

Table of Contents

	Page
CONTENTS	Page
1. DOCUMENT FORMATTING AND TEMPLATES	1
1.1 Formatting Document Text to SGH Style	1
1.1.1 Table Formatting	3
1.2 Letters	5
1.2.1 Drafts	8
1.2.2 Revised Letters	8
1.2.3 Author Signatures	9
1.3 Proposals	10
1.3.1 Basis for Billing	11
1.3.2 Retainer Language	11
1.3.3 Contract Provisions	11
1.3.4 Fee Schedules (Rate Sheets)	11
1.3.5 Revised Proposals	17
1.4 Letter Reports vs. Formal Reports	18
1.4.1 Order of Documents in Formal Reports	18
1.4.2 Appendices	19
1.4.3 Table of Contents in Formal Reports	19
1.4.4 References for Reports	22
1.5 Resumes	23
1.6 References	26
1.6.1 Authors	26
1.6.2 Dates	27
1.6.3 States	27
1.6.4 Books	27
1.6.5 Chapters of Books	28
1.6.6 Articles in Periodicals	28
1.6.7 Presentations/Lectures	28
1.6.8 Published Articles Retrieved from the Internet	28
1.6.9 URLs for Web Sites, FTP Sites, Etc.	28
1.6.10 Articles Retrieved from Library or Commercial Databases	28
1.6.11 Court Cases, Decisions, and Depositions	29
1.6.12 Specifications	29
1.6.13 Standards	30
1.7 Memoranda	31
1.8 Transmittals	34
1.9 Field Reports	36
1.9.1 Photo Pages in Field Reports	36
1.10 Meeting Minutes	40
1.11 Lab Reports	43
1.12 Photo Pages/SGH Productivity	46
1.12.1 Using Productivity to Make Photo Pages	46
1.12.2 Photo/Figure Insertion	47
1.12.3 Using the Form Protection Toggle Feature	49
1.13 Specifications (Specs)	50
1.14 Obtaining AIA Documents	52

1.15	Excel Documents	52
2.	SAVING DOCUMENTS ON THE NETWORK	53
2.1	Proposals	53
2.2	Specs	53
2.3	Standard Letters, Memoranda, Transmittals, Field Trips, Phone Calls, and Conferences	53
2.4	Document Security	54
2.4.1	Drafts	54
2.4.2	Tracked Changes and Comments	54
3.	GRAMMAR AND STYLE	56
3.1	Grammatical Definitions	56
3.1.1	Clause	56
3.1.2	Complement	56
3.1.3	Expletive	57
3.1.4	Contraction	57
3.2	Sentence Structure	57
3.2.1	Active vs. Passive Voice	57
3.2.2	Subject-Verb Agreement	58
3.3	Commonly Misused Words	58
3.3.1	Affect/Effect	58
3.3.2	Because/Since	59
3.3.3	Can/Could	59
3.3.4	Can/May	59
3.3.5	Cannot/Can Not	59
3.3.6	Criterion/Criteria	59
3.3.7	Ensure/Insure/Assure	60
3.3.8	Entitled/Titled	60
3.3.9	Entrapped/Trapped	60
3.3.10	Envelop/Envelope	60
3.3.11	Fewer/Less	60
3.3.12	Guarantee/Warranty/Warrantee	60
3.3.13	It's/Its	61
3.3.14	Staff / Staff Members	61
3.3.15	Toward/Towards	61
3.3.16	Whether/If	61
3.3.17	Whether / Whether or Not	62
3.3.18	Who/Which/That	62
3.4	Correct Usage of Conjunctions	62
3.4.1	Correct Usage of "And"	62
3.4.2	Correct Usage of "That"	63
3.5	Articles (a.k.a. Noun Markers)	63
3.5.1	When Not to Use Articles	63
3.5.2	Additional Criteria for Determining Article Usage	64
3.6	Parallelism	65
3.7	Miscellaneous Style Issues	66
3.8	Additional Resources	68
4.	PUNCTUATION	69
4.1	Periods	69

4.1.1	Spaces after Periods	69
4.1.2	Vertical Lists	69
4.1.3	Vertical Lists and Paragraph Headers	70
4.2	Commas	70
4.2.1	Comma Pairs	70
4.2.2	Commas in Compound Sentences	70
4.2.3	Coordinate Adjectives	70
4.2.4	Series and Lists	71
4.2.5	Adverbial, Adjectival, and Prepositional Clauses or Phrases	71
4.2.6	"That Is," "Namely," and Similar Expressions	72
4.2.7	Commas with Quotation Marks	72
4.2.8	Commas with Parentheses or Brackets	72
4.3	En Dashes	72
4.3.1	En Dashes and Project Numbers	73
4.3.2	En Dashes in Specs	73
4.3.3	En Dashes to Separate Items within Sentences	73
4.3.4	En Dashes to Separate Document Numbers and Names	73
4.3.5	En Dashes and Inclusive Numbers	73
4.4	Formatting and Punctuating URLs	74
4.5	Quotations and Quotation Marks	75
4.5.1	Avoiding Plagiarism	75
4.5.2	Using Quotation Marks vs. Block Quotations	75
4.5.3	Quotations and Surrounding Text	76
4.5.4	Special Punctuation Rules with Quotations	77
4.5.5	Alterations of Quotations	77
4.6	Hyphens	79
4.6.1	Typical Hyphen Usage	79
4.6.2	Closed Compounds with Prefixes	81
4.6.3	Compound Adjective Forms	82
4.6.4	Adverb Forms	86
4.6.5	Noun Forms	86
5.	NUMBERS AND PHYSICAL QUANTITIES	90
5.1	When to Use Numerals: Abbreviations, Symbols, and Titles	90
5.1.1	List of Abbreviations and Symbols	90
5.1.2	Use Abbreviations Often	92
5.2	When to Use Numerals: Other Instances	92
5.2.1	Percentages	92
5.2.2	Dates	92
5.2.3	Month and Year	92
5.2.4	Decades	92
5.2.5	Physical Addresses	93
5.2.6	Numbers above One Hundred	93
5.2.7	Commas in Numerals above 1,000	93
5.3	When to Spell Out Numbers	93
5.3.1	Numbers at the Beginning of Sentences	93
5.3.2	When the Quantity Is Spelled Out	93
5.4	Consistency of Numerals	94

APPENDIX

APPENDIX A – Document Processing Procedures

APPENDIX B – Technical Terms and Their Spellings

APPENDIX C – Word Weeds

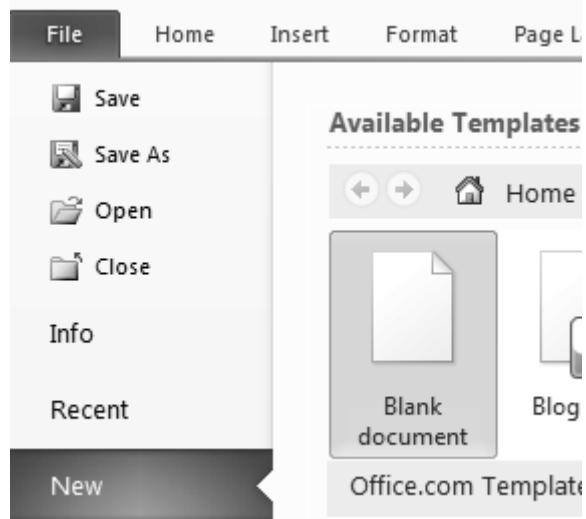
APPENDIX D – States, Territories, and Canadian Provinces

APPENDIX E – Creating PDF Documents

1. DOCUMENT FORMATTING AND TEMPLATES

1.1 Formatting Document Text to SGH Style

Each SGH document created in Word, even a blank document, is based on a template that has been modified to include corporate formats and styles. To open a blank document, go to the File tab, select New, and then double-click on the Blank Document icon.



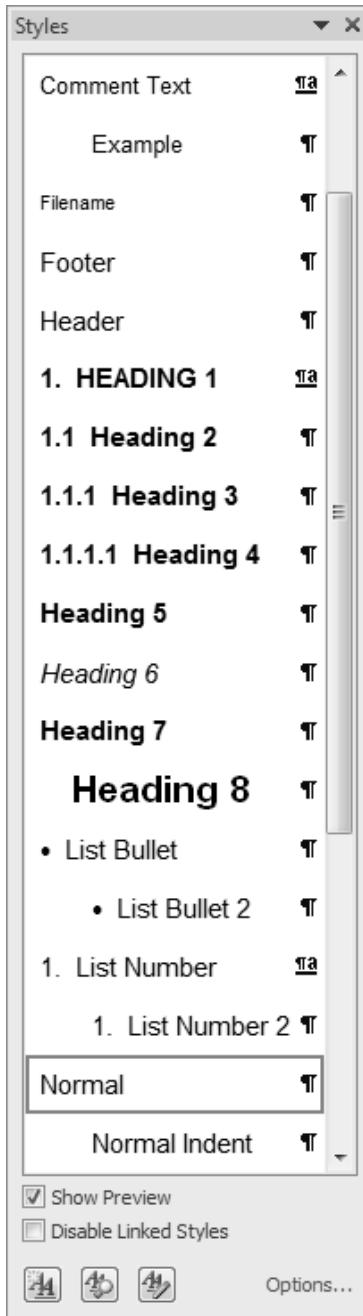
The Normal.dot template, upon which all blank documents are based, sets the default font (11 pt Arial), the default line spacing (single), the default line justification (full), and the default tabs. This is done in the background; the user will only see a blank page. From here, you can create a document that adheres to SGH's general format for font, point size, tabs, etc. If the default font is not set to Arial or the usual SGH styles are missing, please notify IT, who will set up the templates properly.

Note that the template uses the Word 2003 format. To maintain consistency with older documents, and to ensure that macros such as SGH Productivity continue to function, all documents should be saved in Office 2003 format (with the .doc extension for Word and the .xls extension for Excel). Your copy of Office should already save to these formats by default. If not, please contact Word Processing or IT for assistance in correcting your settings.

There are three methods of formatting text to SGH style. The first method uses the Styles group on your Word toolbar, located on the Home tab.



To format text, place the cursor in the paragraph to be formatted or highlight the text, and then click on the desired style. Either the paragraph where the cursor resides or just the highlighted text will then change to that style.



The second method uses the Styles menu (shown at left), which is accessed by clicking on the group button () on the bottom right-hand corner of the Styles group. The menu will appear as a floating group that then can be docked on one side of the screen (see example at left). The advantage of this method is the expanded list of styles available, whereas the ribbon group only shows the most-commonly-used styles.

Many of these styles also can be applied with a third method: using shortcut key combinations programmed into the templates. These will be noted in the discussions of individual styles below.

When you want to return to the Normal text style, either select the Normal style from the style menu or use the Alt+N shortcut.

Section Headings

All headings are formatted with 12 pt spaces before and after each line, so there is no need to add an extra return after the heading. In addition, they automatically change to Normal style after you hit return. Numbering is automatic and is dependent on the numbering for the previous level; the numbered styles also automatically tab over to 0.6 in. They also have “Keep with Next” turned on by default so that they stay on the same page as the beginning of a section’s text.

Heading 1 is **BOLD**, uses all caps, and is outline numbered (e.g., 1.). The shortcut is Ctrl+Alt+1.

Heading 2 is **Bold** and outline numbered (e.g., 1.1.). While Heading 1 is automatically capitalized, Headings 2+ are not, so the author should use title case for these headings. The shortcut is Ctrl+Alt+2.

Heading 3 is **Bold** and outline numbered (e.g., 1.1.1.). The shortcut is Ctrl+Alt+3.

Heading 4 is **Bold** and outline numbered (e.g., 1.1.1.1.). The shortcut is Ctrl+Alt+4.

Heading 5 is **Bold** and unnumbered. It is flush to the left margin and is left justified.

While the corporate standard requires using numbered headings as much as possible, there are times when this is not appropriate, such as short correspondence. In these instances, please note that headings are a type of outline and that there is a hierarchy to heading formats:

LEVEL 1 (bold, all caps)

Level 2 (bold, title case)

Level 3 (italics, no bold)

List Styles

Unlike headings, list styles (whether for bullets or numbers) automatically create a new list member after you hit return. If you have completed a list, hit return after the last list member and select the Normal format (or press Alt+N). Please note that lists are a type of outline, so they should always begin with List Bullet or List Number and then use List Bullet 2 or List Number 2 for sublists.

- *List Bullet* is bulleted with an automatic hanging indent to align with the first word of the paragraph, which is at 0.6 in. It automatically adds a 12 pt space after each paragraph. The shortcut key is Alt+B.
 - *List Bullet 2* is bulleted with an automatic left indent of 0.6 in. and a hanging indent to align with the first word of the paragraph, which is at 1.1 in. It does NOT add a space between paragraphs, as sublists are single-spaced.

List Number

1. *List Number* uses autonumbering and has an automatic hanging indent to align with the first word of the paragraph, which is at 0.6 in. It will automatically add a 12 pt space after each paragraph. The shortcut key is Alt+1.
 1. *List Number 2* has an automatic left indent of 0.6 in. and has an automatic hanging indent to align with the first word of the paragraph, which is at 1.1 in. Like List Bullet 2, it does not add space between paragraphs.

(The autonumbering for lists will continue across lists, so a new list will start with “2” instead of “1.” To restart numbering, right click on the first member of your new list and select “Restart at 1.” This is true for all List Number styles.)

Please see Section 4.1.2 for punctuation rules for vertical lists.

1.1.1 Table Formatting

Table 1 – Hours Worked on Project 040001

Task	Hours Worked							Totals
	Mon	Tues	Wed	Thurs	Fri	Sat	Sun	
Designing	2.5	6.0						8.5
Writing Specs		4.5	5.0					9.5
Monitoring	1.0		1.0		1.0			3.0
Writing Report						5.5	5.0	10.5
Totals:	3.5	10.5	6.0	0.0	1.0	5.5	5.0	31.5

*This is a note; it is made of letters and spaces.

Note that the outside borders and the lines around the header and total rows are bolder (1-1/2 pt) than the rest (1/2 pt).

The table text is at 10 pt font. The table caption is at 11 pt bold font, above the table, with a return above and below the caption. The left column, which is usually the row label, should be left justified. If rows use more than one line, then all cells in that row should be oriented toward

the top of the cells, such as the numbers in the second and fourth rows in the example above. The header row, however, should be oriented to the bottom of the cells.

In tables that include a “Total” line at the bottom, the decimals should also line up throughout the column; if there are no decimal numbers, then they should line up as if they are right justified (but as close to center as possible). If possible, currency signs (\$, €, ¥) should also be lined up, usually by inserting spaces between the currency sign and the number, but this is secondary to lining up the decimal points. If there is no totaling of the numbers, then they can be centered in their cells.

If the table is less than the full margin width (usually 6.5 in.), then it should be centered on the page.

If there are notes beneath the table, they are in 9 pt font, are fully justified, and have their margins line up with the sides of the table, regardless of document margin. In addition, the note numbers or signs are in superscript both in the table and in front of the notation.

Additional information is found in Appendix B.

1.2 Letters

To open a new letter document, click on the Office button and select “New.” In the New Document dialog, select “My templates...” and then double click on the _Letter.dot template.

If the letter does not fill one page, vertically center the letter on the page by doing the following: under the Page Layout tab, click on the Page Setup group button. In the Page Setup dialog box, go to the Layout tab, and under the Page section, change the vertical alignment to “Center.”

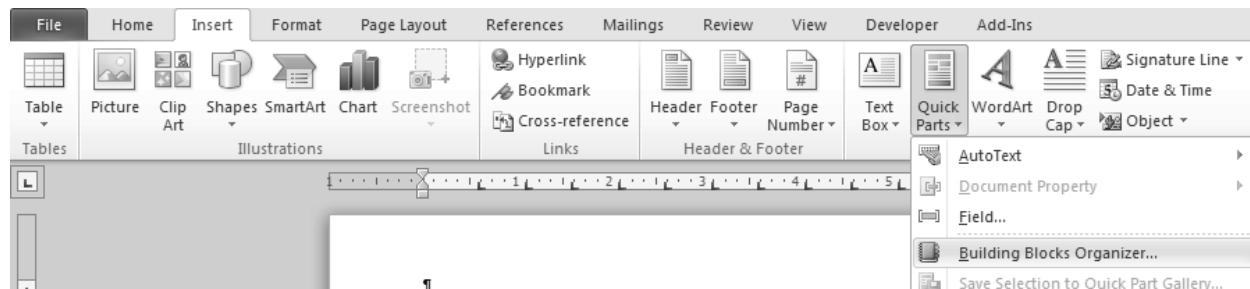
If the letter needs to be condensed to fit onto one page, please make the following changes in the order listed:

1. Remove some (or all) of the ¶s at the top of the document (before the date). If necessary, one ¶ can be removed from the signature section (between “Sincerely yours,” and the author’s name).
2. Font size of the document can be reduced to 10.5 pt or, as a last resort, 10 pt.

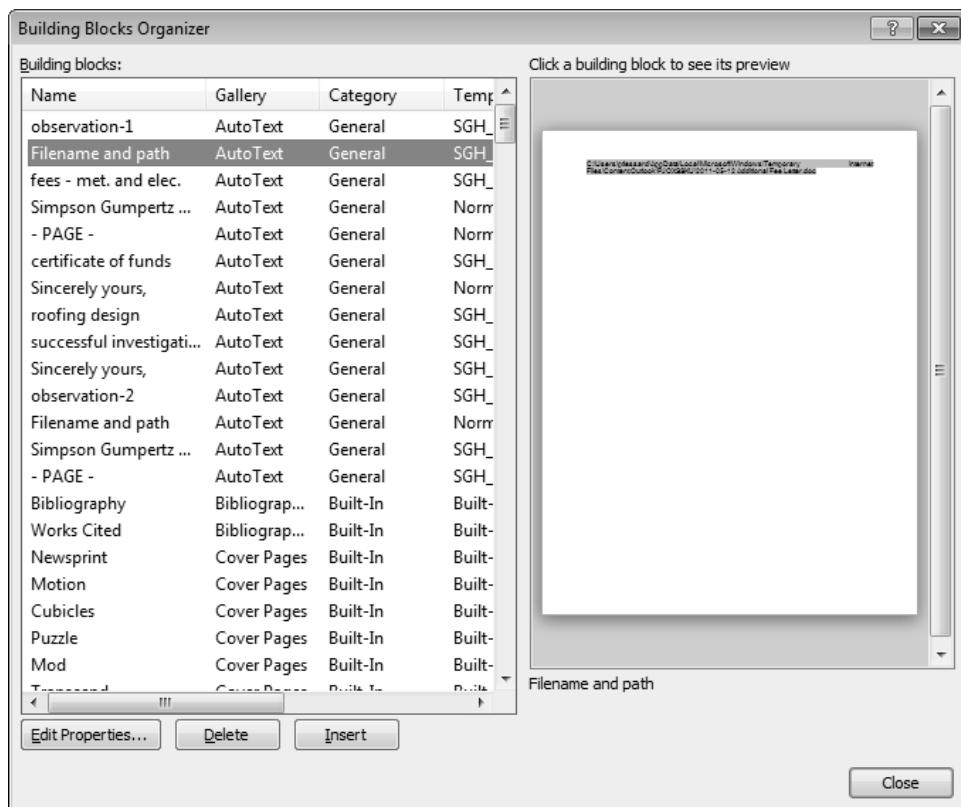
Neither margin can be reduced. The bottom margin is 1.1 in. and cannot change because of the address graphic at the bottom of our letterhead. The top margin must remain at 0.66 in., as this is the setting for our header.

If there is a subject line underneath the project description line, its header is “Re:”, not “Subject:”. The subject description text lines up with the text of the project description.

To insert the file path, right click on the field macro and select “Update Field.” If there is no field for the file path, then one must be inserted manually. Word 2010 does not use autotext macros, so to insert a filename, go to the Insert ribbon and select “Building Blocks Organizer...” under “Quick Parts.”



In the organizer dialog box, highlight “Filename and path” and then click on the [Insert] button (double clicking on “Filename and path” does nothing).



The file path then will be inserted where you place your cursor. (If necessary, change the font size of the file path to 7 pt.)

SGH does not list enclosures accompanying correspondence; only an "Encl." or "Encls." notation is required.

If a copy is being sent to another party, type "cc:" (no caps), tab once and then type the name and company of the person receiving the copy.

21 April 2009

John Harris, Esq.
Tharpe & Howell
2198 E. Camelback Road, Suite 325
Phoenix, AZ 85016

Project 077372 – Report on Cause of Failure(s), Retaining Wall at North End of Site,
Lowe's of Prescott, Prescott, AZ

Dear Mr. Harris:

As requested, Simpson Gumpertz & Heger Inc. (SGH) prepared this report on the cause(s) of the north-retaining-wall failures at the above-referenced site. This report supersedes the initial report on cause submitted on 23 June 2008.

If additional information becomes available, we reserve the right to supplement or modify the material presented herein.

Sincerely yours,

Scott J. DiFiore
Senior Project Manager
I:\BOS\Projects\2007\077372.00-PRES\wp\001SJDiFiore-L-077372.00.ptl.doc

Rene Luft, P.E.
Senior Principal

Encls.

For letters longer than one page, the letter template automatically generates a formatted header for pp. 2+.

[Name] → Project [ProjectNumber] → -·2·- → [Date] ¶



Note that it may be necessary to recenter the page number between the project number and the date after filling in the information.

Jeff Rizzo, AIA → Project 060063 →  → 24 March 2006 ¶



On multipage letters, the first page is printed on letterhead stationery, and subsequent pages are printed on bond paper.

1.2.1 Drafts

Drafts are neither signed nor printed on letterhead/bond paper. They are printed on plain paper, and PDF versions should **not** have signatures or logos. On the first page of a draft letter or proposal, indicate that the letter is a draft by inserting three tabs after the date and typing “**DRAFT**” in bold type. In the second-page header, type “**DRAFT**” in bold type on the second line and right justify that line. Change the line spacing from 1.5 space to single space and add a return at the end. Later versions of drafts are saved over the old one, and the final version is saved over the draft. **Do not save separate draft and final versions of a document (including PDF documents).** If more than one draft was sent to the client, no revision date (see below) is noted.

1.2.2 Revised Letters

If a finalized letter has been sent to the client (whether as a signed paper copy or as a signed PDF) and is subsequently revised, the original date of the letter should be followed by a revision date:

22 June 2004
(Revised 28 June 2004)

[Address Block]

This is also noted on the second page; the revision date is single-spaced under the original date, and there is a return after the revision date line.

Mr. Vincent Cicci → Project 050691 → -·2·- → 31 January 2006 ¶
(Revised 2 February 2006) ¶

When saving the document, place a lowercase “r” next to the document number, both on the document itself and in the filename, to distinguish it from the original (e.g., 001rXYZod-L-050691.00.ptl.doc).

If a second revision is sent, the original date of the document plus the current revision date is used; all interim revision dates are omitted. In addition, a lower case “r” plus the numeral “2”

should be placed next to the document number, both on the document itself and in the filename, to distinguish it from the original and first revision (e.g., 001r2XYZod-L-050691.00.ptl.doc).

1.2.3 Author Signatures

The author(s) of a document shall sign in black or blue ink. All signatures on a document should be the same color.

A person can sign for the author only if the author has given permission for another to sign. A P/A or engineer familiar with the project signs his/her own name and write “**for**” in the left margin next to the author’s name. Another substitute signer may sign the author’s name and initial the signature directly beneath it if the author has reviewed a near-final draft.

Occasionally, a letter is written and signed by two or three individuals. In these cases, it is generally best to place the names side by side. If there is a fourth signature, the third and fourth signatures will be placed four spaces below the first and second signature.

Three Signatures:

Sincerely yours,

Gregory R. Doelp
Principal

Ethan D. Field
Staff II – Building Technology

Philip S. Moser
Staff II – Building Technology

I:\BOS\Projects\2007\072222.00-FAKE\WP\001GRDoelp-L-072222.00.ptl.doc

Four Signatures:

Sincerely yours,

Gregory R. Doelp
Principal

Philip S. Moser
Staff II – Building Technology

Ethan D. Field
Staff II – Building Technology

Charles A. Barnes
Senior Staff II – Structures

I:\BOS\Projects\2007\072222.00-FAKEWP\002GRDoelp-L-072222.00.ptl.doc

1.3 Proposals

To open a proposal document, click on the Office button and select “New.” In the New Document dialog, select “My templates...” and then double click on the _Proposal.dot template.

(Note that there are separate templates for proposals for projects in Michigan and New York; Simpson Gumpertz & Heger Inc. is incorporated under different names in those states, so when working on those proposals, be certain that the correct template is being used.)

