Department of Civil and Environmental Engineering / Azrieli School of Architecture  
Carleton University

Historic Site Recording and Assessment  
CIVE 3207 / ARCN 4100  
2017 - 2018 Winter Session

Instructor:

Mario Santana Quintero, e-mail: Mario.santana@carleton.ca  
ph. +1 (613) 520-2600 x 3093, Canal Building, Office 5207 (5th floor)

Class Lectures: Friday 2:35 pm - 5:25 pm – Classroom: AA 209  
Office hours: Friday 1:00pm – 2:30 pm (email appointment required 24 hours ahead)  
Teaching Assistants: see CULearn for details

Practicum and Fieldwork (at campus or onsite: 3 hours):

<table>
<thead>
<tr>
<th>Tutorials</th>
<th>Day</th>
<th>Times</th>
<th>Field</th>
<th>Indoor</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIVE 3207 A2 / ARCN 4002 A1</td>
<td>Monday</td>
<td>2:35 pm-5:25 pm</td>
<td>SITE</td>
<td>AA 435/CB4301</td>
</tr>
<tr>
<td>CIVE 3207 A1 / ARCN 4001 A2</td>
<td>Thursday</td>
<td>2:35 pm-5:25 pm</td>
<td>SITE</td>
<td>AA 435/CB4301</td>
</tr>
</tbody>
</table>

Course Description:

Recording the physical characteristics of historic structures and landscapes is a cornerstone of preventive maintenance, monitoring and conservation. The information produced by such work guides decision-making by property owners, site managers, public officials, and conservators. Rigorous documentation may also serve a broader purpose: over time, it becomes the primary means by which scholars and the public apprehend a site that has since changed radically or disappeared.

Our team-taught course has two aims: to acquaint students with a wide range of recording techniques and to help students decide which techniques are best suited to which sites and objectives. Led by experts in the field, our classes will benefit from guest instruction by experts in various branches of the documentation field. Students, too, will work in teams, weighing the strengths of various methods before applying them. While tools from the simple measuring tape to laser survey devices will be at your disposal, you will need to think through and justify your use of them. Some tools will be used at all sites. Others are highly specialized.
ARCN 4100 / CIVE 3207 will be an introduction of condition assessments, and will be further examined in the ARCN 4200/ CIVE 4601 – Building Pathology & Rehabilitation course (Winter 2019).

By the end of this course, students should be able to:

- Assess the role of visual information gathering in historic conservation, with an eye to national and international standards for such work.
- Distinguish the strengths and limitations of particular recording techniques.
- Demonstrate proficiency by applying these techniques as a documentation provider and others as an informed user in recording historic sites.
- Analyze sites using these techniques.
- Understand the relationship between recording and good conservation decision-making.
- Design coherent presentations by integrating information gathered through these techniques of historic sites.
- Assemble a graphic and historical record of a chosen site in coordination/collaboration with site custodians by effectively working in teams throughout the semester.

Because of its proximity and rich cultural landscape, Ottawa will serve as our study area. Each week, we will learn about a given recording technique during our Tuesday lecture and apply it during lab sessions (dates and times to be scheduled based on team members' availability). The Practicum's will take place at the school of architecture or at the sites, depending on the objectives of the practicum.

**Heritage Places**

The following places will be analysed this fall, groups of five students are invited to select a site:

2. **Header House**, Mackenzie Ave, Ottawa, ON K1N 9J6. Site custodian: Christopher Dziwinski, christopher.dziwinski@ncc-ccn.ca
3. **Chartron House**, 1 Laurier Road, Hull, Quebec. Site custodian: Christopher Dziwinski, christopher.dziwinski@ncc-ccn.ca;
4. **190 laurier**: Site custodian: Sylvio Miron, Project Manager, Tel. : 613-562-5800 (6275), Sylvio.Miron@uOttawa.ca
5. **545 King Edward Ave**: Site custodian: Sylvio Miron, Project Manager, Tel. 613-562-5800 (6275), Sylvio.Miron@uOttawa.ca
6. **Others to be announce soon**
Technical Prerequisites

Students are expected to know the two-dimensional drawing features of Computer-Aided Design (CAD) application. For tutorials, visit http://www.cadtutor.net/, also the Ottawa Library provides accessibility to Lynda.com: https://bibliottawalibrary.ca/en/lynda here you can find CAD and other digital tools tutorials. Limited classroom instruction in the elements of CAD may be offered, depending on demand, but will not occur during course time.

