SPECIAL INSPECTION REGISTRATION PROGRAM

Agency Facilities, Equipment, Records and Personnel Survey Checklist

(12/20)

Survey Preparations by the Agency

On the day of the agency survey/inspection, the agency should:

- ☐ have a conference room in which the survey/inspection team and the supervising laboratory technician can meet and work
- ☐ have supervising testing personnel available and prepared to participate
- ☐ have samples all applicable equipment available (including any item on the list of field or laboratory equipment needed to perform the test or inspection in each of the categories for which the agency has applied for registration)
- ☐ have testing and project records accessible for review

1. Agency and Key Personnel Information

Survey/Inspection Date ___/___/___

Agency _____ EIN No. _____
(name)

_____
(city) (state) (zip code)

Agency Contact _____
(name) (title/position)

Agency Contact Phone No. (___)_____ FAX Phone No. (___)_____

Agency Contact (E-mail):_____

Technical Director _____
(name)

Supervising Laboratory Technician _____
(name)

Special Inspection Field Supervisor_____
(name)

Special Inspection Field Supervisor_____
(name)

Special Inspection Field Supervisor_____
(name)

Registration is for the following type(s) of (testing and inspection) work:

_____ Reinforced Concrete*	_____ Structural Welding
_____ Prestressed Concrete**	_____ Spray-Applied Fire-Resistive Materials
_____ Shotcrete**	_____ Structural Wood
_____ Structural Masonry	_____ Mass Timber***
_____ Structural Steel and Bolting	_____ Cold-Formed Steel Framing
_____ Post-Installed Anchors	_____ Fire-Resistant Penetrations and Joints

* Requires current ACI certification as an ACI Field Technician-Grade 1.
** Reinforced Concrete registration is a prerequisite for obtaining this inspection registration.
*** Structural Wood registration is a prerequisite for obtaining this inspection registration endorsement.

WABO agency inspection team:

_____ (name) _____ (name)

_____ (name) _____ (name)

Agency Survey Explanation-
Registration of an agency is based on an assessment of an Agency Registration Application, and accompanying Applicant Qualification Documentation, and an agency on-site facilities,equipment and records survey/inspection. Below is a list of the items the survey/inspection team will confirm when inspecting an agency.

Agency Survey Team Directions-
For items below, if an item is confirmed place a check in the space; if an item is deficient, place a number in the space to coincide with the numbered deficiency explanations on the final page of this checklist.

2. Quality Assurance

_____ Confirmed sample pickup procedures
_____ Confirmed sample pickup transportation methods
_____ Confirmed sample log-in system
_____ Confirmed sample marking methods
_____ Confirmed sample sorting/storage methods
_____ Confirmed method of correcting logbook entry errors
_____ Confirmed records include sample receipt date
_____ Confirmed traceability of samples to inspection reports and testing reports issued by the agency

Directions: Obtain at least three (3) different commercial construction projects (one large concrete project, a masonry project, and one small to medium concrete project) and select samples received approximately three to six months prior to the audit to ensure all the tests and reports should be in a completed file.

Job/ID Name/No.	Date Cast	Sample ID No.	Sample Type	Break-log Value	Report Value

Section 2 Inspector Notes:

3. Equipment Calibration and Maintenance

Directions: Copy the ID No., description, and calibration sticker information (e.g. date due) of six different types of equipment surveyed in the lab. Include any and all nonconforming items found. Use this list to complete the checking of the calibration records and equipment lists in the Records Section.

Equipment ID No.	Description	Calibration Sticker	Equipment Log Entry	Calibration Documentation

Section 3 Inspector Notes:

4. Registration Categories/Types of Work

4.1 Reinforced Concrete and Prestressed Concrete

4.1.1 Laboratory Equipment:

___R Confirmed adequate facilities for curing concrete specimens in accordance with ASTM Method C192
(**NOTE**: These facilities may consist either of a thermostatically controlled fog room with required temperature and humidity control or thermostatically controlled tanks containing saturated lime solution.)
____ Confirmed curing room temperatures and humidity are being maintained, or
____ Confirmed curing tank temperature, humidity and water solutions are being maintained
___R Confirmed a screw (or hydraulic) type compressive testing machine with sufficient capacity to test concrete specimens
___R 250,000 lbs. (normal strength concrete)
___ 400,000 lbs. (high strength concrete)
(**NOTE**: The testing machine shall conform to all the requirements of ASTM Practices E4, Load Verification of Testing Machines and ASTM Test Method C39 for Compressive Strength of Cylindrical Concrete Specimens. The machine shall be verified annually in accordance with ASTM Practices E4 and documentation of verification shall be available.)
___R Confirmed adequate equipment/facilities for preparing concrete test specimens in accordance with ASTM Method C192, Making and Curing Concrete Test Specimens in the Laboratory
___R Confirmed that paperwork has been maintained regarding lab verification that equipment conforms to ASTM specifications, i.e. single use molds, reusable molds, flexural beam molds, cube molds
___R Confirmed that physical testing of capping compounds conform to ASTM guidelines and that test records are maintained
____ Confirmed, that equipment prescribed for the following ASTM test methods conforms to ASTM guidelines and that the lab is maintaining equipment maintenance and applicable calibrating records.
___ C142, Test Methods for Clay Lumps and Friable Particles in Aggregate
_____ Balance to .1% of weight of test sample
_____ Oven (temperature 110 +/- 5 degrees)
___ C123, Test Method for Lightweight Pieces and Aggregate
_____ Balance to .1 g
_____ # 50/ 4 sieve
_____ Hydrometer
___ C117, Test Method for Materials Finer Than #200 Sieve in Mineral Aggregates by Washing (NOTE: Includes physical inspection of sieves)
_____R # 200/ 16 sieve
_____R Oven
_____R Dispersing agent (i.e. dish washing soap)

*R=minimum requirement

___ C40, Test Method for Organic Impurities in Fine Aggregates for Concrete
_____R Reference card or color solutions
_____R Solution or sodium hydroxide to make solution
_____R Graduated glass container

___ C136, Method of Sieve Analysis of Fine and Coarse Aggregates (NOTE: Includes physical inspection of sieves)
_____R Balance
_____R Sieves

___ C128, Test Method for Specific Gravity and Absorption of Fine Aggregate
_____R Cone & Tamper
_____R Balance
_____R Pycnometer Jar

___ C127, Test Method for Specific Gravity and Absorption of Course Aggregate.
_____R Balance
_____R Water tank
_____R Wire mesh container

___ C566, Test Method for Total Moisture Content of Aggregates by Drying
_____R Balance
_____R Oven (temperature 110 +/- 5 degrees

___ C29, Test Method for Unit Weight and Voids in Aggregate
_____R Balance
_____R Tamping rod
_____R Unit weight bucket
_____R Plate glass

___ Test for flexural strength of concrete in accordance with ASTM Test Methods C31 and C78, for Flexural Strength of Concrete (**NOTE**: Using Simple Beam and Third-point Loading)

____ ASTM C131, Test Methods for Resistance to Degradation of Small Size Coarse Aggregate by Abrasion and Impact (Los Angeles Machine)
_____ In-house
_____ External

____ ASTM C88, Test Method for Soundness of Aggregates (Sodium Sulfate or Magnesium Sulfate & Hydrometer)
_____ In-house
_____ External

____ Physical and chemical analysis of cement (Chemistry Laboratory)
_____ In-house
_____ External

____ Testing of curing compounds, admixtures and related material (Chemistry Laboratory)
_____ In-house
_____ External

____ Determination of modulus of elasticity (Jig with Dial Gauges and Break Machine)
_____ In-house
_____ External

*R=minimum requirement

____ A screw (or hydraulic) type testing machine of sufficient capacity to test any tendon specimen which may be involved-normally a multiple range machine with at least 200,000 lb. capacity, jaws extensometer

_____ In-house

_____ External

4.1.2 Field Inspection:

____ Confirmed that the lab is maintaining calibration logs on the equipment required for the following ASTM test methods and that they are verifying that personnel is performing testing as per guidelines:

____ C231, Test Method for Air Content of Freshly Mixed Concrete by the Pressure Method (air meters)

____R Air pot

____ C173, Test Method for Air Content of Freshly Mixed Concrete by the Volumetric Method

____ Volume metric type air meter-"roll-o-meter"

____ C31, Test Method for Making and Curing Concrete Test Specimens in the Field

_____R Cylinder molds

_____R Tamping rods

____ C172, Test Method of Sampling Freshly Mixed Concrete

_____R Cylinder molds

_____R Tamping rods

____ C143, Test Method for Slump of Portland Cement Concrete

_____R Slump cones

_____R Tamping rods

_____R Scoop

____ C138, Test Method for Unit Weight, Yield and Air Content (Gravimetric) of Concrete

_____R Air pot

_____R Strike-off plate

_____R Thermometer

____ C1064, Test Method for Temperature of Freshly Mixed Concrete

_____R Thermometer

*R=minimum requirement

Category (Reinforced Concrete and Prestressed Concrete) Inspector Notes:

4.2 Shotcrete

(Reinforced Concrete registration is a prerequisite for this registration)

4.2.1 Laboratory Equipment:

___ Confirmed coring equipment (or access to equipment) capable of removing samples from shotcrete panels
- _____R Coring machine
- _____R Compression machine

___R Confirmed equipment (or access to equipment) for preparing perpendicular core ends
- _____ Cut-off saw

Category (Shotcrete) Inspector Notes:

4.3 Structural Masonry

4.3.1 Laboratory Equipment:

___R Confirmed a screw (or hydraulic) type compression machine of sufficient capacity to test any specimen which may be involved in masonry construction - normally a multiple range machine with at least 250,000 lb. capacity. (**NOTE**: A 500,000 lb. capacity machine should be accessible) (The testing machine shall conform to all the requirements of ASTM E4, "Load Verification Testing Machines." The machine shall be calibrated annually and a report giving details of the calibration shall be readily available.)

___R Confirmed adequate facilities for curing mortar and grout specimens in accordance with ASTM C192.
- ____ Curing room temperature and humidity are being maintained, or
- ____ Curing tank temperature and water solutions are being maintained

___R Confirmed adequate facilities and equipment for testing mortar in accordance with ASTM C780 & grout in accordance with ASTM C1019

___R Confirmed adequate procedures and documentation pertaining to verification that equipment conforms to IBC and ASTM specifications, e.g. single use molds, reusable molds, and cube molds

___R Confirmed that physical testing of capping compounds conforms to ASTM guidelines and that test records are maintained

___R Confirmed adequate facilities for curing prisms in accordance with ASTM C1314

___R Confirmed adequate facilities for capping prisms in accordance with ASTM C1314

___R Confirmed use of proper loading platens of thickness and hardness in accordance with ASTM C1314

*R=minimum requirement

Category (Structural Masonry) Inspector Notes:

4.4 Structural Steel and Bolting

4.4.1 Laboratory Equipment:

___ Confirmed access to facilities for mechanical testing of steel
- _____ In-house
- _____ External

___ Confirmed access to facilities for analysis of constituents and alloying elements of structural steel (Chemistry Laboratory)
- _____ In-house
- _____ External

4.4.2. Field Inspection:

____ Confirmed the following equipment:
- ___R Steel tape, rule, calipers and other appropriate measuring equipment
- ___R Inspector's identification stamp or tags
- ___R Torque wrench for high strength bolts
- ___R Tension calibration device (Skidmore or equivalent)
- ___R Feeler gauges for load indicator washers

Category (Structural Steel & Bolting) Inspector Notes:

4.5 Structural Welding

4.5.1 Laboratory Equipment:

___ Confirmed access to facilities for mechanical testing of welded samples
- _____ In-house
- _____ External

4.5.2. Field Inspection:

____ Confirmed the following equipment:
- ___R steel tape, rule, calipers and other appropriate measuring equipment
- ___R weld dimension gage
- ___R weld viewing shield

*R=minimum requirement

___R strong hand light
___R thermometer or temperature measuring crayons
___R inspector's identification stamp or tags

4.5.3 Nondestructive Testing:

___ Confirmed access to nondestructive testing which meets the requirements of ASTM E543, Practice for Determining the Qualifications of Nondestructive Testing Agencies
_____ In-house
_____ External

Category (Structural Welding) Inspector Notes:

4.6 Spray-applied Fire-resistive Materials

4.6.1 Laboratory Equipment:

___R Confirmed oven capable of drying samples to constant weight at 120 degrees F and fifty percent (50%) relative humidity.
___R Confirmed scales of sufficient accuracy for obtaining dry weight
___ Glass Beads
___ Funnel
___ 200 mL container

4.6.2 Field Inspection:

___R Confirmed procedures used for sampling of materials
___ Confirmed the following equipment
___R Depth measuring devices
___R Template
___R Tape
___R Adhesion equipment
___R Epoxy
___R Jar lids
___R Calibrated scale

*R=minimum requirement

Category (Spray-applied Fire-resistive Materials) Inspector Notes:

4.7 Structural Wood

4.7.1 Laboratory Equipment (N/A)

4.7.1.1 Laboratory Equipment – Mass Timber (N/A)

4.7.2 Field Inspection

___ Confirmed the following equipment:
____R Moisture Meter
____R Tape Measure
____R Pull Test Assembly

4.7.2.1 Field Inspection – Mass Timber

____ Confirmed the following equipment:
____R Wood Moisture Meter
____R Tape Measure
____R Pull Test Assembly
____R Protractor
____R Torque Wrench
____R Outside Calipers

Category (Structural Wood) Inspector Notes:

4.8 Cold-Formed Steel Framing

4.8.1 Laboratory Equipment (N/A)

4.8.2 Field Inspection

___R Fillet Weld Gauge
___R Magnifying Glass
___R Flashlight
___R Steel Tape, Rule, Caliper
___R Weld Viewing Shield

*R=minimum requirement

Category (Cold-Formed Steel Framing) Inspector Notes:

4.9 Post-Installed Anchors

4.9.1 Laboratory Equipment (N/A)

4.9.2 Field Inspection

___R Pull Test Assembly
___R Steel Tape, Ruler, Caliper
___R Torque Wrench

*R=minimum requirement

Category (Post-Installed Anchors) Inspector Notes:

4.10 Fire-Resistant Penetrations and Joints

4.10.1 Laboratory Equipment:

____ R Calibrated scale/balance
____ R Thickness Gauge
____ R Outside Caliper
____ R Mil Thickness Gauge

4.10.2 Field Inspection:

____ R Razor Knife
____ R Steel tape measure, ruler
____ R Thickness Gauge/depth measuring device
____ R Outside/Digital Caliper
____ Strong hand light
____ Magnifying glass
____ Inspector identification markers
____ Drill bits
____ Spatula or putty knife
____ R Mil Thickness Gauge

*R=minimum requirement

Inspection procedure and required forms:

____ Inspection procedure for E 2174
____ Inspection procedure for E 2393
____ Inspection forms for E-2174
____ Inspection forms for E -2393

Category (Fire-Resistant Penetrations and Joints) Inspector Notes:

5. Codes and Standards – *current edition per Washington State Building Code*

5.1 BASIC (any and all types of work)

5.1.1 International Building Code

5.1.2 American Society for Testing and Materials (ASTM) Standards (applicable to the types of work performed by the agency)