When creating proposals, please note the following:

- Proposals are always made by Senior Principals, Principals, or Associate Principals, and the Person in Responsible Charge should always be the primary signer. At least one signer must be licensed to perform work in the state where the project will be located; this person must be a member of the eventual project team. The template provides fields for the proper placement of names and titles (and, in the case of the Person in Responsible Charge, license number) of proposal signers.
- There are no headers on the rate sheet or Contract Provisions pages. However, on the Contract Provisions page, there is a form field for the client name. The client is usually the company receiving our proposal, not the individual contact person – the client name used in the address block, in the signature block, and on the Contract Provisions page must match.
- Proposals are not saved with the projects on the network. They are saved under I:\[Office]\Admin\Proposals\[year]\[division]\[initials of principal-in-charge]\[proposal no.].doc. The proposal number is generated by Vision.
- When copying and pasting text from one file into a proposal, you must execute the rate sheet and contract provisions macros **before** pasting text into the template. If not, the bookmarks the macros use to place text in the document will be deleted, and Word will crash.
- The signature block should remain together on the same page. In addition, at least two lines of text from the last paragraph in the body of the proposal should be on the same page as the signature block. The need for a large area to stay together may cause spacing issues in the document, so if there is a large area of blank space, or if you have difficulty keeping some text with the signature block, try the following to keep the signature block with the text:
 - Deleting the four returns above the date on the first page.
 - Deleting a return in the author signature line.
 - Deleting a return in the client signature area.
 - Reducing font for Normal by to 10.5 or 10 pt. (Be sure that all headings, headers, etc., also are reduced to the same size as normal text.)
- The proposal templates also feature a field for the principal’s license number. This is required for California proposals and optional for others; the license information should be presented as in the example proposal below.

1.3.1 Basis for Billing

Proposal templates include macros to insert standard billing language; the proposal writer should execute the macro that reflects how the client will be billed. If not, ask the person in responsible charge about which basis to use:

Basis for Billing		
[1]	Time & Expenses	Open-ended/No restrictions
[2]	Time & Expenses	Not to Exceed
[3]	Lump Sum/Fixed Fee	Provide for additional services

1.3.2 Retainer Language

Proposal writers have the option of inserting standard retainer language by executing a macro button labeled “[Click to insert retainer language or delete.]”. There is a space provided for the author to insert the retainer amount. If the macro label remains in the text, ask the person in responsible charge whether the client will be required to provide a retainer as well as the amount. If not, delete the macro button.

1.3.3 Contract Provisions

There are three types of Contract Provisions associated with proposals:

CP-1	Recommended for projects not covered by CP-2 and CP-3. Whenever possible, use CP-2 for limited liability protection.
CP-2	Contains a limitation of liability of \$50,000 or our total fee, whichever is greater. Appropriate for projects in which the risk/reward ratio is unusually high (e.g., due diligence, peer review, brief consultation on large project).
CP-3	Contains the same limitation of liability contained in CP-2 and a broad indemnification for high-risk projects (e.g., condominium, peer review).

The proposal contains macros that automatically insert the desired Contract Provisions into the proposal document, which will usually be executed by the person writing the proposal. If not, ask the principal-in-charge which provisions to use.

NOTE: In order to be able to select a rate sheet, run the provisions macro before selecting a rate sheet; selecting a rate sheet first will eliminate the provision sheet option, as the page containing the macros will be replaced by the rate sheet.

1.3.4 Fee Schedules (Rate Sheets)

SGH has five different sets of fees: A, B, C, D, and Government. The second page of the Proposal template includes a grid explaining the different rate schedules:

Rate Category	Approx. Staff Multiplier	P/A, SC, and SPM Rates	Typical Types of Work
A	2.79	Higher than WUS std	Consultations and legal work where the time input is essentially all Principal
B	2.51	WUS std	Typical legal and insurance work – WUS Conceptual remedial design as part of litigation support – WUS Remedial design for owner following an investigation – WUS Standard consulting rates when nothing else applies – WUS
C	2.39	CEUS std	Typical legal and insurance work – CEUS Conceptual remedial design as part of litigation support – CEUS Remedial design for owner following an investigation – CEUS Peer reviews of all types Typical due diligence condition surveys General wind engineering consulting (not tunnel work) Standard consulting rates when nothing else applies – CEUS
D	2.19	Lower than CEUS std	Design of new roofing systems Additional services – new structural design Seismic retrofit design – CEUS General structural consulting – WUS Structural design for small additions and reinforcements – CEUS
See separate government rate sheet.		Government work for defense and scientific applications	
Special project-based rate sheet(s) developed for contract requirements		Government work Other clients as appropriate	

Once the P/A-in-charge selects a rate category for the proposal, double-click on the letter (A, B, C, or D) or phrase ("See separate government rate sheet" or "Special project-based rate sheet(s) developed for contract requirements") corresponding to that schedule. This will run a macro that will, in the case of the letter schedules, remove the grid and replace it with the proper schedule.

If no rates or provisions sheets are needed (e.g., if the proposal refers to a current contract), delete the text and macro tables from the page, but do not delete the page break from the previous page; doing so will cause the entire document to lose its formatting, requiring manual setting of margins, headers, etc. If the proposal contains a reference to a current contract, but does not contain provisions sheets, it must include a specific reference to the earlier contract (a reference number or date).

When creating a proposal, make sure that you are using the current rate sheets and contract provisions. If you have pasted your new text into an existing proposal, you may be unintentionally including obsolete versions of those documents. You can see which rate sheets and provisions you chose by looking at the bottom left corner of their respective pages, or by checking the code after the document's file name (on the example that follows, that information is shown as "0416C09 CP-3," indicating Contract Provisions #3, with Rate Sheet C from 16 April 2009). Better yet, always use the rate sheet and contract provisions from a new proposal template to ensure that you are using the current versions.

23 July 2009

311 Commonwealth Avenue Condominium Association Board
c/o Mr. Brian Bunn
311 Commonwealth Avenue
Boston, MA 02115

Re: 311 Commonwealth Avenue Masonry Face and Mansard Roof Repairs – Construction Administration Services, Boston, MA

Dear Mr. Bunn:

We shall be pleased to provide construction administration services for the masonry facade and mansard roof repairs at 311 Commonwealth Avenue. In accordance with our understanding of your needs, we propose the following scope of work:

- We will review contractor bids for the work. We will participate with you in contractor interviews following bid submission and will assist you in selecting a contractor for award of the project.
- We will review submittals and shop drawings from the contractor.
- We will respond in writing to requests for information (RFIs) from the contractor during construction.
- We will monitor the quality of the work through preliminary mock-ups and ensuing site visits. Following each site/field visit, we will provide a field report that will summarize the progress of work and nonconformance with the project documents (drawings and specifications) and identify any other issues we observe that require correction of work by the Contractor. The proposal allows for a total of fifteen site/field visits. The final one or two visits will include compiling “punch list” items as part of the field report.
- We will review contractor payment applications for the construction.

Depending upon the performance of the Contractor and the severity and extent of unknown conditions that are encountered in the field that require engineering assessment (e.g., steel corrosion requiring structural repair), we have run out two fee estimates for monitoring work. Assuming a fourteen-week construction schedule, the estimate includes a level of effort commensurate with engineering fees of approximately \$50,000 to \$60,000. We have attached an analysis of our proposed hours for the construction schedule.

We propose to undertake the work on time-and-expense basis at our standard hourly rates. We will bill you only for the hours spent and will apprise you of the budget periodically throughout construction. We recommend that you establish a budget of \$60,000, including labor and

expenses, for the scope of work shown above and further described in attached spreadsheet. Our fees are computed on an hourly basis as shown on the attached Fee Schedule and Payment Terms. For expert witness services, our charges to you for time spent in court, arbitration, hearings, depositions, or similar proceedings are 1.5 times the listed rates. Travel time is charged at full rates from 8:00 a.m. to 6:00 p.m. and at half rates during other periods. Simpson Gumpertz & Heger Inc. (SGH) will bill direct expenses at actual cost plus 10%. Direct expenses include out-of-pocket expenses, such as subconsultants, travel, outside services, and charges for the use of SGH field and laboratory equipment, reproduction facilities, etc.

This proposal is valid for sixty days. Our proposed agreement consists of this proposal and the enclosed Contract Provisions and Fee Schedule and Payment Terms. If acceptable, please sign and return one copy of this letter.

Sincerely yours,
SIMPSON GUMPERTZ & HEGER INC.

Stephen S. Ruggiero
Senior Principal
Massachusetts License No. 32734 (Structural)

Matthew B. Bronski
Senior Staff I – Building Technology

Accepted: 311 COMMONWEALTH AVENUE
CONDOMINIUM ASSOCIATION
BOARD

Signature: _____

Printed Name: _____

Title: _____

Date: _____

SSR/pad (072309/BO09-0001092-SSR) 0416C09 CP-3
Encls.

**SIMPSON GUMPERTZ & HEGER INC.
FEE SCHEDULE AND PAYMENT TERMS**

<u>Personnel Category</u>	<u>Hourly Billing Rate (\$ per hour)</u>
Senior Principal.....	\$265
Principal.....	\$240
Associate Principal	\$225
Staff Consultant D	\$230
Staff Consultant C	\$230
Staff Consultant B	\$220
Staff Consultant A	\$210
Senior Project Manager B	\$205
Senior Project Manager A	\$195
Senior Project Supervisor B.....	\$205
Senior Project Supervisor A.....	\$155
Senior Staff II – D	\$205
Senior Staff II – C	\$190
Senior Staff II – B	\$175
Senior Staff II – A	\$158
Senior Staff I – B	\$150
Senior Staff I – A	\$140
Staff IV – B.....	\$195
Staff IV – A.....	\$180
Staff III	\$158
Staff II – B.....	\$133
Staff II – A.....	\$122
Staff I – A.....	\$115
Senior Laboratory Technician B	\$123
Senior Laboratory Technician A	\$98
Laboratory Technician	\$75
Technical Aide	\$72
Senior Graphics Specialist	\$185
Graphics Specialist.....	\$84
Senior Project Drafter	\$125
Senior Drafter	\$119
Drafter.....	\$101
Non-Technical C.....	\$87
Non-Technical B.....	\$77
Non-Technical A.....	\$72

Individuals performing services are billed at the applicable rate(s) stated above. An annual rate adjustment, based upon salary increases, will apply on 1 January each year.

Invoices will be submitted showing labor (hours worked) by labor category and total expenses.

SIMPSON GUMPERTZ & HEGER INC. (SGH)

CONTRACT PROVISIONS

1. CONTRACT – These Contract Provisions and the accompanying Proposal and Fee Schedule constitute the entire Agreement of the parties, and supersede all prior negotiations, agreements, and understandings with respect to the subject matter of this Agreement. These Contract Provisions shall take precedence over any inconsistency or contradictory provisions contained in any proposal, contract, purchase order, requisition, notice to proceed, or like document. The parties may only amend this Agreement by a written document duly executed by both parties.

2. RIGHT OF ENTRY – When entry to property is required by the work, the Client agrees to obtain legal right-of-entry on the property.

3. DOCUMENTS – All reports, notes, drawings, specifications, data, calculations, and other documents prepared by SGH are instruments of SGH's service that shall remain SGH's property. The Client agrees not to use SGH-generated documents for marketing purposes or for projects other than the project for which the documents were prepared by SGH without SGH's prior written permission.

Any reuse or disbursement to third parties without such express written permission or project-specific adaptation by SGH will be at the Client's sole risk and without liability to SGH or its subsidiaries, independent professional associates, subconsultants, and subcontractors. Accordingly, the Client shall, to the fullest extent permitted by law, defend, indemnify, and hold harmless SGH from and against any and all costs, expenses, fees, losses, claims, demands, liabilities, suits, actions, and damages whatsoever arising out of or resulting from such unauthorized reuse or disbursement. Any release or project-specific adaptation by SGH will entitle SGH to further compensation at rates to be agreed upon by the Client and SGH.

4. DISPOSAL OF SAMPLES – SGH will discard samples upon completion of the work covered under this Agreement, unless the Client instructs otherwise in writing.

5. HAZARDOUS MATERIALS – The scope of SGH's services for this Agreement does not include any responsibility for detection, remediation, accidental release, or services relating to waste, oil, asbestos, lead, or other hazardous materials, as defined by Federal, State, and local laws or regulations.

6. CONSTRUCTION SERVICES – When construction-phase services are included in the Agreement, SGH will provide personnel to evaluate whether construction is in general accordance with the construction contract, but not to perform detailed observations or inspections of the work.

SGH is not a guarantor or insurer of the contractor's work; the contractor is solely responsible for the accuracy and adequacy of construction and for all other activities performed by the contractor, including the means and methods of construction; supervision of personnel and construction; control of machinery; false work, scaffolding, and other temporary construction aids; safety in, on, and about the job site; and compliance with OSHA and all other applicable regulations. SGH's evaluation of the contractor's performance will not include review or observation of the adequacy of the contractor's safety measures or of safety conditions on the project site nor of Contractor's means or methods of construction.

7. STANDARD OF CARE – SGH and its subsidiaries, independent professional associates, subconsultants, and subcontractors will exercise that degree of care and skill ordinarily practiced under similar circumstances by engineers and architects providing similar services. The Client agrees that services provided by SGH will be rendered without any warranty, express or implied.

SGH shall exercise usual and customary professional care in its efforts to comply with codes, regulations, laws rules, ordinances, and such other requirements in effect as of the date of execution of this Agreement.

The Client agrees that SGH has been engaged to provide technical professional services only, and that SGH does not owe a fiduciary responsibility to the Client.

8. OPINION OF PROBABLE COSTS – When required as part of our work, SGH will furnish opinions of probable cost but does not guarantee the accuracy of such estimates. Opinions of probable cost, financial evaluations, feasibility studies, economic analyses of alternate solutions, and utilitarian considerations of operations and maintenance costs prepared by SGH hereunder will be made on the basis of SGH's experience and qualifications and will represent SGH's judgment as an experienced and qualified design professional. SGH does not have control over the cost of labor, material, equipment, or services furnished by others or over market conditions or contractors' methods of determining prices or performing the work.

9. SUSPENSION OF WORK – The Client may, at any time, by written notice, suspend further work by SGH. The Client shall remain liable for, and shall promptly pay SGH for all services rendered to the date of suspension of services plus suspension charges. Suspension charges shall include the cost of assembling documents, personnel and equipment rescheduling or reassignment, and commitments made to others on the Client's behalf. If after ninety (90) days the Client resumes SGH's work on the Project, SGH and the Client shall renegotiate SGH's fee.

If payment of invoices by the Client is not maintained current, SGH may, upon written notice to the Client, suspend further work until payments are brought current. The Client agrees to indemnify and hold SGH harmless from any claim or liability resulting from such suspension.

10. TERMINATION – The Client or SGH may terminate this Agreement for cause, except only the Client may terminate for convenience. The party initiating termination shall so notify the other party. The Client shall compensate SGH for services performed prior to termination and for prior authorized commitments made by SGH on the Client's behalf.

11. CHANGES OR DELAYS – Unless the accompanying Proposal provides otherwise, the proposed fees constitute SGH's estimate to perform the services required to complete the Project. Required services often are not fully definable in the initial planning; accordingly, developments may dictate a change in the scope of services to be performed. Where this occurs, changes in the Agreement shall be negotiated and an equitable adjustment shall be made. In addition, costs and schedule commitments shall be subject to renegotiation for

CLIENT: 311 Commonwealth Avenue Condominium Association Board

unreasonable delays caused by the Client's failure to provide specified facilities, direction, or information.

12. FORCE MAJEURE – SGH will not be liable to the Client for delays in performing its Services or for direct or indirect costs resulting from such delays that may result from labor strikes, riots, war, acts of governmental authorities, extraordinary weather conditions or other natural catastrophes, or any other cause beyond the reasonable control or contemplation of either party.

13. LIABILITY – SGH will furnish appropriate insurance certificates for general and professional liability upon request. The Client agrees that SGH's total liability to the Client for any and all injuries, claims, losses, expenses, or damages whatsoever, including attorney's fees, arising out of or in any way related to the Project or this Contract from any cause or causes, including, but not limited to, SGH's negligence, errors, omissions, strict liability, breach of contract, or breach of warranty shall not exceed SGH's total fee under this Agreement or \$50,000, whichever is greater. In no event shall SGH be liable to Client for any indirect, incidental, special or consequential damages whatsoever (including but not limited to lost profits or interruption of business) arising out of or related to the services provided under the Agreement.

14. CONFLICTS OF INTEREST – This assignment may involve parties with adverse interests to clients with whom SGH has current or past relationships. It is SGH policy to make reasonable attempts to identify such relationships prior to acceptance of a professional assignment, but SGH cannot assure that conflicts or perceived conflicts will not arise, and SGH does not accept responsibility for such occurrences.

15. INDEMNIFICATION – GIVEN THE NATURE OF SGH'S INVOLVEMENT ON THIS PROJECT, CLIENT SHALL, TO THE FULLEST EXTENT PERMITTED BY LAW, FULLY PROTECT, INDEMNIFY, SAVE HARMLESS, AND DEFEND SGH AND ITS AFFILIATES, ASSOCIATES, DIRECTORS, OFFICERS, AGENTS, AND EMPLOYEES FROM AND AGAINST ALL LOSSES, COSTS (INCLUDING ANY REASONABLE ATTORNEYS FEES AND EXPENSES), DAMAGES, CLAIMS, INJURIES, LIABILITIES, DEMANDS, OR CAUSES OF ACTION ARISING OUT OF, INCIDENT TO, OR IN ANY WAY CONNECTED WITH ANY ACT OR OMISSION, NEGLIGENT OR OTHERWISE, OF CLIENT OR ITS OFFICERS, AGENTS, EMPLOYEES, SUBCONTRACTORS, SUBCONSULTANTS, OR ANY OTHER PERSON OR ENTITY ANSWERING TO CLIENT IN ANY WAY ARISING OUT OF, INCIDENT TO, OR IN ANY WAY CONNECTED WITH THIS AGREEMENT AND/OR THE PROJECT FOR WHICH SGH'S SERVICES ARE RENDERED. THIS OBLIGATION INCLUDES ANY ALLEGED LIABILITIES DUE TO THE CONCURRENT ALLEGED NEGLIGENCE OF SGH, EXCEPT SOLELY SUCH LOSSES, COSTS, DAMAGES, CLAIMS, INJURIES, LIABILITIES, DEMANDS, OR CAUSES OF ACTION CAUSED BY THE NEGLIGENCE OR WILLFUL MISCONDUCT OF SGH. SGH SHALL BE ENTITLED TO RECOVER ITS ATTORNEYS' FEES, COSTS, AND LEGAL EXPENSES INCURRED IN CONNECTION WITH ANY ACTION TO ENFORCE THIS INDEMNITY OBLIGATION.

16. MISCELLANEOUS

Governing Law: The laws of the state in which the Project is located shall govern the validity and interpretation of this Agreement.

Invalid Terms: If any of these Contract Provisions shall be finally determined to be invalid or unenforceable in whole or in part, the remaining provisions hereof shall remain in full force and effect and be binding upon the parties. The parties agree to reform the contract between them to replace any such invalid or unenforceable provision with a valid and enforceable provision that comes as close as possible to the intention of the stricken provision.

SGH Reliance: Unless otherwise specifically indicated in writing, SGH shall be entitled to rely, without liability, on the accuracy and completeness of information provided by the Client, the Client's consultants and contractors, and information from public records, without the need for independent verification.

Copyright Infringement Indemnification: To the fullest extent permitted by law, the Client agrees to defend, indemnify, and hold harmless SGH from any and all claims, damages, suits, causes of action, liabilities or costs, including reasonable attorneys' fees and costs of defense, arising out of or in any way connected with SGH's use of documents or designs prepared by the Client's consultants, that may be asserted against or incurred by SGH.

Certifications: SGH shall not be required to sign any documents, no matter by whom requested, that would result in SGH's having to certify, guaranty, or warrant the existence of conditions that SGH cannot ascertain.

Payment: Invoices will be submitted periodically, and are due and payable upon receipt. Unpaid balances shall be subject to an additional charge at the rate of 1-1/2% per month from the date of invoice if the unpaid balance is not paid within thirty (30) days. The Client shall reimburse SGH for all attorney's fees and costs related to collection of overdue payments.

Litigation: All costs and labor associated with compliance with any subpoena or other official request for documents, for testimony in a court of law (other than in connection with expert witness services), or for any other purpose relating to work performed by SGH, in connection with work performed for the Client, shall be paid by the Client as a direct expense (actual cost plus 10%).

Taxes: Client shall, in addition to the other amounts payable under this Agreement, pay, on a timely basis, all sales, use, value added or other taxes, federal, state or otherwise, however designated (hereinafter "Taxes"), which are levied or imposed by reason of the transactions contemplated by this Agreement or any of the Services, except for taxes on SGH's net income. Client shall promptly pay SGH for any Taxes actually paid by SGH on behalf of Client, or which are required to be collected or paid by SGH. SGH may bill Client separately for such Taxes.

1.3.5 Revised Proposals

The rules for dating revised proposals are essentially the same as those for letters; on the first page, the revised date is noted below the original date. On subsequent pages (except for rate sheets and the Contract Provisions page), the revised date is stated in the header. (See the "Revised Letters" section for examples.) In addition, a lowercase "r" should be inserted into the proposal number, both on the document itself and in the filename, to distinguish it from the original, e.g., BO05-0000101r-GRD.

If a second revision is sent, the original date of the document plus the current revision date is used; all interim revision dates are omitted. In addition, a lowercase "r" plus the numeral "2" should be placed next to the document number, both on the document itself and in the filename, to distinguish it from the original and first revision (e.g., BO05-0000101r2-GRD).

1.4 Letter Reports vs. Formal Reports

Letter reports use the _Letter.dot template, since they are formatted like letters. To use the formal report template, click on the Office button and select “New.” In the New Document dialog, select “My templates...” and then double click on the Report.dot template.

The following table describes the differences between letter reports and formal:

	Letter	Formal
Bound:	Sometimes (author's discretion).	Always.
Default Text Style	Normal (single space).	Body text (1-1/2 space).
Margins	Top: 0.66 in. Bottom: 1.1 in. Left and Right: 1 in. Header: 0.66 in. Footer: 1.1 in.	Top: 1 in. Bottom: 0.75 in. Left and Right: 1 in. Header: 0.5 in. Footer: 0.25 in.
Sections Start on New Page:	No.	Yes.
Cover Page:	Only if bound; then use Report Cover.dot for the cover.	Yes. Use Report Cover.dot for report covers.
Cover Letter:	No.	Yes, and it is formatted like a regular letter.
Abstract:	No.	Yes; it is formatted like the body of the report and is no longer than one page.
Table of Contents:	No.	Yes. See below.
Page Numbering:	Same as letter.	In the footer of the report's main body, starting with the first page. The abstract should be only one page, but if not, then it is paginated using roman numerals.
Printing:	Same as letter.	Printed on plain paper, except for photos and figures.
Filenames:	Same as letter. Letter reports should be saved with an “L” initial, <u>NOT</u> “LR,” which stands for lab report, or “R,” which is a formal report. If there are separate photo pages, they should be saved with the same number as the letter. For example: 001JQPublic-L-091561.00.ptl.doc = Letter report 001JQPublic-P-091561.00.ptl.doc = Photos	All pieces of the report should be saved with the same number. For example: 002JQPublic-R-091561.00.ptl.doc = Main report 002JQPublic -L-091561.00.ptl.doc = Cover letter 002JQPublic-P-091561.00.ptl.doc = Photos 002JQPublic-C-091561.00.ptl.doc = Cover page and so on.

1.4.1 Order of Documents in Formal Reports

The pieces of a formal report usually appear in the following order in the final copy:

Cover
Cover Letter
Abstract
Table of Contents

Report
Photos
Figures
Appendices

1.4.2 Appendices

Appendix titles use a letter, not a number (“Appendix A,” not “Appendix 1.”) If an appendix was reviewed by someone in WP, it should be saved with that person’s initials; the filename will look like “002JQPublic-AppendixA-091561.00.ptl.doc.” If the appendix was sent to WP or an admin as a PDF and was not reviewed, it should be saved with a name like “002JQPublic-AppendixA-091561.00.pdf.”

1.4.3 Table of Contents in Formal Reports

- The Table of Contents is generated once the report is complete.
- At the end of the report, insert a Next Page section break by going to the Page Setup group under the Page Layout tab and selecting Breaks > Next Page. You will need to edit the header and footer to remove the links to the previous section. (Because of the way that Word sets up the relationships among headers and footers in different sections, it is easier to set up pagination when the Table of Contents is at the end of the document.)
- Open a new Table of Contents document by clicking on the Office button and selecting “New.” In the New Document dialog, select “My templates...” and then double click on the Report TOC.dot.
- Select all the text in the new document using Ctrl+A, copy the text (Ctrl+C), and then paste (Ctrl+V) it into the new section you just created in the report.
- To generate the table itself, select the GENERATE_TOC field and then go to the Table of Contents group on the References tab. Click on Table of Contents and choose Automatic Table 1. After the table is generated, delete the “Contents” heading. You may also need to move the Conclusions heading in front of the Conclusions section of the report (see below).
- The ranges for photo numbers and figure numbers, as well as the appendix information, must be entered manually.
- Note that the pagination of the Table of Contents uses lowercase Roman numerals; if the numbering continues from the previous and/or uses Arabic numbers, the field will need to be edited. To do so, click on the page number field in the footer, and under the Header & Footer group, select Page Numbers > Format Page Number.... In the subsequent dialog box, change the number format to “i, ii, iii...” and the page numbering to “Start at: i.”

Table of Contents

Letter of Transmittal

CONTENTS ¹	Page
1. INTRODUCTION	1
1.1 Background	1
1.2 Objective	2
1.3 Scope of Work: Detailed Investigation Work	2
1.4 Relevant Parties	3
2. INFORMATION FROM OTHERS	4
2.1 Project Document Review	4
2.1.1 Project Specifications	4
2.1.2 Architectural Drawings	5
2.1.3 Mechanical Drawings	6
2.1.4 SKAs	7
2.1.5 Submittals	7
2.1.6 Meeting Minutes	10
2.1.7 Field Reports	10
2.1.8 Correspondence	12
2.1.9 HVAC Testing and Balancing Reports	12
2.2 SPS Staff Interviews	12
3. FIELD OBSERVATIONS AND TESTING	14
3.1 Exterior Observations	14
3.2 Interior Observations	15
3.3 Exploratory Openings	16
3.3.1 Exterior Masonry Openings	16
3.3.2 Membrane Roof Openings	22
3.3.3 Copper Roof Openings	25
3.4 Interior Openings	27
3.5 IR Survey of TPO Roofs	28
3.6 Water Testing at the Natatorium Skylight	29
3.7 Mechanical System and Interior Condition Observations	30
3.7.1 Natatorium Dehumidification System	30
3.7.2 Natatorium Air Pressure	31
3.8 Blower Door Testing	33
3.8.1 Test Procedure	33
3.8.2 Air Leakage Rates	34
3.8.3 Locations of Air Leakage	35
4. LABORATORY ANALYSES	36
4.1 Moisture Content of Roofing Materials	36
4.2 FTIR Scans	36

¹Bold capitalized headings are tab indexed.

5.	CALCULATIONS	38
	5.1 Mechanical System and Interior Condition Calculations	38
6.	DISCUSSION	40
	6.1 Observed Damage and Deterioration	40
	6.2 Moisture Transportation Methods	41
	6.2.1 Air Barriers and Conditioned Spaces	41
	6.3 AFC Wall Air Barrier	42
	6.4 Air Barrier at Copper Roofs	45
	6.5 Air Barrier at TPO Roofs	47
	6.6 Natatorium Skylight	49
7.	CONCLUSIONS	50
8.	RECOMMENDATIONS	51

ILLUSTRATIONS

Photos 1 through 160

APPENDIX

- APPENDIX A – Previous SGH Reports
- APPENDIX B – Exploratory Openings
- APPENDIX C – IR Survey Figures
- APPENDIX D – Building Stack Pressure, Blower Door Tests, Mechanical System Data, and Climate Data
- APPENDIX E – Laboratory Reports

1.4.4 References for Reports

References cited within the report are placed on a separate page at the end of the report, preceded by a reference number in brackets (e.g., [1]), single-spaced, and double-spaced between references. They are formatted as shown in the “References” section below.

1.5 Resumes

To begin a new resume, click on the Office button and select “New.” In the New Document dialog, select “My templates...” and then double click on the Resume.dot template.

Resumes can use one of two preferred styles for listing projects:

- Building Name, City, State (project description)
- Project Description, Building Name, City, State

(Please note that the resume format currently is under revision, so the corporate resume format may change before publication of the next version of the Style Guide.)



Matthew C. Carlton, AIA, LEED AP

Staff II – Building Technology

781-907-9381

mccarlton@sgh.com

Registrations

Architect

New Hampshire

Other

U.S. Green Building Council (LEED)
Construction Supervisor's License (MA)
Construction History Society (USA/UK)
Green Building Certification Institute (GBCI)

Education

Wentworth Institute of Technology,
Boston, MA
B.S. in Architectural Engineering, 2000

Matt Carlton specializes in building envelope waterproofing. He consults on projects that range from new design to the repair of existing buildings for a variety of clients, including architects, contractors, and building owners. His focus on these projects is the analysis and design of the building envelope. His responsibilities include peer review services, design documents preparation, site mockup training, field observations, and forensic investigations. Mr. Carlton is a LEED-accredited professional and a licensed construction supervisor for the Commonwealth of Massachusetts. Examples of his projects follow.

Building Restoration

- Ames Building, Boston, MA (performed exterior survey of masonry and provided on site recommendations on restoration and rebuilding requirements on the historic first high rise in Boston)
- 311 Commonwealth Avenue, Boston, MA (exterior survey, design, and contract administration)
- 1 Commonwealth Avenue, Boston, MA (exterior survey and design restoration for roofing and windows)
- Babson College, Wellesley, MA (performed extensive asset management surveys for deferred maintenance assessment of residential and academic buildings)
- Omni Parker House, Boston, MA (assistant project manager for the replacement of stone features to match existing building details for the oldest functioning hotel in the U.S.; worked from project specifications and design documents to make site observations on quality and contract obligations of restoration contractor)
- Watertown Arsenal, Watertown, MA (assistant project manager for replacement of roofing systems to maintain the historic integrity of this facility on the National Register of Historic Places)
- 306 Dartmouth Street, Boston, MA (assistant project manager for building survey for repair and replacement of brownstone for historic mansion in Boston's Back Bay)
- Fleet Center, Boston, MA (provided contract administration and field review services for roof and building envelope repairs to recently constructed facility using project specifications and contract documents)
- Weston Public Library, Weston, MA (worked from on site field office for three months. Duties included checking all phases of restoration for compliance with project specifications and contract plan, developing daily field observation reports, and having weekly meetings with Library Board of Trustees and contractor.)
- The First Church of Christ, Scientist, Boston, MA (performed extensive facade survey, noting all envelope repairs to historic campus of poured concrete buildings; work was executed from a swing staging apparatus)

Peer Review of Design/Construction Documents and Design Consulting / Contract Administration

- Mystic Housing, Somerville, MA (design and contract administration)
- Capital Cove Apartments, Providence, RI (peer review and investigation)
- 311 Commonwealth Avenue, Boston, MA (restoration design and contract administration)
- Nemours Hospital, Orlando, FL (design consulting on building envelope)
- Genzyme Expansion, Boston, MA (design consulting on curtain wall)

SIMPSON GUMPERTZ & HEGER INC.

41 Seyon Street, Building 1, Suite 500
Waltham, Massachusetts 02453
main: 781.907.9000 fax: 781.907.9009

www.sgh.com

Boston
Los Angeles
New York
San Francisco
Washington, DC

- Genzyme Expansion, Framingham, MA (design consulting on curtain wall)
- Main Building, Children's Hospital of Philadelphia, Philadelphia, PA (Phases II and III Renovation and Expansion, design consulting on curtain walls, metal panels, roofing, and waterproofing)
- 10 Akron Street, Harvard University Student Housing, Cambridge, MA (design consulting on building envelope, contract administration)
- South Campus Expansion, Children's Hospital of Philadelphia, Philadelphia, PA (design consulting on building envelope)
- Russia Wharf Redevelopment, Boston, MA (design consulting on building envelope)
- Sculpture Building, Yale University, New Haven, CT (design consulting on building envelope, investigation)
- Building W1, MIT Graduate Housing, Cambridge, MA (survey building, design of masonry restoration and window replacement)
- Leisure Tower, Lynn, MA (design and contract administration)
- Avenir Condominium, Boston, MA (new construction peer review, design consulting on building envelope, contract administration services)

Professional Activities

- Boston Society of Architects: Architectural Registration Exam (ARE) Success Team Mentor
- USGBC Member
- Association of Preservation Technology International: Member
- National Trust for Historic Preservation: Active Member
- Town of Norwood Historical Commission: Participating Member
- National Roofing Contractors Association: Member
- Boston Society of Architects Building Enclosure Council: Member
- Colonial Williamsburg Supporting Founder: Member

1.6 References

References are used in SGH reports and resumes. The following is a set of standards based upon the Chicago Manual of Style for listing references within SGH documents.¹ In all cases, the purpose of any source citation is enough information either to lead directly to the source or, for hard-to locate sources, to positively and uniquely identify the source. Elements included are author, title, and publication details, in that order.

References cited within a report are placed on a separate page at the end of the report, preceded with a reference number in brackets (e.g., [1]), single-spaced and then double-spaced between references. For reference types not listed here, consult the *Chicago Manual of Style*.

1.6.1 Authors

In all cases, SGH style is to use initials rather than spelling out the first name. The first-listed author's name should be inverted (last name, first initial). Other authors are presented in standard order (first initial first).

One Author

Bell, G.R., "Structural Failure Investigations," *Civil Engineering Practice, Journal of The Boston Society of Civil Engineers Section*, American Society of Civil Engineers, Vol. 13, No. 1, spring/summer 1998.

Two Authors

Doelp, G.R., and P.S. Moser, "Paving Systems Over Plaza Waterproofing Membranes: The Importance of Membrane-Level Drainage," *Interface: The Journal of RCI*, Vol. 27, No. 3, Mar. 2009.

Three Authors

Kassabian, P.E., Z. You, and S. Pellegrino, "Retractable Roof Structures," *Proceedings of the Institution of Civil Engineers, Structures and Buildings*, Feb. 1999.

Four or More Authors

There are two acceptable methods of attribution for works with more than three authors; the first is to list all the authors, using a style similar to that for three authors. The second allows the author to substitute "et al." for authors after the first. If you use the latter method, be consistent about which term you use to substitute authors.

Zarghami, M.S., et al., *Global Structural Analysis of the Response of the WTC Towers to Impact Damage and Fire*, NIST NCSTAR 1-6C Federal Building and Fire Safety Investigation of World Trade Center Disaster, Oct. 2005.

Editors and Translators

Where a publication has an editor or translator, that person is listed after the title of the publication, preceded by "Edited by"; "Compiled by"; or "Translated by."

¹ *The Chicago Manual of Style*, 16th Ed., Chicago, University of Chicago Press, 2010, Ch. 14.

Dusenberry, D.O., "General Considerations for Blast-resistant Design of Facilities," *Engineering Smarter – Proceedings of the 2003 Structures Congress & Exposition, May 29-31, 2003, Seattle, Washington*, Edited by G.R. Miller and L.N. Lowes, Structural Engineers' Association of Washington, Seattle, WA, 2003, CD-ROM.

Organizations as Authors

When an organization, instead of an individual, wrote the work, it is cited as the author; if it is also the publisher, it is cited in both places. Author information should be as specific as possible, noting the division or section within the entity that composed the work by listing organization first and then the division (e.g., American Society of Civil Engineers, Technical Council on Computing & Information Technology,).

American Water Works Association, *AWWA M9, Manual for Concrete Pressure Pipe*, Third Ed.; American Water Works Association, Denver, CO, 2008.

1.6.2 Dates

Citations may include a year of publication for books, a month of publication for magazines, or specific dates for conference proceedings. Date format should be as follows: day (in numerals) [space] month (abbreviated) [space] year (all four digits).

Months are abbreviated as Jan., Feb., Mar., Apr., May, June, July, Aug., Sept., Oct., Nov., and Dec.

Brainerd, M.L., M. Vatovec, P.L. Kelley, and C. Russo, "Mitigation of Damage to Buildings Adjacent to Construction Sites in Urban Environments," *Structure*, Sept. 2010.

1.6.3 States

Always use postal abbreviations unless in the title of an organization. (See Appendix E for State, Territorial, and Canadian Provincial Postal Abbreviations.)

1.6.4 Books

Book titles are italicized, and capitalized headline style (capitalize all major words, and lowercase articles *the*, *a*, and *an*, unless used as the first word of the title). See Section 1.1.1 for citing editors.

McCormac, J.C., *Design of Reinforced Concrete*, 5th ed., Wiley, New York, NY, 2001.

American Society of Civil Engineers, Technical Council on Computing & Information Technology, *Computing in Civil Engineering: Proceedings of the 2007 ASCE International Workshop on Computing in Civil Engineering, July 24-27, 2007 Pittsburgh, Pennsylvania*, L. Soibelman and B. Akinci, Eds., American Society of Civil Engineers, Reston, VA, 2007.

1.6.5 Chapters of Books

When citing a chapter or section of a book, the chapter or section title is included in quotation marks, followed by "in" and the title of the book. The page range should be included after the name of the editor or editors.

Bell, G.R., "Engineering Investigation of Failures," in *Forensic Structural Engineering Handbook*, Edited by R.T. Ratay, 6.1-6.33, McGraw-Hill, New York, NY, 2000.

1.6.6 Articles in Periodicals

List the title of the article in quotation marks, followed by the title of the publication in italics. Volume and issue number follow the title of the publication with no intervening punctuation. If a month or season appears with the year, the issue number may be omitted. Page numbers are listed at the end of the citation.

Cash, C.G., and W.H. Gumpertz, "Economic and Performance Aspects of Increasing Insulation on the Temperature of Built-Up Roofing Systems," *Journal of Testing and Evaluation*, Vol. 5, No. 2, Mar. 1977: 124-129.

Sifre, P.J., J.C. Parker, and A. Zimmer, "Blossoming Knowledge: The Holocaust and Human Rights Center," *Modern Steel Construction*, Vol. 49, Jan. 2009: 30-33.

1.6.7 Presentations/Lectures

Presentations are treated similarly to articles in publications. List the title of the presentation in quotations, followed by the phrase "presentation at" or "presentation for" and the title of the event in italics. The city, state, and date should follow.

Bell, G.R., "A Framework for Quantifying the Water-Penetration Resistance of Exterior Wall Cladding," presentation at the *International Conference on Building Envelope Systems and Technologies*, Ottawa, ON, Canada, 26 – 29 June 2001.

1.6.8 Published Articles Retrieved from the Internet

For citing online publications, the URL (or Digital Object Identifier [DOI], if provided) should be included as the last part of the citation.

Sifre, P.J., J.C. Parker, and A. Zimmer, "Blossoming Knowledge: The Holocaust and Human Rights Center," *Modern Steel Construction*, Vol. 49, Jan. 2009: 30-33, http://www.modernsteel.com/Uploads/Issues/January_2009/012009_HHRC_web.pdf.

1.6.9 URLs for Web Sites, FTP Sites, Etc.

List the complete URL of the Internet site (e.g., <http://www.sgh.com/index2.htm>). If you need to break the URL into separate lines, it is best to do so before a slash. (For additional information on formatting Internet addresses, see Section 4.4.)

1.6.10 Articles Retrieved from Library or Commercial Databases

If the database includes a stable or persistent URL (or DOI, if provided), that should be included as the last part of the citation. Otherwise, include the name of the database and any identification number that may be provided.

Daley, B., "A Tale of a Whale: Scientists, Museums Are Eager to Study, Display Rare Creature," *Boston Globe*, 11 June 2002, third edition, LexisNexis Academic.

Encyclopedia of Animals, s.v. 'emperor penguin,' accessed 21 June 2008, EBSCO Animals (9500100510).

1.6.11 Court Cases, Decisions, and Depositions

Citing legal cases and documents varies in format from most citations. Recommended stylebooks are *The Bluebook: A Uniform System of Citation* and *The ALWD Citation Manual: A Professional System of Citation*. Titles of articles and chapters should be noted in italics. *Bluebook* style uses 2d and 3d rather than 2nd and 3rd.

Case name in roman with "v." for "versus" |commal| [space] volume of report |space| abbreviated name of law reporter |space| ordinal series number of the reporter |space| opening page of decision/deposition |commal| [space] cited page number(s) |space| [open parentheses] abbreviated court name and year |close parentheses| |period|

United States v. Christmas, 222 F.3d 141, 145 (4th Cir. 2000).

NLRB v. Somerville Construction Co., 206 F.3d 752, 752 n.1 (7th Cir. 2000).

1.6.12 Specifications

Specifications are published bound together like a book, so they should be treated as such. Since no author is specified, the name of the company publishing the specifications is substituted:

Name of Company publishing the specifications |commal| [space] title of specifications in italics |commal| [space] city |commal| [space] state |commal| [space] date |period|

Sections within specifications:

Name of Company publishing the specifications |commal| [space] title of specifications in italics |commal| [space] "Section" |space| section number |commal| [space] city |commal| [space] state |commal| [space] date |period|

When referring to a specific paragraph within a section:

Name of Company publishing the specifications |commal| [space] title of specifications in italics |commal| [space] "Section" |space| section number |commal| [space] "Para." |space| paragraph number (e.g., 3.02.B.1.c – note that there are no spaces between reference numbers and no period at the end) |commal| [space] city |commal| [space] state |commal| [space] date |period|

Simpson Gumpertz & Heger Inc., *TMCO Foundation Repairs Phase 2*, Section 01700, Para. 1.1.A, Waltham, MA, Apr. 2010.

1.6.13 Standards

Standards, such as ASTM standards, are published either as an entire volume or as part of a collection of standards. If the standard is in its own volume, it should be cited like a book; if it is part of a collection of standards, then it should be cited like a book chapter.

AWWA C301-07, AWWA Standard for Reinforced Concrete Water Pipe – Steel Cylinder Type, Prestressed, American Water Works Association, New York, NY, 2007.

Often, standards will be obtained from CD-ROMs in the corporate library; in this case, append the publisher of the CD-ROM [comma] [space] "CD-ROM" [period] at the end of the citation.

1.7 Memoranda

To open a new memo document, click on the Office button and select “New.” In the New Document dialog, select “My templates...” and then double click on _Memo.dot.

Note: If the memo is going to a client, print it on letterhead stationery. (If the memo is going to “File,” print on letterhead; these often are sent to clients.) Internal memos go on plain paper. In addition, if it is only one page, it should be centered on the page like short letters.

If there is a need for a cc: field, it is inserted below the From: field.



Memorandum

Date: 23 April 2009

To: Stephanie Giampa

From: Matthew M. Copeland

Project: 080151.12 – Crack Gauge Installation and Monitoring, 101 Belvidere, The First Church, of Christ, Scientist, Boston, MA

Subject: January – April 2009 Monitoring Results

BACKGROUND

In October and November 2008, SGH inspected the facades of 101 Belvidere. One of our goals during that investigation was to locate areas of facade distress (i.e., cracks and spalls) and to provide recommendations for mitigation. During that investigation, we identified a concentration of large cracks at the inside corner of the tunnel through 101 Belvidere at the fourth-floor level (Photo 1). We also noted a large crack on an interior wall at the fourth-floor level above the exterior cracks (Photo 2). Based on those observations, we recommended in our 24 November 2008 report installing crack monitors on the interior crack.

GAUGE INSTALLATION

On 6 January 2009, we installed one mechanically fastened Geokon Model 4420 vibrating wire crack meter at the interior fourth-floor crack on 6 January 2009. We also installed one epoxy-set face-mounted plastic crack gauge as a backup and to allow TFCCS to monitor the crack independently between SGH readings if desired. On 4 February 2009, we returned to install a battery-powered data logger with the intention of recording readings every 4 hrs and storing the readings in the logger's internal memory.

RESULTS

We recorded readings from the Geokon crack meter immediately after installation on 6 January 2009, on 4 February 2009, and on 6 April 2009. These readings are summarized in the table below:

Date	Time	Gauge Reading (digits)	Gauge Reading (in.)	Measured Movement from Installation (in.)	Gauge Temp. (°C)	Mean Daily Temp. (°F)
1/6/2009	7:00 a.m.	6368.0	2.594323	–	24.9	31
2/4/2009	11:25 a.m.	6364.4	2.592857	-0.001466	24.5	20
4/6/2009	7:20 a.m.	6369.1	2.594771	+0.000448	24.7	45

The readings show that the difference in crack width between 6 January 2009 and 6 April 2009 is 0.000448 in., or less than five ten-thousandths of an inch. This variation is smaller than the accuracy of the meter, which is approximately 0.0005 in. Note that a negative movement indicates that the crack has gotten smaller and that a positive movement indicates that the crack has gotten wider.

Note that we only have three readings, despite the data logger installation, because of a programming error during installation. This error did not become apparent until after our visit to record the crack meter reading on 6 April 2009. A return visit is required to correct the programming error.

CONCLUSIONS AND RECOMMENDATIONS

Based on the first three months of monitoring, it does not appear that the crack is moving significantly. However, three months is a relatively short monitoring period and does not include anticipated weather cycles. As such, we recommend continuing the monitoring program for at least one year from the date of the first reading, with readings taken quarterly during that period. We also recommend correcting the battery-powered data logger to record readings between our visits to the site. Quarterly readings may be able to be combined with readings of other crack gauges installed throughout the TFCCS campus or with other work on site to limit cost.

I:\BOS\Projects\2008\080151.12-CRCK\WP\001MMCopeland-M-080151.12.ptl.doc

1.8 Transmittals

To open a new plain transmittal document, click on the Office button and select “New.” In the New Document dialog, select “My templates...” and then double click on _Transmittal.dot. The unprotected section of the document should be formatted in the same manner as the text section of standard letters. Print transmittals on letterhead stationery. The message itself does not need a salutation or closing.

If the transmittal will be used only as the cover page for a fax or will be sent as a PDF file, use _TRANSw_logo.dot.

Transmittals should be only one page long. If they go over one page, the message should be sent as a memo with a transmittal cover sheet. Advise the document author and ask if he/she would like the message reformatted as a memo. If you need to try to fit the transmittal onto one page, reduce the comment text to 10 pt font.



Transmittal

Date:	13 January 2011	Number of Pages (incl. cover):	7	
To:	Simon Stein State University Plaza 353 Broadway Albany, NY 12246	Tel. Number:		
Copies to:		Fax Number:		
		Tel. Number:		
		Fax Number:		
Project:	SUCF Project No. 36106, Exterior Renovations – Plaza Building, State University of New York, System Administration Campus, Albany, NY			
From:	Nicholas T. Floyd	Project Number: 080467		
Delivered Via:	<input type="checkbox"/> U.S. Mail <input checked="" type="checkbox"/> Overnight	<input type="checkbox"/> Fax <input type="checkbox"/> Messenger	<input type="checkbox"/> Hand Carried <input type="checkbox"/> Pick up	<input type="checkbox"/> E-Mail <input type="checkbox"/> with Attachments
Copies Delivered Via:	<input type="checkbox"/> U.S. Mail <input type="checkbox"/> Overnight	<input type="checkbox"/> Fax <input type="checkbox"/> Messenger	<input type="checkbox"/> Hand Carried <input type="checkbox"/> Pick up	<input type="checkbox"/> E-Mail <input type="checkbox"/> with Attachments

Comments:

Enclosed are six signed copies of Lupini's Payment Application #5 for work completed through 10 December 2010.

- | | | |
|---|--|---|
| <input type="checkbox"/> Per your request | <input checked="" type="checkbox"/> Approved | <input type="checkbox"/> No correction |
| <input type="checkbox"/> For your information/records | <input type="checkbox"/> Approved as noted | <input type="checkbox"/> Not approved |
| <input type="checkbox"/> For your approval/comments | <input type="checkbox"/> Revise and resubmit | <input type="checkbox"/> Resubmit for record copy |
| <input type="checkbox"/> For your review/comments | <input type="checkbox"/> Returning to you | <input type="checkbox"/> Please return |
| <input type="checkbox"/> Other | | |

I:\BOS\Projects\2008\080467.00-DH BEWP\096NTFloyd-T-080467.00.pd.doc

1.9 Field Reports

Use the **_Field_trip.dot** template for field reports (click on the Office button and select “New,” and in the New Document dialog, select “My templates...” and then double click on **_Field_trip.dot**). The unprotected section of the document should be formatted in the same manner as the text section of standard letters.

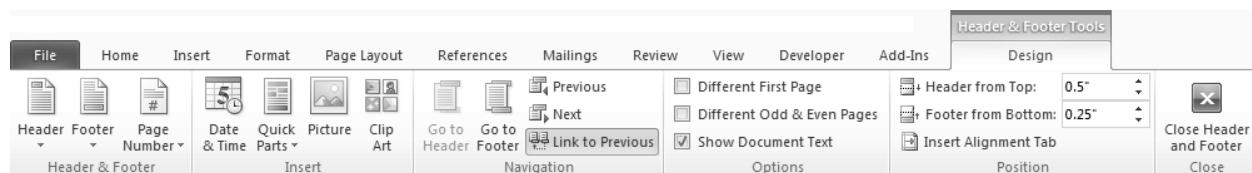
To add information in the second-page header, you will need to unprotect the document using SGH Productivity’s Form Protection Toggle. See Section 1.12.3 for instructions.

1.9.1 Photo Pages in Field Reports

Because of protected areas in the field reports, the normal method of creating photo pages (outlined in Section 1.12.1) will not work. The best way to use photos with field reports, and to avoid the formatting difficulties resulting from photos in field reports, is to create a separate photo page file. That said, engineers often request that photos be in field report file. **Do not press the [Start Photo Pages Section] button.** This will cause the utility to crash, possibly bringing Word down with it, resulting in lost work and time. You will be able to insert the photo placeholders, but the photo pages must be manually formatted before doing so. (Formatting the section after pictures have been inserted may create issues with placement, especially if there are arrows and text boxes placed on top of the photos.)