AutoCAD 2016 through 2018 should be installed on students’ laptops prior to week 2 of the CAD survey. Free copies of AutoCAD release are available for download by registering at the Autodesk Education Community (http://students.autodesk.com). AutoCAD is also available at the computer lab in event that you do not have a laptop computer.

For digital photography, each student is required to have:

- A camera with at least ten-megapixel resolution; (a departmental camera may also be available).
- A tripod may also be available.

Furthermore, to carry out Assignment 1, students are expected to obtain an ArcGIS license from the Carleton University Library, read: https://library.carleton.ca/services/arcgis-student-edition. Alternatively, students can use Quantum GIS, which is an open source and free GIS package available at http://www.qgis.org.

To be provided by the Department of Civil and Environmental Engineering:

- Hand recording kits (measuring tape, Disto (electronic distance meter (EDM)), plumb bob and string);
- DSLR digital cameras;
- Laser level;
- Total Station kit with tablet PC/laptop and TheoLT;
- Software: Bentley Context Capture and Point Tools software;
- Eventually Agisoft PhotoScan (http://www.agisoft.com), a photogrammetric package will be available for certain areas of the IPD or Autodesk ReMake (http://remake.autodesk.com/)
- AutoCAD 2016 (license available for students: https://www.autodesk.com/education/free-software/all)
- ArcGIS 10.5.1 (license available for students:}
https://library.carleton.ca/services/arcgis-student-edition

- 3D scanner with supervision.

For borrowing the equipment, the team leaders should contact: Stephen Vickers, (Laboratory Technician), Architectural Conservation & Tel. 613 520 2600 ext 3278 - Stephen.Vickers@carleton.ca - https://carleton.ca/cee/people/vickers-stephen/, Civil and Environmental Engineering Laboratories, Department of Civil and Environmental Engineering - 24 hours notice before signing out the equipment is required, the Lab is open from 8:30 am to 4:00 pm. The lab is located at will MC2060 (John Adjeleian Structures Lab).

Computer labs: CB4301 and ME4377 given there is no classes or tutorials happening.

Other software that may be available at Carleton and that may be useful for the documentation course will be identified in the coming months.

Course Requirements

**Attendance and participation**
Students are expected to arrive ontime, attend all lectures and practicum, asking questions and providing feedback about assignments. Absences will generally be excused only for emergencies.

**Team performance**
Most assignments in this course are undertaken in teams of four to five individuals. Team members are expected to contribute equally to group assignments, be courteous, review each other's work, and communicate the performance of their group to faculty at regular intervals.

Completion of Assignments (6) (including Tutorial workflows) Participation in all practicums, Presentations (2), and Integrated Project Dossier. For details, see below.

**Field notebook**
Students are expected to keep very good and legible study, lecture and field notes. Dark pencil (HB) is preferable when writing these notes. Good hand-sketches are OK. Use of drafting equipment is expected. The notebook itself must contain at least 100, Quad-ruled, letter-sized (or smaller) pages. Bound notebooks are preferable over spiral-bound. The Carleton Bookstore will stock “Winnable” notebooks, WQ109, 9” X 7 ¼”, 192 pages, Quad-ruled. These are preferred. Similar are acceptable. This
field notebooks are to be submitted for evaluation upon the final presentation of the team’s work.

Assignments

Each exercise will produce a component of the final project, the Integrated Project Dossier. The first assignment is to be undertaken by each Site Group as a whole. The others are to be completed by subgroups / Pairs. For some assignments, the completion of a tutorial workflow will be required before taking equipment outside campus to the sites.

