Checklist (Item 3).
6. **Exhibit “A” – Project Description**

A complete description of the building stating the type of occupancy, location of building in relation to other buildings, or its occupancy relation to any adjacent building or its relation as a building in a group or complex. List subparagraphs as follows:

a) Architectural:

Square Footage Figures - Set forth the floor area for each floor and total floor area in *gross square feet*. Calculate actual inside room dimensions, areas divided as follows:

- Office space, classroom, atrium, auditorium or dormitory room space
- Supply or storage area
- Corridors and lobbies
- Stairs and elevator shafts
- Toilets and restrooms

Porches or loading docks without roofs shall be computed at one-third. Unfinished interior areas shall be computed at one-half. Give the total floor area in net square feet. In a parallel column, give the percentage of the total net area each division represents. Under this, set forth the equation of the total gross area figure minus the total net area figure, multiplied by 100 and divided by the gross area figure to show the percent difference between gross and net area.

NOTE: Many projects are not applicable or relative to a square footage breakdown. On these type projects, the report format should follow the same generalized outline as noted above in order to present the project descriptively. Identify the units as utilized in the report.

Set forth the type of architecture used in the design, shape of the building, major features of construction, number of stories, gross square feet and finished or unfinished basement or unexcavated area under first floor. Then, in order in succeeding paragraphs beginning with the basement, give a brief description of the arrangement and primary use of each floor. In case of dormitories, state the number of student rooms and number of students for which the structure is designed; in case of office buildings, state the number of offices provided or any other such pertinent information; in case of hospital-type buildings, state the number of patient beds; in case of classroom buildings, list the number of classrooms and the capacity of each, and the number of offices.

Exterior Design - Under the subhead Exterior Design, state the general exterior finish; that is, of common brick, face brick, limestone, granite, etc., and the backing of this exterior. Give a general description of the trim around the buildings; that is, the belt courses, window sills, jack arches, copings, or any ornamentation that might be included in the design. State the type of exterior doors, kinds of entrances provided, the type of windows, the kind of sash; that is, wood or steel, projected type or double hung type, and describe any special entrance or exit provisions.

The roof shall be briefly described as to materials used, type of roof structure, U-factor and type of insulation, the type of flashing, arrangement of gutters and downspouts.

All waterproofing features shall be described.

Copies of all permits and certificates relative to the flood plain policy (Executive Order 123) shall be bound within the final report.

Interior Construction and Finish - The building shall be described as to building code classification by occupancy or use, and classification by type of construction in accordance with the NC State Building Code. The system of flooring throughout the building shall be described, including any special features of the flooring.

Waterproofing features of areas such as toilet room floors shall be stated. The kind of encasement of structural steel or other concealed members shall be described. The structure of all interior walls shall be given, including the finish used. State the type of paints used throughout, type of plaster, type of interior trim, doors, etc.

- b) **Structural** - Describe the type of foundation system, framing system, floor system, etc. Include a schedule of floor and roof live loads, and provide information regarding provisions for addition to the structure if applicable.
- c) **Plumbing** - Describe the plumbing, the point of connection to sewer, the source of cold and hot water, the kind of pipe, the insulation, whether pipes are concealed or exposed; state the accessories which have been furnished with the plumbing system. Describe the storm drainage system and connections with areaways, downspouts and sprinkler system, if provided.
- d) **Heating and Air Conditioning** - Give a description of the type of system – steam, hot water, forced air; method of distribution - gravity, vapor, forced, overhead distribution; provision for temperature control; special accessories; insulation; accessibility to all concealed ducts and pipes, air handling units, etc.

State the source of heat. If a boiler room is provided within the building, describe, giving size of boiler, type of fuel, capacity of fuel storage, etc.

State the type of radiation; that is concealed, convectors, unit heaters, multi-zone units or any special provisions. Describe automatic equipment and accessories in the heating system. Include a tabulation of heating load by floors in MBH.

Air conditioning - Give a description of the type of system; that is, absorption, direct expansion, etc., method of distribution, means of control, and types of major items of equipment, such as cooling tower, evaporative condenser, centrifugal compressor, etc. Include a tabulation of zones indicating number of zones, number of air handling units, and capacity of each. Give total capacity in tons of refrigeration for the system and calculated loads.

- e) **Electrical** - Describe the kind of wiring system, the location of the service, the number of conductors, type of insulation, and size in circular mils of the service. Describe briefly the type of service switches and type of distribution panels. State if wiring is concealed in conduits and describe any special wiring such as under floor ducts, special services, etc.

