PROJECT SUBMITTAL REQUIREMENTS

06-08-2023 REV 9

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Facilities & Services
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www.fs.illinois.edu/docs/default-source/FIR/project-submittal-requirements.pdf

PART 1: DELIVERABLE SUBMITTAL REQUIREMENTS

A. Introduction:
This document provides clarification of contents, formats, and recipients for all required deliverables.

B. Related Documents:
"Required Phases & Minimum List of Deliverables"

C. Definitions:

1. University Project Name – as appears in PRZM.
2. University Project Number – U##### - as appears on the and in PRZM
3. Bid Documents – The complete construction documents consisting of the project manual and drawings, and separate addenda, signed & sealed to issue for bidding.
4. Construction Documents – The complete construction documents consisting of the project manual and drawings, with all addenda incorporated.
5. As-Built Drawings – Bid or construction drawings marked up by contractors as work commences on a project, that reflect as-built conditions in the field
6. Record Drawings – The final set of drawings created for a project that incorporates contractor As-Builts, including addenda, change orders, supplemental instructions, field directives and represents conditions as completed in the field.

D. Required Deliverables:
Required unless otherwise stated by the Professional Services Agreement or the "Required Phases and Minimum List of Deliverables" (RPMLD) per project:

00 – Updated Minimum List of Deliverables
01 – Construction Cost Estimate
02 – Project Schedule
03 – Responses to Comments
04a – Basis of Design (BOD) / Conceptualizations / Studies
04b – Project Applicable Information / Calculations
05a – Exterior & Interior Finishes Binder / Finishes Boards
05b – Furniture, Fixtures, and Equipment Binder
06 – Project Manual
07a – Drawings
07b – Building Information Model (BIM)
08 – Design Presentations
09 – Illinois State Historic Preservation Office (ISHPO)
10 – Log of Plan Holders
11 – Addenda (to Project Manual and Drawings)
12 – PreBid Meeting
13 – Written Analysis of Award of Construction Contract
20 – Results of PSC Construction Reviews
22 – Written Description of Delays
23 – Construction Information / Changes
24 – On-site Inspection / Observation Reports
25 – Results of Construction Inspection / Survey / Testing
26 – List of Systems / Items to Commission
27 – Certificate of Substantial Completion
28 – Punch List
30 – Operation & Maintenance and Systems Manuals
31 – LEED Certification / Documentation
32 – Final Approved Contractor Submittals with Log
33 – Contractor As-Built Drawings and Project Manual
40 – Post Construction Activities Log
41 – Log of Equipment with Settings Different than Manufacturer's Recommendations
42 – Post Construction Report

E. Deliverable Formatting:

General
Use in conjunction with the project's RPMLD tab "A-Info, Phases, Recip".

Electronic = DD = Digital Download

1. Email Professional Services Consultant's sharefile transfer site link to FandsSubmittalRev@mx.uillinois.edu.
2. One project per transmittal.
3. One phase per transmittal.
4. No zipped files.
5. Within the sharefile site folder structure, identify Deliverable folders and files with the Deliverable Number and Name (e.g. "00_MLD"). Specific requirements may apply – see each Deliverable's requirements below.
6. For specific file formatting, see each Deliverable's requirements below.

Electronic = E

1. "E" = direct email to recipient as an attached file or with a link to a shared website for downloading. Link and website must be secure.
2. For specific file formatting, see each Deliverable's requirements.

Electronic = e

1. "e" = No electronic file sent to the recipient. (If the files are received by Design & Construction Submittal Receiving (DCSR), said recipient has electronic access to the Deliverable files.)

Bound Deliverables

1. In the following phases only - feasibility studies, memorandums, investigations, conceptualizations, SD, and DD, some deliverables may be bound together. In such a case, cover shall clearly indicate the deliverables bound. Tabs shall separate the individual deliverable sections.

Transmittal Cover Sheets – Including, but not limited to:

1. Deliverable Identification Information:
   - **a.** University Project Number
   - **b.** University Project Name
   - **c.** Project Submittal Phase
   - **d.** Submittal Date
   - **e.** If used, University logo in compliance with the Illinois Identity Standards, Graphic Standards Manual, Campus Logo Guidelines
   - **f.** Page numbers
   - **g.** University Project Manager Name

2. Format – Paper:
   - **a.** No specific requirements

3. Format – Electronic:
   - **a.** File Types
     "PDF" = 1 collated pdf file of entire deliverable. All pdf files shall be searchable.
   - **b.** File Naming – All files shall be named by Project Number and Transmittal Number.

00 – Updated Minimum List of Deliverables

1. Deliverable Identification Information:
   Use as set up – no additional formatting required.

2. Format – Paper:
   a. No specific requirements

3. Format – Electronic:
   a. DD = Digital Download Folder Structure
   If multiple Deliverables are submitted in one transmittal, each Deliverable shall have its own folder named by Deliverable Number and Name (such as "00_MLD")
   b. File Types
   "Native" = Entire file Excel format
   pdf = Applicable phase tab only (portrait orientation, 1 page wide)
   File Naming – All files shall be named by Project Number, Deliverable Number, Name and date.
   Example = "U12345_00_RPMLD_2018-08-15"

01 – Construction Cost Estimate

1. Deliverable Identification Information – Header or Footer:
   a. University Project Number
   b. University Project Name
   c. Project Submittal Phase
   d. Submittal Date
   e. If used, University logo in compliance with the Illinois Identity Standards, Graphic Standards Manual, Campus Logo Guidelines
   f. Page numbers

2. Format – Paper:
   a. No specific requirements

3. Format – Electronic:
   a. Email
   Email to: fandssubmittalrev@mx.uillinois.edu and Project Manager
   b. File Types
   "Native" = 1 set of files in their native file type such as Microsoft Word (*.docx), Microsoft Excel (*.xlsx), compatible with the currently supported version. (Note – PM may deem that native file is not necessary.)
   "PDF" = 1 collated pdf file of entire deliverable. All pdf files shall be searchable.
   c. File Naming – All files shall be named by Project Number, Bid Package, Deliverable Number, Phase, abbreviated Item Name, with – [date]" appended to file name.
   Example = "U12345_BP1_02_50CD_Estimate_2018-08-15"

02 – Project Schedule

1. Deliverable Identification Information – Header or Footer:
   - **a.** University Project Number
   - **b.** University Project Name
   - **c.** Project Submittal Phase
   - **d.** Submittal Date
   - **e.** If used, University logo in compliance with the Illinois Identity Standards, Graphic Standards Manual, Campus Logo Guidelines

2. Format – Paper:
   - **a.** Not required.

3. Format – Electronic:
   - **a.** Email

     Email to: fandssubmittalrev@mx.uillinois.edu and Project Manager
   - **b.** File Types

     "Native" = 1 set of files in their native file type such as Microsoft Word (*.docx), Microsoft Excel (*.xlsx), Microsoft PowerPoint (*.pptx), JPEG, GIF, TIFF, etc. compatible with the currently supported version.

     "PDF" = 1 collated pdf file of entire deliverable. All pdf files shall be searchable.
   - **c.** File Naming - All files shall be named by named by Project Number, Bid Package, Deliverable Number, Phase, abbreviated Item Name, and date.

     Example = "U12345_BP2_02_SD_Schedule_2018-08-15"

03 – Responses to Comments

1. Deliverable Identification Information – Header or Footer:
   Use as set up – no additional information required.

2. Format – Electronic:
   - **a.** Email

     Email to: fandsderevprocom@mx.uillinois.edu and Project Manager or Planner.
   - **b.** File Types

     "Native" = 1 files in its native file type (Microsoft Excel) as it was sent out by the University.
   - **c.** File Naming – All files shall be named by Project Number, Bid Package, Deliverable Number, Phase, abbreviated Item Name, with – [date]" appended to file name.

     Example = "U12345_BP2_03_DD_Response_Comments_2018-08-15"

04a – Basis of Design (BOD) / Conceptualizations / Studies or Reports

04b – Project Applicable Information / Calculations

1. Deliverable Identification Information – Cover:
- **a.** University Project Number
- **b.** University Project Name
- **c.** Building Name and Number or Utility Name
- **d.** Project Submittal Phase
- **e.** Submittal Date
- **f.** If used, University logo in compliance with the Illinois Identity Standards, Graphic Standards Manual, Campus Logo Guidelines
- **g.** "Volume #" (if split into multiple volumes)

2. Deliverable Identification Information – Header or Footer:
- **a.** University Project Number
- **b.** University Project Name
- **c.** Project Submittal Phase
- **d.** Submittal Date
- **e.** If used, University logo in compliance with the Illinois Identity Standards, Graphic Standards Manual, Campus Logo Guidelines
- **f.** Page numbers

3. Format – Paper:
- **a.** Bound (no ACCO-style bare metal fasteners, staples, or post bindings). Comb-binding preferred.
- **b.** Split into multiple volumes if more than 300 pages double-sided or over 1.5" thick.

4. Format – Electronic:

a. DD = Digital Download Folder Structure

If multiple Deliverables are submitted in one transmittal, each Deliverable shall have its own folder named by Deliverable Number and Name (such as "04a_BOD" or "04b_Info&Calcs"),
with two subfolders:

"Native"

"PDF"

There shall not be any further subfolders within the "Native" and "PDF" folders.

b. File Types

"Native" = 1 set of files in their native file type such as Microsoft Word (*.docx), Microsoft Excel (*.xlsx), Microsoft PowerPoint (*.pptx), JPEG, GIF, TIFF, RISA (*.rfl), ENERCALC (*.ecw), Trane Trace (*.taf), GIS (see "PART 4: GIS STANDARDS"), etc. compatible with the currently supported version.

"PDF" = 1 collated pdf file of entire deliverable.
All pdf files shall be searchable.

c. File Naming – All files shall be named by Project Number, Deliverable Number, and abbreviated Item Name.

Examples = "U12345_04a_Code_Analysis"; "U12345_04b_MEP_Narr";
"U12345_04b_Soils_Rpt"; "U12345_04b_Energy_Model";
"U12345_04b_Hazard_Matl_Rpt"; "U12345_04b_Storm_Wtr_Model"

05a – Exterior & Interior Finishes Binder / Finishes Boards

05b – Furniture, Fixtures, and Equipment Binder

1. Deliverable Identification Information – Board or Binder Cover
   - **a.** University Project Number
   - **b.** University Project Name
   - **c.** Building Name and Number or Utility Name
   - **d.** Project Submittal Phase
   - **e.** Submittal Date
   - **f.** If used, University logo in compliance with the Illinois Identity Standards, Graphic Standards Manual, Campus Logo Guidelines
   - **g.** "Volume #" (if split into multiple volumes)

2. Deliverable Identification Information – Binder – Header or Footer:
   - **a.** University Project Number
   - **b.** University Project Name
   - **c.** Project Submittal Phase
   - **d.** Submittal Date
   - **e.** If used, University logo in compliance with the Illinois Identity Standards, Graphic Standards Manual, Campus Logo Guidelines
   - **f.** Page numbers

3. Format – Board:
   - **a.** Not to exceed 24" x 36"

4. Format – Binder:
   - **a.** Bound (no ACCO-style bare metal fasteners, staples, or post bindings).
   - **b.** Split into multiple volumes if more than 300 pages double-sided or over 1.5" thick.

5. Format – Electronic:
   - **a.** DD = Digital Download Folder Structure

     If multiple Deliverables are submitted in one transmittal, each Deliverable shall have its own folder named by Deliverable Number and Name

     (such as "05a_Finishes" or "05b_FFE")
   - **b.** File Types

     "Native" = photograph(s) of the board or binder (.jpg)
   - **c.** File Naming – All files shall be named by Project Number, Bid Package, Deliverable Number, and abbreviated Item Name.

     Examples = "U12345_BP1_05a_Ext_Finish";
     "U12345_BP2_05a_Int_Finish";
     "U12345_BP2_05b_FFE_Binder";

06 – Project Manual

1. Deliverable Identification Information – Cover:
   - **a.** University Project Number
   - **b.** University Project Name
   - **c.** Building Name and Number, or Utility Name
   - **d.** Project Submittal Phase. (Note: At the Bidding Phasing, set shall be marked "BID SET" or "ISSUED FOR BIDDING". Do not submit a set labeled 100% CD.)
   - **e.** Submittal Date
   - **f.** If used, University logo in compliance with the Illinois Identity Standards, Graphic Standards Manual, Campus Logo Guidelines
   - **g.** "Volume #" (if split into multiple volumes)
   - **h.** Seals & Signatures required for BID SET ONLY – If all disciplines do not fit on the cover, may move to second page.
     - i. Professionally licensed disciplines shall provide a seal, signature, expiration, company and applicable specification sections.
     - ii. Non-licensed disciplines shall list Person of Responsible Charge / Designer of Record, applicable certifications with expiration, company, and applicable specification sections.

2. Deliverable Identification Information – Individual Pages: (footer, or appropriate location)
   - **a.** Project Title as appears in PRZM (or as approved by the Board of Trustees)
   - **b.** University Project Number
   - **c.** Project Submittal Phase
   - **d.** Submittal Date
   - **e.** If used, University logo in compliance with the Illinois Identity Standards, Graphic Standards Manual, Campus Logo Guidelines

3. Deliverable – Arrangement – Sections:
   - **a.** All specification sections in the Project Manual shall follow the Construction Specification Institute's numbering system (http://www.csinet.org/numbersandtitles) and the University of Illinois' "Facility Standards" (http://www.fs.illinois.edu/resources/facilities-standards).

4. Format – Electronic:

a. DD = Digital Download Folder Structure

If multiple Deliverables are submitted in one transmittal, each Deliverable shall have its own folder named by Deliverable Number and Name (such as “06_ProjectManual”), with two subfolders:

“Native”

“PDF”

There shall not be any further subfolders within the “Native” and “PDF” folders.

Summary of Changes by Discipline (beyond corrections from comments) & Checklist of Required Submittals to be individual files and not combined with Project Manual.

b. File Types

“Native” = 1 set of files in their native file type such as Microsoft Word (*.docx), Microsoft Excel (*.xlsx), Microsoft PowerPoint (*.pptx), JPEG, GIF, TIFF, etc. compatible with the currently supported version.

“PDF” = 1 collated pdf file of entire deliverable, and

1 set of individual pdf files, saved 1 file per Specification Section, Chapter, etc. All pdf files shall be rotated to the correct direction.

All pdf files shall be searchable.

c. File Naming – All files shall be named by section. There shall be no additional prefixes or suffixes.

Example = “26 28 00”

07a – Drawings

07b – Building Information Model (BIM)

1. Deliverable Identification Information – Title Block: Required, but not limited to:

a. University Project Number

b. University Project Name

c. Building Name and Number, or Utility Name

d. Project Submittal Phase

(Note 1: The bid set shall be marked "BID SET" or "ISSUED FOR BIDDING". Do not submit a set labeled 100% CD.)

(Note 2: A label such as a "Record Drawing" stamp on the cover sheet is not acceptable. Each drawing shall have the Phase indicated in the Revision block.)

e. Drawing Title

f. Drawing Number. Use the following table to assign the appropriate Discipline Designator (required). (Table is in preferred sheet order.)

Discipline Designator	Discipline Description
G	General
C	Civil (Survey Mapping, Utilities, Soil Borings, Geotechnical, Grading, Site, Roadway, Irrigation)
L	Landscape
A	Architectural (including Interiors)
S	Structural
FP	Fire Protection
P	Plumbing
H	Heating
V	Ventilation
HV	Mechanical (use for smaller projects only)
TC	Temperature Control
E	Electrical
T	Telecommunications
AV	Audio/Visual
ASB	Asbestos
LBP	Lead Paint
HZ	Hazardous Materials (other)
_D	Demolition (added after the respective Discipline Designator)
EQP	Equipment

g. Revision Number, Date, and Description (Note: a "Record Drawing" stamp on the cover sheet is not acceptable. Each drawing should have the Phase indicated in the Revision block.)

h. If used, University logo in compliance with the Illinois Identity Standards, Graphic Standards Manual, Campus Logo Guidelines.

i. Seals and signatures required for BID SET ONLY:

i. Required for all disciplines / sheets. Professionally licensed disciplines information shall include a seal, signature, expiration, and company. Non-licensed disciplines information shall include Person of Responsible Charge / Designer of Record, applicable certifications with expiration, and company name. Placement – Once on cover with sheets listed per person, or on each individual sheet.

ii. Paper – needs required information from above and wet, scanned or digital signature.

iii. Pdf – needs required information from above and signature image by professionally licensed seals.

iv. CAD – needs professionally licensed seal image or name of Person of Responsible Charge / Designer of Record, applicable certification with expiration date, and company name

j. In compliance with the "CAD Standards".

2. Format – Paper:

a. Bound (sets shall not be submitted loose, nor with single corner staples, bare metal ACCO-style fasteners, or post bindings)

b. In volumes of no more than 100 sheets per volume.

3. Format – Electronic:

a. DD = Digital Download Folder Structure

If multiple Deliverable are submitted in one transmittal, each Deliverable shall have its own folder named by Deliverable Number and Name (such as "07a_Drawings" or "07b_BIM"), with two subfolders:

"Native"

"PDF"

There shall not be any further subfolders within the "Native" and "PDF" folders except to denote multiple volumes in accordance with the paper set, if desired.

b. File Types

"Native" =

CAD: Always required: A complete set of unbound CAD drawings in *.dwg format packaged (using eTransmit) compatible with the University's current version (See Part 2, item I), to include all linked files and attachments; and including, but not limited to:

- Extraneous objects beyond the drawing extents in "model space" shall be removed.
- Blocks shall not be exploded.
- Drawings shall be purged.
- Drawings shall be zoomed out to display entire sheet or model.
- Non-pertinent reference (x-refs/links) files shall be removed from the drawing file.
- All necessary files shall be included with the CAD file/BIM model, including, but not limited to, xrefs/links, fonts, hatch, line types, and plot styles (.ctb, .pcs and .stb).

BIM: Also, if required by contract: BIM composite model in native *.rvt format packaged using a built-in tool or plugin compatible with eTransmit, purged, compatible with Autodesk Revit 2017 or earlier, and to include all linked files and attachments. See also the "University of Illinois Building Information Modeling (BIM) Requirements for Professional Services Consultants" (UIBIM) and the project's specific "BIM Execution Plan" (BEP).

GIS: Also/or, if required by contract or project type: Geographic Information System (GIS) files shall be delivered in accordance with "Part 4: GIS STANDARDS" for details.

"PDF" = 1 collated pdf file of entire deliverable with all drawings in order, AND

1 set of individual pdf files, saved 1 file per sheet.

All pdf files shall be rotated to the correct direction.

All pdf files shall be searchable.

c. File Naming

All files shall be named by sheet.
There shall be no additional prefixes or suffixes, with the only exception being the addition of a prefix that allows the files to sort in the same order as the drawing index.

For example: “G-1.pdf” or “001_G-1.pdf”

CAD files with multiple layout tabs shall have the tabs named the same as the drawing(s) contained on the tab, representing the individual sheet or range of sheets included in the CAD file.

BIM files shall be named in accordance with the UIBIM, Appendix B, Part 3 Modeling Plan, Section C Modeling Standards, Item 1 File and Layer Naming.

08 – Design Presentations

08a – Architectural Review Committee (ARC) and/or Client
08b – Chancellor's Design Advisory Committee (CDAC)
08c – President & Chancellor
08d – Board of Trustees (BOT) – Brochure
08e – Board of Trustees (BOT) and Audit, Budget, Finance & Facilities Committee (ABFF) – Design Presentation

For submittal/presentation to the ARC and CDAC:

As defined by the project's RPMLD.

For submittal/presentation to the President & Chancellor, BOT and ABFF:

Use in conjunction with the project's RPMLD and following the University Office of Capital Programs and Real Estate Services' "*Professional Services Consultants' Guide For Capital Projects Requiring University of Illinois Board of Trustees Approva*l"

(https://www.uocpres.uillinois.edu/UserFiles/Servers/Server_7758/file/UI/manual/AELAguide.pdf).

For submittal/presentation to Client:

As defined by the project's RPMLD.

For submittal to F&S recipients:

1. Format – Paper:
   a. Not applicable

2. Format – Electronic:
   a. Email: Prior to presentation(s), email the Planner & Project Manager
   b. DD = Digital Download Folder Structure – Before the DD submittal and after final presentation

      If multiple Deliverables are are submitted in one transmittal, each Deliverable shall have its own folder named by Deliverable Number and Name with two subfolders:

      "Native"

      "PDF"

      There shall not be any further subfolders within the "Native" and "PDF" folders.
   c. File Types

      "Native" = 1 set of files in their native file type such as Microsoft PowerPoint (*.pptx), RVT, DWG, JPEG, GIF, TIFF, etc. compatible with the currently supported version.

      Physical models may be represented by photographs.

      "PDF" = 1 collated pdf file of entire deliverable.

      All pdf files shall be searchable.
   d. File Naming – All files shall be named by Project Number, Deliverable Number, and abbreviated Item Name.

      Examples = "U12345_08a_ARC"

      "U12345_08b_CDAC"

      "U12345_08c_Pres_Chancellor"

09 – Illinois State Historic Preservation Office (ISHPO)

Guidelines for the following are provided by the Illinois State Historic Preservation Office (ISHPO) at:
https://www2.illinois.gov/dnrhistoric/Preserve/Places/Pages/HabsHaer.aspx

- An Illinois Historic Building Survey or a Illinois Historic Engineering Record
- Walk through with ISHPO
- Narrative on building and historical significance
- Exterior photographic documentation
- Exterior preservation drawings
- Interior photographic documentation
- Interior preservation drawings

For submittal to the ISHPO:

Do not submit any materials directly to the Illinois State Historic Preservation Office (ISHPO). The University must submit on their own behalf.