Assignment 1: understanding the “Historic Place”
This is a group assignment; everybody is expected to contribute.

The purpose of this assignment is four-fold: 1) to familiarize yourself with your site by reviewing existing documentation and comparing it to the site’s physical fabric; 2) to provide an overview of your site’s significance, character defining elements and physical attributes through analytical description; 3) to outline a “preliminary” recording strategy that considers these unique qualities as well as particular disturbances, client needs, etc; 4) Using GIS data provided by Carleton University’s library, prepare a Site plan of the Historic Place being studied 5) Decide on the digital files structure and naming. A good example from the previous year will be provided, as well as, relevant best practices. According to your Tutorial Session, the Team Leader will summit the resulting PDF on CU Learn.

Assignment 2: Site photography
This is an individual (pairs) assignment that built on a group effort.

The purpose of this assignment is to understand the use and relevance of digital photography for heritage assessments. Each individual of a team will produce a photographic portfolio of the site with contextual, elevation, perspective, detail, and interior views, according to the following aspects: architecture, condition and character defining elements. The Electronic (delivered files should be according to appendix 1) should be submitted on CU Learn according to your tutorial session. Condition photographs will illustrate surface material and structural conditions referenced in written narrative and CAD drawings. As defined in assignment 1, character-defining elements will be photographically captured and referenced. Deliverables (per sub group of 2 students):

- 2x examples of contextual architectural photographs, for instance elevation and perspective;
- 2x examples of detail architectural photographs and interior views;
- 2x example photographs showing condition, weathered areas on the site;
• 2x examples of character-defining elements that reinforced the issues depicted from Assignment 1 to understand the significance of this historic place.

The submitted images should have at least 300 pixel/inch resolution. You can use a US Letter Size paper to fit each photograph (portrait or/and landscape). The photographs should be accompanied of a written document, explaining each of the photographs, and a photo key plan prepared using a site sketch locating where and the orientation of each of the photographs.

The team leader will submit a single PDF on CU Learn, including and consolidating all the photographs and required documents from each subgroup. File Naming is of paramount importance. A photo key plan should be recorded into the field notebook indicated with a sketch where the photos have been taken and their orientation.

Assignment 3: Hand recording and site field notes

This is an assignment that is conducted in pairs of members of the team; it built on the final IPD submitted by the entire group effort.

This assignment provides a basic understanding of the site’s geometry and condition. Interior spaces are the focus. Each team will measure at least two floor plans, profiles and details. During the practicum, students will learn the techniques of site observation, note-taking, and hand surveying. The notes should be recorded into the field notebook.

The resulting information will be scanned and hand survey drawings will be converted to CAD. Floor plan drawing should be provided in scale 1:50 and for specific details in 1:5 that eventually reinforces the defining character of the structure. The submission of scans versions of the notes and resulting CAD drawing shall be conduct on CU Learn according to your tutorial session. Each team will be divided into two sub groups; each will produce a set of drawings.

Assignment 4: making floor plans using the total station and CAD

Due dates will be provided during class and posted on CU Learn. This is an assignment that is conducted in groups of two or three members of the team; it built on the final IPD submitted by the entire group effort. Students are expected to successfully conduct a tutorial workflow during lab sessions at Carleton before taking the equipment out to their sites and work on the assignment.

The purpose of this exercise is to learn use, benefits, and constraints of measuring features when working with a Reflectorless Total Station, as well as, understanding the basic surveying principles and operations.

Each sub-team will prepare a measured drawing of at least one floor plan using the total station and CAD, complementing the drawing produced for assignment 3.
Assignment 5: Producing cross sections using photogrammetry, Total Station and CAD Overlay

Due dates will be provided during class and posted on CU Learn. This is an assignment that is conducted in groups of two or three members of the team; it built on the final IPD submitted by the entire group effort. Students are expected to successfully conduct a tutorial workflow during lab sessions at Carleton before taking the equipment out to their sites and work on the assignment.

The purpose of this exercise is to learn the use, benefits, and constraints of site-rectified photography for condition survey.

Each sub-team will prepare a measured drawing of at least one cross section using the total station, which is used to measure controls to produce an ortho-image using specialized photogrammetric software. This software allows users to reduce photographic radial and perspective distortion. Main features of the element should be drawn from the rectified photographs using CAD overlay (e.g. Windows, doors, pediment, etc).

Assignment 6: Producing a building elevation using the Total Station, photogrammetry and CAD Overlay

Due dates will be provided during class and posted on CU Learn. This is an assignment that is conducted in groups of two or three members of the team; it built on the final IPD submitted by the entire group effort.

The purpose of this exercise is to learn the use, benefits, and constraints of photogrammetry to prepare elevation drawings. Students are expected to successfully conduct a tutorial workflow during lab sessions at Carleton before taking the equipment out to their sites and work on the assignment.

Each sub-team will prepare a measured drawing of at least one elevation using the total station, which is used to measure controls to reference and orientated photogrammetric models and preparing a resulting ortho-image. This is conducted using specialized software. This software allows users to produce corrected images from 3D models. Main features of the element should be drawn from the resulting ortho-image using CAD overlay (e.g. Windows, doors, pediment, etc).

Presentations

Students are expected to deliver two oral presentations on the development of their Integrated Project Dossiers (IPDs):

- Preliminary review of Team Projects (midterm). This consists of a 15-minute presentation and hard-copy summary of the preliminary results. It will serve as a preview of the final review.
• Final presentations: each group should prepare a 15-minute presentation, reviewing the group’s findings and explaining the rationale behind the documentation strategy adopted in the IPD.

**Integrated Project Dossier**

We will be working with architecturally and historically significant sites in Ottawa. The sites will be presented to the students on the first day of class.

Students will analyze and document their sites throughout the semester, ultimately preparing a critical compendium of their work known as an Integrated Project Dossier (IPD). The goal of this document is not only to demonstrate proficiency with recording techniques taught in class but also to organize the resulting information in a clear and accessible manner. Your materials should be presented with an eye to likely audiences: owners, decision-makers, researchers, and conservation professionals. Think of this as a semi-public document, analogous to the graphic component of a historic structure report.

The report will contain an introduction summarizing the site’s significance (indicating character defining elements), lay out its chronology, condition, and explain students’ logic in emphasizing some recording methods over others. Also, a peer-review evaluation will be conducted by each team member of the fellows’ performance in contributing to the IPD.

Furthermore, the IPD will contain the measured drawings and site photographs resulting from different assignments that illustrate its significance and condition.

**Grading**

| Participation and technical compliance | 10% of final grade |
| Assignment 1                          | 5%                  |
| Assignment 2                          | 5%                  |
| Assignment 3                          | 5%                  |
| Assignment 4 (including tutorial workflow completion) | 5% |
| Assignment 5 (including tutorial workflow completion) | 5% |
| Assignment 6 (including tutorial workflow completion) | 5% |
| Midterm Review*                       | 10%                 |
| IPD dossier*                          | 35%                 |
| Finals presentation (IPD)             | 15%                 |
|                                      | 100%                |

Final letter grades will be figured on the basis of these assignments. * Individual and Group evaluations will be conducted using peer review and a meeting with the team.
# Tentative Course Schedule

This schedule might be subjected to modifications to accommodate course needs.

<table>
<thead>
<tr>
<th>Week</th>
<th>Class</th>
<th>Labs</th>
<th>Description</th>
<th>Location</th>
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</table>
| 1    | Sept 8 |      | L1: Course introduction, learning outcomes and logistics  
  L2: Making a Heritage Site Plan using Geographic Information Systems (GIS), locating the boundaries and urban context (invited speakers: Rebecca Bartlett) | AA 209 |
| 2    | Sept 11/14 | T1: Building a Recording Strategy for documenting a historic building for its conservation and organizing groups  
  T2: Identifying Character Defining Elements and drafting a statement of significance  
  T3: Using Geographic Information Systems to make a site plan | AA235 |
|      | Sept 15  | L3: Making a statement of significance in Canada (guest lecture) Laurie Smith  
  National Capital Commission (Guest Lecture) Heather Thompson | AA 209 |
| 3    | Sept 18/21 | Site Visits | Sites |
|      | Sept 22  | L4: Making a Photographic record of a Heritage Site (Guest speaker: Peter Coffman)  
  L5: Digital Photography for Recording Historic Places  
  L6: Making a Photographic record of a Heritage Site (Guest speaker: Chris Ouimet) | AA 209 |
| 4    | Sept 25/28 | Site Visits | Sites |
|      | Sept 29  | L7: Making Field notes and sketches for recording Heritage Sites  
  Submission of Assignment 1 (deadline 5pm) | AA 209 |
| 5    | Oct 2/5  | T4: Record Photography and processing  
  T5: Hand Survey, sketching and preparing field notes | CB4301 |
|      | Oct 6    | L8: Using a Total Station for recording Historic Sites  
  L9: Introduction to Photogrammetry for recording Historic Sites  
  L10: Computer Aided Drawing for presenting Historic Buildings  
  Assignment 1 due (2:30pm) | AA 209 |
| 6    | Oct 9    | No activities / Thanksgiving | |
|      | Oct 12   | T6: Total Station 1 (Floor plan)  
  Work on sites with photography and field notes | CB4301 |
|      | Oct 13   | L11: Making a cross section using a Total Station and photogrammetry  
  L12: Introduction to Thermal Photography for analyzing sites  
  L13: Digital Photogrammetry for recording Historic Places  
  Assignment 2 due (2:30pm) | AA 209 |
| 7    | Oct 16/19 | T6: Total Station 1 (Floor plan)  
  Work on sites with photography and field notes  
  L11: Making a cross section using a Total Station and photogrammetry | Sites |
|      | Oct 20   | L14: Case Studies | AA 209 |
| 8    | Oct 30 / Nov 2 | T7: Total Station 2 and Photogrammetry to prepare a Cross Section and Elevation drawings  
  Work on sites | AA 209 |
|      | Nov 3    | L15: Compiling an Integrated Project Dossier of a Historic Site and expectations of the midterm review  
  Submission of Assignment 3 (deadline 2:30pm) | AA 435 |
| 9    | Nov 6/9  | Work on sites and preparing for midterm | Sites |
### Submission summary

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Deadline</th>
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<tbody>
<tr>
<td>1</td>
<td>Oct 6 – 2:30 pm (CULearn)</td>
</tr>
<tr>
<td>2</td>
<td>Oct 13 – 2:30 pm (CULearn)</td>
</tr>
<tr>
<td>3</td>
<td>Nov 10 – 2:30 pm (CULearn)</td>
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<tr>
<td>4</td>
<td>Nov 10 – 2:30 pm (CULearn)</td>
</tr>
<tr>
<td>5</td>
<td>Nov 10 – 2:30 pm (CULearn)</td>
</tr>
<tr>
<td>6</td>
<td>Dec 8 – 2:30 pm (CULearn)</td>
</tr>
<tr>
<td>Midterm</td>
<td>Nov 10 – 2:30 pm (CULearn)</td>
</tr>
<tr>
<td>Final</td>
<td>Dec 8 – 2:30 pm (CULearn)</td>
</tr>
<tr>
<td>IPD</td>
<td>Dec 18 – 4:00 pm (CU Learn, one printed copy and USB with data at 3432 C.J. Mackenzie Building)</td>
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</table>
Readings

Assigned readings (order by relevance):


Recommended books:
2. Council of Europe ‘Guidance on inventory and documentation of the cultural heritage' (2009)

