



**OFFICE OF UNIVERSITY
BUILDING OFFICIAL**
George Mason University®

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INSTRUCTIONS

- 1) To complete HECO-6b, the "USBC Special Inspections", enter the project name and project number on all pages.
- 2) The HECO-6b form is to be filled out by the project's registered design professional(s), "2021 USBC Special Inspections" list. (Click on the "HECO-6b" tab below to access it.)
- 3) Submit the HECO-6b form in PDF format with the Office of University Building Official as part of the UBOPPL process. The form is to be incorporated into specifications or a single manual if no project specifications are provided. Do not provide Excel format forms.

2021 VUSBC SPECIAL INSPECTIONS

HECO-6b

2021 Code Version
(Revised 05/27/26)

Project Name/Title:

Project #:

[illegible]

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MATERIAL/ ACTIVITY	TYPE OF INSPECTION (RDP add lines as needed to identify other required items)	Req'd this project? (Yes)	REFERENCE	INSPECTION / TEST BY				
				SPECIAL INSPECTOR/ TEST LAB	RDP OF RECORD	OTHER:	OTHER:	OTHER:
CONCRETE CONSTRUCTION								
Concrete	Reinforcement, including prestressing tendons, verify placement.		VCC T1705.3 #1	X (Periodic)				
Concrete	Reinforcing bar welding.		VCC T1705.3 #2	X, X (Periodic)				
Concrete	Inspect anchors cast in concrete		VCC T1705.3 #3	X (Periodic)				
Concrete	Inspect anchors post-installed.		VCC T1705.3 #4	X, X (Periodic)				
Concrete	Verify use of required design mix		VCC T1705.3 #5	X (Periodic)				
Concrete	Concrete test specimens		VCC T1705.3 #6	X				
Concrete	Concrete and shotcrete placement for proper application.		VCC T1705.3 #7	X				
Concrete	Verify maintenance of specified curing temperature and techniques.		VCC T1705.3 #8	X (Periodic)				
Concrete	Prestressed concrete application of forces and grouting.		VCC T1705.3 #9	X				
Concrete	Precast concrete member erection.		VCC T1705.3 #10	X (Periodic)				
Concrete	Precast concrete diaphragm connections or reinforcement at joints classified MDE or HDE.		VCC T1705.3 #11	X				
Concrete	Tolerances of precast concrete diaphragm connections.		VCC T1705.3 #12	X (Periodic)				
Concrete	Verify in-situ concrete strength.		VCC T1705.3 #13	X (Periodic)				
Concrete	Inspect formwork.		VCC T1705.3 #14	X (Periodic)				

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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 fAAC.		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	Verfy f'm and fAAC, 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 prestressing 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		
Masonry - Inspect	2a Grout Space		TMS 602 1.6 Table 4	Not Required	Periodic	Continuous		
Masonry - Inspect	2b Placement of prestressing tendons and anchorages		TMS 602 1.6 Table 4	Not Required	Periodic	Periodic		
Masonry - Inspect	2c Placement of reinforcement, connectors, and anchor bolts		TMS 602 1.6 Table 4	Not Required	Periodic	Continuous		
Masonry - Inspect	2d Proportions of site-prepared grout and prestressing grout for bonded tendons.		TMS 602 1.6 Table 4	Not Required	Periodic	Periodic		
Masonry - Inspect	3a Materials and procedures with the approved submittals		TMS 602 1.6 Table 4	Not Required	Periodic	Periodic		
Masonry - Inspect	3b Placement of masonry units and mortar joint construction		TMS 602 1.6 Table 4	Not Required	Periodic	Periodic		
Masonry - Inspect	3c Size and location of structural members			Not Required	Periodic	Periodic		
Masonry - Inspect	3d Type, size, and location of anchors, including other details of anchorage of masonry to structural members, frames, or other construction.		TMS 602 1.6 Table 4	Not Required	Periodic	Continuous		
Masonry - Inspect	3e Welding of reinforcement		TMS 602 1.6 Table 4	Not Required	Continuous	Continuous		
Masonry - Inspect	3f Preparation, construction, and protection of masonry during cold or hot weather (<40F or >90F)		TMS 602 1.6 Table 4	Not Required	Periodic	Periodic		
Masonry - Inspect	3g Application and measurement of prestressing force.		TMS 602 1.6 Table 4	Not Required	Continuous	Continuous		
Masonry - Inspect	3h Placement of grout and prestressing grout for bonded tendons is in compliance.		TMS 602 1.6 Table 4	Not Required	Continuous	Continuous		
Masonry - Inspect	3i Placement of AAC masonry units and construction of thin-bed mortar joints.		TMS 602 1.6 Table 4	Not Required	C/P	Continuous		
Masonry - Inspect	4 Observe preparation of grout specimens, mortar specimens, and/or prisms.		TMS 602 1.6 Table 4	Not Required	Periodic	Continuous		
Glass Unit	Glass unit masonry and masonry veneer in Risk Category IV		VCC 1705.4.1					
Vertical Masonry	Vertical masonry foundation elements		VCC 1705.4.2					