5.2 REINFORCED CONCRETE

5.2.1 American Concrete Institute (ACI) Standard 318

5.2.2 American Concrete Institute (ACI) Manual of Concrete Practice

5.2.3 American Concrete Institute (ACI) Manual of Concrete Inspection (SP-2)

5.2.4 Portland Cement Association (PCA) Design & Control of Concrete Mixtures

5.2.5 Concrete Reinforcing Steel Institute (CRSI) Manual of Standard Practice

5.3 STRUCTURAL MASONRY

5.3.1 Masonry Institute (MI) Inspectors Handbook Reinforced Concrete Masonry Construction

5.3.2 Masonry Institute (MI) Reinforced Grouted Brick Masonry

5.3.3 ACI 530 Building Code Requirements for Masonry Structures

5.4 PRESTRESSED CONCRETE

5.4.1 Manual for Quality Control for Plants and Production of Precast and Prestressed Concrete Products (PCI Manual 116)

5.4.2 Field Procedures Manual for Unbonded Single Strand Tendons (PTI)

5.5 STRUCTURAL STEEL & BOLTING

5.5.1 American Institute for Steel Construction (AISC) Manual of Steel Construction

5.5.2 Steel Joist Institute (SJI) Code of Standard Practice

5.5.3 AISC 360- Chapter N "Minimum Requirements for Inspection of Structural Steel Buildings"

5.5.4 AISC 341 – Chapter J "Special Inspection of Seismic Force-resisting Systems"

5.6 STRUCTURAL WELDING

5.6.1 American Welding Society (AWS) Structural Welding Code - Steel (D1.1)

5.6.2 American Welding Society (AWS) Structural Welding Code - Sheet Steel (D1.3)

5.6.3 American Welding Society (AWS) Structural Welding Code - Reinforced Steel (D1.4)

5.6.4 Structural Welding Code – Seismic Supplement (AWS D1.8)

5.6.5 American Welding Society (AWS) Guide for Visual Inspections of Welds (AWS B1.11)

5.6.6 AWS Standard Symbols for Welding (A2.4)

5.7 SPRAY-APPLIED FIRE-RESISTIVE MATERIALS

5.7.1 Standard Practice for Testing and Inspection of Field Applied Sprayed Fire-Resistive Materials (AWC 11 12A)

5.7.2 Intumescent (AWC 12B)

5.7.3 ASTM E736, 605

5.8 STRUCTURAL WOOD

5.8.1 International Building Code

5.8.2 2001 National Design Specification for Wood Construction

5.8.3 American Plywood Association Introduction to Lateral Design

5.8.4 American Plywood Association Wood Construction Guide

5.8.5 American Forest & Paper Association Special Design Provision for Wind and Seismic (SDPWS)

5.8.6 ASTM – F1667 Standard Specification for Driven Fasteners: Nails, Spikes and Staples

5.9 MASS TIMBER

5.9.1 International Building Code

5.9.2 WAC 51-50-1705

5.9.3 ANSI/APA PRG 320

5.9.4 CLT Handbook

5.9.5 Nail Laminated Timber US Design Construction Guide

5.9.6 American Structural Screw Design Guide

5.9.7 National Design Specification (NDS) for Wood Construction

5.9.8 Simpson Strong-Tie Fastening Systems Technical Guide – Mass Timber / Cross-Laminated Timber Fastening

5.10 COLD-FORMED STEEL FRAMING

5.10.1 International Building Code (Chapter 2, 17 and 22)

5.10.2 ASTM C 1007 – Standard Specification for Installation of Load Bearing (Transverse and Axial) Steel Studs and Related Accessories

5.10.3 AISI S200 Standard for Cold-Formed Steel Framing – General Provisions

5.10.4 AISI S230 Prescriptive Methods for 1 and 2 Family Dwellings

5.10.5 SSMA Product Technical Information from the Steel Stud Manufacturers Association

5.10.6 AWS D1.1 & D1.3

5.10.7 ASTM C 1513 Standard for Screws

5.10.8 ASTM C955 Standard Specification for Load Bearing Traverse and Axial Steel Studs, Runners, Tracks & Bracing or Bridging, for Screw Application of Gypsum Panel Products & Metal Plaster Bases

5.10.9 AISI S240 North America Standard for Cold-Formed Steel Structural Framing

5.11 SHOTCRETE

5.11.1 International Building Code
5.11.2 Guide to Shotcrete (ACI 506R)
5.11.3 Specification for Shotcrete (core grading standard) 506.2.13
5.11.4 ASTM C1140 Standard Practice for Preparing and Testing Specimens from Shotcrete Test Panels
5.11.5 ASTM C1604 Standard Test Method for Obtaining and Testing Drilled Cores of Shotcrete
5.11.6 ASTM C1385 Standard Practice for Sampling Materials for Shotcrete

5.12 POST-INSTALLED ANCHORS

5.12.1 Building Code Requirements for Structural Concrete (ACI 318)
5.12.2 Qualification of Post-Installed Adhesive Anchors in Concrete (ACI 355.4)
5.12.3 Qualification of Post-Installed Expansive Anchors in Concrete (ACI 355.2)

5.13 FIRE-RESISTANT PENETRATIONS AND JOINTS

5.13.1 International Building Code
5.13.2 ASTM Standard E2174
5.13.3 ASTM Standard E2393
5.13.4 ICC Special Inspection Manual

Section 5 Inspector Notes:

6. Equipment and Project Records

6.1 Equipment

_____ Confirmed and reviewed equipment calibration procedures, practices and record keeping system
(**NOTE**: All calibrations shall be traceable to the National Bureau of Standards and calibrations shall be performed at frequencies as set forth in national standards. If a standard test method requires equipment calibration for which a frequency is not specified, then the agency shall establish a frequency which is consistent with existing guidelines.)

_____ Confirmed equipment maintenance practices and record keeping system
_____ Confirmed equipment log being maintained
_____ Confirmed maintenance schedule is being adhered to
_____ Confirmed procedures for marking equipment are being followed
_____ Confirmed that calibration stickers are being placed on the equipment requiring calibration
_____ Confirmed lists of field inspection equipment assigned to or provided by inspectors is being maintained

6.2 Project

_____ Confirmed a system of dispatching qualified inspectors
_____ Confirmed a system of documenting and maintaining training records
_____ Confirmed that test results, log book entries, and reports can be correlated
_____ Confirmed method of reviewing test and inspection reports
_____ Confirmed deficiency identification, reconciliation and reporting tracking system
_____ Confirmed method for compiling final letter information
_____ Confirmed that project files are being maintained which include

____ Description of scope of inspections
____ Test and inspection reports
____ Meeting notes
____ Deficiency records
____ Final letter

Section 6 Records Inspector Notes: