

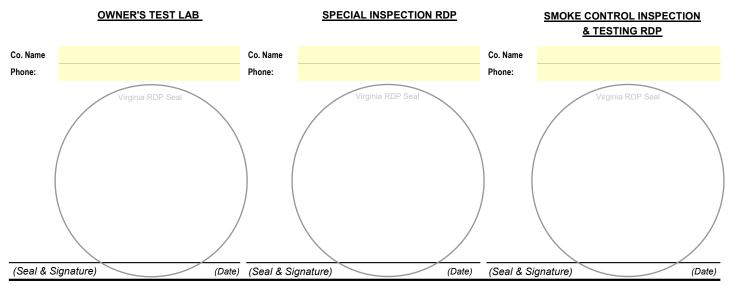
## STATEMENT OF VUSBC SPECIAL INSPECTIONS & STRUCTURAL OBSERVATIONS HECO-6a

DATE:

| INSTITUTION/AGENCY: |  |
|---------------------|--|
| PROJECT TITLE:      |  |
| UBO NUMBER:         |  |
| PROJECT MANAGER     |  |

The following firms are designated to perform the Special Inspections required herein. The firm has the experience, qualifications, certifications and/or licenses required to perform the functions indicated.

## **OWNER'S TESTING AND INSPECTION SERVICE**



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

## PROFESSIONAL OVERSIGHT AND CERTIFICATION

| <u>ST</u>   | RUCTURAL ENGINEER OF RECORD |            | A/E of RE      | CORD               |             | SMOKE CONTROL RDP |
|-------------|-----------------------------|------------|----------------|--------------------|-------------|-------------------|
| Co. Name    |                             | Co. Name   |                |                    | Co. Name    |                   |
| Phone:      |                             | Phone:     |                |                    | Phone:      |                   |
|             | Virginia RDP Seal           |            | Virginia RDP S | Seal               |             | Virginia RDP Seal |
| (Seal & Sig | gnature) (Date)             | (Seal & Si | ignature)      | (Date)             | (Seal & S   | Signature) (Date) |
|             |                             | CODE       | OFFICIAL'S AC  | CEPTANCE           |             |                   |
| A           | cceptable as submitted      |            |                |                    |             |                   |
|             | cceptable as marked         |            | By:            | University Buildir | ng Official | (Date)            |



<u>vtubo-g@vt.edu</u>

HECO 6B

## **2018 Special Inspections**

Rev. 09/21

Project Title:

**Project Code:** 

|                    |  |        |                 |          | I        | <b>INSPECTION / TEST BY *</b> |          |              |
|--------------------|--|--------|-----------------|----------|----------|-------------------------------|----------|--------------|
| MATERIAL/          | TYPE OF INSPECTION   | THIS   |                 | OTL      | A/E OF   | SMOKE                         | PROJECT  | CONTRACTOR / |
| ACTIVITY           | (A/E add lines as needed to identify other required items) | PROJ ? | REFERENCE       | OWNER'S  | RECORD   | CONTROL                       | INSPECTO | SUPPLIER     |
| FOUNDATIONS        |  |        |                 |          | -        |                               |          |              |
| Soil               | Classify & Test Existing Soils & Fill Materials            |        | Specs, 1705.6   | X (Spot) |          |                               |          |              |
| Soil               | Compaction Of Fill Materials                               |        | Specs, 1705.6   | Х        |          |                               |          |              |
| Soil               | Bearing At Bottom Of Footing Excavations                   |        | Specs, 1705.6   | X (Spot) |          |                               |          |              |
| Piles              | Driving Records, Tip & Cutoff Elevations                   |        | 1705.7, 1705.9  | Х        | 4        |                               |          |              |
| Piles              | Load Test  |        | 1705.7          | Х        | 4        |                               |          |              |
| Caissons           | Drilling, Size, Bearing Conditions, Materials              |        | 1705.8, 1705.3  | Х        |          |                               |          |              |
|                    |  |        |                 |          |          |                               |          |              |
|                    |  |        |                 |          |          |                               |          |              |
| <b>CONCRETE CO</b> | NSTRUCTION   |        | •               |          | •        | •                             | •+       |              |
| Concrete           | Ready-Mix Plant Quality Control                            |        | Specs, 1704.2.5 |          | 2        |                               |          | X, 1         |
| Concrete           | Mix Design Tests And Certificates                          |        | Specs, 1705.3   |          | Х        |                               |          | X, 1         |
| Reinf. Steel       | Shop Drawings Of Reinforcing Steel                         |        | Specs           |          | Х        |                               |          |              |
| Reinf. Steel       | Placement Of Reinforcing Steel                             |        | 1705.3          | X (Spot) | X (Spot) |                               | Х        |              |
| Reinf. Steel       | Welding  |        | 1705.3.1        | X (Spot) | 2        |                               |          | Х,1          |
| Reinf. Steel       | Special Construction                                       |        | 1704.5.7        |          | 2        |                               |          |              |
| Formwork           | Shape, Location, Dimensions                                |        | 1705.3          | X (Spot) |          |                               | Х        | Х            |
| Formwork           | Removal and Reshoring                                      |        | 1705.3          | X (Spot) |          |                               |          |              |
| Concrete           | Test Cylinders & Strength Test                             |        | 1705.3, 1910.10 | Х        | 4        |                               | 1        |              |
| Concrete           | Mix Proportions & Mix On Delivery Tickets                  |        | 1705.3          |          |          |                               | X (Spot) |              |
| Concrete           | Slump Test   |        | 1705.3          | Х        | 4        |                               | Х        |              |
| Concrete           | Placement Procedures                                       |        | 1705.3          | Х        | X (Spot) |                               | X (Spot) |              |

