GEORGE MASON UNIVERSITY

Office of University Building Official (OUBO)

Building Safety Month Training Symposium

"*Thriving with change*" - Encouraging collective connections and open communication with purpose of building shared understanding and approach to change.

Stakeholders: GMU Facilities, Project managers, CFR's, Contractors, & Registered Design Professionals

Agenda

The primary goal of this initiative is to enhance our understanding and execution of core processes. By focusing on accuracy, we aim to improve both the speed of our delivery and the overall quality of our built environment.

Past:

Code update, OUBO website, trainings, lessons learned

Present:

Submittal process for fire alarm & suppression, DPOR, HECO-6 form, HECO-13.1UBO, Plan reviews, permits, inspections, close out documents

Future:

Code data, sheet block, checklist, project summary, HECO update

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Fire & Life Safety Discussion Points

- Fire Resistance Rated (FRR) Construction
  - Fire Dampers
  - Firestop
- Shop Drawings Submission Requirements
- Inspections
  - Fire Alarm – Elevator Integration
  - Fire Sprinkler – Rough-in & Hydro
- Close-out Documents
  - Fire Alarm
  - Fire Sprinkler
  - Hood Fire Suppression
  - Clean Agent Fire Suppression

OUBO Resources – FP/LS

Office of University Building Official – Office of the University Building Official (gmu.edu)

Resources

HOME / RESOURCES

OUBO Procedures

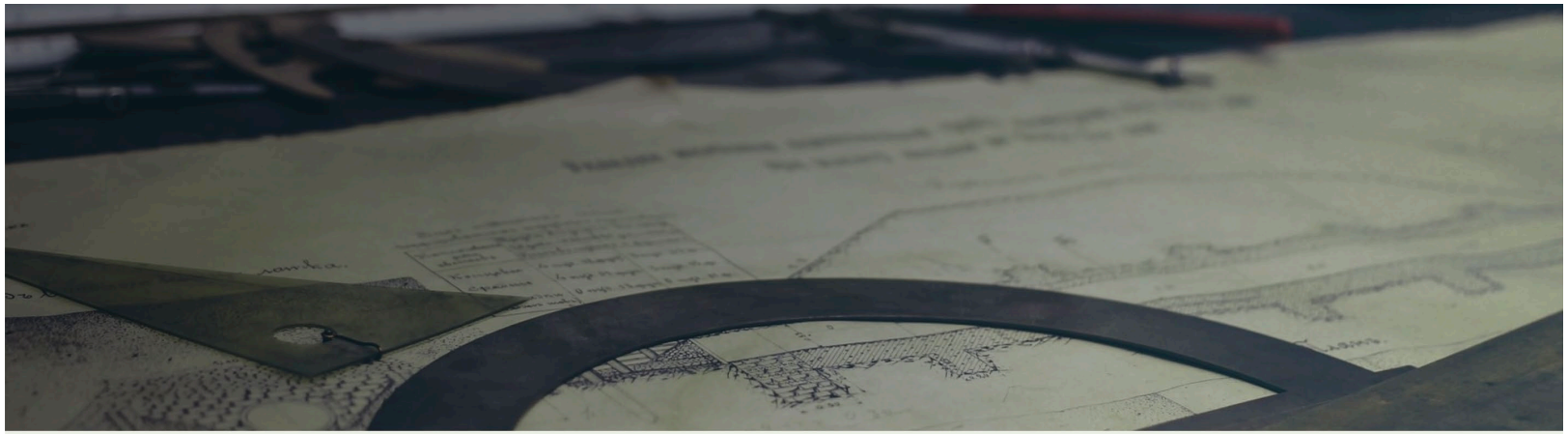
- OUBO FY26 Permit Fee Schedule Updates
- 2021 USBC Adoption
- Office of the University Building Official Charter
- Procedure for Engineering Judgements
- Construction Permit Procedures
- De-Rating Procedure for Fire Rated Assemblies
- GMU Fire Alarm Shop Submission Requirements
- GMU Fire Sprinkler Shop Submission Requirements
- Building Permit Posting Procedure
- Special Inspection
- Inspection Procedures
- Roofing System Permitting and Inspection

Codes & Design Criteria

e-Builder
A TRIMBLE COMPANY

OUBO Resources – FP/LS

Office of University Building Official – Office of the University Building Official (gmu.edu)



Training

HOME / TRAINING

3 M Construction Training

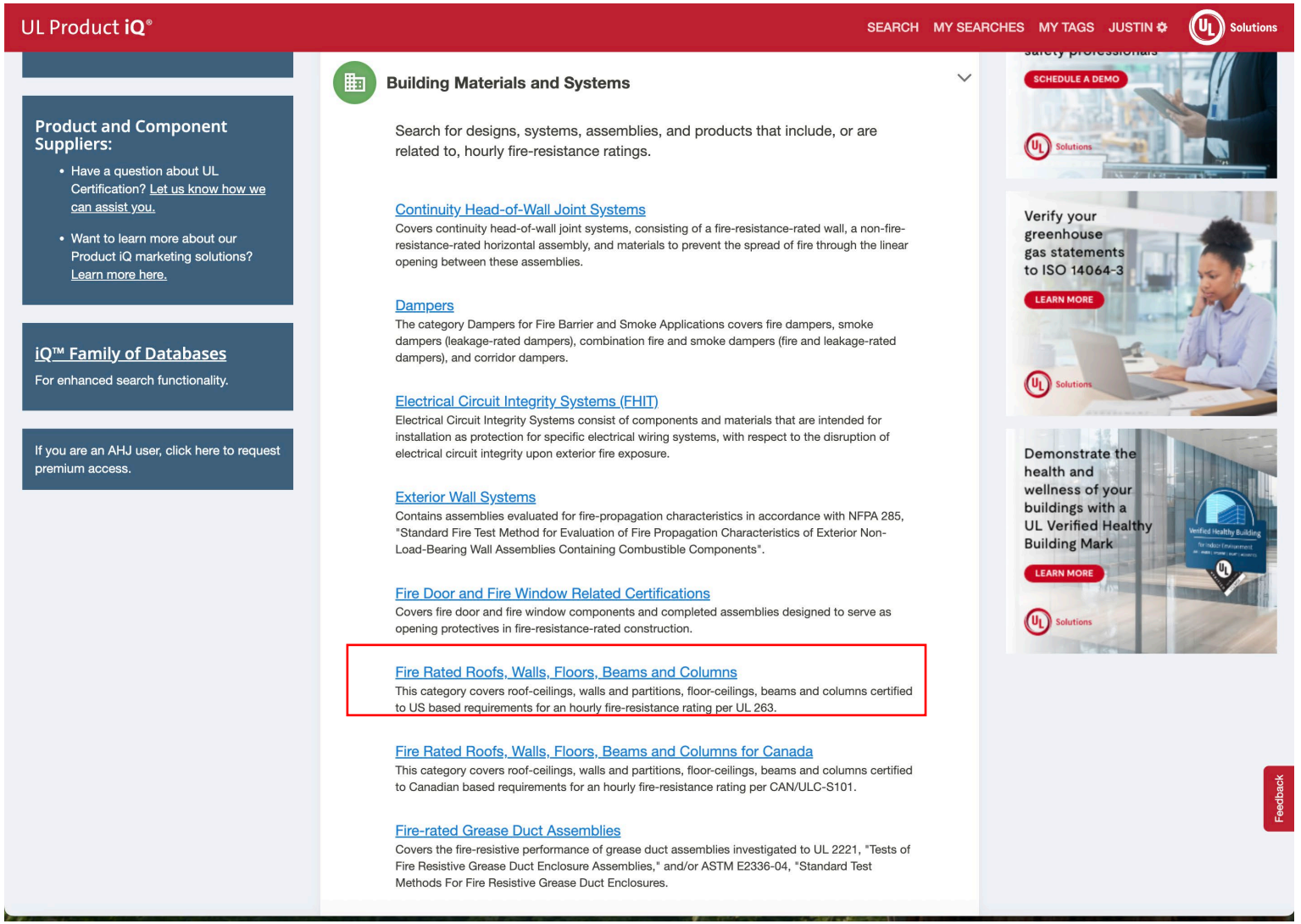
- 3 M Construction Training

Fire Protection Training

- Fire Protection Part I
  Recording Link
- Fire Protection Part II
  Recording Link

OUBO HECO Training Sessions

Fire Resistant-Rated (FRR) Construction



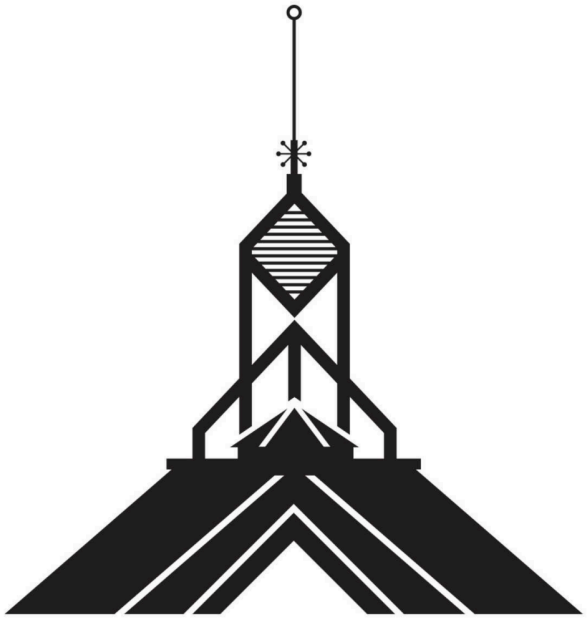
- VCC identifies various FRR construction elements – Ch. 7
  - Structural Members (704)
  - Exterior Walls (705)
  - Fire Walls (706)
  - Fire Barriers (707)
  - Fire Partitions (708)
  - Smoke Barriers (709)
  - Smoke Partitions (710)
  - Floor/Roof Horizontal Assemblies (711)

- VCC 703.2.2 Outlines Methods to Achieve Compliance
  - Method 1 – UL (or equivalent)
  - Method 2 – Section 721 Assemblies in IBC/VCC
  - Method 3 - Calculations (722)
  - Method 4 - Engineering analysis/engineering judgment
  - Method 5 - Equivalency (e.g. PBD, sprinkler equivalency, etc.)

GEORGE MASON UNIVERSITY

Higher Education Capital Outlay Manual

2023



Vice President of Facilities

Fire Safety Review Tips

1. **Table of Fire Resistance Ratings:** HECOM requires that a table of all fire resistance ratings be provided. This assists reviewers and, more importantly, contractors and inspectors in ensuring fire resistance assemblies are installed where required and in accordance with the design.

ELEMENT	RATING	DESIGN REFERENCE	DETAIL LOCATION
Columns	2 hours	UL# XXXX	3/S-2
Floor-Ceiling Assembly	2 hours	IBC Table XXX, Item X.x	4/S-7
Elevator Shaft	2 hours	UL# XXXX	Partition Type 2/A-4.2
Top of Elevator Shaft	2 hours	UL# XXXX	5/S-7
Use Group Separation	1 hour	IBC Table XXX, Item X.x	Partition Type 4/A-4.2

6. **Through-Penetration Firestop Systems:** When penetrating a fire resistance-rated assembly a fire rated penetration assembly is required. When penetrating a floor assembly, the through penetration assembly generally requires both F-ratings and T-ratings (limited exception). A table of typical listed assembly(ies) for the project is required to be provided with construction drawings with deferred submittal required in the specifications. A non-capital projects can provide typical firestop assembly details with further detail provided in specification and required deferred submission. (See USBC Chapter 7 for requirements and for exceptions). Engineering Judgments should be limited and be identified as early in the project as possible to eliminate issues near the completion of the project. Refer to specific guidelines for submission of Engineering Judgments (EJs).

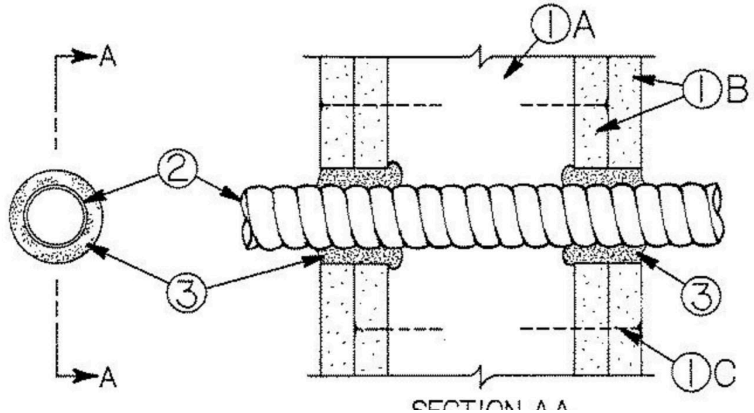
https://oubo.gmu.edu/wp-content/uploads/2025/02/Fire-Safety-Review-Tips-rev1.25.pdf

Firestopping

Test standards for firestop systems

Category	ASTM Standard	UL
Through penetrations	E814	1479
Cable Tray	E1725	1724
Joints	E1966	2079
Perimeter joints	E2307	
Continuity of wall joints	E2837	
Grease ducts	E2336	
Air ventilation ducts	E2816	
Assemblies	E119	263
High intensity – hydrocarbon pool fires	E1529	1709

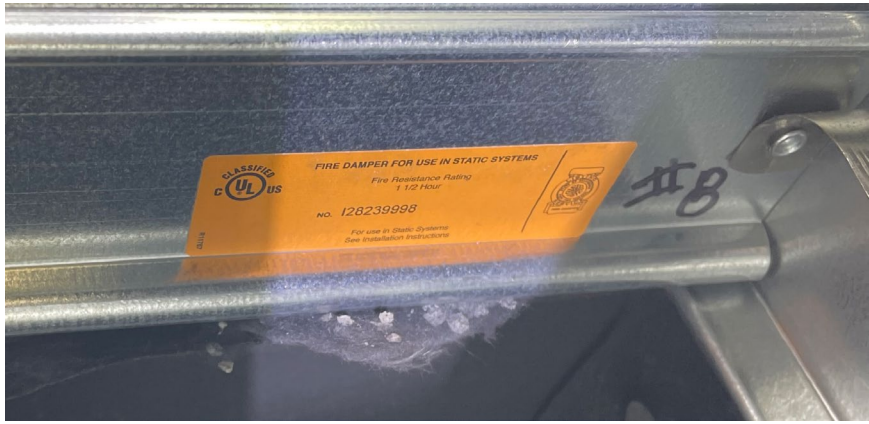
F Rating — 1 and 2 Hr (See Item 3)
T Ratings — 0, 3/4 and 2 Hr (See Item 2)
L Rating at ambient — less than 1 CFM per sq ft. (See Item 3)
L Rating at 400 F — less than 1 CFM per sq ft. (See Item 3)



Fire Dampers

[BF] 607.2.3 Static dampers.

Fire dampers and ceiling radiation dampers that are listed for use in static systems shall be installed only in heating, ventilation and air-conditioning systems that are automatically shut down in the event of a fire.



[BF] 607.3.1 Damper testing.

Dampers shall be *listed* and *labeled* in accordance with the standards in this section. *Fire dampers* shall comply with the requirements of UL 555. *Smoke dampers* shall comply with the requirements of UL 555S. *Combination fire/smoke dampers* shall comply with the requirements of both UL 555 and UL 555S. *Ceiling radiation dampers* shall comply with the requirements of UL 555C or shall be tested as part of a fire-resistance-rated floor/ceiling or roof/ceiling assembly in accordance with ASTM E119 or UL 263. Corridor dampers shall comply with requirements of both UL 555 and UL 555S. Corridor dampers shall demonstrate acceptable closure performance when subjected to 150 feet per minute (0.76 m/s) velocity across the face of the damper using the UL 555 fire exposure test.

[BF] 607.6.2.1.1 Dynamic systems.

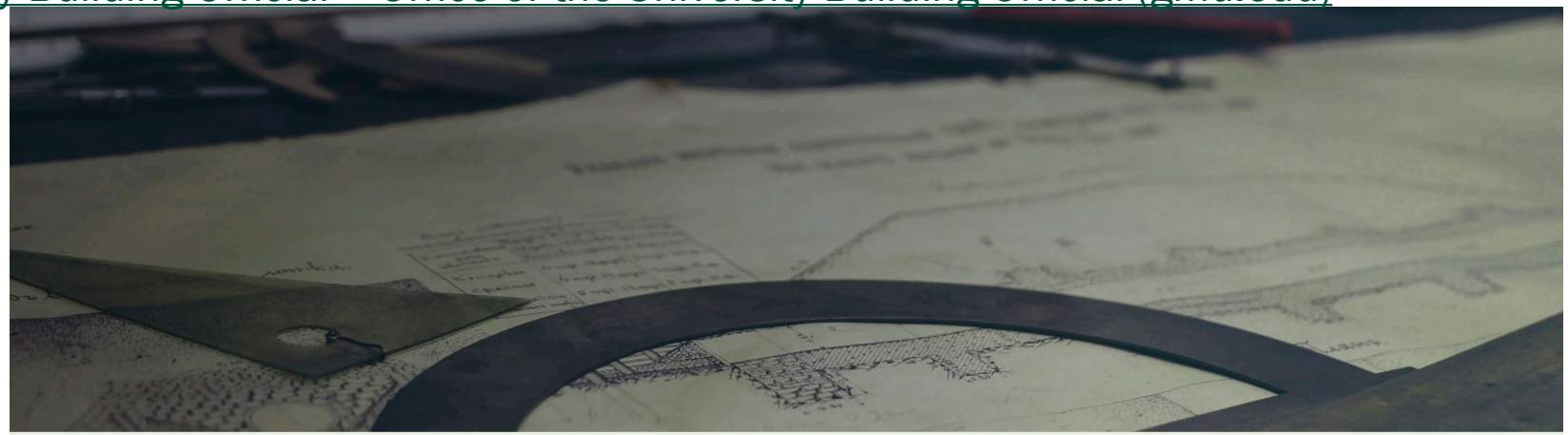
Ceiling radiation dampers installed in heating, ventilation and air-conditioning systems designed to operate with fans on during a fire shall be labeled for use in dynamic systems.

[BF] 607.6.2.1.2 Static systems.

Static ceiling radiation dampers shall be installed only in systems that are not designed to operate during a fire.

OUBO Resources – FP/LS

Office of University Building Official – Office of the University Building Official (gmu.edu)



Training

HOME / TRAINING

3 M Construction Training

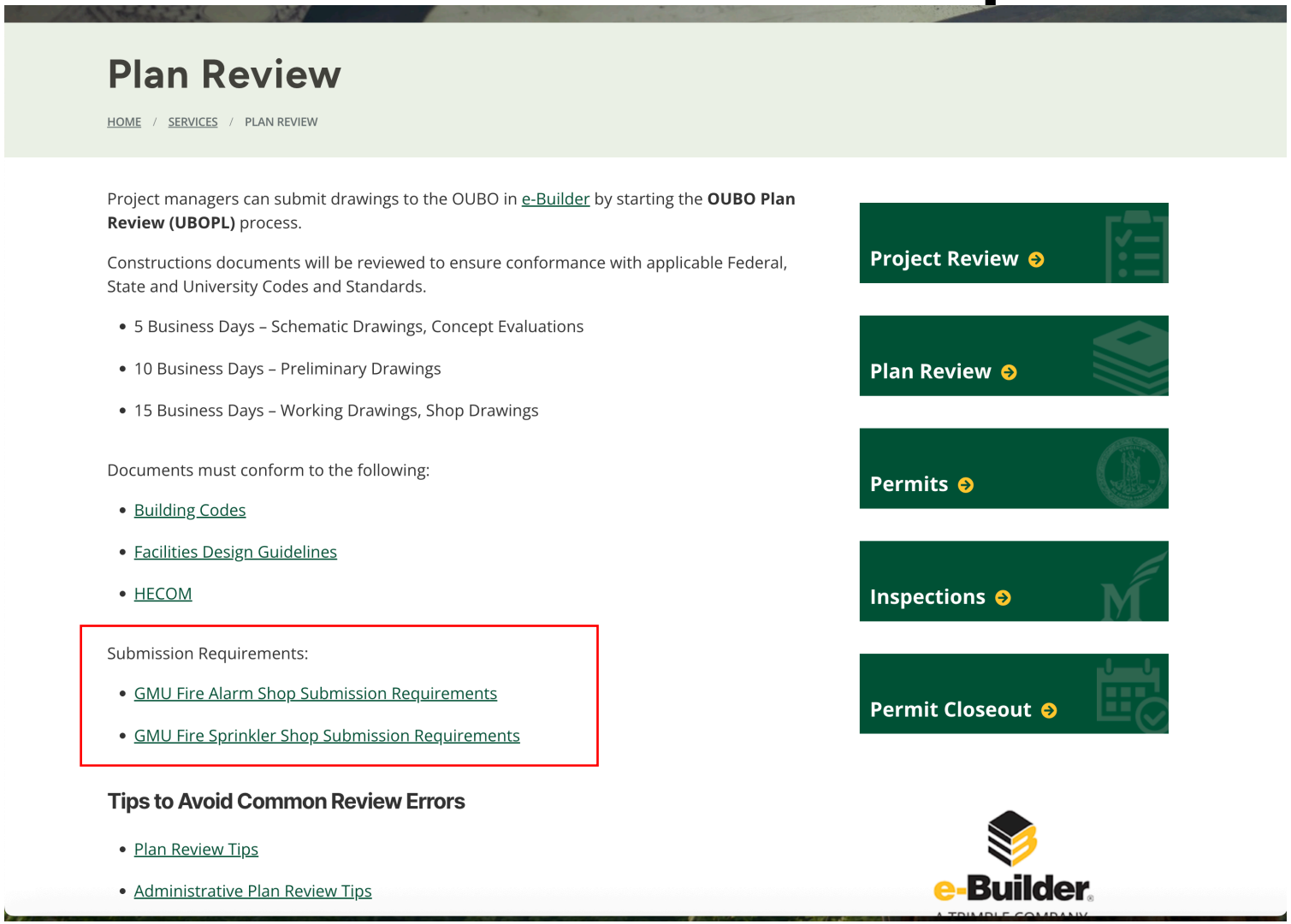
- 3 M Construction Training

Fire Protection Training

- Fire Protection Part I
  Recording Link
- Fire Protection Part II
  Recording Link

OUBO HECO Training Sessions

Fire Protection Shop Drawings



Plan Review

HOME / SERVICES / PLAN REVIEW

Project managers can submit drawings to the OUBO in e-Builder by starting the **OUBO Plan Review (UBOPL)** process.

Constructions documents will be reviewed to ensure conformance with applicable Federal, State and University Codes and Standards.

- 5 Business Days – Schematic Drawings, Concept Evaluations
- 10 Business Days – Preliminary Drawings
- 15 Business Days – Working Drawings, Shop Drawings

Documents must conform to the following:

- Building Codes
- Facilities Design Guidelines
- HECOM

Submission Requirements:

- GMU Fire Alarm Shop Submission Requirements
- GMU Fire Sprinkler Shop Submission Requirements

Tips to Avoid Common Review Errors

- Plan Review Tips
- Administrative Plan Review Tips

Project Review

Plan Review

Permits

Inspections

Permit Closeout

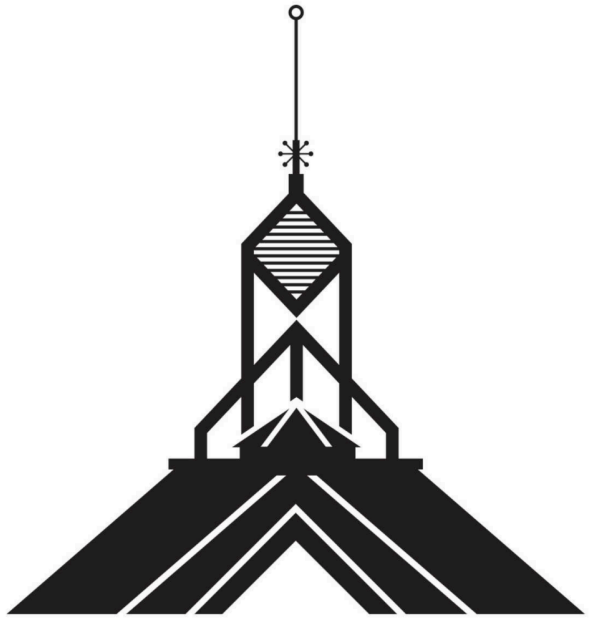
e-Builder

- **Repetitive Submission Issues**
  - Project Number Not Listed
  - Not approved by A/E of Record
  - NICET “Stamp”
  - Calculations not Submitted/Provided
  - Fire Sprinkler – hangers not provided (13 Requirement)
  - Fire Alarm – wiring device-to-device (72 Requirement)

GEORGE MASON UNIVERSITY

Higher Education Capital Outlay Manual

2023



Vice President of Facilities

SECTION 8.19 FIRE PROTECTION SHOP DRAWINGS:

Refer to chapters 7 and 8 of this manual for the OUBO submission guidelines for additional information related to various fire protection systems. Fire protection shop drawings and product submission data shall be reviewed and approved by the A/E of record. When the submission, with any added notations is satisfactory to the A/E, the A/E shall provide a "sealed" statement, attached to the reviewed shop drawings indicating that the fire protection shop drawings (working plans, product data and calculations as applicable) satisfy the requirements of the project contract documents and the code (cite the applicable NFPA and USBC Sections).

Code of Virginia – DPOR Regulations

"§ 54.1-402. Further **exemptions from license requirements for architects, professional engineers, and land surveyors.**

A. No license as an architect or professional engineer shall be required pursuant to § 54.-406 for persons who prepare plans, specifications, documents and designs for the following, provided any such plans, specifications, documents or designs bear the name and address of the author and his occupation:

… 8. **The preparation of shop drawings**, field drawings and specifications for components by a contractor who will supervise the installation and where the shop drawings and specifications (i) **will be reviewed by the licensed professional engineer or architect responsible for the project** or (ii) are otherwise exempted…"

Inspection Clarifications

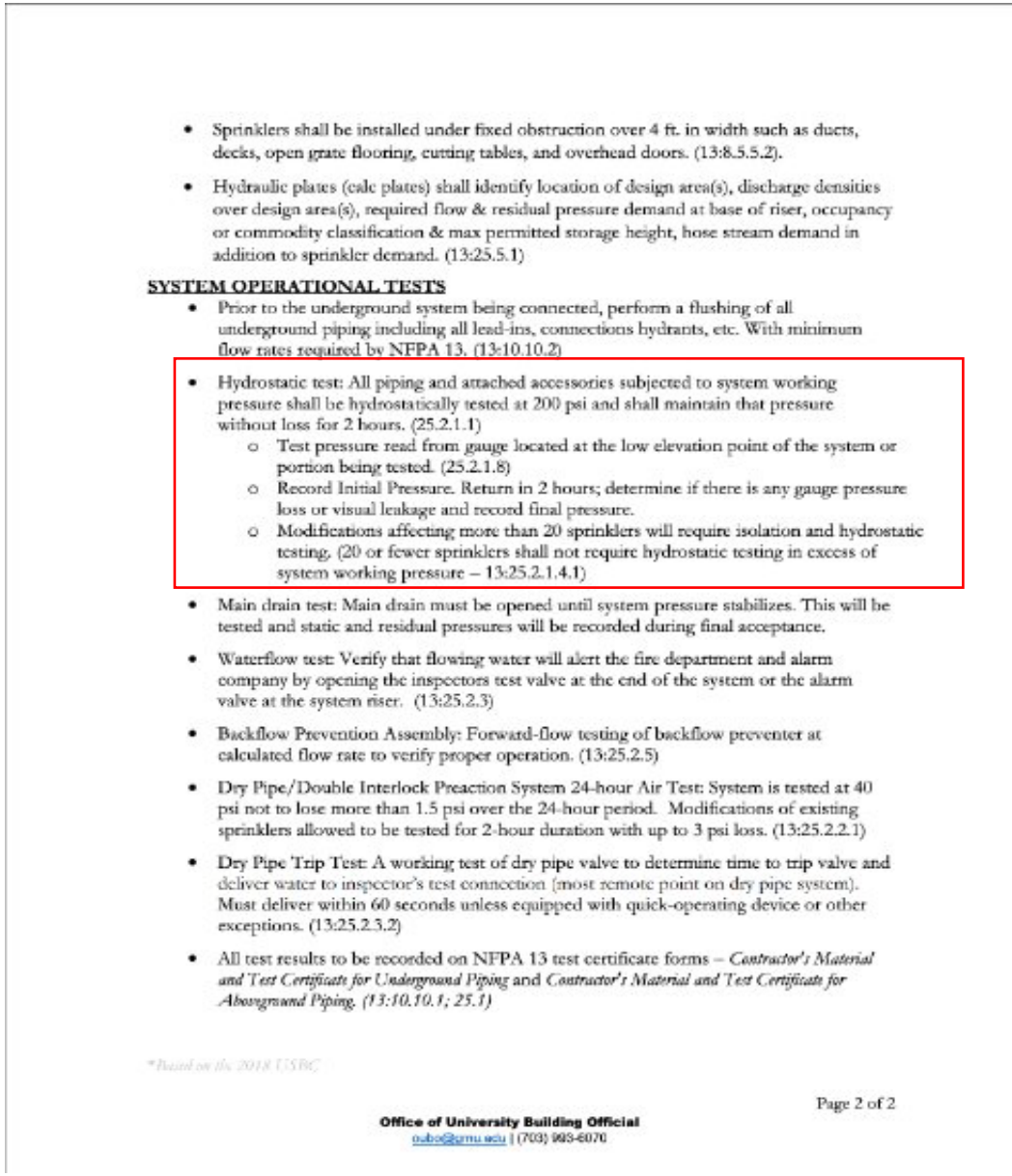
Fire Alarm – Elevator Integration Considerations

- Coordination of NFPA 13, NFPA 72 and ASME A17.1
  - Is sprinkler in hoistway necessary (NFPA 13)
  - A/E (Fire Protection) to coordinate working drawings
  - Shop Drawings for each trade need to follow working drawings
  - Determine Recall Floors – Primary/Alternate (Approved by AHJ)
  - Heat sensors for Phase II – lower temperature & lower RTI than sprinkler
- Phase I – Elevator Recall (Elevator "lobby" & MR SDs)
  - Sprinklered hoistway - SD required in hoistway @ sprinkler
  - SD must be specifically intended for dirty environment
- Phase II – Shunt Trip of Elevator
  - Option 1 - Heat sensors (Hoistway & MR HDs) within 24" of sprinkler
  - Option 2 – Sprinkler Flow/Pressure Switch (0-time delay switch)

Inspection Clarifications

Fire Sprinkler – Progress Inspection

- Hydrostatic Testing
- Rough-in Sprinkler



- Sprinklers shall be installed under fixed obstruction over 4 ft. in width such as ducts, decks, open grate flooring, cutting tables, and overhead doors. (13:8.5.5.2).
- Hydraulic plates (calc plates) shall identify location of design area(s), discharge densities over design area(s), required flow & residual pressure demand at base of riser, occupancy or commodity classification & max permitted storage height, hose stream demand in addition to sprinkler demand. (13:25.5.1)

SYSTEM OPERATIONAL TESTS

- Prior to the underground system being connected, perform a flushing of all underground piping including all lead-ins, connections hydrants, etc. With minimum flow rates required by NFPA 13. (13:10.10.2)
- Hydrostatic test: All piping and attached accessories subjected to system working pressure shall be hydrostatically tested at 200 psi and shall maintain that pressure without loss for 2 hours. (25.2.1.1)
  - Test pressure read from gauge located at the low elevation point of the system or portion being tested. (25.2.1.8)
  - Record Initial Pressure. Return in 2 hours; determine if there is any gauge pressure loss or visual leakage and record final pressure.
  - Modifications affecting more than 20 sprinklers will require isolation and hydrostatic testing. (20 or fewer sprinklers shall not require hydrostatic testing in excess of system working pressure – 13:25.2.1.4.1)
- Main drain test: Main drain must be opened until system pressure stabilizes. This will be tested and static and residual pressures will be recorded during final acceptance.
- Waterflow test: Verify that flowing water will alert the fire department and alarm company by opening the inspectors test valve at the end of the system or the alarm valve at the system riser. (13:25.2.3)
- Backflow Prevention Assembly: Forward-flow testing of backflow preventer at calculated flow rate to verify proper operation. (13:25.2.5)
- Dry Pipe/Double Interlock Preaction System 24-hour Air Test: System is tested at 40 psi not to lose more than 1.5 psi over the 24-hour period. Modifications of existing sprinklers allowed to be tested for 2-hour duration with up to 3 psi loss. (13:25.2.2.1)
- Dry Pipe Trip Test: A working test of dry pipe valve to determine time to trip valve and deliver water to inspector's test connection (most remote point on dry pipe system). Must deliver within 60 seconds unless equipped with quick-operating device or other exceptions. (13:25.2.3.2)
- All test results to be recorded on NFPA 13 test certificate forms – *Contractor's Material and Test Certificate for Underground Piping* and *Contractor's Material and Test Certificate for Aboveground Piping. (13:10.10.1; 25.1)*

*Based on the 2018 USBC

Page 2 of 2

Office of University Building Official
oubo@gmu.edu | (703) 993-6070

Close-out Documents

- Fire Alarm – NFPA 72 *Record of Completion* & Supplementary Forms as Needed
- Fire Sprinkler – NFPA 13 *Contractor's Material & Test Certificates* (U.G. & AG)
- Hood Fire Suppression – NFPA 17A *Wet Chemical System Acceptance Test Report*
- Clean Agent Fire Suppression – NFPA 2001 *Clean Agent System Acceptance Test Report*

[Office of University Building Official – Office of the University Building Official (gmu.edu)]

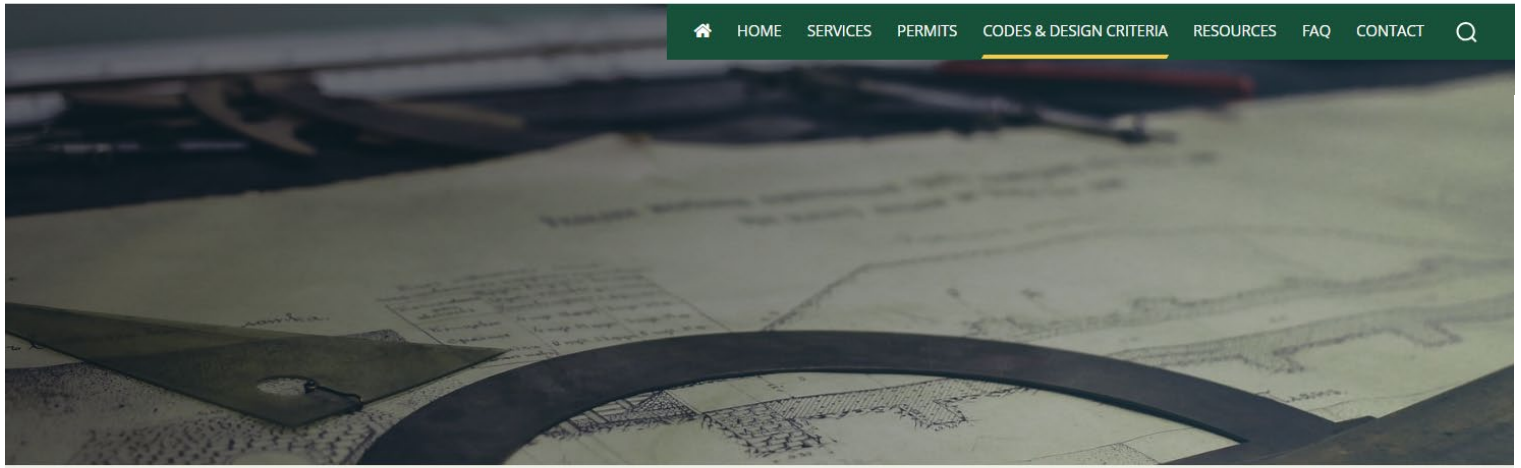
GEORGE MASON UNIVERSITY

Office of University Building Official

George Mason University

APPLY GIVE MYMASON PATRIOTWEB PEOPLEFINDER ATHLETICS NEWS CALENDAR LIBRARY GRADUATION

HOME SERVICES PERMITS CODES & DESIGN CRITERIA RESOURCES FAQ CONTACT



Codes & Design Criteria

HOME / RESOURCES / CODES & DESIGN CRITERIA

George Mason University is required to enforce the Virginia Uniform Statewide Building Code (USBC) and the Statewide Fire Prevention Code (SFPC). These codes are administered by the Virginia Department of Housing and Community Development and reference the International Codes as published by the International Code Council. Periodic amendments are utilized to update codes and incorporate new reference standards.

- **2021 Virginia State Building Codes**
- **Virginia DHCD Building and Fire Codes Overview**
- **National Fire Protection Association**

The following load criteria are based on **Chapter 16 of the Virginia Constructions Code, 2021, and Chapter 3 of the 2021 Virginia Residential Code.**

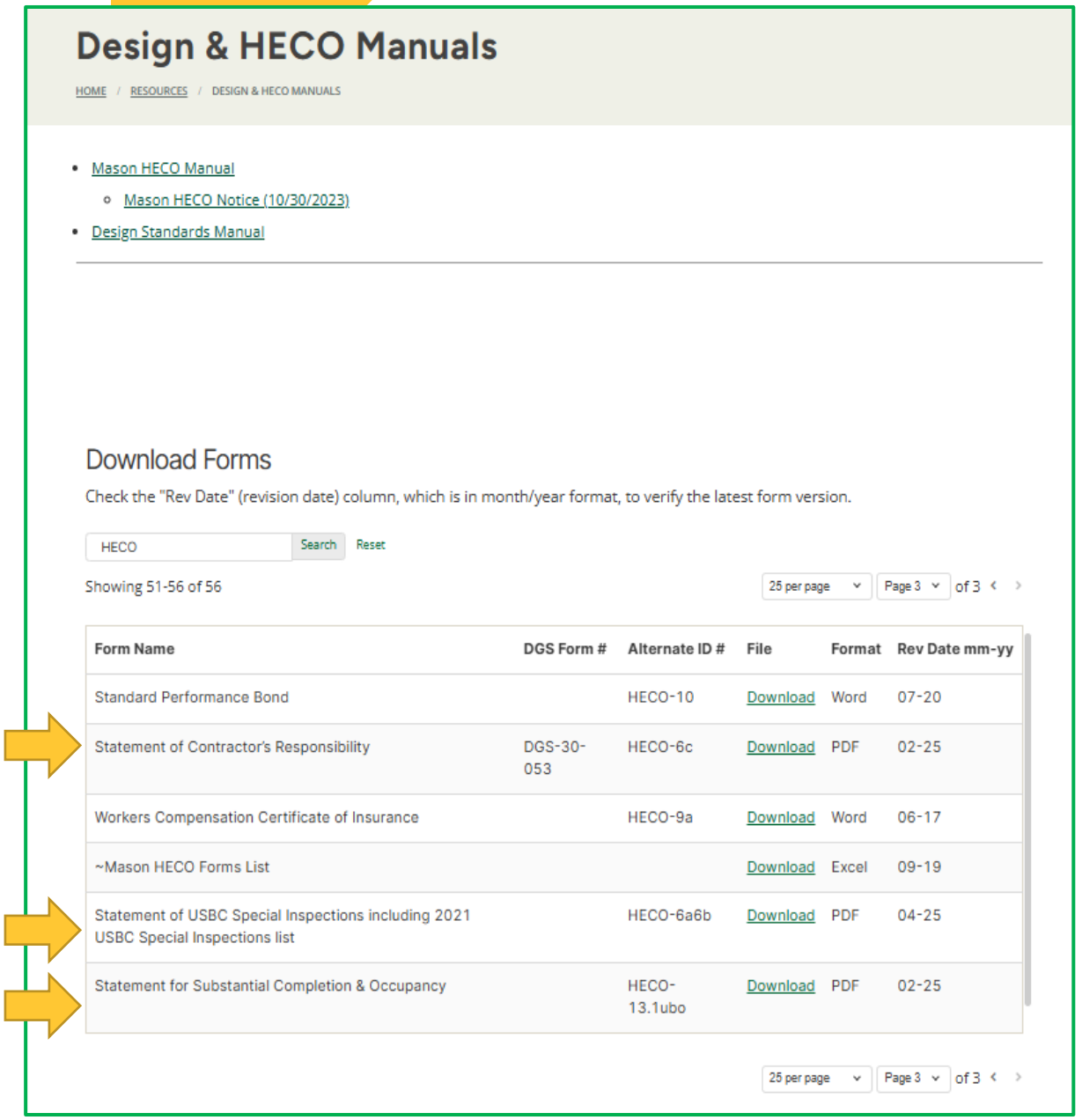
Type	Criteria	
Ground snow load	67 psf	3.21 kN/m^2
Wind: Basic Ultimate (V_{ult})	 90 mph 115 mph	 40 m/s 51 m/s
Frost depth	24 in.	600 mm
Earthquake spectral response acceleration	Ssd (short periods): 0.16 S1d (1-second period): 0.042	
Residential Seismic Design Category	B	
Weathering probability for concrete	severe	
Termite infestation probability	moderate to heavy	
Decay probability	slight to moderate	
Ice shield underlayment required	yes	
Flood hazards (date of entry into National Flood Insurance Program)	3/5/1990	
Winter Design Temperature	17°F	-9°C
Air freezing index	<=1500°F	<=815°C
Mean annual temperature	50°F	10°C

HECO FORMS

- https://oubo.gmu.edu/resources/

University Resources

- OUBO Trimble Unity Construct (formerly e-Builder) Processes
- GMU Temporary Structure Permit Guide
- GMU Design Standards Manual
- GMU HECO/DGS Forms
- GMU Trimble Unity Construct (formerly e-Builder)
- GMU Facilities Planning, Design and Construction
- Executive Vice President of Finance & Administration
- GMU University Leadership
- GMU Board of Visitors
- GMU Campus Maps and Directions
- GMU Capital Strategy and Planning
- Tier III Management Agreement



Design & HECO Manuals

HOME / RESOURCES / DESIGN & HECO MANUALS

- Mason HECO Manual
  - Mason HECO Notice (10/30/2023)
- Design Standards Manual

Download Forms

Check the "Rev Date" (revision date) column, which is in month/year format, to verify the latest form version.

HECO Search Reset

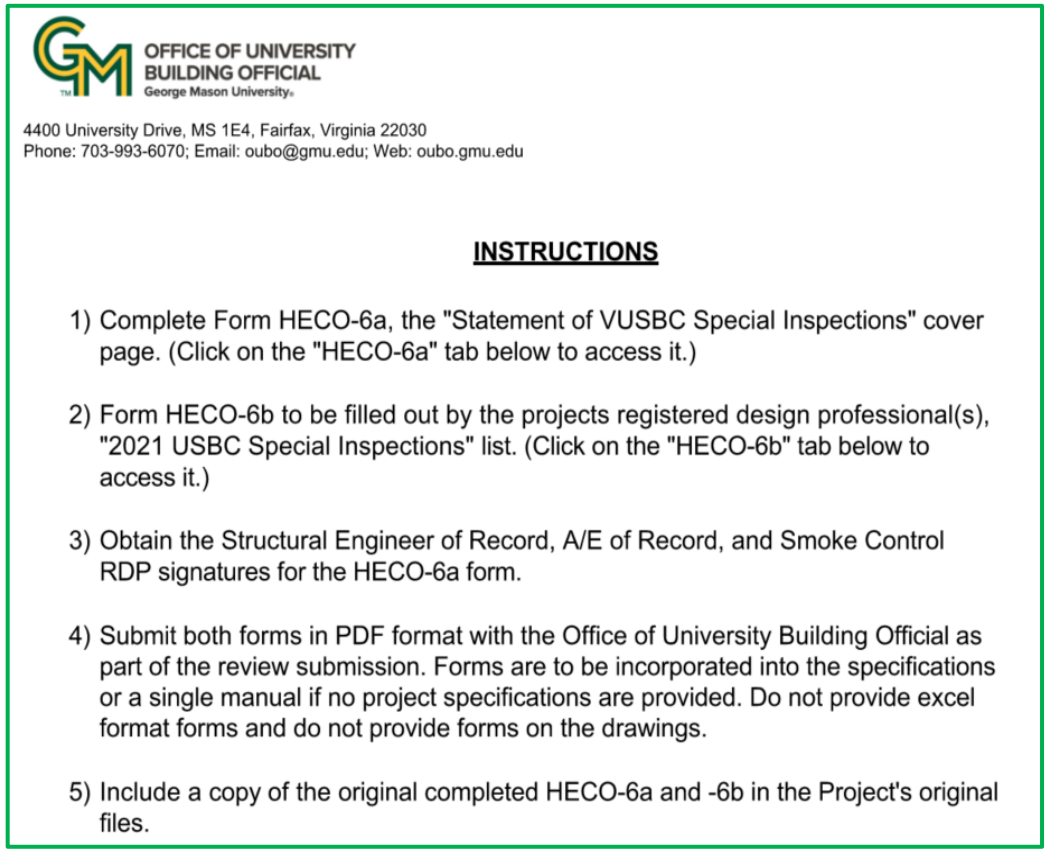
Showing 51-56 of 56 25 per page Page 3 of 3

Form Name	DGS Form #	Alternate ID #	File	Format	Rev Date mm-yy
Standard Performance Bond		HECO-10	Download	Word	07-20
Statement of Contractor's Responsibility	DGS-30-053	HECO-6c	Download	PDF	02-25
Workers Compensation Certificate of Insurance		HECO-9a	Download	Word	06-17
~Mason HECO Forms List			Download	Excel	09-19
Statement of USBC Special Inspections including 2021 USBC Special Inspections list		HECO-6a6b	Download	PDF	04-25
Statement for Substantial Completion & Occupancy		HECO-13.1ubo	Download	PDF	02-25

25 per page Page 3 of 3

INSTRUCTIONS - HECO-6a, -6b, -6c Forms

- FORMS FOR SPECIAL INSPECTIONS AND TESTS
  - VCC Chapter 17 Special Inspections and Tests
- HECO-6a - *STATEMENT OF STRUCTURAL & SPECIAL INSPECTIONS*
  - Cover Page
- HECO-6b – *2021 USBC SPECIAL INSPECTIONS*
  - List of Special Inspections required for project
  - Completed by the RDPs
- HECO-6c – *STATEMENT OF CONTRACTOR'S RESPONSIBILITY*
  - Special inspections for seismic, wind resistance
- **Submit completed and signed forms**
  - PDF format to OUBO with plans for review
  - Include copy in project files



OFFICE OF UNIVERSITY BUILDING OFFICIAL
George Mason University

4400 University Drive, MS 1E4, Fairfax, Virginia 22030
Phone: 703-993-6070; Email: oubo@gmu.edu; Web: oubo.gmu.edu

INSTRUCTIONS

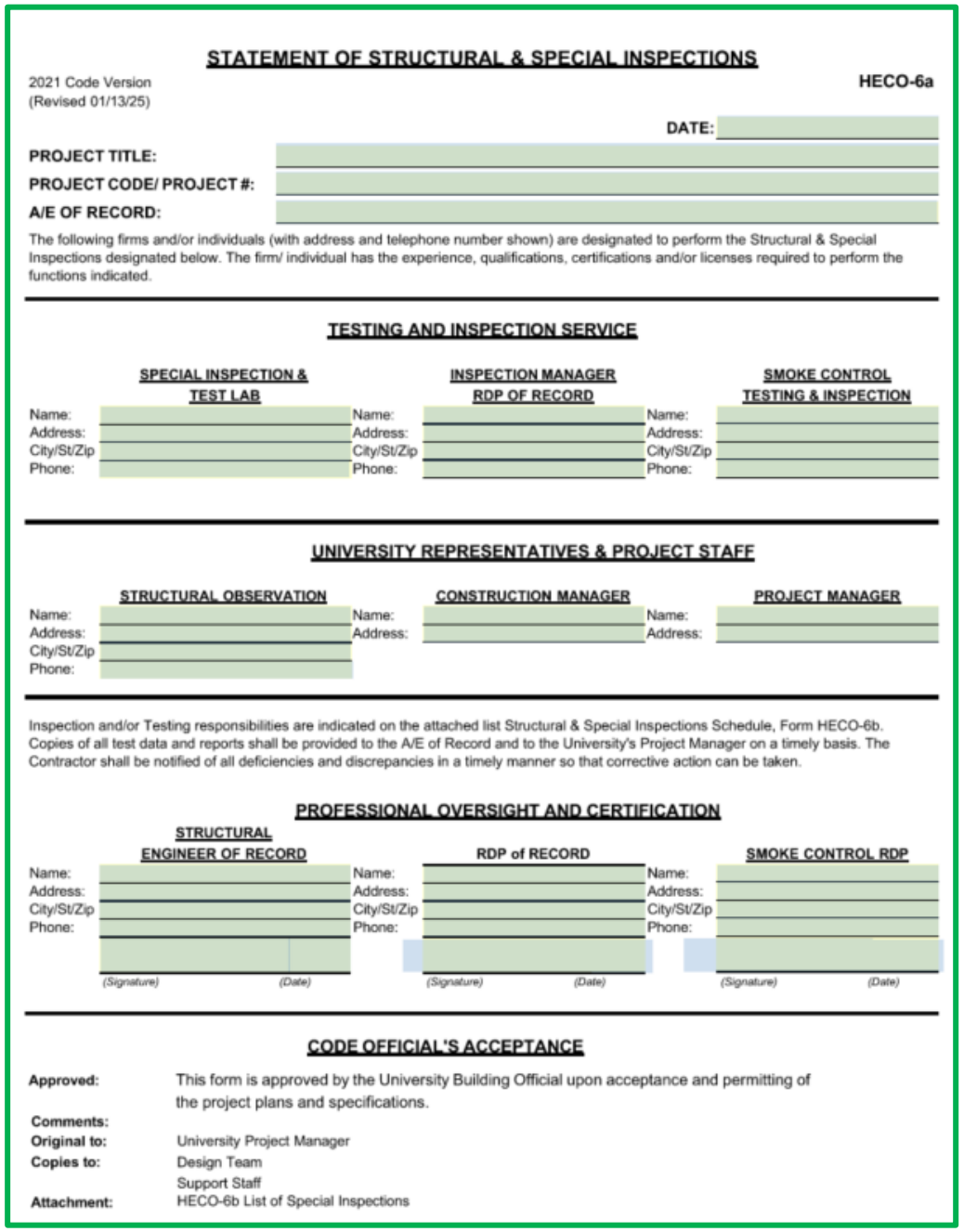
1) Complete Form HECO-6a, the "Statement of VUSBC Special Inspections" cover page. (Click on the "HECO-6a" tab below to access it.)

2) Form HECO-6b to be filled out by the projects registered design professional(s), "2021 USBC Special Inspections" list. (Click on the "HECO-6b" tab below to access it.)

3) Obtain the Structural Engineer of Record, A/E of Record, and Smoke Control RDP signatures for the HECO-6a form.

4) Submit both forms in PDF format with the Office of University Building Official as part of the review submission. Forms are to be incorporated into the specifications or a single manual if no project specifications are provided. Do not provide excel format forms and do not provide forms on the drawings.

5) Include a copy of the original completed HECO-6a and -6b in the Project's original files.



STATEMENT OF STRUCTURAL & SPECIAL INSPECTIONS

2021 Code Version
(Revised 01/13/25)

HECO-6a

DATE:

PROJECT TITLE:

PROJECT CODE/ PROJECT #:

A/E OF RECORD:

The following firms and/or individuals (with address and telephone number shown) are designated to perform the Structural & Special Inspections designated below. The firm/ individual has the experience, qualifications, certifications and/or licenses required to perform the functions indicated.

TESTING AND INSPECTION SERVICE

	SPECIAL INSPECTION & TEST LAB	INSPECTION MANAGER RDP OF RECORD	SMOKE CONTROL TESTING & INSPECTION
Name:			
Address:			
City/St/Zip			
Phone:			

UNIVERSITY REPRESENTATIVES & PROJECT STAFF

	STRUCTURAL OBSERVATION	CONSTRUCTION MANAGER	PROJECT MANAGER
Name:			
Address:			
City/St/Zip			
Phone:			

Inspection and/or Testing responsibilities are indicated on the attached list Structural & Special Inspections Schedule, Form HECO-6b. Copies of all test data and reports shall be provided to the A/E of Record and to the University's Project Manager on a timely basis. The Contractor shall be notified of all deficiencies and discrepancies in a timely manner so that corrective action can be taken.

PROFESSIONAL OVERSIGHT AND CERTIFICATION

	STRUCTURAL ENGINEER OF RECORD	RDP of RECORD	SMOKE CONTROL RDP
Name:			
Address:			
City/St/Zip			
Phone:			
	(Signature) (Date)	(Signature) (Date)	(Signature) (Date)

CODE OFFICIAL'S ACCEPTANCE

Approved: This form is approved by the University Building Official upon acceptance and permitting of the project plans and specifications.

Comments:

Original to: University Project Manager

Copies to: Design Team
Support Staff

Attachment: HECO-6b List of Special Inspections

HECO-6a

- ***STATEMENT OF STRUCTURAL & SPECIAL INSPECTIONS***
  - Identifies qualified firms, individuals:
    - Inspection and testing services
    - University representatives
    - Registered Design Professionals (RDP)
  - Requires signatures of:
    - Structural Engineer of Record
    - RDP of Record
    - Smoke Control RDP

A Permit will not be issued without a completed form after the CO-9NP.

HECO-6b – 2021 VUSBC SPECIAL INSPECTIONS

- Page Headings
  - Types of Inspections, Reference columns updated for 2021 VCC; including
    - Contractor Responsibility
    - Deep Foundations
    - Mass Timber
  - Inspection/Test By columns simplified

- Page Headings (ctd)
  - RDP add lines, columns, notes as needed for other required items
  - Indicate (Yes) only if Required This Project
  - Indicate who is required to perform the inspection or test
  - Indicate if Continuous (Periodic)

2021 VUSBC SPECIAL INSPECTIONS **HECO-6b**

2021 Code Version
(Revised 01/13/25)

Project Title:
Project Code/ Project #:

MATERIAL/ ACTIVITY	TYPE OF INSPECTION (RDP add lines as needed to identify other required items)	REQ'D THIS PROJ? (Yes)	REFERENCE	INSPECTION / TEST BY: SPECIAL INSPECTOR/ TEST LAB	RDP OF RECORD	OTHER:	OTHER:	OTHER:
STEEL CONSTRUCTION								
Fabricator	Quality Control Inspection Of Shop	YES	VCC 1704.2.5	X (Periodic)	2			
Steel	Welding	YES	AISC 360-16 N5.1	X (Periodic)				
Steel	High Strength Bolting	YES	AISC 360-16 N5.1	X (Periodic)				
Steel	Galvanized structural steel		AISC 360-16 N5.1	X (Periodic)				
Decking	Cold Form Steel Decking	YES	VCC 1705.2.2	X (Periodic)				
Joist	1a open web joist and joist girders end connections.	YES	VCC T1705.2.3	X (Periodic)	2			
Joist	1b1 open web joist and joist girder standard bridging.	YES	VCC T1705.2.3	X (Periodic)	2			
Joist	1b2 open web joist and joist girder other bridging.		VCC T1705.2.3	X (Periodic)	2			
Trusses	Cold form steel trusses, span >60 feet		VCC 1705.2.4	X (Periodic)	2			

HECO-6b – 2021 VUSBC SPECIAL INSPECTIONS

- **Masonry Construction Quality Assurance Levels**
  - QA Levels updated per TMS 402/602
  - Inspection requirements listed for each level
  - Indicate QA Level, required inspections

MASONRY CONSTRUCTION				Level 1	Level 2	Level 3
Assurance Level	Indicate Quality Assurance Level (1, 2, 3)		TMS 402 3.1			
Masonry - Verify	Verification of compliance of submittals.		TMS 602 1.6 Table 3	Required	Required	Required
Masonry - Verify	Verify f'm and f'AAC.		TMS 602 1.6 Table 3	Not Required	Required	Required
Masonry - Verify	Verify slump flow and Visual Stability Index for self-consolidating grout.		TMS 602 1.6 Table 3	Not Required	Required	Required
Masonry - Verify	Verfiy f'm and f'AAC, for every 5,000 sq.ft.		TMS 602 1.6 Table 3	Not Required	Not Required	Required
Masonry - Verify	Verify proportions as delivered to the project site.		TMS 602 1.6 Table 3	Not Required	Not Required	Required
Masonry - Inspect	1a Proportions of site-prepared mortar.		TMS 602 1.6 Table 4	Not Required	Periodic	Periodic
Masonry - Inspect	1b Grade and size of prestressing tendons and anchorage.		TMS 602 1.6 Table 4	Not Required	Periodic	Periodic
Masonry - Inspect	1c Grade, type and size of reinforcement, connectors, anchor bolts, and prestresssing tendons and anchorage.		TMS 602 1.6 Table 4	Not Required	Periodic	Periodic
Masonry - Inspect	1d Prestressing technique		TMS 602 1.6 Table 4	Not Required	Periodic	Periodic
Masonry - Inspect	1e Properties of thin-bed mortar for AAC masonry		TMS 602 1.6 Table 4	Not Required	C/P	Continuous
Masonry - Inspect	1f sample panel construction		TMS 602 1.6 Table 4	Not Required	Periodic	Continuous

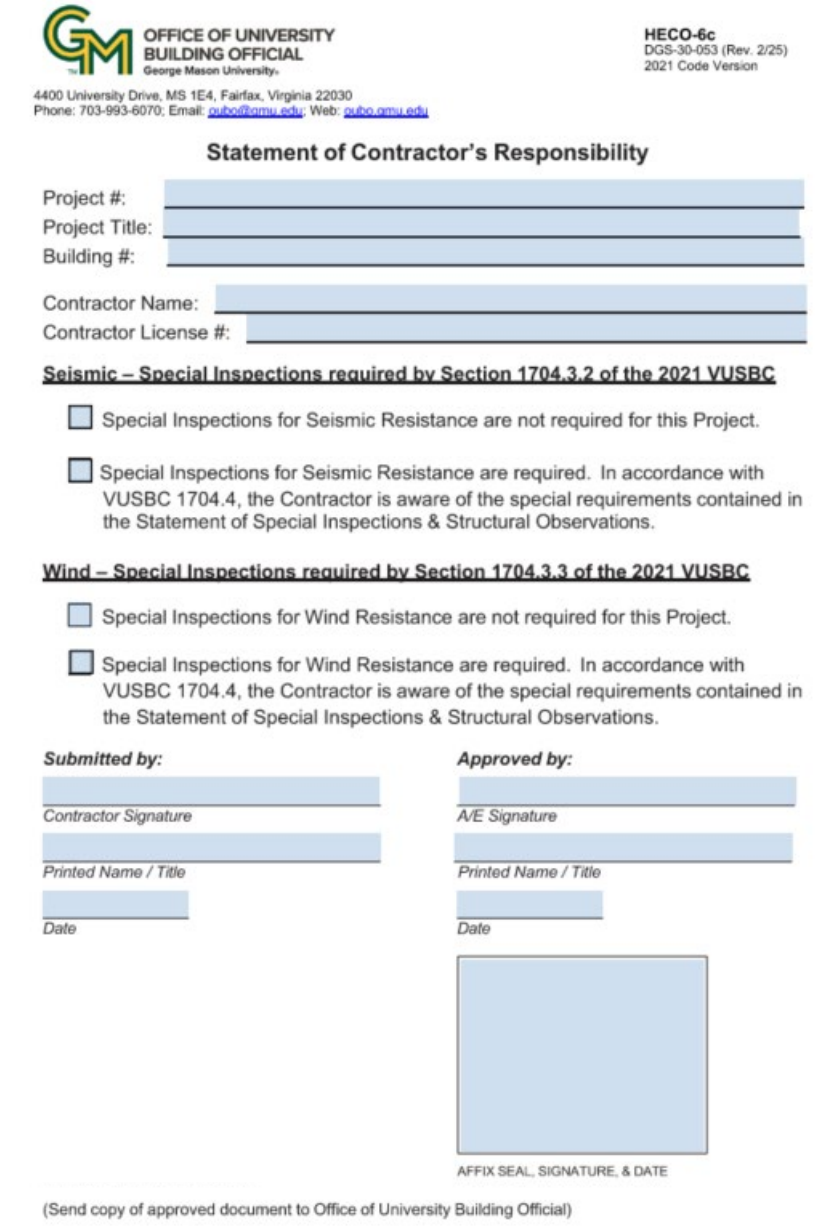
HECO-6b – 2021 VUSBC SPECIAL INSPECTIONS

- Contractor Responsibility (added)
  - Where required by VCC 1704.4 for seismic or wind resistance systems or components
  - Contractor completes and submits HECO-6c prior to construction
- Structural Observations
  - Where required by VCC 1704.6.1, the RDP or the OUBO
  - Structural Observer submits written statements to the OUBO as required by VCC 1704.6

MATERIAL/ ACTIVITY	TYPE OF INSPECTION (RDP add lines as needed to identify other required items)	REQ'D THIS PROJ? (Yes)	REFERENCE	INSPECTION / TEST BY				
				SPECIAL INSPECTOR/ TEST LAB	RDP OF RECORD	OTHER:	OTHER:	OTHER:
CONTRATOR RESPONSIBILITY (see note 8)						**Contractor**		
Structure	Special inspections for Wind Resistance and/or Seismic resistance.		VCC 1704.6	X		8		
STRUCTURAL OBSERVATIONS (see note 7)								
Structure	Structural observations for structures as identified by the structural observer in a written statement.		VCC 1704.6		X (C/P)			

HECO-6c – STATEMENT OF CONTRACTOR'S RESPONSIBILITY

- Where HECO-6b requires Special Inspections for *seismic and/or wind resistance*, Contractor completes, signs and submits HECO-6c to the OUBO prior to construction
- Form indicates the Contractor's awareness of the special requirements
- RDP or A/E approve, sign and seal the completed form
- If HECO-6b does not require such special inspections, the HECO-6c form is not required



OFFICE OF UNIVERSITY BUILDING OFFICIAL
George Mason University

4400 University Drive, MS 1E4, Fairfax, Virginia 22030
Phone: 703-993-6070; Email: oubo@gmu.edu; Web: oubo.gmu.edu

HECO-6c
DGS-30-053 (Rev. 2/25)
2021 Code Version

Statement of Contractor's Responsibility

Project #:
Project Title:
Building #:

Contractor Name:
Contractor License #:

Seismic – Special Inspections required by Section 1704.3.2 of the 2021 VUSBC

☐ Special Inspections for Seismic Resistance are not required for this Project.

☐ Special Inspections for Seismic Resistance are required. In accordance with VUSBC 1704.4, the Contractor is aware of the special requirements contained in the Statement of Special Inspections & Structural Observations.

Wind – Special Inspections required by Section 1704.3.3 of the 2021 VUSBC

☐ Special Inspections for Wind Resistance are not required for this Project.

☐ Special Inspections for Wind Resistance are required. In accordance with VUSBC 1704.4, the Contractor is aware of the special requirements contained in the Statement of Special Inspections & Structural Observations.

Submitted by:

Contractor Signature

Printed Name / Title

Date

Approved by:

A/E Signature

Printed Name / Title

Date

AFFIX SEAL, SIGNATURE, & DATE

(Send copy of approved document to Office of University Building Official)

HECO-13.1b

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George Mason University

4400 University Drive, MS 1E4, Fairfax, Virginia 22030
Phone: 703-993-6070; Email: oubo@gmu.edu; Web: oubo.gmu.edu

HECO-13.1b
2021 Code Version
(Revised 01/13/25)

FINAL REPORT OF STRUCTURAL AND SPECIAL INSPECTIONS

DATE: _____

PROJECT TITLE: _____

PROJECT NUMBER: _____

A/E OF RECORD: _____

To the best of my information, knowledge, and belief, the Structural & Special Inspections required for this project, and itemized on the Form HECO-6b, Special Inspections listing attached to the FORM HECO-6a, Statement of Structural and Special Inspections, submitted for permit, have been completed.

The discrepancies that remain outstanding since the last interim report, dated _____, have been corrected or resolved as noted in the attached pages.

Respectfully submitted,

STRUCTURAL ENGINEER OF RECORD

Signature: _____

Date: _____

RDP OF RECORD

Signature: _____

Date: _____

SMOKE CONTROL RDP

Signature: _____

Date: _____

STRUCTURAL OBSERVER

Signature: _____

Date: _____

Download Forms

Check the "Rev Date" (revision date) column, which is in month/year format, to verify the latest form version.

13.1 Search Reset

Showing 1-8 of 8

25 per page

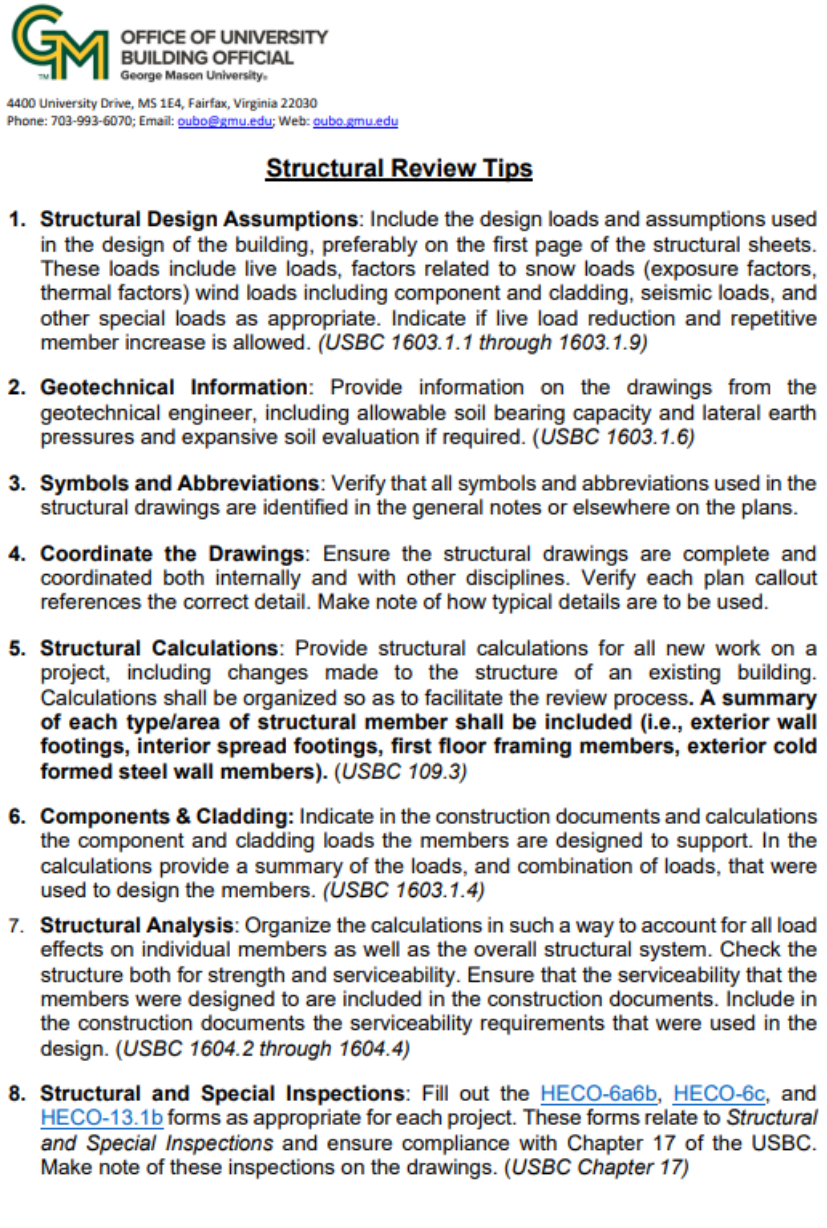
Form Name	DGS Form #	Alternate ID #	File	Format	Rev Date mm-yy
A/E's Certificate of Substantial Completion		HECO-13.1a	Download	Word	06-17
Additional Financial and Insurance Requirements for Self-Bonding		HECO-16 Attachment B	Download	Word	09-18
Certificate of Completion by A/E or Project Mgr		HECO-13.1	Download	Word	11-18
Certificate of Completion of a Communication Tower/Antenna by A/E or PM		HECO-13.1-twr	Download	Word	02-19
Certificate of Partial or Substantial Completion by Inspector, Project Manager, or Construction Administrator		HECO-13.1c	Download	Word	08-23
Final Report of Structural & Special Inspections		HECO-13.1b	Download	PDF	02-25

OUBO Web Resources

- Structural-Review-Tips-rev.2.25.pdf

  10.Delegated Design Items & Deferred Submittals: Provide sufficient information on the plans and specifications for the design and/or procurement of structural systems not detailed on the plans. Delegated designs shall be performed by an engineer licensed in the Commonwealth of Virginia, be reviewed by the Engineer of Record, and be approved by the OUBO prior to installation. Provide a list of all delegated designs on the cover sheet for the project

- Codes & Design Criteria – Office of University Building Official
- Microsoft Word - Mason HECO Manual - 2023 V2.0



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George Mason University

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Phone: 703-993-6070; Email: oubo@gmu.edu; Web: oubo.gmu.edu

Structural Review Tips

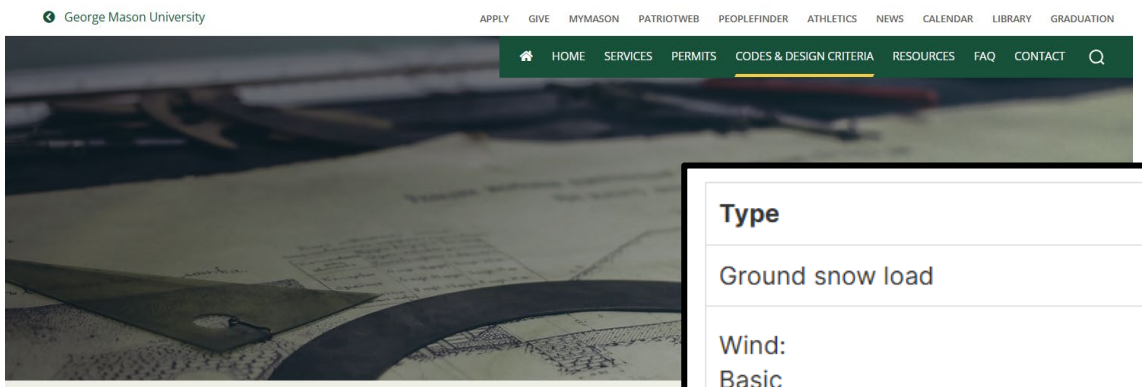
1. **Structural Design Assumptions**: Include the design loads and assumptions used in the design of the building, preferably on the first page of the structural sheets. These loads include live loads, factors related to snow loads (exposure factors, thermal factors) wind loads including component and cladding, seismic loads, and other special loads as appropriate. Indicate if live load reduction and repetitive member increase is allowed. *(USBC 1603.1.1 through 1603.1.9)*
2. **Geotechnical Information**: Provide information on the drawings from the geotechnical engineer, including allowable soil bearing capacity and lateral earth pressures and expansive soil evaluation if required. (*USBC 1603.1.6)*
3. **Symbols and Abbreviations**: Verify that all symbols and abbreviations used in the structural drawings are identified in the general notes or elsewhere on the plans.
4. **Coordinate the Drawings**: Ensure the structural drawings are complete and coordinated both internally and with other disciplines. Verify each plan callout references the correct detail. Make note of how typical details are to be used.
5. **Structural Calculations**: Provide structural calculations for all new work on a project, including changes made to the structure of an existing building. Calculations shall be organized so as to facilitate the review process**. A summary of each type/area of structural member shall be included (i.e., exterior wall footings, interior spread footings, first floor framing members, exterior cold formed steel wall members).** (*USBC 109.3)*
6. **Components & Cladding:** Indicate in the construction documents and calculations the component and cladding loads the members are designed to support. In the calculations provide a summary of the loads, and combination of loads, that were used to design the members. *(USBC 1603.1.4)*
7. **Structural Analysis**: Organize the calculations in such a way to account for all load effects on individual members as well as the overall structural system. Check the structure both for strength and serviceability. Ensure that the serviceability that the members were designed to are included in the construction documents. Include in the construction documents the serviceability requirements that were used in the design. (*USBC 1604.2 through 1604.4)*
8. **Structural and Special Inspections**: Fill out the HECO-6a6b, HECO-6c, and HECO-13.1b forms as appropriate for each project. These forms relate to *Structural and Special Inspections* and ensure compliance with Chapter 17 of the USBC. Make note of these inspections on the drawings. (*USBC Chapter 17)*

Rev. 2/25

1

GEORGE MASON UNIVERSITY

Office of University Building Official



Codes & Design Criteria

HOME / RESOURCES / CODES & DESIGN CRITERIA

George Mason University is required to enforce the Virginia Uniform Statewide Building C
(SFPC). These codes are administered by the Virginia Department of Housing and Commu
Codes as published by the International Code Council. Periodic amendments are utilized
standards.

- **2021 Virginia State Building Codes**
- **Virginia DHCD Building and Fire Codes Overview**
- **National Fire Protection Association**

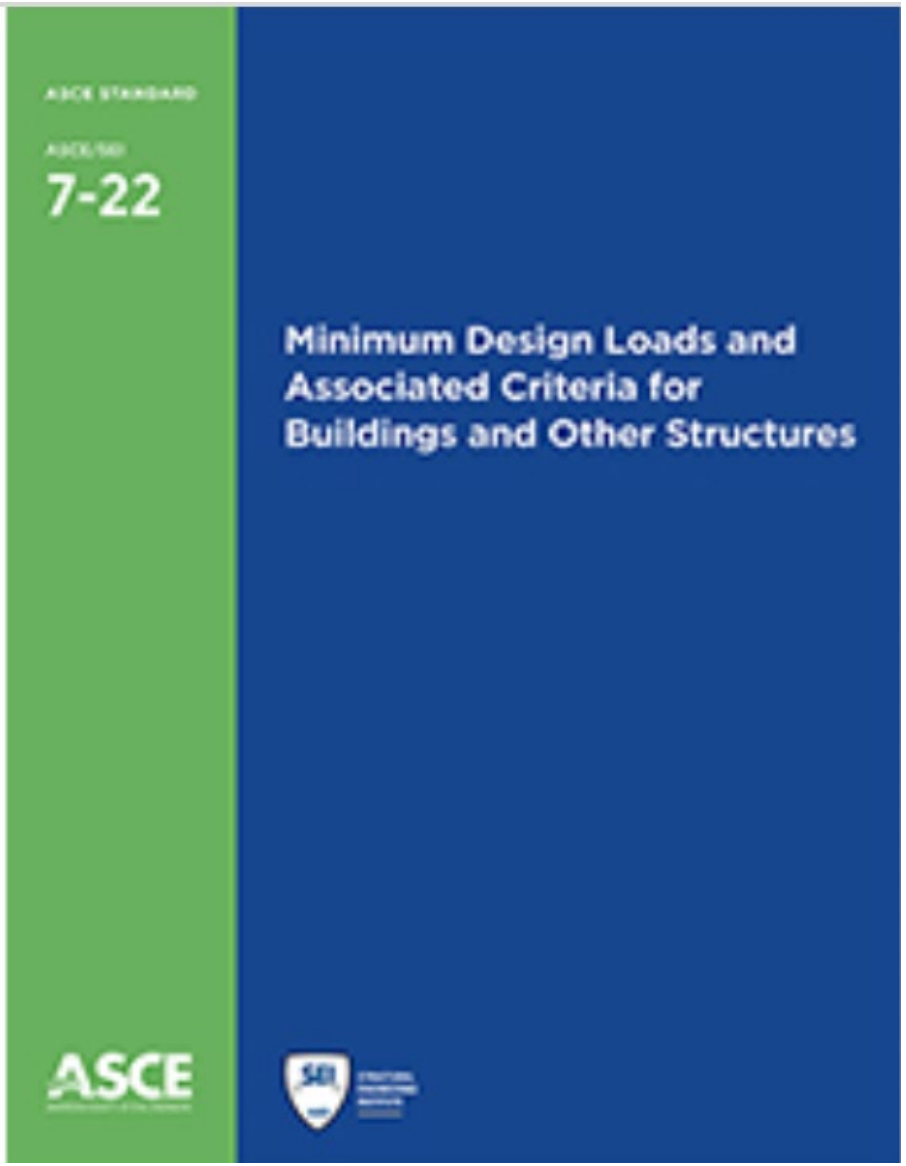
The following load criteria are based on **Chapter 16 of the Virginia Constructions Code**,
Residential Code.

ASCE 7 – 22 MINIMUM DESIGN LOADS (RISK CATEGORY II)

Type	Criteria	
Ground snow load	67 psf	3.21 kN/m^2
Wind: Basic Ultimate (V_{ult})	 90 mph 115 mph	 40 m/s 51 m/s
Frost depth	24 in.	600 mm
Earthquake spectral response acceleration	Ssd (short periods): 0.16 S1d (1-second period): 0.042	
Residential Seismic Design Category	B	
Weathering probability for concrete	severe	
Termite infestation probability	moderate to heavy	
Decay probability	slight to moderate	
Ice shield underlayment required	yes	
Flood hazards (date of entry into National Flood Insurance Program)	3/5/1990	
Winter Design Temperature	17°F	-9°C
Air freezing index	<=1500°F	<=815°C
Mean annual temperature	50°F	10°C

ASCE 7 Minimum Design Loads

- VCC Code Cycles
  - 2018 VCC: ASCE 7-16
  - 2021 VCC: ASCE 7-22
- ASCE 7-22 compared to 7-16
  - 7-22 Snow loads significantly higher, vary by Risk Category
  - Load combinations differ
  - Do not intermix standards
  - VCC 2021 ground snow loads (Figures 1608.2) are based on lower ASCE 7-16 values
- Use GMU Design Criteria
  - Check ASCE Hazard Tool for Risk Categories III, IV



HECO Manual

- **8.8.7 Working Drawings:** Shall show or provide the following information

Structural Drawings:

2. Show design live loads, wind loads, and seismic criteria used for design of structural systems per USBC Section 1603.

- 1603.1.4 Wind and tornado design data
  - Indicate applicable design wind pressures and their applicable zones for exterior component and cladding (C&C) materials not specifically designed by the RDP responsible for the design of the structure

- Indicate applicable dead loads (VCC 1606) and live loads (VCC 1607) for the project
  - 1606.3 Weight of fixed service equipment, including the maximum weight of the contents of fixed service equipment, shall be included.
  - 1607.3 Uniform live loads shall be the maximum loads expected by the intended use or occupancy but shall not be less than the minimum uniformly distributed live loads given in Table 1607.1.
  - 1607.4 Concentrated live loads.
  - 1607.9 Handrails and guards shall be designed and constructed for the structural loading conditions set forth in Section 1607.9.1. Grab bars, shower seats and accessible benches shall be designed and constructed for the structural loading conditions set forth in Section 1607.9.2.

HECO Manual

- **8.8.7 Working Drawings:** Shall show or provide the following information

Structural Drawings:

11. Details of connections to existing buildings, if applicable.

- 8.8.1.1 Verification of Existing Conditions: The A/E shall visit the site and ascertain pertinent local conditions that must be addressed in the design. . . to verify, by on-site observations of applicable existing buildings . . . the conditions accessible for verification.

- VCC 1901.3 Anchoring to concrete.
  - Anchoring to concrete shall be in accordance with ACI 318, Chapter 17.
  - Indicate anchor bolt quantity, type, material, size and embedment depth
  - The size and thickness of the existing concrete slab shall be sufficient to provide anchorage embedment and edge distances as required by the anchor manufacturer

- VCC 2304.10.6 Fasteners and connectors in contact with preservative-treated and fire-retardant-treated wood shall be in accordance with this Section.

Interior Walls, Partitions

- **VCC 1607.16 Interior walls and partitions.**
  - *Interior walls and partitions that exceed 6 feet in height, including their finish materials, shall have adequate strength and stiffness to resist the loads to which they are subjected but not less than a horizontal load of 5 psf.*
- Indicate Basis of Design for interior walls and partitions.
  - Light-gauge metal framing (cold-formed steel) design for structural and non-structural members shall be in accordance with VCC Sections 2210 and 2211
  - Specify framing member size and grade, connections and fasteners
    - Alternatively, list light gauge metal framing as delegated design

B. Documents to be sealed.

1. All final documents, including cover sheet of plans, plats, documents, drawings, technical reports, and specifications, and each sheet of plans or plats, or drawings prepared by the professional, or someone under his direct control and personal supervision, shall be sealed, signed, and dated by the professional. All final documents shall also bear the professional's name or firm name, address, and project name.

2. For projects involving multiple professional services in the same project, each professional shall seal, sign, and date the final documents for the work component that he completed or that was completed under his direct control and personal supervision. The professional responsible for the compilation of the project shall seal, sign, and date the cover sheet of the aggregate collection of final documents for the project.

F. The original seal shall conform in detail and size to the design illustrated in this subsection and shall be two inches in diameter. The designs illustrated may not be shown to scale:

D. A regulant who has knowledge that any person may have violated or may currently be violating any of these provisions, or the provisions of Chapters 7 (§ 13.1-542.1 et seq.) and 13 (§ 13.1-1100 et seq.) of Title 13.1 or Chapters 1 (§ 54.1-100 et seq.) through 4 (§ 54.1-400 et seq.) of Title 54.1 of the Code of Virginia, shall inform the board in writing and shall cooperate in furnishing any further information or assistance that may be required by the board or any of its agents.

HECO 13.1-UBO

OFFICE OF UNIVERSITY BUILDING OFFICIAL
George Mason University
4400 University Drive, MS 1E4, Fairfax, Virginia 22030
Phone: 703-993-6070; Email: oubo@gmu.edu; Web: oubo.gmu.edu

STATEMENT FOR SUBSTANTIAL COMPLETION & OCCUPANCY

Date: _____

To: Office of University Building Official
George Mason University
4400 University Drive, MSN 1E4
Fairfax, Virginia 22030

PROJECT TITLE: _____
PROJECT NO: _____

In accordance with the requirements of the Contract between the University and the A/E, and the knowledge gained through performance of the A/E Services provided and the reports of the University's CFR and testing entities, the undersigned hereby states that portions of this Project are Substantially Complete in accordance with the requirements of the Contract Documents.

☐ Full Scope
☐ Partial Scope

All applicable tests, certificates, and regulatory inspections required by the Virginia Uniform Statewide Building Code (USBC) for this Project, have been performed with respect to the Substantially Complete portions of the Project.

Verification of Completion by A/E of Record

A copy of the HECO-13.1b Final Report of Structural & Special Inspections is attached to this certificate.

☐ Yes ☐ Not Required

A copy of the HECO-13.3b AE Checklist for Beneficial Occupancy is attached to this certificate.

☐ Yes ☐ Not Required

A copy of the Testing and Air Balancing (TAB) Report approved by the engineer of record is attached to this certificate or pending future submission before permit close-out.

☐ Yes ☐ Pending submission ☐ Not Required

VEES documentation (if VEES is compliance method selected to meet High Performance Buildings Act

☐ Yes ☐ Pending submission ☐ Not Required

A copy of the ASHRAE 110 Test for Fume Hoods and Verification is attached to this certificate or pending future submission with the TAB report before permit close-out.

☐ Yes ☐ Pending submission ☐ Not Required

A/E Firm Name: _____
Printed Name: _____
Signature: _____
Date: _____

Verification of Completion by Contractor

A copy of the NFPA 13 Test Certificate Form(s) is attached to this certificate.

☐ Yes ☐ Not Required Contractor's Material and Test Certificate for Underground Piping
☐ Yes ☐ Not Required Contractor's Material and Test Certificate for Aboveground Piping

A copy of the NFPA 72 Record of Completion Form is attached to this certificate.

☐ Yes ☐ Pending submission ☐ Not Required

General Contractor: _____
Printed Name: _____
Signature: _____
Date: _____

Verification of Completion by CFR and Project Manager

A copy of the Roofing Inspector's Final Report is attached to this certificate.

☐ Yes ☐ Not Required

GMU CFR: _____
Printed Name: _____
Signature: _____
Date: _____

GMU Project Manager: _____
Printed Name: _____
Signature: _____
Date: _____

Plan Review

oubo.gmu.edu/services/plan-review/

Plan Review

HOME / SERVICES / PLAN REVIEW

Project managers can submit drawings to the OUBO in e-Builder by starting the **OUBO Plan Review (UBOPL)** process.

Constructions documents will be reviewed to ensure conformance with applicable Federal, State and University Codes and Standards.

- 5 Business Days – Schematic Drawings, Concept Evaluations
- 10 Business Days – Preliminary Drawings
- 15 Business Days – Working Drawings, Shop Drawings

Documents must conform to the following:

- Building Codes
- Facilities Design Guidelines
- HECOM

Submission Requirements:

- GMU Fire Alarm Shop Submission Requirements
- GMU Fire Sprinkler Shop Submission Requirements

Tips to Avoid Common Review Errors

- Plan Review Tips
- Administrative Plan Review Tips
- Architectural Review Tips
- Electrical Review Tips

Trimble Unity Construct

OUBO Plan Review (UBOPL)

Start Process

Project:	zzz OUBO Test Project
Project Number:	Z912345
Process:	OUBO Plan Review

Details | Documents (0) | Attached Processes (0) | Attached Forms (0)

Expand All | Collapse All

Instructions

For more details, please go to Plan Review.

For a project with multiple buildings, submit a plan review process for each building separately.

Tips to Avoid Common Review Errors

- Plan Review Checklist
- Administrative Plan Review Tips
- Architectural Review Tips
- Electrical Review Tips
- Fire Safety Review Tips
- Fire Alarm Review Tips
- Fire Sprinkler Review Tips
- Mechanical Review Tips
- Structural Review Tips

Trimble Unity Construct

- Structural Review Tips

* Estimated Construction Start:

* Estimated Construction End:

* Building: -- Please select an option --

* Drawing Type: Concept/Re-evaluation

* Drawing Requirements:

All items listed must be included on the drawings for OUBO review.

- ☐ Project Name and Project Number clearly identified and correct on all submitted drawings.
- ☐ Designer name, address, and contact information clearly identified on all submitted drawings.
- ☐ Submission date clearly identified on all submitted drawings.
- ☐ View title and drawing scale clearly identified on all submitted drawings (where applicable).
- ☐ A/E Seal signed, dated, and applied to all submitted drawings (when required).
- ☐ Drawing Submission Type is clearly identified (Schematic Drawings, Preliminary Drawings, Working Drawings, etc.)

* Drawings: *Drag and drop file here* or **Browse Computer** **Browse e-Builder**

Project Manual: *Drag and drop file here* or **Browse Computer** **Browse e-Builder**

* Are there special inspections required?: If yes, please provide the CO6a and 6b. -- Please select an option --

Statement of VUSBC Special Inspections (CO-6a and 6b): Download File *Drag and drop file here* or **Browse Computer** **Browse e-Builder**

* Is this a roofing project?: If yes, please provide the roofing survey. -- Please select an option --

Roofing Survey: *Drag and drop file here* or **Browse Computer** **Browse e-Builder**

Plan Review

CHAPTER 8:
PROJECT DESIGN STANDARDS AND REQUIREMENTS

SECTION 8.1 GENERAL

The Contract Documents submitted shall represent a reasonable and cost effective architectural and engineering solution for the scope of work and construction budget constraints in the A/E contract.

All elements of submittals shall be checked by the A/E and such check should be made by persons other than those preparing the materials and by professional personnel trained in that specific discipline. Errors and deficiencies shall be corrected by the A/E at no additional cost to the University.

The A/E shall perform a quality assurance review for both the technical accuracy and discipline coordination. Such items as section, detail, and note references to other sheets, major dimensions, and equipment locations shall be checked. Verify that all equipment is correctly identified the same way on all sheets and in the specifications. Existing landscape and utility conditions shall be overlaid with proposed utilities locations and site improvements. Architect to indicate all vents, penetrations, stacks, equipment, etc. on elevations.

SECTION 8.2 DRAWING STANDARDS

The following clarifies the requirements, standards, and expectations applicable to drawings prepared for bidding and construction on state projects:

8.2.1 General Requirements: The Title sheet(s) shall clearly indicate the following:

1. Project Title and project code
2. Activity or function(s) to be performed in the facility
3. Version (date) of USBC on which the design is based
4. Other major code used as a basis for design
5. Use Group classification(s)
6. Maximum USBC occupancy for each level and total for building
7. USBC classification of construction type
8. Area for each floor and entire building; volume of building
9. Location and Vicinity Maps;
10. Seals of the responsible Architect and Engineers, signed and dated
11. Indicate the number of beds (dormitory or hospital), fixed seats (auditorium) or parking spaces (parking deck), and other information relating to capacity of the facility as applicable.
12. Provide a master listing of all applicable abbreviations and symbols used in the set of drawings or provide a listing of all common abbreviations and symbols at the beginning of the drawings and provide a listing of the discipline specific abbreviations and symbols at the beginning of each discipline.
13. Building floor plans and drawings for all disciplines shall be oriented the same to avoid confusion and to facilitate overlaying of drawings.

Plan Review

8.2.2 Drawing Requirements & Specifications:

8.2.2.1 Arrangement of Drawings: Drawings shall be arranged in the following order with the discipline identifying character shown:

G - Title Sheet, Index, Code Compliance, and Life Safety Drawings
C - Plot and/or Site plans
C - Sanitary and Civil
B - Boring logs
L - Landscaping
D - Demolition
A - Architectural
S - Structural
FA – Fire Alarm
FX – Fire Suppression, Standpipes, and Accessories
P - Plumbing
M - Mechanical (heating, cooling, ventilation, etc.)
E - Electrical
R - Asbestos Abatement
T–Telecom/AV
AC – Access Controls (Access Controls, Cameras, and Alarm Systems)

8.2.2.2 Sizes of Drawing Sheets: Drawing sheet size, except in special cases approved by the University Project Manager, shall be 24" by 36" (preferred) or, alternatively, 30" by 42". Drawings shall be prepared so as to be suitable for optical scanning and for making clear, legible half-size reproductions.

STATEMENTS

ASBESTOS STATEMENT

AN ASBESTOS INSPECTION WAS PERFORMED AND NO ASBESTOS-CONTAINING MATERIALS WERE FOUND. THE ASBESTOS SURVEY/INSPECTION REPORT IS AVAILABLE TO THE CONTRACTOR(S) FOR DEMOLITION AND FOR CONSTRUCTION FOR HIS INFORMATION.

LEAD STATEMENT

A LEAD-BASED PAINT INSPECTION WAS PERFORMED AND NO LEAD-BASED PAINT WAS FOUND IN THE AREAS INDICATED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLIANCE WITH ALL REQUIREMENTS OF THE VIRGINIA OCCUPATIONAL AND HEALTH ADMINISTRATION REGULATIONS REGARDING LEAD-BASED PAINT PROTECTION FOR WORKERS.

HIGH PERFORMANCE BUILDING ACT STATEMENT

IN ACCORD WITH THE HIGH PERFORMANCE BUILDINGS ACT, THE BUILDING IS EXEMPT FROM COMPLIANCE BECAUSE THE RENOVATED BUILDING AREA IS NOT GREATER THAN 5,000 GROSS SQUARE FEET.

QUALITY CONTROL / ASSURANCE STATEMENT

A QUALITY CONTROL / QUALITY ASSURANCE CHECK HAS BEEN MADE ON THIS PROJECT'S DOCUMENTS AND CORRECTIONS HAVE BEEN MADE. THE UNDERSIGNED STATES THAT THESE PLANS AND SPECIFICATIONS SUBMITTED FOR REVIEW ARE COMPLETE AND READY FOR BIDDING.

SIGNED: Kate Strickland
Architect or Engineer of Record Name

Required Documents

Trimble Unity Construct

* Project Required Documents:

- [ ] No Required Documents
- [ ] ---BUILDING ---
- [ ] Elevator inspection completed and Certificate of Use
- [ ] Final Report of Special Inspections (HECO 13.1b) including all reports numbered sequentially.
- [ ] Roofing Completion Report (HECO Appendix G).
- [ ] Test/inspection reports submitted for spray-applied fire-resistive materials (SFRM) and/or, intumescent coatings. See VCC 1705.14 for further information (HECO 13.1b).
- [ ] Statement for Substantial Completion & Occupancy (HECO-13.1ubo)
- [ ] --- FIRE ALARM ---
- [ ] As-built Record Drawings (updated shop drawings reflecting actual installation) in the documentation cabinet (on-site).
- [ ] Documentation of Central Station service provided per NFPA 72.
- [x] Final Record of Completion after system testing is witnessed by OUBO.
- [ ] Owner's Manual and manufacturer's instructions covering all system equipment submitted to Facilities, per NFPA 72.
- [ ] Prior to requesting final approval of fire alarm, detection, signaling and/or mass notification systems, provide documentation indicating system is installed in accordance with approved plans and tested in accordance with the manufacturer's instructions and code requirements, per NFPA 72. Integrated testing for suppression system releasing alarm equipment, elevator emergency operations, smoke damper operation, etc. to be pre-coordinated with all trades for final acceptance testing.
- [ ] Record copy of site-specific software submitted to Facilities, per NFPA 72.
- [ ] Testing of Integrated Fire and Life Safety Systems Record of Completion (NFPA 4 document) provided after system testing is witnessed by OUBO.
- [ ] Certificate for concrete masonry units used in rated wall assemblies as specified in the construction documents.
- [ ] Certificate for all fire protection door openings (vertical, horizontal, and/or swinging doors) in accordance with (NFPA 80 Chapter 5.2)
- [ ] Decorations, curtains, and drapes - flame resistance Certificate in accordance with NFPA 701 and VCC 806.4
- [ ] Certificate of flame spread & smoke development ratings for wall and ceiling finishes. See VCC 803
- [ ] Certificate of floor finishes. See VCC 804.3
- [ ] Regional State Fire Marshal letter recommending occupancy
- [ ] --- FIRE SUPPRESSION ---
- [ ] Contractor's Material and Test Certifications for underground sprinkler piping/ standpipe systems in accordance with NFPA 13 and/or 14
- [ ] Contractor's Material and Test Certifications for both above ground sprinkler piping/ standpipe systems in accordance with NFPA 13 and/or 14
- [ ] Contractor's installation certification for range hood fire suppression systems (wet chemical system acceptance test report in accordance with NFPA 17A)
- [ ] Fire Pump Field Acceptance Test Form submitted in accordance with NFPA 20.
- [ ] Testing of Integrated Fire and Life Safety Systems Record of Completion (NFPA 4 document) provided after system testing is witnessed by OUBO
- [ ] --- MECHANICAL ---
- [ ] Testing and Balancing Report per 2018 VECC C408 approved by Engineer of Record
- [ ] Fire Dampers, Smoke Dampers, and Combination Fire/Smoke Dampers testing report per 2016 NFPA 80 Chapter 19
- [ ] Pressure Vessels and Boilers testing report per 2018 VMC 1011.1 (approved by DOLI)
- [ ] Pressure vessel and boiler Certificate and inspection report submitted for those not exempt from Virginia Department of Labor and Industry (VDLI) regulation
- [ ] --- PLUMBING ---
- [ ] Potable Water Report
- [ ] Testable Backflow Device Reports per 2018 VPC 312

Close-out Documents

Construction Type: IIB

Building Height (feet): 50

Code Inspections will be performed by the Office of University Building Official (OUBO).

DISCIPLINES	Building, Electrical, Fire Alarm, Fire Suppression, Mechanical, Plumbing
INSPECTIONS REQUIRED	Underground, Underslab, Rough-in, Pressure Test, Insulation, Final, Foundation, Slab on Grade, Certificate of Occupancy, Permanent Service, Fire Line Flush, Fire Line Hydro, Fire Line Visual, Sprinkler Hydro, Sprinkler Visual Progress, Dry or Preaction Pipe Trip Test
REQUIRED DOCUMENTS	Final Report of Special Inspections (HECO 13.1b) including all reports numbered sequentially., As-built Record Drawings (updated shop drawings reflecting actual installation) in the documentation cabinet (on-site)., Documentation of Central Station service provided per NFPA 72., Final Record of Completion after system testing is witnessed by OUBO., Owner's Manual and manufacturer's instructions covering all system equipment submitted to Facilities, per NFPA 72., Prior to requesting final approval of fire alarm, detection, signaling and/or mass notification systems, provide documentation indicating system is installed in accordance with approved plans and tested in accordance with the manufacturer's instructions and code requirements, per NFPA 72. Integrated testing for suppression system releasing alarm equipment, elevator emergency operations, smoke damper operation, etc. to be pre-coordinated with all trades for final acceptance testing., Record copy of site-specific software submitted to Facilities, per NFPA 72., Certificate for concrete masonry units used in rated wall assemblies as specified in the construction documents., Certificate for all fire protection door openings (vertical, horizontal, and/or swinging doors) in accordance with (NFPA 80 Chapter 5.2), Decorations, curtains, and drapes - flame resistance Certificate in accordance with NFPA 701 and VCC 806.4, Certificate of flame spread & smoke development ratings for wall and ceiling finishes. See VCC 803, Certificate of floor finishes. See VCC 804.3, Regional State Fire Marshal letter recommending occupancy, Contractor's Material and Test Certifications for underground sprinkler piping/ standpipe systems in accordance with NFPA 13 and/or 14, Contractor's Material and Test Certifications for both above ground sprinkler piping/ standpipe systems in accordance with NFPA 13 and/or 14, Contractor's installation certification for range hood fire suppression systems (wet chemical system acceptance test report in accordance with NFPA 17A), Fire Pump Field Acceptance Test Form submitted in accordance with NFPA 20., Testing and Balancing Report per 2018 VECC C408 approved by Engineer of Record, Potable Water Report, Testable Backflow Device Reports per 2018 VPC 312

Special Inspections Required.

APPROVED: David M. Kidd

David M. Kidd, P.E., CBO
University Building Official

Code Analysis Sheet

BUILDING CODE INFORMATION/EDITIONS
VCC
VEBC
VECC
VPC
VMC
VFGC
NFPA-70 (NEC)
ANSI-A117.1
ADA
GMU HECOM
ETC...


1 BUILDING PLANNING & DESCRIPTION
NEW CONSTRUCTION
LEASE SPACE BUILD-OUT (LSBO)
SUBSTANTIAL IMPROVEMENT
SHELL BUILDING
CHANGE OF OCCUPANCY
OTHER:
MIXED OCCUPANCY
SINGLE OCCUPANCY
SEPARATED USE
NON-SEPARATED USE
(SECTION 508.3 OR 508.4 IBC 2018)
TYPE OF CONSTRUCTION: (CHAPTER 6 IBC 2018)
HEIGHT LIMITATION: AREA LIMITATION: (TABLE 504.3 IBC 2018)
FRONTAGE INCREASE CALCULATIONS ARE SHOWN ON SHEET:
BUILDING VALUATION
BUILDING NUMBER: OF
ADDRESS:
applicable codes section
CITY, ST: ZIP CODE: SCATS:
CALL CENTERPOINT ENERGY AHEAD OF TIME, AT 713-207-4160, TO OBTAIN AN ADDRESS
HCAD #, OR PROPERTY TAX #: (13 DIGITS)
(http://www.hcad.org)
BUILDING LOCATED IN FLOOD PLAIN: YES NO
GROSS SQUARE FOOTAGE: SQF FLOORS: HEIGHT:
ESTIMATED COST OF CONSTRUCTION: $
T.D.L.R. #: (REQUIRED FOR CONSTRUCTION OVER $50,000)
TEXAS DEPARTMENT OF LICENSING AND REGULATIONS
(https://www.tdlr.texas.gov/ab/abcont.htm)
TELEPHONE: (512) 463-6599 TOLL-FREE (IN TEXAS): 800-803-9202
FAX: (512) 475-2871 RELAY TEXAS TDD: 800-735-2989
SHELL BUILDING PERMIT #: CIVIL PROJECT #:
PUBLIC UTILITIES: YES NO
OSSF: YES NO PROJECT/PERMIT #:
LIST BELOW THE PURPOSE/USE OF THE BUILDING OR AREA BEING REVIEWED. INCLUDE DETAILS ON THE PRODUCTS/MATERIALS BEING STORED/FABRICATED AND NOTE HOW THEY ARE BEING PACKAGED.
Info. not needed
need section for existing buildings compliance for renovations - work classifications, etc.

2 OCCUPANCY TYPE AND LOAD
CHAPTER 2, 3 & TABLE 1004.5 IBC 2018
OCCUPANCY CLASSIFICATION TYPES

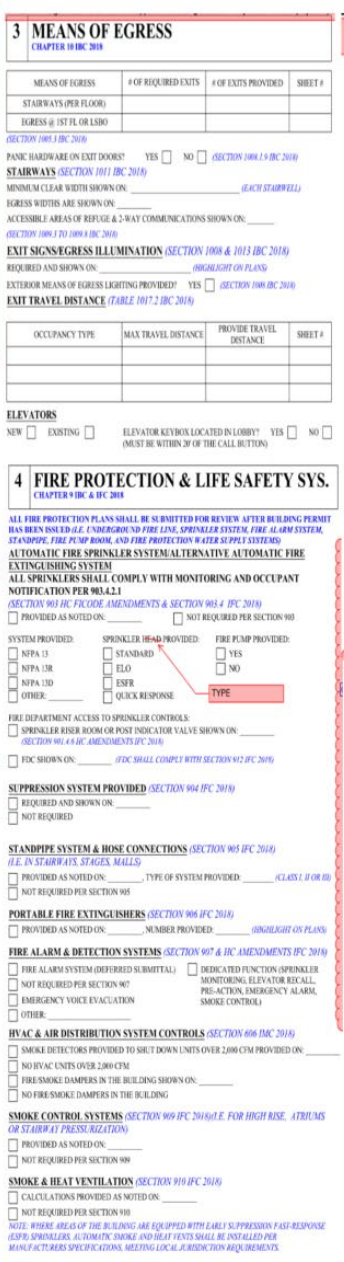
A-1	A-2	A-3	A-4	A-5	B	E
F-1	F-2	H-1	H-2	H-3	H-4	H-5
I-1	I-2	I-3	I-4	M	R-1	R-2
	R-3	R-4	S-1	S-2	U	

RESIDENTIAL-BASED AND CARE OCCUPANCIES (REFER TO THE HARRIS COUNTY CODEWORD OF THE SAME NAME AND ALSO COMPLETE THE RESIDENTIAL BOARD AND CARE CERTIFICATION FORM

	RBC-4A	RBC-4B	RBC-16A	RBC-16B

BREAK DOWN AREAS AND OCCUPANT LOADS PER FLOOR

OCCUPANCY CLASSIFICATION	SPECIFIC USE	SQUARE FOOTAGE	SF PER OCCUPANT	DESIGN OCCUPANTS
TOTAL				


3 MEANS OF EGRESS
CHAPTER 10 IBC 2018

MEANS OF EGRESS	# OF REQUIRED EXITS	# OF EXITS PROVIDED	SHEET #
STAIRWAYS (PER FLOOR)			
EGRESS @ 1ST FL OR LSBO			

(SECTION 1005.3 IBC 2018)
PANIC HARDWARE ON EXIT DOORS? YES NO (SECTION 1008.1.9 IBC 2018)
STAIRWAYS (SECTION 1011 IBC 2018)
MINIMUM CLEAR WIDTH SHOWN ON: (EACH STAIRWELL)
EGRESS WIDTHS ARE SHOWN ON:
ACCESSIBLE AREAS OF REFUGE & 2-WAY COMMUNICATIONS SHOWN ON:
(SECTION 1009.3 TO 1009.8 IBC 2018)
EXIT SIGNS/EGRESS ILLUMINATION (SECTION 1008 & 1013 IBC 2018)
REQUIRED AND SHOWN ON: (HIGHLIGHT ON PLANS)
EXTERIOR MEANS OF EGRESS LIGHTING PROVIDED? YES (SECTION 1008 IBC 2018)
EXIT TRAVEL DISTANCE (TABLE 1017.2 IBC 2018)

OCCUPANCY TYPE	MAX TRAVEL DISTANCE	PROVIDE TRAVEL DISTANCE	SHEET #

ELEVATORS
NEW EXISTING ELEVATOR KEYBOX LOCATED IN LOBBY? YES NO
(MUST BE WITHIN 20' OF THE CALL BUTTON)

4 FIRE PROTECTION & LIFE SAFETY SYS.
CHAPTER 9 IBC & IFC 2018
ALL FIRE PROTECTION PLANS SHALL BE SUBMITTED FOR REVIEW AFTER BUILDING PERMIT HAS BEEN ISSUED (I.E. UNDERGROUND FIRE LINE, SPRINKLER SYSTEM, FIRE ALARM SYSTEM, STANDPIPE, FIRE PUMP ROOM, AND FIRE PROTECTION WATER SUPPLY SYSTEMS)
AUTOMATIC FIRE SPRINKLER SYSTEM/ALTERNATIVE AUTOMATIC FIRE EXTINGUISHING SYSTEM
ALL SPRINKLERS SHALL COMPLY WITH MONITORING AND OCCUPANT NOTIFICATION PER 903.4.2.1
(SECTION 903 HC FICODE AMENDMENTS & SECTION 903.4 IFC 2018)
PROVIDED AS NOTED ON: NOT REQUIRED PER SECTION 903
SYSTEM PROVIDED: NFPA 13 NFPA 13R NFPA 13D OTHER:
SPRINKLER HEAD PROVIDED: STANDARD ELO ESFR QUICK RESPONSE
FIRE PUMP PROVIDED: YES NO
TYPE
FIRE DEPARTMENT ACCESS TO SPRINKLER CONTROLS:
SPRINKLER RISER ROOM OR POST INDICATOR VALVE SHOWN ON:
(SECTION 901.4.6 IFC AMENDMENTS IFC 2018)
FDC SHOWN ON: (FDC SHALL COMPLY WITH SECTION 912 IFC 2018)
SUPPRESSION SYSTEM PROVIDED (SECTION 904 IFC 2018)
REQUIRED AND SHOWN ON:
NOT REQUIRED
STANDPIPE SYSTEM & HOSE CONNECTIONS (SECTION 905 IFC 2018)
(I.E. IN STAIRWAYS, STAGES, MALLS)
PROVIDED AS NOTED ON: , TYPE OF SYSTEM PROVIDED: (CLASS I, II OR III)
NOT REQUIRED PER SECTION 905
PORTABLE FIRE EXTINGUISHERS (SECTION 906 IFC 2018)
PROVIDED AS NOTED ON: , NUMBER PROVIDED: (HIGHLIGHT ON PLANS)
FIRE ALARM & DETECTION SYSTEMS (SECTION 907 & IHC AMENDMENTS IFC 2018)
FIRE ALARM SYSTEM (DEFERRED SUBMITTAL)
NOT REQUIRED PER SECTION 907
EMERGENCY VOICE EVACUATION
OTHER:
DEDICATED FUNCTION (SPRINKLER MONITORING, ELEVATOR RECALL, PRE-ACTION, EMERGENCY ALARM, SMOKE CONTROL)
HVAC & AIR DISTRIBUTION SYSTEM CONTROLS (SECTION 606 IMC 2018)
SMOKE DETECTORS PROVIDED TO SHUT DOWN UNITS OVER 2,000 CFM PROVIDED ON:
NO HVAC UNITS OVER 2,000 CFM
FIRE/SMOKE DAMPERS IN THE BUILDING SHOWN ON:
NO FIRE/SMOKE DAMPERS IN THE BUILDING
SMOKE CONTROL SYSTEMS (SECTION 909 IFC 2018)(I.E. FOR HIGH RISE, ATRIUMS OR STAIRWAY PRESSURIZATION)
PROVIDED AS NOTED ON:
NOT REQUIRED PER SECTION 909
SMOKE & HEAT VENTILATION (SECTION 910 IFC 2018)
CALCULATIONS PROVIDED AS NOTED ON:
NOT REQUIRED PER SECTION 910
NOTE: WHERE AREAS OF THE BUILDING ARE EQUIPPED WITH EARLY SUPPRESSION FAST-RESPONSE (ESFR) SPRINKLERS, AUTOMATIC SMOKE AND HEAT VENTS SHALL BE INSTALLED PER MANUFACTURERS SPECIFICATIONS, MEETING LOCAL JURISDICTION REQUIREMENTS.


ADD TRANSFORMER VAULT RATING(S): WALLS, ROOFS, FLOORS, & DOORS
5 FIRE-RESISTANCE RATE CONSTRUCTION
CHAPTER 6, 7 AND 10 IBC 2018
SHOW DETAILS OF FIRE WALLS OR FIRE BARRIERS MEETING HORIZONTAL WALLS AND ROOF DECK (SEE SECTION 706.5, 706.6 & 707.5 IBC 2018)
FIRE-RESISTANCE RATING REQUIREMENTS (TABLES 601 & 602 IBC 2018)

BUILDING ELEMENTS	HOURS REQUIRED	HOURS PROVIDED	UL OR IBC STANDARD USED & DESIGN DETAIL SHOWN ON
STRUCTURAL FRAME			
EXTERIOR BEARING WALLS			
EXTERIOR NON-BEARING WALLS			
INTERIOR BEARING WALLS			
INTERIOR NON-BEARING WALLS			
FLOOR CONSTRUCTION			
ROOF CONSTRUCTION			
STAIRWELLS (SECTION 1023)			
ELEVATOR SHAFTS (SECTION 713)			
CORRIDORS (SECTION 1020)			
FIRE RATED DOORS (TABLE 716.1(2))			
DEMISING/PARTITION WALL (SECTION 708)			
FIRE BARRIER (SECTION 707)			
FIRE WALL (SECTION 706)			

DRAFTSTOPS: YES, SHOWN ON: NO (SPRINKLED ATTIC) N/A (SECTION 718.4)
HAVE YOU CHECKED WIDTH OF OPENINGS IN FIRE RATED WALLS? YES NO
(TABLE 705.8, SECTION 706.8 & 707.8 IBC 2018)

FIRE SEPARATION DISTANCE (FEET) (SECTION 602 IBC 2018)	NORTH	SOUTH	EAST	WEST

ROOF COVERING CLASSIFICATION PROVIDED: A B C
(TABLE 1505.1 IBC 2018)
8 INTERIOR FINISH
CHAPTER 8 & TABLE 803.13 IBC 2018

OCCUPANCY GROUP	EXIT ENCLOSURES AND EXIT PASSAGEWAYS	CORRIDORS	ROOMS AND ENCLOSED SPACES	SHEET #

ADD EMERGENCY SYSTEMS CLASSIFICATIONS FOR UPS OR GENERATORS (I.E. EMERGENCY, LEGALLY REQUIRED STANDBY, OPTIONAL STANDBY)
9 STORAGE: STANDARD & HIGH PILED
CHAPTER 23 IBC 2018 (REFER TO REGULATIONS FOR REQUIREMENTS FOR CODES LIST ENGINEER SECTION FOR IHC AMENDMENTS)
YES NO PRODUCTS BEING STORED:
YES NO STORAGE PACKAGING (I.E. PALLETS, BOXES, SOLID PILED, BIN'S, CARDBOARD, BOXES, WRAPPED, PLASTIC, ETC.):
YES NO MAXIMUM HEIGHT OF COMMODITY:
YES NO ***THIS BUILDING IS DESIGNED FOR THE INTENT OF HIGH PILED STORAGE. IF YES, THEN PROVIDE HIGH PILED STORAGE FORM (http://www.dsg.hctx.net/Portals/23/Publications/IFC_high_piled_storage_form.pdf)
YES NO FIRE DEPARTMENT ACCESS DOORS
YES NO HIGH PILED STORAGE RACK LAYOUT ELEVATIONS, CODE ANALYSIS, ETC. SHOWN ON:
10 HAZARDOUS MATERIALS
CHAPTER 50 IFC 2018
YES NO DOES THE BUILDING HAVE HAZARDOUS MATERIAL USE OR STORAGE? IF YES, THEN PROVIDE ALL HMIS SUMMARY AND MSDS REPORTS.
YES NO IF YES, DO THE QUANTITIES EXCEED THE MAXIMUM ALLOWABLE PER IFC 2018?
IF YES, YOU WILL BE REQUIRED TO PROVIDE THE FOLLOWING:
CODE ANALYSIS BY FIRE PROTECTION ENGINEER TO SHOW COMPLIANCE WITH IFC 2018, CODES AND REFERENCED STANDARDS SHOWN ON SHEETS)
11 SPECIAL CONDITIONS
PROPERTIES WITH FENCE AND GATES SHALL PROVIDE A KEY BOX AT ENTRY GATE.
YES NO ATRIUM(S) PER 404 IBC 2018?
YES NO HIGH RISE BLDG PER 403 IBC 2018?
YES NO ANY TYPE STORAGE TANKS PER 2704 IFC 2018?
YES NO CRITICAL FACILITIES-HARRIS COUNTY REGULATIONS A/O AMENDMENTS:
YES NO OTHER:
YES NO PAINT SPRAY BOOTHS, COATINGS, DIPPING OR INDUSTRIAL OVENS (SUCH PER 2404, 2405, 2406 AND CHAPTER 30 IFC 2018)?
YES NO HEALTH DEPARTMENT APPROVAL? REQUIRED FOR ALL ESTABLISHMENTS THAT SELL/PURCHASE FOOD AND BEVERAGES FOR THE PUBLIC OR HAVE REFRIGERATED FOOD STORAGE.
COMMENTS & NOTES
need a section for deferred design submissions
OUBO
A COPY OF THESE APPROVED CONSTRUCTION PLANS MUST BE KEPT AT PROJECT SITE FOR THE FINAL INSPECTION OF THE BUILDING


VCC SECTION 1603 - STRUCTURAL DESIGN INFORMATION
1.0 RISK CATEGORY (TABLE 1604.5)
1.1 LIVE LOADS
FLOOR
ROOF (WITH LIVE LOAD REDUCTION)
1.2 DEAD LOADS
FLOOR
ROOF
1.3 SNOW LOADS
GROUND SNOW LOAD
FLAT-ROOF SNOW LOAD
SNOW IMPORTANCE FACTOR
EXPOSURE FACTOR
THERMAL FACTOR
WINTER WIND PARAMETER, Ws
DRIFT SURCHARGE LOAD
WIDTH OF DRIFT
1.4 WIND LOADS
BASIC WIND SPEED, V
ASD WIND SPEED, Vasd
WIND IMPORTANCE FACTOR
WIND EXPOSURE CATEGORY
ENCLOSURE CLASSIFICATION
INTERNAL PRESSURE COEFFICIENT, GCpi
TOPOGRAPHIC FACTOR
1.5 SEISMIC LOADS
RISK CATEGORY
SEISMIC IMPORTANCE FACTOR
SITE CLASS
SS
S1
SDS
SD1
SEISMIC DESIGN CATEGORY
BASIC SEISMIC FORCE-RESISTING SYSTEM
RESPONSE MODIFICATION FACTOR
SEISMIC RESPONSE COEFFICIENT
DESIGN BASE SHEAR
ANALYSIS PROCEDURE
1.6 SPECIAL LOADS
1.7 ROOF RAIN LOADS
15-MIN RAINFALL INTENSITY
60-MIN RAINFALL INTENSITY
1.8 SOILS AND FOUNDATION
SOIL BEARING CAPACITY
FROST DEPTH
NOTES
1. Data and default values are shown for typical facilities at GMU Campus (Fairfax); adjust for building use, location and conditions.
2. Add floor live loads, dead loads, special loads and other loading conditions as applicable for the building.
3. For Risk Category III and IV buildings located in the tornado-prone region as shown in Figure 1609.5, include tornado loads in accordance with 1609.3.

BUILDING INFORMATION

ASBESTOS DISCLOSURE STATEMENT
AN ASBESTOS INSPECTION WAS NOT PERFORMED BECAUSE ALL PORTIONS OF THE EXISTING BUILDING THAT MAY BE AFFECTED BY THE WORK WERE ORIGINALLY CONSTRUCTED AFTER JANUARY 1, 1985.

LEAD DISCLOSURE STATEMENT
AN INSPECTION TO IDENTIFY LEAD CONTAINING OR COATED BUILDING COMPONENTS HAS NOT BEEN CONDUCTED BECAUSE THE BUILDING WAS CONSTRUCTED AFTER JANUARY 1, 1985 AND THE OWNER HAS NO KNOWLEDGE OF LEAD CONTAINING OR COATED BUILDING COMPONENTS IN THE BUILDING. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COMPLY WITH ALL VIRGINIA OCCUPATIONAL SAFETY AND HEALTH (VOSH) REGULATIONS AS THEY PERTAIN TO EMPLOYEE EXPOSURES TO LEAD. ALL LEAD AND LEAD-COATED BUILDING COMPONENTS SHALL BE RECYCLED TO THE EXTENT POSSIBLE.

VIRGINIA ENERGY CONSERVATION CODE COMPLIANCE STATEMENT
IN ACCORD WITH THE VIRGINIA ENERGY CONSERVATION CODE (VECC), THE BUILDING SHALL COMPLY WITH SECTIONS C402 THROUGH C405. SECTION C406 ADDITIONAL EFFICIENCY PACKAGE COMPLIANCE WILL BE VIA C406. 2 - MORE EFFICIENT HVAC PERFORMANCE.

HIGH PERFORMANCE BUILDING ACT
IN ACCORDANCE WITH THE HIGH PERFORMANCE BUILDING ACT, THE PROJECT IS EXEMPT FROM COMPLIANCE BECAUSE THE RENOVATED AREA IS NOT GREATER THAN 5,000 GROSS SQUARE FEET.

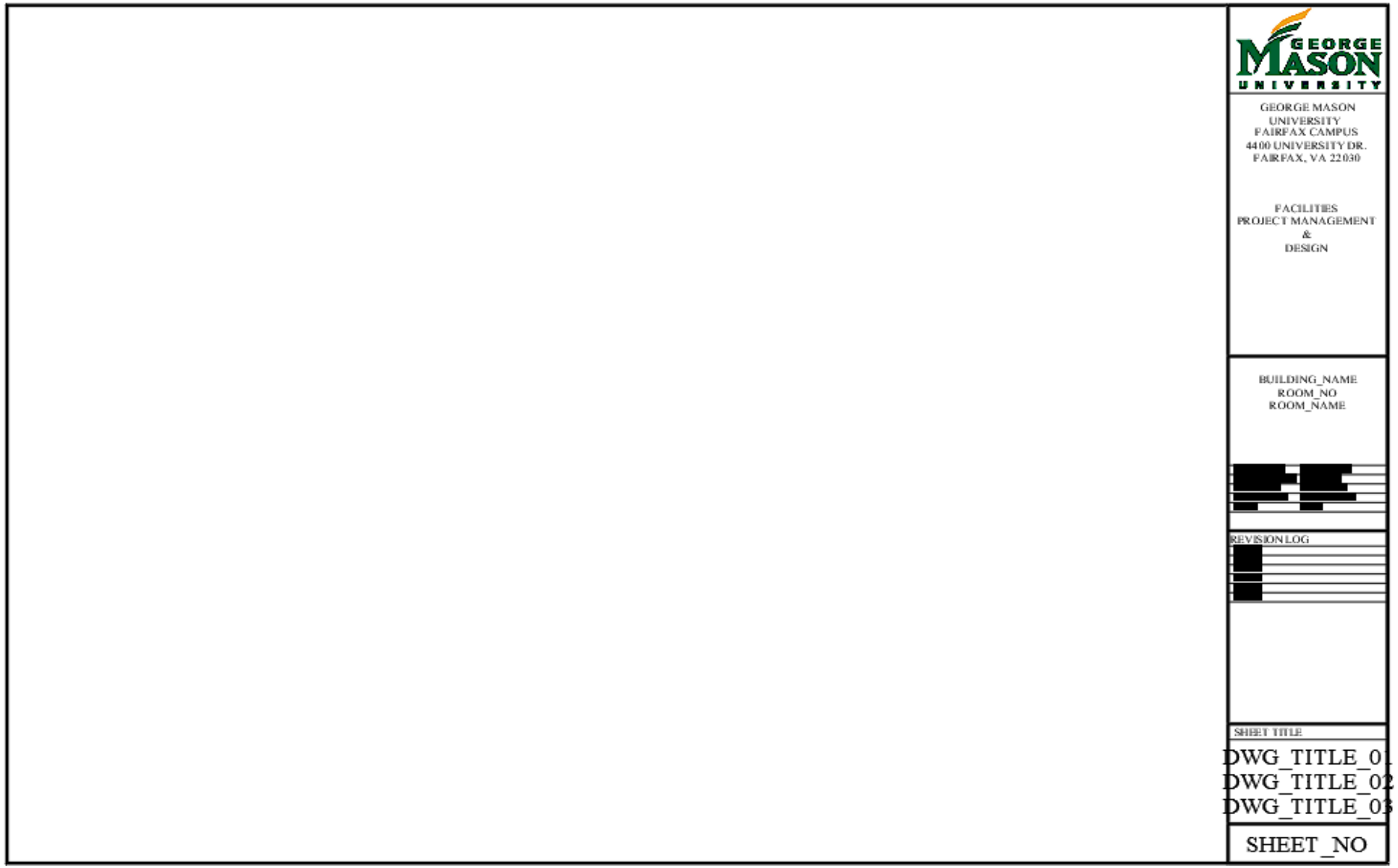
DELEGATED DESIGN SCOPES
The following closed systems are identified as including delegated design:
MOCKUPS: For temporary structural supports of mockups not attached to building structure
UNBONDED POST-TENSIONED CONCRETE: For post-tensioning system
PRECAST ARCHITECTURAL CONCRETE: For architectural precast concrete to comply with specified performance requirements and design criteria
EXTERIOR STONE CLADDING
COLD-FORMED METAL FRAMING
METAL FABRICATIONS: For ladders and metal grates
METAL PAN STAIRS: For stairs, railings and guards, precast terrazzo treads, epoxy-resin-filled treads
DECORATIVE METAL RAILINGS: For installed products to comply with performance requirements and design criteria
GLAZED DECORATIVE METAL RAILINGS: For installed products to comply with performance requirements and design criteria
INTERIOR GLAZING: For Backpainted Glass BPG-1 thickness to meet size & performance requirements
FORMED METAL WALL PANELS: For formed metal wall and soffit panels support system
METAL COMPOSITE MATERIAL WALL PANELS: For MCM to comply with performance requirements and design criteria, and for related support system
LINEAR METAL SOFFIT PANELS: For installed products to comply with performance requirements and design criteria
ROOF ACCESSORIES: For equipment supports to comply with performance requirements and design criteria
OVERHEAD COILING DOORS: For installed products to comply with performance requirements and design criteria
UNITIZED & SITE-BUILT GLAZED ALUMINUM CURTAINWALLS: For systems to comply with performance requirements and design criteria
UNITIZED WINDOW WALLS: For glazed window walls and anchorage to precast panels
EXTERIOR GLAZING: For glass to comply with performance requirements and design criteria
FIXED LOUVERS: For installed products to comply with structural performance requirements and design criteria
TOILET ACCESSORIES: For grab bar installation to meet specified performance forceTloads
FACADE ACCESS EQUIPMENT: For equipment to comply with design loads and stability / performance requirements
DRY-PIPE SPRINKLER SYSTEMS: For system to comply with performance requirements and design criteria
HANGERS AND SUPPORTS FOR HVAC PIPING AND EQUIPMENT: trapeze hangers to comply with performance requirements and design criteria
HYDRONIC PIPING: For assembly, alignment, support, expansion, building attachment and penetrations
IDENTIFICATION FOR ELECTRICAL SYSTEMS: For arc-flash hazard study
SHORT-CIRCUIT STUDIES: For electrical system short-circuit study
COORDINATION STUDIES: For electrical system coordination study
ARC-FLASH HAZARD ANALYSIS: For electrical system arc-flash hazard study
MODULAR LIGHTING CONTROL SYSTEM
LIGHTING PROTECTION FOR STRUCTURES: For design of building grounding system and underground system

A/E INFORMATION

2-inch square OUBO Stamp

PAGE NUMBERS

Sheet Block


GEORGE MASON UNIVERSITY
GEORGE MASON
UNIVERSITY
FAIRFAX CAMPUS
4400 UNIVERSITY DR.
FAIRFAX, VA 22030
FACILITIES
PROJECT MANAGEMENT
&
DESIGN
BUILDING_NAME
ROOM_NO
ROOM_NAME
REVISION LOG
SHEET TITLE
DWG_TITLE_01
DWG_TITLE_02
DWG_TITLE_03
SHEET _NO

Plan Review Checklist

Instructions. Complete the project-related information below. For each technical- or code-related item on the following pages, signify its compliance or applicability. The items listed in this plan review record are the most typical for most projects and do not constitute all design elements checked by peer reviewers or county staff.

Project Information

Project Name:

Street Address:

Parcel ID: Permit Number:

Check all that apply:

☐ New Tenant Layout ☐ Tenant Improvement

☐ Other:

Designer Information

Name:

License No.: Telephone:

Email:

Peer Reviewer Information (if applicable)

Name:

PR No.: Telephone:

Email:

Code Information

Check all that apply:

☐ Virginia Existing Building Code (existing commercial, multi-family and Group R-3 residential construction)

☐ Level 1 Alteration ☐ Repair ☐ Level 2 Alteration ☐ Change of Occupancy

☐ Moved Building ☐ Historic Building ☐ Addition

A. Occupancy and Building Information

Occupancy/Group:

Proposed Group(s): Existing Group(s): (VCC Chapter 3)

Change of Occupancy: ☐

Mixed use and occupancy (check all that apply): (VCC Section 508)

☐ Non-separated mixed use ☐ Separated mixed use

☐ Incidental use areas (meets all incidental use provisions ☐ Accessory occupancies

Type(s) of Construction: (VCC Section 601) Number of stories: (VCC Section 504.4)

Original Base Building Code: Edition:

Building Information:

Critical Structure:	☐ Yes	☐ No	
Sprinklered:	☐ Full	☐ Partial	☐ None
Monitored:	☐ Yes	☐ No	
Unlimited Area Building:	☐ Yes	☐ No	
High Rise:	☐ Yes	☐ No	
Atrium:	☐ Yes	☐ No	

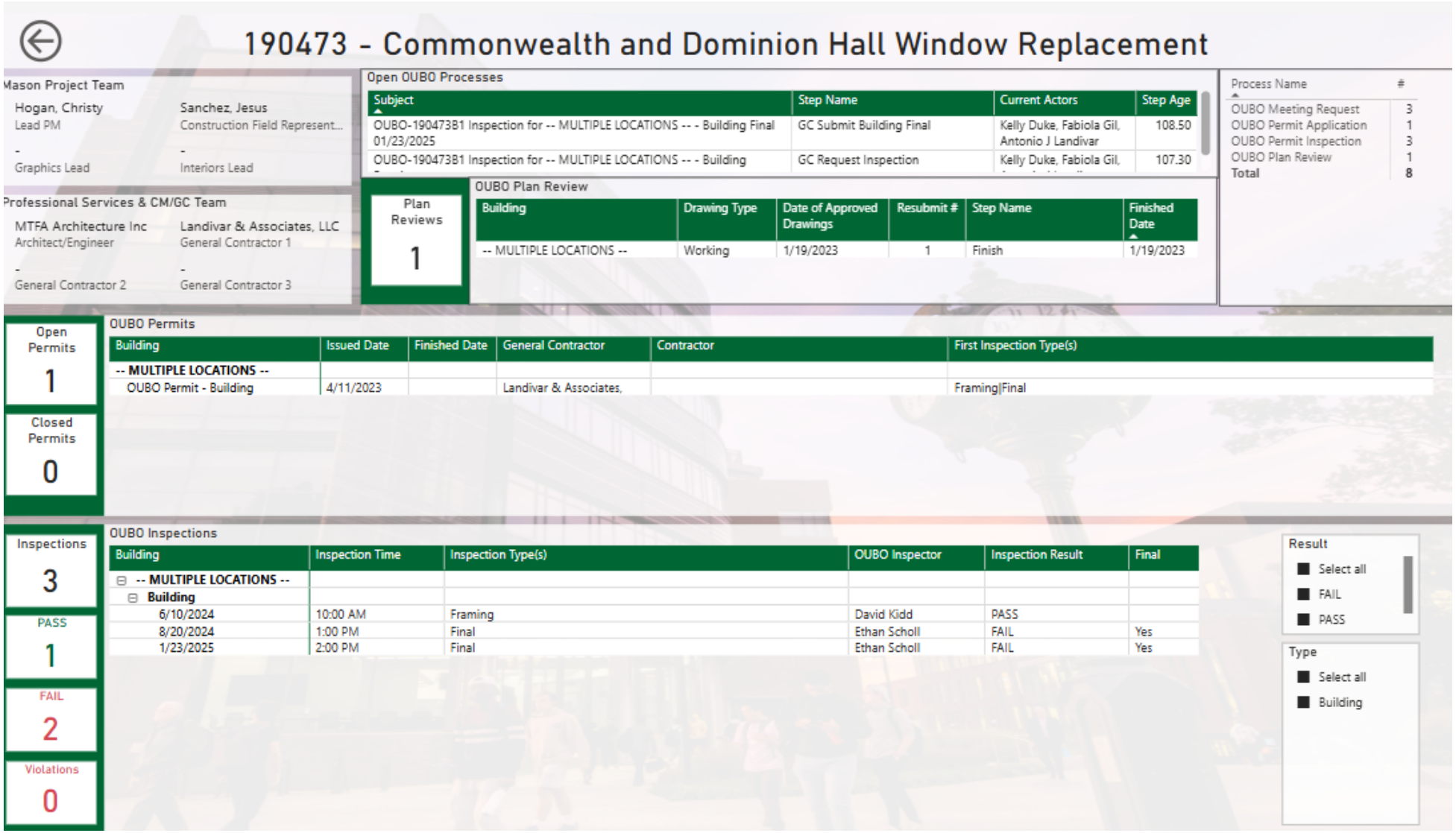
Administrative Requirements

Complies	N/A	
☐	☐	Building Plan Review Coversheet is attached or incorporated in the building drawings.
☐	☐	Clear scope of work statement provided on the plans.
☐	☐	Statement of Special Inspections is attached and complete.
☐	☐	Drawings reference all applicable codes and standards.
☐	☐	ICC-ES evaluation report for EIFS and other proprietary materials / devices is attached.
☐	☐	Key indicating location of work when multiple spaces are involved (e.g., malls, office buildings, etc.)
☐	☐	Classify the proposed work on the drawings and the Fairfax County Cover Sheet per VEBC Sections 103.9 and 601.2.
☐	☐	Location of alterations is noted on the drawings per VEBC Section 601.2.
☐	☐	Repairs are identified per VEBC Chapter 5.
☐	☐	Building related proffer or condition and compliance method identified on the plans (If applicable)
☐	☐	Name, address, and occupation of the person responsible for the design is noted on the drawings OR the drawings, details and calculations bear the seal, embedded electronic signature and date of an architect or engineer registered in the commonwealth of Virginia.

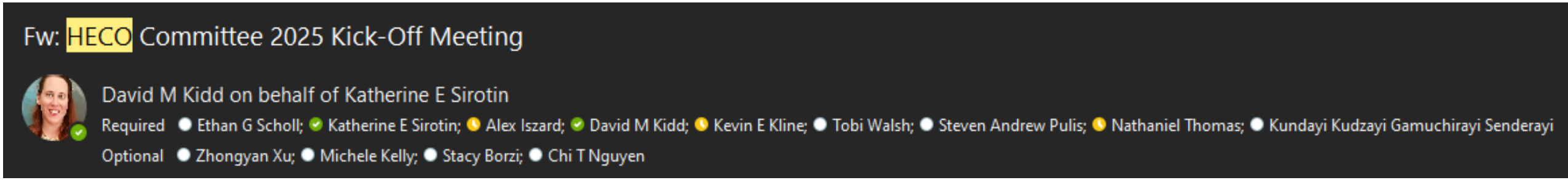
A. Accessibility

Complies	N/A	
☐	☐	Accessible route is provided per VEBC Section 404 and ICC/ANSI A117.1 Section 402.
☐	☐	Door approaches comply with required clearances per ICC/ANSI A117.1 Section 404.
☐	☐	Ramp slopes are less than or equal to 1:12 per ICC/ANSI A117.1 Section 405.
☐	☐	Accessible seating in assembly areas is provided per VCC 1108.2 and ICC/ANSI A117.1 Section 802.

Project Summary Report

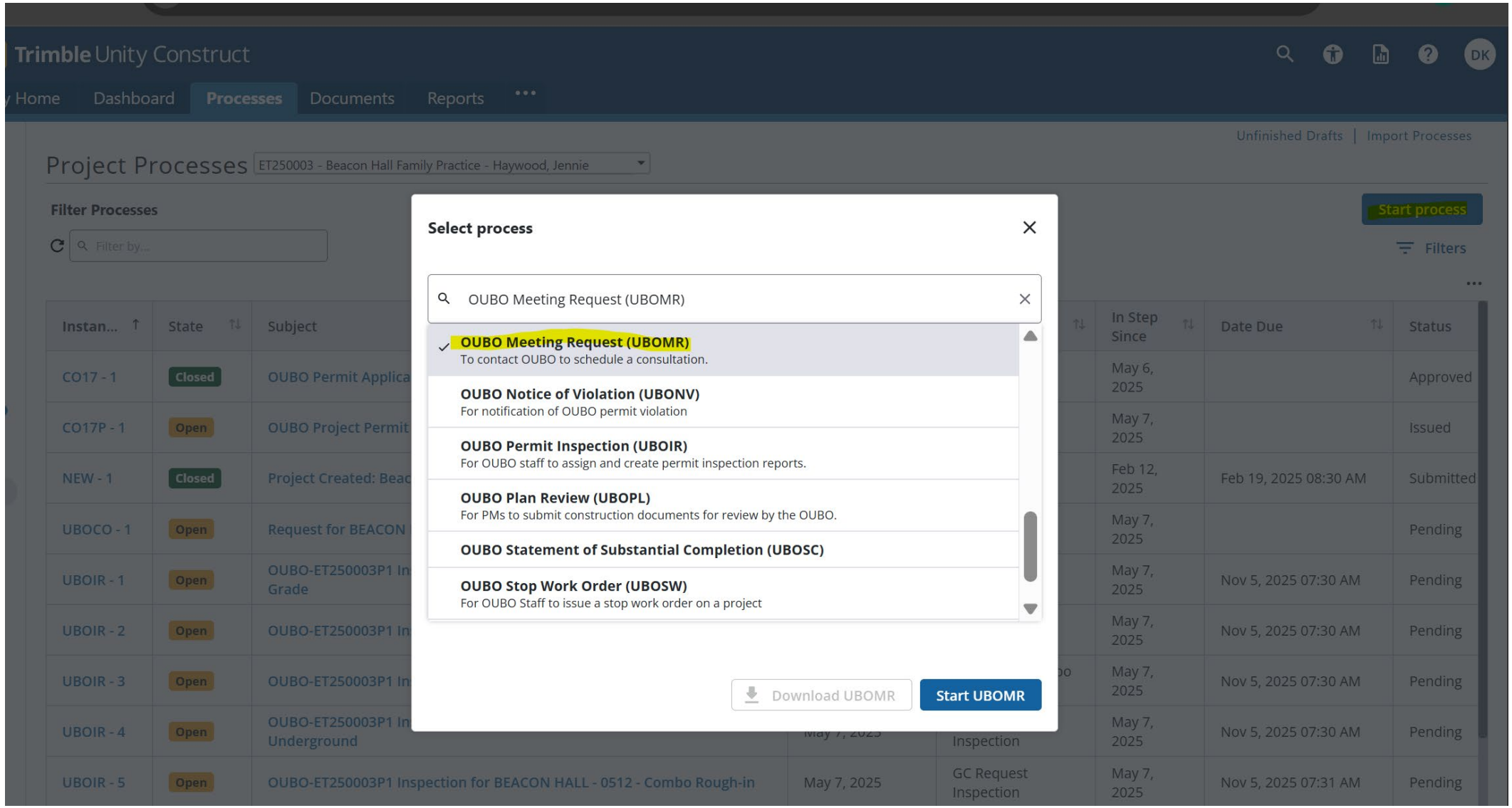


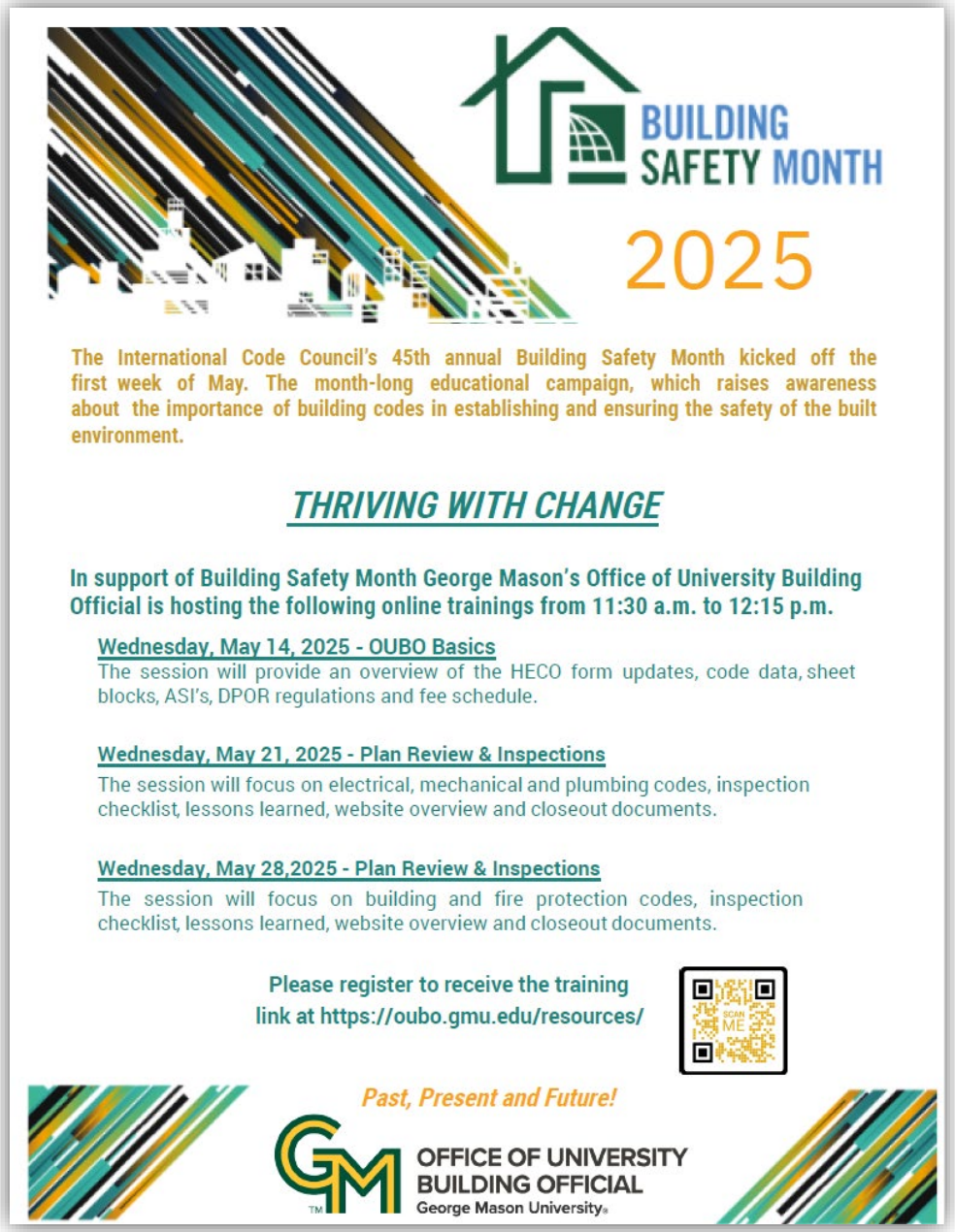
HECO 2025 Update



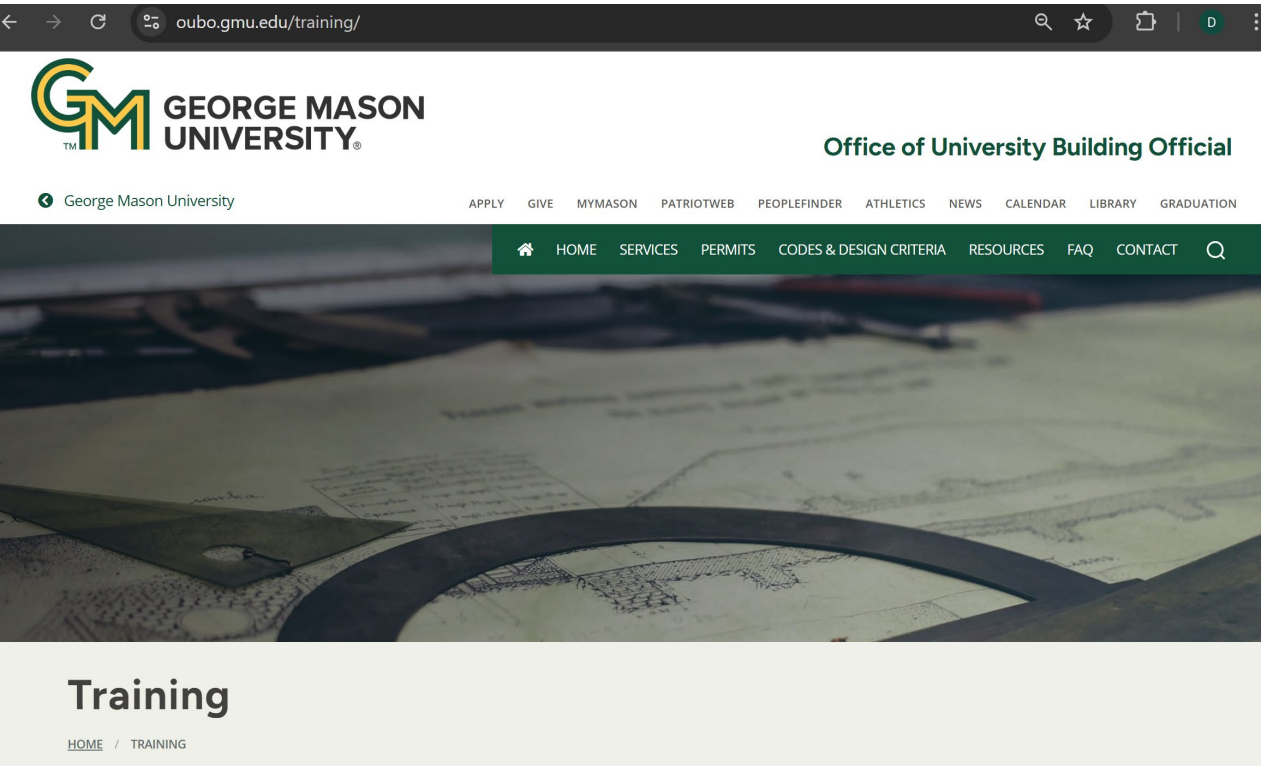
- The committee seeks and welcomes all support for this collaborative effort to maintain an updated version of this important document.
- Contact anyone on the list above with ideas or request.

UBOMR Process




BUILDING
SAFETY MONTH
2025
The International Code Council's 45th annual Building Safety Month kicked off the first week of May. The month-long educational campaign, which raises awareness about the importance of building codes in establishing and ensuring the safety of the built environment.
THRIVING WITH CHANGE
In support of Building Safety Month George Mason's Office of University Building Official is hosting the following online trainings from 11:30 a.m. to 12:15 p.m.
Wednesday, May 14, 2025 - OUBO Basics
The session will provide an overview of the HECO form updates, code data, sheet blocks, ASI's, DPOR regulations and fee schedule.
Wednesday, May 21, 2025 - Plan Review & Inspections
The session will focus on electrical, mechanical and plumbing codes, inspection checklist, lessons learned, website overview and closeout documents.
Wednesday, May 28,2025 - Plan Review & Inspections
The session will focus on building and fire protection codes, inspection checklist, lessons learned, website overview and closeout documents.
Please register to receive the training link at https://oubo.gmu.edu/resources/
SCAN ME
Past, Present and Future!
OFFICE OF UNIVERSITY BUILDING OFFICIAL
George Mason University

Training



Training

HOME / TRAINING

3 M Construction Training

- 3 M Construction Training

Fire Protection Training

- Fire Protection Part I
  Recording Link
- Fire Protection Part II
  Recording Link

OUBO HECO Training Sessions

- Session 1: OUBO Charter, HECO Chapter 11, OUBO Website Introduction & e-Builder
  Recording Link
- Session 2: HECO Chapter 7 & Related Appendices
  Recording Unavailable
- Session 3: HECO Chapter 8 & Related Appendices – Part 1
  Recording Link
- Session 4: HECO Chapter 8 & Related Appendices – Part 2
  Recording Unavailable
- Session 5: HECO Chapter 8 & Related Appendices – Part 3
  Recording Link
- Session 6: OUBO e-Builder Processes Overview
  Recording Link

OUBO 2024 Building Safety Month Training Series

- 2021 Code Change Training – May 15th 2024
  Recording Link
- Roofing & Special Inspections Training – May 22nd 2024
  Recording Link
- Question & Answer Session – May 29th 2024
  Recording Link

QUESTIONS?

Learn More at OUBO.GMU.EDU