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STEEL CONSTRUCTION								
Fabricator	Quality Control Inspection Of Shop		VCC 1704.2.5	X (Periodic)	2			
Steel	Welding		AISC 360-16 N5.1	X (Periodic)				
Steel	High Strength Bolting		AISC 360-16 N5.1	X (Periodic)				
Steel	Galvanized structural steel		AISC 360-16 N5.1	X (Periodic)				
Decking	Cold Form Steel Decking		VCC 1705.2.2	X (Periodic)				
Joist	1a open web joist and joist girders end connections.		VCC T1705.2.3	X (Periodic)	2			
Joist	1b1 open web joist and joist girder standard bridging.		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			
WOOD CONSTRUCTION								
Wood	Wood material labeling		VCC 1703.5	X (Periodic)	2			
Wood	Quality Control Inspection Of Shop Fabrication		VCC 1704.2.5	X (Periodic)	2			
Wood	High-load Diaphragms		VCC 1705.5.1	X (Periodic)				
Wood-Trusses	Metal-plate connected wood trusses, span >60 feet		VCC 1705.5.2	X (Periodic)	2			
Mass Timber	Anchorage and connections to timber deep foundation systems		VCC T1705.5.3	X (Periodic)				
Mass Timber	Inspect erection of mass timber construction		VCC T1705.5.3	X (Periodic)				
Mass Timber	Inspect connections where installation methods are required to meet design loads - Threaded connections		VCC T1705.5.3	X (Periodic)				
Mass Timber	Inspect connections where installation methods are required to meet design loads - adhesive anchors - sustained tension loads		VCC T1705.5.3	X (Continuous)				
Mass Timber	Inspect connections where installation methods are required to meet design loads - other adhesive anchors		VCC T1705.5.3	X (Periodic)				
Mass Timber	Inspect connections where installation methods are required to meet design loads - bolted connections		VCC T1705.5.3	X (Periodic)				
Mass Timber	Inspect connections where installation methods are required to meet design loads - concealed connections.		VCC T1705.5.3	X (Periodic)				
Sealing	Sealants or adhesives where required by section 703.7		VCC 1705.20	X (Periodic)				

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WIND FORCE RESISTANCE								
Wind exposure category B, where V >=150 mph or Wind exposure category C or D, where V >= 140 mph.								
Wood	Field gluing, nailing, bolting, anchoring, and other fastening of MWFRS, including wood shear walls, wood diaphragms, drag struts, braces, and hold downs.		VCC 1705.12.1	X (P/C)				
Cold Formed Steel	Welding, screw attachment of MWFRS, including shear walls, braces, diaphragms, collectors, and hold downs.		VCC 1705.12.2	X (Periodic)				
Components	Fastening of the roof covering, roof deck, roof framing connections, exterior wall covering, and wall connections to roof and floor diaphragms and framing.		VCC 1705.12.3	X (Periodic)				
SEISMIC RESISTANCE								
Steel	Steel in SFRS for SDC B,C,D,E, or F.		VCC 1705.13.1.1	X (Periodic)				
Steel	Steel in SFRS for SDC B,C,D,E, or F other than above		VCC 1705.13.1.2	X (Periodic)				
Wood	Wood in SFRS for SDC C, D, E, or F		VCC 1705.13.2	X (P/C)				
Cold Formed Steel	Cold Formed Steel for SDC C, D, E, or F		VCC 1705.13.3	X (Periodic)				
Designated systems	For SDC C,D,E, or F designated seismic systems requiring qualification in accordance with 13.2.2 of ASCE 7 shall be inspected to verify label, anchorage and mounting conform to the certificate of compliance.		VCC 1705.13.4	X (Periodic)				
Architectural	Inspection is required for erection and fastening of cladding, interior and exterior nonbearing walls and interior/ exterior veneer in SDC D, E, F.		VCC 1705.13.5	X (Periodic)				
Access Floors	Anchorage of access floors in SDC D, E, or F.		VCC 1705.13.5.1	X (Periodic)				
MEP components	Inspection of anchorage depending on application, SDC C,D,E, or F.		VCC 1705.13.6	X (Periodic)				
Storage Racks	Materials used, to verify compliance with one or more of the material test reports in accordance with construction documents. SDC D,E, or F.		VCC T1705.13.7 #1	X (Periodic)				
Storage Racks	Fabricated storage rack elements SDC D,E, or F.		VCC T1705.13.7 #2	X (Periodic)				
Storage Racks	Storage rack anchorage installation.		VCC T1705.13.7 #3	X (Periodic)				
Storage Racks	Completed system, to indicate compliance with construction docs.		VCC T1705.13.7 #4	X (Periodic)				
Isolation Systems	Systems in seismically isolated structures in SDC B,C,D,E or F		VCC 1705.13.8	X (Periodic)				
Cold Formed Steel	Cold Formed Steel special bolted moment frames SDC D, E, F		VCC 1705.13.9	X (Periodic)				
Testing	Structural Steel SDC B, C, D, E, F		VCC 1705.14.1	X (Periodic)				
Testing	Nonstructural Components SDC B, C, D, E, F		VCC 1705.14.2		2			
Testing	Designated Seismic Systems SDC C, D, E, F		VCC 1705.14.3		2			
Testing	Seismic Isolation Systems SDC B, C, D, E, F		VCC 1705.14.4	X (Periodic)				

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NOTES:

1. Fabricator, supplier, ready-mixed plant or other production plant shall provide certificates from an approved independent inspection, testing or quality assurance agency attesting that the plant meets at least one of the following criteria:
 - a. The plant is a certified production plant meeting the quality assurance standards of a recognized national standards organization for that product.
 - b. The plant maintains an agreement with an independent inspection or quality assurance agency to conduct periodic in-plant quality assurance inspections. The frequency of these inspections shall not be less than one every six months.
 - c. The plant has an in-shop quality assurance inspection program by an independent testing or quality assurance agency for the work/ product to be provided on this project.
2. A/E shall review fabricator/ supplier/ producer certificates for conformance or compliance with appropriates.
3. Contractor/ supplier shall submit manufacturer's certificates of compliance for the materials/ products as required by VCC 1704.5.
4. A/E shall review records and test results of all special inspections for conformance with requirements.
5. Special Inspection firm shall have expertise in fire protection engineering, mechanical engineering, and certification as an air balancer. The special inspector listed on the cover page and the Agency are responsible for verifying that the inspector(s) for smoke control is qualified as required by VCC 1705.19.2.
6. Unless noted otherwise, the reference numbers listed refer to the 2021 VCC and testing frequency is to be continuous.
7. The Owner's structural observer shall submit a written statement to OUBO identifying the frequency and extent of structural observations as required by VCC 1704.6.
8. VCC 1704.3 requires special inspections for seismic or wind resistance. This statement of inspections shall identify systems or components that are subject to such special inspections or tests in accordance with VCC 1704.3.2 and 1704.3.3. The contractor shall complete, sign and submit the written statement of responsibility in HECO-6c prior to the commencement of work in acknowledgment of awareness of the special inspections as required by VCC 1704.4.