| Concrete          | Curing Temperatures & Techniques                    | 1705.3                | Х        |          | 2 | ( |      |
|-------------------|---|-----------------------|----------|----------|---|---|------|
| Prestressed       | Prestressing Procedures & Forces                    | 1705.3                | Х        | 2        |   |   | Х,1  |
| Prestressed       | Shop Drawings Of Prestressed Units                  | Specs                 |          | Х        |   |   |      |
| Precast           | Quality Control Of Manufacturer                     | 1704.2.5              |          | 2        |   |   | X, 1 |
| Precast           | Shop Drawings Of Precast                            | Specs                 |          | Х        |   |   |      |
| Precast           | Erection Of Precast                                 | 1705.3                | X (Spot) | X (Spot) | 2 | ( | Х    |
| Precast           | Inspection Of Connections                           | 1705.3                | X (Spot) |          |   |   |      |
| Shotcrete         | Reinforcing Steel-Test Panel                        | 1908.5, 1705.3        | Х        | 4        |   |   |      |
| Anchors           | Anchors In Concrete                                 | Specs, 1705.3, 190    | Х        |          |   |   |      |
|                   |   |                       |          |          |   |   |      |
| MASONRY CON       | STRUCTION   |                       |          |          |   |   |      |
| Quality Assurance | Indicate Quality Assurance Level (A, B or C)        | TMS 402, 1.19.1, 2, 3 |          | Х        |   |   |      |
| Clay Masonry      | Certificates, Tests & Technical Data                | TMS 402, Table 1.1    | X (Spot) | Х        |   |   | 3    |
| Concrete Masonry  | Certificates, Tests & Technical Data                | TMS 402, Table 1.1    | X (Spot) | Х        |   |   | 3    |
| Reinf. Steel      | Shop Drawings                                       | Specs                 |          | Х        |   |   |      |
| Reinf. Steel      | Size, Grade, Type, Location, Spacing Of Reinf Steel | Tables 1.19.1, 2      | X (Spot) |          |   |   |      |
| Anchors           | Manufacturer's Data                                 | Tables 1.19.1, 2      | X (Spot) | Х        |   |   | 3    |
| Accessories       | Manufacturer's Data                                 | Specs                 |          | Х        |   |   | 3    |
| Mortar & Grout    | Mix Design And Data                                 | Specs                 |          | Х        |   |   | 3    |
| Mortar & Grout    | Field Samples and Testing, Placement                | TMS 402, Tbls 1.19    | X (Spot) | 4        |   |   |      |
| Masonry Strength  | Masonry Strength Verified                           | TMS 402.1             | Х        | 2,4      |   |   |      |
| Masonry           | Placement Of Units, Mortar & Accessories            | TMS 402, Table 1.     | X (Spot) |          |   |   |      |
| Masonry           | Protection Of Masonry Work                          | TMS 402, Table 1.     | X (Spot) |          |   |   |      |
| Anchorage         | Placement Of Devices                                | TMS 402, Table 1.     | X (Spot) |          |   |   |      |
|                   |   |                       |          |          |   |   |      |
| Risk Cat. IV      | A/E Shall edit list as required by ACI 530          | Tables 1.19.2, 1.19.  | 3        | X        |   |   |      |
|                   |   |                       |          |          |   |   |      |
| STEEL CONSTR      | UCTION  |                       |          |          |   |   |      |
| Fabricator        | Quality Control Inspection Of Shop                  | 1704.2.5              |          | 2        |   |   | X, 1 |
| Fasteners         | Mfr's Certificate Of Compliance                     | AISC 360-16           |          | 2        |   |   | 3    |

| Struct. Steel    | Mfr's Certificate Of Compliance                                 | AISC 360-16        |          | 2        |   |   | 3    |
|------------------|---|--------------------|----------|----------|---|---|------|
| Weld Matl's      | Manufacturer's Certificate Of Compliance                        | AISC 360-16        |          | 2        |   |   | 3    |
| Metal Decking    | Welding to Supports   | 1705.2.2           | X (Spot) |          |   |   |      |
| Metal Decking    | Manufacturer's Certificate Of Compliance                        | 1705.2.2           |          | 2        |   |   | 3    |
| Joist            | Mrf's Certificate of Compliance                                 | 1704.5.5           |          | 2        |   |   | 3    |
| Joist            | Open Web Steel Joists-End Connections and Bridging              | 1705.2.3           | X (Spot) |          |   |   |      |
| Details          | Shop Drawings Review  | Specs              |          | Х        |   |   |      |
| Erection         | Installation Of High-Strength Bolts                             | AISC 360-16        | X (Spot) |          |   |   |      |
| Erection         | Welding   | AISC 360-16        | X (Spot) |          |   |   |      |
| Erection         | Steel Framing And Connections                                   | AISC 360-16        | X (Spot) | X (Spot) |   | Х |      |
|                  |   |                    |          |          |   |   |      |
| SEISMIC FORC     | E RESISTANCE INSPECTIONS (as required by VUSBC 1705.            | .12)               |          |          |   |   |      |
|                  | (Note: SDC refers to Seismic Design Category.)                  | ,                  |          |          |   |   |      |
| Structural Steel | Welding and Bolting (SDC = B or C or D)                         | 1705.12.1, AISC 34 | X (Spot) |          |   |   |      |
| Wood             | Field Glueing (SDC = C or D)                                    | 1705.12.2          | X        |          |   |   |      |
| Wood             | Fastening Of Seismic Force Resistance System (SDC = C or D)     | 1705.12.2          | X (Spot) |          |   | Х |      |
| Light Gage Steel | Fastening (SDC = C or D)  | 1705.12.3          | X (Spot) |          |   | Х |      |
| Light Gage Steel | Special Bolted Moment Frames (SDC = D)                          | 1705.12.9          | X (Spot) |          |   |   |      |
| Components       | Mechanical & Electrical - Anchorage and Labeling (SDC = C or D) | 1705.12.4, 1705.12 | X (Spot) |          |   |   |      |
| Components       | Architectural - Cladding, Veneer, Non-Bearing Walls (SDC = D)   | 1705.12.5          | X (Spot) |          |   |   |      |
| Components       | Access Floors (SDC = D)   | 1705.12.5.1        | X (Spot) |          |   |   |      |
| Components       | Storage Racks (SDC = D)   | 1705.12.7          | X (Spot) |          |   |   |      |
|                  |   |                    |          |          |   |   |      |
| SEISMIC RESIS    | STANCE TESTING (as required by VUSBC 1705.13)                   | ł                  |          |          | I |   |      |
| Structural Steel | Steel Systems and Elements                                      | 1705.13.1, AISC 34 | 1        |          |   |   |      |
| Non-Structural   | Components-Mfr's Certificate of Compliance                      | 1705.13.2          |          | 2        |   |   | 3    |
| Non-Structural   | Designated Systems-Certificate of Compliance                    | 1705.13.3          |          | 2        |   |   | 3    |
| Structural       | Isolation Systems   | 1705.13.4          | Х        |          |   |   |      |
| WOOD & LIGH      | GAGE STEEL CONSTRUCTION   |                    |          |          |   |   |      |
| Fabrication      | Quality Control Inspection Of Shop                              | 1704.2.5           |          | 2        |   |   | X, 1 |
| Sheathing        | Grade Stamp, Thickness & Fastening                              | Specs, 1703.5      | Х        | X (Spot) |   | Х |      |

| Wood               | Grade Stamp  | Spec  | cs, 1703.5           |          | X (Spot) |   | Х |   |
|--------------------|--|-------|----------------------|----------|----------|---|---|---|
| Wood/Light Gage    | Diaphragm Fastening Per Code And Drawings                  | 1705  | .2.2, 1705.5.1       | X (Spot) | X (Spot) |   | Х |   |
| Trusses            | Shop Drawings  | Spec  | CS                   |          | Х        |   |   |   |
| Trusses            | Truss Placement, Bracing and Fastening & Anchorage         | Specs | , 1705.2.4, 1705.5.2 |          | X (Spot) |   | Х |   |
| Laminates          | Shop Drawings  | Spec  | CS                   |          | Х        |   |   |   |
| Laminates          | Identification Per Shop Drawings                           | Spec  | CS                   |          | X (Spot) |   | Х |   |
|                    |  |       |                      |          |          |   |   |   |
| FIREPROOFING       |  |       |                      |          |          |   |   |   |
| Spray-on           | Manufacturer's Data  | Spec  | CS                   |          | Х        |   |   | 3 |
| Spray-on           | Surface Conditions   | 1705  | .14.2                | Х        |          |   |   |   |
| Spray-on           | Application  | 1705  | .14.3                | Х        |          |   |   | 3 |
| Spray-on           | Thickness  | 1705  | .14.4                | Х        |          |   |   |   |
| Spray-on           | Density  | 1705  | .14.5                | Х        |          |   |   |   |
| Spray-on           | Bond Strength  | 1705  | .14.6                | Х        |          |   |   |   |
| Mastic/Intumescent | Fire-Resistant Coatings - Materials, Application           | 1705  | .15                  | Х        | X (Spot) |   | Х | 3 |
| GWB Fireproof      | Manufacturer's Data  | Spec  | CS                   |          | Х        |   |   | 3 |
| GWB Fireproof      | Placement Of Materials                                     | Spec  | CS                   |          | X (Spot) |   | Х |   |
| Fire Wall Assembly | Manufacturer's Data  | Spec  | cs, 706.2            |          | Х        |   |   | 3 |
| Fire Wall Assembly | Placement Of Materials                                     | Spec  | cs, 706.2            |          | X (Spot) |   | Х |   |
|                    |  |       |                      |          |          |   |   |   |
|                    | LATION & FINISH SYSTEMS (EIFS)                             |       |                      |          |          |   | • | 1 |
| Materials          | Manufacturer's Data  | Spec  |                      |          | Х        |   |   | 3 |
| Preparation        | Condition Of Sheathing Substrate                           |       | cs, 1705.16.1        |          | X (Spot) |   | Х |   |
| Application        | Methods, Proportions & Thickness Of Installation           | Spec  | cs, 1705.16.1        | X (Spot) | X (Spot) |   | Х |   |
|                    |  |       |                      |          |          |   |   |   |
| SMOKE CONTRO       | L (see note 5)   |       |                      |          |          |   |   |   |
| Ducts              | Device Location And Air Duct Leakage                       | 1705  | .18.1                |          |          | Х |   |   |
| System             | Pressure Difference, Flow Measurements & Detection Testing | 1705  | .18.1                |          |          | Х |   |   |
| Controls           | Activation Sequence  | 1705  | 5.18.1               |          |          | Х |   |   |
|                    |  |       |                      |          |          |   |   |   |

NOTES:

1. Fabricator, supplier, ready mixed plant or other production plant shall provide certificates from an approved independent inspection,

2. A/E shall review fabricator/supplier/producer certificates for conformance with appropriate standards of practice and quality assurance.

3. Contractor/supplier shall submit manufacturer's certificates of compliance for the materials/products.

4. Reviews records and test results for conformanace with requirements.

5. Special inspection firm shall have experise in fire protection engineering, mechanical engineering, and certification as an air balancer. The special inspector

6. Unless noted otherwise, the reference numbers listed refer to the 2018 VUSBC.