For submittal to F&S recipients:

Follow the guidelines provided by the Illinois State Historic Preservation Office (ISHPO) at:
https://www2.illinois.gov/dnrhistoric/Preserve/Places/Pages/HabsHaer.aspx
and provide a duplicate copy of transmittal and submittal to F&S.

10 – Log of Plan Holders

1. Deliverable Identification Information – Cover:
   - **a.** University Project Number
   - **b.** University Project Name
   - **c.** Date
   - **d.** If used, University logo in compliance with the Illinois Identity Standards, Graphic Standards Manual, Campus Logo Guidelines

2. Format – Paper:
   - **a.** Not applicable

3. Format – Electronic:
   - **a.** File Types

     "Native" = 1 set of files in their native file type such as Microsoft Excel (*.xlsx) compatible with the currently supported version.

     or

     "PDF" = 1 collated pdf file of entire deliverable.
     All pdf files shall be searchable.
   - **b.** File Naming – All files shall be named by Project Number, Bid Package, Deliverable Number, and abbreviated Item Name.

     Examples = "U12345_BP1_10_Log_of_Planholders";

11 – Addenda (to Project Manual and Drawings)

Follow guidelines for:
06 – Project Manual
07a – Drawings

Formal resubmittals are required.

(Note that Addenda also require signatures and seals.)

12 – PreBid Meeting

Meeting Minutes

1. Deliverable Identification Information – Cover:
   - **a.** University Project Number
   - **b.** University Project Name
   - **c.** Date
   - **d.** If used, University logo in compliance with the Illinois Identity Standards, Graphic Standards Manual, Campus Logo Guidelines

2. Format – Paper:
   - **a.** Not applicable

3. Format – Electronic:
   - **a.** Email

     Email to meeting attendees and PM.
   - **b.** File Types

     "Native" = 1 set of files in their native file type such as Microsoft Excel (*.xlsx) Compatible with the currently supported version.

     or

     "PDF" = 1 collated pdf file of entire deliverable. All pdf files shall be searchable.
   - **c.** File Naming – All files shall be named by Project Number, Bid Package, Deliverable Number, and abbreviated Item Name.

     Examples = "U12345_BP1_11_Prebid_Min";

13 – Written Analysis of Award of Construction Contract

1. Deliverable Identification Information – Cover:
- **a.** University Project Number
- **b.** University Project Name
- **c.** Date
- **d.** If used, University logo in compliance with the Illinois Identity Standards, Graphic Standards Manual, Campus Logo Guidelines

1. Format – Paper:
- **a.** Not applicable

2. Format – Electronic:
- **a.** Email

  Email to PM.
- **b.** File Types

  "Native" = 1 set of files in their native file type such as Microsoft Word (*.docx)

  Compatible with the currently supported version.
  For scans of sign-in sheets, pdfs are the "native" file.

  or

  "PDF" = 1 collated pdf file of entire deliverable.

  All pdf files shall be searchable.
- **c.** File Naming – All files shall be named by Project Number, Bid Package, Deliverable Number, abbreviated Item Name, and Division.

  Examples = "U12345_BP1_13_Analysis_of_Award_Div04";

20 – Results of PSC Construction Reviews

Contractor Baseline Schedule
Log of Contractor Submittals
Schedule of Values
Reviewed Shop Drawings, Product Data, & Quality Assurance Submittals
Breaker Fuse Coordination Analysis based on equipment selected
Updates to Checklist for spec sections w/ submittals recv'd vs reqd (shop drawings, calcs, etc…).

1. Deliverable Identification Information – Cover:
   - **a.** University Project Number
   - **b.** University Project Name
   - **c.** Date
   - **d.** If used, University logo in compliance with the Illinois Identity Standards, Graphic Standards Manual, Campus Logo Guidelines

2. Format – Paper:
   - **a.** Not applicable

3. Format – Electronic:
   - **a.** PRZM (Select items on Capital Projects)
     Attach reviews originating in PRZM.
   - **b.** Email
     Email to PM as applicable.
     (Email PSC reviewed project submittals and shop drawings to fsshopdrawing@illinois.edu)
   - **c.** File Types
     "Native" = 1 set of files in their native file type such as Microsoft Word (*.docx) compatible with the currently supported version.

     or

     "PDF" = 1 collated pdf file of entire deliverable.
     All pdf files shall be searchable.
   - **d.** File Naming – All files shall be named by EXHIBIT 01 33 23-01 F&S ELECTRONIC CONSTRUCTION SUBMITTAL PROCESS.

4. Related Facility Standards
   - **a.** SECTION 01 33 23 - SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES
   - **b.** EXHIBIT 01 33 23-01, F&S ELECTRONIC CONSTRUCTION SUBMITTAL PROCESS

22 – Written Description of Delays

1. Deliverable Identification Information – Cover:
- **a.** University Project Number
- **b.** University Project Name
- **c.** Date
- **d.** If used, University logo in compliance with the Illinois Identity Standards, Graphic Standards Manual, Campus Logo Guidelines

2. Format – Paper:
- **a.** Not applicable

3. Format – Electronic:
- **a.** Email

  Email to PM.
- **b.** File Types

  "Native" = 1 set of files in their native file type such as Microsoft Word (*.docx) compatible with the currently supported version.
  For scans of sign-in sheets, pdfs are the "native" file.

  or

  "PDF" = 1 collated pdf file of entire deliverable.
  All pdf files shall be searchable.
- **c.** File Naming – All files shall be named by Project Number, Bid Package, Deliverable Number, and abbreviated Item Name.

  Example = "U12345_BP1_22_Floors_Delay_Div01"

23 – Construction Information / Changes

RFI
ASI
RFP
Change Order
Field Directive
Justification for Errors and Omissions, Deficiencies, or Conflicts
Corrections to Errors / Omissions, Deficiencies, or Conflicts

1. Deliverable Identification Information :
   - **a.** University Project Number
   - **b.** University Project Name
   - **c.** Date
   - **d.** If used, University logo in compliance with the Illinois Identity Standards, Graphic Standards Manual, Campus Logo Guidelines

2. Format – Paper:
   - **a.** Not applicable

3. Format – Electronic:
   - **a.** PRZM (Select items on Capital Projects)
     Attach items or reviews originating from PRZM.
   - **b.** Email
     Email to Planner or PM and Project Inspector as applicable.
   - **c.** File Types (choose the most applicable type)
     "Native" = 1 set of files in their native file type such as Microsoft Word (*.docx) compatible with the currently supported version.

     or

     "PDF" = 1 collated pdf file of each deliverable item.
     All pdf files shall be searchable.
   - **d.** File Naming – All files shall be named by Project Number, abbreviated Item Name, and Division.
     Example = "U12345_BP1_RFP001_Door_Hardware_Div01"

24 – On-site Inspection / Observation Reports

1. Deliverable Identification Information :
   - **a.** University Project Number
   - **b.** University Project Name
   - **c.** Date
   - **d.** If used, University logo in compliance with the Illinois Identity Standards, Graphic Standards Manual, Campus Logo Guidelines

2. Format – Paper:
   - **a.** Not applicable

3. Format – Electronic:
   - **a.** PRZM

     Attach reviews originating from PRZM.
   - **b.** Email

     Email to PM and Project Inspector as applicable.
   - **c.** File Types (choose the most applicable type)

     "Native" = 1 set of files in their native file type such as Microsoft Word (*.docx) compatible with the currently supported version.

     or

     "PDF" = 1 collated pdf file of each deliverable item. All pdf files shall be searchable.
   - **d.** File Naming – U#####_Obs_Rpt_YYYY.MM.DD

     Key

U##### -	University Project Number
Obs_Rpt -	Abbreviated Obs_Rpt
YYYY-MM-DD	4 digit Year - 2 digit Month - 2 digit Day

25 – Results of Construction Inspection / Survey / Testing

Use project RPMLD in conjunction with Project Testing requirements from the Facilities & Services Facilities Standards -
http://www.fs.illinois.edu/docs/default-source/facility-standards/technical-sections/division-01---administrative/01-33-23---shop-drawings-product-data-and-samples.docx?sfvrsn=2

1. Deliverable Identification Information :
   - **a.** University Project Number
   - **b.** University Project Name
   - **c.** Date
   - **d.** If used, University logo in compliance with the Illinois Identity Standards, Graphic Standards Manual, Campus Logo Guidelines

2. Format – Paper:
   - **a.** Not applicable

3. Format – Electronic:
   - **a.** PRZM

     Attach reviews originating from PRZM.
   - **b.** Email

     Email to PM and Project Inspector as applicable.
   - **c.** File Types (choose the most applicable type)

     "Native" = 1 set of files in their native file type such as Microsoft Word (*.docx) compatible with the currently supported version.

     or

     "PDF" = 1 collated pdf file of each deliverable item. All pdf files shall be searchable.
   - **d.** File Naming – All files shall be named by EXHIBIT 01 33 23-01 F&S ELECTRONIC CONSTRUCTION SUBMITTAL PROCESS.

4. Related Facility Standards
   - **a.** EXHIBIT 01 33 23-01, F&S ELECTRONIC CONSTRUCTION SUBMITTAL PROCESS

26 – List of Systems / Items to Commission

1. Deliverable Identification Information – Cover:
   - **a.** University Project Number
   - **b.** University Project Name
   - **c.** Date
   - **d.** If used, University logo in compliance with the Illinois Identity Standards, Graphic Standards Manual, Campus Logo Guidelines

2. Format – Paper:
   - **a.** Not applicable.

3. Format – Electronic:
   - **a.** Email

     Email PM and Project Inspector.
   - **b.** File Types

     "Native" = 1 set of files in their native file type such as Microsoft Word (*.doc) compatible with the currently supported version.
     For scans of sign-in sheets, pdfs are the "native" file.

     or

     "PDF" = 1 collated pdf file of entire deliverable.
     All pdf files shall be searchable.
   - **c.** File Naming – Project Number, Bid Package, Deliverable Number, abbreviated Item Name, and Contractor Division.

     Example = "U12345_BP2_27_sys_to_commis_Div05"

27 – Certificate of Substantial Completion

As defined in PRZM based on the University Office of Capital Programs and Real Estate Services website under "Contracts and Forms" "Certificate of Substantial Completion": https://www.uocpres.uillinois.edu/architects/contracts.

1. Deliverable Identification Information:
   Use as set up – no additional formatting required.

2. Format – Paper:
   a. No specific requirements.

3. Format – Electronic:
   - **a.** Email: Email fsshopdrawing@illinois.edu with email title of

     "U##### - DIV ##_BP#_pdf of PRZM Cert of Substantial Completion" (insert actual UIUC project U# and contractor Division #.).
   - **b.** File Types

     "PDF" = 1 collated pdf file of entire deliverable.
     All pdf files shall be searchable.
   - **d.** File Naming – Project Number, Bid Package, Deliverable Number, abbreviated Item Name, and Contractor Division.

     Example = "U12345_BP2_27_pdf of PRZM Cert of SC_Div05"

28 – Punch List

1. Deliverable Identification Information:
   - **a.** University Project Number
   - **b.** University Project Name
   - **c.** Date
   - **d.** If used, University logo in compliance with the Illinois Identity Standards, Graphic Standards Manual, Campus Logo Guidelines

2. Format – Paper:
   - **a.** Not applicable.

3. Format – Electronic:
   - **a.** PRZM &

     Email: Email PM, project inspector and fsshopdrawing@illinois.edu with email title of "U##### - DIV ##_BP#, pdf of PRZM Punchlist" (insert actual UIUC project U# and contractor Division #).
   - **b.** File Types

     "PDF" = 1 collated pdf file of entire deliverable.

     All pdf files shall be searchable.
   - **e.** File Naming – Project Number, Bid Package, Deliverable Number, abbreviated Item Name, and Contractor Division.

     Example = "U12345_BP2_27_pdf of PRZM_punch_list_Div05"

30 – Operation & Maintenance and Systems Manuals

See "Facilities Standards," "Technical Sections," "Division 1 – Administrative," section 01_ 78_ 23 (http://www.fs.illinois.edu/docs/default-source/facility-standards/technical-sections/division-01---administrative/01-78-23---operation-and-maintenance-data7eb89bc36b8160c2ad00ff2200358aeb.pdf?sfvrsn=4).

31 – LEED Certification / Documentation

"Scorecard" (now called "LEED Project Checklist") and written narrative
Proof of "registration" of the building on the USGBC website
"LEED Certification Documentation"

1. Format – Paper:
- **a.** Bound (no ACCO-style bare metal fasteners, staples, or post bindings). Comb-binding preferred.
- **b.** Split into multiple volumes if more than 300 pages double-sided or over 1.5" thick.

2. Format – Electronic:

a. DD = Digital Download Folder Structure

If multiple Deliverables are submitted in one transmittal, each Deliverable shall have its own folder named by Deliverable Number and Name (such as "01 – Construction Cost Estimate"),
with two subfolders:

"Native"

"PDF"

There shall not be any further subfolders within the "Native" and "PDF" folders.

b. File Types

"Native" = 1 set of files in their native file type such as Microsoft Word (*.docx), Microsoft Excel (*.xlsx), Microsoft PowerPoint (*.pptx), JPEG, GIF, TIFF, RISA (*.rfl), ENERCALC (*.ecw), Trane Trace (*.taf), etc. compatible with the currently supported version.

or

"PDF" = 1 collated pdf file of entire deliverable.
All pdf files shall be searchable.

32 – Final Approved Contractor Submittals with Log

1. Deliverable Identification Information – Log Cover:
   - **a.** University Project Number
   - **b.** University Project Name
   - **c.** Date
   - **d.** If used, University logo in compliance with the Illinois Identity Standards, Graphic Standards Manual, Campus Logo Guidelines

2. Format – Paper:
   - **a.** Bound (no ACCO-style bare metal fasteners, staples, or post bindings). Comb-binding preferred.
   - **b.** Split into multiple volumes if more than 300 pages double-sided or over 1.5" thick.

3. Format – Paper Arrangement:
   - **a.** Submittals in manila folders with specification section written on folder tab.
   - **b.** Manilla folders in specification section order.

4. Format – Electronic:
   - **a.** DD = Digital Download Folder Structure

     If multiple Deliverables are submitted in one transmittal, each Deliverable shall have its own folder named by Deliverable Number and Name (such as "34 – Final Approved Contractor Submittals").

     Within this folder, there shall be folders for each specification section (such as "Div_01_Admin," "Div_03_Concrete").

     There shall not be any further subfolders.

   - **b.** File Types

     "Native" = For shop drawings only: 1 set of files in their native file type (such as .dwg) compatible with the currently supported version.
     For scans of wet signature files (such as sign-in sheets), pdfs are the "native" file.

     or

     "PDF" = For all: 1 collated pdf file of each submittal (NOT the entire transmittal).
     All pdf files shall be searchable.

   - **c.** File Naming

     PPPPPP_ssssss-nn-rr_title/#.pdf

     Key
     P = U of I Project Number (Uxxxxx)
     s = specification section number
     n = sequential transmittal or submittal number for this section
     r = revision number
     title = short title of submittal (Resubmittals shall be named with the same title as original submittal.)
     # = drawing number
     (use title OR drawing #)

33 – Contractor As-Built Drawings and Project Manual

1. Deliverable Identification Information – Cover:
   a. Complete set of marked-up contract construction drawings, including original cover sheet.

2. Format – Paper:
   a. Not applicable

3. Format – Electronic:
   a. File Types

      "PDF" = 1 collated color pdf file (scan) of entire deliverable.

   b. File Naming – All files shall be named by Project Number, Bid Package, Deliverable Number, abbreviated Item Name, and applicable Contractor Division.

      Example = "U12345_BP2_33_AsBuilt_Manual_Div05"

40 – Post Construction Activities Log

1. Deliverable Identification Information – Cover:
   a. University Project Number
   b. University Project Name
   c. Date
   d. If used, University logo in compliance with the Illinois Identity Standards, Graphic Standards Manual, Campus Logo Guidelines

2. Format – Paper:
   a. No specific requirements

3. Format – Electronic:
   a. File Types

      "Native" = 1 set of files in their native file type such as Microsoft Excel (*.xls) compatible with the currently supported version.
      For scans of sign-in sheets, pdfs are the "native" file.

      "PDF" = 1 collated pdf file of entire deliverable.
      All pdf files shall be searchable.

   b. File Naming – All files shall be named by Project Number, Bid Package, Deliverable Number, abbreviated Item Name, and Contractor Division.

      Example = "U12345_BP2_40_PostConstLog_Div01"

41 – Log of Equipment with Settings Different than Manufacturer's Recommendations

1. Deliverable Identification Information – Cover:
   - **a.** University Project Number
   - **b.** University Project Name
   - **c.** Date
   - **d.** If used, University logo in compliance with the Illinois Identity Standards, Graphic Standards Manual, Campus Logo Guidelines

2. Format – Paper:
   a. No specific requirements

3. Format – Electronic:
   - **a.** File Types

     "Native" = 1 set of files in their native file type such as Microsoft Excel (*.xls) compatible with the currently supported version. For scans of sign-in sheets, pdfs are the "native" file.

     "PDF" = 1 collated pdf file of entire deliverable. All pdf files shall be searchable.
   - **b.** File Naming – All files shall be named by Project Number, Bid Package, Deliverable Number, abbreviated Item Name, and applicable Contractor Division.

     Example = " U12345_BP2_41_EquipLog_Div05"

42 – Post Construction Report

1. Deliverable Identification Information – Cover:
   - **a.** University Project Number
   - **b.** University Project Name
   - **c.** Building Name and Number, or Utility Name
   - **d.** Project Submittal Phase
   - **e.** Submittal Date
   - **f.** If used, University logo in compliance with the Illinois Identity Standards, Graphic Standards Manual, Campus Logo Guidelines

2. Deliverable Identification Information – Individual Pages: (footer, or appropriate location)
   - **a.** Project Title as appears in PRZM (or as approved by the Board of Trustees)
   - **b.** University Project Number
   - **c.** Project Submittal Phase
   - **d.** Submittal Date
   - **e.** If used, University logo in compliance with the Illinois Identity Standards, Graphic Standards Manual, Campus Logo Guidelines

3. Deliverable – Arrangement – Sections:
   a. Per Division of Work

4. Format – Paper:
   - **a.** Bound (no ACCO-style bare metal fasteners, staples, or post bindings). Comb-binding preferred.
   - **b.** Split into multiple volumes if more than 300 pages double-sided or over 1.5" thick.

5. Format – Electronic:

a. DD = Digital Download Folder Structure

If multiple Deliverables are submitted in one transmittal, each Deliverable shall have its own folder named by Deliverable Number and Name (such as "6 – Project Manual"), with two subfolders:

"Native"

"PDF"

There shall not be any further subfolders within the "Native" and "PDF" folders.

b. File Types

"Native" = 1 set of files in their native file type such as Microsoft Word (*.docx), Microsoft Excel (*.xlsx), Microsoft PowerPoint (*.pptx), JPEG, GIF, TIFF, etc. compatible with the currently supported version.

"PDF" = 1 collated pdf file of entire deliverable, and

1 set of individual pdf files, saved 1 file per Specification Section, or, Chapter, etc. All pdf files shall be rotated to the correct direction.

All pdf files shall be searchable.

c. File Naming – All files shall be named by Project Number, Bid Package, Deliverable Number, abbreviated Item Name, and applicable Contractor Division. There shall be no additional prefixes or suffixes, with the only exception being the addition of a prefix that allows the files to sort in the proper order.

Example = " U12345_BP2_42_PostConstRpt_Div01"

PART 2: CAD STANDARDS

CHAPTER I: UTILIZING THE CAD STANDARDS

A. Introduction:
This chapter describes how to conform to the CAD Standards, the purpose, guidelines, and related procedures.

B. Related Documents:

1. *Exhibit B, CAD Standard Master Layer List*

C. References:

1. *United States National CAD Standard Guidelines Version 3.1*

D. Purpose:
Provide for a common medium of information exchange. In fact, the true power and potential of CAD is the ability to re-use and share the information contained within the CAD document. The key to realizing this potential is common organizing principles–standards for the production and dissemination of CAD information. The standard organization of files, layers and entities, as well as standardized software applications is essential for effective work and communication. Standards are necessary to ensure that:

1. CAD drawings and data created in one phase (e.g., design) are readily usable in subsequent phases (e.g., facility management).
2. Drawings and data are applicable for their intended use.
3. Drawings and data are compatible with the available CAD equipment and software.
4. Drawings and data created for one project or project discipline, are compatible with those created for others.
5. Drawings and data can be transferred and integrated with other applications, such as facility management.
6. Drawings and data created in one department of the University are consistent with those developed by the other departments.
7. The compatibility of the University CAD drawings and data with pertinent national, international and industry standards is maintained.

E. Guidelines:
To ensure that the University of Illinois and its Consultants conform to the broader scope of the proposed National CAD Standard, sponsored by the National Institute of Building Sciences (NIBS) CADD Council, these Standards incorporate recommended guidelines from the following:

1. United States National CAD Standard Guidelines Version 3.1

F. Comprehensive Facilities Management Strategy:
The University of Illinois has multiple information management systems that require data be specifically formatted for compatibility. This document sets performance standards for CAD data delivered to the University. The University does not intend to influence the methods or means of practice of outside Consultants. Consultants may use any CAD system to develop construction

documents for the University, as long as the delivered data conforms to the current University CAD Standards.

Commitment: The University is committed, however, to enforcing the standards of information delivery that ensure predictability and the ability to easily reuse information. As a result, these CAD Standards will be included as part of the Professional Services Consultant Requirements: Project Submittal Requirements.

G. Scope:

This data specification covers all Construction Documents prepared by or on behalf of the University. CAD drawings shall be provided for all Projects, regardless of size. The deliverables described in this manual shall be provided for each sheet that is issued for construction in a Project and shall include all supporting data files that are used to produce the finished sheets. If additional electronic design drawings or 3D models are provided, it is the responsibility of the Consultant to initiate discussion with Facilities Information Resources to determine an acceptable format for those deliverables.

H. Application:

Anyone who is going to prepare CAD data for the University, including University staff, Contractors, and Consultants, shall read and become familiar with this document before proceeding with any work. (The term "Consultant" used in this manual refers to the person or organization who is preparing the CAD data, whether the person or organization is part of the University or not.)

I. Basic CAD Software Requirements:

The designated CAD software for the University is Autodesk's AutoCAD. All CAD files are required to be delivered in AutoCAD's ".dwg" file format, version 2019 or earlier.

J. CAD Application Software:

CAD application software packages operate on top of, or in conjunction with, the basic CAD software to extend its capabilities. The extensions enhance design, drafting and modeling productivity and link non-graphic attribute data to the graphic entities. All CAD application packages used by the University, or its Consultants, which modify or create CAD layers or other entities shall comply with these Standards.

K. Inquiries about the CAD Standards:

These Standards will be most effective for the University and most usable for Consultants if there is communication between Consultants, the Owner's Representative and Facilities Information Resources.

Consultants should ask questions about the CAD Standards before beginning work.
Concerns regarding the impact of the CAD standards on a particular Project shall be discussed with the Owner's Representative and Facilities Information Resources.

Consultants' questions are valuable because they help the University understand the real-world conditions of each Project's design and construction process. Questions will raise issues that will result in better CAD Standards.

L. Requests for Improving the CAD Standards:

The content of this manual is intended to be neither static nor all-inclusive. Suggestions for improvements are encouraged so that subsequent updates reflect the needs of the University. Submit requests, as well as any pertinent new information, to Facilities Information Resources.

CHAPTER II: TECHNICAL REQUIREMENTS FOR CAD STANDARDS

A. Introduction:

The organization and format of the CAD deliverables shall support the requirements of the University Project for design, construction, bidding and archiving. The deliverable shall also readily support the integration of information into other University facility management systems with minimal additional effort.

B. Drawing Setup:

This chapter describes how to organize and set up CAD drawings for the University. Consultants shall obtain prior approval from the Owner's Representative and Facilities Information Resources for any exceptions to the drawing set up Standards. Consultants shall submit documentation that shows the files affected and how they deviate from the Standards.

1. **Drawing Units:** Architectural CAD files shall be drawn using architectural (feet and inches). Civil engineering CAD files shall be drawn using decimal (feet and hundredths). No metric equivalents. NO METRIC EQUIVALENTS.

2. **Drawing Accuracy:** All CAD drawings shall be drafted using precision input employing the most accurate source material available. For all drawing entities, zero tolerance is required, all lines meet at intersections, straight lines are straight, blocks are inserted properly without overlap, etc.

   Consultants are responsible for the accuracy of all CAD drawings delivered to the University, regardless of the accuracy of CAD drawings of previous projects furnished by the University as a convenience to the consultant.

3. **Drawing Scale:** Objects created in model space shall be drawn at 1:1 scale (e.g. a 100-foot wall will be drawn to 100 feet and a 36-inch column will be drawn to 36 inches).

   The following types of CAD models may be drawn to any scale: schedules, riser diagrams, schematic diagrams and single line diagrams.

4. **Drawing Origin and Registration:** The origins of CAD files shall be defined at coordinates 0, 0, 0. This is typically the lower left corner of the building. For non-rectilinear buildings a logical origin point shall be established. The model shall be oriented so North is either to the top (^) or left (<) on the drawing document.

   The origin point shall remain consistent between all CAD files in a Project. This is critical for correct registration of different CAD files when referenced together, aligning the various views of the facility. Registration of electronic data shall be maintained so the information will be usable in future applications.

   a. **Exception:** Civil engineering CAD files (Topographic-Site Surveys, Building Site Plans, Utility Site Plans etc.) shall use true geographic coordinates for their origins. Horizontal Datum shall be based upon Illinois State Coordinate System East Zone North American Datum of 1983 (2011) **"NAD 1983 ILLINOIS STATE PLANE, EAST ZONE"** and North American Vertical Datum 1988, **"NAVD 1988"**.

4. **Graphic Representation of Entities**

   a. **Curved Entities:** Circles, arcs and ellipses shall be created as individual entities, not of line segments.

   b. **Entity Properties:** Entity properties such as color, line weight, and linetype shall be set BYLAYER, for purposes of clarity.

Line weight and color affect the use of CAD data in different ways. Line weight typically is most effective when working with plotted CAD files. Plots, or reproductions of plots, are typically monochrome. Utilizing line weights can be an effective means of communicating important information about the facility and the design Project.

Color is most useful when displaying the CAD data on a computer screen. Colors allow users to readily identify systems and unique types of information.

Consultants shall select line weights and colors that promote effective use of the CAD data, in both plotted and electronic formats.

6. **Line Type Scale:** Line type scale shall be set so that each line type is recognizable, easily identified, and distinguishable to individuals who are working in the CAD files and in final plotted output.

7. **Text Requirements**

   a. The text height requirement for all University of Illinois Cad files shall be 1/10 of an inch minimum.

   b. Text shall be all upper case, except for cases where symbols require lower case letters.

   c. Text shall be placed in the CAD file with enough space around it, to allow for legibility when the CAD file is plotted and reproduced.

   d. Text placed at an angle shall be readable from bottom or right edge of the plotted sheet. Typically text shall be place at 0 or 90 degrees.

   e. Text placed along (aligned above or below) an object at an angle other than 0 or 90 degrees is acceptable.

8. **Dimension Requirements**

   a. Associative dimensions shall be used.

   b. Dimension style names shall be consistent between CAD files within a Project.

9. **Blocks:** Any graphic entity that occurs repeatedly in drawings shall be made into a block. Insertion points for blocks shall be consistent with its placement in the drawing. Use a logical insertion point (center of circle, bottom left corner of object, etc.). Keep names simple and descriptive. AutoCAD block names shall be unique within each Project. Nested blocks contain more than one block definition. Nested blocks are permitted but should be avoided whenever possible. Blocks shall conform to the *United States National CAD Standard Guidelines Version 3.1.*

10. **Hatching:** Do not use polylines with increased width as a replacement for poché or hatching.

11. **Xref (External Reference) Files:** Xrefs may be used to subdivide a large CAD drawing into several smaller, more efficient drawings. The use of this procedure will reduce drawing size, increase performance, improve operator efficiency and make coordination of disciplines easier. Xrefs may also be used to split a drawing by disciplines. There shall be no specific drive or directory references associated with the xrefs. All xrefs shall reside in the same directory as the drawing files.

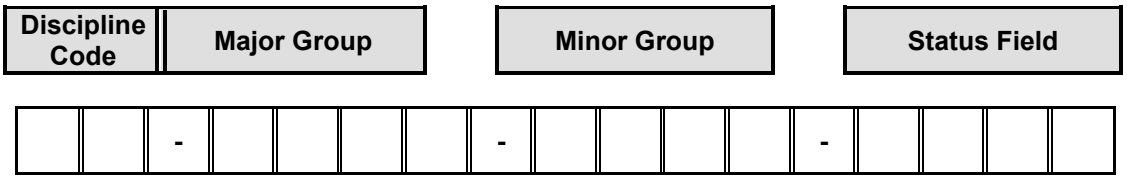
C. Layers:

The University has adopted the CAD layer naming convention published by the United States National CAD Standard Version 3.1. Consultants shall follow this layer naming system when producing CAD files for the Project.

Layer names and assignments are shown in *Exhibit 00100-1, CAD Standard Master Layer List*. The layer table categorizes layers by discipline, and by type of information. This table also shows several items for each layer, as follows: a complete listing of all layer names, a detailed definition for each layer, and the presentation graphics associated with each layer, including color, and line type.

Consultants who wish to use additional layers shall submit a list of proposed layer names to Facilities Information Resources.

1. **Layer Format:** The University's layer guidelines are organized as a hierarchy. The convention utilizes a scheme of naming layers with four field groups. The four groups are discipline code, major group, minor group and status field:



2. **Discipline Code:** The Discipline Code is a two-character field with the second character either a hyphen or a user-defined modifier. The defined codes are the same for both layers and file names. Table 1 shows the letters that shall be used for the first character of the discipline code.

Code	Discipline
A	Architectural
C	Civil
E	Electrical
F	Fire Protection
G	General
H	Heating
HZ	Hazardous Materials
I	Interiors
L	Landscape
M	Mechanical
P	Plumbing
S	Structural
T	Telecommunications
V	Ventilation

Table 1: CAD layer discipline codes

3. **Major Group:** Major groups are a four-character field used to identify the building system. Major groups are typically grouped with specific discipline codes. For example, a drawing might contain the following layers:

    a. A-WALL Walls
    b. A-DOOR Doors
    c. C-PKNG Parking Lots

4. **Minor Group:** Minor groups add an additional set of information to the layer names. It is an optional, four-character field that further differentiates major groups into types of information. For example, A-WALL-PRHT indicates architecture, new, wall, partial height.

5. **User-Definable Fields:** The minor group field can be defined by the user, allowing additional layers to be added to accommodate special Project requirements. This shall only be done if a defined layer does not apply to a Project. Some examples of layers using a user-defined minor group field are as follows:

    a. A-DOOR-METL Metal doors
    b. A-WALL-STRC Walls to structure
    c. A-FURN-PNL1 Furniture panels from manufacturer 1
    d. A-FURN-PNL2 Furniture panels from manufacturer 2
    e. Common Layers Used in All Files

6. **Annotation Layers:** Annotation comprises text, dimensions, sheet borders, detail references, and other elements on CAD drawings that do not represent physical aspects of a building. Annotation is designated by the major group "ANNO." See University of Illinois Standard Layers List *Exhibit B, CAD Standard Master Layer List* for examples of annotation layers.

7. **Status layers:** The status field is an optional, four-character field that designates the phase of construction and status of the elements. This field is optional and is only needed when phases of work need to be differentiated.

    The status field is always placed as the last field of the layer name. In a simple layer name such as A-WALL, the status field would be the third field, A-WALL-DEMO. In a more detailed layer name, the status field would be the fourth field, A-WALL-INTR-DEMO. See University of Illinois Standard Layers List *Exhibit B, CAD Standard Master Layer List* for status field designators.

D. Preparing Drawings for Submittal:
Refer to Part 1: Submittal Requirements for 07a – Drawings.

PART 3: ROOM NUMBER ASSIGNMENT STANDARDS

A. Introduction:
This document provides guidance for establishing a consistent and intuitive room numbering system within University buildings.

B. Related Documents and Standards:

1. *Drawing 00100-1, Space Inventory - Room Number System*
2. *Drawing 00100-2, Space Inventory - Actual Room Use Assignments*
3. *Drawing 00100-3, Space Inventory - Area Polylines*
4. *CAD Standards*

C. References:

1. *Postsecondary Education Facilities Inventory and Classification Manual*

D. Purpose:
Allow better navigation of the buildings on campus for students, staff, maintenance personnel, and emergency personnel. Ensure room numbers conform to the University's Space Inventory database structure.

E. Room Numbering Guidelines:

1. Room number layout shall begin at the main entrance of the building proceeding in a clock-wise direction.

2. Odd room numbers and even room numbers shall be placed on opposite sides of the corridor. (Example: Odd room number 1015 shall be across the corridor from even room number 1016). Proceeding clock-wise from the main entrance, even room numbers shall be assigned to rooms on the left side of the corridor, odd room numbers shall be assigned to rooms on the right side of the corridor.

3. Vertical similarity shall be maintained between floors of the building. Special consideration shall be given to restrooms and mechanical areas.

4. Room numbers shall be assigned in accordance with the ranges listed below for each floor of the building.

    a. Basement: 1 – 999
    b. Ground Floor / First Floor: 1000 – 1999
    c. Second Floor: 2000 – 2999
    d. Third Floor: 3000 – 3999
    e. Fourth Floor: 4000 – 4999 etc.

6. **Planning:** Omitting room numbers from the sequence in a room numbering system will allow availability of room numbers for future room remodels.

7. **Primary Room Numbers:** Rooms that can be accessed from a corridor shall be assigned a primary room number (Example: 1000, 1001, or 1002). See *Drawing 00100-1.*

8. **Alpha Suffix Room Numbers:** Rooms that can be accessed only from a room with a primary room number shall be assigned an alpha suffix room number. Example: 1000A, 1000B, or 1000C. See *Drawing 00100-1.*

9. **Alpha-Numeric Suffix Room Numbers:** Rooms that can be accessed only from a room with an alpha suffix room number shall be assigned an alpha-numeric suffix room number. Example: 1000A1, 1000A2, or 1000A3. See *Drawing 00100-1*.

10. **C-Prefix Room Numbers:** Circulation area spaces shall be assigned a C-Prefix room number. Corridors, vestibules, unfurnished commons areas, and elevator lobby areas are examples of circulation area spaces. Example: C1000, C1050, and C1100. See *Drawing 00100-1*.

11. **ELEV-Prefix Room Numbers:** Elevators shall be assigned an ELEV prefix room number. Each elevator in a building shall be assigned only one ELEV-prefix room number. Example: ELEV1, ELEV2, or ELEV3. See *Drawing 00100-1*.

12. **STAIR-Prefix Room Numbers:** Stairwells shall be assigned a STAIR prefix room number. Each stairwell in a building shall be assigned only one STAIR-prefix room number. Example: STAIR1, STAIR2, or STAIR3. See *Drawing 00100-1*.

13. **Exceptions to Standards:** Consultant shall contact the Coordinator of Records Management for approval of any exceptions to the *A / E Requirements Space Inventory – Room Number Assignment Standards*.

F. Room Use:

All rooms in a room number system shall be assigned an Actual Room Use Code and Name, in accordance with the *Postsecondary Education Facilities Inventory and Classification Manual* standards for room usages – see Table 1: Actual Room Uses below. See *Drawing 00100-2*.

1. ***Postsecondary Education Facilities Inventory & Classification Manual*:** This manual may be ordered *free of charge* from the U.S. Department of Education. However, only one manual per customer. Ordering information below:

   U.S. DEPARTMENT OF EDUCATION
   1-877-4ED-PUBS, 1-877-433-7827
   P.O. BOX 1398
   JESSUP, MD 20794-1398
   http://www.edpubs.org

2. **Assignable Space:** According to the *Postsecondary Education Facilities Inventory and Classification Manual,* the definition for Assignable Space is “The sum of all areas on all floors of a building assigned to or available for assignment to, an occupant or for specific use”.

3. **Non-Assignable Space:** According to the *Postsecondary Education Facilities Inventory and Classification Manual*, the definition for Non-Assignable Space is “The sum of all areas on all floors of a building not available for assignment to an occupant or for specific use, but necessary for the general operation of a building”.

ASSIGNABLE SPACE	
100 SERIES - CLASSROOM FACILITIES	
110	Classroom
115	Classroom Service
200 SERIES - LABORATORY FACILITIES	
210	Class Laboratory
215	Class Laboratory Service
220	Open Laboratory
225	Open Laboratory Service
250	Non-Class Laboratory
255	Non-Class Lab Service
300 SERIES - OFFICE FACILITIES	
310	Office
315	Office Service
350	Conference Room
355	Conference Room Service
400 SERIES - CLASSROOM FACILITIES	
410	Study Room
420	Stack
430	Open Stack Study Room
440	Processing Room
455	Study Service
500 SERIES - SPECIAL USE FACILITIES	
510	Armory
515	Armory Service
520	Athletic/Physical Education
523	Athletic/Physical Education - Spectator Seating
525	Athletic/Physical Education Service
530	Media Production
535	Media Production Service
540	Clinic
545	Clinic Service
550	Demonstration
555	Demonstration Service
560	Field Building
570	Animal Quarters
575	Animal Quarters Service
580	Greenhouse
585	Greenhouse Service
590	Other
600 SERIES - GENERAL USE FACILITIES	
610	Assembly
615	Assembly Service
620	Exhibition
625	Exhibition Service
630	Food Facilities
635	Food Facilities Service
640	Day Care

645	Day Care Service
650	Lounge
655	Lounge Service
660	Merchandising
665	Merchandising Service
670	Recreation
675	Recreation Service
680	Meeting Room
685	Meeting Room Service
700 SERIES - SUPPORT FACILITIES	
710	Central Comp./Telecom
715	Central Comp/Telecom Service
720	Shop
725	Shop Service
730	Central Storage
735	Central Storage Service
740	Vehicle Storage
745	Vehicle Storage Service
750	Central Service
755	Central Services Support
760	Hazardous Materials Storage
770	Hazardous Waste Storage
775	Hazardous Waste Service
780	Unit Storage
785	Unit Storage Service
800 SERIES - HEALTH CARE FACILITIES	
810	Patient Bedroom
815	Patient Bedroom Service
820	Patient Bath
830	Nurse Station
835	Nurse Station Service
840	Surgery
845	Surgery Service
850	Treatment/Examination
855	Treatment/Examination Service
860	Diagnostic Service Laboratory
865	Diagnostic Service Laboratory Support
870	Central Supplies
880	Public Waiting
890	Staff On-Call Facility
895	Staff On-Call Facility Service
900 SERIES - RESIDENTIAL FACILITIES	
910	Sleep/Study w/o Toilet/Bath
919	Toilet/Bath
920	Sleep/Study w/ Toilet/Bath
935	Sleep/Study Service
950	Apartment
955	Apartment Service
970	House

000 SERIES - UNCLASSIFIED FACILITIES	
050	Inactive Area
060	Alteration Area
070	Unfinished Area
NON-ASSIGNABLE SPACE	
WWW - CIRCULATION AREA	
WWW00	Circulation Area
WWW01	Bridge/Tunnel/Catwalk
WWW02	Public Elevator - Accessible
WWW03	Escalator
WWW04	Loading Dock
WWW06	Corridor
WWW07	Stairway
WWW08	Vestibule
WWW09	Ramp
WWW10	Ladder
WWW11	Dumbwaiter
WWW12	Restricted Use Elevator
WWW19	Ramp - Not Accessible
WWW22	Public Elevator - Not Accessible
XXX - BUILDING SERVICE AREA	
XXX00	Building Service Area
XXX02	BSW Room
XXX03	Men's Public Restroom
XXX04	Women's Public Restroom
XXX05	All-Gender Public Restroom
XXX06	Public Lactation Room
XXX07	Men’s Public Restroom - Accessible
XXX08	Women’s Public Restroom - Accessible
XXX09	All-Gender Public Restroom - Accessible
XXX10	Outdoor Spectator Seating
XXX11	Shower Room
YYY - MECHANICAL AREA	
YYY00	Mechanical Area
YYY01	Central Utility Plant
YYY02	Electrical Room
YYY03	Shaft
YYY04	Building Mechanical Space
YYY05	Wiring Closet/Telecom
ZZZ - STRUCTURAL AREA	
ZZZ00	Structural Space
ZZZ01	Unusable Area
ZZZ02	Unusable - Permanent

Table 1: Actual Room Uses

G. Identification Devices:

All rooms in the space inventory room number system (including, corridors, elevators, janitor closets, mechanical rooms, restrooms, stairwells, vestibules, etc.) shall receive an identification device.

1. The identification device shall display the room number assigned to that room in the space inventory room number system. (Example: room number assignment ELEV1 shall be displayed as “ELEV1”).

2. Identification devices shall conform to the *“U.I.U.C Facility Standards, Division 10 – Specialties, Section 10440 – Identifying Devices”.*

H. Drawing Requirements:

Space Inventory data shall be added to CAD files in accordance with the University’s *“CAD Standards Section”. See CAD Standard Master Layer List, Exhibit B, and Space Inventory – Room Number Assignment Standards, Drawings 00100-1, 00100-2, and 00100-3.*

I. Conformance to Room Number Assignment Standards:

The Room Numbering Systems delivered to the University by Consultants shall comply with the University “*Space Inventory - Room Number Assignment Standards”* in effect during the current Project.

The University requires sample submittals at key milestones during development of the room numbering system in accordance with the Professional Services Consultant Contract.

Sample submittals are not intended to be a burden on the Consultant, and typically will involve a very limited number of drawings. The University requires digital media submittals, as a minimum, be provided at the first and final submittal milestones.

Providing digital media at the first submittal milestone will allow the University to verify the room numbering system being used by the Consultant conforms to the University’s *Space Inventory - Room Number Assignment Standards* and can be readily used in the University’s Space Inventory database.