The following are instructions for setting up the photo page section of a field report (these instructions may also be used to correct incorrectly formatted photo pages):

1. Unprotect the document using the Form Protection Toggle.
2. Place your cursor at the end of the document. Place a couple of extra returns at the end, making sure that they are in Normal style, not Filename, as this will be the default style for the new section.
3. Insert a New Page Section Break by clicking Breaks in the Page Setup group on the Page Layout ribbon. On the resulting menu, select Next Page. **Do not** create a section break by either using Ctrl+Enter or selecting Page in the Breaks menu. This will not create a new section, which is necessary to maintain correct formatting of the field report.
4. View the document header and footer. Place your cursor in the header for the new section. On the Header and Footer Tools ribbon, unselect the “Link to Previous” button (see example below); perform the same procedure on the footer.



5. Click the arrow next to Page Setup on the Page Layout ribbon. Under the Margins tab, set the margins to the following: Left = 1.0, Right = 0.4, Top = 0.25, Bottom = 0.3. Under the Layout tab, set the Header to 0 and the Footer to 0.3. Finally, set the vertical page alignment to Center.

6. The photo page footer is in 8 pt font. To set it to the proper place, on the ruler bar, move the right tab (the backwards-L-shaped tab) to 7 in.
7. Tab over to the right tab and enter "SGH Project XXXXX.XX / [Month and Year of the Site Visit (not the date that the report was processed)]. For example, a field report for Project 023469.26, for a site visit made on 8 January 2006, would have a photo page footer of "SGH Project 023469.26 / January 2006," regardless of when the report was actually generated.
8. After inserting the footer, click on the middle of the page to close the header and footer, and place the cursor at the return in the photo page. You may now use the Photo Pages tool to insert placeholders into the section.

FIELD REPORT

Report By: Susan L. Knack-Brown

SIMPSON GUMPERTZ & HEGER



Engineering of Structures
and Building Enclosures

Date of Site Visit: 9 December 2009

Date Report Issued: 16 December 2009

Project: 070844

Keyword: MASH

Project Name/Subject: Roof and Exterior Repairs

Purpose: Site visit

Meeting/Work Location: Massachusetts State House,
Boston, MA

Time – from: 7:00 a.m.
to: 11:30 a.m.

Weather: Rain/Snow showers

Ambient Temperature: 35°F

Persons Contacted: Jim Sanderson (J.K. Scanlan); Dan Pero (DCAM);
Bob Sparks (Greenwood),

Work occurring on site: Due to the weather, minimal work was occurring on site.

The following is a summary of our observations and discussions with personnel on site. Items that require action are noted in bold.

1. We met with Muckle and Associates (M&A), JK Scanlan (JKS), and DCAM regarding their change order request and the allowance figure they are carrying in their base price. The following items were discussed:
 - SGH referred to RFI #5, where they stated on 2 June 2009 in response to a pre-bid question from M&A the following: "Repair of existing visible damage is to be included in the base bid (typically small splits and checks) as noted on attached photographs. To repair additional damage which occurs during removal as a result of unseen existing fasteners or previous epoxy repairs, include 160 hours of labor (approximately broken down as follows: at balustrade include 1 hour of labor per baluster (120 hours total); at entablature include 40 hours of labor total)." SGH views that this 160 hrs was only for repairs related to this unforeseen condition as raised by M&A and that it should be credited to the DCAM if the work was not required. DCAM and JKS reported seeing few repairs required for this reason. M&A believe that they are owed the money and that this was the amount they included for any repairs (they did not include a base bid repair amount). Until the issue can be resolved, SGH recommends against processing payment against the allowance amount.
 - DCAM requested additional back-up related to IB 18 including labor hour breakdown and board footage.
 - JKS questioned the fit-up hours that M&A carried for IB 18. DCAM agreed this was acceptable.
 - DCAM stated that M&A should provide a credit for the repairs they did not have to complete on the balustrade base piece since the piece was replaced instead of repaired.
 - Specification Section 064013, Para. 1.2.A.1 states that the contractor is to provide a base for balusters. SGH stated that this was not the design intent

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they expressed to the contractor during the pre-bid walkthrough and that they assumed reuse of the existing.

- DCAM asked SGH to clarify our intent for preparation, specifically in regard to the scope noted in Section 064013, Para. 3.2 C. This paragraph notes that the exterior architectural woodwork contractor is to prime and back-prime the lumber. SGH stated that they felt the wood preparation is also bought in the painting specification but that they would expect M&A to address any areas which will not be accessible once the work is installed.
- JKS noted that the number of brackets is incorrect in the reference to IB 17.

After the meeting, SGH reviewed the existing balusters stored in the JKS office and in the hallway. During our review, we noted the following:

- A number of the new epoxy repairs do not follow the profile of the wood, and the epoxy has been installed on painted surfaces (Photos 1 and 2). **M&A should fix repairs to correctly match the profile.**
- There are cracks and defects in the wood which have not been repaired (Photos 3 and 4).
- One baluster base was partially cut and is not smooth (Photo 5).
- All of the back and end surfaces have not been primed (Photos 4 and 6).

2. We reviewed the conditions in the Cooling Tower. Because of the increase in insulation thickness with the new roof, there is minimal flashing height around the rising walls, at door thresholds, and at a condensate pipe penetration (Photos 7 and 8). **Greenwood agreed to make a sample opening in the existing panels at one location to determine the feasibility of raising the existing panels.** We requested that this opening occur on the east side of the Cooling Tower, as this is the location that JKS reported staining which they believe indicated leakage from above or through the wall system.

1.10 Meeting Minutes

With the proliferation of construction management projects requiring us to produce minutes, a meeting minutes template was created to standardize how they were recorded. While similar in appearance to the field report, it requires different information, such as the meeting number, the date of the meeting, and the day the minutes were generated. To create a meeting minutes document, click on the Office button and select “New.” In the New Document dialog, select “My templates...” and then double click on _Meeting Minutes.dot.

MEETING MINUTES

Project Meeting No. 4

Project: 060847.07

Keyword: NEVI

SIMPSON GUMPERTZ & HEGER



Engineering of Structures
and Building Enclosures

Project Name: Wall Repairs, Mission Park – Neville House, Boston, MA

Meeting Date: 29 April 2010

Meeting Time: From 1:00 p.m. to 3:00 p.m.

Meeting Location: Flynn Conference Room

Recorded by Peter N. Chudak

Date Issued: 3 May 2010

1. ATTENDEES

- Girma Belay and Lori Taylor, Roxbury Tenants of Harvard (RTH)
- Chris Pizzi, Cornu Management (Comu)
- Chris Knollmeyer and Scott Bailey, Knollmeyer Building Corp. (KBC)
- Peter N. Chudak, Simpson Gumpertz & Heger Inc. (SGH)

Old Business

- Mockups for each phase of the work will be constructed on Drops 19 and 20. Mockups include sheathing installation and taping, stainless steel flashing, membrane flashing, brick and mortar color, sealant color, and brick wall construction. KBC will build standalone brick wall mockups for mortar and sealant color.

New Business

- **Pipe Scaffolding Loads:** New England Scaffolding Inc. has completed design of pipe scaffolding and has sent it to Walker for approval. Chris Pizzi is to follow up over the next few days with Walker to get a quick turnaround on this information. SGH is to review pipe scaffolding design once received. KBC plans to erect pipe scaffolding starting Friday, 7 May.
- **Fraco Lifts:** The north elevation will consist of pipe scaffolding as opposed to a Fraco mast climber. This change will not affect street, hospital, or pedestrian access. Pipe staging is to commence Monday, 3 May. Fraco is continuing to erect mast climber on west elevation. Crane will be on site Friday and Saturday to install last section.
 - SGH received e-mail from Fraco regarding location of lift attachments to the spandrel beam. SGH engineer is to review and comment.
- **Mockups:** KBC will build standalone brick wall mockups for mortar and sealant colors next week. Mortar colors take approximately three weeks to cure.
- **Sealant Adhesion Tests:** KBC will plan on testing sealant adhesion on the mockup panel once sealant has cured. The sealant should be applied to the brick masonry on

the mockup panel after the masonry has cured for seven days, ten days, and fourteen days. The sealant should cure for twenty-one days and then be tested for adhesion.

- **Spandrel Beams:** No issues this week. Chris Knollmeyer and Josh Kivela walked around the building and looked for spandrel beams that should be washed. Chris and Josh agreed that the two beams below the louver on the south elevation should be washed.
- **Window Repairs:** SGH is to meet with KBC on Monday, 3 May, to look at typical window repairs. KBC is to submit price for window repairs next week. Chris Pizzi is to coordinate access to view windows from inside the building.
- **Submittals:** KBC submitted required product data and material safety data sheets. SGH is to review and return these by next meeting.

Schedule

- KBC is to begin erecting pipe scaffolding by 7 May 2010.
- The brick has arrived and is being held at a location off site. All other materials have been ordered.
- KBC will notify Brigham and Women's Hospital about Saturday work.

Safety

- No issues.

Payment and Budget

- No issues were raised during the 29 April 2010 meeting.
- During construction, the team will review unit-price work on a weekly basis.

Other Concerns

- None.

1.11 Lab Reports

Use the **_Lab Report.dot** template for lab reports. To create a new lab report, click on the Office button and select “New.” In the New Document dialog, select “My templates...”, and then double click on Lab Report.dot).

Please Note: Lab Reports are printed on letterhead stationery. They also are dated for the test day, not the day the report is generated. (This also applies to petrography reports.)



7 April 2009

LABORATORY REPORT**BY** Patrick B. Kelley**PROJECT** 070523.69 – Boston Common Garage Driveway Ramp Restoration,
Boston, MA**SUBJECT** Tests to Determine Chloride Ion Contents in Concrete**SAMPLES** Six concrete cores were submitted by Paul M. Millette on 2 April 2009.**PROCEDURES**

The specimens were prepared and analyzed in accordance with AASHTO T-260-97 – The Standard Method of Sampling and Testing the Total Chloride Ion in Concrete and Concrete Raw Materials. The following summarizes our test procedures:

- We cut the samples at predetermined depths. We crush the samples with a mortar and pestle to pass a No. 30 sieve and oven dry the samples at 150°F for a minimum of 24 hrs.
- Three grams of the sample is added to a tared 100 ml beaker and weighed to the nearest 0.1 mg.
- We add 10 ml of room-temperature distilled water to each sample and swirl the sample.
- We add 3 ml of nitric acid to each beaker using a pipette and allow it to suspend and digest for 4 min.
- The beakers are filled to 50 ml with hot distilled water and stirred.
- We add 3 ml of hydrogen peroxide (30%) to each sample and then allow it to digest for an additional 3 min.
- Five drops of methyl orange indicator are added to each solution. When needed, additional nitric acid is added drop wise until a slight red color is observed.
- The solutions in each beaker are covered with a watch glass and placed on a hot plate. Each solution is brought to a boil and maintained at temperature for 1 min.
- While hot, each sample is filtered through a set of double filter papers (No. 41 over No. 40) into a 250 ml flask. The filters are washed ten times with hot distilled water.

- The funnel and the outside of the filter papers are rinsed with hot distilled water. The final sample volume is approximately 150 ml.
- The samples are covered and allowed to cool to room temperature for 1-1/2 hrs.
- Each sample solution is weighed to the nearest 0.1 g using an Ohaus balance.
- Each sample solution is titrated (Gran Plot Method) using an Orion chloride-selective electrode and an Orion Model 702 Conductivity Meter.
- Silver nitrate (0.0141 N) is added to produce a reading of 225 ± 5 mV, and the amount of silver nitrate is recorded. Additional silver nitrate is added five times in 0.5 ml increments, and the resulting mV readings are recorded after each increment. A linear regression analysis of the data, the "Gran Plot Method," for each titration is then used to determine the end point and the corresponding percent chloride, which is calculated in accordance with AASHTO T260-97 – Section 5.4.2.1.

RESULTS

The chloride ion content for the concrete core samples are based on a total batch weight of 3,915 lbs / cu yd and an assumed unit weight of 145 lbs / cu ft.

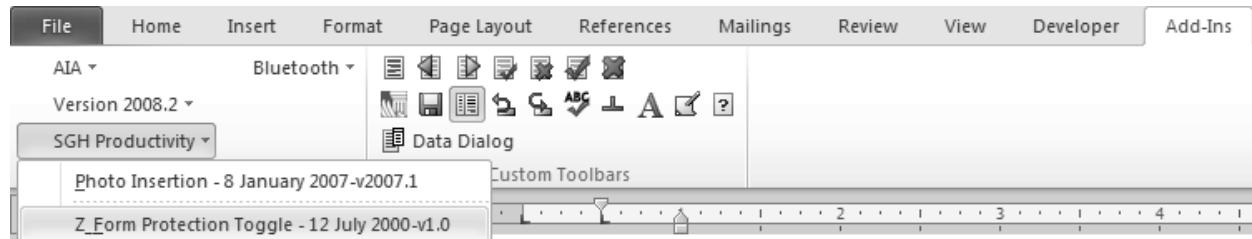
Sample No.	Depth From Surface (in.)	Chloride Ion	
		%	Lbs / cu yd
1	1/4	0.181	7.09
1	1/2	0.177	6.93
3	1/4	0.232	9.08
3	1/2	0.203	7.95
4	1/4	0.224	8.77
4	1/2	0.197	7.71
5	1/4	0.020	0.78
5	1/2	0.017	0.67
6	1/4	0.021	0.82
6	1/2	0.015	0.59
7	1/4	0.109	4.27
7	1/2	0.111	4.35

Note: According to ACI 201, the chloride corrosion threshold is 0.20% total acid soluble chloride by mass of cement, which for a six- or seven-bag mix is equivalent to 0.029% or 0.034%, respectively by mass of concrete, or between 1 and 1-1/2 lbs / cu yd, assuming a total batch weight of 3,915 lbs / cu yd.

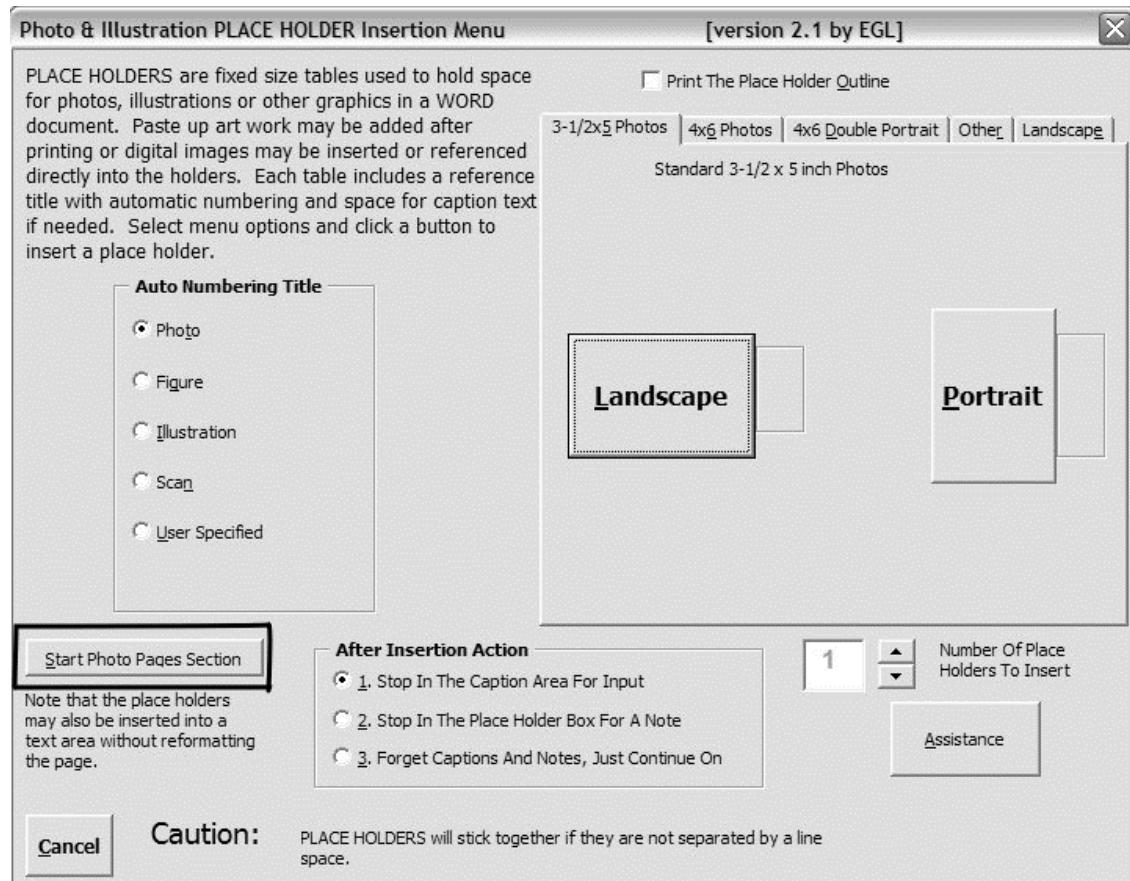
1.12 Photo Pages/SGH Productivity

1.12.1 Using Productivity to Make Photo Pages

1. To use the photo placeholder insertion macro, go to the Add-Ins tab on your ribbon. In that group, go to the SGH Productivity menu and select Photo Insertion.



2. The following dialog box will open. (Note: please see Section 1.9.1 – Photo Pages in Field Reports – for instructions on formatting the photo-page section in field reports.)



3. Click on [Start Photo Pages Section] (highlighted above). A command prompt will ask you to input the project number and date (i.e., month and year), which usually will be the month and year the document is created (the only exceptions are the field report, which uses the month and day of the site visit, and the lab report, which uses the date testing was performed). SGH Productivity will insert a section break, format the page setup, insert the project number, and insert the date for you. **Unless you begin your**

photo section with this command, your photo pages will not be formatted to SGH standard and will need to be formatted manually.

4. In the lower middle portion of the dialog box, there is a series of options for adding captions. Choose one of these by clicking in the appropriate checkbox next to the selection:
 1. **Stop in the Caption Area for Input.** Select this option if you would like to add captions to the objects. (This is the default and will be sufficient for most, if not all, photo pages documents.)
 2. **Stop in the Place Holder Box for a Note.** Select this option if you would like to add a note in the box where the object will be placed.
 3. **Forget Captions and Notes, Just Continue On.** Select this option if you do not want to add any notes or captions to the document.
5. Check the orientation and size of the object to be inserted into the document. If the object is horizontal (i.e., the width is greater than the height), click on Landscape. If the object is vertical (i.e., the height is greater than the width), click on Portrait. The standard-sized object is 3-1/2 in. x 5 in. If the object is oversized, click on 4 x 6, Other, or Landscape (which is full-page landscape). SGH Productivity will insert a placeholder in the form of a table and, based upon the option you chose in Step 4, place the cursor where you need it to be placed.
 1. For Option 1, the cursor will be placed in the cell in which the caption goes.
 2. For Option 2, the cursor will be placed within the object's placeholder cell.
 3. For Option 3, the cursor will be placed after the object's insertion table.

Captions should be typed in sentence case and should end with a period. They should be left-aligned rather than justified.

6. To insert another placeholder, move the cursor to the return (¶) below and repeat Steps 3 and 4 until you are done.

To save time, there is an option to add multiple placeholder tables. If you know that you have several of one image orientation in a row, click on the spin button, located above the Assistance button on the right-hand side of the Placeholder Insertion Menu, until you have the number of placeholders you need, and then select the type of placeholder. Productivity will then insert that number of placeholders into your document.

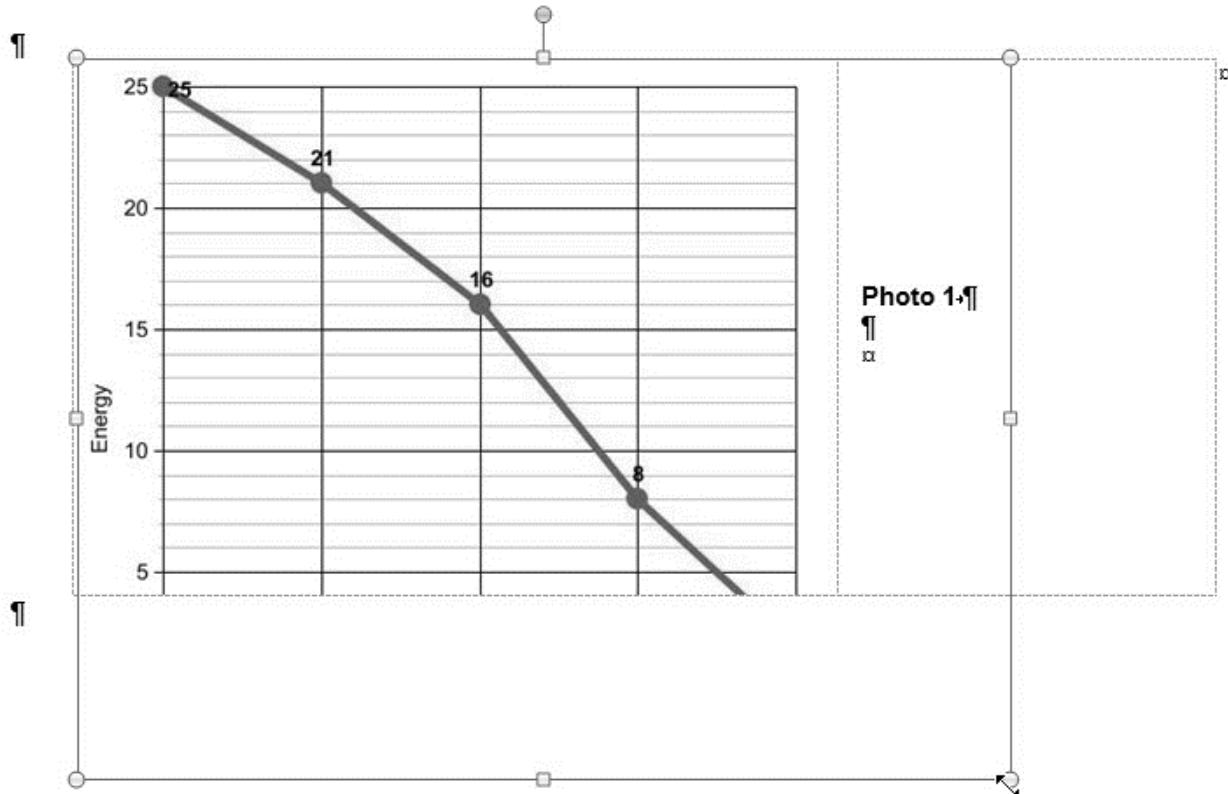
If you need to insert an object in between two placeholder tables, place the cursor next to the ¶ below the placeholder table of the object preceding the one you are inserting and follow Steps 3 and 4 above. If you need to delete a placeholder, highlight the cells, right click your mouse to call up the table menu, and choose "Cut." **Be sure to leave a ¶ between the two remaining placeholders;** if it is deleted, the two rows will merge into one table, eliminating the space between the photos.

1.12.2 Photo/Figure Insertion

After creating the photo placeholders, insert the image using the following procedure:

1. Place the cursor inside the box where the photo should go.

2. Click on the Picture button in the Illustrations group of the Insert ribbon and then select the picture from the dialog box that appears by double clicking on the file.
3. If you need to resize a picture, click on the picture and then grab the bottom right-hand corner to change the size (this will ensure that the aspect ratio of the photo remains the same).



Note that portions of the picture outside of the placeholder will not be visible.

4. The photo should then be placed inside the table cell. Occasionally, photo insertions go awry; the following steps should resolve most issues:
 - There are times when the photos will not appear immediately. To speed up the process, place the cursor on the return below the photo caption and type a space; the picture will then appear.
 - The picture may appear to float on top of the placeholder rather than be inside it. To fix this, right click on the photo and select Format Picture.... Under the Layout tab, set the wrapping style to "In line with text." The picture should then drop into the placeholder. If not, the cursor was not in the right place when the photo was originally inserted into the document (Step 2). Either drag the picture into the placeholder or delete the photo and repeat the image insertion.
 - Occasionally, photos will appear to be floating outside the boxes, despite being set to "In line with text." To fix this, click on the photo, select any other wrapping option, and then reselect "In line with text."

1.12.3 Using the Form Protection Toggle Feature

When dealing with a document with protected areas, there may be a need to edit those areas (for example, to make changes to the headers/footers). The Form Protection Toggle feature in SGH Productivity allows for unprotecting and reprotecting a document without losing any data.

- To unprotect a protected document, under the Add-Ins tab, select the SGH Productivity menu and then select z_Form Protection Toggle. The document is now unprotected.
- To reprotect a document that was unprotected, repeat the above step.

1.13 Specifications (Specs)

Use the **Specs.dot** template for specs (click on the Office button and select “New.” In the New Document dialog, select My Templates, and then double click on Specs.dot).

The following is a set of instructions designed to guide you through the specs template, followed by a representation of how specs are formatted. Please call Word Processing with any questions regarding the use of this template.

The specs template is dependent upon the use of Word’s styles feature. Instructions on using SGH styles are found in Section 1.1.