Describe the system provided for telephones, sound, communication, smoke detection and fire alarm, closed circuit TV, and like equipment.

Provide an electrical load summary indicating the total connected electrical and estimated demand load for the building, separating the power and lighting loads. Provide additional breakouts as necessary.

7. Exhibit “B” – Cost Data

Contracts	Contract Fee	Change Orders/ Amendments	Subtotal
Single Prime	\$ -	\$ -	\$ -
General Contract	\$ -	\$ -	\$ -
Plumbing Contract	\$ -	\$ -	\$ -
HVAC Contract	\$ -	\$ -	\$ -
Electrical Contract	\$ -	\$ -	\$ -
Elevator Contract	\$ -	\$ -	\$ -
Other Contract(s)	\$ -	\$ -	\$ -
Design Contract	\$ -	\$ -	\$ -
Owner Costs*	\$ -	\$ -	\$ -
Total Contract	\$ -	\$ -	\$ -

*Owner Costs could include: surveys, soil investigations, concrete tests, advertising, etc.

Break out the following Cost Data:

- A. Cost per Square Foot of Gross Floor Area (Based on Total Cost of Building)
- B. Percentage of Total Cost for each of the above Contracts
- C. Cost per Office, Occupant or Hospital Bed (Based on Total Cost of Building)
- D. If Cost per Square Foot is not applicable, identify units and use a standardized unit pricing format

8. Exhibit “C” – Change Orders

In a column under General Contract, Plumbing Contract, Heating, Air Conditioning and Ventilating Contract, etc., set out the change order number and immediately to the right of each change order, give a brief description of what the change order involved. Set forth the amount in a right-hand column as an addition or a deduction to the original contract. On this right-hand column, total the amount of additions and deductions under each contract.

9. Exhibit “D” – Contractors

The names and addresses of contractors and material suppliers. Subheads under this exhibit shall be:

- Single Prime
- General Contract
- Plumbing Contract
- Heating, Ventilating and Air Conditioning Contract
- Electrical Contract
- Other Contract(s)

Immediately following, give the name and address of the contractors for each contract, then under three columns headed "Subcontract or Material", "Name of Contractor or Dealer," and "Address," list each principal contractor's subcontract, subcontractor's name and address.

10. Exhibit “E” – Energy Criteria

The Designer shall include the documentation that the project complies with the Energy Code for Commercial and High Rise Residential Buildings of the 2006 NC State Building Code Energy Conservation Code along with the [NC BUILDING CODE SUMMARY – APPENDIX B](#). Compliance may be demonstrated by using the appropriate forms from the NC State Building Code. For projects using the 2009 NC Building Code with a GSF of less than 20,000 the energy criteria to follow is under the NC Administrative Code and Policies Appendix B.

11. Exhibit “F” – Designer Certifications

The project Architect or Designer of Record shall provide a sealed and signed Certificate of Completion with all required attachments such as Cancellation of Builder’s Risk Insurance and the State Construction Office “Project Acceptance Approval” letter. And each consultant (Architect or Engineer) involved in this project shall provide a sealed and signed Certificate of Compliance. Under [GS133-1.1](#) any other Architect or Engineer providing professional services shall also provide a Certificate of Compliance.

12. Exhibit “G” – Construction Close-out Documents

Include a copy of each of the following close-out document. Verify all seals are visible:

- a. Contractor’s Affidavit of Release of Liens
- b. Contractor’s Affidavit of Payment of Debts and Claims
- c. Consent of Surety Company to Final Payment
- d. Final Pay Application which includes the Final MBE Documentation.

13. Unsettled Claims

Provide a brief description of any unsettled claims. If no outstanding claims exist, state “none” on the check list.

14. As- Built Drawings

For the State Construction Office the Designer shall correct the original bid/contract drawings and specifications at the completion of the project. Two sets of **security-protected** formatted digital media (CD or DVD) shall be mailed at the same time with the Final Report to:

**% Final Reports
State Construction Office
1307 Mail Service Center
Raleigh, NC 27699-1307**

One full set of specifications and drawings shall be saved in Adobe Acrobat (.pdf) format, and one full set on a separate CD or DVD saved in a (.dwg) format such as AutoCad or a similar system. The digital media disk shall be labeled with the project’s SCO State ID number, project name and location, the owning agency’s name, the designer’s name and the format of files included in CD.

*Note: One paper copy of the As-Built drawings and specifications with Designers seals shall be provided for the owner’s own use and archiving, see previous section 601.1.3 for additional owner’s requirements. **SCO no longer requires a hard copy of the As-Built drawings.**