Biographical sketch of instructor

Mario Santana-Quintero, is an associate professor on Architectural Conservation and Sustainability at department of Civil and Environmental
Engineering Carleton University. He is also the Director of the NSERC Create program “Engineering Students Supporting Heritage and Sustainability (HERITAGEENGINEERING)” based at the Carleton immersive Media Studio Lab (CIMS). He has an architectural degree, holding a master in conservation of historic buildings and towns and a PhD in Engineering from the R. Lemaire International Centre for Conservation (University of Leuven, Belgium). He is also a guest professor at the Raymond Lemaire International Centre for Conservation (University of Leuven). These past years he has been teaching also at the Universidad Central de Venezuela, Universidad de Guadalajara (Mexico) and Universidad de Cuenca (Ecuador). In the past, he was a Professor at the University College St Lieven and lecturer at the University of Aachen RWTH and the Historic Preservation Programme at the University of Pennsylvania between 2006 and 2011. Along with his academic activities, he serves as ICOMOS Board member and he is the past president of the ICOMOS Scientific Committee on Heritage Documentation (CIPA). Furthermore, he has collaborated in several international projects in the field of heritage documentation for UNESCO, The Getty Conservation Institute, ICCROM, World Monuments Fund, UNDP, Welfare Association, and the Abu Dhabi Authority for Culture and Heritage.

Academic Accommodations

You may need special arrangements to meet your academic obligations during the term. For an accommodation request the processes are as follows:

**Pregnancy obligation:** write to me with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details visit the Equity Services website http://www2.carleton.ca/equity/accommodation/

**Religious obligation:** write to me with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details visit the Equity Services website http://www2.carleton.ca/equity/accommodation/

**Students with disabilities requiring academic accommodations** in this course must register with the Paul Menton Centre for Students with Disabilities (PMC) for a formal evaluation of disability-related needs. Documented disabilities could include but are not limited to mobility/physical impairments, specific Learning Disabilities (LD), psychiatric/psychological disabilities, sensory disabilities, Attention Deficit Hyperactivity Disorder (ADHD), and chronic medical conditions.
Registered PMC students are required to contact the PMC, 613-520-6608, every term to ensure that I receive your Letter of Accommodation, no later than two weeks before the first assignment is due or the first in-class test/midterm requiring accommodations. If you only require accommodations for your formally scheduled exam(s) in this course, please submit your request for accommodations to PMC by the deadlines published on the PMC website: http://www2.carleton.ca PMC/new-and-current-students/dates-and-deadlines/

Absences

This course follows the topics required by the curriculum at a very fast pace. Every lecture presents a new topic and each new topic is based on the previous; missing a single class may have a serious impact on your academic performance. If you are absent from class, due to illness or a personal or family emergency, it is recommended that you review the material missed as soon as possible; consult with your fellow students, your TA, your instructor, and try to “catch-up” on the topic(s) missed. Anticipated and/or documented absences due to health reasons or important commitments should be brought to the attention of the instructor. Undocumented absences will result in a mark of zero assigned to the course component missed. For duly justified and documented absences please consult the instructor for adjustment of marks.

Documenting your absence. In case of illness you must consult a doctor within 24 hours of the onset of the conditions leading to your absence. Have your physician fill the form: http://www2.carleton.ca/health/doctors-notes/

If your absence is due to a personal emergency please document it in detail, as much as possible, including tickets, visas or passport entries, if travel is involved. You may also wish to include affidavits from coaches, witnesses, your mother, religious officials, police reports, etc, as appropriate. If you know in advance of your absence please contact the instructor early with information on dates and nature of your absence.
Appendix 1: digital files format and naming

The following guidelines pertain to the creation and manipulation of digital files for the historic site recording assessment course, the purpose is to provide a framework for appropriate storage, retrieval and provenance of files prepared during the course.

