I. **Purpose:** To support research and teaching needs of students and faculty in the field of construction science. The Clemson University Department of Construction Science and Management offers programs leading to the following qualifications:

- Bachelor of Science in Construction Science and Management
- Master of Construction Science and Management
- Graduate-level certificate in Construction Science and Management

The Bachelor of Science degree is accredited by the American Council for Construction Education.

A. **Curriculum**
   1. In addition to the University's general education requirements, students are introduced to the current processes and functions utilized by construction industry practitioners. Theoretic concepts are reinforced and practiced in the laboratory, through site visits, and through seminars conducted by industry experts. Topics such as structures, materials and methods, contract documents, estimating, scheduling, safety, and project management form the core curriculum of the degree.
   2. Clemson University's Master of Construction Science and Management program provides students with high levels of skill and understanding in the technical areas of construction project administration and control. The degree focuses on advanced study in the field of business techniques, in new and emerging technologies for construction project delivery systems, and in the administration of construction firms. Qualified students can earn their degree by attending classes full time or part time on the Clemson campus or via online distance learning.

B. **Program Enrollments**

<table>
<thead>
<tr>
<th></th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undergrad Majors</td>
<td>194</td>
<td>192</td>
<td>180</td>
<td>160</td>
<td>145</td>
</tr>
<tr>
<td>Graduate Students</td>
<td>23</td>
<td>24</td>
<td>15</td>
<td>18</td>
<td>15</td>
</tr>
</tbody>
</table>

C. **Primary & Secondary Users**
   1. Primary Users (2012):
      - Undergraduate CSM majors: 145
      - Graduate students: 15
      - Faculty: 8
II. Scope of In-House Collection
Materials are purchased for the construction collection to support academic classes offered by the Department of Construction Science and Management at Clemson University (See Appendix).

The construction collection is housed in the Gunnin Architecture Library. Materials for the circulating collection (other than government documents) and Reference materials will be evaluated and selected by the Construction Science & Management Librarian. The Construction Science & Management Librarian may also recommend resources for the Main Library’s reference collection and the Clemson Libraries database/e-resource collection.

A. Format Guidelines
Collection development will focus on acquiring (through purchase, subscription or license) curriculum-relevant content in the available format that best suits the needs of the resource’s primary users. Formats may be either print or digital. Digital resources may be online or on physical media such as DVDs.

B. Language Guidelines
The vast majority of materials purchased should be written in the English language.

C. Geographical Guidelines
Collection efforts will emphasize materials related to American and European construction. Relevant and significant materials on global trends and developments in the construction industry will also be collected.

D. Chronological Guidelines
Selections will focus on current, up-to-date information. Certain important materials on the history of technology will be selected.

E. Publication Date Guidelines
The selector will purchase books/resources published within the last two years. Exceptions: books requested by faculty members or books highly recommended in a review source.

F. Types of Materials Included
1. Monographs: Monographs on a single subject will be selected for the general collection as budget allows.
2. Collections of essays on relevant topics will be selected as budget allows.
3. Career guidance materials: Career guides and job-seeking books for construction students will be purchased for the reference collection.
4. Databases: Electronic databases that can be used to locate journal articles and other publications for research in construction, including standards, and in construction management (in alphabetical order):
   a. Applied Science & Technology Full Text
   b. ASCE Research Library
   c. ASTM Digital Library
   d. ASTM Standards
   e. Avery Index to Architectural Periodicals
   f. Business Source Complete
   g. CRCnetBASE Resource Center
   h. Engineering Index/Compendex
   i. ICONDA (International Construction Database)
   j. IEEE Xplore Digital Library
   k. Knovel Science and Technology Collection
   l. ScienceDirect
   m. SpringerLink
   n. TRID Online
5. Cost data resources: Purchased for the Reference collection. Most recently superseded editions of some titles are rotated to the circulating collection. Non-circulating software versions are also acquired for the media collection.
6. Dictionaries: Purchased for the Reference collection. No effort is made to collect dictionaries for the circulating collection.
7. Directories: Purchased for the Reference collection. No effort is made to collect directories for the circulating collection.
8. Encyclopedias: New editions and new titles will be purchased for the Reference collection.
9. Journals: Every effort will be made to preserve the current journal collection and to add new titles as funds allow. Evaluation tools such as faculty surveys and interlibrary loan activity will be used to identify core journals and faculty favorites to ensure they remain in the collection. A special effort will be made to acquire or retain journals for which faculty members serve as editors or members of editorial boards. Electronic format will be preferred over print when both formats are available, as budget allows.
10. Theses and Dissertations: The Graduate School requires that all theses and dissertations be submitted in electronic format. These are made available online. The majority of theses and dissertations written at other universities should be obtained through Interlibrary Loan.

G. Types of Materials Excluded
Textbooks: Textbooks that are used in classes taught at Clemson University will not be purchased. Other textbooks may be purchased if they support the construction curriculum.