The specs template is set up with the following styles:

- **Normal:** Used at the beginning and ending of spec sections, “Section Number,” “Name of Section,” and “End of Section” lines.
- **Heading 1:** Used to begin a “part” of a section. This style enables all the other styles to number their paragraphs properly, so it is vital that this style is used.
- **1.01:** For all paragraphs with numbers similar to “1.01” (e.g., 1.02, 2.01, etc.)
- **A:** For all paragraphs with numbers similar to “A.” (e.g., B, D, G, etc.)
- **1:** For all paragraphs with numbers similar to “1.” (e.g., 2, 5, 10, etc.)
- **lower a:** For all paragraphs with numbers similar to “a.” (e.g., b, d, g, etc.)
- **(1):** For all paragraphs with numbers similar to “(1)” (e.g., (2), (5), (10), etc.)
- **(a):** For all paragraphs with numbers similar to “(a)” (e.g., (a), (e), (j), etc.)

When referencing a paragraph or subheading within a specification section, use the following format, with a period and no spaces between each subheading: Para. 1.01.A.1.a.(1)(a).

Note that in the footer, designations such as “DESIGN DEVELOPMENT SET,” “BID SET,” etc., are typed in all caps and on the right side of the footer above the section name (see example below).

SECTION 01010

SUMMARY OF WORK

PART 1 – GENERAL

1.01 GENERAL REQUIREMENTS

- A. The Bidding Requirements and Conditions of the Contract documents and the General Requirements documents are hereby made part of this Section.

1.02 SCOPE OF WORK

- A. Work will be performed at the Providence Place Mall Garage in Providence, Rhode Island, as shown on the Drawings and in the Specifications.
- B. Where work is described but not specifically located and/or shown on the Drawings, the Contractor shall be responsible for determining the exact location and extent of the work.
- C. The work completed by the Contract Documents includes the work of all trades required and all labor, equipment, materials, and supervision necessary and incidental to the work indicated. The following descriptions of the work represent a brief summary of the project. For additional and more complete information, refer to the Drawings and Technical Specifications.

1. Project Mobilization

- a. This work shall include General Contractor and Subcontractor mobilization costs. Include permits, temporary offices, etc.

2. Project General Requirements

- a. This work shall include all miscellaneous work associated with the completion of the work in accordance with the Construction Documents. This shall include but not be limited to incidental shoring, barricades, cleanup, dust and fume control, layout, equipment, waste disposal, documentation, obstruction removal and replacement, and temporary heat and utilities.

3. Concrete Repairs

- a. Repair delaminated and spalled concrete at connections between double tees.
- b. Repair delaminated and spalled concrete at connections between double tees and beams.
- c. Repair delaminated and spalled concrete at expansion joints .

1.14 Obtaining AIA Documents

If you need to generate AIA documents for bid sets, project manuals, or construction administration, please see Word Processing in Boston or the Administrative Assistant in the other offices. They are the only licensed users of the AIA Contract Documents software, which generates both draft and final AIA documents. They are also the ones responsible for editing AIA documents.

If you need help with which forms to use or with specific contract language, please see Beverly Tompkins, Corporate Risk Manager.

Each office has a set of blank AIA documents for copying and marking up. In Boston, these are kept in Word Processing, while the Risk Management Specialists keep them in the other offices. Make a copy of the form, handwrite the additions/deletions/changes on the copy, and give the marked-up copy to Word Processing only. A DRAFT will be created until finalized.

AIA documents cannot be signed electronically (though the insertion of a signature graphic). They must be signed in ink on a paper copy.

1.15 Excel Documents

Note also that SGH also has a standard template for Excel documents, though the template does not have built-in styles as the Word templates do. This template can be found by clicking the Windows button and then New, and clicking My Templates. The standard template is called Standard Excel Header.xlt.

2. SAVING DOCUMENTS ON THE NETWORK

SGH has established rules for saving documents that depend on the document type and the document processor. Save all documents according to this protocol; failure to do so will make it difficult to find documents.

2.1 Proposals

Proposals are saved by office under the following scheme: I:\[Office]\Admin\Proposals\[Year]\[Division]\[Principal-in-Charge's Initials]\filename.doc

Division 001101 – Boston BT
Division 002101 – Boston SE
Division 003101 – Boston EMI

Example: I:\BOS\Admin\Proposals\2009\001101\TAS\BO09-0000003-TAS.doc

2.2 Specs

Specs are saved in the Project Specifications folder in the project file. They are generally saved as [Section Number] – [Section Title].

Specs are saved in I:\[Office]\Projects\[Year]\[Project Number]\Project Specifications. When saving a specification or a set of specifications, create a subfolder in the Project Specifications folder, named as [Specification Set] [current date in MMDDYY format]. The name of the specification set can often be found in the footer of the document. Typical names include “Bid Set”; “Construction Set”; “Review Set”; and a percentage followed by a phrase, e.g., “100% Design Submission.” If no such phrase is in the footer of the document, ask the author for a description of the set, and use that in the folder name. Save each section in this folder.

Example: I:\BOS\Projects\2009\090015.00-SWYR\Project Specifications\Bid Set 120910\01000 – General Conditions.doc

2.3 Standard Letters, Memoranda, Transmittals, Field Trips, Phone Calls, and Conferences

These documents are saved on the network according to their project numbers. They are saved as I:\[Office]\[Projects]\[Year]\[Project Number]\WP\xxx[First Signer's First and Middle Initials and Last Name]-[filetype]-[Project Number].[aa/wp initials].doc. For example, the first document (a letter) by Leonard Morse-Fortier for Project 090015 and checked by Patrick T. Lessard would be saved as I:\BOS\Projects\2009\090015.00-SWYR\WP\001LMFortier-L-090015.00.ptl.doc.

The filetype initials are listed below:

L	Letter or Letter Report	LR	Lab Report
F	Field Report	R	Report
MM	Meeting Minutes	C	Report Cover
M	Memorandum	P	Photo Pages
T	Transmittal	Fig	Figures

For revised documents, an “r” is added after the number in the filename (e.g., 001rLMF-L-090015.00.ptl.doc). For a second revision, “r2” is used. These files are saved in the same directory as the original document.

Note that the file name is the only place where “.00” is added to a project number. In headers, footers, and the project description lines that contain project numbers, if the document’s project number ends in .00, only its first six digits are displayed.

2.4 Document Security

Document security is a high priority at SGH, and following these procedures and adhering to document processing protocol will ensure the integrity of our data, limit our liability, and identify responsibility for our documents.

Sending out documents without being processed, or modifying and sending out documents after they have been processed, undermines document security. Unprocessed documents that have been sent to clients will not be saved to the WP subfolder in any project, as this implies that these documents went through normal processing channels and that a document processor has seen them.

2.4.1 Drafts

It is common to save drafts in the WP folder either to send to the client or to have a version that can be changed only by an AA/WP staff member. If you create a new draft, be sure to save over the old one; the finalized document is also saved over the draft version. **NEVER create separate draft and finalized versions, or a separate file for making PDFs;** the only time that there are multiple versions of a document is when there are revisions to finalized documents that have already been sent to the client, or a Word document and its PDF version.

2.4.2 Tracked Changes and Comments

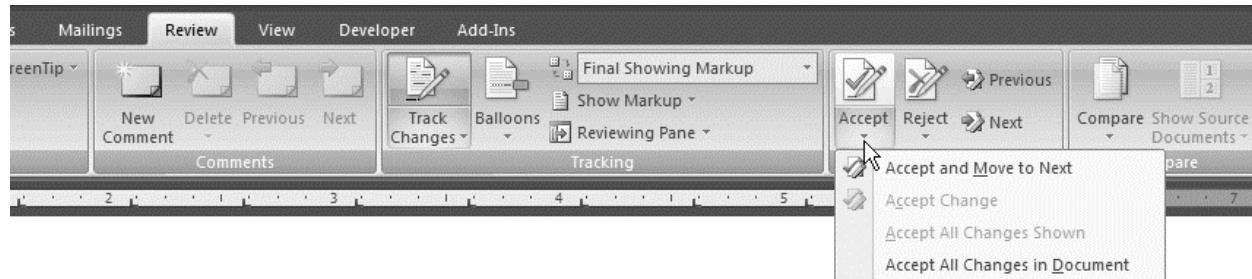
Tracked changes and comments are very useful when collaborating on documents; they help track who wrote, deleted, and added text to a file; comments allow inserting commentary without altering the main text. However, they are a major security concern. Tracked changes and comments provide a wealth of information to attorneys, clients, and competitors that could be used against the authors or the firm, such as initial conclusions later rejected, comments from authors regarding methods used to gather data, or proprietary information. While SGH policy requires that documents sent outside the company be in PDF format, Word versions of documents could be requested during the discovery phase of litigation, so even Word documents kept in house should have as few tracked changes and comments as possible. Unless they are part of a collaborative effort, documents should be created with tracked changes turned off.

The main issue with Word’s implementation of tracked changes is the ability to hide markups. Under the Review tab, in the Tracking group, there is a drop-down menu with four options:

- **Final Showing Markup:** By default, this shows deleted text in balloons, while the inserted text remains inline (only if you have balloons turned on).
- **Final:** This setting shows the original unchanged document as if all changes were accepted. The tracked changes are still in the document, however, and can be recovered.

- **Original Showing Markup:** By default, this shows inserted text in balloons, while the deleted text remains inline (only if you have balloons turned on).
- **Original:** This setting shows the original unchanged document as if all changes were rejected.

Many people see documents with the reviewing option set to “Final,” so they are not aware that there are tracked changes and comments in the document. To delete tracked changes, go to your Review tab, and under the Changes group, select “Accept All Changes in Document.”



To delete comments, select “Delete All Comments in Document” in the Comments group.

3. GRAMMAR AND STYLE

3.1 Grammatical Definitions

3.1.1 Clause

A clause is a group of related words that contains a subject and predicate.

3.1.1.1 Independent/Main/Principal Clause

An independent clause expresses a complete thought and can stand alone as a sentence.

I will go if I am invited. ("I will go" is a complete sentence.)

3.1.1.2 Dependent/Subordinate Clause

A dependent clause does not express a complete thought and cannot stand alone as a sentence.

I will go if I am invited. ("if I am invited" is not a complete sentence.)

3.1.1.3 Nonessential Clause

A nonessential clause is a dependent clause that adds descriptive information but could be omitted without changing the meaning of the main clause. Such clauses are separated or set off from the main clause by commas.

Her latest book, which deals with corporate financial analysis, has sold quite well.
(The clause is not essential, as "latest" already describes which book is being discussed; the book's subject is extra information.)

3.1.1.4 Essential Clause

An essential clause is a dependent clause that cannot be omitted without changing the meaning of the main clause. Essential clauses are *not* set off by commas.

The magazine that came yesterday contains an evaluation of computer software.
(The clause "that came yesterday" is essential because it is how the reader knows which magazine is under discussion.)

3.1.1.5 Noun Clause

A noun clause is a dependent clause that functions as a noun in the main clause.

Whether the proposal will be accepted remains to be seen. (Noun clause as subject.)

They thought that the plan was a failure. (Noun clause as object.)

3.1.2 Complement

A complement is a word or phrase that completes the predicate. It may be an object, a predicate noun, a predicate pronoun, or a predicate adjective.

Martha is my neighbor.

They found the play *exciting*.

Robert considers Mary a *wonderful wife*.

3.1.3 Expletive

An expletive is a word that stands in place of and anticipates a following word or phrase.

There are many books on the table.

3.1.4 Contraction

A contraction is the shortening of two words to one word by omitting letters and replacing them with an apostrophe (e.g., “will not” is contracted to “won’t”). This is less formal than spelling words out, so their use should be avoided. (A few contractions, like “o’clock,” have essentially replaced the full phrase in formal usage; however, these are rare.) In addition, some contractions stand for more than one word, causing confusion (e.g., “I’d” may be interpreted as “I would,” “I could,” or “I should”).

3.2 Sentence Structure

3.2.1 Active vs. Passive Voice

When one writes in the active voice, the subject is the actor taking the action or is in the state of being described by the verb:

We made a mistake.

This is the preferred corporate writing style because it clearly shows who (or what) is the main actor in an event.

When one writes in the passive voice, the subject is acted upon by another agent, usually unnamed:

Mistakes were made.

As shown by the above example, passive voice constructions are often used to acknowledge that something occurred, yet assign no responsibility for that act. That said, there are legitimate uses for passive voice constructions, such as the following:

- To illustrate the process or principle under discussion:

The powder is oven dried at 150°F for a minimum of 24 hrs.

- To emphasize the object acted upon:

The membrane was damaged during construction.

- When the actor in the situation is irrelevant:

The concrete slab-on-grade in the service center workshop was installed in one pour.

3.2.2 Subject-Verb Agreement

The number of the subject determines whether its verb is singular or plural; nouns in prepositional phrases, for example, are ignored, and basing number agreement on those intervening words will only cause confusion regarding what is taking the action indicated by the verb:

Wrong: White staining on the vertical mullions emanating from the connection locations indicate that leakage occurred.

The subject of “indicate” is the singular noun “staining,” not the plural noun “locations” as implied by the use of the plural form of the verb. Use “indicates” here.

With very complex sentences, finding the subject of a verb can be quite difficult. Read sentences carefully to ensure that verbs appear to agree with the correct noun. For example:

Capturing and managing water leakage in the curtain wall system involves dismantling the curtain wall system to install a continuous metal sill flashing under the sill mullions, which turns up behind the framing.

The issue here is the verb “turns” in the final clause. If it is modifying “sill mullions,” which immediately precedes it, then the verb should be a plural form. However, it could also be modifying flashing, so using “turns” would be correct. In this case, it would be best to ask the author to clarify the meaning of the sentence.

3.3 Commonly Misused Words

The following is a list of words commonly misused with clarifications of their correct usage.

3.3.1 Affect/Effect

The word *affect*, when used as a verb (which is how it is usually used), means “to have an influence on”:

The water content affected the concrete’s strength.

The word *effect*, when used as a noun (its usual form), means “the results of an action.”

The water content had an effect on the concrete’s strength.

The rarely used noun form of *affect* (with the accent on the first syllable) means “emotion” or “behavior,” and its use generally is limited to the social sciences.

The patient’s affect during the session indicates that he is depressed.

The verb form of *effect* means “to create”; this is rarely (if ever) used at SGH.

His actions effected a change in the dynamics of the group.

3.3.2 Because/Since

While these two terms can be used interchangeably, *because* is used strictly to give a reason for a condition. *Since* can also be used to refer to time, and there are circumstances that using it leaves an ambiguous meaning:

He got a high paying job since he went to college.

Does the author mean that going to college enabled him to get a high paying job or that he got the high paying job after going to college? If the former, use because instead of since. If the latter, the sentence should be rewritten for clarity:

He got a high paying job after going to college.

3.3.3 Can/Could

“Can” means “to be able to” and expresses certainty, while “could” carries a sense of uncertainty.

I can be there in five minutes.

Could you send this proposal out today?

3.3.4 Can/May

“Can” expresses ability, while “may” expresses possibility.

I can perform the tests.

I may finish the tests today.

3.3.5 Cannot/Can Not

Cannot means “not able”; this is the normal spelling. “Can not” places a stronger emphasis on the negative and generally implies an order:

He cannot do that anymore. (He is not able to do that anymore.)

You can not do that anymore. (Do not do that anymore.)

3.3.6 Criterion/Criteria

Criterion is singular, and its plural form is criteria. In discussing a single requirement, be sure that the text uses “criterion,” not “criteria,” and that the verb agrees with the subject.

Wrong: The eight blows per inch criteria would have produced the required design capacity of 120 tons.

Right: The eight blows per inch criterion would have produced the required design capacity of 120 tons.

Wrong: The driving criteria was developed for the pile load required.

Right: The driving criteria were developed for the pile load required. or The driving criterion was developed for the pile load required.

3.3.7 Ensure/Insure/Assure

Ensure means “to make certain.” *Insure* means “to protect against loss” and usually refers to monetary loss. *Assure* means “to give someone confidence”; the object of this verb should always refer to a person.

I want to *ensure* (make certain) that nothing can go wrong tomorrow.

I want to *assure* you (give you confidence) that nothing will go wrong.

I want to *insure* this necklace (protect it against loss) for \$5,000.

3.3.8 Entitled/Titled

To *entitle* means “to give a name to,” and to *title* is “to call by a name.” The former implies that the author is the one giving something a title, while the latter means that the writer is merely referring to a pre-existing title. When a writer refers to the title of another work, it is more accurate to state that it is “titled,” not “entitled.”

3.3.9 Entrapped/Trapped

To be *entrapped* means “To catch in or as if in a trap; to lure into danger, difficulty, or a compromising situation.” Since inanimate objects cannot be lured, this is not the correct word to describe (for example) water trapped between two layers of roofing. Use *trapped* instead.

3.3.10 Envelop/Envelope

These two words are often confused for each other and are not caught by spelling or grammar checkers. An *envelope* is a thing that covers or holds something, like a building envelope or a mail envelope. It is always a noun. *Envelop* is a verb; it means the act of covering or holding something.

3.3.11 Fewer/Less

If the noun being modified is countable, use “fewer.”

There are fewer cars on the road.

If the noun is abstract or uncountable, use “less.”

You have less debt than I have.

3.3.12 Guarantee/Warranty/Warrantee

A guarantee is a promised “standard of quality” that is not time bound.

I guarantee that you will like this product.

A warranty is a written promise of repair/replacement within a certain time period.

This product has a ten-year warranty against damage.

A warrantee is the person given the warranty.

3.3.13 It's/Its

"It's" is a contraction for "it is," while "its" is a possessive pronoun:

It's raining outside.

Yellow is its color.

3.3.14 Staff / Staff Members

"Staff" is a collective noun, similar to "data" in that it can be used to denote the set of employees or members of that set.

SGH has a staff of 300 people.

That shop employs five full-time staff. (Note that there is no "s" appended to "staff.")

If it is necessary to discuss individuals from multiple staffs, use another term to avoid confusion:

Confusing: Three staff from each company's staff will participate.

Better: Three members of each company's staff will participate.

3.3.15 Toward/Towards

"Towards" is not used in American English; use "toward."

3.3.16 Whether/If

"Whether" is a conditional conjunction used to introduce alternatives:

It does not matter whether we stay or go.

It is not a synonym for "if." "If" is used as a conditional conjunction meaning "in the event that":

She did not know if the shipment would arrive today.

She did not know whether the shipment would arrive today.

In the above example, "whether" only appears synonymous because there is an implied "or not." The following makes clear that "whether" and "if" are not synonyms:

Wrong: She did not know if the shipment would arrive today or tomorrow.

Right: She did not know whether the shipment would arrive today or tomorrow.

3.3.17 Whether / Whether or Not

“Whether,” when used with a single outcome, carries the meaning of “or not,” so appending “or not” is often superfluous:

He did not know whether or not she would arrive tomorrow.

He did not know whether she would arrive tomorrow.

In addition, “whether or not” can be used as a more-elegant version of “regardless of whether”:

You must call your supervisor regardless of whether you arrive today.

You must call your supervisor whether or not you arrive today.

3.3.18 Who/Which/That

Who and *that* are used when referring to places, objects, and animals. *Which* is always used to introduce **nonessential clauses** (defined above), and *that* is ordinarily used to introduce **essential clauses** (defined above).

Laura’s report on personnel benefits, *which* I sent you last week, should be of some help. (*Which* introduces a nonessential clause.)

The report *that* I sent you last week should be of some help. (*That* introduces an essential clause.)

3.4 Correct Usage of Conjunctions

3.4.1 Correct Usage of “And”

The word “and” is an extremely flexible conjunction. It can be used to connect lists and clauses, and it can imply a variety of meanings. However, it is this flexibility that leads to its overuse, especially when linking two clauses together, when a different conjunction would make a sentence’s meaning clearer.

Causation

“And” is often used to show that one thing led to another. Many times, the relationship is clear, such as in the following:

He heard the weather report and promptly boarded up his house.

Yet this depends on the wording of the sentence. For example,

He heard the report of bad weather, and he boarded up his house.

implies that hearing the weather report led him to board his house, but this is not clear. It is possible that this is just a list of actions by the subject. Using “so” instead of “and” would make this causal relationship more obvious to the reader:

He heard the report of bad weather, so he boarded up his house.”

Contrast

"And" is used to join clauses that show a subject's contrasting characteristics:

Hartford is a rich city, and it suffers from many symptoms of urban blight.

If you want to highlight the contrast (especially if it is unexpected), use "but or "yet":

Hartford is a rich city, but it suffers from many symptoms of urban blight.

Hartford is a rich city, yet it suffers from many symptoms of urban blight.

3.4.2 Correct Usage of "That"

It has become common practice to omit the conjunction "that" between a preceding verb and a subordinate clause. However, this may lead to ambiguity regarding which verb is modifying which noun:

The CEO said that Isabel's department was slacking off and production dropped precipitously in the fourth quarter.

As written, this could be interpreted two ways – either the CEO also said that production had dropped or we are just being informed that production had dropped in the fourth quarter.

The CEO said that Isabel's department was slacking off, and production dropped precipitously in the fourth quarter.

A "that" after "and" makes clear that the former meaning was intended because it clarifies that "production dropped..." is subordinate to "The CEO said":

The CEO said that Isabel's department was slacking off and that production dropped precipitously in the fourth quarter.

3.5 Articles (a.k.a. Noun Markers)

There are two types of articles. The definite article ("the") refers to a particular or specific thing ("the dog"; *pl.* "the dogs"). Indefinite articles ("a" and "an") refer to something less specific, like any member of a group or a generic reference ("a dog"; *pl.* "some dogs").

3.5.1 When Not to Use Articles

- Idiomatic expressions using forms of *to be* or *to go*

He is in school.

We will go by train.

but We will take the train.

- Languages

She speaks Japanese.

- Names of sports
They are playing basketball.
- Names of academic subjects
History is my favorite subject.
but The history of the British Empire is my area of expertise.
- Names of countries (except the Netherlands and the United States)
- Names of cities and streets
- Names of continents

3.5.2 Additional Criteria for Determining Article Usage

If it is not clear whether indefinite or definite articles should be used, then these three criteria can help determine the correct article:

1. Count vs. Noncount Nouns:

A noun is a count noun if it can be perceived as a separate and distinct unit; count nouns are generally preceded by *a* or *an*.

Ex: I stepped in a puddle.

I drank a glass of milk.

Noncount nouns are things that are not easily quantifiable; these are generally preceded by *the*.

Ex: I swam in the water.

I saw that the milk had spilled.

2. First vs. Subsequent Mention:

When a noun is first mentioned in the text, *a* or *an* is used. Each subsequent reference to that noun is then preceded by *the*.

There is a crack in the wall. There is no evidence of repair material in the crack.

3. Geographical Names:

Articles should not be used with specific mountains (exception: the Matterhorn), lakes, or islands (with a few exceptions, e.g., the Isle of Wight). However, mountain ranges such as the Alps, groups of lakes such as the Great Lakes, and island chains such as the Aleutians are preceded by *the*.

The following are always preceded by *the*:

- Names of rivers, oceans, gulfs, and seas (e.g., the Nile, the Atlantic, the Persian Gulf, the Caspian Sea)
- Names of points on the globe (e.g., the Equator, the Tropic of Cancer)
- Names of geographic areas (e.g., the West, the South)
- Names of deserts, forests, and peninsulas (the Sahara, the Black Forest, the Florida Peninsula)

4. Other Exceptions:

Articles can be omitted if the author wishes to convey generic meaning. *Articles should never be omitted when discussing specific objects.*

Elephants are large animals.

Anger can be a destructive emotion.

Indefinite articles are also used to indicate membership in a profession:

He is an engineer.

I am a teacher.

3.6 Parallelism

Parallelism (also known as parallel structure) means that when words, phrases, or clauses are joined by conjunctions such as “and,” “but,” or “or,” the same pattern should be used for each member of the list (this also applies to bulleted lists where these conjunctions are implied).

Words and Phrases

Each word or phrase in a list should use the same form (e.g., all gerunds (ending in *-ing*), all infinitives, all adverbs, etc.).

Examples:

Not Parallel: She likes **hiking**, **swimming**, and **to ride** a bicycle.

Parallel: She likes **hiking**, **swimming**, and **riding** a bicycle. OR

She likes to hike, [to] swim, and [to] **ride** a bicycle.

[The repetition of “to” is optional. Using it depends on the sentence structure; if repeating the preposition increases clarity, then do so.]

Not Parallel: The production manager was asked to write his report **quickly**, **accurately**, and **in a detailed manner**.

Parallel: The production manager was asked to write his report **quickly**, **accurately**, and **thoroughly**.

Not Parallel: The teacher said that he was a poor student because he **waited** until the last minute to study for the exam, **completed** his lab problems in a careless manner, and **his motivation was low**.

Parallel: The teacher said that he was a poor student because he **waited** until the last minute to study for the exam, **completed** his lab problems in a careless manner, and **lacked** motivation.

Not Parallel: The coach told the players **that they should get** a lot of sleep, **that they should not eat** too much, and **to do** some warm-up exercises before the game.

Parallel: The coach told the players **that they should get** a lot of sleep, **that they should not eat** too much, and **that they should do** some warm-up exercises before the game. OR

Parallel: The coach told the players that they should **get** a lot of sleep, not **eat** too much, and **do** some warm-up exercises before the game.

Not Parallel: The salesman expected **that he would present** his product at the meeting, **that there would be** time for him to show his slide presentation, and **that questions would be asked** by prospective buyers.(passive)

Parallel: The salesman expected **that he would present** his product at the meeting, **that there would be** time for him to show his slide presentation, and **that prospective buyers would ask** him questions.

3.7 Miscellaneous Style Issues

(The following examples are taken from documents that passed through Word Processing.)

- **PROOFREAD**

1.7 18 March 2004 **Mr.** Haarer Letter

We reviewed the letter from **Ms.** Judith Haarer, Regional Technical Manager for Duron, to Mr. Frank Simon, Federal Painting, and note:

They observed water appeared entering through the exterior

Upon completion of the initial pass, re-injection the first port.

North arrow orientation as shown on all plan drawings is incorrect. The north arrow should be rotated 90° clockwise from its correct position.

- Read sentences and phrases to yourself; if it sounds a little off, then it probably is:

A test pit should be dug outside of the structure to confirm that the wall has or has not moved.

January, February, April, May, June, July, August and September through December 2003

Shoes – replace when damaged and when worn.

up to at least approximately 21 in.

The chimney base flashing, given the above-listed conditions from the owner, has several options:

- Do not rely on spelling checkers. They only catch obvious misspellings, not incorrectly used words and homonyms.

For our use, **moist hoists** are rated for 1,000 lbs. and most platforms are rated for 750 lbs.

Submit the following items to the Engineer for approval in advance of the **wok** and in time to prevent delay of the work.

The lovers are unsealed

- Grammar checkers are also unreliable (see screenshot below).

C. → Provide and maintain ~~a~~ clean table with a dustproof cover to store and review drawings and related project documents during the work day. Director's Representative will assist in the storage of these documents in a location convenient to the project area. Do not bring these documents to the job site overnight.

D. → Storage sheds for tools, equipment and supplies shall be weathertight, with heat and ventilation for Products space for organized storage of materials.

- Be aware that some phrases have meanings that you did not necessarily intend to communicate.

Octavian received BS in Mechanical Engineering from California State Polytechnic University, Pomona.

[Note that putting the noun marker "a" before BS would have deprived the reader of the unintended commentary on CalPoly-Pomona.]

- Use a thesaurus to prevent constant repetition of the same word.

Fully adhere adhered membrane underlayment

We recommend the use of mockups to evaluate the recommended system prior to installation.

Our analyses show that the cracking stresses generally reach or exceed the cracking limit, indicating that cracking would occur (note that by definition the cracking stresses cannot be exceeded when a concrete softening model is used, so stresses at the cracking limit are indicative of cracking).

- E-mail is official correspondence, so it should be proofread by the sender.

Real Message: "Attached are minutes that need to be double checked for clarity and teh usual SGH spelling etc."

3.8 Additional Resources

The following are additional resources for English grammar and were consulted for this section:

The Chicago Manual of Style Q&A. <<http://www.press.uchicago.edu/Misc/Chicago/cmosfaq/cmosfaq.html>>. Chicago: University of Chicago.

Guide to Grammar and Writing. <<http://webster.commnet.edu/grammar/>>. Hartford, CT: Capital Community College.

Hamilton College Nesbitt-Johnston Writing Center. <<http://www.hamilton.edu/academics/resource/wc/index.html>>. Clinton, NY: Hamilton College.

Purdue University Online Writing Lab. <<http://owl.english.purdue.edu/>>. West Lafayette, IN: Purdue University.

Strunk, W., and White, E. *The Elements of Style*. 4th ed. Boston: Allyn and Bacon, 2000.

4. PUNCTUATION

Most of the following rules for punctuation are derived from *The Chicago Manual of Style*, sixteenth edition. If a specific rule is not listed herein, consult this manual, copies of which are kept in the Word Processing office and by all administrative assistants.

4.1 Periods

4.1.1 Spaces after Periods

SGH practice is to place two spaces after the period at the end of a sentence. (This is also true for colons.)

4.1.2 Vertical Lists²

Omit periods after items in a vertical list unless one or more of the items are complete sentences. If one item in a list takes a period, then all items in the list need a period:

The following wall conditions were found on the second floor:

- Mechanical damage.
- New paint has peeled off existing plaster.

If no list items end with punctuation, then there is no period on the last item:

The following items were excluded from the regulation:

- molybdenum
- mercury
- manganese
- magnesium

If list items are separated by semicolons or commas, then the first word of each item is lowercase; if the items continue the flow of the sentence (i.e., there is no natural break like “the following”), then no colon is used (note that “and” is not used in the next-to-last item):

On the second floor, we found that

- there was mechanical damage,
- new paint has peeled off existing plaster,
- there are cracks in the plaster.

The rule requiring semicolons between list items with internal punctuation (Section 4.2.4) also applies to vertical lists.

² Ibid., Paras. 6.124 and 6.125

4.1.3 Vertical Lists and Paragraph Headers

It is common for writers to begin a list item with a header, such as the following:

- **Exterior Wythe:** This threshold is likely met in the exterior wythe of brick whether or not finishes and insulation are added to the interior; however, the existing brick has been shown to be durable based on the condition of the brick and mortar that we observed.

“Exterior Wythe” lets the reader know that this bullet, and any indented paragraphs below it, discusses this subject. It should be separated from the rest of the text with a colon, and as a header, it should also be bolded. While it is common to see en-dashes being used instead of colons, this is incorrect. En-dashes link two parts of a sentence together, so from a grammatical standpoint, the header is just part of the first sentence, not an introduction to a section. If you find this, replace en-dashes with colons.

Periods are also acceptable, though colons are preferred. If the writer uses periods, then the header is capitalized like a sentence.

4.2 Commas³

4.2.1 Comma Pairs

Whenever a comma is used to set off an element in the sentence, a second comma should be used to denote the end of that element.

We met with Jane Doe, the Owner’s representative, during each site visit.

4.2.2 Commas in Compound Sentences⁴

When independent clauses are joined by “and,” “but,” “or,” “so,” “yet,” or any other conjunction, a comma usually precedes the conjunction. If the clauses are very short and closely connected, the comma may be omitted unless the clauses are part of a series. These recommendations apply equally to imperative sentences, in which the subject (you) is omitted but understood, as in the second example.

Two engineers will conduct field visits, a petrographer will conduct laboratory testing, and the Principal-in-Charge will meet with you to discuss our findings.

We began writing the report last week, but it will not be ready until tomorrow.

Call me at my office number, or e-mail a full list of your questions to my personal address.

4.2.3 Coordinate Adjectives

Commas are generally used to separate two or more adjectives when each modifies the same noun; however, there is another method, called open style, that is also a valid way of separating adjectives. In the open style, no commas are used. SGH authors tend to use multiple dependent and subordinate clauses in their sentences, making it necessary to cut down on

³ Ibid, 6.16 – 6.53, unless otherwise noted.

⁴ Ibid., 6.28.

comma use whenever possible to avoid confusion. In judging which style to use in a given situation, clarity should be your criteria for deciding whether commas are appropriate:

Traditional Style: We observed a central, raised, sloped-roof area with multiple-ply, built-up roof membranes.

Open Style: We observed a central raised sloped-roof area with multiple-ply built-up roof membranes.

For clarity, open style is recommended in the above example.

When there is a long series of open compound adjectives modifying a noun, the traditional style is a better choice:

It is not uncommon when driving displacement piles into **very dense, highly dilative, glacial till soil** to have some relaxation of the pile capacity some time after driving, which cannot be predicted by the wave equation analyses.

4.2.4 Series and Lists⁵

In a series consisting of three or more elements, commas separate the elements. When a conjunction joins the last two elements in a series, a comma is used before the conjunction (i.e., the “serial comma”).

This letter transmits our final report containing our findings, conclusions, and recommendations.

When the elements within a list contain commas (as with a list within a list), use semicolons instead of commas to separate the elements of the list. If there was no internal punctuation, commas would have been appropriate.⁶

The as-builds shall include but not be limited to the Drawings incorporating all changes and bulletins (enclosed in clouds); sepia of the building elevations and plans showing the location and size of unit price work, concrete patches, and cracks; all shop drawings incorporating all changes (enclosed in clouds); and all approved submittals.

4.2.5 Adverbial, Adjectival, and Prepositional Clauses or Phrases⁷

If a dependent clause or phrase (one that modifies a preceding word) cannot be omitted without altering the meaning of the main clause, it should not be set off by commas; if the clause or phrase can be omitted without changing the meaning of the main clause, it should be set off by commas. This usually includes prepositional phrases (phrases beginning with words like at, to, in, on, between, etc.) as well as phrases beginning with the word “including.”

We shall agree to the proposal if you accept our conditions.

At last she arrived, when the food was cold.

Provide a manufacturer's warranty stating that the painted panel finish will be free from defects, including significant peeling, adhesion failure, and discoloration.

⁵ Ibid., 6.18.

⁶ Ibid., 6.58.

⁷ Ibid., 6.26, 6.30, and 6.31.

If the dependent clause or adverbial phrase precedes the main clause (as in this sentence), it should be set off by a comma.

If you accept our conditions, we will agree to the proposal.

If an adverbial phrase or clause is located between the subject and the verb, it should be set off by commas.

Morgenstern, in a manner that surprised us all, escorted the reporter to the door.

4.2.6 “That Is,” “Namely,” and Similar Expressions⁸

A comma is usually used after such expressions as “that is,” “namely,” “i.e.,” and “e.g.,”. The punctuation preceding such expressions can be a comma, a semicolon, or an en dash, depending on the severity of the break, or the entire expression may be enclosed in parentheses.

4.2.7 Commas with Quotation Marks⁹

When the context calls for a comma at the end of material enclosed in quotation marks, the comma should be placed inside the quotation marks. Commas may also be needed before the start of a quotation, depending on the context. Quoted phrases follow the same rules regarding comma use as any other word or phrase in the sentence.

He wrote that “it was properly installed.”

He wrote, “It was properly installed.”

4.2.8 Commas with Parentheses or Brackets¹⁰

When the context calls for a comma at the end of material enclosed in parentheses or brackets, the comma should be placed outside the parentheses or brackets.

He said that he would need to collect physical details (size and type), client requirements, and contractor information before making a recommendation.

4.3 En Dashes¹¹

The en dash, “–”, is used often in SGH documents. It can be inserted using the shortcut key combination [Ctrl]-[Num Lock Minus].

⁸ Ibid., 6.43.

⁹ Ibid., 6.9 and 6.50.

¹⁰ Ibid., 6.53.

¹¹ SGH Standard. Regular dashes are equivalent to the width of a lower case “l,” en dashes are equivalent to the width of a lower case “n,” and em dashes (rarely used at SGH) are equivalent to the width of a lower case “m.”

4.3.1 En Dashes and Project Numbers

In letters and many other instances, an en dash is used to separate the project number from the project description:

Example	Description
Project 023001 – Project Description	Project number, space, en dash, tab, project description.

4.3.2 En Dashes in Specs

En dashes are used within the main heading of the different “parts” of a spec to separate the number of a particular “part” from the title of that “part.”

PART 1 – GENERAL	“PART 1” in all caps, space, en dash, space, name of section in all caps.
------------------	---

4.3.3 En Dashes to Separate Items within Sentences

If an en dash is used to separate words, clauses, and phrases – such as in this sentence – separate the en dash from surrounding words with one space on each side.

4.3.4 En Dashes to Separate Document Numbers and Names

En dashes are also used to separate the number of a particular document from the name of that document:

Section 05500 – Metal Railings

ANSI Z60.1 – Nursery Stock

ASTM C33 – Specification for Concrete Aggregates

Note that there is no space between the letter and the numbers in the ASTM document number and that the document number is before its name, not after. The document’s name does not appear in quotation marks or italics.

4.3.5 En Dashes and Inclusive Numbers¹²

En dashes are used between continuing, or inclusive, numbers:

pp. 38 – 45 between pp. 38 and 45 (*never* between pp. 38 – 45)

6 – 7 in. from 6 to 7 in. (*never* from 6 – 7 in.)

If the numbers are not inclusive, such as within telephone or social security numbers, a hyphen should be used:

781-643-2000

¹² Chicago, 6.78.

4.4 Formatting and Punctuating URLs¹³

Punctuation

- The first letter of the protocol of a URL (e.g., http, ftp) is not capitalized.
- Avoid beginning a sentence with a URL.

I often rely on <http://www.journals.uchicago.edu/> as a resource for published articles.

If you are discussing the protocols separately from an address, they are capitalized because they are abbreviations (e.g., FTP = file transfer protocol; HTTP = hypertext transfer protocol).

<ftp://ftp1.sgh.com/> is the corporate FTP site.

- As shown in the examples above, if the URL ends in a slash (/), then the slash must be included in the text.

Line Breaks

If a URL runs through the end of a line, a soft return (↵) can be inserted according to the following rules (these are not presented in a hierarchical manner; use the method that best resolves the formatting issue):

- After a double slash (<http://↵www.weather.com/>)
- Before a single slash (<http://www.weather.com↵/weather/>)
- Before a tilde (<http://www.example.com/↵~johndoe/>)
- Before a period (<http://www.weather↵.com/>)
- Before a comma (http://www.michigan.gov/hal/0,1607↵,7-160-17449_18639---,00.html)
- Before a hyphen (http://www.michigan.gov/hal/0,1607,7↵-160-17449_18639---,00.html)
- Before an underscore (http://www.michigan.gov/hal/0,1607,7-160-17449↵_18639---,00.html)
- Before a number (pound) sign (http://www.wikipedia.org/Number_sign↵#Other_uses)

¹³ Ibid., 14.11 and 14.12.

- Before a question mark (<http://www.google.com/search?q=april&ie=utf-8&oe=utf-8&aq=t>)
- Before a percent sign (http://meta.wikipedia.org/wiki/%C3%80_propos_de_M%C3%A9ta)
- Before or after an equals sign (<http://www.google.com/search?q=april&ie=utf-8&oe=utf-8&aq=t>)
or (<http://www.google.com/search?q=april&ie=utf-8&oe=utf-8&aq=t>)
- Before or after an ampersand (<http://www.google.com/search?q=april&ie=utf-8&oe=utf-8&aq=t>)
or (<http://www.google.com/search?q=april&ie=utf-8&oe=utf-8&aq=t>)

Never insert a hyphen at the end of a line to denote a line break, and never end a line with a hyphen in a URL; this will confuse the reader regarding whether it is part of the address.

4.5 Quotations and Quotation Marks

4.5.1 Avoiding Plagiarism

Random House (via Dictionary.com) defines plagiarism as “1. the unauthorized use or close imitation of the language and thoughts of another author and the representation of them as one's own original work; 2. something used and represented in this manner.”¹⁴ Stealing someone else's work is unethical and illegal, and when the plagiarist is caught, the reputations of both the offender and the company are damaged.

Simply put, if you are using someone else's text or idea, make it clear to the reader that this is borrowed material and indicate the source material with a citation. If the material is quoted, then it is set apart from your own text with either quotations marks or block quotations. If you are paraphrasing someone else's ideas, then a citation will be sufficient. (The formats for citations and references are found in Section 1.6.)

4.5.2 Using Quotation Marks vs. Block Quotations

Quoted material is distinguished from regular text through *double* quotation marks (“ ”). If there is a long text to be excerpted, a block quotation should be used. Block quotations are indented 0.6 in. on the left side (one tab) and are single spaced; you can easily create one using the “Normal Indent” style, which will automatically create such a format. Block quotations should be at least two sentences long and use at least eight lines of text, and a citation will be at the end of the excerpt. Generally, the sentence before a block quotation will end with a colon.

¹⁴ Dictionary.com, “plagiarism,” *Dictionary.com Unabridged*, Random House, Inc., <http://dictionary.reference.com/browse/plagiarism> (accessed 2 November 2009).

Section 3 of that same amendment codified the procedure for presidential succession if a president-elect cannot take the oath of office:

If, at the time fixed for the beginning of the term of the President, the President elect shall have died, the Vice President elect shall become President. If a President shall not have been chosen before the time fixed for the beginning of his term, or if the President elect shall have failed to qualify, then the Vice President elect shall act as President until a President shall have qualified; and the Congress may by law provide for the case wherein neither a President elect nor a Vice President shall have qualified, declaring who shall then act as President, or the manner in which one who is to act shall be selected, and such person shall act accordingly until a President or Vice President shall have qualified.¹⁵

When quoting multiple paragraphs, always use block quotations.

4.5.2.1 Double vs. Single Quotation Marks¹⁶

As previously noted, double quotation marks are used to isolate quotations from regular text. However, if there is quoted material within the excerpt, then single quotation marks are used in the quotation within the quotation:

He said, “You might remember what the Hatter said to her: ‘Not the same thing a bit!’”

Note that if “ is used for inches, it should be changed to [in.] for clarity.

If there is a quotation within a quotation within a quotation, use double quotations. At the end of the quotation, ensure that all quotations, both single and double, have been closed in the correct order. No space is added between adjacent single and double quotation marks.

In block quotations, since the excerpt was not surrounded by quotation marks, a quotation within the quotation uses double quotation marks.

4.5.3 Quotations and Surrounding Text¹⁷

When using a quoted fragment as part of the sentence, the sentence should be phrased so that the quote grammatically fits into the text:

Incorrect: The report noted, “there was a strong gust at the time of the accident.”

Correct: The report noted that “there was a strong gust at the time of the accident.”

4.5.3.1 Capitalization of Quotations¹⁸

Aside from proper nouns and some of the words derived from them, words in English publications are normally lowercased unless they begin a sentence (or, often, a line of poetry). To suit this requirement, the capitalization of the first word in a quoted passage must often be adjusted to make it conform to the surrounding text. If it is necessary to change the case of the

¹⁵ U.S. Constitution, amend. 20, sec. 3.

¹⁶ Chicago., 13.28 and 13.29.

¹⁷ Ibid., 13.11.

¹⁸ Ibid., 13.13.

first letter of a word in this way, the change should be indicated with brackets to show that the quotation is being altered:

Benjamin Franklin admonishes us to “[p]lough deep while sluggards sleep.”

If the quotation is separated from the sentence by a colon, or by a word like “said,” “stated,” or “wrote” followed by a comma, then its first letter may remain capitalized:

As Benjamin Franklin said, “Plough deep while sluggards sleep.”

Remember Franklin’s advice: “Plough deep while sluggards sleep.”

4.5.4 Special Punctuation Rules with Quotations

4.5.4.1 Commas before Quotations¹⁹

Commas may be used before a quotation to identify the speaker:

The witness stated, “There was a strong gust of wind when the accident happened.”

4.5.4.2 Punctuation at Ends of Quotations²⁰

If the quoted material ends a sentence, then exclamation points, semicolons, and question marks go *outside* quotation marks (unless they are part of the quotation). Only periods and commas can be placed inside quotation marks at the end of a sentence.

4.5.5 Alterations of Quotations

4.5.5.1 Omitting Parts of Quotations

All omitted words and phrases must be indicated by ellipses. There are two types, three-dot and four-dot ellipses, and their use depends on whether they are used within sentences or at the end of sentences.

Ellipses at the Beginning or End of Quotes

Ellipses are not used at the beginnings or ends of quotations, unless the quotation is deliberately left grammatically incomplete. If the quotation is incomplete, a three-dot ellipsis is used:²¹

The Declaration of Independence begins with the sentence “When, in the course of human events...”

Ellipses within Sentences²²

Omissions within sentences are indicated by three dots:

The glottal stop...is marked by an apostrophe.

¹⁹ Ibid, 13.18.

²⁰ Ibid, 6.9 and 6.10.

²¹ Ibid., 13.51.

²² Ibid., 13.51 and 13.52.

Generally, any punctuation marks, such as commas, that surrounded the omitted text are eliminated. However, if the writer believes that retaining such punctuation would better convey what was omitted, then this is allowed:

This proposal fee assumes that your personnel will retrieve the chloride canisters from the site,...and ship them back to us.

Ellipses between Sentences²³

If the end of a quoted sentence is omitted, *and* what remains is a grammatically complete sentence, then four dots are used to indicate the omission (if the sentence ends in a question mark or exclamation point, then the *first* dot is replaced with the correct punctuation):

Based on our recent telephone discussion, we understand that plywood has been laid over an older wood gymnasium floor....The plywood underlayment is bowed upwards in several areas of the floor.

If the remaining text is not grammatically complete, then the three-dot ellipsis is used:

Based on our recent telephone discussion,...The plywood underlayment is bowed upwards in several areas of the floor.

If the beginning of the opening sentence has been deleted, the ellipsis is not necessary:

we understand that plywood has been laid over an older wood gymnasium floor....The plywood underlayment is bowed upwards in several areas of the floor.

In general, ellipses are unnecessary at the end of a quotation.

4.5.5.2 Interpolations and Clarifications of Quotations

Missing or Illegible Words²⁴

Words that are missing or illegible should be indicated by bracketed comment:

The [illegible] wood underlayment is bowed upwards in several areas of the floor.

Insertions²⁵

Insertions into quoted material generally serve to clarify an ambiguity or to provide missing words or letters. They are contained in brackets, *not parentheses*:

We understand that plywood has been laid over an older wood [pine] gymnasium floor.

²³ Ibid., 13.51 – 13.53.

²⁴ Ibid., 13.57.

²⁵ Ibid., 13.58.

Sic²⁶

Sic (“so,” “thus,” “in this manner”) is used after a word that has been misspelled or wrongly used in the original excerpt. (*Sic* is a complete word, so it has no period at the end. It is always italicized.) It should only be used after egregious errors in the text.

We understand that pliewood [*sic*] has been laid over an older wood [pine] gymnasium floor.

Adding Italics for Emphasis²⁷

To emphasize a point in a quotation, the writer can choose to italicize the text. Author-italicized text should be indicated by using phrases such as “italics added” or “emphasis added” in brackets to clarify that the italics are not part of the original text:

The membrane within the eastern half was not fully adhered to the substrate. *There were several bubbles in the horizontal field portion.* [Emphasis added.]

4.6 Hyphens

In some sentences, two or more words are used together as a single phrase that modifies a noun. This kind of phrase is called a compound modifier; some examples of terms that can be used as compound modifiers are “first-floor,” “single-ply,” and “time-and-expense.” Compound modifiers are usually hyphenated when they are placed immediately before the nouns they describe (as in “first-floor level,” “single-ply roofing,” and “time-and-expense basis”). Specific examples and exceptions surrounding this rule – as well as rules involving hyphens with compound nouns and other terms – are listed in this section. The section presents an abridged version of Section 7.85 of the *Chicago Manual of Style*, focusing on the most-commonly-used prefixes and suffixes in SGH documents

Hyphens are a frequently misused punctuation mark, but it is important to use them correctly in order to make one’s meaning clear. SGH authors generally favor using many compound terms and modifiers, which means that correct hyphenation is especially important. The rules of hyphenation are not well known, and the spellchecker for word-processing programs will often show correctly hyphenated (or nonhyphenated) words as spelling errors; **spellchecking software should not be relied upon to correctly spell words with prefixes or suffixes.** If these rules or the dictionary are not helpful, then use hyphens only when they are necessary to clarify both the meaning and the readability of the text.

4.6.1 Typical Hyphen Usage

4.6.1.1 Numbers and Units of Measurement

No hyphen is placed between a numeral and an abbreviated unit of measurement:

The slab is 3 in. thick.

It is a 3 in. thick slab.

²⁶ Ibid., 13.59.

²⁷ Ibid., 13.60.

In a mixed fraction expressed in numerals, a hyphen appears between the whole number and the fraction:

The test continued for 1-1/2 hrs.

In a measurement that includes both feet and inches expressed in numerals, a hyphen appears between “ft” and the number of inches:

The opening is 1 ft-6 in. wide.

A hyphen should never fall at the end of a line of text. If the last character in a line of text is a hyphen, move your cursor to the first letter of the hyphenated word and type Shift+Enter. This creates a soft return, which moves the text to the next line.

4.6.1.2 Unhyphenated Compounds

There are two types of compound terms that do not use hyphens:

- **Open Compound:** A compound term spelled with two or more words with spaces between the components; e.g., “high school” is an open compound noun.
- **Closed Compound:** A compound term that does not use spaces or hyphens between the elements; e.g., “kilogram” is a closed compound noun composed of the prefix “kilo” and the noun “gram.”

Open Compounds

- A compound adjective whose first word ends in -ly is usually open.

Installation of fully adhered flashing is complete.

The contractor should use readily available materials for the project.

Note the partially filled space in the wall.

- Using hyphens with -ly adverbs may be appropriate if it is part of compound with three or more words. For example, “most commonly used prefixes” could be interpreted as “the majority of commonly used prefixes” or “prefixes that are used the most often.” Placing a hyphen between the elements of the adjective clarifies that the latter meaning is correct.
- When these compounds are used in a series of adjectives, they should be set off by a comma for clarity.

The contractor should use readily available, high-performance materials for the project.

- Chemical names are open in all contexts.

The bottle of sulfuric acid is on the top shelf.

A silver nitrate solution was in the test.

- When a part of a compound is omitted for brevity, the hyphen remains but is followed by a space only if two entities are being discussed. There is no space when a single entity is being discussed.

Work is continuing on the north- and south-facing elevations.

Our proposed budget includes time and expenses for conducting pre- and postconstruction meetings.

The owner can choose either a ten- or a twenty-year warranty.

But: The map shows a north-to-south-running street.

4.6.2 Closed Compounds with Prefixes

In general, compounds formed with the prefixes listed below are closed, regardless of how they are used. The major exceptions follow the list.

<i>anti</i>	antipollution, antiwalk
<i>bi</i>	bilevel, biweekly
<i>co</i>	coauthor, coordinate, coeditor
<i>counter</i>	counterclockwise, counterflash, counterflashing
<i>de</i>	depressurize, devalue, dewater
<i>extra</i>	extrafine
<i>infra</i>	infrared, infrastructure
<i>inter</i>	interrelated, intertidal
<i>micro</i>	microcrack, micrometer
<i>mid</i>	midspan, midtown, midcentury (<i>but</i> mid-nineteenth century)
<i>mini</i>	minibus, minicolumn, minipile
<i>multi</i>	multifaceted, multistory (<i>but</i> multi-ply when it is short for multiple-ply)
<i>non</i>	nonbearing, nondestructive, nonnegotiable (<i>but</i> non-paper-faced)
<i>over</i>	oversaturated, overload
<i>post</i>	postconstruction, postdoctoral, postwar
<i>pre</i>	preconstruction, preempt, preconference
<i>re</i>	reclad, redefine, reexamine, reinstall, resubmit
<i>semi</i>	semiannual, semicircular, semiconductor, semidestructive
<i>sub</i>	subbasement, subcontractor
<i>super</i>	supertanker, superhigh (frequency), superplasticizer
<i>trans</i>	transmembrane, transnational, transoceanic
<i>ultra</i>	ultrafine, ultrathin
<i>un</i>	unadhered, undefined, unfunded
<i>under</i>	underpowered, underreport, undersea, underused

Exceptions to Closed Prefixes

<i>capitalized words or numerals</i>	mid-1944, mid-August, pre-1914 <i>but</i> transatlantic	Most compounds in which the second element is a capitalized word or numeral are hyphenated.
<i>homographs</i>	re-cover vs. recover, unionized vs. un-ionized	Compounds that must be distinguished from homographs are hyphenated.

<i>more than one word</i>	pre-latency-period, non-English-speaking, pre–Civil War	Compounds in which the second element consists of more than one word are hyphenated. When a prefix is added to an open compound, the hyphen becomes an en dash.
<i>prefix standing alone</i>	over- and underused, macro- and microeconomics	When alternative prefixes are offered for one word, the prefix standing alone takes a hyphen and is followed by a space.
<i>repeated vowels</i>	anti-inflammatory, co-opt, co-op, semi-independent, semi-indirect	Some compounds in which the last letter of the prefix and the first letter of the root word (especially when a vowel) are the same are hyphenated to avoid confusion.
<i>misleading or puzzling forms</i>	co-edition, pre-bid, sub-bid	Compounds that might be misleading or difficult to read are hyphenated.

4.6.3 Compound Adjective Forms

The following presents the proper use of hyphens in compound adjectives, whether before nouns or on their own:

<i>all</i>	all-inclusive <i>study</i> all-around <i>effort</i> <i>A good effort</i> all around. <i>He was all knowing.</i> <i>They were all-knowing.</i>	Most adjectival compounds with <i>all</i> are hyphenated. A few are open, but these are hyphenated if misreading is likely. The combination with <i>over</i> is preferably closed. <i>See also under</i> Adverb Forms.
<i>century</i>	nineteenth-century <i>structure</i> twenty-first-century <i>design</i> early-twentieth-century <i>wall</i>	Compound adjectives with <i>century</i> are hyphenated. When <i>early</i> , <i>mid</i> , or <i>late</i> is added to the compound, it should be followed by a hyphen. <i>But see under</i> Noun Forms.
<i>cross</i>	cross-referenced entries cross-country, cross-grained crosstown bus, crossbred, crosscut, crosshatched	Many compounds with <i>cross</i> are hyphenated; some are closed. If not listed in a dictionary, the compound should be hyphenated.
<i>full</i>	full-length <i>mirror</i> full-scale <i>drawing</i> <i>The mirror</i> is full length. <i>The drawing</i> was full scale.	All compound adjectives with <i>full</i> are hyphenated before the noun and open after the noun. <i>See also under</i> Noun Forms.
<i>half</i>	half-full <i>container</i> halfhearted <i>assent</i> , halfway <i>house</i>	Most <i>half</i> compounds are hyphenated, but a few are closed. <i>See also under</i> Noun Forms.

<i>high, low, upper, lower, middle, and mid</i>	<i>an upper-level slab, high-performance material, middle-level management</i>	Most compound adjectives containing <i>high, low, upper, lower, and middle</i> are hyphenated before the noun but, unless ambiguity is likely, may be open after the noun. Some of the compounds, however, are closed. Most adjectival compounds with <i>mid</i> are closed, but a hyphen is added if the second word begins with a capital letter. See also under Noun Forms.
	<i>The room is on the upper level.</i>	
	<i>His friends were upper middle class.</i>	
	<i>highbrow, lowbrow</i>	
	<i>midweek conference, mid-Atlantic tempest, Mideast peace</i>	
<i>like</i>	<i>catlike movements gridlike, childlike but sail-like, basilica-like, Whitman-like, vacuum-bottle-like</i>	The suffix <i>like</i> is freely used to form new compounds. These are generally closed except for words ending in <i>I</i> or <i>ll</i> , words of three or more syllables, compound words, most proper nouns, or other forms difficult to read. The exceptions are hyphenated.
<i>over, under</i>	<i>overexposed, overrated, underpowered over-the-counter medication under-the-table payment</i>	Adjectives with the prefix <i>over</i> or <i>under</i> are closed unless they are constructions containing <i>the</i> , in which case they are hyphenated.
<i>self</i>	<i>self-adhering membrane self-sustaining, self-confident, self-conscious unselfconscious selfless, selfish</i>	Most adjectival compounds with <i>self</i> are hyphenated, but those formed by the addition of a suffix to <i>self</i> are closed. When the additional prefix <i>un</i> is used, the Press recommends closing the compound. The combination of <i>self</i> with a suffix is also closed.
<i>wide</i>	<i>statewide referendum worldwide, countywide university-wide canvass <i>The canvass was university wide.</i></i>	Compounds ending in <i>wide</i> are always closed unless long and cumbersome. The latter are hyphenated before the noun and open after the noun.
adjective plus a noun bearing the suffix <i>ed</i>	<i>coarse-grained wood, straight-sided figure <i>The wood was coarse grained. He was able bodied.</i></i>	Adjectival compounds comprising an adjective followed by a noun bearing the suffix <i>-ed</i> usually are hyphenated when they precede the noun they modify. Following the noun, they generally may be left open.
adjective of participle plus a noun	<i>first-floor apartment, living-room windows, hot-water tank</i>	Adjectival compounds comprising an adjective or a participle followed by a noun always are hyphenated and precede the noun they modify.

adverb ending in <i>/ly</i> plus a participle or adjective	poorly attired <i>man</i> highly developed, wholly involved, ardently pursued, very ardently pursued	An adverb ending in <i>/ly</i> followed by a participle or adjective is always open.
adverb other than the <i>/ly</i> type plus a participle or adjective	ever faithful <i>groupie</i> , much-loved <i>friend</i> , <i>but</i> <i>The friend</i> was much loved. long-suffering <i>wife</i> , less-appreciated <i>art</i> , ever more resentful <i>neighbor</i> , <i>her</i> all too brief <i>career</i> , <i>Was it ever-eager Bill?</i> <i>She had been long-suffering.</i>	Adjectival compounds consisting of adverbs not ending in <i>/ly</i> followed by participles or adjectives may be open in any position if ambiguity is unlikely, however, they should be hyphenated. When the adverb is itself modified by another adverb, the compound should be open unless there is a risk of misreading.
the adverbs <i>well</i> , <i>ill</i> , <i>better</i> , <i>best</i> , <i>little</i> , <i>lesser</i> , and <i>least</i> with an adjective or participle	well-known <i>crook</i> better-prepared <i>substrate</i>	Compounds with <i>well</i> , <i>ill</i> , <i>better</i> , <i>best</i> , <i>little</i> , <i>lesser</i> , and <i>least</i> are hyphenated before the noun, open after a noun, and open if modified by an adverb.
chemical terms	sulfuric acid <i>bottle</i> , sodium chloride <i>solution</i>	Adjectival compounds consisting of chemical terms are always open.
colors	Bluish-green <i>paint</i> , gray blue, coal black, emerald green, reddish orange, blue-green <i>algae</i>	Hyphenated before a noun; open after a noun. See also under Noun Forms.
foreign phrases	red-green <i>colorblindness</i> , black-and-white <i>print</i> <i>The print</i> was black and white. a priori <i>reasoning</i> in situ	Foreign phrases employed as adjectives are open unless hyphenated in the original language. Note that they are not italicized unless unfamiliar.
<i>more</i> , <i>most</i>	more qualified personnel <i>more-qualified</i> personnel	Corporate documents often feature <i>more</i> and <i>most</i> as the first element in compound adjectives. This may be confusing, as they could be seen as the first word of a compound adjective or as an adjective modifying a compound noun (see left). For clarity, use a hyphen when used as part of compound adjective.
noun plus adjective	fuel-efficient <i>furnace</i> labor-intensive <i>process</i> , user-friendly <i>interface</i>	Adjectival compounds formed from a noun followed by an adjective usually are hyphenated before the modified noun. If misreading is unlikely, they may be open after the noun.

noun plus participle	decision-making <i>procedures</i> , dust-catching <i>sculpture</i> , thought-provoking <i>reply</i> , interest-bearing <i>loan</i> , machine-made <i>paper</i> government-operated facility, weather-delayed flight	Adjectival compounds consisting of a noun plus a participle usually are hyphenated before the noun to prevent ambiguity. When used as predicate adjectives, however, they may be left open unless the hyphen is required to prevent misreading.
	<i>The paper was machine made.</i> <i>The loan was interest bearing.</i> <i>Her reply was thought-provoking.</i>	
number plus a unit of measure	three-mile <i>limit</i> , 150-yard <i>skid</i> two-year-old <i>car</i> , sixty-five-year-old <i>man</i> , two-and-a-half-year-old <i>child</i> , Three-meter-high <i>wall</i> six year-old <i>girls</i> twenty-four five-year-old <i>boys</i> , two three-ounce <i>bottles</i> <i>man</i> sixty-five years old, <i>child</i> two and a half years old, <i>wall</i> three meters high, <i>twenty-four boys</i> five years old 33 m distance, 12 kg weight, 3 m high wall, 3 ft high wall, 1,200 lb stone	Adjectival compounds comprising a number and a unit of measure are hyphenated before the noun. When an adjective is added after the unit of measure, the adjective and unit are joined by a hyphen. When the adjectival compound is preceded by another, modifying number, the hyphenated compound is kept separate from that number. If the compound comes after the noun, it may usually be left open, but in that case the unit is plural if the number is greater than one. When numerals are used and the units are abbreviated, as in scientific copy, hyphens are omitted even before the noun. See also under numbers, fractional.
numbers, fractional	two-thirds <i>majority</i> , four and one-eighth <i>inches</i> , twenty-one and one-quarter <i>miles</i> , two and three-quarter <i>times larger</i>	Spelled-out fractions used as adjectives are hyphenated. In spelled-out mixed fractions, whole numbers are not joined to the fraction by hyphens. See also under Adverb Forms and Noun Forms.
numbers, whole	twenty-three <i>anchors</i> , two hundred <i>bolts</i> , two hundred thirty-six <i>washers</i>	Adjectival compounds consisting of spelled-out whole numbers are hyphenated or open following the same rules that apply to whole numbers used as nouns (q.v.).
phrase	time-and-expense basis up-to-date, over-the-counter <i>His approach</i> was matter-of-fact. <i>Was the report</i> up-to-date?	An adjectival phrase of long standing that has become a commonplace or cliché is hyphenated in any position. Other adjectival phrases are hyphenated before the noun and usually open after the noun.

phrase ending with a preposition	spelled-out <i>fraction</i> , burned-out <i>structure</i> , unheard-of <i>proposal</i> , <i>He prefers his fractions</i> spelled out. <i>The proposal</i> was unheard of.	Adjectival compounds ending with words like <i>out</i> , <i>up</i> , and <i>of</i> are hyphenated before the noun. If misreading is unlikely, the compound may be open following the noun or when used as a predicate adjective.
proper nouns	African American <i>family</i> , French Canadian <i>literature</i> , Latin American <i>conference</i> , Native American <i>rights</i> Afro-American <i>scholar</i> , Scotch-Irish <i>ancestry</i> , Austro-Hungarian	Adjectival compound nouns formed from the union of two proper nouns are open, hyphenated, or closed, as the compound itself is open, hyphenated, or closed.

4.6.4 Adverb Forms

The following presents the proper use of hyphens with compound adverbs, whether before or after the verb, adjective, or adverb being modified:

<i>all</i>	<i>knowing all along</i> , all but <i>empty</i> , <i>painted all over</i> <i>She spoke all-inclusively.</i>	Most adverbial compounds beginning with <i>all</i> are open, but those ending with an adverb formed by adding <i>ly</i> to an adjective are hyphenated.
<i>over, under</i>	<i>overzealously</i> , <i>underhandedly</i>	Adverbial compounds beginning with <i>over</i> or <i>under</i> are closed.
<i>fractions</i>	<i>three-fourths completed</i> , <i>one-half empty</i>	Compound adverbs consisting of spelled-out fractions are always hyphenated.
other compound adverbs	<i>He replied somewhat diffidently.</i> <i>He too-readily agreed.</i> <i>He agreed too readily.</i>	Compound adverbs other than those already mentioned are open unless misreading is likely

See also the adverbs used in conjunction with adjectives under Adjective Forms.

4.6.5 Noun Forms

The following presents rules for using hyphens in compound nouns:

<i>book</i>	checkbook, notebook, textbook reference book	Most compounds with <i>book</i> are closed. Consult dictionary. If not in dictionary, compound should be open.
<i>century</i>	nineteenth century, twenty-first century, tenth and eleventh centuries	Compound nouns naming centuries are always open. See also under numbers, whole, below and Adjective Forms.
<i>cross</i>	crosscurrent, crosstie, crosswalk cross-purpose, cross-pollination cross hair, cross section	Compound nouns with <i>cross</i> are closed, hyphenated, or open, as listed in a dictionary.

<i>full</i>	full stop, full strength <i>but</i> fullback	Nearly all compound nouns with <i>full</i> are open. See also under Adjective Forms.
<i>half</i>	halfback, halftone, half-dollar, half-life, half-moon, half note, half sister	Compound nouns with <i>half</i> can be closed, hyphenated, or open. If in doubt, consult dictionary. See also under Adjective Forms.
<i>house</i>	boardinghouse, boathouse, clubhouse, greenhouse, clearinghouse, farmhouse, housepainter, houseboat rest house, house rule	Most compounds with <i>house</i> are closed. Consult dictionary. If not in dictionary, compound should be open.
<i>master</i>	master builder, master artist, master of ceremonies, master wheel, master of arts mastermind, masterstroke, masterpiece, ringmaster, toastmaster master-at-arms	Some compounds with <i>master</i> are open, some are closed, and some are hyphenated.
<i>mid</i>	midfield, midsection, midsummer, mid Atlantic, Mid-Atlantic Range, mid-Victorian	Compound nouns with the prefix <i>mid</i> are usually closed, but if the second word is a proper noun, the compound is either open or hyphenated. When in doubt consult a dictionary. See also under Adjective Forms.
<i>near</i>	near miss, near collapse	Compounds with <i>near</i> are usually open.
<i>over, under</i>	oversight, undergrowth	Nouns with the prefix <i>over</i> or <i>under</i> are always closed.
<i>quasi</i>	quasi corporation, quasi contract, quasi scholar, quasi union	All noun compounds with the prefix <i>quasi</i> are open. See also under Adjective Forms.
<i>self</i> with noun	self-restraint, self-realization, self-weight <i>but</i> unselfconsciousness	Compounds with <i>self</i> are usually hyphenated. See also under Adjective Forms.
<i>self</i> with suffix	selfhood, selfishness, selfdom, selflessness	Words formed by the addition of suffixes to the root <i>self</i> are closed.
colors	bluish green (or blue green) gray blue, emerald green, coal black, reddish orange	Hyphenated before a noun; open after a noun.

compass points	northeast, south-southwest, east by northeast	Compass points combining two directions are closed; those combining three directions are either hyphenated or, if used with the preposition <i>by</i> , open. Directions are not proper nouns, so they are not capitalized.
descriptive phrases	slab-on-grade, stay-at-home, stick-in-the-mud flash in the pan, ball of fire,	Combinations of words describing a character are hyphenated or open. Most are in standard dictionaries.
fractions of time and similar constructions	quarter hour, half century, eighth note, quarter section, decade and a half, quarter mile, quarter of a mile half-dollar, half-life, half-moon quarterback	Fractions of time and similar constructions are open, hyphenated, or closed. Consult a dictionary. If compound is not listed, it may be open if no ambiguity results; hyphenate if ambiguous.
musical terms	key of G major, key of F-sharp, key of C-sharp minor	Key designations with <i>major</i> or <i>minor</i> are always open. Keys modified by <i>sharp</i> , <i>flat</i> , or <i>natural</i> are hyphenated. See also under Adjective Forms.
noun plus gerund	decision making, problem solving, coal mining bookkeeping, dressmaking	Some of these compounds are open, some are closed. Consult a dictionary. If not listed, the compound should be open.
noun-plus-noun, representing different but equal functions	scholar-poet, author-critic, soldier-statesman	All such compounds are hyphenated.
noun-plus-noun, single function	water bearer, plate tectonics, decision maker policymaker, policyholder, jobholder	Many of these compounds are open, but some are closed. When in doubt, consult a dictionary.
numbers, fractional	one-half, three-eighths, five-sixteenths thirty-one hundredths, three sixty-fourths four and five-sevenths	Spelled-out fractional numbers are hyphenated unless the numerator or denominator is already hyphenated. In mixed numbers, the whole number is not followed by a hyphen. See also under Adjective Forms.
numbers, whole	twenty-six, eighty-nine, two hundred ten, five hundred thirty-eight, one thousand two hundred six, two thousand thirty-seven	Compound nouns spelling out numbers from twenty-one through ninety-nine, whether standing alone or as part of a larger number, are hyphenated. All other numbers or parts of numbers are open. See also under Adjective Forms.

proper nouns	New Yorker, French Canadian, Japanese American, Latin American, Native American, African American	Compound proper nouns are often open, but some are hyphenated, and a few are closed. In case of doubt, consult a dictionary; for compound personal names, a biographical dictionary. <i>See also under Adjective Forms.</i>
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5. NUMBERS AND PHYSICAL QUANTITIES

5.1 When to Use Numerals: Abbreviations, Symbols, and Titles²⁸

According to the *Chicago Manual of Style*, if an abbreviation or a symbol is used for the unit of measure, the quantity should always be expressed by a numeral. SGH style prefers that abbreviations or symbols be used whenever possible so that the quantity can also be expressed in numerals.

The walkway alignment is skewed about 45° between the two buildings.

When a relation between two or more similar measurements is expressed, if the number is followed by a symbol with no intervening space, the symbol is used on all numbers; if the number is followed by a space and then an abbreviation, the abbreviation is used only on the last number.²⁹.

The loss on ignition was 4.98% and 5.01%.

The crack lengths were 6, 13, and 1/2 in., respectively.

A number and its corresponding abbreviation should always appear on the same line. If necessary, keep them together by putting a non-breaking space (Ctrl+Shift+Space) between the two instead of a normal space.

When a number is used as part of a name or title for a specific item (e.g., "Chapter 3," "Row 4," "Level 2"), the number is expressed as a numeral, and the other words in the name are capitalized. They should also be capitalized if a letter is used in the same way (e.g., "Column Line A," "Grid Line 2-B.") The word and number must appear on the same line; if necessary, keep them together by putting a non-breaking space (Ctrl+Shift+Space) between the two instead of a normal space.

5.1.1 List of Abbreviations and Symbols³⁰

The following tables present the abbreviations most commonly found in SGH documents. Abbreviations for units of measure not presented below are found in Chapter 10 of *The Chicago Manual of Style*.

Next to each abbreviation listed is its spelled-out equivalent singular form. **Unless otherwise indicated, these abbreviations are used for both the singular and the plural forms.**

²⁸ Ibid., 9.16.

²⁹ Ibid., 9.17.

³⁰ SGH Standard; *Chicago*, Ch. 10.

Distance	
Unit	Abbreviation
Inch	in. [†] (NOT ")
Foot	ft (NOT ')
Yard	yd
Mile	mi
Lineal Foot	lf
Millimeter	mm
Centimeter	cm
Meter	m
Kilometer	km
On Center	o.c.* [†]
Diameter	dia.* [†]
Gauge (or Gage)	ga

Area	
Unit	Abbreviation
Square Inch	sq in.
Square Foot	sq ft
Square Yard	sq yd
Square Meter	m ²

Time	
Unit	Abbreviation
Second	sec
Minute	min. ^{**}
Hour	hr (pl. hrs)
Year	yr (pl. yrs)
Time of Day	a.m./p.m.

Temperature	
Unit	Abbreviation
Fahrenheit	°F [‡]
Celsius	°C [‡]

Volume	
Unit	Abbreviation
Gallon	gal
Milliliter	mL
Liter	L
Cubic Inch	cu in.
Cubic Foot	cu ft
Cubic Yard	cu yd
Cubic Meter	m ³

Weight and Mass	
Unit	Abbreviation
Ounce	oz
Pound	lb (pl. lbs)
Milligram	mg
Gram	g
Kilogram	kg

Mathematical Symbols ^{***}	
Unit	Abbreviation
Plus	+
Minus	– (en dash)
Plus or Minus	± (not +/-)
Multiplication	x
Division	/
Ratio	: (no spaces)

Electrical	
Unit	Abbreviation
Ampere	A
Volt	V ^{\$}
Millivolt	mV (not mv)
Watt	W ^{\$}

Pressure and Force	
Unit	Abbreviation
Pounds Per Square Inch	psi
Pounds Per Square Foot	psf
Pounds Per Cubic Foot	pcf
Tons Per Square Foot	tsf (or tons / sq ft)
Kilotons Per Square Inch	Ksi
Kilotons Per Square Foot	ksf

Miscellaneous	
Unit	Abbreviation
Percent	%
Paragraph	Para. (pl. Paras) ^{†††}
Figure	Fig. (pl. Figs.) ^{‡‡}
	Photo/Photos ^{‡‡}
Esquire	Esq. ^{††}
AIA Member	AIA ^{††}
Professional Engineer	P.E. ^{††}
Registered Architect	RA ^{††}
Page (as in page 6)	p. (pl. pp.)

* Use of these two abbreviations is the author's option. Regardless of which option the author uses, enforce consistent usage throughout the document. The other abbreviations are mandatory.

[†] Periods in abbreviations are not used unless necessary, such as when abbreviating the words "inch" and "on center" ("inch" to avoid confusion with the word "in," "on center" because it is an abbreviation of two words, and "diameter" because "dia" can be confusing).

[‡] The symbols for measuring temperature contain no spaces. Furthermore, there should be no spaces between the numeral and the symbol. The document should also use the degree sign, "°", consistently throughout the text, *not* a superscripted letter "o" or a masculine ordinal indication sign (º). To insert the degree sign, go to Insert Symbol and choose "Degree Sign," or use Alt+[Num Lock 0176.]

^{**} Do not use as an abbreviation for "minimum." "Minimum" should be spelled out.

^{††} When using titles after names, do not precede the name with Mr./Ms./Dr. (e.g., use either Dr. John Smith or John Smith, Ph.D. [which is preferred], but not Dr. John Smith, Ph.D.).

^{‡‡} When referring to figures and photos, always use parentheses before and after, and never say "See...". For example, write (Fig. 1) or (Photos 20 – 31), not (See Fig. 1) or (See Photos 20 through 31).

^{***} When referring to a specific paragraph within a specification section, the format is "Para. 1.01.A.1.a.(1)" – note the periods in each separation of the paragraph numbers.

^{†††} In numbers requiring a sign (e.g., a negative temperature), there are no spaces between the sign and the number (e.g., -20°F, >7, ±1 in.). When using symbols in a mathematical operation, such as an equation, use spaces for clarity (e.g., 5 – 3 = 2; 5 – –2 = 7, 5 > -7).

[§] There is no space between the number and the abbreviation.

5.1.2 Use Abbreviations Often³¹

When abbreviations are used for the unit of measure, the quantity is always expressed by a numeral. Therefore, to make documents easier to read, abbreviations should be used as often as possible. If an abbreviation is separated from its number by the end of the line, use a nonbreaking space (Ctrl+Shift+Space) to keep them together.

The firm's name is abbreviated as "SGH," but the first time it appears in a document, it should be spelled out and then followed by the abbreviation. In subsequent sentences, the firm is referred to using only the abbreviation.

You retained Simpson Gumpertz & Heger Inc. (SGH) to visit the site and make observations. SGH visited the site in November 2010.

5.2 When to Use Numerals: Other Instances

5.2.1 Percentages³²

Except at the beginning of a sentence, percentages should be expressed by using the percent symbol (%) and a numeral.

The loss on ignition was 4.98 and 5.01%.

Twenty percent of the profits will benefit local charities.

5.2.2 Dates³³

Exact dates should always be written in the sequence day-month-year without internal punctuation.

26 November 1989

5.2.3 Month and Year³⁴

When a period of time is identified by the month and year, no internal punctuation is necessary or appropriate.

The events of August 1945 were decisive to the outcome of the war.

5.2.4 Decades³⁵

Decades may be expressed in numerals. Apostrophes, when used, precede the decade, but no apostrophe is needed between the year and the "s."

the 1980s

the '80s

³¹ SGH Standard.

³² *Chicago*, 9.18.

³³ *Ibid.*, 6.45.

³⁴ *Ibid.*

³⁵ *Ibid.*, 9.34.

5.2.5 Physical Addresses³⁶

Physical addresses should always be expressed with a numeral.

303 Wyman Street

The only exception to this is when the client spells out its address:

One Federal Place

5.2.6 Numbers above One Hundred³⁷

Numbers one to ninety-nine are spelled out. All numbers 100 and above should always be expressed by a numeral.

5.2.7 Commas in Numerals above 1,000³⁸

Those numerals 1,000 and above should have commas between groups of three digits, counting from the right, except in physical addresses and years.

We estimate the ultimate bearing capacity to be approximately 4,800 psf.

Based on the record drawings the connector was constructed around 1992.

He lives at 1234 Main Street.

5.3 When to Spell Out Numbers

5.3.1 Numbers at the Beginning of Sentences³⁹

When a sentence starts with a number, the number is always spelled out.

5.3.2 When the Quantity Is Spelled Out⁴⁰

Numbers are spelled out when the quantity expressed is spelled out, such as in time measurements.

However, as discussed in Section 5.1 of this manual, SGH style prefers that abbreviations or symbols be used for the unit of measure whenever possible so the quantity can be expressed in numerals.

5 in. 24 in. o.c.

³⁶ Ibid., 9.53.

³⁷ Ibid., 9.2.

³⁸ Ibid., 9.55.

³⁹ Ibid. 9.5.

⁴⁰ Ibid 9 13

5.4 Consistency of Numerals⁴¹

Numbers applicable to the same category should be treated alike within the same context, whether in a paragraph or a series of paragraphs; do not use numerals for some and spell out others. If, according to rule, you must use numerals for one of the numbers in a given category, then for consistency's sake, use numerals for all of them:

There are 25 graduate students in the philosophy department, 56 in the classics department, and 117 in the romance languages department, making a total of 198 students in the three departments.

In this sentence, one of the counts of students is above 100, so all counts of students need to be expressed in numerals.

In the past ten years, fifteen new buildings have been erected. In one block, a 103-story office building rises between two old apartment houses only 3 and 4 stories high.

In this sentence, one of the counts of the number of stories in a building is above 100, so all the counts of the number of stories in buildings need to be expressed in numerals. However, the number of buildings and the number of years are expressed in numbers below 100, so these need to be spelled out.

⁴¹ Ibid., 9.7.

APPENDIX A: DOCUMENT PROCESSING PROCEDURES

WORD PROCESSING

Documents to be processed should be sent to the _WP-Mailbox in Outlook. There are several advantages to sending work to this mailbox instead of an individual, including the following:

- Work can be retrieved by the entire AA/WP staff, so one person does not become overloaded and more time can be spent on your work.
- Documents are processed faster if the word processors or the divisional administrative assistants (AA) are tied up on a difficult assignment.
- If your administrative assistants are absent, occupied, in a divisional meeting, absent for an outside appointment without your knowledge, etc., someone else can still process your document.

The following outlines the best way to ensure that documents are processed correctly and quickly:

- Address the e-mail to “_WP-Mailbox.”
- If the document has not been processed previously, state inside the e-mail whether it is FINAL or DRAFT, whether you need a PDF of the document, and whether an envelope or label is needed.
- The document will be sent to the main WP-Mailbox, where any available member of the AA/WP group will process the document.
- When the document is ready, the staff member processing the document will notify you by return e-mail.

ELECTRONIC SIGNATURES

Policy: SGH authors may choose to give access to the author's electronic signature to AA/WP to be used in controlled circumstances to affix to outgoing documentation. The *Author* chooses whether he/she wishes to have an electronic signature on file, and the *Author* authorizes use of the electronic signature on a case-by-case basis.

Creation of Electronic Signatures

1. The Author provides an original signature in black ink on plain white paper to a member of the Administrative Assistant or Word Processing group.
2. The Administrative Assistant or Word Processor creates an electronic signature and stores it in a hidden local directory where it is available **ONLY** to the AA/WP team, the HR department, and the Marketing group.

Use of Electronic Signatures

1. In cases where the Author is unavailable to sign the original letter.

Appendix A, Document Processing Procedures

2. When a PDF format of the document is prepared for e-mail to a client or other outsider, even if the Author is available to sign. (PDFs made directly from MS Word with the electronic signature inserted are clearer and smaller in size.)
3. The person creating a PDF file with an electronic signature removes the electronic signature from the MS Word document after creating the PDF, and locks the PDF with a password so that the signature cannot be cut and pasted into another document.

Approved Use of Electronic Signature

1. The electronic signature is not used without specific approval by the Author. This can be done via e-mail, by phone, or in person.
2. The Author authorizes use of his/her electronic signature on a case-by-case basis, by directly informing the AA/WP or member of the marketing staff of his/her approval.
3. The Author may sign a memorandum that authorizes a member of his team to authorize use of Author's electronic signature, where Author travels frequently and may not be available to approve its use on a case-by-case basis. Author takes responsibility to review a draft to the point where he is confident that SGH quality will be maintained. Author also takes responsibility for giving specific instructions to his designee on the use of his signature. This approach should be used only when necessary.
4. Senior Principals, Principals, and Associate Principals may sign their own signature on behalf of the Author, but they may not authorize use of another person's electronic signature.

Appendix B, Technical Terms and Spellings

Technical Terms

- above-grade/below-grade (when used as an adjective before a noun)
airtight (not air tight or air-tight); airtightness (not air tightness)
as-built condition; "as built" drawings
backup (not back-up) (as in "backup wall [noun/adjective only])
band course (not bandcourse)
bullnose
cast-in-place (when used as an adjective before a noun)
coping stone (not copingstone)
counterflashing (not counter flashing)
cover board (not coverboard)
curtain wall (not curtainwall)
dampproofing (not damp proofing)
DensDeck (not Dens Deck, Densdeck, or Dens-Deck)
DensGlass (not Densglass, Densglas, Dens-Glass, or similar)
dewpoint (not dew point)
door frame (not doorframe or door-frame)
door sill (not doorsill)
down leader (not downleader)
drainpipe (not drain pipe)
dutchman (not Dutchman; the plural is dutchmen)
e-mail (not email)
easternmost, westernmost, etc. (not eastern-most, western-most, etc.)
efflorescence
facade is spelled without the ç
fireproofing (not fire proofing or fire-proofing)
firesafing
firewall (not fire wall or fire-wall)
fishmouth (not fish mouth)
forklift
glulam
groundwater (not ground water)
guardrail (not guard rail)
handheld (not hand held or hand-held)
handwritten (not hand-written or hand written)
hydrodemolition (not hydro-demolition or hydro demolition)
in situ (not insitu, in-situ, or in situ)
kraft paper (not capitalized)
live load (not liveload)
load-bearing (as adjective before a noun; e.g., load-bearing wall)
manlift (not man-lift or man lift)
mockup (as a noun or adjective) (not mock up or mock-up)
northeast, northwest, southeast, southwest (not hyphenated or capitalized)
Phillips screw, screwdriver (brand name Phillips always capitalized)
portland cement (not Portland cement)
precast (not pre-cast)
prestressed (not pre-stressed)
punch list (not punchlist)
rainstorm (not rain storm)
rainwater (not rain water)
rooftop (not roof-top or roof top)
runoff (as a noun) (not run-off or run off)
saw cut (not sawcut or saw-cut, except as a compound adjective)
shotcrete (not shot-crete)
single-story (when used as an adjective before a noun)
slab-on-grade (not slab on grade)
snowmelt (as a noun) (not snow melt)
snowstorm (not snow storm)
stairwell (not stair well)
stepladder (not step ladder)
terra-cotta (in all cases)
through (not thru)
through-wall flashing (not thru-wall or through wall flashing)
walkthrough
wallboard (as in gypsum wallboard) (not wall board)
water test (not watertest)
waterproofing (not water proofing)
watertight (not water tight or water-tight)
weatherproof (not weather proof or weather-proof)
weatherseal (not weather seal)
weatherstripping
weathertight (not weather tight or weather-tight)
Web site (not website or web site)
window frame (not windowframe or window-frame)
window sill (not windowsill)
windows are wept (not weeped)

Appendix B, Technical Terms and Spellings

Brand Names

Bituthene (capitalized)
Blueskin
Conpro Lastic (not ConproLastic)
Conproco (not ConProCo)
DensDeck (not Dens Deck, Densdeck, or Dens-deck)
DensGlass (not Dens Glass, Densglass, or Dens-glass)
Ferrogard
Galvalume
Grace Ice & Water Shield
Hardiplank
Henry Air Bloc
Hilti
Hydrotech (not HydroTech)
Laticrete
Paradiene
Parapro (not ParaPro)
Perm-A-Barrier (capitalized)
Sikaflex
Sikagard
Sikatard
Siplast
Vycor

Chemical Names and Abbreviations

butadiene
ettringite
glass-reinforced plastic/polymer (GRP)
fiber-reinforced plastic/polymer (FRP)
methyl ethyl butyl ketone (MEBK)
methyl ethyl ketone (MEK)
methyl methacrylate
polyethylene (PE)
polyisobutylene
polyisocyanurate
polypropylene (PP)
polyvinyl chloride (PVC)
tetrahydrofuran (THF)
thaumasite
volatile organic chemicals (VOCs)

Other Abbreviations

ASTM: ASTM International (not American Society for Testing and Materials)

MSDS: Material Safety Data Sheet (not Health and Safety Data Sheet)

e.g.: "for example"

i.e.: "that is", "in other words"

Appendix C, Word Weeds

Word Weeds

from *How to Say It* by Rosalie Maggio

Awkward or Cumbersome Construction	Replace with or Omit
absolutely essential	essential
absolutely necessary	necessary
accompanied by	with
according to our records	we find; our records show; OMIT
acknowledge receipt of	thank you for
acquaint	tell; inform; let know
activate	begin; start
active consideration	consideration
actual experience	experience
actual truth	truth
advance forward	advance
advance planning	planning
advance preparation	preparation
advance warning	warning
advise	tell; inform
afford an opportunity	allow; permit
aforementioned	OMIT
aggregate; aggregation	total
a great deal of	much
all of	all
almost similar	similar
along the lines of	like
already exists	exists
a majority of	most
and etc.	etc.
an early date	soon
anent	about; concerning; regarding
a number of	about
a number of cases	some
any and all	any; all
applicable to	Suitable for; relevant; appropriate; apply to
appreciate in value	appreciate
appreciate your informing me	please write me; please tell me
approximately	about
are of the opinion that	think that
around about [number]	about [number]
as a matter of fact	in fact; OMIT
ascertain	learn; find out
as far as I am concerned	as for me
as I am sure you know	as you know; OMIT
as per	according to
as regards	regarding; concerning; about
assist; assistance	help
as the case may be	OMIT
as to	about
at about	at
at all times	always
at an early date	soon
at a later date	later
at a time when	OMIT
at present	now
attached herewith	I am attaching

Awkward or Cumbersome Construction	Replace with or Omit
attached hereto	I am enclosing
attach together	attach
at that point in time	then
at this point in time	now
at the earliest possible moment	immediately; very soon
at the moment	now; just now
at the present writing	now
at this (point in) time	now; just now
at your earliest convenience	soon
awaiting your instructions	please let me know
baby puppies	puppies
balance of equilibrium	balance; equilibrium
based on the fact that	because
basic fundamentals	fundamentals
basic essentials	essentials
be dependent on	depend on
beg to state; beg to differ; beg to advise	OMIT
be in possession of	possess
be the recipient of	receive
beyond a shadow of a doubt	undoubtedly
big in size	big
bona fide	genuine
brief moment	moment
but even so	but; even so
but in any case	but; in any case
but however	but; however
but nevertheless	but; nevertheless
but nonetheless	but; nonetheless
but on the other hand	but; on the other hand
by means of	by; with
call your attention to	please note
cancel out	cancel
circle around	circle
classify into groups	classify
climb up	climb
close proximity	proximity; nearby; close by
co-equal	equal
cognizant	aware
collaborate together	collaborate
come to the realization	realize
commence	begin; start
commendation	praise
communicate	write; telephone
communication	letter; telegram
commute back and forth	commute
complete filled	filled
completely accurate	accurate
completely compatible	compatible
completely finished	finished
completely unanimous	unanimous
conclude	close; end
conclusion	closing
conclusive proof	proof
consensus of opinion	consensus
construct	make
cooperate together	cooperate

Appendix C, Word Weeds

Awkward or Cumbersome Construction	Replace with or Omit	Awkward or Cumbersome Construction	Replace with or Omit
customary channels	usual way; regular procedure	fullest possible extent	fully
deeds and actions	deeds; actions	full satisfaction	satisfaction
deem	consider; think	furnish	give
deem it advisable	suggest	future plans	plans
definite decision	decision	gather together	gather
demonstrate	show	get more for your money's worth	get more for your money; get your money's worth
deserving of	deserve	give an answer	answer
despite the fact that	although	give encouragement to	encourage
discontinue	stop	give this matter your attention	OMIT
disincentive	penalty	good benefit	benefit
doctorate degree	doctorate	grand total	total
do not hesitate to	please	grateful thanks	thanks
drop down	drop	great majority	majority
due consideration	consideration	have a belief in	believe
due to the fact that	because	heir apparent	heir
duly	OMIT	herein	in this
during the course of	during	hereinafter	from now on
during the time that	while	herewith	enclosed; attached
effectuate	effect	homologous	alike
either one of the two	either one; either	honestly	OMIT
empty space	space	hopefully	it is to be hoped; we hope
enclosed herewith is	enclosed is	hopeful that	hope
enclosed please find	I enclose	if and when	if; when
encounter	meet	if it meets with your approval	if you approve
endeavor	try	if at all possible	if possible
endeavor to ascertain	try to find out	if you desire	if you wish; if you want
end result	result	immediately adjoining	adjoining
engineer by profession	engineer	I myself personally	I myself
essentially	OMIT	in accordance with	with; as; by
etc.	avoid whenever possible	in addition to	besides
eventuate	result	inadvertent oversight	oversight
exactly the same	the same	in all honesty	OMIT
exact replica	replica	in a matter of seconds	in seconds
exact same	exact; same	in a matter of minutes	in minutes
exhibit a tendency to; show a tendency to; have a tendency to	tend to	in a matter of hours	in hours
extreme hazard	hazard	in a matter of days	in days
facilitate	ease; simplify; chair the meeting	in a number of cases	sometimes
fearful of	fear	in a satisfactory manner	satisfactorily
feedback	comments; advice; reactions; opinions; thoughts	inasmuch as	as; since; because
feel free to call	please call	inaugurate	being; start
feel free to write	please write	in back of	behind
fellow colleague	colleague	in close proximity	near
few in number	few	in compliance with your request	as you requested; as you asked
field of anthropology	anthropology	in connection with	in; on; to; OMIT
field of politics	politics	increase by a factor of two	double
filled to capacity	filled	indicate	show
final conclusion	conclusion	individual person	individual; person
final outcome	outcome	initial	first
finalize	end; conclude; complete	initiate	begin; start
first and foremost	first; foremost	in lieu of	instead of
first created	created	in order that	so that
foot pedal	pedal	in order to	to
foreign imports	imports	input	advice; opinions; thoughts; reactions
formulate	form	in re	about
for the period of a week	for a week	in receipt of	received
for the period of a month	for a month	in reference to	about
for the period of a year	for a year	in regard to	about; concerning; regarding
for the purpose of	for	inside of	inside
for the reason that	because; since; as; for	integral part	part
frankly	OMIT	interface with	meet with
free gift	gift	in terms of	in
		in the amount of	for

Appendix C, Word Weeds

Awkward or Cumbersome Construction	Replace with or Omit
in case of	of; in; OMIT
in the course of	during
in the event of; in the event that	if
in the final analysis	OMIT
in the majority of instances	usually; often
in the matter of	about; in; of
in the meantime	meanwhile
in the near future	soon
in the neighborhood of	about
in the time of	during
in the vast majority of cases	in most cases
in this connection	OMIT
intrinsically	OMIT
in view of	because; since
in view of the fact that	as
invited guest	guest
irregardless	regardless; irrespective
I share your concern	like you, I believe
is indicative of	indicates
is of the opinion	thinks
is when	is the day
is where	is the place
it goes without saying	OMIT
it is clear that	clearly
it is obvious that	obviously
it is my intention	I intend
it would not be unreasonable to believe	I believe
it would not be unreasonable to think	I think
it would not be unreasonable to assume	I assume
I would hope	I hope
I would like to express my appreciation	I appreciate
joint collaboration	collaboration
join together	join
kindly	please
kind of; sort of	OMIT
kneel down	kneel
lift up	lift
literally	OMIT
literally and figuratively	OMIT
lot; lots; a whole lot	OMIT
major breakthrough	breakthrough
make a decision	decide
make a mention of	mention
make an inquiry regarding	inquire
mandatory requirements	requirements
meet with approval	approve
merge together	merge
meet up with	meet
mental telepathy	telepathy
modification	change
modus operandi	method
month of December	December
more importantly	more important
mutual agreement	agreement
mutual cooperation	cooperation
my personal opinion	my opinion; I believe that
native habitat	habitat
necessary prerequisite	prerequisite
needless to say	OMIT
never before	never
new initiative	initiative
new record	record

Awkward or Cumbersome Construction	Replace with or Omit
new recruit	recruit
none at all	none
not in a position to	unable to
not to mention	OMIT
notwithstanding the fact that	although; even though
obviate	do away with
official business	business
off of	off
old adage	adage
on a continuing basis	constantly; continually
on a daily basis	daily
on a weekly basis	weekly
on a monthly basis	monthly
on a few occasions	occasionally
on a regular basis	regularly
on behalf of	for
one and the same	the same
only other alternative	alternative
on the grounds that	because
on the order of	about
on the part of	for; among
open up	open
close up	close
fold up	fold
settle up	settle
original source	source
other alternative	alternative
overall	OMIT
over exaggerate	exaggerate
owing to	because of
over with	over
past experience	experience
past history	history
per	a
per annum	a year
per diem	a day
perfectly clear	clear
perform an examination	examine
permeate throughout	permeate
permit me to say	OMIT
per se	as such
personal friend	friend
personal opinion	opinion
pervasive	widespread
pervasively	throughout
pace emphasis on	emphasize
positive identification	identification
postponed until later	postponed
predicated on	based on
preparatory to	before
prepared to offer	able to offer
preplanned	planned
present a conclusion	conclude
present status	status
preventative	preventive
orientated	oriented
previous to	before
previous experience	experience
prioritize	list; rank; rate (in order of importance)
prior to	before
pursuant to	according to
quite a	OMIT
quite unique	unique
radically new	new; radical
raison d'être	reason for

Appendix C, Word Weeds

Awkward or Cumbersome Construction	Replace with or Omit
rarely ever	rarely
seldom ever	seldom
reach an agreement	agree
rectangular in shape	rectangular
reduce to a minimum	minimize
red in color	red
yellow in color	yellow
blue in color	blue
refer back to	refer to
reiterate again	reiterate
relating to	about
relative to	about; regarding; concerning
remuneration	pay
repeat again	repeat
reside	live
return back	return
revert back	revert
root cause	cause
round in shape	round
round circles	circles
same (as in "will send same")	it; them; the items; OMIT
same identical	same; identical
seldom ever	seldom
separate entities	entities
serious crisis	crisis
serious danger	danger
shuttle back and forth	shuttle
sine qua non	essential
six in number	six
small in size	small
so advise us	advise
so consequently	so; consequently
so therefore	so; therefore
square in shape	square
state of Minnesota	Minnesota
streamlined in appearance	streamlined
still persists	persists
string together	string
subject matter	subject; matter
subsequent to	after; following
successful achievement	achievement
sudden impulse	impulse
take and (e.g., "take and read this")	OMIT
take the liberty of	OMIT
take this opportunity to	OMIT
technical jargon	jargon
terminate	end
the above	OMIT
the better part of	most of; nearly all of
the bulk of	most; nearly all of
the earliest possible moment	soon; immediately
the party	(replace with specific noun)
therein	in
the undersigned; this writer	I
this is to inform you	OMIT
this is to thank you	thank you
thusly	in this way; as follows
too numerous to mention	numerous
total destruction	destruction
to tell the truth	OMIT
true facts	facts
ubiquitous	widespread
undergraduate student	undergraduate

Awkward or Cumbersome Construction	Replace with or Omit
under separate cover	separately
unexpected emergency	emergency
unintentional mistake	mistake
unless and until	unless; until
until such time as	until
untimely death	death
up to this writing	until now
usual custom	custom
utilization; utilize	use
vacillating back and forth	vacillating
various different	various; different
verbal discussion	discussion
very	OMIT
visible to the eye	visible
wall mural	mural
we are writing to tell you	OMIT
we beg to advise	OMIT
wish to advise; wish to state	OMIT
we wish to apologize	we apologize
with all due regard	OMIT
with a view to	to
without further delay	now; immediately
with reference to	about
with regard to	concerning
with respect to	on
with the exception of	except for
with the result that	so that
with this in mind	therefore
it is certainly clear that	therefore
words cannot describe	OMIT
worthy of merit	worthy; merits
would appreciate your informing us; would appreciate your advising us	let us know

Appendix D, States, Territories, and Canadian Provinces

States:

Alabama	AL
Alaska	AK
Arizona	AZ
Arkansas	AR
California	CA
Colorado	CO
Connecticut	CT
Delaware	DE
District of Columbia	DC
Florida	FL
Georgia	GA
Hawaii	HI
Idaho	ID
Illinois	IL
Indiana	IN
Iowa	IA
Kansas	KS
Kentucky	KY
Louisiana	LA
Maine	ME
Maryland	MD
Massachusetts	MA
Michigan	MI
Minnesota	MN
Mississippi	MS
Missouri	MO
Montana	MT
Nebraska	NE
Nevada	NV
New Hampshire	NH
New Jersey	NJ
New Mexico	NM
New York	NY
North Carolina	NC
North Dakota	ND
Ohio	OH
Oklahoma	OK
Oregon	OR
Pennsylvania	PA
Rhode Island	RI
South Carolina	SC
South Dakota	SD
Tennessee	TN
Texas	TX
Utah	UT
Vermont	VT
Virginia	VA
Washington	WA
West Virginia	WV
Wisconsin	WI
Wyoming	WY

Territories and Possessions:

American Samoa	AS
Guam	GU
Marshall Islands	MH
Northern Marianas Islands	MP
Palau	PW
Puerto Rico	PR
Virgin Islands	VI

Canadian Provinces:

Alberta	AB
British Columbia	BC
Manitoba	MB
New Brunswick	NB
Newfoundland	NF
Northwest Territories	NT
Nova Scotia	NS
Nunavut	NT
Ontario	ON
Prince Edward Island	PE
Quebec	QC
Saskatchewan	SK
Yukon	YT

PDF SECURITY

SGH practice is that all documents sent out of the office electronically must be in PDF format (with the exception of documents that are collaborations with outside entities). There are three reasons for this:

1. PDF files are not dependent on a particular word processor; they can be opened by anyone who has the free Adobe Acrobat Reader installed on their computers. This guarantees that all parties will see the document with the same format and styles; since there is no conversion from one format to another, there are no issues with conversion errors, either aesthetic or textual.
2. PDF files are generally smaller than the original Microsoft Word documents; this makes it easier to send them to clients via e-mail, since many companies limit the size of attachments that they can receive.
3. The most important reason for this practice is security. Unlike Word documents, which can be changed by the recipient, the PDF format is much more difficult. Specific software is needed to edit PDF files, and documents can be encrypted to prevent editing or extraction of images by anyone, including those who have the Adobe Acrobat software.