PART 4: GIS STANDARDS

A. Introduction:
This document provides basic guidance for delivering GIS files.

B. ESRI Version:
ArcGIS Desktop 10.6.1, SDE 10.6.1

C. Datum:
Horizontal Datum shall be based upon Illinois State Coordinate System East Zone North American Datum of 1983 (2011) “NAD 1983 ILLINOIS STATE PLANE, EAST ZONE” and North American Vertical Datum 1988, “NAVD 1988.”

D. Deliverables:
1. File Geodatabase or a Personal Database (.gdb file)
   (Shapefiles are acceptable if a File Geodatabase or Personal Database are not possible -- .shp files.)
2. Layer Packages (.pkg files)
3. ArcMap File (.mxd file)

APPENDICES

APPENDIX A: CAD STANDARD MASTER LAYER LIST

General Information			
Annotation Layers			
Key Plans, Schedules, Legends & Misc			
Layer Name	**Layer Description**	**Line Type**	**Color #**
*-ANNO-TEXT	Text	Varies	Varies
*-ANNO-REDL	Redline	Varies	Varies
*-ANNO-SYMB	Symbols	Varies	Varies
*-ANNO-LEGN	Legends and schedules	Varies	Varies
*-ANNO-DIMS	Dimensions	Varies	Varies
*-ANNO-TTLB	Border and title block	Varies	Varies
*-ANNO-NOTE	Notes	Varies	Varies
*-ANNO-NPLT	Construction lines, nonplotting information	Varies	Varies
*-ANNO-KEYN	Key notes	Varies	Varies
*-ANNO-REVS	Revisions	Varies	Varies
*-ANNO-XREF	Reference files	Varies	Varies
*-ANNO-GRID	Grid Index	Varies	Varies
	**Note: Annotation layer names may be appended with a four-character sheet name designator when needed.*		
Common Modifiers			
*-****-PATT	Cross - hatching, poch′e	Varies	Varies
*-****-IDEN	Identification tags	Varies	Varies
*-****-ELEV	Elevation (vertical surfaces in 3D)	Varies	Varies
X-RDME	Read - me layer, not to be plotted	Varies	Varies
Status Field Modifiers			
*-****-NEWW	New work	Varies	Varies
*-****-EXST	Existing to remain	Varies	Varies
*-****-DEMO	Demolition	Varies	Varies
*-****-FUTR	Future work	Varies	Varies
*-****-ABND	Abandoned	Varies	Varies
*-****-TEMP	Temporary work	Varies	Varies
*-****-MOVE	Items to be moved	Varies	Varies
*-****-RELO	Relocated items	Varies	Varies
*-****-NICN	Not in contract	Varies	Varies
*-****-PHS1-9	Phase numbers (1-9)	Varies	Varies
	**Note: The status field may also occur as the fourth field, following a minor group.*		
One-Line Diagram Layers			
Line Work			
*-1LIN-LWRK-IDEN	One-line line work identification - annotation	Varies	Varies
*-1LIN-LWRK-FINE	One-line line work - fine (*0.000 - 0.009*)	Varies	Varies
*-1LIN-LWRK-THIN	One-line line work - thin (*0.010 - 0.019*)	Varies	Varies
*-1LIN-LWRK-MEDM	One-line line work - medium (*0.020 - 0.029*)	Varies	Varies

Layer Name	Layer Description	Line Type	Color #
*-1LIN-LWRK-WIDE	One-line line work - wide (*0.030 - 0.039*)	Varies	Varies
*-1LIN-LWRK-EXWD	One-line line work - extra wide (*0.040 -*)	Varies	Varies
Devices			
*-1LIN-DEVC-IDEN	One-line devices identification - annotation	Varies	Varies
*-1LIN-DEVC-FINE	One-line devices - fine (*0.000 - 0.009*)	Varies	Varies
*-1LIN-DEVC-THIN	One-line devices - thin (*0.010 - 0.019*)	Varies	Varies
*-1LIN-DEVC-MEDM	One-line devices - medium (*0.020 - 0.029*)	Varies	Varies
*-1LIN-DEVC-WIDE	One-line devices - wide (*0.030 - 0.039*)	Varies	Varies
*-1LIN-DEVC-EXWD	One-line devices - extra wide (*0.040 -*)	Varies	Varies
Riser Diagram Layers			
*-RISR-LWRK-IDEN	Riser diagram line work identification - annotation	Varies	Varies
*-RISR-LWRK-FINE	Riser diagram line work - fine (0.000 - 0.009)	Varies	Varies
*-RISR-LWRK-THIN	Riser diagram line work - thin (0.010 - 0.019)	Varies	Varies
*-RISR-LWRK-MEDM	Riser diagram line work - medium (0.020 - 0.029)	Varies	Varies
*-RISR-LWRK-WIDE	Riser diagram line work - wide (0.030 - 0.039)	Varies	Varies
*-RISR-LWRK-EXWD	Riser diagram line work - extra wide (0.040 -)	Varies	Varies
Detail Layers			
*-DETL-ACCS	Detail accessories	Varies	Varies
*-DETL-CMUW	Detail concrete masonry unit (CMU) outline (no patterning)	Varies	Varies
*-DETL-CONC	Detail concrete	Varies	Varies
*-DETL-COVR	Detail covers and fittings	Varies	Varies
*-DETL-DEVC	Detail devices (e.g. valves, meters, pump stations etc.)	Varies	Varies
*-DETL-DIMS	Detail witness/extension lines, dimension arrowheads/dots/slashes, dimension text	Varies	Varies
*-DETL-ERTH	Detail earth	Varies	Varies
*-DETL-FAST	Detail fasteners	Varies	Varies
*-DETL-FENC	Detail fencing	Varies	Varies
*-DETL-FILL	Detail fill	Varies	Varies
*-DETL-FNGR	Detail finished grade	Varies	Varies
*-DETL-FTTG	Detail fittings (e.g. tees, crosses, reducers etc.)	Varies	Varies
*-DETL-GENF	Detail general features (miscellaneous items including details within the detail)	Varies	Varies
*-DETL-JUNC	Detail junctions (e.g. manholes, pedestals, handholes etc.)		
*-DETL-NPLT	Detail non-plotting - construction lines, reference targets, area calculations, review comments	Varies	Varies
*-DETL-MISC	Detail joint materials (e.g. felt), vapor barrier, other	Varies	Varies
*-DETL-MODL	Detail model		
*-DETL-PIPE	Detail piping	Varies	Varies
*-DETL-PATT	Detail miscellaneous patterning	Varies	Varies
*-DETL-PAVE	Detail pavement	Varies	Varies
*-DETL-REIN	Detail reinforcement rebar, welded wire mesh	Varies	Varies
*-DETL-SPCF	Detail special features	Varies	Varies

Layer Name	Layer Description	Line Type	Color #
*-DETL-STLS	Detail steel structure wide flange shapes, plates, open web joists, decking, bolts, nails	Varies	Varies
*-DETL-STRC	Detail structural metal	Varies	Varies
*-DETL-SYMB	Detail reference bubbles, match lines and break lines	Varies	Varies
*-DETL-SHDE	Detail shaded line work	Varies	Varies
*-DETL-TANK	Detail tanks	Varies	Varies
*-DETL-TEXT	Detail title text, text and associated leader lines and arrowheads, notes	Varies	Varies
*-DETL-TTLB	Detail border and title block		
*-DETL-WELD	Detail weld symbols	Varies	Varies
*-DETL-WOOD	Detail wood outline (no patterning)	Varies	Varies

Architectural			
Layer Name	**Layer Description**	**Line Type**	**Color #**
Architectural Layers			
A-AREA-GROS	Architectural area - **Exterior and Interior Gross Area** each floor plan shall consist of two (2) separate closed polylines. One (1) polyline shall be drawn around the interior face of the exterior wall of the building. One (1) polyline shall be drawn around the exterior face of the exterior wall of the building - See *Drawing 00100-3*.	Continuous	3
A-AREA-RM	Architectural area - **Room Interior Area** One (1) closed polyline shall be drawn around the interior face of the walls for each individual room on a floor. See *Drawing 00100-3.*	Continuous	2
A-AREA-RMID	Architectural area - **Room Numbers** shall be assigned according to the University's *"Space Inventory - Room Number Assignment Standards".* See *Drawing 00100-1* - annotation	Continuous	4
A-AREA-RUID	Architectural area - **Actual Room Use Identifications** shall be acquired according to the University's *"Space Inventory - Room Number Assignment Standards".* See *Drawing 00100-2*. - annotation	Continuous	4
A-AREA-PATT	Architectural area cross hatching	Continuous	Varies
A-CLNG	Architectural ceiling information	Varies	Varies
A-CLNG-ACCS	Architectural ceiling access	Varies	Varies
A-CLNG-CONT	Architectural ceiling control joints	Varies	Varies
A-CLNG-GRID	Architectural ceiling grid	Varies	Varies
A-CLNG-OPEN	Architectural ceiling / roof penetrations	Varies	Varies
A-CLNG-PATT	Architectural ceiling patterns (e.g. gypsum, plaster, user defined)	Varies	Varies
A-CLNG-TEES	Architectural ceiling main tees	Varies	Varies
A-CLNG-SUSP	Architectural ceiling suspended: ceiling mounted specialities (e.g. clocks, fans, etc.)	Varies	Varies
A-COLS-ENCL	Architectural column enclosures / fire protection	Varies	Varies
A-DOOR	Architectural doors	Varies	Varies

Layer Name	Layer Description	Line Type	Color #
A-DOOR-ELEV	Architectural doors: 3D views	Varies	Varies
A-DOOR-FULL	Architectural doors full-height (to ceiling) door: swing and leaf	Varies	Varies
A-DOOR-IDEN	Architectural doors door number, hardware group, etc. - annotation	Varies	Varies
A-DOOR-PRHT	Architectural doors partial-height door: swing and leaf	Varies	Varies
A-DOOR-SYMB	Architectural doors miscellaneous symbols (e.g. overhead, bifold, pocket, etc.)	Varies	Varies
A-ELEV	Architectural elevations interior and exterior	Varies	Varies
A-ELEV-CASE	Architectural elevations wall-mounted casework	Varies	Varies
A-ELEV-OTLN	Architectural elevations building outlines	Varies	Varies
A-ELEV-FIXT	Architectural elevations miscellaneous fixtures	Varies	Varies
A-ELEV-FNSH	Architectural elevations finishes, woodwork, trim	Varies	Varies
*-****-ABND	Abandoned	Varies	Varies
A-ELEV-IDEN	Architectural elevations component identification numbers - annotation	Varies	Varies
A-ELEV-PATT	Architectural elevations textures and hatch patterns	Varies	Varies
A-ELEV-PFIXT	Architectural elevations plumbing fixtures	Varies	Varies
A-ELEV-SIGN	Architectural elevations signage	Varies	Varies
A-EQPM	Architectural equipment	Varies	Varies
A-EQPM-ACCS	Architectural equipment access	Varies	Varies
A-EQPM-CLNG	Architectural equipment ceiling-mounted or suspended	Varies	Varies
A-EQPM-ELEV	Architectural equipment surfaces: 3D views	Varies	Varies
A-EQPM-FIXD	Architectural equipment fixed (non-moveable)	Varies	Varies
A-EQPM-IDEN	Architectural equipment identification numbers	Varies	Varies
A-EQPM-MOVE	Architectural equipment moveable	Varies	Varies
A-EQPM-NICN	Architectural equipment not in contract	Varies	Varies
A-FLOR	Architectural floor information	Varies	Varies
A-FLOR-CASE	Architectural floor casework (manufacture cabinets)	Varies	Varies
A-FLOR-EVTR	Architectural floor elevator cars and equipment	Varies	Varies
A-FLOR-FIXT	Architectural floor mounted/free standing miscellaneous fixtures (not including toilet fixtures)	Varies	Varies
A-FLOR-HRAL	Architectural floor stair and balcony handrails, guard rails (except handicap grab bars)	Varies	Varies
A-FLOR-IDEN	Architectural floor targets, notes etc - annotation	Varies	Varies
A-FLOR-LEVL	Architectural floor level changes, ramps, pits, depressions, breaks in construction	Varies	Varies
A-FLOR-OTLN	Architectural floor or building outline	Varies	Varies
A-FLOR-OVHD	Architectural floor overhead items (skylights, overhangs ---- usually dashed line)	Varies	Varies
A-FLOR-PATT	Architectural floor paving, tile, carpet patterns	Varies	Varies
A-FLOR-PFIX	Architectural floor plumbing fixtures	Varies	Varies
A-FLOR-RAIS	Architectural floor: raised	Varies	Varies
A-FLOR-RISR	Architectural floor stair risers	Varies	Varies
A-FLOR-SIGN	Architectural floor signage	Varies	Varies
A-FLOR-SPCL	Architectural floor specialties (toilet room accessories - *floor mounted only*, display cases)	Varies	Varies
A-FLOR-STRS	Architectural floor stair treads, escalators, ladders	Varies	Varies
A-FLOR-TPTN	Architectural floor toilet partitions and handicap grab bars	Varies	Varies

Layer Name	Layer Description	Line Type	Color #
A-FLOR-WDWK	Architectural floor woodwork (field-built cabinets and counters)	Varies	Varies
A-FURN	Architectural furniture	Varies	Varies
A-FURN-CHAR	Architectural furniture chairs and other seating	Varies	Varies
A-FURN-ELEV	Architectural furniture elevations: 3D views	Varies	Varies
A-FURN-FILE	Architectural furniture file cabinets	Varies	Varies
A-FURN-FREE	Architectural furniture: freestanding (desks, credenzas, etc.)	Varies	Varies
A-FURN-IDEN	Architectural furniture numbers	Varies	Varies
A-FURN-PATT	Architectural furniture finish patterns	Varies	Varies
A-FURN-PLNT	Architectural furniture plants	Varies	Varies
A-FURN-PNLS	Architectural furniture system panels	Varies	Varies
A-FURN-POWR	Architectural furniture system ---- power designations	Varies	Varies
A-FURN-STOR	Architectural furniture system storage components	Varies	Varies
A-FURN-WKSF	Architectural furniture system work surface components	Varies	Varies
A-GLAZ	Architectural glazing windows, window walls, curtain walls, glazed partitions	Varies	Varies
A-GLAZ-ELEV	Architectural glazing and mullions --- elevation views	Varies	Varies
A-GLAZ-FULL	Architectural glazing full-height glazed walls and partitions	Varies	Varies
A-GLAZ-IDEN	Architectural glazing window number	Varies	Varies
A-GLAZ-PRHT	Architectural glazing windows and partial-height glazed partitions	Varies	Varies
A-GLAZ-SILL	Architectural glazing windowsills	Varies	Varies
A-ROOF	Architectural roof	Varies	Varies
A-ROOF-CRTS	Architectural roof cricketts flow arrows flow info	Varies	Varies
A-ROOF-DRNS	Architectural roof drains	Varies	Varies
A-ROOF-EDGE	Architectural roof internal gutters	Varies	Varies
A-ROOF-EXPN	Architectual roof expansion joints	Varies	Varies
A-ROOF-HRAL	Architectural roof stair handrails, nosings, guardrails	Varies	Varies
A-ROOF-LEVL	Architectural roof level changes	Varies	Varies
A-ROOF-OTLN	Architectural roof outline	Varies	Varies
A-ROOF-PATT	Architectural roof surfaces patterns, hatching	Varies	Varies
A-ROOF-SPCL	Architectural roof specialities, accessories, access hatches	Varies	Varies
A-ROOF-STRS	Architectural roof stair risers / treads, ladders	Varies	Varies
A-ROOF-WALK	Architectural roof walkways	Varies	Varies
A-WALL	Architectural wall	Varies	Varies
A-WALL-CAVI	Architectural wall: cavity lines	Varies	Varies
A-WALL-CNTR	Architectural wall: centerlines	Varies	Varies
A-WALL-CWMG	Architectural wall: curtain, mullions, & glass	Varies	Varies
A-WALL-ELEV	Architectural wall surfaces: 3D views	Varies	Varies
A-WALL-EXTR	Architectural wall: exterior full height	Varies	Varies
A-WALL-FIRE	Architectural wall: fire wall designators (patterning)	Varies	Varies
A-WALL-HEAD	Architectural wall Door and window headers (appear on reflected ceiling plans)	Varies	Varies
A-WALL-IDEN	Architectural wall identification / type text or tags - annotation	Varies	Varies
A-WALL-INTR	Architectural wall: interior full height	Varies	Varies

Layer Name	Layer Description	Line Type	Color #
A-WALL-JAMB	Door and window jambs (do not appear on reflected ceiling plans)	Varies	Varies
A-WALL-MOVE	Architectural wall: moveable partitions	Varies	Varies
A-WALL-PATT	Wall insulation, hatching and fill	Varies	Varies
A-WALL-PRHT	Partial-height walls (do not appear on reflected ceiling plans)	Varies	Varies
Electrical Layers			
E-LITE	Lighting	Varies	Varies
E-LITE-SPCL	Special lighting	Varies	Varies
E-LITE-EMER	Emergency lighting	Varies	Varies
E-LITE-EXIT	Exit lighting	Varies	Varies
E-LITE-CLNG	Ceiling - mounted lighting	Varies	Varies
E-LITE-WALL	Wall - mounted lighting	Varies	Varies
E-LITE-FLOR	Floor - mounted lighting	Varies	Varies
E-LITE-OTLN	Lighting outline for background (optional)	Varies	Varies
E-LITE-NUMB	Lighting circuit numbers	Varies	Varies
E-LITE-ROOF	Roof lighting	Varies	Varies
E-LITE-SITE	Site lighting (see also civil group)	Varies	Varies
E-LITE-SWCH	Lighting ---- switches	Varies	Varies
E-LITE-CIRC	Lighting circuits	Varies	Varies
E-LITE-IDEN	Luminaire identification and text	Varies	Varies
E-LITE-JBOX	Junction box	Varies	Varies
E-POWR	Power	Varies	Varies
E-POWR-WALL	Power wall outlets and receptacles	Varies	Varies
E-POWR-CLNG	Power ---- ceiling receptacles and devices	Varies	Varies
E-POWR-PANL	Power panels	Varies	Varies
E-POWR-EQPM	Power equipment	Varies	Varies
E-POWR-SWBD	Power switchboards	Varies	Varies
E-POWR-CIRC	Power circuits	Varies	Varies
E-POWR-URAC	Underfloor raceways	Varies	Varies
E-POWR-UCPT	Under - carpet wiring	Varies	Varies
E-POWR-CABL	Cable trays	Varies	Varies
E-POWR-FEED	Feeders	Varies	Varies
E-POWR-BUSW	Busways	Varies	Varies
E-POWR-NUMB	Power circuits numbers	Varies	Varies
E-POWR-IDEN	Power identification, text	Varies	Varies
E-POWR-SITE	Site power (see also civil group)	Varies	Varies
E-POWR-ROOF	Roof power	Varies	Varies
E-POWR-OTLN	Power outline for backgrounds	Varies	Varies
E-POWR-JBOX	Junction box	Varies	Varies
E-CTRL	Electric control systems	Varies	Varies
E-CTRL-DEVC	Control system devices	Varies	Varies
E-CTRL-WIRE	Control system wiring	Varies	Varies
E-GRND	Ground system	Varies	Varies
E-GRND-CIRC	Ground system circuits	Varies	Varies
E-GRND-REFR	Reference ground system	Varies	Varies
E-GRND-EQUI	Equipotential ground system	Varies	Varies
E-GRND-DIAG	Ground system diagam	Varies	Varies

Layer Name	Layer Description	Line Type	Color #
E-AUXL	Auxiliary systems	Varies	Varies
E-LTNG	Lighting protection system	Varies	Varies
E-FIRE	Fire alarm, fire extinguishers	Varies	Varies
E-COMM	Telephone, communication outlets	Varies	Varies
E-DATA	Data outlets	Varies	Varies
E-SOUN	Sound / PA system	Varies	Varies
E-TVAN	TV antenna system	Varies	Varies
E-CCTV	Closed - circuit TV	Varies	Varies
E-NURS	Nurse call system	Varies	Varies
E-SERT	Security	Varies	Varies
E-PGNG	Paging system	Varies	Varies
E-DICT	Central dictation system	Varies	Varies
E-BELL	Bell system	Varies	Varies
E-CLOK	Clock system	Varies	Varies
E-ALRM	Miscellaneous alarm system	Varies	Varies
E-INTC	Intercom system	Varies	Varies
E-LEGN	Legend of symbols	Varies	Varies
E-1LIN	One - line diagrams	Varies	Varies
E-RISR	Riser diagram	Varies	Varies
E-SITE	Site electrical substations, poles	Varies	Varies
E-SITE-LITE	Site lighting	Varies	Varies
E-SITE-UNDR	Underground electrical lines	Varies	Varies
E-SITE-POLE	Electric poles	Varies	Varies
E-SITE-OVHD	Overhead lines	Varies	Varies
Fire Protection Layers			
F-CO2S	CO_2 system	Varies	Varies
F-CO2S-PIPE	CO_2 sprinkler piping	Varies	Varies
F-CO2S-EQPM	CO_2 equipment	Varies	Varies
F-HALN	Halon	Varies	Varies
F-HALN-EQPM	Halon equipment	Varies	Varies
F-HALN-PIPE	Halon piping	Varies	Varies
F-IGAS	Inert gas	Varies	Varies
F-IGAS-EQPM	Inert gas equipment	Varies	Varies
F-IGAS-PIPE	Inert gas piping	Varies	Varies
F-SPRN	Fire protections sprinkler system	Varies	Varies
F-SPRN-CLHD	Sprinkler head ---- ceiling	Varies	Varies
F-SPRN-OTHD	Sprinkler head ---- other	Varies	Varies
F-SPRN-PIPE	Sprinkler piping	Varies	Varies
F-SPRN-STAN	Sprinkler system standpipe	Varies	Varies
F-STAN	Fire protection standpipe system	Varies	Varies
F-PROT	Fire protection systems	Varies	Varies
F-PROT-EQPM	Fire system equipment (fire hose cabinet extinguishers)	Varies	Varies
F-PROT-ALRM	Fire alarm	Varies	Varies
F-PROT-SMOK	Smoke detectors/heat sensors	Varies	Varies
General Layers			
G-PLAN	Floor plan ---- key plan	Varies	Varies