**Digital Images**

**File Name**

Image files should be named according to the following format:

`AC_SITE#_YEAR_PHOTO# . EXTENSION`

The following explains each site within this file naming convention:

- **AC**: Letter “AC” precedes SITE# to indicate ARCN /CIVE course.
- **SITE#**: 3-digit acronym, which indicates the acronym assigned to each of groups in the course. This suffix will be decided by your group on Assignment 1, for example Bytown museum can be BTM or Mayfair building could be MFB.
- **YEAR**: 4 digit number indicating year in which photo was taken (i.e., created).
- **INITIALS**: 3-digit acronym, indicating the name of the author taking the photograph (i.e., MSQ).
- **PHOTO#**: 4 digit number assigned to the photo to distinguish it from other photos of the same site created in the same year. If the number is less than 4 digits, then it should be preceded by an appropriate number of 0’s.
- **EXTENSION**: The file type, such as JPG.

The following is an example of an image file name following this convention:

`AC_MFB_2016_ARCH0002.jpg`

**File Format**

It is recommended that image files be in the JPG format to minimize file size.

**File Size**

It is recommended that image files be no larger than one megabyte (6 MB) in size.

**Description Information**
The following information should be recorded to describe the photograph in the accompanying spreadsheet:

- Specific date photo taken/created (in the following format): YEAR (4 digit number) MONTH (3 digit alphabetic abbreviation) DAY (2 digit number; if date is only 1 digit, then precede with a 0);
- Photographer name (in the following format): SURNAME, GIVEN NAME
- Image copyright holder: indicate name of institution(s) or individual(s) holding image copyright; if copyright no longer held (e.g., expired) then indicate “no copyright”, in most cases indicate Carleton University.
- Site name: indicate the site primary name in agreement with instructors.
- Subject of photograph: indicate the subject of the photograph, which should describe the reason for taking the photo; the following are examples:
  - Context photography: interior and exterior (eg. Situating the site in its environment, west facade, general exterior view, etc)
  - Character defining elements (eg. Ornamentation, hardware, etc)
  - Condition photography (eg. Disturbances, threats, decay).

**CAD drawings, point clouds and other electronic files**

**File Name**

AutoCAD files should be named according to the following format:

AC _ SITE# _ YEAR _ DRAWINGNAME# . EXTENSION

The following explains each site within this file naming convention:

AC: Letter “AC” precedes SITE# to indicate ARCN /CIVE course.

SITE#: 3-digit acronym, which indicates the acronym assigned to each of groups in the course. This suffix will be decided by your group on Assignment 1, for example Bytown museum can be BTM or Mayfair building could be MFB.

YEAR: 4 digit number indicating year in which photo was taken (i.e., created).

DRAWINGNAME#: 4 digit number assigned to the drawing to distinguish it from other drawings of the same site created in the same year. If the number is less than 4 digits, then it should be preceded by an appropriate numbers of 0’s.

EXTENSION: The file type, such as DWG.

The following is an example of an image file name following this convention:

AC_001_2012_0002.DWG
Description Information

The following information should be recorded to describe the photograph in the accompanying spreadsheet:

- Specific date when the drawing was last updated (or created) (in the following format): YEAR (4 digit number) MONTH (3 digit alphabetic abbreviation) DAY (2 digit number; if date is only 1 digit, then precede with a 0);
- Author name (in the following format): SURNAME, GIVEN NAME
- Drawing copyright holder: indicate name of institution(s) or individual(s) holding image copyright; if copyright no longer held (e.g., expired) then indicate “no copyright”, in most cases indicate Carleton University.
- Site name: indicate the site primary name in agreement with instructors.
- Subject of the drawing: describe the context and contents of the drawing (eg. Plan section: level 1: condition assessment)

Guidelines for the layer naming and structure will be discuss during the class and agreed for submission of the assignments.

Other electronic files’ submission

Students are expected to submit all the files used to produce the different assignments, midterm presentation, final presentation and Integrated Project Dossier (IPD) in digital format. Please consider using similar naming guidelines as provided for digital images and CAD drawings to name and organize all your files. The provenance information of your files is crucial for the storage, management and retrieval of these files in the future.