H. List of Journals
There is no core list of journals for construction science from the American Council for Construction Education or any other body. Some key journals received by Clemson are:
III. Collection Analysis by Subject

A. Library of Congress Call Number Ranges and Subject Headings

<table>
<thead>
<tr>
<th>Call Number</th>
<th>Subject Heading/Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>HD9715-9717.5</td>
<td>Construction industry</td>
</tr>
<tr>
<td>TH 1-9745</td>
<td>Building construction</td>
</tr>
<tr>
<td>TH 845-895</td>
<td>Architectural engineering. Structural engineering of buildings</td>
</tr>
<tr>
<td>TH 900-915</td>
<td>Construction equipment in building</td>
</tr>
<tr>
<td>TH 1000-1725</td>
<td>Systems of building construction. Including fireproof construction, concrete construction</td>
</tr>
<tr>
<td>TH 2025-3000</td>
<td>Details in building design and construction. Including walls, roofs</td>
</tr>
<tr>
<td>TH 3301-3411</td>
<td>Maintenance and repair</td>
</tr>
<tr>
<td>TH 4021-4977</td>
<td>Buildings: Construction with reference to use. Including public buildings, dwellings</td>
</tr>
<tr>
<td>TH 5011-5701</td>
<td>Construction by phase of the work (Building trades)</td>
</tr>
<tr>
<td>TH 6014-6081</td>
<td>Environmental engineering of buildings. Sanitary engineering of buildings</td>
</tr>
<tr>
<td>TH 6101-6887</td>
<td>Plumbing and pipefitting</td>
</tr>
<tr>
<td>TH 7005-7699</td>
<td>Heating and ventilation. Air conditioning</td>
</tr>
<tr>
<td>TH 7700-7975</td>
<td>Illumination. Lighting</td>
</tr>
<tr>
<td>TH 8001-8581</td>
<td>Decoration and decorative furnishings</td>
</tr>
<tr>
<td>TH 9025-9745</td>
<td>Protection of buildings. Including protection from dampness, fire, burglary</td>
</tr>
</tbody>
</table>

B. Level of Collecting
Approximately 75% of the books ordered for the construction collection should support the undergraduate curriculum. Titles should be reviewed on an individual basis, and the selector should determine which courses the book will support. Since many courses are offered at the both the 300/400 and 600 levels, both undergraduate and graduate students will benefit from books selected for these subjects.

IV. Access to Information not On-Site/Licensed by Clemson Libraries

A. Interlibrary Loan & PASCAL
   The primary access points for books, journals, and other types of publications not owned or accessible by the Libraries will be Interlibrary Loan and the South Carolina academic libraries consortium, PASCAL. These services are free to Clemson University students, faculty, and staff. These services are not available to the general public.

B. Ingenta
   This service enables Clemson faculty, students, and staff to access full-text online articles that the Clemson Libraries do not own and that are not available from PASCAL partners or via interlibrary loan. Ingenta has limited coverage and a price cap per article.

C. Full-text Databases
   Many of the databases offered through PASCAL and State of South Carolina DISCUS licenses include full-text journal and magazine articles and other information resources.

V. Selection Tools

A. Book Review & Notification Sources
   Choice Reviews Online
   GOBI Notifications

B. Approval Plans
   Approval plans for books and notification slips are arranged with Yankee Book Peddler (as authorized by the Acquisitions Branch Head) to ensure acquisition/notification of titles that fit the needs of the library's circulating collection. There is currently no approval plan for construction materials.

C. Publisher's Catalogs & Web Pages
   A few publishers that offer titles on construction topics include:
   - McGraw-Hill
   - RSMeans
   - E & FN Spon
   - Sweet's Group
   - Wiley

D. Faculty requests and recommendations
   Faculty recommendations will be solicited at the start of each semester. Requests will be accepted at any time and expedited, if needed.
E. Weeding Guidelines
The initial phase of weeding of books relating to construction will focus on removing books published prior to 1990 that have not circulated. Because of the need to maintain books for historical research, it is occasionally important to keep copies of older books, even if they have never circulated. They receive some in-house use, and future projects may involve their use.

VI. Collection Assessment & Planning

A. Qualitative Measures
1. Clemson Benchmark Institutions
   Auburn
   Georgia Tech
   Texas A&M
   Virginia Tech
   North Carolina State
2. User Surveys
   Surveys should be conducted to determine how construction students and faculty perceive the collection and to determine what they think is weak/strong about the collection. Surveys could also be used to find out what resources/services users would like added and if there are any they could do without.

B. Quantitative Measures
1. Interlibrary loan statistics
2. Circulation statistics for materials in the call number range listed in III.A

Appendix: Construction Science & Management Courses offered at Clemson University

UNDERGRADUATE
CSM 100 Introduction to Construction Science & Management
CSM 150 Construction Problem Solving
CSM 201 Structures I
CSM 202 Structures II
CSM 203 Materials and Methods of Construction I
CSM 204 Contract Documents
CSM 205 Materials and Methods of Construction II
CSM 303 Soils and Foundations
CSM 304 Environmental Systems I
CSM 305 Environmental Systems II
CSM 351 Construction Estimating
CSM 352 Construction Scheduling
CSM 353 Construction Estimating II
CSM 411 Safety in Building Construction
CSM 420 Highway Construction and Contracting
CSM 450 Construction Internship
CSM 453 Construction Project Management  
CSM 454 Construction Capstone  
CSM 455/655 Reducing Adversarial Relations in Construction  
CSM 461 Construction Economics Seminar  
CSM 490/H490 Directed Studies  
CSM 498 Current Topics in Construction

**GRADUATE**

**Core Requirements**
- CSM 852 Construction Management Research
- CSM 860 Financial Planning & Analysis
- CSM 861 Construction Control Systems
- CSM 862 Personnel Management & Negotiations
- CSM 863 Advanced Planning & Scheduling
- CSM 864 Business Strategy & Marketing
- CSM 865 Project Management
- CSM 889 Special Problem
- CSM 891 Master’s Thesis Research

**Major Elective Courses**
- CSM 655 Reducing Adversarial Relations in Construction
- CSM 881 Professional Seminar
- CSM 890 Directed Studies