Layer Name	Layer Description	Line Type	Color #
G-SITE	Site plan ---- key map	Varies	Varies
G-ACCS	Access plan	Varies	Varies
G-FIRE	Fire protection plan	Varies	Varies
G-EVAC	Evacuation plan	Varies	Varies
G-CODE	Code compliance plan	Varies	Varies
Hazardous Layers			
HZ-PLAN	Floor plan	Varies	Varies
HZ-SITE	Site plan	Varies	Varies
Interior Layers			
I-WALL-FULL	Full - height walls, stair and shaft walls, walls to structure	Varies	Varies
I-WALL-PRHT	Partial - height walls (do not appear on reflected ceiling plans)	Varies	Varies
I-WALL-MOVE	Moveable partitions	Varies	Varies
I-WALL-HEAD	Door and window headers (appear on reflected ceiling plan)	Varies	Varies
I-WALL-JAMB	Door and window jambs (do not appear on reflected ceiling plans)	Varies	Varies
I-WALL-PATT	Wall insulation, hatching and fill	Varies	Varies
I-WALL-ELEV	Wall surfaces: 3D views	Varies	Varies
I-WALL-FIRE	Fire wall patterning	Varies	Varies
I-DOOR	Doors	Varies	Varies
I-DOOR-FULL	Full - height (to ceiling) door: swing and leaf	Varies	Varies
I-DOOR-PRHT	Partial - height door: swing and leaf	Varies	Varies
I-DOOR-IDEN	Door number, hardware group, etc.	Varies	Varies
I-DOOR-ELEV	Doors: 3D views	Varies	Varies
I-GLAZ	Glazing	Varies	Varies
I-GLAZ-FULL	Full - height glazed walls and partitions	Varies	Varies
I-GLAZ-PRHT	Windows and partial - height glazed partitions	Varies	Varies
I-GLAZ-SILL	Windowsills	Varies	Varies
I-GLAZ-IDEN	Window number	Varies	Varies
I-GLAZ-ELEV	Glazing and mullions ---- elevation views	Varies	Varies
I-FLOR	Floor information	Varies	Varies
I-FLOR-OTLN	Floor or building outline	Varies	Varies
I-FLOR-LEVL	Level changes, ramps, pits, depressions	Varies	Varies
I-FLOR-STRS	Stairs treads, escalators, ladders	Varies	Varies
I-FLOR-RISR	Stair risers	Varies	Varies
I-FLOR-HRAL	Stair and balcony handrails, guard rails	Varies	Varies
I-FLOR-EVTR	Elevator cars and equipment	Varies	Varies
I-FLOR-TPTN	Toliet partitions	Varies	Varies
I-FLOR-SPCL	Architectural specialties (toilet room accessories, display cases)	Varies	Varies
I-FLOR-WDWK	Architectural woodwork (field - built cabinets and counters)	Varies	Varies
I-FLOR-CASE	Casework (manufactured cabinets)	Varies	Varies
I-FLOR-OVHD	Overhead items (skylights, overhangs ---- usually dashed lines)	Varies	Varies

Layer Name	Layer Description	Line Type	Color #
I-FLOR-RAIS	Raised floors	Varies	Varies
I-FLOR-IDEN	Room numbers, names, targets, etc.	Varies	Varies
I-FLOR-PATT	Paving, tile, carpet patterns	Varies	Varies
I-FLOR-PFIX	Plumbing fixture	Varies	Varies
I-FLOR-FIXT	Miscellaneous fixtures	Varies	Varies
I-FLOR-SIGN	Signage	Varies	Varies
I-EQPM	Equipment	Varies	Varies
I-EQPM-FIXD	Fixed equipment	Varies	Varies
I-EQPM-MOVE	Moveable equipment	Varies	Varies
I-EQPM-NICN	Equipment not in contract	Varies	Varies
I-EQPM-ACCS	Equipment access	Varies	Varies
I-EQPM-IDEN	Equipment identification numbers	Varies	Varies
I-EQPM-ELEV	Equipment surfaces: 3D views	Varies	Varies
I-EQPM-CLNG	Ceiling - mounted or suspended equipment	Varies	Varies
I-FURN	Furniture	Varies	Varies
I-FURN-FREE	Furniture: freestanding (desks, credenzas, etc.)	Varies	Varies
I-FURN-CHAR	Chairs and other seating	Varies	Varies
I-FURN-FILE	File cabinets	Varies	Varies
I-FURN-PNLS	Furniture system panels	Varies	Varies
I-FURN-WKSF	Furniture system work surface components	Varies	Varies
I-FURN-STOR	Furniture system storage components	Varies	Varies
I-FURN-POWR	Furniture system ---- power designations	Varies	Varies
I-FURN-IDEN	Furniture numbers	Varies	Varies
I-FURN-PLNT	Plants	Varies	Varies
I-FURN-PATT	Finish patterns	Varies	Varies
I-FURN-ELEV	Furniture: 3D views	Varies	Varies
I-CLNG	Ceiling information	Varies	Varies
I-CLNG-GRID	Ceiling grid	Varies	Varies
I-CLNG-OPEN	Ceiling / roof penetrations	Varies	Varies
I-CLNG-TEES	Main tees	Varies	Varies
I-CLNG-SUSP	Suspended elements	Varies	Varies
I-CLNG-PATT	Ceiling patterns	Varies	Varies
I-CLNG-ACCS	Ceiling access	Varies	Varies
I-LITE	Light fixtures	Varies	Varies
I-COLS	Columns	Varies	Varies
I-HVAC-SDFF	Supply diffusers	Varies	Varies
I-HVAC-RDFF	Return air diffusers	Varies	Varies
I-GRID	Planning grid or column grid	Varies	Varies
I-AREA	Area calculation lines	Varies	Varies
I-AREA-PATT	Area cross hatching	Varies	Varies
I-AREA-IDEN	Room numbers, tenant identifications, area calculation	Varies	Varies
I-AREA-OCCP	Occupant or employee names	Varies	Varies
I-ELEV	Interior and exterior elevations	Varies	Varies
I-ELEV-FNSH	Finishes, woodwork, trim	Varies	Varies
I-ELEV-CASE	Wall - mounted casework	Varies	Varies
I-ELEV-FIXT	Miscellaneous fixtures	Varies	Varies
I-ELEV-PFIXT	Plumbing fixtures in elevation	Varies	Varies
I-ELEV-SIGN	Signage	Varies	Varies
I-ELEV-PATT	Textures and hatch patterns	Varies	Varies

Layer Name	Layer Description	Line Type	Color #
I-ELEV-IDEN	Component identification numbers	Varies	Varies
I-SECT	Sections	Varies	Varies
I-SECT-MCUT	Material cut by section	Varies	Varies
I-SECT-MBND	Material beyond section cut	Varies	Varies
I-SECT-PATT	Textures and hatch patterns	Varies	Varies
I-SECT-IDEN	Component identification numbers	Varies	Varies
I-DETL	Details	Varies	Varies
I-DETL-MCUT	Material cut by section	Varies	Varies
I-DETL-MBND	Material beyond section cut	Varies	Varies
I-DETL-PATT	Textures and hatch patterns	Varies	Varies
I-DETL-IDEN	Component identification numbers	Varies	Varies
Mechanical Layers			
M-BRIN	Brine systems	Varies	Varies
M-BRIN-EQPM	Brine system equipment	Varies	Varies
M-BRIN-PIPE	Brine system piping	Varies	Varies
M-CHIM	Prefabricated chimneys	Varies	Varies
M-CMPA	Compressed air systems	Varies	Varies
M-CMPA-CEQP	Compressed air equipment	Varies	Varies
M-CMPA-CPIP	Compressed air piping	Varies	Varies
M-CMPA-PEQP	Process air equipment	Varies	Varies
M-CMPA-PPIP	Process air piping	Varies	Varies
M-CONT	Controls and instrumentation	Varies	Varies
M-CONT-THER	Thermostats	Varies	Varies
M-CONT-WIRE	Low voltage wiring	Varies	Varies
M-DUST	Dust and fume collection system	Varies	Varies
M-DUST-EQPM	Dust and fume collection equipment	Varies	Varies
M-DUST-DUCT	Dust and fume ductwork	Varies	Varies
M-ELHT-EQPM	Electric heat equipment	Varies	Varies
M-ENER	Energy management system	Varies	Varies
M-ENER-EQPM	Energy management equipment	Varies	Varies
M-ENER-WIRE	Energy management wiring	Varies	Varies
M-RCOV	Energy recovery	Varies	Varies
M-RCOV-EQPM	Energy recovery equipment	Varies	Varies
M-RCOV-PIPE	Energy recovery piping	Varies	Varies
M-FUME-EXHS	Fume hood exhaust system	Varies	Varies
M-FUME-EQPM	Fume hoods	Varies	Varies
M-EXHS	Exhaust system	Varies	Varies
M-EXHS-EQPM	Exhaust system equipment	Varies	Varies
M-EXHS-DUCT	Exhaust system ductwork	Varies	Varies
M-EXHS-RFEQ	Rooftop exhaust equipment	Varies	Varies
M-FUEL	Fuel system piping	Varies	Varies
M-FUEL-GPRP	Fuel gas process piping	Varies	Varies
M-FUEL-GGEP	Fuel gas general piping	Varies	Varies
M-FUEL-OPRP	Fuel oil process piping	Varies	Varies
M-FUEL-OGEP	Fuel oil general piping	Varies	Varies
M-HVAC	HVAC system	Varies	Varies
M-HVAC-CDFF	HVAC ceiling diffusers	Varies	Varies
M-HVAC-ODFF	HVAC other diffusers	Varies	Varies

Layer Name	Layer Description	Line Type	Color #
M-HVAC-DUCT	HVAC ductwork	Varies	Varies
M-HVAC-EQPM	HVAC equipment	Varies	Varies
M-HVAC-SDFF	Supply diffusers	Varies	Varies
M-HVAC-RDFF	Return air diffusers	Varies	Varies
M-HOTW	Hot water heating system	Varies	Varies
M-HOTW-EQPM	Hot water equipment	Varies	Varies
M-HOTW-PIPE	Hot water piping	Varies	Varies
M-CWTR	Chilled water system	Varies	Varies
M-CWTR-PIPE	Chilled water piping	Varies	Varies
M-CWTR-EQPM	Chilled water equipment	Varies	Varies
M-MACH	Machine shop equipment	Varies	Varies
M-MDGS	Medical gas systems	Varies	Varies
M-MDGS-EQPM	Medical gas equipment	Varies	Varies
M-MDGS-PIPE	Medical gas piping	Varies	Varies
M-LGAS	Laboratory gas systems	Varies	Varies
M-LGAS-EQPM	Laboratory gas equipment	Varies	Varies
M-LGAS-PIPE	Laboratory gas piping	Varies	Varies
M-NGAS	Natural gas systems	Varies	Varies
M-NGAS-EQPM	Natural gas equipment	Varies	Varies
M-NGAS-PIPE	Natural gas piping	Varies	Varies
M-PROC	Process systems	Varies	Varies
M-PROC-EQPM	Process equipment	Varies	Varies
M-PROC-PIPE	Process piping	Varies	Varies
M-REFG	Refrigeration systems	Varies	Varies
M-REFG-EQPM	Refrigeration equipment	Varies	Varies
M-REFG-PIPE	Refrigeration piping	Varies	Varies
M-SPCL	Special systems	Varies	Varies
M-SPCL-EQPM	Special systems equipment	Varies	Varies
M-SPCL-PIPE	Special systems piping	Varies	Varies
M-STEM	Steam systems	Varies	Varies
M-STEM-CONP	Steam systems condensate piping	Varies	Varies
M-STEM-EQPM	Steam systems equipment	Varies	Varies
M-STEM-LPIP	Low pressure steam piping	Varies	Varies
M-STEM-HPIP	High pressure steam piping	Varies	Varies
M-STEM-MPIP	Medium pressure steam piping	Varies	Varies
M-TEST-EQPM	Test equipment	Varies	Varies
Plumbing Layers			
P-ACID	Acid, alkaline, oil waste systems	Varies	Varies
P-ACID-PIPE	Acid, alkaline, oil waste piping	Varies	Varies
P-DOMW	Domestic hot and cold water systems	Varies	Varies
P-DOMW-EQPM	Domestic hot and cold water equipment	Varies	Varies
P-DOMW-HPIP	Domestic hot water piping	Varies	Varies
P-DOMW-CPIP	Domestic cold water piping	Varies	Varies
P-DOMW-RISR	Domestic hot and cold water risers	Varies	Varies
P-SANR	Sanitary drainage	Varies	Varies
P-SANR-PIPE	Sanitary piping	Varies	Varies
P-SANR-FIXT	Plumbing fixtures	Varies	Varies
P-SANR-FLDR	Floor drains	Varies	Varies

Layer Name	Layer Description	Line Type	Color #
P-SANR-RISR	Sanitary risers	Varies	Varies
P-SANR-EQPM	Sanitary equipment	Varies	Varies
P-STRM	Storm drainage system	Varies	Varies
P-STRM-PIPE	Storm drain piping	Varies	Varies
P-STRM-RISR	Storm drain risers	Varies	Varies
P-STRM-RFDR	Roof drains	Varies	Varies
P-EQPM	Plumbing miscellaneous equipment	Varies	Varies
P-FIXT	Plumbing fixtures	Varies	Varies
Structural Layers			
S-BEAM	Structural beam	Varies	Varies
S-BEAM-CNTR	Structural beam centerlines	Varies	Varies
S-BRAC-LATL	Structural bracing - lateral	Varies	Varies
S-BEAM-PRIM	Structural beam - primary (girders)	Varies	Varies
S-BEAM-SCND	Structural beam - secondary (girders)	Varies	Varies
S-BRAC-SHEA	Structural bracing - shear walls	Varies	Varies
S-BRAC-VERT	Structural bracing - vertical	Varies	Varies
S-COLS	Structural columns	Varies	Varies
S-COLS-CNTR	Structural columns centerlines	Varies	Varies
S-COLS-PRIM	Structural columns - primary	Varies	Varies
S-COLS-SCND	Structural columns - secondary	Varies	Varies
S-DECK	Structural deck	Varies	Varies
S-DECK-FLOR	Structural deck - floor	Varies	Varies
S-DECK-OPEN	Structural deck - openings and penetrations	Varies	Varies
S-DECK-ROOF	Structural deck - roof	Varies	Varies
S-ELEV-IDEN	Structural elevation component identification numbers	Varies	Varies
S-ELEV-OTLN	Structural elevation building outlines	Varies	Varies
S-ELEV-PATT	Structural elevation textures and hatch patterns	Varies	Varies
S-ELEV-SIGN	Structural elevation signage	Varies	Varies
S-EVTR-FRAM	Structural elevator framing	Varies	Varies
S-FNDN	Structural foundation	Varies	Varies
S-FNDN-FTNG	Structural foundation footings	Varies	Varies
S-FNDN-GRBM	Structural foundation grade beams	Varies	Varies
S-FNDN-IDEN	Structural foundation component identification numbers	Varies	Varies
S-FNDN-PILE	Structural foundation piles, drilled piers	Varies	Varies
S-FNDN-RBAR	Structural foundation reinforcing	Varies	Varies
S-GRAD-ELEV	Structural grading - elevated	Varies	Varies
S-GRAD-FLOR	Structural grading - floor	Varies	Varies
S-GRAT-ELEV	Structural grating - elevated (catwalks)	Varies	Varies
S-GRAT-FLOR	Structural grating - floor	Varies	Varies
S-GRID	Structural column grid	Varies	Varies
S-GRID-EXTR	Structural column grid lines outside building	Varies	Varies
S-GRID-INTR	Structural column grid lines inside building	Varies	Varies
S-GRID-DIMS	Structural column grid dimensions	Varies	Varies
S-GRID-IDEN	Structural column grid identification tags	Varies	Varies
S-JNTS-CNST	Structural joints - construction	Varies	Varies
S-JNTS-CTRL	Structural joints - control/expansion	Varies	Varies
S-JOIS	Structural joist	Varies	Varies
S-JOIS-BRDG	Structural joist bridging	Varies	Varies

Layer Name	Layer Description	Line Type	Color #
S-JOIS-PRIM	Structural joist - primary	Varies	Varies
S-JOIS-SCND	Structural joist - secondary	Varies	Varies
S-METL-MISC	Structural metal - miscellaneous	Varies	Varies
S-SECT-IDEN	Structural section component identification numbers	Varies	Varies
S-SECT-MBND	Structural section - material beyond section cut	Varies	Varies
S-SECT-MCUT	Structural section - material cut by section	Varies	Varies
S-SECT-PATT	Structural section textures and hatch patterns	Varies	Varies
S-SLAB	Structural slab	Varies	Varies
S-SLAB-EDGE	Structural slab edge outline	Varies	Varies
S-SLAB-JOIN	Structural slab control joints	Varies	Varies
S-SLAB-RBAR	Structural slab reinforcing	Varies	Varies
S-SPPT-MISC	Structural support miscellaneous fasteners, anchor bolts	Varies	Varies
S-STRS-JOIN	Structural stair control joints	Varies	Varies
S-STRS-LADD	Structural stair - ladders, ladder handrails, safety guard, grab bars	Varies	Varies
S-STRS-RBAR	Structural stair - reinforcing	Varies	Varies
S-TRUS-UNIT	Structural truss unit	Varies	Varies
S-WALL	Structural wall	Varies	Varies
S-WALL-CONC	Structural wall - concrete	Varies	Varies
S-WALL-LOAD	Structural wall - load bearing concrete masonry unit (CMU)	Varies	Varies
S-WALL-NONL	Structural wall - non-load bearing concrete masonry unit (CMU)	Varies	Varies
S-WALL-PCST	Structural wall - precast	Varies	Varies
S-WALL-STUD	Structural wall - steel stud	Varies	Varies
S-WELD-SYMB	Structural weld symbols	Varies	Varies
Telecommunication Layers			
T-ELEC-IDEN	Electrical equipment identifiers and leader lines	Varies	Varies
T-ELEC-EQPM	Electrical equipment physical outline of electrical equipment (e.g. cabinets, enclosures, etc.)	Varies	Varies
T-COMM-JBOX	Communication Junction boxes	Varies	Varies
T-BELL-IDEN	Bell system identifier tags, symbol modifier and text	Varies	Varies
T-BELL-SYST	Bell system symbols	Varies	Varies
T-DICT-IDEN	Dictation system identifier tags, symbol modifier and text	Varies	Varies
T-DICT-SYST	Dictation system symbols	Varies	Varies
T-CLOK-IDEN	Clock system identifier tags, symbol modifier and text	Varies	Varies
T-CLOK-SYST	Clock system symbols	Varies	Varies
T-ALRM-IDEN	Alarm system identifier tags, symbol modifier and text	Varies	Varies
T-ALRM-SYST	Alarm system symbols	Varies	Varies
T-NURS-IDEN	Nurse call system identifier tags, symbol modifier and text	Varies	Varies
T-NURS-SYST	Nurse call system symbols	Varies	Varies
T-SOUN-IDEN	Sound system identifier tags, symbol modifier and text	Varies	Varies
T-SOUN-SYST	Sound system symbols	Varies	Varies

Layer Name	Layer Description	Line Type	Color #
T-PHON-IDEN	Phone system identifier tags, symbol modifier and text	Varies	Varies
T-PHON-SYST	Phone system symbols	Varies	Varies
T-CATV-IDEN	Television system identifier tags, symbol modifier and text	Varies	Varies
T-CATV-TELE	Television system symbols	Varies	Varies
T-CATV-TVAN	Television system antenna system symbols	Varies	Varies
T-DATA-IDEN	Data / LAN system identifier tags, symbol modifier and text	Varies	Varies
T-DATA-SYST	Data / LAN system symbols	Varies	Varies
T-INTC-IDEN	Intercom / public address system identifier tags, symbol modifier and text	Varies	Varies
T-INTC-INPA	Intercom / public address system symbols	Varies	Varies
T-INTC-PGNG	Intercom / public address: paging system symbols	Varies	Varies
T-FIRE-IDEN	Fire alarm and detection system identifier tags, symbol modifier and text	Varies	Varies
T-FIRE-SYST	Fire alarm and detection system symbols	Varies	Varies
T-EMS-IDEN	Energy management system identifier tags, symbol modifier and text	Varies	Varies
T-EMS-SYST	Energy management system symbols	Varies	Varies
T-SECR-IDEN	Security system identifier tags, symbol modifier and text	Varies	Varies
T-SECR-SYST	Security system symbols	Varies	Varies
T-COMM-COAX	Wiring system coax cable	Varies	Varies
T-COMM-FIBR	Wiring system fiber optics cable	Varies	Varies
T-COMM-IDEN	Wiring system cable identifiers	Varies	Varies
T-COMM-MULT	Wiring system multi-conductor cable	Varies	Varies
T-COMM-TRAY	Wiring system cable trays and wireway symbols	Varies	Varies

Civil ***Data collected exterior of the building***			
Layer Name	**Layer Description**	**Line Type**	**Color #**
Buildings / Primary Structures			
C-BLDG-IDEN	Building name and location number - annotation	Continuous	Varies
C-BLDG-OTLN	Building footprint - exterior wall of the building	Continuous	Varies
C-BLDG-MINR	Building minor (bus-shelter, kiask, information booth) *curbs*	Continuous	Varies
C-BLDG-UNDR	Building structure underground	Hidden	Varies
C-BLDG-PATT	Building hatch pattern	Continuous	Varies
C-BLDG-DETAIL	Building exterior stairs, fire escapes, porches, and canopies, loading docks attached to the building	Continuous	Varies
Alignments			

Layer Name	Layer Description	Line Type	Color #
C-ALGN-OBJT	Alignments	Varies	Varies
C-ALGN-IDEN	Alignment annotation	Varies	Varies
Embankments			
C-EMBK-CNTL	Embankment centerline	Varies	Varies
C-EMBK-EDGE	Embankment edge and object lines	Varies	Varies
C-EMBK-IDEN	Embankment annotation	Continuous	Varies
Property			
C-PROP-BRNG	Property bearings and distance - annotation	Continuous	Varies
C-PROP-CONS	Property construction limits / controls	Varies	Varies
C-PROP-ESMT	Property easements with annotation	Varies	Varies
C-PROP-LINE	Property lines with annotation	Varies	Varies
C-PROP-PRVT	Property private	Varies	Varies
C-PROP-LTID	Property lot identification (ie: parcel number, lot number etc.)	Continuous	Varies
C-PROP-DETL	Property details with annotation (scaled views depicting detailed areas of property)	Continuous	Varies
C-PROP-MONU	Property monumentation (includes all monuments found or set, witness corners)	Continuous	Varies
C-PROP-RECD	Property record data (data aquired by other sources - not as part of the field survey)	Continuous	Varies
C-PROP-RCID	Property record data identification - annotation	Continuous	Varies
Site			
C-SITE-SIGN	Site signage with annotation (ie: building signs)	Continuous	Varies
C-SITE-CMTY	Site cemetery with annotation	Continuous	Varies
C-SITE-BPTH	Site bicycle path	Varies	Varies
C-SITE-BRCK	Site bicycle rack	Varies	Varies
C-SITE-WALK	Site sidewalks, defined trails - crushed stone, pea-gravel, bark etc.	Varies	Varies
C-SITE-WKID	Site sidewalk material identification: crushed stone, pea-gravel, bark etc. - annotation	Continuous	Varies
C-SITE-FENC	Site fencing, chain-link, chain, wood rail, barbed-wire, etc.	Varies	Varies
C-SITE-FEID	Site fencing type identification: chain-link, chain, wood rail, barbed-wire etc. - annotation	Continuous	Varies
C-SITE-PTNL	Site pedestrian tunnel	Hidden	Varies
C-SITE-IDEN	Site identification notes - annotation	Continuous	Varies
C-SITE-MSTR	Site minor structure including misc impervious features (example: concrete / asphalt pads etc.)	Continuous	Varies
C-SITE-MSID	Site minor structure identification - annotation		
Survey			
C-SURV-CTRL	Survey control point - permanent markers including benchmarks, gps, brass-tablets, stone marker etc	Continuous	Varies
C-SURV-CTID	Survey control point identification	Continuous	Varies
C-SURV-LINE	Survey and control line	Varies	Varies
C-SURV-IDEN	Survey and control line annotation	Varies	Varies
Topography			
C-TOPO-BKLN	Topography break lines	Varies	Varies
C-TOPO-BORE	Topography soil borings	Continuous	Varies
C-TOPO-BOID	Topography soil boring identificaion tags - annotation	Continuous	Varies

Layer Name	Layer Description	Line Type	Color #
C-TOPO-CORD	Topography coordinates	Continuous	Varies
C-TOPO-SPOT	Topography spot elevations	Continuous	Varies
C-TOPO-MAJR	Topography major contours	Varies	Varies
C-TOPO-MAID	Topography major contour identification - annotation	Continuous	Varies
C-TOPO-MINR	Topography minor contours	Varies	Varies
C-TOPO-MIID	Topography minor contour identification - annotation	Continuous	Varies
C-TOPO-SLOP	Topography cut/fill slopes	Continuous	Varies
C-TOPO-SLID	Topography cut/fill slope identification - annotation	Continuous	Varies
C-TOPO-IDEN	Topography identification notes - annotation	Continuous	Varies
Borrow Areas			
C-BORW-LINE	Borrow area outline	Varies	Varies
C-BORW-IDEN	Borrow area identification - annotation	Varies	Varies
Site Utility Systems			
Chilled Water System			
C-CWTR-JUNC	Chilled water junction: vaults, manholes, handholes and valve vaults (UIUC)	Continuous	200
C-CWTR-JUID	Chilled water junction identification: vaults, manholes, handholes and valve vaults - annotation (UIUC)	Continuous	200
C-CWTR-DEVC	Chilled water devices: test boxes, storage tanks, valves, meters, pumps, & regulators (UIUC)	Continuous	200
C-CWTR-DVID	Chilled water device identification: test boxes, storage tanks, valves, meters, pumps, & regulators (UIUC)	Continuous	200
C-CWTR-FTTG	Chilled water fittings caps, crosses, reducers & tees etc. (UIUC)	Continuous	200
C-CWTR-ABND	Chilled water pipe - abandoned (UIUC)	Hidden	253
C-CWTR-MSUP	Chilled water pipe - supply main (UIUC)	Center2	200
C-CWTR-SSUP	Chilled water pipe - supply service (UIUC)	Center2	200
C-CWTR-MRET	Chilled water pipe - return main (UIUC)	Center2	200
C-CWTR-SRET	Chilled water pipe - return service (UIUC)	Center2	200
C-CWTR-ANOD	Chilled water anode test station (UIUC)	Continuous	200
C-CWTR-STID	Chilled water station identification: anode - annotation (UIUC)	Continuous	200
C-CWTR-IDEN	Chilled water identification notes (UIUC)	Continuous	200
Domestic Water System			
C-DOMW-JUNC	Domestic water junction: vaults, manholes, handholes, pump stations and valve vaults (UIUC)	Continuous	5
C-DOMW-JUID	Domestic water junction identification: vaults, manholes, handholes, pump stations and valve vaults - annotation (UIUC)	Continuous	5
C-DOMW-DEVC	Domestic water devices: storage tanks, valves, meters, & hydrants (UIUC)	Continuous	5
C-DOMW-DVID	Domestic water device identification: storage tanks, valves, meters, & hydrants - annotation (UIUC)	Continuous	5
C-DOMW-FTTG	Domestic water fittings caps, crosses, reducers & tees etc. (UIUC)		5
C-DOMW-ABND	Domestic water pipe - abandoned (UIUC)	Hidden	253
C-DOMW-MAIN	Domestic water pipe - main (UIUC)	Continuous	5

Layer Name	Layer Description	Line Type	Color #
C-DOMW-SERV	Domestic water pipe - service (UIUC)	Continuous	5
C-DOMW-NPOT	Domestic water pipe - non-potable water (UIUC)	Continuous	5
C-DOMW-IDEN	Domestic water identification notes - annotation (UIUC)	Continuous	5
C-DOMW-OTHR-JUNC	Domestic water junction: vaults, manholes, handholes, pump stations and valve vaults (owned or maintained by others)	Continuous	7
C-DOMW-OTHR-JUID	Domestic water junction identification: vaults, manholes, handholes, pump stations and valve vaults - annotation (owned or maintained by others)	Continuous	7
C-DOMW-OTHR-DEVC	Domestic water devices: storage tanks, valves, meters, & hydrants (owned or maintained by others)	Continuous	7
C-DOMW-OTHR-DVID	Domestic water device identification: storage tanks, valves, meters, & hydrants - annotation (owned or maintained by others)	Continuous	7
C-DOMW-OTHR-FTTG	Domestic water fittings caps, crosses, reducers & tees etc. (owned or maintained by others)	Continuous	7
C-DOMW-OTHR-ABND	Domestic water pipe - abandoned (owned or maintained by others)	Hidden	253
C-DOMW-OTHR-MAIN	Domestic water pipe - main (owned or maintained by others)	Continuous	7
C-DOMW-OTHR-SERV	Domestic water pipe - service (owned or maintained by others)	Continuous	7
C-DOMW-OTHR-NPOT	Domestic water pipe - non-potable (owned or maintained by others)	Continuous	7
C-DOMW-OTHR-IDEN	Domestic water identification notes - annotation (owned or maintained by others)	Continuous	7
Electrical Distribution System		Continuous	
C-ELEC-JUNC	Electrical junction: vaults, manholes, handholes, junction boxes, pull boxes, pedestals & splices (UIUC)	Continuous	1
C-ELEC-JUID	Electrical junction identification: vaults, manholes, handholes, junction boxes, pull boxes, pedestals & splices - annotation (UIUC)	Continuous	1
C-ELEC-DEVC	Electrical device: transformers, capacitors, voltage regulators, motors, buses, generators, meters, grounds & markers (UIUC)	Continuous	1
C-ELEC-DVID	Electrical device identification: transformers, capacitors, voltage regulators, motors, buses, generators, meters, grounds & markers - annotation (UIUC)	Continuous	1
C-ELEC-ABND	Electrical cable - abandoned (UIUC)	Hidden	253
C-EPRM-IDEN	Electrical cable - primary identification notes - annotation (UIUC)	Divide2	1
C-EPRM-UNDR	Electrical cable - primary underground (UIUC)	Divide2	1
C-EPRM-OVHD	Electrical cable - primary overhead (UIUC)	Divide2	1
C-ESCD-IDEN	Electrical cable - secondary identification notes - annotation (UIUC)	Divide2	1
C-ESCD-UNDR	Electrical cable - secondary underground (UIUC)	Divide2	1
C-ESCD-OVHD	Electrical cable - secondary overhead (UIUC)	Divide2	1

Layer Name	Layer Description	Line Type	Color #
C-ESRV-IDEN	Electrical cable - service identification notes - annotation (UIUC)	Divide2	1
C-ESRV-UNDR	Electrical cable - service underground (UIUC)	Divide2	1
C-ELEC-DUCT	Electrical ductbanks (UIUC)	Divide2	1
C-ELEC-SUBS	Electrical sub-stations (UIUC)	Continuous	1
C-ELEC-DIST	Electrical distribution centers (UIUC)	Continuous	1
C-ELEC-SWCH	Electrical switches fuse cutouts, pole mounted switches, circuit breakers, gang operated disconnects, reclosers, cubicle switches (UIUC)	Continuous	1
C-ELEC-PDBL	Electrical pole - double (UIUC)	Continuous	1
C-ELEC-PRSR	Electrical pole - risers (UIUC)	Continuous	1
C-ELEC-PTWR	Electrical pole - tower (UIUC)	Continuous	1
C-ELEC-PSGL	Electrical pole - single (UIUC)	Continuous	1
C-ELEC-PDGY	Electrical pole - down guy (UIUC)	Continuous	1
C-ELEC-PSPN	Electrical pole - span guy wires (UIUC)	Continuous	1
C-ELEC-POID	Electrical pole - identification tags - annotation (UIUC)	Continuous	1
C-ELEC-IDEN	Electrical identification notes - annotation (UIUC)	Continuous	1
C-ELEC-OTHR-JUNC	Electrical junction: vaults, manholes, handholes, junction boxes, pull boxes, pedestals & splices (owned or maintained by others)	Continuous	7
C-ELEC-OTHR-JUID	Electrical junction identification: vaults, manholes, handholes, junction boxes, pull boxes, pedestals & splices - annotation (owned or maintained by others)	Continuous	7
C-ELEC-OTHR-DEVC	Electrical device: transformers, capacitors, voltage regulators, motors, buses, generators, meters, grounds & markers (owned or maintained by others)	Continuous	7
C-ELEC-OTHR-DVID	Electrical device identification: transformers, capacitors, voltage regulators, motors, buses, generators, meters, grounds & markers - annotation (owned or maintained by others)	Continuous	7
C-ELEC-OTHR-ABND	Electrical cable - abandoned (owned or maintained by others)	Hidden	253
C-EPRM-OTHR-IDEN	Electrical cable - primary identification notes - annotation (owned or maintained by others)	Dashed	7
C-EPRM-OTHR-UNDR	Electrical cable - primary underground (owned or maintained by others)	Dashed	7
C-EPRM-OTHR-OVHD	Electrical cable - primary overhead (owned or maintained by others)	Dashed	7
C-ESCD-OTHR-IDEN	Electrical cable - secondary identification notes - annotation (owned or maintained by others)	Dashed	7
C-ESCD-OTHR-UNDR	Electrical cable - secondary underground (owned or maintained by others)	Dashed	7
C-ESCD-OTHR-OVHD	Electrical cable - secondary overhead (owned or maintained by others)	Dashed	7
C-ESRV-OTHR-IDEN	Electrical cable - service identification notes - annotation (owned or maintained by others)	Dashed	7
C-ESRV-OTHR-UNDR	Electrical cable - service underground (owned or maintained by others)	Dashed	7

Layer Name	Layer Description	Line Type	Color #
C-ELEC-OTHR-DUCT	Electrical ductbanks (owned or maintained by others)	Dashed	7
C-ELEC-OTHR-SUBS	Electrical sub-stations (owned or maintained by others)	Continuous	7
C-ELEC-OTHR-DIST	Electrical distribution centers (owned or maintained by others)	Continuous	7
C-ELEC-OTHR-SWCH	Electrical switches fuse cutouts, pole mounted switches, circuit breakers, gang operated disconnects, reclosers, cubicle switches (owned or maintained by others)	Continuous	7
C-ELEC-OTHR-PDBL	Electrical pole - double (owned or maintained by others)	Continuous	7
C-ELEC-OTHR-PRSR	Electrical pole - risers (owned or maintained by others)	Continuous	7
C-ELEC-OTHR-PTWR	Electrical pole - tower (owned or maintained by others)	Continuous	7
C-ELEC-OTHR-PSGL	Electrical pole - single (owned or maintained by others)	Continuous	7
C-ELEC-OTHR-PDGY	Electrical pole - down guy (owned or maintained by others)	Continuous	7
C-ELEC-OTHR-PSPN	Electrical pole - span guy wires (owned or maintained by others)	Continuous	7
C-ELEC-OTHR-POID	Electrical pole - identification tags - annotation (owned or maintained by others)	Continuous	7
C-ELEC-OTHR-TGRD	Electrical tower ground wire (owned or maintained by others	Continous	7
C-ELEC-OTHR-IDEN	Electrical identification notes - annotation (owned or maintained by others)	Continuous	7
Energy Management System (EMS)			
C-EMS-JUNC	Energy management system junction: pull boxes, manholes, handholes, pedestals, splices (UIUC)	Continuous	1
C-EMS-JUID	Energy management system junction identification: pull boxes, manholes, handholes, pedestals, splices - annotation (UIUC)	Continuous	1
C-EMS-DEVC	Energy management system devices: field interfaces, multiplexers, markers (UIUC)	Continuous	1
C-EMS-DVID	Energy management system device identification: field interfaces, multiplexers, markers - annotation (UIUC)	Continuous	1
C-EMS-ABND	Energy management system cable - abandoned (UIUC)	Hidden	253
C-EMS-OVHD	Energy management system cable - overhead (UIUC)	Continuous	5
C-EMS-UNDR	Energy management system cable - underground (UIUC)	Continuous	5
C-EMS-DUCT	Energy management system ductbanks (UIUC)	Dashed	7
Fire Protection System			
C-FIRE-JUNC	Fire protection junction: vaults, manholes, handholes, pump stations and valve vaults (UIUC)	Continuous	5

Layer Name	Layer Description	Line Type	Color #
C-FIRE-JUID	Fire protection junction identification: vaults, manholes, handholes, pump stations and valve vaults - annotation (UIUC)	Continuous	5
C-FIRE-DEVC	Fire protection devices: storage tanks, valves, meters & hydrants (UIUC)	Continuous	5
C-FIRE-DVID	Fire protection device identification: storage tanks, valves, hydrants, & meters - annotation (UIUC)	Continuous	5
C-FIRE-FTTG	Fire protection fittings caps, crosses, reducers & tees etc. (UIUC)	Continuous	5
C-FIRE-ABND	Fire protection pipe - abandoned (UIUC)	Hidden	253
C-FIRE-MAIN	Fire protection pipe - main (UIUC)	Continuous	5
C-FIRE-SERV	Fire protection pipe - service (UIUC)	Continuous	5
C-FIRE-IDEN	Fire protection identification notes - annotation (UIUC)	Continuous	5
C-FIRE-OTHR-JUNC	Fire protection junction: vaults, manholes, handholes, pump stations and valve vaults (owned or maintained by others)	Continuous	7
C-FIRE-OTHR-JUID	Fire protection junction identification: vaults, manholes, handholes, pump stations and valve vaults - annotation (owned or maintained by others)	Continuous	7
C-FIRE-OTHR-DEVC	Fire protection devices: storage tanks, valves, valve vaults, meters (owned or maintained by others)	Continuous	7
C-FIRE-OTHR-DVID	Fire protection device identification: storage tanks, valves, meters - annotation (owned or maintained by others)	Continuous	7
C-FIRE-OTHR-FTTG	Fire protection fittings caps, crosses, reducers & tees etc. (owned or maintained by others)	Continuous	7
C-FIRE-OTHR-ABND	Fire protection pipe - abandoned (owned or maintained by others)	Hidden	253
C-FIRE-OTHR-MAIN	Fire protection pipe - main (owned or maintained by others)	Continuous	7
C-FIRE-OTHR-SERV	Fire protection pipe - service (owned or maintained by others)	Continuous	7
C-FIRE-OTHR-IDEN	Fire protection identification notes - annotation (owned or maintained by others)	Continuous	7
Fuel System			
C-FUEL-JUNC	Fuel system junction: hydrant fill points, vaults, manholes, handholes, test boxes, vent vaults, valve vaults, and hydrant control vaults and valves (UIUC)	Continuous	7
C-FUEL-JUID	Fuel system junction identification: hydrant fill points, vaults, manholes, handholes, test boxes, vent vaults, valve vaults, and hydrant control vaults and valves - annotation (UIUC)	Continuous	7
C-FUEL-DEVC	Fuel system devices: air eliminators, filter strainers, line vents, markers, meters, oil/water separators, pumps, regulators, and tanks (UIUC)	Continuous	7
C-FUEL-DVID	Fuel system device identification: air eliminators, filter strainers, line vents, markers, meters, oil/water separators, pumps, regulators, and tanks - annotation (UIUC)	Continuous	7

Layer Name	Layer Description	Line Type	Color #
C-FUEL-FTTG	Fuel system fittings caps, crosses, reducers & tees etc. (UIUC)	Continuous	7
C-FUEL-ABND	Fuel system pipe - abandoned (UIUC)	Hidden	253
C-FUEL-MAIN	Fuel system pipe - main (UIUC)	Continuous	7
C-FUEL-SERV	Fuel system pipe - service (UIUC)	Continuous	7
C-FUEL-DEFL	Fuel system pipe - defueling (UIUC)	Continuous	7
C-FUEL-ANOD	Fuel system anode test station (UIUC)	Continuous	7
C-FUEL-BOOS	Fuel system booster station (UIUC)	Continuous	7
C-FUEL-REDC	Fuel system reducing station (UIUC)	Continuous	7
C-FUEL-PUMP	Fuel system pumping station (UIUC)	Continuous	7
C-FUEL-IDEN	Fuel system identification notes - annotation (UIUC)	Continuous	7
C-FUEL-OTHR-JUNC	Fuel system junction: hydrant fill points, vaults, manholes, handholes, test boxes, vent vaults, valve vaults, and hydrant control vaults and valves (owned or maintained by others)	Continuous	7
C-FUEL-OTHR-JUID	Fuel system junction identification: hydrant fill points, vaults, manholes, handholes, test boxes, vent vaults, valve vaults, and hydrant control vaults and valves - annotation (owned or maintained by others)	Continuous	7
C-FUEL-OTHR-DEVC	Fuel system devices: air eliminators, filter strainers, line vents, markers, meters, oil/water separators, pumps, regulators, and tanks (owned or maintained by others)	Continuous	7
C-FUEL-OTHR-DVID	Fuel system device identification: air eliminators, filter strainers, line vents, markers, meters, oil/water separators, pumps, regulators, and tanks - annotation (owned or maintained by others)	Continuous	7
C-FUEL-OTHR-FTTG	Fuel system fittings caps, crosses, reducers & tees etc. (owned or maintained by others)	Continuous	7
C-FUEL-OTHR-ABND	Fuel system pipe - abandoned (owned or maintained by others)	Hidden	253
C-FUEL-OTHR-MAIN	Fuel system pipe - main (owned or maintained by others)	Continuous	7
C-FUEL-OTHR-SERV	Fuel system pipe - service (owned or maintained by others)	Continuous	7
C-FUEL-OTHR-DEFL	Fuel system pipe - defueling (owned or maintained by others)	Continuous	7
C-FUEL-OTHR-ANOD	Fuel system anode test station (owned or maintained by others)	Continuous	7
C-FUEL-OTHR-BOOS	Fuel system booster station (owned or maintained by others)	Continuous	7
C-FUEL-OTHR-REDC	Fuel system reducing station (owned or maintained by others)	Continuous	7
C-FUEL-OTHR-PUMP	Fuel system pumping station (owned or maintained by others)	Continuous	7
C-FUEL-OTHR-IDEN	Fuel system identification notes - annotation (owned or maintained by others)	Continuous	7
Lighting System			
C-LITE-JUNC	Lighting junctions: pull boxes, manholes, handholes, pedestals, splices (UIUC)	Continuous	1

Layer Name	Layer Description	Line Type	Color #
C-LITE-JUID	Lighting junction identification: pull boxes, manholes, handholes, pedestals, splices - annotation (UIUC)	Continuous	1
C-LITE-FLOD	Lighting flood lights (UIUC)	Continuous	1
C-LITE-POLE	Lighting pole mounted light (UIUC)	Continuous	1
C-LITE-STRT	Lighting street lights (UIUC)	Continuous	1
C-LITE-WALK	Lighting walkway lights (UIUC)	Continuous	1
C-LITE-SWCH	Lighting switches fuse cutouts, pole mounted switches, circuit breakers, gang operated disconnects, reclosers, cubicle switches (UIUC)	Continuous	1
C-LITE-ABND	Lighting cable - abandoned (UIUC)	Hidden	253
C-LITE-PRID	Lighting cable - primary identification notes - annotation (UIUC)	Border2	1
C-LITE-PRUN	Lighting cable - primary underground (UIUC)	Border2	1
C-LITE-PROH	Lighting cable - primary overhead (UIUC)	Border2	1
C-LITE-SCID	Lighting cable - secondary identification notes - annotation (UIUC)	Continuous	1
C-LITE-SCUN	Lighting cable - secondary underground (UIUC)	Border2	1
C-LITE-SCOH	Lighting cable - secondary overhead (UIUC)	Border2	1
C-LITE-SRID	Lighting cable - service identification notes - annotation (UIUC)	Continuous	1
C-LITE-SRUN	Lighting cable - service underground (UIUC)	Border2	1
C-LITE-OTHR-JUNC	Lighting junctions: pull boxes, manholes, handholes, pedestals, splices (owned or maintained by others)	Continuous	7
C-LITE-OTHR-JUID	Lighting junction identification: pull boxes, manholes, handholes, pedestals, splices - annotation (owned or maintained by others)	Continuous	7
C-LITE-OTHR-FLOD	Lighting flood lights (owned or maintained by others)	Continuous	7
C-LITE-OTHR-POLE	Lighting pole mounted light (owned or maintained by others)	Continuous	7
C-LITE-OTHR-STRT	Lighting street lights (owned or maintained by others)	Continuous	7
C-LITE-OTHR-WALK	Lighting walkway lights (owned or maintained by others)	Continuous	7
C-LITE-OTHR-SWCH	Lighting switches fuse cutouts, pole mounted switches, circuit breakers, gang operated disconnects, reclosers, cubicle switches (owned or maintained by others)	Continuous	7
C-LITE-OTHR-ABND	Lighting cable - abandoned (owned or maintained by others)	Hidden	253
C-LITE-OTHR-PRID	Lighting cable - primary identification notes - annotation (owned or maintained by others)	Dashed	7
C-LITE-OTHR-PRUN	Lighting cable - primary underground (owned or maintained by others)	Dashed	7
C-LITE-OTHR-PROH	Lighting cable - primary overhead (owned or maintained by others)	Dashed	7
C-LITE-OTHR-SCID	Lighting cable - secondary identification notes - annotation (owned or maintained by others)	Continuous	7

Layer Name	Layer Description	Line Type	Color #
C-LITE-OTHR-SCUN	Lighting cable - secondary underground (owned or maintained by others)	Dashed	7
C-LITE-OTHR-SCOH	Lighting cable - secondary overhead (owned or maintained by others)	Dashed	7
C-LITE-OTHR-SRID	Lighting cable - service identification notes - annotation (owned or maintained by others)	Continuous	7
C-LITE-OTHR-SRUN	Lighting cable - service underground (owned or maintained by others)	Dashed	7
Natural Gas Distribution			
C-NGAS-JUNC	Natural gas junction: hydrant fill points, vaults, manholes, handholes, test boxes, vent vaults, and valve vaults (UIUC)	Continuous	52
C-NGAS-JUID	Natural gas junction identification: hydrant fill points, vaults, manholes, handholes, test boxes, vent vaults, and valve vaults - annotation (UIUC)	Continuous	52
C-NGAS-DEVC	Natural gas devices: vents, markers, meters, pumps, regulators, tanks, taps, and valves (UIUC)	Continuous	52
C-NGAS-DVID	Natural gas device identification: vents, markers, meters, pumps, regulators, tanks, taps, and valves - annotation (UIUC)	Continuous	52
C-NGAS-ABND	Natural gas pipe - abandoned (UIUC)	Hidden	253
C-NGAS-MAIN	Natural gas pipe - main (UIUC)	Continuous	52
C-NGAS-SERV	Natural gas pipe - service (UIUC)	Continuous	52
C-NGAS-ANOD	Natural gas anode test station (UIUC)	Continuous	52
C-NGAS-BOOS	Natural gas booster station (UIUC)	Continuous	52
C-NGAS-REDC	Natural gas reducing station (UIUC)	Continuous	52
C-NGAS-PUMP	Natural gas pumping station (UIUC)	Continuous	52
C-NGAS-STID	Natural gas station identification tags: anode test, booster, reducing, pumping - annotation (UIUC)	Continuous	52
C-NGAS-IDEN	Natural gas identification notes - annotation (UIUC)	Continuous	52
C-NGAS-CVNT	Natural gas casing vent (UIUC)	Varies	Varies
C-NGAS-WSGN	Natural gas warning sign (UIUC)	Varies	Varies
C-NGAS-LSTA	Natural gas located station (UIUC)	Varies	Varies
C-NGAS-TRAN-MAIN	Natural gas transmission main (UIUC)	Varies	Varies
C-NGAS-TRAN-ACAN	Natural gas transmission anode canister (UIUC)	Varies	Varies
C-NGAS-TRAN-RWRE	Natural gas transmission rectifier wire (UIUC)	Varies	Varies
C-NGAS-TRAN-RSTA	Natural gas transmission rectifier station (UIUC)	Varies	Varies
C-NGAS-TRAN-GSTA	Natural gas transmission gas station (UIUC)	Varies	Varies
C-GSLP-SERV	LP Gas service (UIUC)	Varies	Varies
C-NGAS-OTHR-JUNC	Natural gas junction: hydrant fill points, vaults, manholes, handholes, test boxes, vent vaults, and valve vaults (owned or maintained by others)	Continuous	7
C-NGAS-OTHR-JUID	Natural gas junction identification: hydrant fill points, vaults, manholes, handholes, test boxes, vent vaults, and valve vaults - annotation (owned or maintained by others)	Continuous	7
C-NGAS-OTHR-DEVC	Natural gas devices: vents, markers, meters, pumps, regulators, tanks, taps, and valves (owned or maintained by others)	Continuous	7

Layer Name	Layer Description	Line Type	Color #
C-NGAS-OTHR-DVID	Natural gas device identification: vents, markers, meters, pumps, regulators, tanks, taps, and valves - annotation (owned or maintained by others)	Continuous	7
C-NGAS-OTHR-ABND	Natural gas pipe - abandoned (owned or maintained by others)	Hidden	253
C-NGAS-OTHR-MAIN	Natural gas pipe - main (owned or maintained by others)	Dashed	7
C-NGAS-OTHR-SERV	Natural gas pipe - service (owned or maintained by others)	Dashed	7
C-NGAS-OTHR-ANOD	Natural gas anode test station (owned or maintained by others)	Continuous	7
C-NGAS-OTHR-BOOS	Natural gas booster station (owned or maintained by others)	Continuous	7
C-NGAS-OTHR-REDC	Natural gas reducing station (owned or maintained by others)	Continuous	7
C-NGAS-OTHR-PUMP	Natural gas pumping station (owned or maintained by others)	Continuous	7
C-NGAS-OTHR-STID	Natural gas station identification tags: anode test, booster, reducing, & pumping - annotation (owned or maintained by others)	Continuous	7
C-NGAS-OTHR-IDEN	Natural gas identification notes - annotation (owned or maintained by others)	Continuous	7
Steam Distribution System			
C-STEA-JUNC	Steam distribution junction: vaults and manholes (UIUC)		
C-STEA-JUID	Steam distribution junction identification: vaults and manholes (UIUC)		
C-STEA-DEVC	Steam distribution devices vaults, traps, condensate pumps (UIUC)	Continuous	211
C-STEA-DVID	Steam distribution device identification tags: vaults, traps, condensate pumps - annotation (UIUC)	Continuous	211
C-STEA-ABND	Steam distribution abandoned tunnels, piping (UIUC)	Hidden	253
C-STEA-STNL	Steam distribution shallow tunnel (UIUC)	Phantom2	211
C-STEA-TUNL	Steam distribution tunnel (UIUC)	Phantom2	211
C-STEA-TRAP	Steam distribution trap (UIUC)	Varies	Varies
C-STEA-UGEC	Steam distribution underground enclosure (UIUC)	Varies	Varies
C-STEA-LP	Steam distribution: low pressure piping (UIUC)	Center2	211
C-STEA-UP	Steam distribution: utility pressure piping (UIUC)	Center2	211
C-STEA-HP	Steam distribution: high pressure piping (UIUC)	Center2	211
C-STEA-CR	Steam distribution: condensate return piping (UIUC)	Center2	211
C-STEA-PR	Steam distribution: pressure return (UIUC)	Center2	211
C-STEA-VR	Steam distribution: vacuum return (UIUC)	Center2	211
C-STEA-IDEN	Steam distribution identification notes (UIUC)	Continuous	211
Sanitary Sewer System			
C-SSWR-JUNC	Sanitary sewer junction: manholes and lift-stations (UIUC)	Continuous	3
C-SSWR-JUID	Sanitary sewer junction identification: manholes and lift-stations - annotation (UIUC)	Continuous	3

Layer Name	Layer Description	Line Type	Color #
C-SSWR-DEVC	Sanitary sewer devices: cleanouts and air-release valves (UIUC)	Continuous	3
C-SSWR-DVID	Sanitary sewer device identification: cleanouts and air-release valves - annotation (UIUC)	Continuous	3
C-SSWR-GSYM	Sanitary sewer graphic symbol	Continuous	3
C-SSWR-UGEC	Sanitary sewer underground enclosure	Continuous	3
C-SSWR-ABND	Sanitary sewer pipe - abandoned (UIUC)	Hidden	253
C-SSWR-MAIN	Sanitary sewer pipe - main (UIUC)	DashDot2	3
C-SSWR-SERV	Sanitary sewer pipe - service (UIUC)	DashDot2	3
C-SSWR-FRCM	Sanitary sewer pipe - forcemain (UIUC)	Hidden	3
C-SSWR-SEPT	Sanitary sewer septic systems (UIUC)	DashDot2	3
C-SSWR-ARRW	Sanitary sewer direction of flow arrows (UIUC)	Continuous	3
C-SSWR-IDEN	Sanitary sewer identification notes - annotation (UIUC)	Continuous	3
C-SSWR-AGEC	Sanitary sewer above ground enclosure	Continuous	3
C-SSWR-OTHR-JUNC	Sanitary sewer junction: manholes and lift-stations (owned or maintained by others)	Continuous	7
C-SSWR-OTHR-JUID	Sanitary sewer junction identification: manholes and lift-stations - annotation (owned or maintained by others)	Continuous	7
C-SSWR-OTHR-DEVC	Sanitary sewer devices: cleanouts and air-release valves (owned or maintained by others)	Continuous	7
C-SSWR-OTHR-DVID	Sanitary sewer device identification: cleanouts and air-release valves - annotation (owned or maintained by others)	Continuous	7
C-SSWR-OTHR-UGEC	Sanitary sewer underground enclosure (owned or maintained by others)	Continuous	7
C-SSWR-OTHR-ABND	Sanitary sewer pipe - abandoned (owned or maintained by others)	Hidden	253
C-SSWR-OTHR-MAIN	Sanitary sewer pipe - main (owned or maintained by others)	Dashed	7
C-SSWR-OTHR-SERV	Sanitary sewer pipe - service (owned or maintained by others)	Dashed	7
C-SSWR-OTHR-SEPT	Sanitary sewer septic systems (owned or maintained by others)	Dashed	7
C-SSWR-OTHR-FRCM	Sanitary sewer forcemain (owned or maintained by others)	Hidden	7
C-SSWR-OTHR-ARRW	Sanitary sewer direction of flow arrows (owned or maintained by others)	Continuous	7
C-SSWR-OTHR-IDEN	Sanitary sewer identification notes - annotation (owned or maintained by others)	Continuous	7
Storm Drainage System			
C-STRM-JUNC	Storm drainage junction: manholes, curb inlets, catch basins, drainage inlets, and storm drains (UIUC)	Continuous	70

Layer Name	Layer Description	Line Type	Color #
C-STRM-JUID	Storm drainage junction identification: manholes, curb inlets, catch basins, drainage inlets, and storm drains - annotation (UIUC)	Continuous	70
C-STRM-DEVC	Storm drainage devices: headwalls, cleanouts, downspouts, culverts and air-release valves (UIUC)	Continuous	70
C-STRM-DVID	Storm drainage device identification: headwalls, cleanouts, downspouts, culverts and air-release valves (UIUC)	Continuous	70
C-STRM-GSYM	Storm sewer graphic symbol	Continuous	70
C-STRM-ABND	Storm drainage pipe - abandoned (UIUC)	Hidden	253
C-STRM-MAIN	Storm drainage pipe - main (UIUC)	Hidden	70
C-STRM-SERV	Storm drainage pipe - service (UIUC)	Hidden	70
C-STRM-UDRN	Storm drainage pipe - underdrain (UIUC)	Hidden	70
C-STRM-FRCM	Storm drainage pipe - forcemain (UIUC)	Hidden	70
C-STRM-ARRW	Storm drainage direction of flow arrows (UIUC)	Continuous	70
C-STRM-POND	Storm drainage detention basins, retention basins with annotation (UIUC)	Continuous	Varies
C-STRM-DTCH	Storm drainage swales / ditches with annotation (UIUC)	Continuous	Varies
C-STRM-EROS	Storm drainage erosion control with annotation (UIUC)	Continuous	Varies
C-STRM-IDEN	Storm drainage identification notes - annotation (UIUC)	Continuous	Varies
C-STRM-OTHR-JUNC	Storm drainage junction: manholes, curb inlets, catch basins, drainage inlets, and storm drains (owned or maintained by others)	Continuous	7
C-STRM-OTHR-JUID	Storm drainage junction identification: manholes, curb inlets, catch basins, drainage inlets, and storm drains - annotation (owned or maintained by others)	Continuous	7
C-STRM-OTHR-DEVC	Storm drainage devices: headwalls, cleanouts, downspouts, culverts and air-release valves (owned or maintained by others)	Continuous	7
C-STRM-OTHR-DVID	Storm drainage device identification: headwalls, cleanouts, downspouts, culverts and air-release valves (owned or maintained by others)	Continuous	7
C-STRM-OTHR-ABND	Storm drainage pipe - abandoned (owned or maintained by others)	Hidden	7
C-STRM-OTHR-MAIN	Storm drainage pipe - main (owned or maintained by others)	Hidden	7
C-STRM-OTHR-SERV	Storm drainage pipe - service (owned or maintained by others)	Hidden	7
C-STRM-OTHR-UDRN	Storm drainage pipe - underdrain (owned or maintained by others)	Hidden	7
C-STRM-OTHR-FRCM	Storm drainage pipe - forcemain (owned or maintained by others)	Hidden	7
C-STRM-OTHR-ARRW	Storm drainage direction of flow arrows (owned or maintained by others)	Continuous	7
C-STRM-OTHR-IDEN	Storm drainage identification notes - annotation (owned or maintained by others)	Continuous	7
Telecommunications System		Continuous	7

Layer Name	Layer Description	Line Type	Color #
C-TELE-JUNC	Telecommunication system junction: vaults, manholes, handholes, junction boxes, pull boxes, pedestals & splices (UIUC)	Continuous	7
C-TELE-JUID	Telecommunication system junction identification: vaults, manholes, handholes, junction boxes, pull boxes, pedestals and splices (UIUC)	Continuous	7
C-TELE-ABND	Telecommunication system conduit, cable, fiber optics - abandoned (UIUC)	Hidden	253
C-TELE-TOWR	Telecommunication system tower	Continuous	7
C-TELE-MAIN	Telecommunication system conduit - main (UIUC)	Continuous	7
C-TELE-SERV	Telecommunication system conduit - service (UIUC)	Continuous	7
C-TELE-DBRY	Telecommunication system cable - direct burried (UIUC)	Continuous	7
C-TELE-FIBR	Telecommunication system fiber optic (UIUC)	Continuous	7
C-TELE-IDEN	Telecommunication system identification notes - annotation (UIUC)	Continuous	7
Site Transportation System			
Road System			
C-ROAD-BRDG	Road bridge	Continuous	Varies
C-ROAD-FLCB	Transportation road flowline curb	Continuous	Varies
C-ROAD-TBCB	Transportation road top back of curb	Continuous	Varies
C-ROAD-RWAY	Transportation road rights-of-way, with markers	Continuous	Varies
C-ROAD-CNTR	Transportation road centerlines	Continuous	Varies
C-ROAD-CNID	Transportation road centerline identification - annotation	Continuous	Varies
C-ROAD-GARD	Transportation road guardrails	Continuous	Varies
C-ROAD-IDEN	Transportation road identification - annotation	Continuous	Varies
C-ROAD-PVID	Transportation road pavement type identification - annotation	Continuous	Varies
C-ROAD-SIGN	Transportation road signage with annotation	Continuous	Varies
C-ROAD-MINR	Transportation minor roads (crushed stone, dirt, oil and chip) *not defined by curbs*	Continuous	Varies
Parking System			
C-PKNG-CARS	Parking lot graphic illustration of cars	Continuous	Varies
C-PKNG-CNID	Parking lot centerline identification - annotation	Continuous	Varies
C-PKNG-CNTR	Parking lot centerlines	Continuous	Varies
C-PKNG-CURB	Parking lot curbs, parking bumpers, islands	Continuous	Varies
C-PKNG-DRAN	Parking lot drainage slope indications	Continuous	Varies
C-PKNG-SPID	Parking lot space identification - annotation	Continuous	Varies
C-PKNG-IDEN	Parking lot identification - annotation	Continuous	Varies
C-PKNG-SIGN	Parking lot signage with annotation	Continuous	Varies
C-PKNG-PVMK	Parking lot pavement markings (space stripes, handicapped symbols, Right/Left/Straight turn arrows etc.)	Continuous	Varies
Railroad System			
C-RAIL-CNID	Railroad centerline identification - annotation	Varies	Varies
C-RAIL-CNTR	Railroad centerline	Center	Varies
C-RAIL-BRDG	Railroad bridge structure	Varies	Varies
C-RAIL-RAIL	Railroad rails	Varies	Varies

Layer Name	Layer Description	Line Type	Color #
C-RAIL-SIGN	Railroad signage with annotation	Varies	Varies
Site Landscaping			
Plants			
L-PLNT-TREE	Landscape plant trees & hedge rows	Varies	Varies
L-PLNT-TRID	Landscape plant trees identification tags: decidous, coniferous and hedge rows etc. - annotation	Varies	Varies
L-PLNT-GRND	Landscape plant ground covers and vines	Varies	Varies
L-PLNT-BEDS	Landscape plant rock, bark, and other Landscape beds, planters	Varies	Varies
L-PLNT-TURF	Landscape plant lawn areas	Varies	Varies
Irrigation System			
L-IRRIG-JUNC	Landscape irrigation system junction: manholes, vaults, and valve vault (UIUC)	Varies	Varies
L-IRRIG-JUID	Landscape irrigation system junction identification: manholes, vaults, and valve vault - annotation (UIUC)	Varies	Varies
L-IRRIG-DEVC	Landscape irrigation system devices: valves, meters, sprinkler heads and hydrants (UIUC)	Varies	Varies
L-IRRIG-DVID	Landscape irrigation system device identification: valves, meters, sprinkler heads and hydrants (UIUC)	Varies	Varies
L-IRRIG-ABND	Landscape irrigation system pipe - abandoned (UIUC)	Hidden	253
L-IRRIG-MAIN	Landscape irrigation system pipe - main (UIUC)	Varies	Varies
L-IRRIG-SERV	Landscape irrigation system pipe - service (UIUC)	Varies	Varies
Structures			
L-SITE-WALL	Landscape site retaining walls	Varies	Varies
L-SITE-STEP	Landscape site steps (not attached to buildings)	Varies	Varies
L-SITE-DECK	Landscape site decks	Varies	Varies
L-SITE-BRDG	Landscape site bridges	Varies	Varies
L-SITE-POOL	Landscape site pools and spas	Varies	Varies
L-SITE-SPRT	Landscape site sports fields	Varies	Varies
L-SITE-PLAY	Landscape site play structures	Varies	Varies
L-SITE-STRC	Landscape site structures for ecstatic purposes (brick columns, concrete benches, statues, etc.)	Varies	Varies
Hydroseeding			
L-HYDR-IDEN	Hydroseeding annotation	Varies	Varies
L-HYDR-GENL	Hydroseeding	Varies	Varies
L-HYDR-SEED	Hydroseeding seed	Varies	Varies
L-HYDR-SODS	Hydroseeding sod	Varies	Varies
L-HYDR-SPRG	Hydroseeding sprigs	Varies	Varies
L-HYDR-SDSD	Hydroseeding seed and sod	Varies	Varies
L-HYDR-SDSG	Hydroseeding seed and sprig	Varies	Varies
L-HYDR-SSSG	Hydroseeding seed, sod, and sprig	Varies	Varies
Turfing			
L-TURF-IDEN	Turfing annotation	Varies	Varies
L-TURF-MLCH	Turfing mulch outlines	Varies	Varies
Seeding			
L-SEED-IDEN	Seeding annotation	Varies	Varies
L-SEED-SDSD	Seeding seed and sod	Varies	Varies

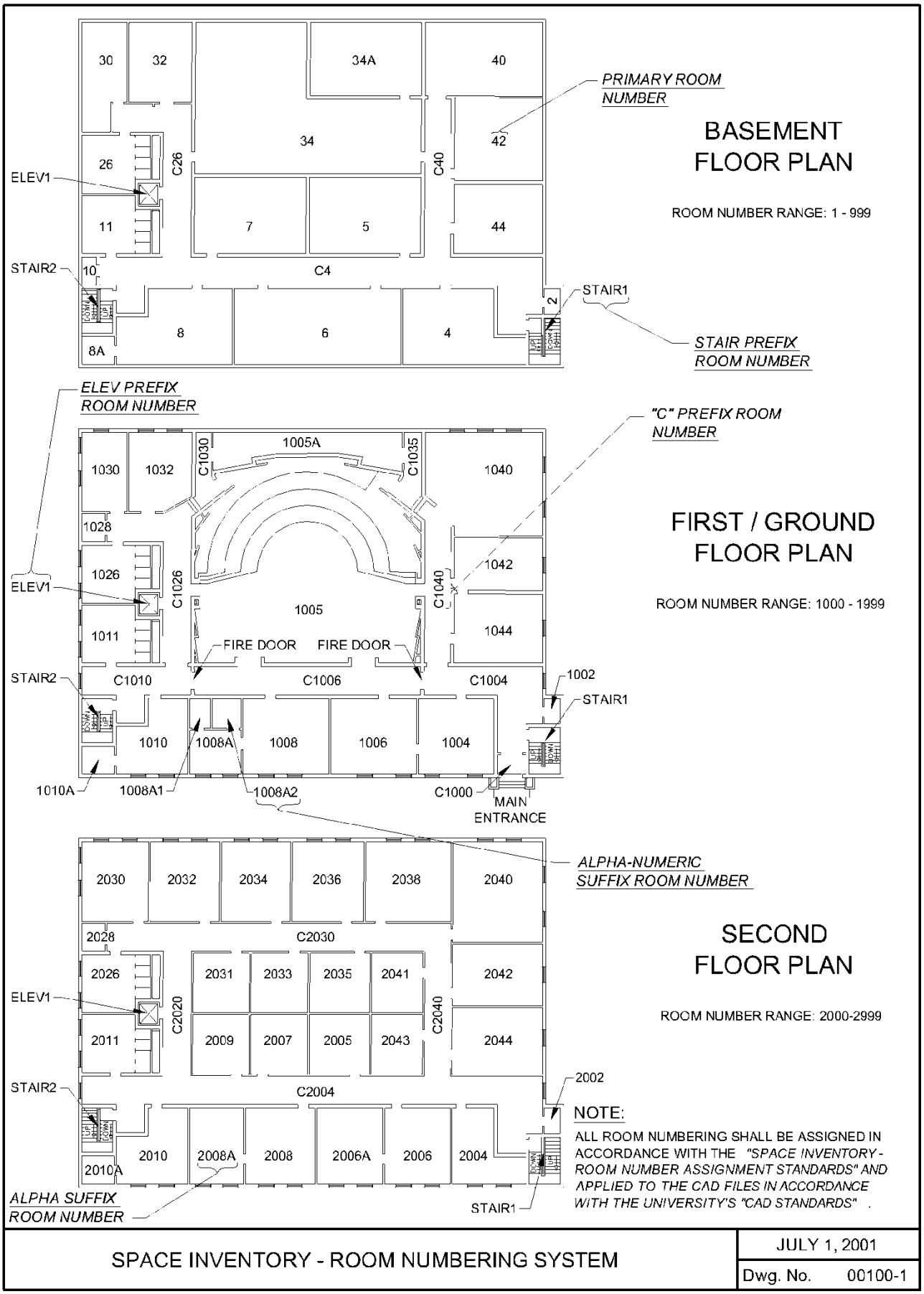
Layer Name	Layer Description	Line Type	Color #
L-SEED-SSSG	Seeding seed, sod, and sprig	Varies	Varies
L-SEED-SDSG	Seeding seed and sprig	Varies	Varies
L-SEED-SODS	Seeding sod	Varies	Varies
L-SEED-GENL	Seeding seed	Varies	Varies

APPENDIX B: SPACE INVENTORY DRAWINGS

Drawing 00100-1: Space Inventory – Room Numbering System

Drawing 00100-2: Space Inventory – Actual Room Use Assigned

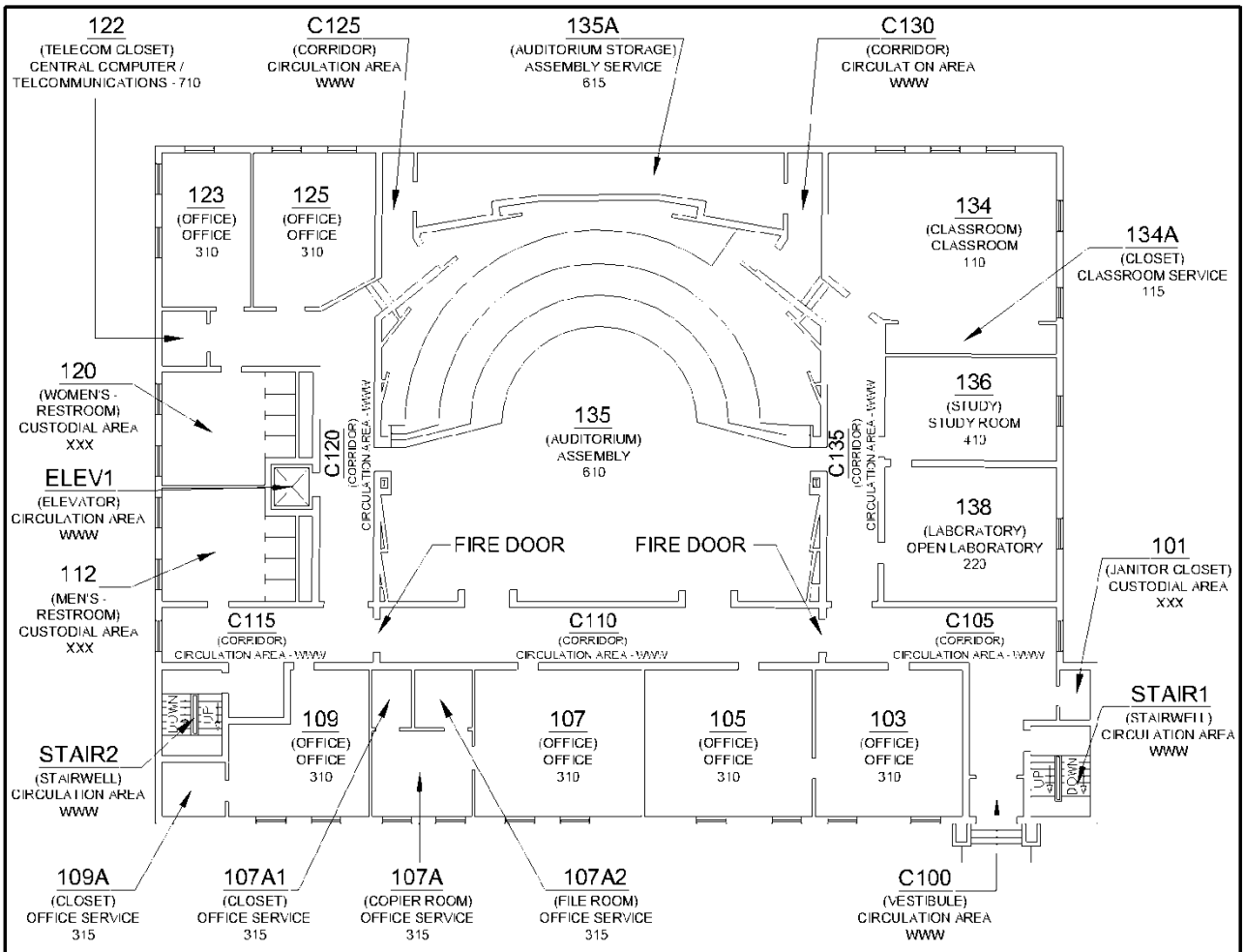
Drawing 00100-3: Space Inventory – Area Polylines



SPACE INVENTORY - ROOM NUMBERING SYSTEM

JULY 1, 2001

Dwg. No. 00100-1



FIRST / GROUND FLOOR PLAN

107A1 ← {ROOM NUMBER}
(CLOSET) ← {ROOM NAME}
OFFICE SERVICE ← {ACTUAL ROOM USE NAME}
315 ← {ACTUAL ROOM USE CODE}

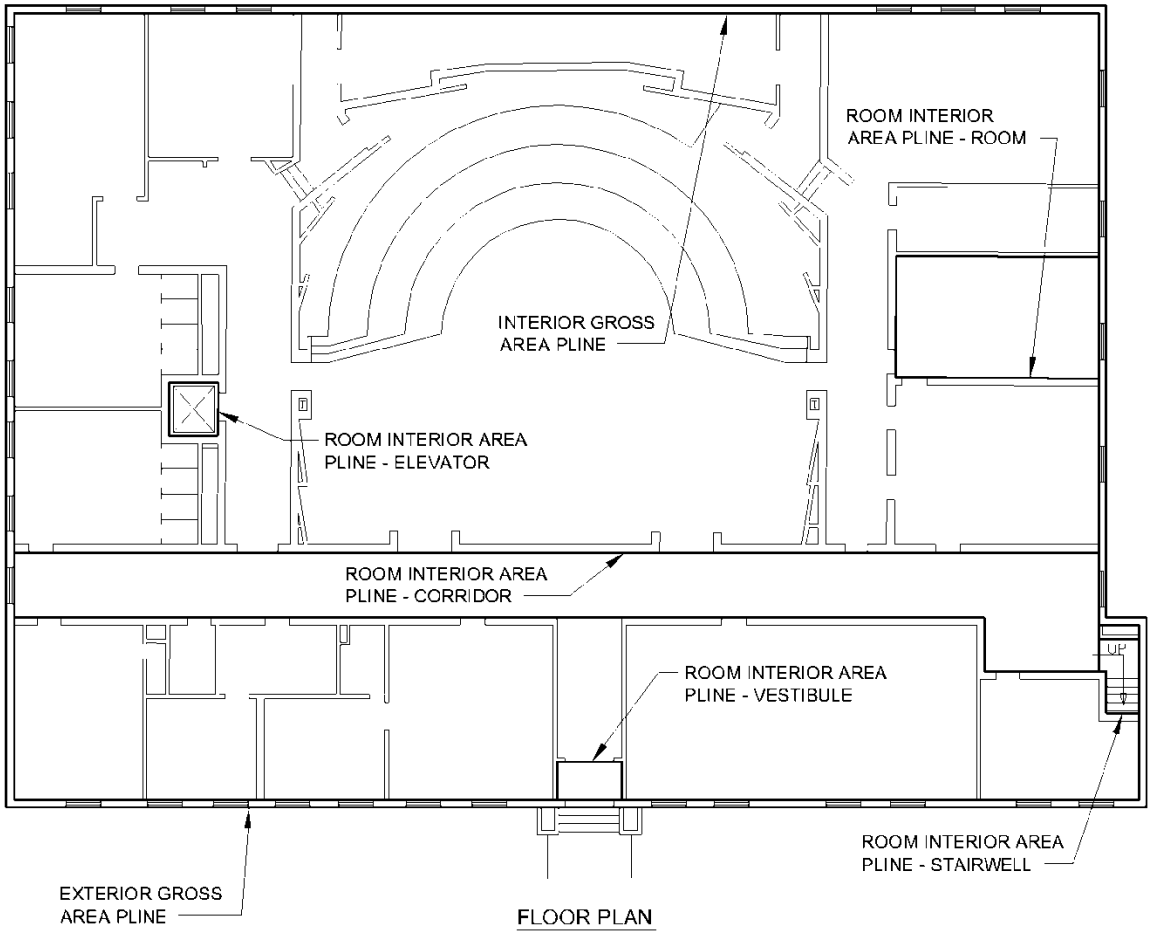
ACTUAL ROOM USE LABEL KEY

NOTE:

ALL ROOM USAGES SHALL BE ASSIGNED IN ACCORDANCE WITH THE *"POSTSECONDARY EDUCATION FACILITIES INVENTORY AND CLASSIFICATION MANUAL" STANDARDS FOR ROOM USAGES TABLE 1 IN THE "SPACE INVENTORY - ROOM NUMBER ASSIGNMENT STANDARDS"*.

ALL SPACE INVENTORY DATA SHALL BE PLACED IN CAD FILES IN ACCORDANCE WITH THE UNIVERSITY'S " *CAD STANDARDS*".

SPACE INVENTORY - ACTUAL ROOM USE ASSIGNMENTS	JULY 1, 2001
	Dwg. No. 00100-2



FLOOR PLAN

NOTES

1. EXTERIOR GROSS AREA - ONE (1) CLOSED PLINE AROUND THE EXTERIOR FACE OF THE EXTERIOR WALL FOR EACH FLOOR OF THE STRUCTURE (PLINE SHALL BE PLACED ON THE A-AREA-GROS LAYER. *SEE EXHIBIT 00100-1, UIUC CAD STANDARD MASTER LAYER LIST* .)

2. INTERIOR GROSS AREA - ONE (1) CLOSED PLINE AROUND THE INTERIOR FACE OF THE EXTERIOR WALL FOR EACH FLOOR OF THE STRUCTURE (PLINE SHALL BE PLACED ON THE A-AREA-GROS LAYER. *SEE EXHIBIT 00100-1, UIUC CAD STANDARD MASTER LAYER LIST* .)

3. ROOM INTERIOR AREA - ONE (1) CLOSED PLINE AROUND THE INTERIOR FACE OF THE WALL FOR EACH INDIVIDUAL ROOM INCLUDING CORRIDORS, LOBBIES, VESTIBULES, ELEVATORS, STAIRWELLS, ETC. ON A FLOOR (PLINE SHALL BE PLACED ON THE A-AREA-RM LAYER. *SEE EXHIBIT 00100-1, UIUC CAD STANDARD MASTER LAYER LIST* .)

4. EXAMPLE: EXTERIOR / INTERIOR POLYLINES SHALL NOT INCLUDE CORNICES, WINDOW WELLS, DOOR OPENINGS, ETC. - ROOM AREA POLYLINES SHALL NOT INCLUDE DOOR OR WINDOW OPENINGS.

5. ALL SPACE INVENTORY DATA SHALL BE PLACED IN CAD FILES IN ACCORDANCE TO THE UNIVERSITY'S *"CAD STANDARDS"* .

SPACE INVENTORY - AREA POLYLINES (INTERIOR / EXTERIOR GROSS FLOOR PLAN AREA AND ROOM AREA)	JULY 1, 2001
	Dwg. No. 00100-3

APPENDIX C: CHANGE LOG

Rev- #	Date	Change(s) Made
9	6-8-23	Moved CAD version from Part 1, D, 7a to Part 2, I. Part 1, D, 6, 4 – removed section because paper Project Manual no longer required. Part 1, D, 7a – removed "Pack-n-Go" reference. Part 2, I – updated CAD version from 2017 to 2019. Part 3, Table 1 replaced.
8	8-31-20	General – Removed requirement that digital submittals come in on CD and replace with fileshare and email. Part 1, C, 4 – Added definition of Construction documents. Part 1, E, 7 -- Clarified CAD vs BIM submittal requirements. Updated GIS format to 10.6.1. Part 1, E, 11 – Clarified that Addenda also require signatures and seals.
7	12-10-19	Added new F&S Logo. Changed acceptable autocad version to 2017 (part 1, 7a, 3, b).
6	10-05-18	Definitions – added bid documents on page 2. Deliverable formatting – added 'Electronic "e"' and 'Bound Deliverables' Change/clarify the file naming conventions with examples used throughout the Deliverables. If individual submittals are bound into a single binder/submittal as long as the cover lists all deliverables included in the binder. Allowed through DD only. Removed paper format for item 02. Changed item 04a to include "Studies." Clarified on 06 – Label for Bidding and Closeout. There is no 100%CD. Clarified on 07 – Label for Bidding and Closeout which should be on all pages. There is no 100%CD. Corrected the title of item 09 on page 2. Change/clarify how item 09 comes in to F&S (add that it should come in on CD and digital only). Clarified methods of electronic delivery on item 08. Updated website link and method of submittal on item 09. If individual submittals are bound into a single binder/submittal as long as the cover lists all deliverables included in the binder. Allowed through DD only. 7a,1,i,ii – updated signature requirements from wet only to wet, scanned, or digital
5	10-5-17	Added additional deliverables from the "Required Phases & Minimum List of Deliverables." Added submittal requirements for all added deliverables. Provided submittal requirements for Feasibility Studies, Memorandums or Short Reports and Conceptualizations. Changed Exhibits and Drawings sections to Appendices. Added the additional requirement of a single "back-to-back" pdf format. Added Part 4: GIS Standards.
4	11-28-12	Part 1, E, 5 – removed Part 1, G, 2, a – added "staples, or post bindings" Part 1, F, 3 – remove (O&M copies and warranties covered in Project Manual) Part 1, F, 4, b (now 3b) – added option for Department/College to specify #/size of copies Part 1, G, 3, a – changed "Word 2003" to "Word 2010 or earlier" Part 1, G, 3, b – added ", searchable" Part 1, G, 3, f – added "and two subfolders titled "pdf" and "Word." There shall not be any further subfolders within the "pdf" and "Word" folders except to denote multiple volumes in accordance with the hardcopy set." Part 1, H, 1, f – added Discipline Designator requirements Part 1, H, 2, a – added "(no single corner staples or bare metal ACCO-style fasteners)" Part 1, H, 3, a – changed "AutoCAD 2006" to "AutoCAD 2012 or earlier" Part 1, H, 3, b – added "searchable, and" Part 1, H, 3, h – corrected typo "C100-C1-4.dwg" to "C100-C104.dwg" Part 2, Chapter II, B, 1 – added "No Metric Equivalents"

		Part 2, Chapter II, B, 4, a – changed 1986 to 2011 Part 2, Chapter II, C, 2 – Removed Geotechnical, Civil Works, Equipment, Process, Resource, Other Disciplines, Contractor/Shop Drawings, Operations. Added HZ – Hazardous Materials. Changed Discipline Codes H to Heating, and V to Ventilation. Exhibit A, Project Manual, E-copy – corrected typo omission – added "pdf" Exhibit B – Removed Annotation Layers: Q-OTLN, Q-POWR, Q-PIPE, R-****-OTLN, R-****-DETL, R-****-PATT, R-****-ANNO. Added: *-ANNO-GRID, C-PROP-PRVT, C-SITE-BRCK, C-ELEC-OTHR-TGRD, C-NGAS-CVNT, C-NGAS-WSGN, C-NGAS-LSTA, C-NGAS-TRAN-MAIN, C-NGAS-TRAN-ACAN, C-NGAS-TRAN-RWRE, C-NGAS-TRAN-RSTA, C-NGAS-TRAN-GSTA, C-GSLP-SERV, C-STEA-TRAP, C-STEA-UGEC, C-SSWR-GSYM, C-SSWR-UGEC, C-SSWR-AGEC, C-SSWR-OTHR-UGEC, C-STRM-GSYM, C-TELE-TOWR, L-PLNT-SHRB. Changed H-PLAN to HZ-PLAN and H-SITE to HZ-SITE; and added "kiosk" to C-BLDG-MINR.
3	01-19-11	Part 1, A – added clarification of document purpose Part 1, D – deleted items 3 through 9. Part 1, F, 2 – clarified department in item d, and moved "Class Tech" from item g to a new item e. Part 1, H, 3, b – added "rotated to the correct direction" Part 1, H, 3 – struck item h Part 1, H, 3, i (now item h) – added clarification for multi-sheet CAD files Part 1, H, 3 – added items I, j, k, l Part 1, I – added item h Part 2, Chapter II, B, 1 – added "No metric equivalents." Part 2, Chapter II, B, 4 – added "The model shall be oriented so North is either to the top (^) or left (<) on the drawing document." Part 2, Chapter II, B, 4, a – updated required version of Illinois State Plan Coordinate System. Part 2, Chapter II, B – added item 11 Part 2, Chapter II – added item D Exhibits – made changes in checklist to reflect above changes Change Log – added "Change Log"